



Illustrated Parts Manual

Models

E400A/M400A

E400Anarrow

M400Anarrow

E400AJP/M400AJP

E400AJPnarrow

M400AJPnarrow

E450A/M450A

E450AJP/M450AJP

**Prior to SN 0300189901
(See Revision Log Page for Exclusions)**

**P/N
3121830**

July 1, 2021 - Rev AL



An Oshkosh Corporation Company

REVISION LOG

List of SN Exclusions: SN 0300185900, 0300186011, 0300189900

August 28, 2000 - A - Original Issue Of Manual (Edited to B/M 0010554 Revision 23 & B/M 0010571 Revision 1)

September 15, 2000 - B - Revised Manual (Added UL Components)

January 15, 2001 - C - Revised Manual and added E/M400A (Edited to B/M 0010554 Revision 26 & B/M 0010571 Revision 3)

July 31, 2001 - D - Revised Manual (Edited to B/M 0010554 Revision 30 & B/M 0010571 Revision 7)

May 31, 2002 - E - Revised Manual (Edited to B/M 0010554 Revision 37 & B/M 0010571 Revision 16)

March 14, 2003 - F - Revised Manual (Edited to B/M 0010554 Revision 43 & B/M 0010571 Revision 21)

July 1, 2003 - G - Revised Manual (Edited to B/M 0010554 Revision 49 & B/M 0010571 Revision 25)

November 15, 2003 - H - Revised Manual (Edited to B/M 0010554 Revision 50 & B/M 0010571 Revision 26)

June 18, 2004 - I - Revised Manual (Edited to B/M 0010554 Revision 54 & B/M 0010571 Revision 29)

December 9, 2004 - J - Revised Manual (Edited to B/M 0010554 Revision 54 & B/M 0010571 Revision 30)

April 15, 2005 - K - Revised Manual (Edited to B/M 0010554 Revision 56 & B/M 0010571 Revision 30)

July 31, 2005 - L - Revised Manual (Edited to B/M 0010554 Revision 58 & B/M 0010571 Revision 33)

August 22, 2006 - M - Revised Manual (Edited to B/M 0010554 Revision 65 & B/M 0010571 Revision 38)

March 8, 2007 - N - Revised Manual (Edited to B/M 0010554 Revision 70 & B/M 0010571 Revision 42)

August 30, 2007 - O - Revised Manual (Edited to B/M 0010554 Revision 73 & B/M 0010571 Revision 46)

April 15, 2008 - P - Revised Manual (Edited to B/M 0010554 Revision 73 & B/M 0010571 Revision 46)

October 28, 2008 - Q - Revised Manual (Edited to B/M 0010554 Revision 79 & B/M 0010571 Revision 51)

May 10, 2009 - R - Revised Manual (Edited to B/M 0010554 Revision 80 & B/M 0010571 Revision 51)

July 15, 2010 - S - Revised Manual (Edited to B/M 0010554 Revision 85 & B/M 0010571 Revision 56)

January 19, 2011 - T - Revised Manual (Edited to B/M 0010554 Revision 88 & B/M 0010571 Revision 56)

May 9, 2011 - U - Revised Manual (Edited to B/M 0010554 Revision 90 & B/M 0010571 Revision 62)

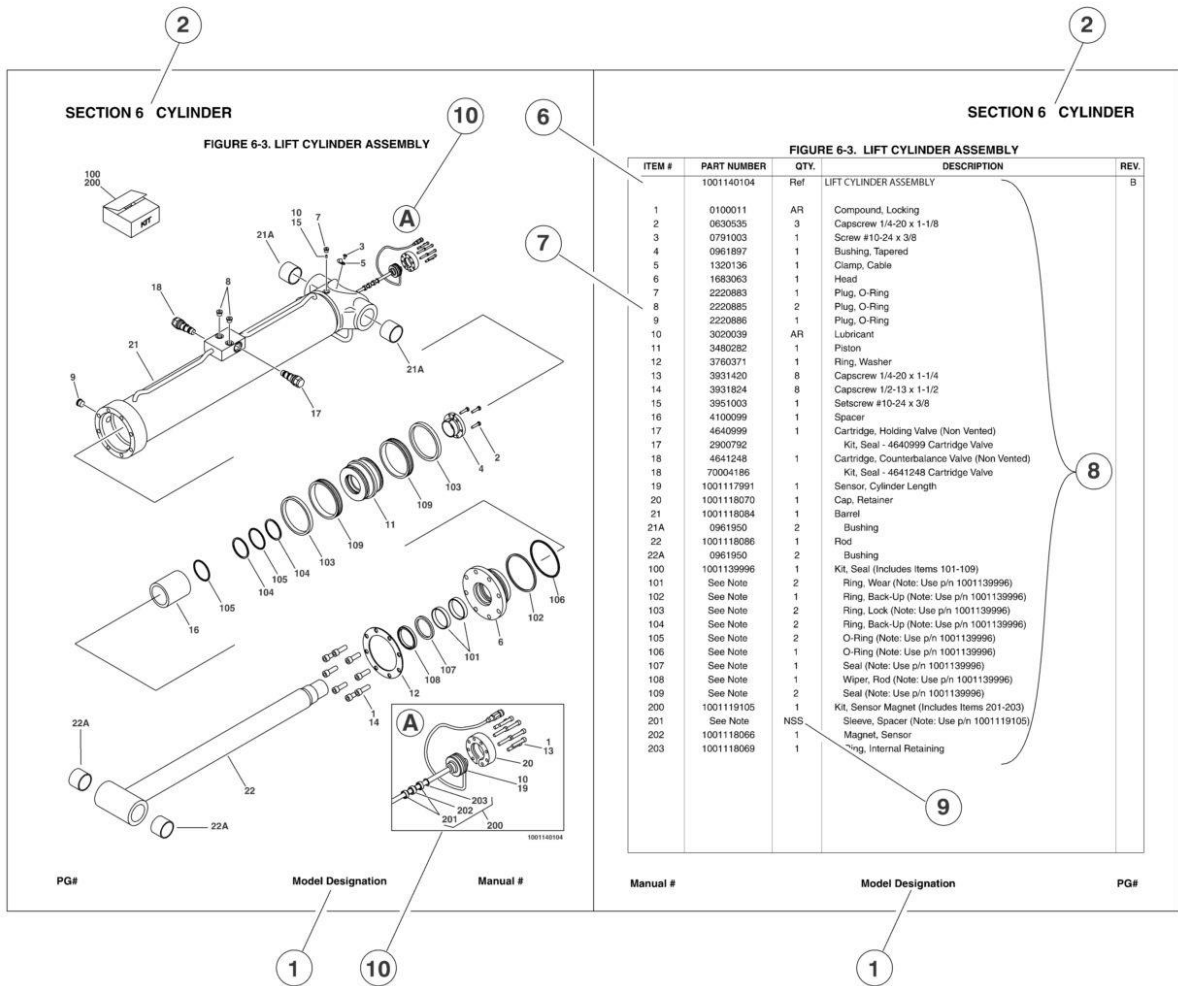
August 5, 2011 - V - Revised Manual (Edited to B/M 0010554 Revision 91 & B/M 0010571 Revision 63)

November 28, 2011 - W - Revised Manual (Edited to B/M 0010554 Revision 91 & B/M 0010571 Revision 63)

REVISION LOG

March 21, 2012 - X - Revised Manual (Edited to B/M 0010554 Revision 91 & B/M 0010571 Revision 63)
July 16, 2012 - Y - Revised Manual (Edited to B/M 0010554 Revision D & B/M 0010571 Revision D)
October 18, 2012 - Z - Revised Manual (Edited to B/M 0010554 Revision E & B/M 0010571 Revision F)
February 20, 2013 - AA - Revised Manual (Edited to B/M 0010554 Revision F & B/M 0010571 Revision G)
May 8, 2013 - AB - Revised Manual (Edited to B/M 0010554 Revision J & B/M 0010571 Revision L)
August 14, 2013 - AC - Revised Manual (Edited to B/M 0010554 Revision J & B/M 0010571 Revision L)
November 7, 2013 - AD - Revised Manual (Edited to B/M 0010554 Revision J & B/M 0010571 Revision L)
September 8, 2014 - AE - Revised Manual (Edited to B/M 0010554 Revision P & B/M 0010571 Revision Q)
March 10, 2015 - AF - Revised Manual
October 30, 2015 - AG- Revised Manual
April 29, 2016 - AH - Revised Manual
February 28, 2017 - AI - Revised Manual
March 31, 2017 - AJ - Revised Manual
November 16, 2018 - AK - Revised Manual
July 1, 2021 - AL - Revised Manual

GENERAL INFORMATION



1) MACHINE IDENTIFICATION

Machines are identified by model and in some cases a combination of models, serial number (SN) or regional standard (i.e ANSI, CE, CSA). Components may also be identified by SN or manufacturer. Common components that may be identified by these characteristics are engines and hydraulic components.

2) PARTS MANUAL ORGANIZATION

Product information in this manual is organized under section titles. Frame, Cylinder, Hydraulic and Electrical are a few examples. Each section is organized by figure and page number. The information within the Figure is then organized by item number, part number, description and corresponding illustration (s).

3) TABLE OF CONTENTS

A table of contents is found toward the beginning of the manual. Figure number, description and page number are provided for quick reference to the page containing the related information.

4) RECOMMENDED SPARE PARTS

The Recommended Spare Parts, located near the end of the manual, reference most frequently used maintenance parts.

5) PART NUMBER INDEX

A numerical index listing all part numbers and the corresponding page number(s) appears at the back of the manual.

GENERAL INFORMATION

6) NON-SERVICED PARTS

In some instances, it is necessary to display non-serviced parts, assemblies or installations. In the case of assemblies and installations there will be a Ref in the Qty column. In case of parts that are not available for service within assemblies or components, there will be a NSS (Not Sold Separately) or NLA (No Longer Available) listed in the Qty. column of the manual.

7) PARTS LIST ITEM NUMBERS

Numbers shown in the item# column correspond to numbers used in the associated illustration (s). Item numbers which are missing from the sequence in the parts list are not used on that page

8) INDENTED PARTS DESCRIPTION

An indented part description is included in the item under which it is indented.

9) ABB REVIATION AND SYMBOLS

AC.....	.. Alternating Current	LCD	Liquid Crystal Display
ADE.....	..Advanced Design Electronics	LED	Light Emitting Diodes
ANSI .....	..American National Standards Institute	LH.....	.. Left Hand
AR.....	..As Required	LSS .....	..Load Sensing System
ASSY .....	.. Assembly	M(m).....	.. Metric/Meter
AUX.....	..Auxiliary	MM (mm) .....	..Milimeter
AWG.....	..American WireGauge	mA.....	.. Milliamps
B/M.....	.. Bill of Material	NLA.....	..No Longer Available
CE.....	..European Conformity	NPT .....	.. National Pipe T threads
CCW .....	..Counter Clockwise	NSS .....	..Not Sold Separately
cm.....	..Centimeter	OD.....	..Outside Diameter
CW.....	..Clockwise	OR B.....	.. O-Ring Bos s
CSA.....	..Canadian Standards Association	OR F S.....	.. O-Ring Face Seal
CYL.....	..Cylinder	OZ (oz).....	..Ounces
DIA.....	..Diameter	PG .....	..Page
DC.....	..Direct Current	P/N.....	..Part Number
EMS .....	.. Emergency Stop	qt.....	..Quarts
ENG .....	..Engine	QTY.....	..Quantity
FT (ft).....	..Feet	REF .....	..Reference
GA(Ga).....	..Gauge	REV .....	..Revision Level
HYD .....	..Hydraulic	RH.....	.. Right Hand
Hz.....	..Hertz	SAE.....	.. Society of Automotive Engineers
ID.....	..Inside Diameter	SN.....	..Serial Number
in.....	.. inches	SPEC(S).....	..Specifications
ISO .....	..International Organization for Standards	T/T.....	..Turntable
JIC.....	..Joint Industry Council	UGM .....	..Universal Ground Module
KG .....	..Kilogram	V.....	.. Volts
L.....	..Liter	W.....	.. Watts
LB.....	..Pounds	#.....	.. Number

10) ILLUSTRATION REFERENCE LETTERS

When necessary, illustrations may contain reference letters that are intended to track information (i. e. hoses, harnesses) from one point to another or to track visual enlargement of components to show details that may be located in another area on the illustration.

Note: Due to continuous product improvements, JLG Industries, Inc. reserves the right to make specification changes without prior notification. Contact JLG Industries, Inc. for updated information.

TABLE OF CONTENTS

SECTION 1 - FRAME.....	11
FIGURE 1-1. STEER INSTALLATION.....	12
FIGURE 1-2. TIRE AND WHEEL DRIVE INSTALLATION	16
FIGURE 1-3. DRIVE HUB ASSEMBLY (Prior to SN 0300154191)	20
FIGURE 1-4. DRIVE HUB ASSEMBLY	24
FIGURE 1-5. HYDRAULIC COMPONENTS INSTALLATION	28
FIGURE 1-6. BRAKE/STEER VALVE ASSEMBLY	30
FIGURE 1-7. BATTERIES AND CHARGER INSTALLATION	32
FIGURE 1-8. MAC BATTERY CHARGER ASSEMBLY	36
FIGURE 1-9. ELECTRICAL COMPONENTS INSTALLATION (FRAMED MOUNTED)	40
FIGURE 1-10. YANMAR MOTOR/GENERATOR INSTALLATION (M400A/M400ANARROW/M400AJP/M400AJPNARROW/M450A/M450AJ ONLY)	44
FIGURE 1-11. KUBOTA MOTOR/GENERATOR INSTALLATION (M400A/M400ANARROW/M400AJP/M400AJPNARROW/M450A/M450AJ ONLY)	48
FIGURE 1-12. FRAME COVERS INSTALLATION	52
SECTION 2 - TURNTABLE	55
FIGURE 2-1. VALVES AND HORN INSTALLATIONS	56
FIGURE 2-2. MAIN CONTROL VALVE ASSEMBLY	60
FIGURE 2-3. TURNTABLE AND SWING DRIVE INSTALLATION.....	64
FIGURE 2-4. SWING MOTOR ASSEMBLY (Prior to SN 0300135649).....	68
FIGURE 2-5. SWING MOTOR ASSEMBLY	70
FIGURE 2-6. SWING BEARING ASSEMBLY	72
FIGURE 2-7. FUEL TANK AND MOTOR CONTROL MODULE INSTALLATION (M450A, M450AJ, M400A, M400AJP, M400ANARROW & M400AJPNARROW).....	76
FIGURE 2-8. GROUND CONTROL BOX ASSEMBLY	80
FIGURE 2-9. HOODS AND BEACON LIGHT INSTALLATIONS	84
SECTION 3 - BOOM	89
FIGURE 3-1. BOOMS AND CYLINDERS INSTALLATION	90
FIGURE 3-2. MAIN BOOM ASSEMBLY AND PLATFORM SUPPORT INSTALLATION (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW)	96
FIGURE 3-3. MAIN BOOM ASSEMBLY (E450AJ & M450AJ)	100
FIGURE 3-4. JIB AND PLATFORM SUPPORT AND ROTATOR INSTALLATION (E450AJ & M450AJ).....	104
FIGURE 3-5. MAIN BOOM ASSEMBLY (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW).....	108
FIGURE 3-6. JIB AND PLATFORM SUPPORT AND ROTATOR INSTALLATION (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW).....	112
FIGURE 3-7. ROTATOR ASSEMBLY	116
FIGURE 3-8. PLATFORM SUPPORT INSTALLATION - WITH LSS.....	120
FIGURE 3-9. CABLES/CLAMPS AND LIMIT SWITCHES INSTALLATIONS	124
SECTION 4 - PLATFORM.....	129
FIGURE 4-1. PLATFORM COMPONENTS INSTALLATION (FRONT ENTRY PLATFORM)	130
FIGURE 4-2. PLATFORM COMPONENTS INSTALLATION (SIDE ENTRY PLATFORM)	134
FIGURE 4-3. PLATFORM PADDING INSTALLATION (FRONT ENTRY PLATFORM).....	138
FIGURE 4-4. PLATFORM PADDING INSTALLATION (SIDE ENTRY PLATFORM).....	140
FIGURE 4-5. PLATFORM TOP RAIL EXTENSION INSTALLATION (SIDE ENTRY PLATFORM)	142
FIGURE 4-6. PLATFORM CONSOLE ASSEMBLY.....	144
FIGURE 4-7. CONTROLLER ASSEMBLY (SWING AND LIFT).....	148
FIGURE 4-8. CONTROLLER ASSEMBLY (DRIVE AND STEER).....	152
FIGURE 4-9. PIPE RACKS INSTALLATION	156
SECTION 5 - CYLINDER	159
FIGURE 5-1. JIB CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW)	160
FIGURE 5-2. JIB CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW)	162
FIGURE 5-3. PLATFORM LEVEL CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (Prior to SN 0300165128)	164
FIGURE 5-4. PLATFORM LEVEL CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW).....	168

TABLE OF CONTENTS

FIGURE 5-5. PLATFORM LEVEL CYLINDER ASSEMBLY - JIB (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (Prior to SN 0300163453)	170
FIGURE 5-6. PLATFORM LEVEL CYLINDER ASSEMBLY - JIB (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (SN 0300163453 through 0300189901)	172
FIGURE 5-7. LIFT CYLINDER ASSEMBLY - LOWER.....	174
FIGURE 5-8. LIFT CYLINDER ASSEMBLY - LOWER (E400A, M400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)	178
FIGURE 5-9. LIFT CYLINDER ASSEMBLY - LOWER (E450A & M450A) (SERVICE REPLACEMENT)	180
FIGURE 5-10. LIFT CYLINDER ASSEMBLY - LOWER (E400AJP, M400AJP, E400AJPNARROW, M400AJPNARROW, E450AJ & M450AJ) (SERVICE REPLACEMENT).....	182
FIGURE 5-11. LIFT CYLINDER ASSEMBLY - MID	184
FIGURE 5-12. LIFT CYLINDER ASSEMBLY - MID (E450A & M450A) (SERVICE REPLACEMENT).....	188
FIGURE 5-13. MID LIFT CYLINDER ASSEMBLY (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW) (SERVICE REPLACEMENT)	190
FIGURE 5-14. MID LIFT CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)	192
FIGURE 5-15. LIFT CYLINDER ASSEMBLY - UPPER	194
FIGURE 5-16. LIFT CYLINDER ASSEMBLY - UPPER (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)	198
FIGURE 5-17. LIFT CYLINDER ASSEMBLY - UPPER (E400AJP, M400AJP, E400AJPNARROW, M400AJPNARROW, E450AJ & M450AJ) (SERVICE REPLACEMENT).....	200
FIGURE 5-18. MASTER CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (Prior to SN 0300165128)	202
FIGURE 5-19. MASTER CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (SN 0300165128 through 0300189901)	204
FIGURE 5-20. MASTER CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (Prior to SN 0300163453)	206
FIGURE 5-21. MASTER CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (SN 0300163453 through 0300189901)	208
FIGURE 5-22. STEER CYLINDER ASSEMBLY	210
FIGURE 5-23. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW, M400ANARROW, E450A, M450A, E450AJ & M450AJ) (ORIGINAL EQUIPMENT) (Prior to SN 0300175016).....	212
FIGURE 5-24. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW, M400ANARROW, E450A, M450A, E450AJ & M450AJ) (ORIGINAL EQUIPMENT) (SN 0300175016 through 0300189901)	216
FIGURE 5-25. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)	220
FIGURE 5-26. TELESCOPE CYLINDER ASSEMBLY (E450A & M450A) (SERVICE REPLACEMENT)	222
FIGURE 5-27. TELESCOPE CYLINDER ASSEMBLY - E450AJ/M450AJ (SERVICE REPLACEMENT)	224
FIGURE 5-28. TELESCOPE CYLINDER ASSEMBLY (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW) (ORIGINAL EQUIPMENT)	226
FIGURE 5-29. TELESCOPE CYLINDER ASSEMBLY - E450AJ/M450AJ (SERVICE REPLACEMENT)	228
FIGURE 5-30. COUNTERBALANCE VALVE ASSEMBLY	230
SECTION 6 - HYDRAULIC	233
FIGURE 6-1. STANDARD HYDRAULIC DIAGRAM (E400A, M400A, E400ANARROW, M400ANARROW, E450A & M450A) ..	234
FIGURE 6-2. STANDARD HYDRAULIC DIAGRAM (E450AJ & M450AJ)	238
FIGURE 6-3. STANDARD HYDRAULIC DIAGRAM (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW)	242
FIGURE 6-4. HYDRAULIC DIAGRAM LIST.....	246
SECTION 7 - ELECTRICAL.....	247
FIGURE 7-1. ELECTRICAL DIAGRAM LIST	248
FIGURE 7-2. HARNESS COMPONENTS INSTALLATION (WITH MAC CHARGER)	250
FIGURE 7-3. HARNESS COMPONENTS INSTALLATION (WITH DELTA-Q CHARGER)	264
SECTION 8 - DECALS	277
FIGURE 8-1. DECAL INSTALLATION (Prior to SN 0300096809)	278
FIGURE 8-2. DECAL INSTALLATION	284
SECTION 9 - RECOMMENDED SERVICE PARTS STOCK	289
FIGURE 9-1. RECOMMENDED SERVICE PARTS STOCK (STANDARD PARTS)	290
FIGURE 9-2. RECOMMENDED SERVICE PARTS STOCK (VARIABLE PARTS)	292
SECTION 10 - SPECIAL OPTIONS	293

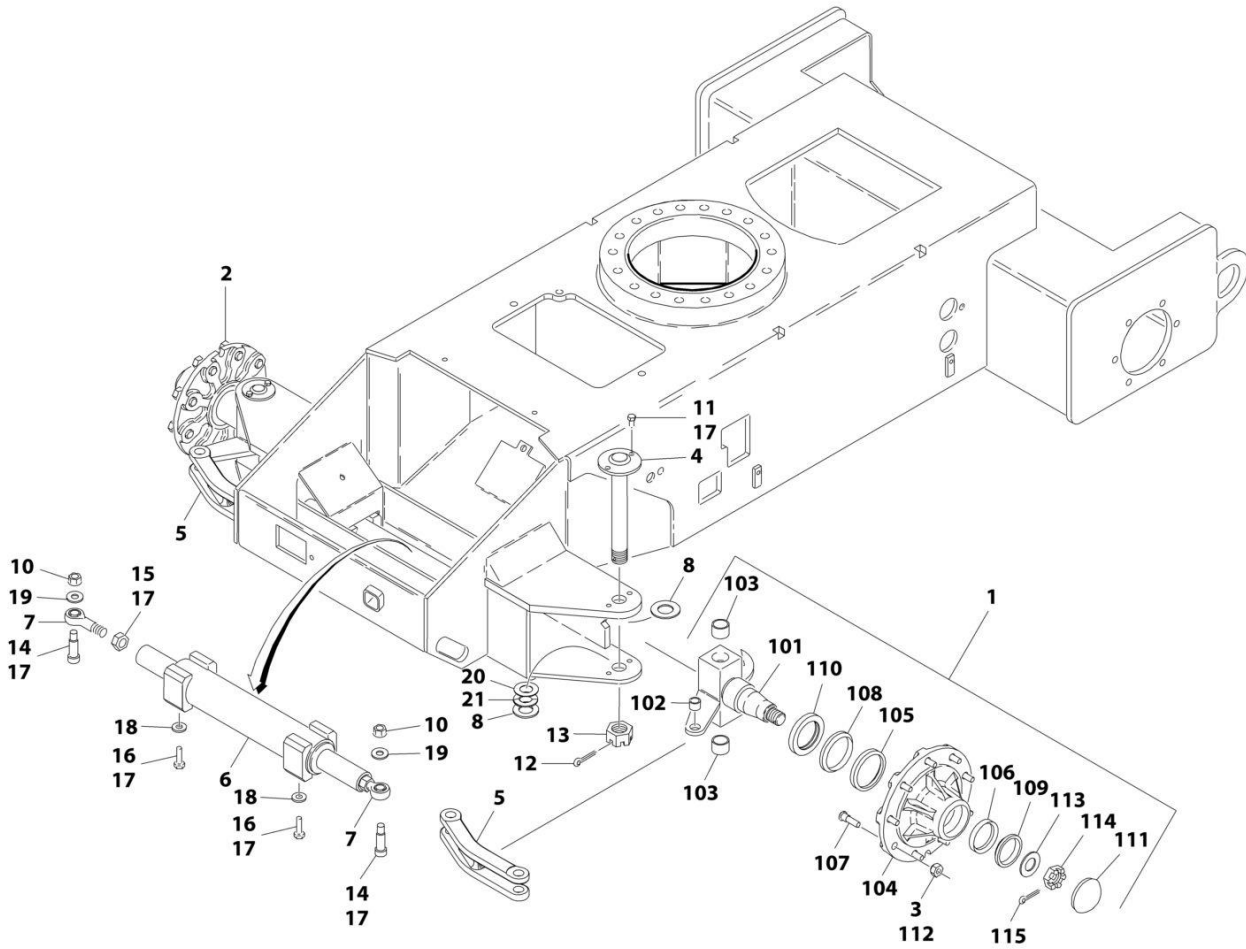
TABLE OF CONTENTS

FIGURE 10-1. SPECIAL OPTIONS.....	294
PART NUMBER INDEX.....	297

SECTION 1 - FRAME

SECTION 1 - FRAME

FIGURE 1-1. STEER INSTALLATION



SECTION 1 - FRAME

FIGURE 1-1. STEER INSTALLATION

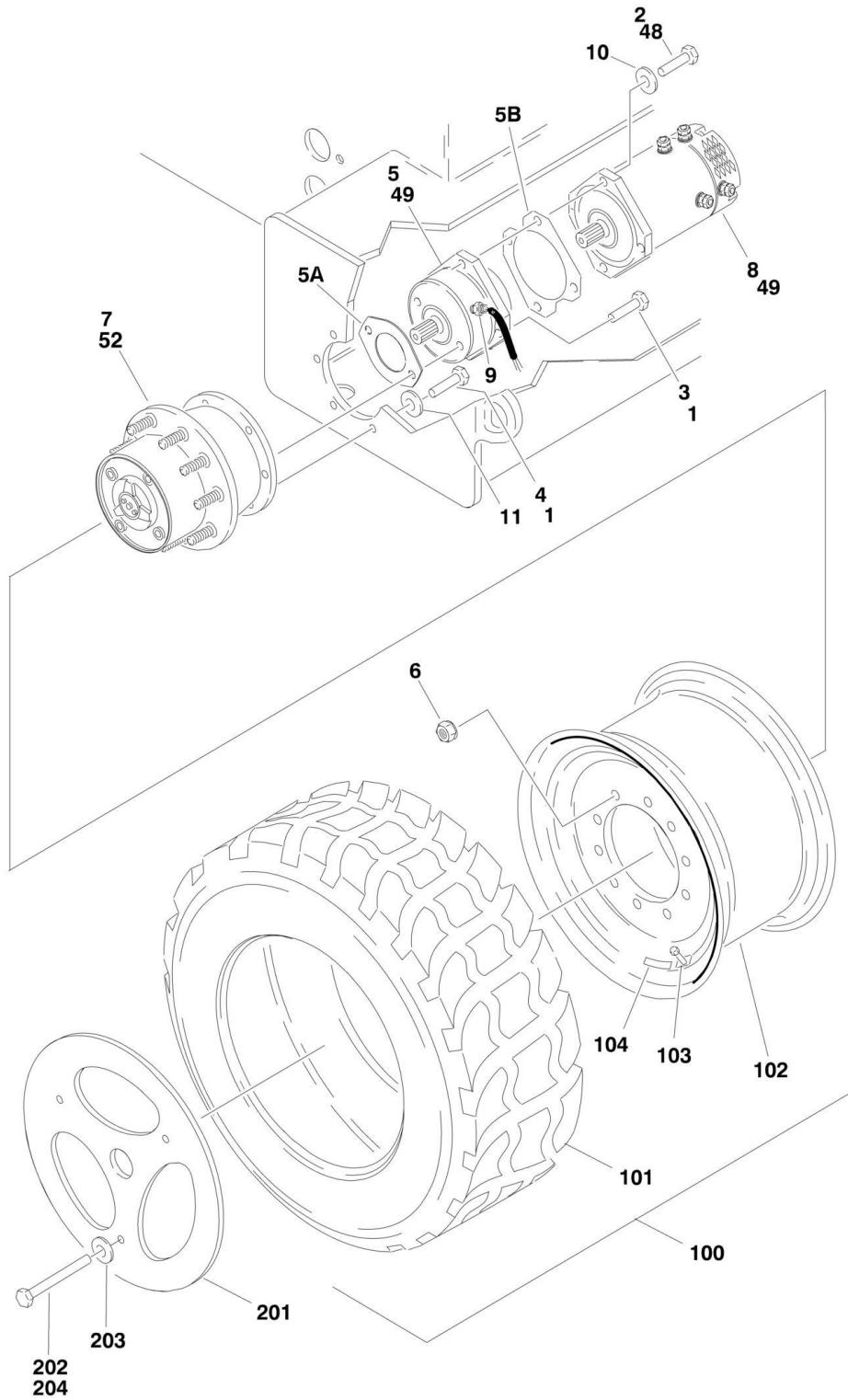
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	STEER INSTALLATION OPTIONS:	
	0257817	Ref	Standard Width E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models	F
	0270010	Ref	Narrow Width E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models	F
1		Ref	Hub/Spindle Assembly Options: (Left Side) (See Items 101-115 for Breakdown)	
1	2780242	1	Hub/Spindle Assembly (Left Side) E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models	
1	2780250	1	Hub/Spindle Assembly (Left Side) E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models	
2		Ref	Hub/Spindle Assembly Options: (Right Side) (See Items 101-115 for Breakdown)	
2	2780241	1	Hub/Spindle Assembly (Right Side) E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models	
2	2780251	1	Hub/Spindle Assembly (Right Side) E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models	
3	3300426	18	Nut 5/8	
4	3422692	2	Kingpin	
5		Ref	Steering Link Options:	
5	3010119	NLA	Steering Link - E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models (Use p/n 1001153021)	
5	1001153021	2	Steering Link - E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models	
5	3010121	NLA	Steering Link - E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models (Use p/n 1001153023) (Prior to SN 0300187090)	
5	1001153023	2	Steering Link E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models (SN 0300187090 through 0300189901)	
6	1683591	1	Steer Cylinder Assembly (See Separate Breakdown in CYLINDER Section)	
7		Ref	End, Rod Options:	
7	3841367	2	End, Rod (Prior to SN 0300058200)	
7	3841517	2	End, Rod (SN 0300058200 through 0300189901)	
8	0440162	Ref	Washer, Thrust Options:	
8	0440162	2	Washer, Thrust (Prior to SN 0300176717)	
8	0440162	4	Washer, Thrust (SN 0300176717 through 0300189901)	
10	3312008	4	Nut 5/8	
11	0641606	4	Bolt 3/8 x 3/4	
12	3450810	2	Pin, Cotter	
13	3323003	2	Nut 1-1/4	
14	3900109	4	Screw 3/4 x 1-3/4	
15	3322202	2	Nut 3/4	
16	0681810	4	Bolt 1/2 x 1-1/4	
17	0100011	AR	Compound, Locking	
18	4891800	4	Washer 1/2	
19	4740156	2	Washer, Thrust Only (SN 0300058200 through 0300189901)	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
20	1001151395	AR	Shim, Plate (SN 0300176717 through 0300189901)	
21	1001151428	AR	Shim, Plate (SN 0300176717 through 0300189901)	
		Ref	HUB/SPINDLE ASSEMBLY OPTIONS:	
	2780242	Ref	Standard Width E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models (Left Side)	C
	2780241	Ref	Standard Width E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models (Right Side)	C
	2780250	Ref	Narrow Width E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models (Left Side)	C
	2780251	Ref	Narrow Width E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models (Right Side)	C
101		Ref	Spindle Options:	
101	4130350	AR	Spindle - (Left Side) E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models	
101	4130351	AR	Spindle - (Right Side) E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models	
101	7023216	AR	Spindle - (Left Side) E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models	
101	7023217	AR	Spindle - (Right Side) E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models	
102	0962140	2	Bushing (1 per Assembly)	
103	0961951	4	Bushing (2 per Assembly)	
104	7020035	2	Hub Assy (1 per Assembly)	
105	7020036	2	Cup, Bearing - Inner (1 per Assembly)	
106	7020038	2	Cup, Bearing - Outer (1 per Assembly)	
107	7020041	18	Stud (9 per Assembly)	
108	7020037	2	Cone, Bearing - Inner (1 per Assembly)	
109	7020039	2	Cone, Bearing - Outer (1 per Assembly)	
110	7020040	2	Seal, Lip (1 per Assembly)	
111	7020137	2	Dust Cap (1 per Assembly)	
112	3300426	18	Lugnut 5/8in-18NF (9 per Assembly)	
113	7020055	2	Washer, Tanged (1 per Assembly)	
114	7020054	2	Nut, Castle (1 per Assembly)	
115	7020140	2	Pin, Cotter (1 per Assembly)	

SECTION 1 - FRAME

FIGURE 1-2. TIRE AND WHEEL DRIVE INSTALLATION



SECTION 1 - FRAME

FIGURE 1-2. TIRE AND WHEEL DRIVE INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	WHEEL DRIVE INSTALLATION OPTIONS:	
	0259069	Ref	Wheel Drive Installation (Standard Spec E450A/E450AJ/M450A/M450AJ Models (Prior to SN 0300059390)	7
	0270103	Ref	Wheel Drive Installation (Standard Spec E450A/E450AJ/M450A/M450AJ Models (SN 0300059390 through 0300189898)	K
	0270103	Ref	Wheel Drive Installation (Standard Spec E400A/M400A/E400AJP/M400AJP/E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models	K
1	0100019	AR	Compound, Locking	
2	0641609	8	Bolt 3/8 x 1-1/8	
3	0641826	4	Bolt 1/2 x 3-1/4	
4		Ref	Bolt (Grade 8) Options:	
4	0682010	12	Bolt 5/8 x 1-1/4	
4	0682012	12	Bolt 5/8 x 1-1/2	
5	0920113	2	Drive Brake Assembly	
5	See Note	NLA	Ring, Sensor (1 Per Assembly) (was p/n 7027275 which is no longer available. (Note: Use p/n 0920113)	
5	7007977	2	Ring, Bearing Retaining (Large) (1 per Assembly)	
5	7011716	2	Ring, Bearing Retaining (Small) (1 per Assembly)	
5	7007913	4	Bolt	
5	7011757	2	Complete Repair Kit (Includes Case and Oil Seals, O-Rings, Back-up Rings, Stator and Rotor Discs, Return Plate, Springs, Bearing and Brake to Hub Gasket (1 per Assembly)	
5	2900768	2	Bearing Kit (1 per Assembly)	
5	7007900	2	Seal, Oil - Front (1 per Assembly)	
5A	7007933	2	Gasket, Brake to Hub (1 Per Assembly)	
5B	70002408	2	Gasket, Brake to Motor (1 Per Assembly) (Not Included in Repair Kit)	
6	3300426	18	Lugnut	
7		Ref	Drive Hub Assembly Options:	
7	2780236	2	Drive Hub Assembly (See DRIVE HUB ASSEMBLY for Breakdown) (Prior to SN 0300154191)	
7	2780282	2	Drive Hub Assembly (See DRIVE HUB ASSEMBLY for Breakdown) (SN 0300154191 through 0300189901)	
8	3160239	2	Drive Motor Assembly	
8	7020138	2	Brush Kit for 3160239 (1 per Assembly)	
8	7020150	2	Holder for 3160239 (1 per Assembly)	
9	3990105	2	Sensor, Speed	
10	4711600	8	Flatwasher 3/8in Narrow	
11	4892000	12	Washer, Hardened 5/8in	
48	0100011	AR	Compound, Locking	
49	3020037	AR	Lube, Coupling Grease	
52	3020008	AR	Lube, Grease Oil	
		Ref	TIRE AND WHEEL INSTALLATIONS	
	0258995	Ref	IN240/55-17.5 Pneumatic (Tire with JLG in Tread Pattern)	1
	0270416	Ref	IN240/55-17.5 Pneumatic (Non-Marking Tire with JLG Pattern in Tread) (Prior to SN 0300075100)	2
	0273683	Ref	IN240/55-17.5 Pneumatic (Non-Marking Tire with Lightning Tread Pattern) (SN 0300075100 through 0300189901)	A
	0258996	Ref	IN240/55-17.5 Foam-Filled (Tire with JLG in Tread Pattern)	1

SECTION 1 - FRAME

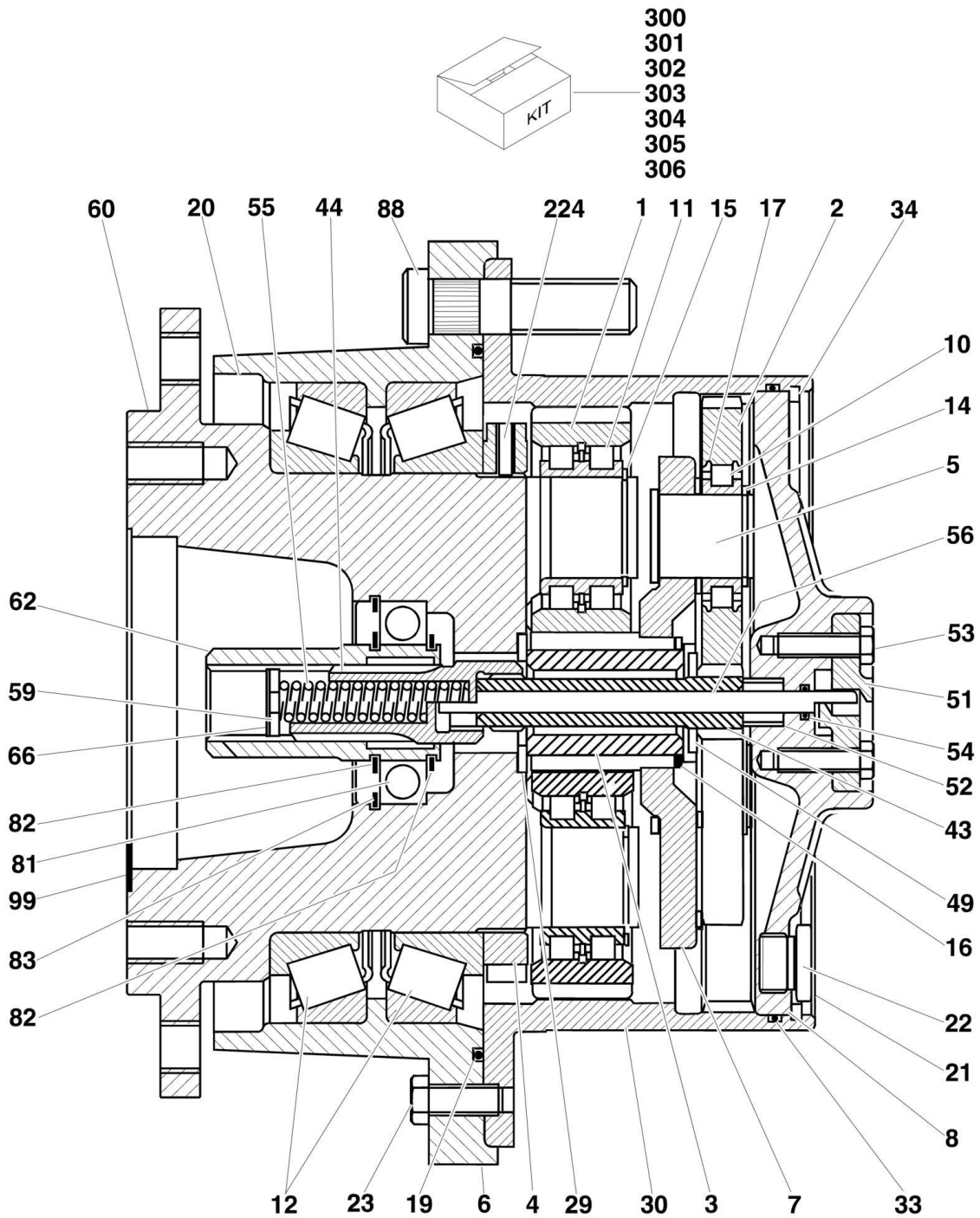
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0270418	Ref	IN240/55-17.5 Foam-Filled (Non-Marking Tire with JLG Pattern in Tread) (Prior to SN 0300075100)	2
	0273684	Ref	IN240/55-17.5 Pneumatic (Non-Marking Tire with Lightning Tread Pattern) (SN 0300075100 through 0300189901)	A
	0259679	Ref	LT215/8R16 Pneumatic	1
	0270037	Ref	26in x 7in x 20in Solid (Non-Marking)	2-A
	0270028	Ref	Solid (Non-Marking) (M400AJPnarrow & E400APJnarrow Only)	C
100		Ref	Tire Assembly Options:	
100		Ref	Standard Width E450A/E450AJ/M450A/M450AJ & E400A/E400AJP/M400A/M400AJP Models:	
		Ref	Note: Assemblies may require ballast/foam filling to manufacturer's specifications prior to installing on a machine. Refer to Operation and Safety or Service and Maintenance Manuals. Purchase individual tire and/or rim only if able to foam fill tire and wheel assembly, otherwise, purchase complete assembly.	
100	0258688	4	OTR IN240/55-17.5 Pneumatic (Tire with JLG in Tread Pattern)	2-A
100	0270415	4	OTR IN240/55-17.5 Pneumatic (Non-Marking Tire with JLG Pattern in Tread) (Prior to SN 0300075100)	3-B
100	4520279	4	OTR IN240/55-17.5 Pneumatic (Non-Marking Tire with Lightning Pattern in Tread) (SN 0300075100 through 0300189901)	1
100	0258997	4	OTR IN240/55-17.5 Foam-Filled (Tire with JLG in Tread Pattern)	1-A
100	0270417	4	OTR IN240/55-17.5 Foam-Filled (Non-Marking Tire with JLG Pattern in Tread) (use p/n 0273468) (Prior to SN 0300154685)	2-B
100	0273468	4	OTR IN240/55-17.5 Foam-Filled (Non-Marking Tire with Lightning Tread Pattern) (SN 0300154685 through 0300189901)	E
100	0258037	4	Goodyear LT215/8R16 Pneumatic	1-A
100		Ref	Solid Non-Marking Tire and Wheel Assembly Options	
		Ref	Note: Must replace Tire and Wheel Assemblies in pairs per axle.	
100	4520232	AR	Monarch 26in x 7in x 20in Solid Non-Marking (Steer Axle Tire) (Use p/n 1001110775) (Prior to SN 0300142352)	
100	1001110775	AR	Solideal 26in x 7in x 20in Solid Non-Marking (Steer Axle Tire) (SN 0300142352 through 0300189901)	
100		Ref	Tire Assembly Options:	
100		Ref	Narrow Width E400Anarrow/E400AJPnarrow/M400Anarrow/M400AJPnarrow Models:	
		Ref	Note: Must replace Tire and Wheel Assemblies in pairs per axle.	
100		Ref	22in x 6in x 17.75in Solid Non-Marking Tire and Wheel Assembly (Steer Axle Tire)	
100	4520231	2	Trelleborg Tire and Wheel Assembly (Steer Axle Tire) (Use p/n 1001110774) (Prior to SN 0300141858)	
100	1001110774	2	Solideal Tire and Wheel Assembly (Steer Axle Tire) (SN 0300141858 through 0300189901)	
100		Ref	25in x 7in x 16in Solid Non-Marking Tire and Wheel Assembly (Drive Axle Tire) Options:	
100	4520208	2	Trelleborg Tire and Wheel Assembly (Drive Axle Tire) (Use p/n 1001110772) (Prior to SN 0300141858)	
100	1001110772	2	Solideal Tire and Wheel Assembly (Drive Axle Tire) (SN 0300141858 through 0300189901)	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	Note: Assemblies may require ballast/foam filling to manufacturer's specifications prior to installing on a machine. Refer to Operation and Safety or Service and Maintenance Manuals. Purchase individual tire and/or rim only if able to foam fill tire and wheel assembly, otherwise, purchase complete assembly.	
101		Ref	Tire Options:	
101	4520209	1	IN240/55-17.5 Tire with JLG in Tread Pattern	
101	4520247	1	IN240/55-17.5 Non-Marking Tire with JLG in Tread Pattern	
101	4520269	1	IN240/55-17.5 Non-Marking Tire with Lightning Pattern in Tread	
101	4520206	1	LT215/8R16	
102		Ref	Rim, Wheel Options:	
102	4860191	1	Use with IN240/55-17.5 Tires	
102	4860181	1	Use with LT215/8R16 Tires	
102	See Note	1	Other Tire/Wheel Assemblies (Note: Not Available - Purchase Complete Assembly)	
103		Ref	Valve, Air Options:	
103	4641167	1	Pneumatic Tires	
103	4640392	1	Foam-Filled Tires	
104		Ref	Decal - Tire Air Pressure Options:	
104	1702740	1	Decal - Tire Air Pressure (90PSI)	
104	1702701	1	Decal - Tire Air Pressure (95PSI)	
	0259302	Ref	WHEEL COVER INSTALLATION (IN240/55-17.5 TIRES ONLY)	1-A
201	1670887	4	Cover, Wheel	
202	0641542	12	Bolt 5/16 x 5-1/4	
203	4711500	12	Washer 5/16	
204	0100011	AR	Compound, Locking	

SECTION 1 - FRAME

FIGURE 1-3. DRIVE HUB ASSEMBLY (Prior to SN 0300154191)



SECTION 1 - FRAME

FIGURE 1-3. DRIVE HUB ASSEMBLY (Prior to SN 0300154191)

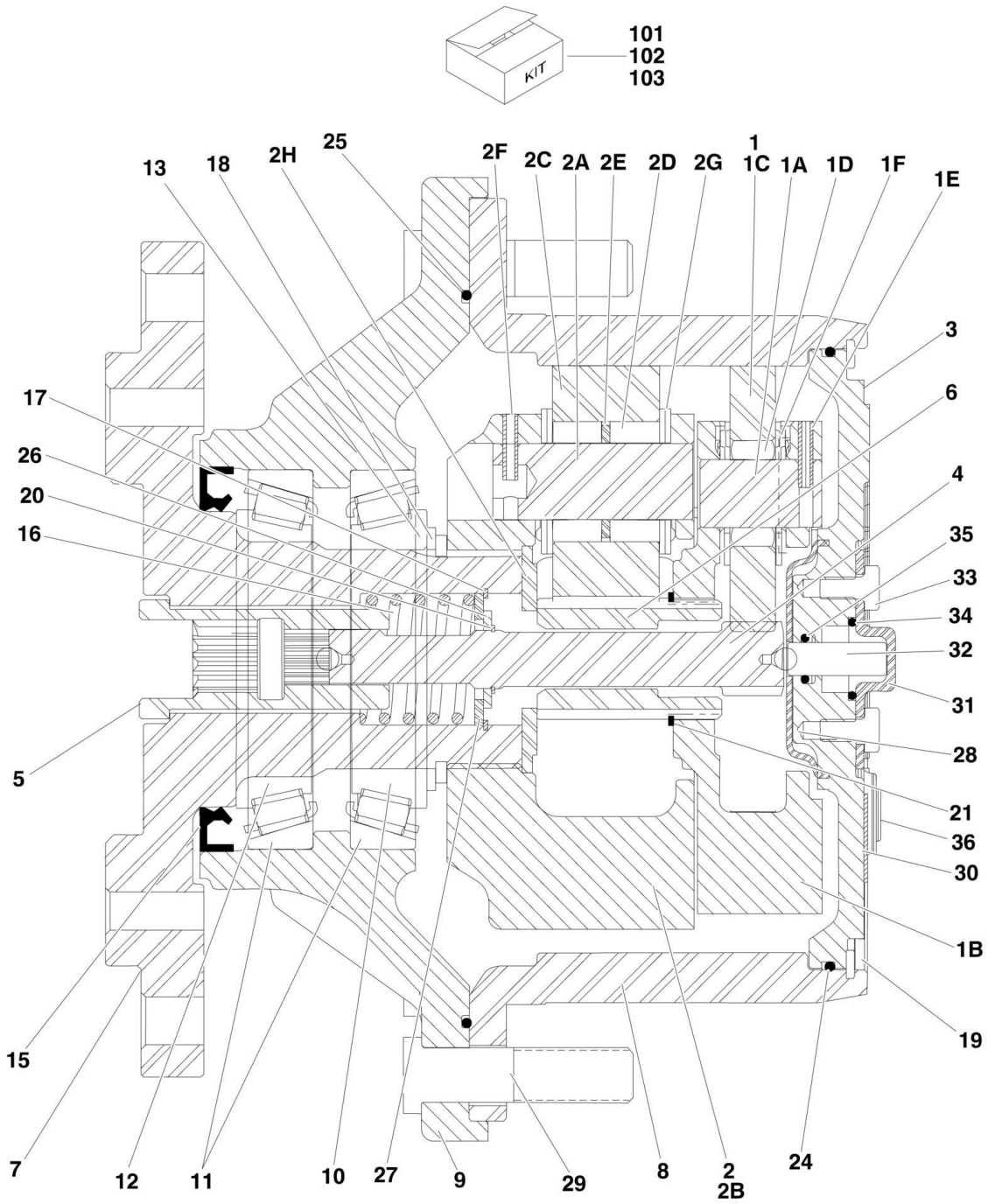
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2780236	Ref	DRIVE HUB ASSEMBLY	E
1	7021323	4	Gear, Planet	
2	7021324	3	Gear, Planet	
3	7021325	1	Gear, Sun	
4	7023803	1	Nut, Shaft	
		Ref	NOTE: Unless there is capability to torque shaft nut (item 4) to 625 ft/lbs. (850Nm) Repair beyond this level is NOT advised.	
5	7021326	3	Bolt, Planet	
6	7021327	1	Ring, Support	
7	7021328	1	Carrier, Planet	
8	70003711	1	Cover	
10	70003712	3	Bearing, Roller	
11	70003713	4	Bearing, Roller	
12	70003714	2	Bearing, Roller	
14	70003715	3	Ring, Retaining	
15	70003716	4	Ring, Retaining	
16	7021341	1	Ring, Retaining	
17	70003717	3	Disk, Support	
19	See Note	1	O-Ring (Note: Use Items 300 or 303)	
20	See Note	1	Seal, Ring (Note: Use Items 300 or 303)	
21	See Note	3	Plug (Note: Use Items 300 or 304)	
22	See Note	3	Seal, Ring (Note: Use Items 300 or 304)	
23	7021342	3	Bolt	
29	7024049	1	Washer, Housing	
30	7021335	1	Gear, Ring	
33	See Note	1	O-Ring (Note: Use Items 300, 303 or 304)	
34	70003718	1	Ring, Retaining	
43	7021336	1	Shaft, Sun Gear	
44	7021337	1	Shaft, Input	
49	7024051	1	Washer, Thrust	
51	70003719	1	Cover	
52	70003720	1	Disk	
53	70003721	2	Bolt	
54	See Note	1	O-Ring (Note: Use Items 300, 304, 305 or 306)	
55	7024053	1	Spring, Pressure	
56	70003722	1	Rod, Shaft	
59	70003723	1	Disk, Rotor	
60	7021339	1	Spindle	
62	7021340	1	Coupler	
66	70003724	1	Ring, Retaining	
81	7024983	1	Bearing, Ball	
82	7021341	2	Ring, Retaining	
83	7024931	1	Ring, Retaining	
88	7021344	9	Stud, Wheel (Was P/N 7024984)	
99	7024985	1	Plug	
224		Ref	Component Options:	
224	See Note	2	Ball (Note: Not Available - Use Slotted Pin in Kit 303) (Prior to SN 0300089390)	
224	See Note	2	Expander (Note: Not Available - Use Slotted Pin in Kit 303) (Prior to SN 0300089390)	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
224	See Note	2	Plug (Note: Not Available - Use Slotted Pin in Kit 303) (Prior to SN 0300089390)	
224	70003725	2	Pin, Slotted (SN 0300089390 through 0300189901)	
		Ref	Seal/Repair Kit Options:	
300	7021333	1	Seal Kit (Includes Items 19-22, 33 & 54)	
301	7024981	1	Planet Gear Kit 1 (Includes Items 1, 11 & 15)	
302	7024986	1	Planet Gear Kit 2 (Includes Items 2, 10,14 & 17)	
303	7024047	1	Bearing Kit (Includes Items 4, 12, 19, 20, 23, 33 & 224)	
		Ref	NOTE: Unless there is capability to torque shaft nut (item 4) to 625 ft/lbs. (850Nm) Repair beyond this level is NOT advised.	
304	7021329	1	Cover Kit (Includes Items 8, 21, 22, 33, 34 & 51-54)	
305	7021338	1	Mechanical Disconnect Kit 1 (Includes Items 54-56, 59 & 66)	
306	7024054	1	Mechanical Disconnect Kit 2 (Includes Items 51, 53, 54 & 56)	

SECTION 1 - FRAME

FIGURE 1-4. DRIVE HUB ASSEMBLY



SECTION 1 - FRAME

FIGURE 1-4. DRIVE HUB ASSEMBLY

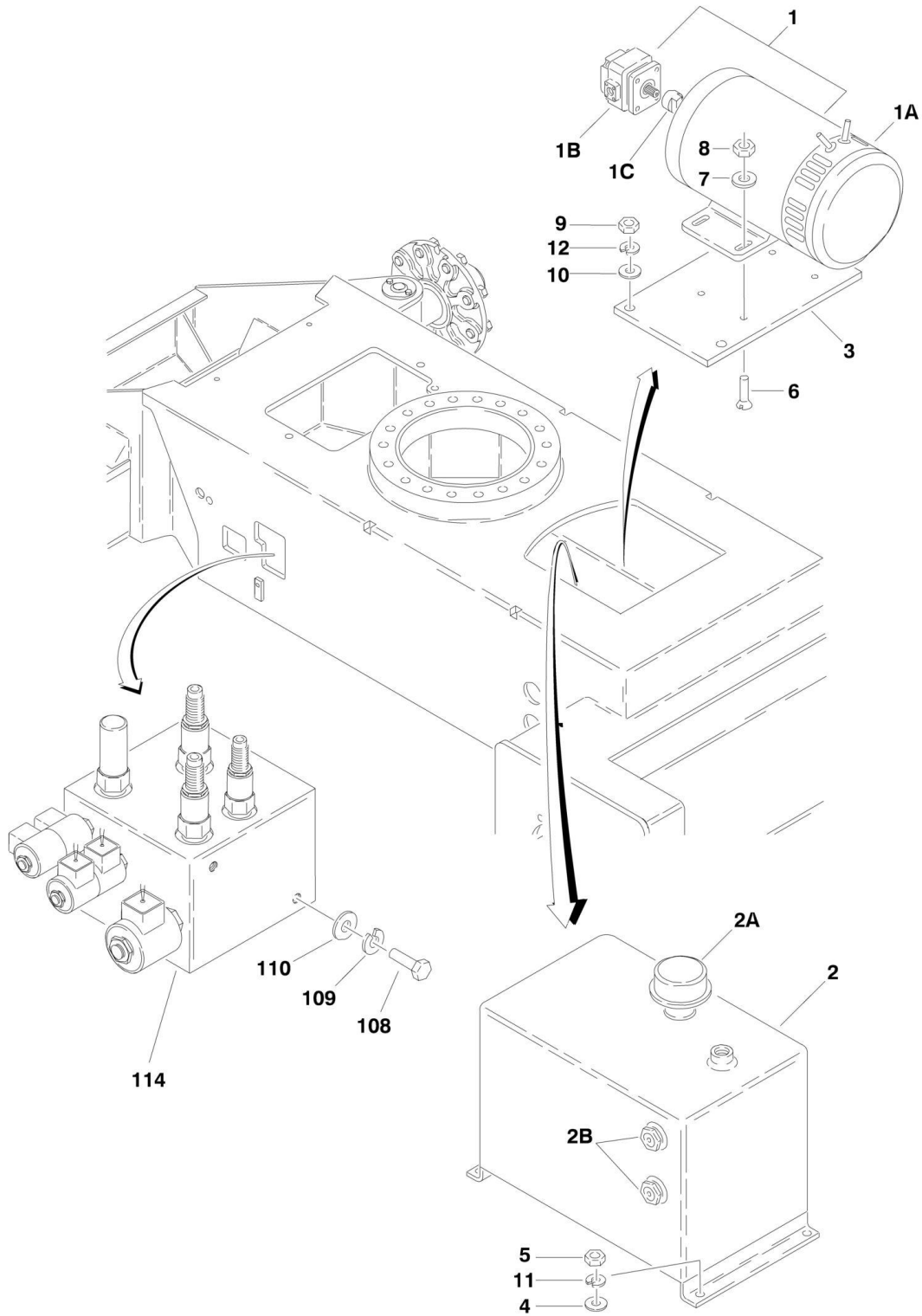
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2780282	Ref	DRIVE HUB ASSEMBLY	B
1	70001366	1	Carrier, Sub Assembly (Includes Items 1A-1F)	
1A	See Note	NSS	Shaft, Planet (Note: Use Item 1)	
1B	See Note	NSS	Carrier (Note: Use Item 1)	
1C	See Note	NSS	Gear, Planet, (Note: Use Item 1)	
1D	See Note	NSS	Bearing, Needle, (Note: Use Item 1)	
1E	See Note	NSS	Pin, Roll, (Note: Use Item 1)	
1F	See Note	NSS	Washer, Thrust, (Note: Use Item 1)	
2	70001367	1	Carrier, Input (Includes Items 2A-2H)	
2A	See Note	NSS	Shaft, Planet, (Note: Use Item 2)	
2B	See Note	NSS	Carrier, (Note: Use Item 2)	
2C	See Note	NSS	Gear, Planet, (Note: Use Item 2)	
2D	See Note	NSS	Bearing, Needle, (Note: Use Item 2)	
2E	See Note	NSS	Spacer, Thrust, (Note: Use Item 2)	
2F	See Note	NSS	Pin, Roll, (Note: Use Item 2)	
2G	See Note	NSS	Washer, Thrust, (Note: Use Item 2)	
2H	See Note	NSS	Washer, Thrust, (Note: Use Item 2)	
3	70001368	1	Cover	
4	70001369	1	Shaft, Input	
5	70001370	1	Coupling	
6	70001371	1	Shaft, Sun Gear	
7	70001372	1	Spindle	
8	70001373	1	Gear, Ring	
9	2780282	1	Housing	
10	See Note	NSS	Bearing, Tapered-Cone, (Note: Use Item 101)	
11	See Note	NSS	Bearing, Tapered-Cup, (Note: Use Item 101)	
12	See Note	NSS	Bearing, Tapered-Cone, (Note: Use Item 101)	
13	7017009	1	Washer, Thrust	
15	See Note	NSS	Seal, Lip, (Note: Use Item 102)	
16	70001374	1	Spring	
17	70001375	1	Ring, Retaining (Internal)	
18	See Note	NSS	Ring, Retaining (External), (Note: Use Item 102)	
19	7024738	1	Ring, Retaining (Internal)	
20	70001376	1	Ring, Retaining (External)	
21	70001377	1	Ring, Retaining (External)	
22	7000281	4	Screw (Not Shown - ID plate screws)	
23	7017022	3	Bolt, Flathead (Not Shown - Located on front of hub)	
24	See Note	NSS	O-Ring, (Note: Use Item 102)	
25	See Note	NSS	O-Ring, (Note: Use Item 102)	
26	70001378	1	Spacer, Thrust	
27	70001379	1	Washer, Thrust	
28	7024741	1	Spacer, Thrust	
29	7007640	9	Stud, Wheel	
30	See Note	NSS	Flange, Plate, (Note: Use Item 103)	
31	See Note	NSS	Cap, Disengage, (Note: Use Item 103)	
32	See Note	NSS	Pin, Dowel, (Note: Use Item 103)	
33	See Note	NSS	Bolt, (Note: Use Item 103)	
34	See Note	NSS	O-Ring, (Note: Use Item 103)	
35	See Note	NSS	O-Ring, (Note: Use Item 103)	
36	See Note	NSS	Plug, (Note: Use Item 103)	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	Kit Options	
101	7017007	1	Planet Gear Bearing Kit (Includes Items 10-12)	
102	70001380	1	Planet Gear Seal Kit (Includes Items 15, 18, 24 & 25)	
103	70001368	1	Cap/Disengage Kit (Includes Items 30-36)	

SECTION 1 - FRAME

FIGURE 1-5. HYDRAULIC COMPONENTS INSTALLATION



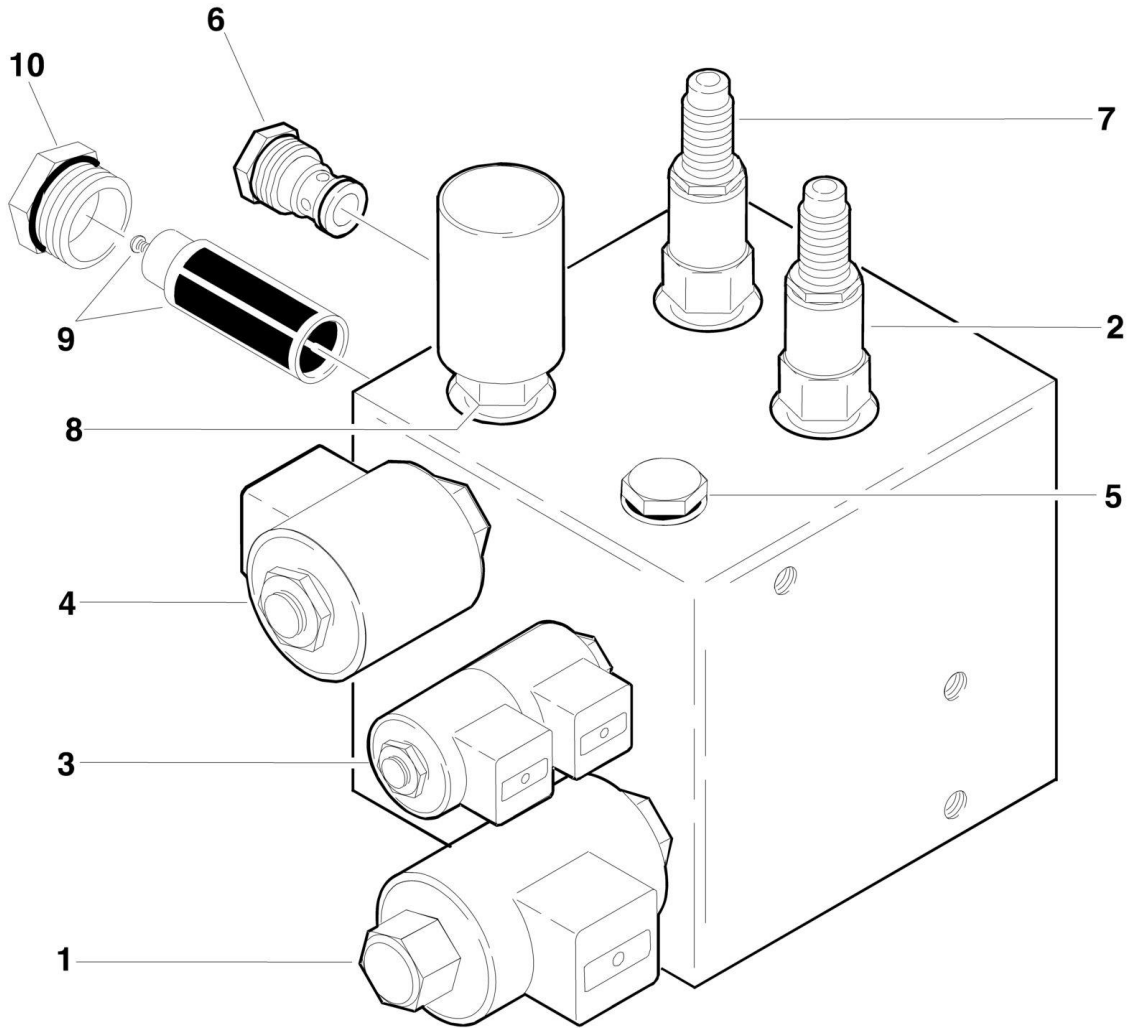
SECTION 1 - FRAME

FIGURE 1-5. HYDRAULIC COMPONENTS INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0257816	Ref	HYDRAULIC MOTOR/PUMP/TANK INSTALLATION	4-C
1	3600289	1	Motor/Pump Assembly	
1A	7021318	1	Motor Assembly	
1A	7021361	1	Brush Kit (was p/n 7021368)	
1A	70003171	4	Spring, Brush	
1A	70001961	1	Seal, Oil	
1B	7021319	1	Pump Assembly	
1B	7021377	1	Seal Kit (Note: Not Available for Purchase)	
1C	7021367	1	Coupling	
2	4400416	1	Hydraulic Tank Assembly	
2A	7021320	1	Cap	
2B	7021369	2	Gauge, Oil Level Sight	
2B	2220886	1	Plug, Non-magnetic Drain	
3	3571160	1	Plate, Mounting	
4	4711400	4	Washer 1/4	
5	3311405	4	Nut 1/4	
6	0741506	4	Screw 5/16 x 3/4	
7	4751500	4	Washer 5/16	
8	3311505	4	Nut 5/16	
9	3311605	2	Nut 3/8	
10	4751600	2	Washer 3/8	
11	4761400	4	Washer 1/4	
12	4761600	2	Washer 3/8	
		Ref	VALVES INSTALLATIONS	
	0258034	Ref	Valves Installations (E450A/M450A)	E
	0259399	Ref	Valves Installations (E450AJ/M450AJ)	E
	0258034	Ref	Valves Installations (E400A/M400A/E400Anarrow/M400AJnarrow)	E
	0259951	Ref	Valves Installations (E400AJP/M400AJP/E400AJPnarrow/M400AJPnarrow)	C
108	0641608	AR	Bolt 3/8 x 1	
109	4711600	AR	Washer 3/8	
110	4761600	AR	Washer 3/8	
114		Ref	Brake/Steer Control Valve Assembly Options:	
114	4641149	1	Brake/Steer Control Valve Assembly (Use p/n 1001097506) (Prior to SN 0300129142)	
114	1001097506	1	Brake/Steer Control Valve Assembly (SN 0300129142 through 0300189901)	
120	4922328	1	Harness Assembly - Brake/Steer Control Valve (Not Shown -See ELECTRICAL SECTION for Breakdown)	

SECTION 1 - FRAME

FIGURE 1-6. BRAKE/STEER VALVE ASSEMBLY



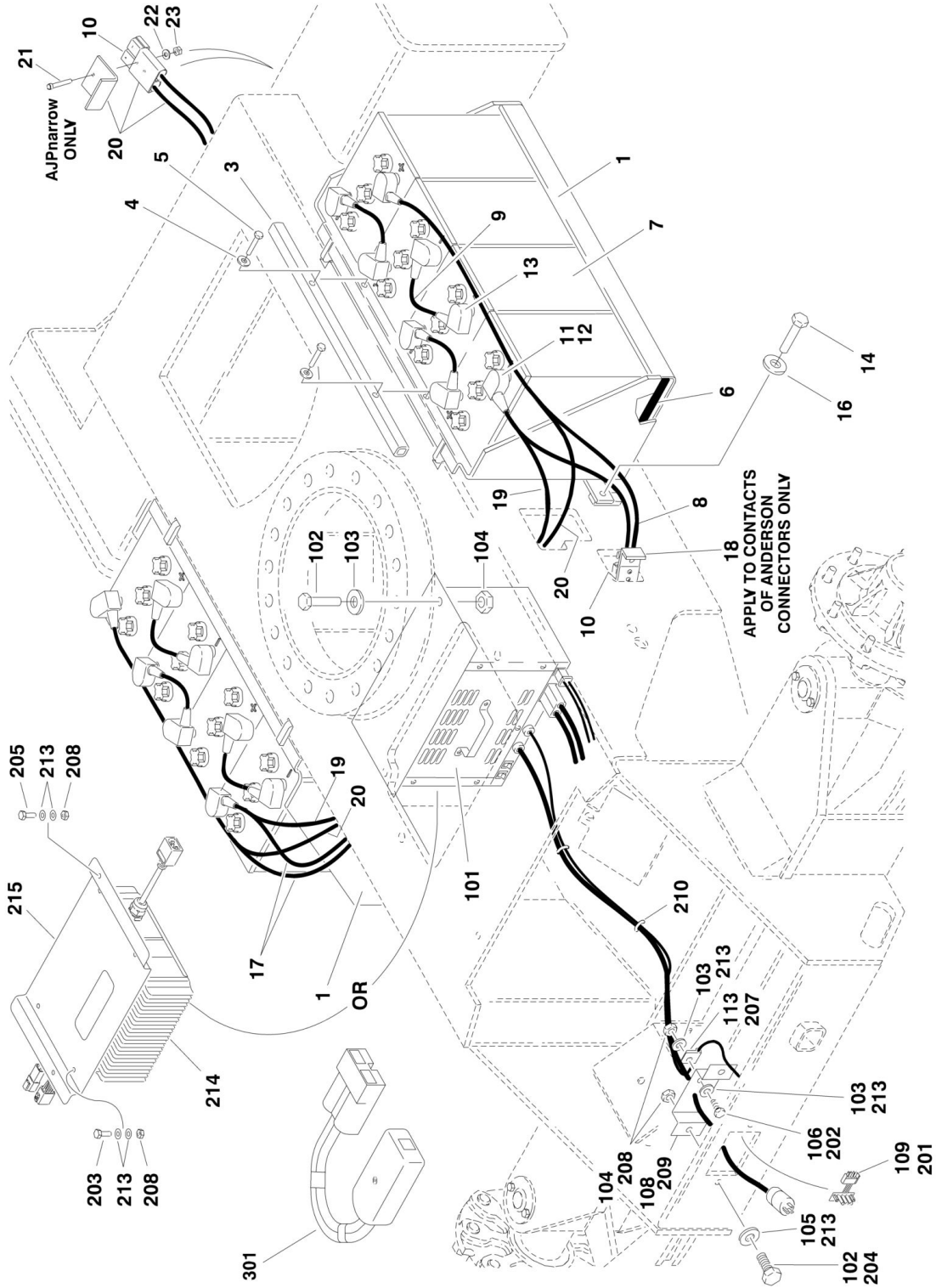
SECTION 1 - FRAME

FIGURE 1-6. BRAKE/STEER VALVE ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	BRAKE/STEER VALVE ASSEMBLIES	
	4641149	Ref	Hydro Air Brand (Prior to SN 0300129142)	G
	1001097506	Ref	Hydraforce Brand (SN 0300129142 through 0300189901)	B
1		Ref	Cartridge, Proportional without Coil Options: (Flow Control)	
1	7017450	1	Cartridge, Proportional without Coil (Prior to SN 0300062645)	
1	7021611	1	Cartridge, Proportional without Coil (SN 0300062645 through 0300189901)	
1	7012518	1	Seal Kit - 7017450/7021611 Cartridges	
1	7021618	1	Coil	
2	7021659	1	Cartridge, Relief (Main)	
2	7012972	1	Seal Kit - 7021659 Cartridge	
3	7017433	1	Cartridge (Steer)	
3	7017402	1	Seal Kit - 7017433 Cartridge	
3	7021609	2	Coil	
4	7012941	1	Cartridge without Coil (Brake Release)	
4	7010543	1	Seal Kit - 7012941 Cartridge	
4	7021609	1	Coil	
5	7022391	1	Cartridge, Check (was p/n 7017412)	
5	7012967	1	Seal Kit - 7022391 Cartridge	
6	7010542	1	Cartridge, Shuttle	
6	7010543	1	Seal Kit - 7010542 Cartridge	
7	7017488	1	Cartridge, Relief (Steer) (was p/n 7017428)	
7	7012998	1	Seal Kit - 7017488 Cartridge	
8	7021619	1	Switch, Pressure	
9	7021616	1	Cartridge, Filter	
10	7024832	1	Plug	

SECTION 1 - FRAME

FIGURE 1-7. BATTERIES AND CHARGER INSTALLATION



SECTION 1 - FRAME

FIGURE 1-7. BATTERIES AND CHARGER INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	BATTERIES INSTALLATION	
	0258689	Ref	Batteries Installation (E450A/M450A/E450AJ/M450AJ) (Standard Batteries) (Prior to SN 0300059390)	2-C
	0259763	Ref	Batteries Installation (E450A/M450A/E450AJ/M450AJ) (Standard Batteries) (SN 0300059390 through 0300189898)	B
	0259763	Ref	Batteries Installation (E400A/M400A/E400Anarrow/M400Anarrow/E400AJP/M400AJ P/E400AJPnarrow/M400AJPnarrow) (Standard Batteries)	B
	1001150161	Ref	Batteries Installation (AGM Batteries)	A
1		Ref	Battery Box Weldment Options:	
1	4845846	2	Battery Box Weldment (Both Sides - Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (Prior to SN 0300059390)	
1	4846106	1	Battery Box Weldment (Left Side - Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (SN 0300059390 through 0300189898)	
1	4846107	1	Battery Box Weldment (Right Side - Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (SN 0300059390 through 0300189898)	
1	4846106	1	Battery Box Weldment (Left Side - Standard Batteries) (E400A/M400A/E400Anarrow/M400Anarrow/E400AJP/M400AJ P/E400AJPnarrow/M400AJPnarrow)	
1	4846107	1	Battery Box Weldment (Right Side - Standard Batteries) (E400A/M400A/E400Anarrow/M400Anarrow/E400AJP/M400AJ P/E400AJPnarrow/M400AJPnarrow)	
1	1001150514	1	Battery Box Weldment (Left Side) (AGM Batteries)	
1	1001150513	1	Battery Box Weldment (Right Side) (AGM Batteries)	
3		Ref	Battery Hold Down Options:	
3	4567679	2	Battery Hold Down (Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (Prior to SN 0300059390)	
3	0182010	2	Battery Hold Down (Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (SN 0300059390 through 0300189898)	
3	0182010	2	Battery Hold Down (Standard Batteries) (E400A/M400A/E400Anarrow/M400Anarrow/E400AJP/M400AJ P/E400AJPnarrow/M400AJPnarrow)	
3	1001150181	2	Battery Hold Down (AGM Batteries)	
4	4711500	4	Washer 5/16	
5	0641514	4	Bolt 5/16 x 1-3/4	
5	0641504	4	Bolt 5/16 x 1/2	
5	0641506	4	Bolt 5/16 x 3/4	
6	3000003	2	Liner, Battery Box	
7		Ref	Battery Options:	
7	0400055	8	Wet	
7	7016177	8	Dry	
7	1001114782	8	Wet (AGM Battery)	
8		Ref	Cable, Battery (Left)	
8	1060760	1	Cable, Battery (Left) (Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (Prior to SN 0300059390)	
8	See Note	1	Cable, Battery (Left) (Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (Note: See Item 19 & 20) (SN 0300059390 through 0300189898)	
8	See Note	1	Cable, Battery (Left) (Standard Batteries) (E400A/M400A/E400Anarrow/M400Anarrow/E400AJP/M400AJ P/E400AJPnarrow/M400AJPnarrow) (Note: See Item 19 & 20)	
8	See Note	1	Cable, Battery (Left) (AGM Batteries) (Note: See Item 19 & 20)	

SECTION 1 - FRAME

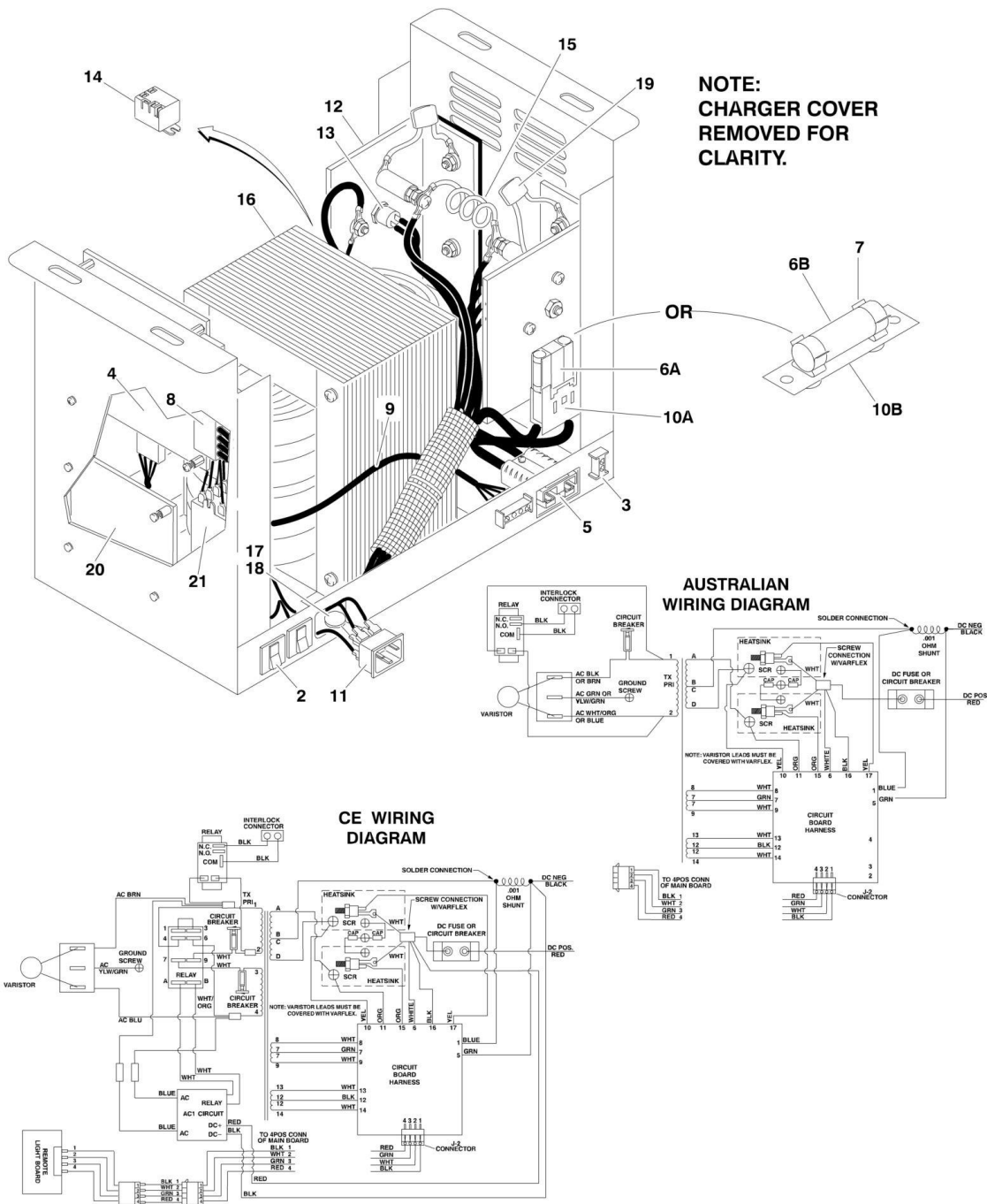
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
9	1060092	6	Cable, Battery	
10	0100048	AR	Adhesive, Silicone	
11	0100051	AR	Grease, Terminal	
12	0840031	8	Boot, Terminal ("d" shape)	
13	0840032	8	Boot, Terminal ("b" shape)	
14	0641808	4	Bolt 1/2 x 1	
14	0641813	8	Bolt 1/2 x 1-5/8	
16	4711800	8	Washer 1/2	
16	4751800	8	Washer 1/2	
17		Ref	Cable, Battery (Right)	
17	1060761	1	Cable, Battery (Right) (Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (Prior to SN 0300059390)	
17	See Note	1	Cable, Battery (Right) (Standard Batteries) (E450A/M450A/E450AJ/M450AJ) (Note: See Item 19 & 20) (SN 0300059390 through 0300189898)	
17	See Note	1	Cable, Battery (Right) (Standard Batteries) (E400A/M400A/E400Anarrow/M400Anarrow/E400AJP/M400AJ P/E400AJPnarrow/M400AJPnarrow) (Note: See Item 19 & 20)	
17	See Note	1	Cable, Battery (Right) (AGM Batteries) (Note: See Item 19 & 20)	
18	1320172	2	Clamp, Cable	
19	1060811	1	Cable, Battery (Battery to Battery)	
20	1060809	1	Cable, Battery (Battery to Clamp)	
21	3311405	2	Nut 1/4	
22	3931430	2	Capscrew 1/4 x 1-7/8	
23	4711400	2	Washer 1/4	
		Ref	BATTERY CHARGER INSTALLATIONS	
	0259826	Ref	CE Spec (110V/220V - Auto Seeking Hz)	3
	0259693	Ref	Australian Spec (250V - Auto Seeking Hz)	3
101		Ref	MAC Battery Charger Assembly Options	
		Ref	Note: See MAC BATTERY CHARGER ASSEMBLY for Replacement Parts for MAC Chargers. To replace complete charger use kit p/n 1001123046. Kit includes Items 214, 215, mounting hardware and connecting harnesses.	
101	0400197	1	CE Spec (110V/220V - Auto Seeking Hz) (Use p/n 1001123046)	
101	0400195	1	Australian Spec (250V - Auto Seeking Hz) (Use p/n1001123046)	
102	0641408	4	Bolt 1/4in-20NC x 1in	
103	4711400	6	Flatwasher 1/4in Narrow	
104	3311405	5	Locknut 1/4in-20NC	
105	4711400	2	Washer 1/4in (Narrow)	
106	0641404	1	Bolt 1/4in-20NC x 1/2in	
108	3571834	1	Plate, Panel	
109	0610131	1	Charger LED Assembly	
113	1320136	1	Clamp, Insulated	
	1001123052	Ref	DELTA-Q BATTERY CHARGER INSTALLATIONS - MACHINES WITH FACTORY PLUG (AUSTRALIAN SPECS)	B
	1001107780	Ref	DELTA-Q BATTERY CHARGER INSTALLATIONS - MACHINES WITH LOCALLY SUPPLIED PLUG (CE SPEC)	B
201	0610131	1	Charger LED Assembly	
202	0641404	1	Bolt 1/4 x 1/2	
203	0641405	4	Bolt 1/4 x 5/8	
204	0641406	2	Bolt 1/4 x 3/4	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
205	0641408	2	Bolt 1/4 x 1	
207	1320136	1	Clamp, Insulated	
208	3311405	9	Nut 1/4	
209	3571834	1	Plate, Panel	
210	4240033	4	Tie-Strap	
213	4711400	16	Washer 1/4	
214	1001103105	1	Battery Charger Assembly (See ELECTRICAL SECTION for Breakdown)	
215	1001107779	1	Plate, Battery Charger Mounting	
301	1600466	1	BATTERY CHARGER REPROGRAM CONTROLLER KIT (Use p/n 2915230)	

SECTION 1 - FRAME

FIGURE 1-8. MAC BATTERY CHARGER ASSEMBLY



SECTION 1 - FRAME

FIGURE 1-8. MAC BATTERY CHARGER ASSEMBLY

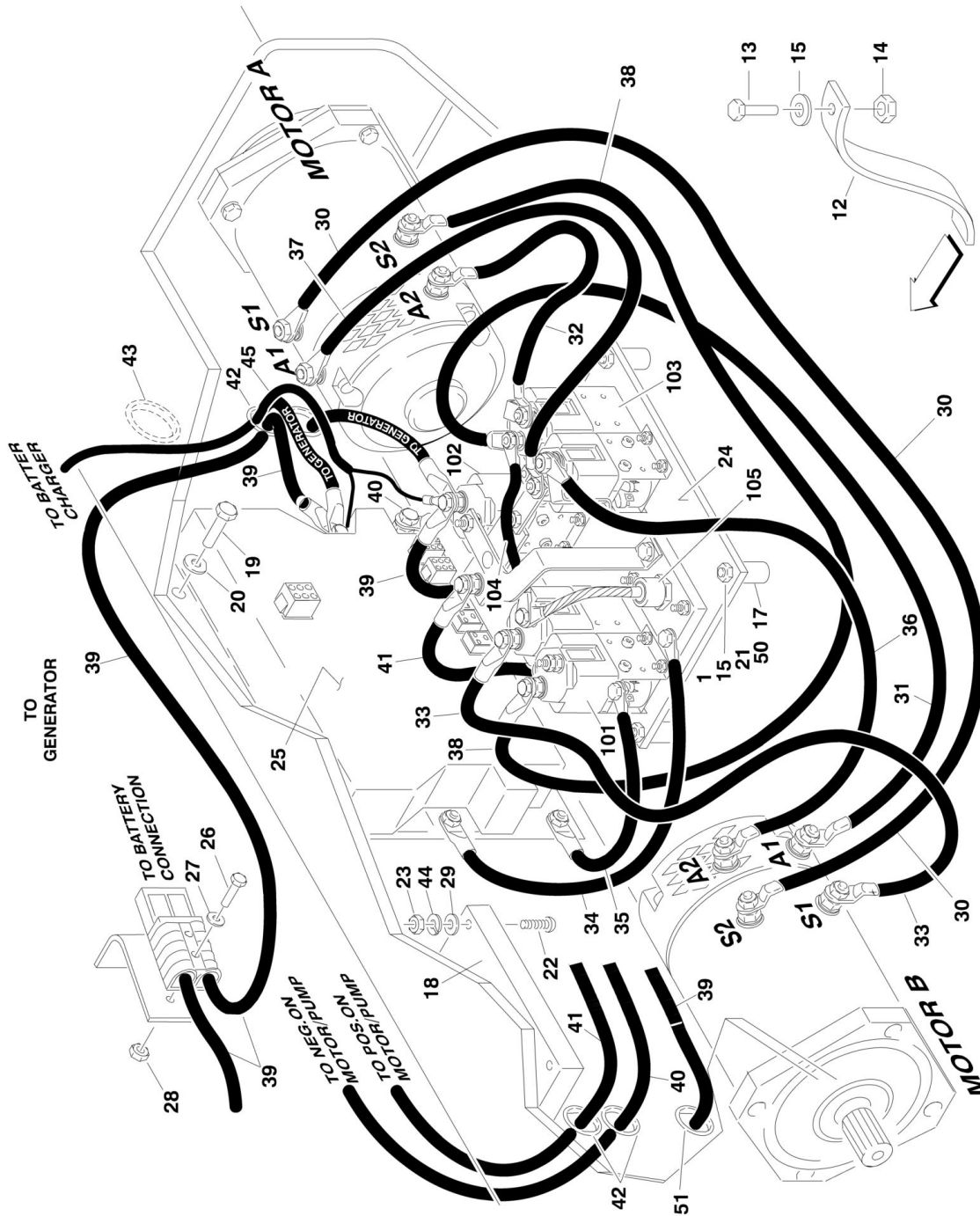
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	Note: Refer to battery charger serial number nameplate for build date. Example: BA515 (Spec) 9631 (Date Code). First and second digits in the date code indicate year. Third and fourth digits indicate the week of manufacture.	
		Ref	Note: When replacing complete charger use kit p/n 1001123046.	
		Ref	BATTERY CHARGER ASSEMBLIES	
	0400197	Ref	CE Spec (110/220V - Auto Seeking Hz)	B
	0400195	Ref	Australian Spec (250V - Auto Seeking Hz)	B
2		Ref	Breaker, Circuit Options:	
2	7020653	2	CE Spec (0400197 Charger)	
2	7018525	1	Australian Spec (0400195 Charger)	
3	7011621	1	Connector, Enable Switch	
4		Ref	Circuit, Control Options:	
4	7022908	1	CE Spec (0400197 Charger Prior to Date Code 0143) (was p/n 7022902)	
4	7022925	1	CE Spec (0400197 Charger Date Code 0143 to Present)	
4	7020685	1	Australian Spec (0400195 Charger)	
5		Ref	DC Cord Assembly	
5	7020644	1	Charger with Automotive Fuse	
5	7022909	1	Charger with Bussman Fuse	
6		Ref	Fuse Options:	
6A	7020690	1	Automotive Fuse Assembly	
6A	7020691	1	Automotive Fuse	
6B	7011593	1	Bussman Fuse	
7	7011577	2	Clip, Fuse	
8	7020697	1	Harness	
9	7020693	1	Harness	
10		Ref	Holder, Fuse	
10A	7018571	1	Automotive Fuse	
10B	7011594	1	Bussman Fuse	
11	7020648	1	Plug, AC Inlet	
12	7020649	2	Rectifier Assembly	
13	7020650	1	Rectifier, SCR 40-Amp	
14		Ref	Relay (Black) Options:	
14	7018564	1	CE Spec 0400197 Charger	
14	7018563	1	Australian Spec 0400195 Charger (240V Relay) (Used Prior to MAC Charger) (Prior to SN 06416736)	
14	7018564	1	Australian Spec 0400195 Charger (120V Relay) (Used MAC Charger) (SN 06416736 through 0300189901)	
15	7020651	1	Shunt Assembly	
16		Ref	Transformer, Main Options:	
16	7022905	1	CE Spec (0400197 Charger)	
16	7020699	1	Australian Spec (0400195 Charger)	
17	7018537	1	Varistor Assembly	
18	7020663	1	Varistor	
19		Ref	Capacitor Assembly Options:	
19	7018577	2	CE Spec (0400197 Charger)	
19	Not Required	0	Australian Spec (0400195 Charger)	
20		Ref	Control, AC1-48V Options:	
20	7022903	1	CE Spec (0400197 Charger)	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
20	Not Required	0	Australian Spec (0400195 Charger)	
21		Ref	Relay, 24VDC-30A (Clear) Options:	
21	7020654	2	CE Spec (0400197 Charger)	A
21	Not Required	0	Australian Spec (0400195 Charger)	

SECTION 1 - FRAME

FIGURE 1-9. ELECTRICAL COMPONENTS INSTALLATION (FRAMED MOUNTED)



SECTION 1 - FRAME

FIGURE 1-9. ELECTRICAL COMPONENTS INSTALLATION (FRAMED MOUNTED)

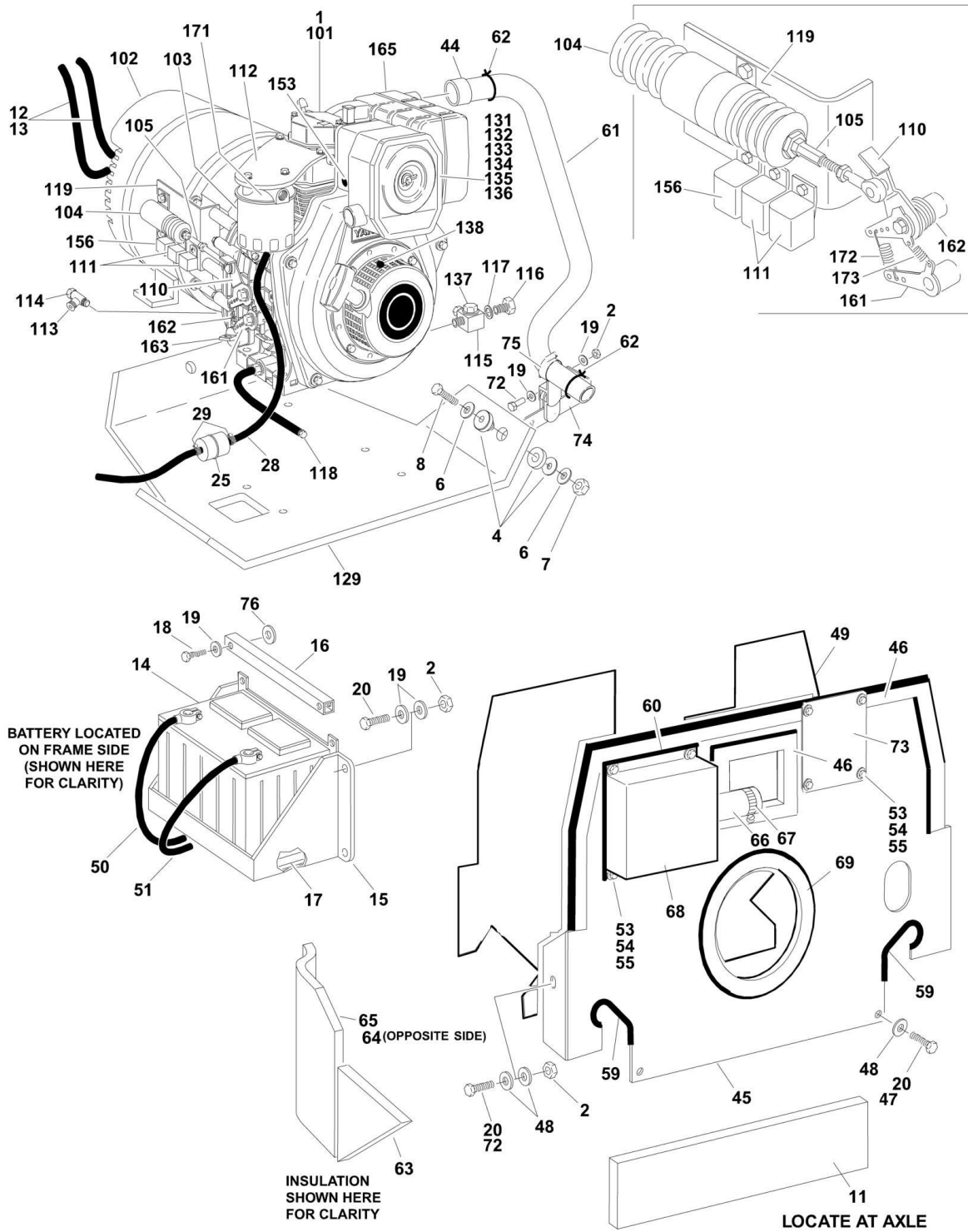
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	CONTACTOR INSTALLATION OPTIONS:	
	0259069	Ref	Contactors Installation (Standard Spec E450A/M450A/E450AJ/M450AJ) (Prior to SN 0300059390)	7
	0270103	Ref	Contactors Installation (Standard Spec E450A/M450A/E450AJ/M450AJ) (SN 0300059390 through 0300189898)	K
	0270103	Ref	Contactors Installation (Standard Spec E400A/M400A/E400Anarrow/M400narrow/E400AJP/M400AJP/E400AJPnarrow/M400AJPnarrow)	K
1	0100019	AR	Compound, Locking (Prior to SN 0300078578)	
12	4240084	1	Strap, Static	
13	0641508	1	Bolt 5/16 x 1	
14	3311505	1	Nut 5/16	
15	4751500	10	Washer 5/16	
17		Ref	Hardware Options:	
17	4300135	4	Stud, Stand-Off (Prior to SN 0300078578)	
17	4568114	4	Spacer, Tube (SN 0300078578 through 0300189901)	
18	1600293	1	Module (Positrac/Tilt) (Note: Re-calibration Required when Replaced)	
19	0641406	6	Bolt 1/4 x 3/4	
20	4761400	6	Washer 1/4	
21	3311505	AR	Nut 5/16	
22	3910636	4	Screw #6 x 2-1/4	
23	3310601	4	Nut #10	
24	1600294	1	Contactors Plate Assembly (See Items 101-103 for Breakdown)	
25	1600292	1	Module, Power	
26	3931430	AR	Capscrew 1/4 x 2	
27	4711400	AR	Washer 1/4	
28	3311405	AR	Nut 1/4	
29	4750600	4	Washer #6	
30	1060717	1	Cable, Electrical (Motor B S1 to Motor A S2)	
31	1060718	1	Cable, Electrical (Motor B A1 to Contactors Plate MB1)	
32	1060719	1	Cable, Electrical (Motor A A2 to Contactors Plate MA2)	
33	1060720	1	Cable, Electrical (Motor B A2 to Contactors Plate SB1)	
34	1060721	1	Cable, Electrical (Power Module A to Contactors Plate)	
35	1060722	1	Cable, Electrical (Power Module B+ to Contactors Plate)	
36	1060723	1	Cable, Electrical (Motor B S2 to Contactors Plate MB2)	
37	1060724	1	Cable, Electrical (Motor A A1 to Contactors Plate MA1)	
38	1060725	1	Cable, Electrical (Motor A S1 to Contactors Plate SA1)	
39		Ref	Cable, Electrical Options: (Contactors Plate to Batteries)	
39	1060726	1	Cable, Electrical (Standard Spec E450A/M450A/E450AJ/M450AJ) (Prior to SN 0300059390)	
39	1060810	1	Cable, Electrical (Standard Spec E450A/M450A/E450AJ/M450AJ) (SN 0300059390 through 0300189898)	
39	1060810	1	Cable, Electrical (Standard Spec E400A/M400A/E400Anarrow/M400narrow/E400AJP/M400AJP/E400AJPnarrow/M400AJPnarrow)	
40	1060727	1	Cable, Electrical (Module to Hydraulic Pump Motor -)	
41	1060728	1	Cable, Electrical (Contactors Plate to Hydraulic Pump Motor +)	
42	2540019	4	Grommet	
43	2540021	1	Grommet	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	4760600	4	Washer #6	
45	4922103	1	Cable, Electrical (Contactor/Module to Charger)	
45	4460444	1	Connector, DC	
46	1320172	1	Clamp, Cable (Not Shown - Located on Item 39)	
50	0641524	4	Bolt 5/16 x 3	
51	2540020	1	Grommet (SN 0300101253 through 0300189901)	
52	2902046		Electrical Cable Kit (Includes Items 30 - 41)	1
	1600294	Ref	CONTACTOR PLATE ASSEMBLY	E
98	7022003	1	Harness, Contactor (Not Shown - See Separate Breakdown in ELECTRICAL Section)	
99	7022004	1	Harness, Posi-Track Contactor (Not Shown - See Separate Breakdown in ELECTRICAL Section)	
100	7022005	1	Harness, Shunt (Not Shown - See Separate Breakdown in ELECTRICAL Section)	
101	7022002	1	Contactor (Forward/Reverse)	
102	7022001	1	Contactor (Main)	
103	7022000	1	Contactor (Posi-Track)	
104	7022012	1	Cable, Power	
105	7022011	1	Diode, Power	

SECTION 1 - FRAME

**FIGURE 1-10. YANMAR MOTOR/GENERATOR INSTALLATION
(M400A/M400ANARROW/M400AJP/M400AJPNARROW/M450A/M450AJ ONLY)**



SECTION 1 - FRAME

**FIGURE 1-10. YANMAR MOTOR/GENERATOR INSTALLATION
(M400A/M400ANARROW/M400AJP/M400AJPNARROW/M450A/M450AJ ONLY)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	MOTOR/GENERATOR INSTALLATION (YANMAR DIESEL)	
	0257824	Ref	Motor/Generator Installation (Yanmar Diesel) (M450A/M450AJ) (Prior to SN 0300059390)	11
	0270344	Ref	Motor/Generator Installation (Yanmar Diesel) (M450A/M450AJ) (SN 0300059390 through 0300079057)	5-B
	0270344	Ref	Motor/Generator Installation (Yanmar Diesel) (M400A/M400Anarrow/M400AJP/M400AJPnarrow) (Prior to SN 0300079057)	5-B
	0273573	Ref	Motor/Generator Installation (M400A/M400Anarrow/M400AJP/M400AJPnarrow) (SN 0300079057 through 0300088539)	C
1		Ref	Motor/Generator Assembly Options: (See Items 101 to 173 for Breakdown)	
1	0257858	1	Motor/Generator Assembly (Prior to SN 0300063771)	
1	0271641	1	Motor/Generator Assembly (SN 0300063771 through 0300088539)	
2	3311505	AR	Nut 5/16	
4	3200404	3	Mount, Insolation	
6	4751600	6	Washer 3/8	
7	3311605	3	Nut 3/8	
8	0641618	3	Bolt 3/8 x 2-1/4	
11	2820117	1	Foam, Sound (Steer Axle)	
12	1060755	1	Cable, Battery (Includes Terminal Boot) (+ Generator)	
13	1060754	1	Cable, Battery (Includes Terminal Boot) (- Generator)	
14	0400201	1	Battery	
15		Ref	Starter Battery Tray Options:	
15	4845642	1	Starter Battery Tray (M450A/M450AJ) (Prior to SN 0300059390)	
15	Not Required	0	Starter Battery Tray (M450A/M450AJ) (Welded-In Part of Battery Tray) (SN 0300059390 through 0300088539)	
15	Not Required	0	Starter Battery Tray (M400A/M400Anarrow/M400AJP/M400AJPnarrow) (Welded-In Part of Battery Tray)	
16		Ref	Battery Hold Down Options:	
16	4220179	1	Battery Hold Down (M450A/M450AJ) (Prior to SN 0300056547)	
16	0362966	1	Battery Hold Down (M450A/M450AJ) (SN 0300056547 through 0300059389)	
16	4220179	1	Battery Hold Down (M450A/M450AJ) (SN 0300059390 through 0300079057)	
16	4220179	1	Battery Hold Down (M400A/M400Anarrow/M400AJP/M400AJPnarrow) (Prior to SN 0300079057)	
16	0362966	1	Battery Hold Down (M400A/M400Anarrow/M400AJP/M400AJPnarrow) (SN 0300079057 through 0300088539)	
17	3980035	1	Battery Seat	
18		Ref	Bolt Options:	
18	0641518	2	Bolt 5/16 x 1-5/8 (Prior to SN 0300079057)	
18	0641512	2	Bolt 5/16 x 1-1/2 (SN 0300079057 through 0300088539)	
19	4711500	6	Washer 5/16	
20	0641505	AR	Bolt 5/16 x 5/8	
25	2120042	1	Filter, In-Line Fuel	

SECTION 1 - FRAME

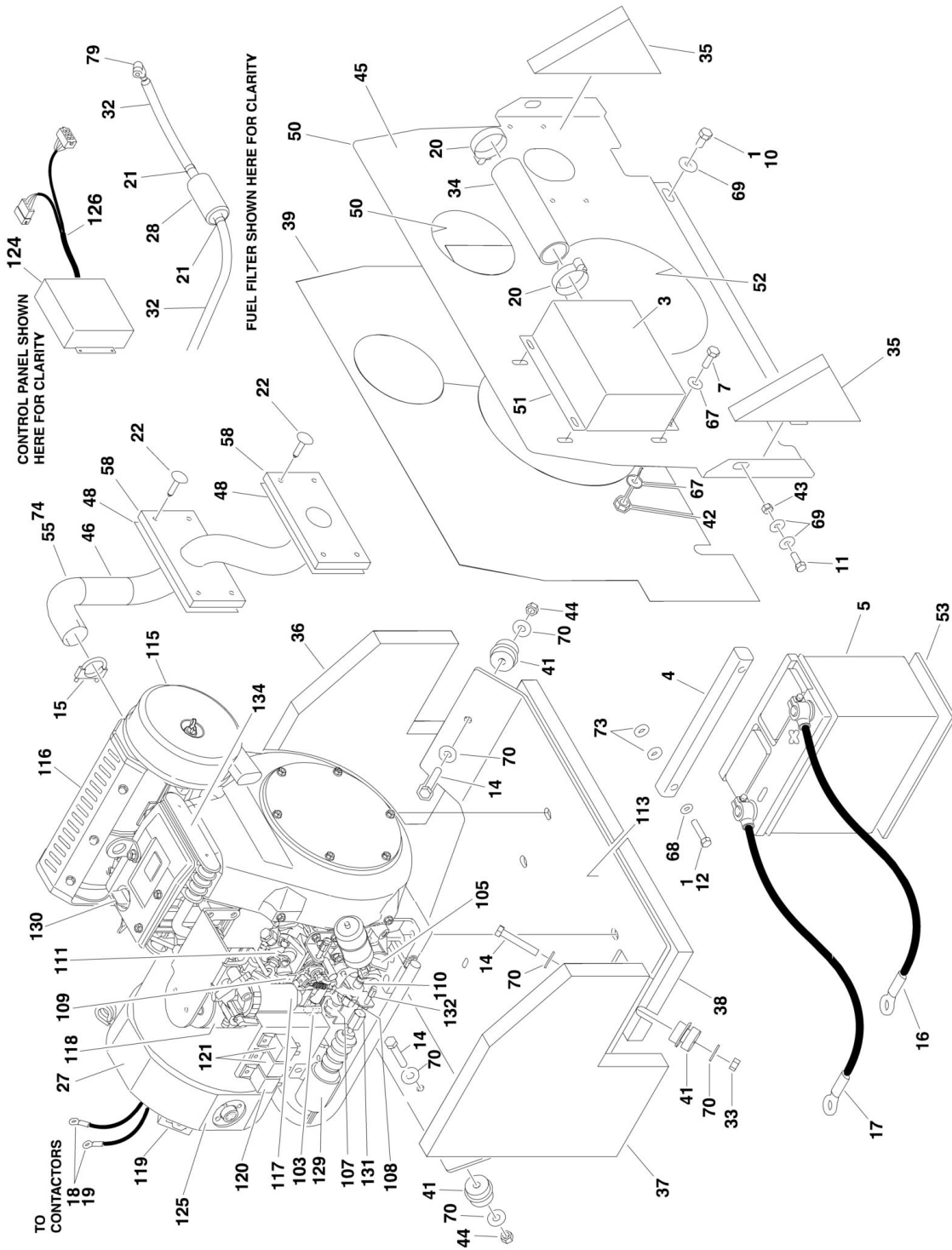
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
28	2720058	12 ft/3.7m	Hose	
29	1320022	7	Clamp, Hose	
33	4240033	8	Strap, Tie	
44	4567845	1	Tube, Exhaust	
45		Ref	Shield, Heat Options:	
45	3571401	1	Shield, Heat (Prior to SN 0300079057)	
45	3380510	1	Shield, Heat (SN 0300079057 through 0300088539)	
46	3960389	5 ft/1.5m	Seal	
47	0100011	AR	Compound, Locking	
48	4751500	6	Washer 5/16	
49		Ref	Insulation Options:	
49	2820107	1	Insulation (Prior to SN 0300079057)	
49	2820165	1	Insulation (SN 0300079057 through 0300088539)	
50	1060731	1	Cable, Battery (Includes Terminal Boot) (- Battery to Ground)	
51	1060730	1	Cable, Battery (Includes Terminal Boot) (+ Battery to Starter)	
53	0641406	AR	Bolt 1/4 x 3/4	
54	4711400	AR	Washer 1/4	
55	3311405	AR	Nut 1/4	
59	4060803	Ref	Flex-Trim	
59	4060803	16 in/4.9m	Flex-Trim (Prior to SN 0300079057)	
59	4060803	27 in/69cm	Flex-Trim (SN 0300079057 through 0300088539)	
60	3960417	28 in/71cm	Seal	
61	4100025	Ref	Sleeve, Fiberglass	
61	4100025	26 in/66cm	Sleeve, Fiberglass (Prior to SN 0300079057)	
61	4100025	12 in/30cm	Sleeve, Fiberglass (SN 0300079057 through 0300088539)	
62	4920385	7 in/18cm	Wire, Safety	
63	2820111	2	Insulation	
64	2820112	1	Insulation (Right Side)	
65	2820116	1	Insulation (Left Side)	
66	2720455	1	Hose	
67	1320012	2	Clamp	
68	0259481	1	Plenum Box Assembly	
69	3960418	3 ft/.9m	Seal	
70	4922319	1	Harness, Generator (Not Shown - See Separate Breakdown in ELECTRICAL Section)	
71	4460267	1	Socket, Female (Not Shown - See ELECTRICAL SECTION for Call-Out)	
72	0641507	2	Bolt 5/16 x 7/8 (SN 0300061430 through 0300088539)	
73	3380511	1	Shield, Heat (SN 0300079057 through 0300088539)	
74	0903099	1	Bracket, Exhaust Hanger (SN 0300079057 through 0300088539)	
75		Ref	Clamp Options:	
75	1320033	1	Clamp (SN 0300079057 through 0300079826)	
75	1320135	1	Clamp (SN 0300079827 through 0300088539)	
76	4891600	2	Washer 3/8 (SN 0300079057 through 0300088539)	
		Ref	Motor/generator assembly	
	0257858	Ref	Motor/generator assembly (Prior to SN 0300063771)	E
	0271641	Ref	Motor/generator assembly (SN 0300063771 through 0300088539)	C

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
101	7018126	1	Motor, Yanmar	
102		Ref	Alternator Options:	
102	7020203	1	Alternator (Prior to SN 0300063771)	
102	7023485	1	Alternator (SN 0300063771 through 0300088539)	
103	See Note	1	Filter, Oil with Element (Note: Not available for purchase)	
103	7020215	1	Element, Oil	
104	7020167	1	Solenoid, Throttle	
105	7020166	1	Swivel, In-line	
110	7018125	1	Handle, Regulator	
111	70000323	2	Relay, Bosch (was p/n 7020207)	
112	3571412	1	Plate, Mounting, Oil Filter	
113	7018127	1	Switch, Pressure	
114	7020164	1	Fitting, Adapter	
115	7020163	1	Adapter, Oil Drain	
116	7020162	1	Bolt, Banjo	
117	See Note	1	Washer, Rubber (Note: Not available for purchase)	
118	7020204	1	Drain Line Assembly	
119	7020161	1	Bracket	
129	3570581	1	Baseplate	
131	7020160	1	Flange, Air Intake	
132	7020159	1	Flange, Air Intake	
133	7020165	1	Plate, Air Intake Adapter	
134	7018123	2	Gasket, Air Cleaner	
135	7018122	2	Gasket, Air Adapter	
136	7018124	1	Cover, Air Filter	
137	7020158	1	Probe, Temperature	
138	70000901	1	Recoil Assembly	
138	70001758	NSS	Starter, Pulley	
138	7020157	1	Bracket, Magnetic Pick-Up (Not Shown - Located Behind Starter Pulley)	
153	7020206	1	Sensor, Hall Effect Zero Speed	
156	7023274	1	Relay, Sealed 14VDC/40Amp	
161	7020197	1	Lever	
162	7020198	1	Spring	
163	7020199	1	Dipstick	
164	7020200	1	Regulator, Voltage (Not Shown - Located Below Starter)	
165	7020201	1	Muffler	
166	7020202	1	Starter (Not Shown - Located Below Muffler)	
167	7020217	1	Element, Air Cleaner (Washable)	
168	7018142	1	Pump, Fuel (Not Shown - Located on Top of Cylinder Block)	
169	7023349	1	Fuse, Control - 15 Amp (Not Shown - Located on Right Side of Engine)	
170	7023350	1	Fuse, Dynamo Output - 20 Amp (Not Shown - Located on Left Side of Engine)	
171	7023489	1	Head, Filter	
172	7026669	1	Spring, Governor	
173	7026670	1	Spring, Return	

SECTION 1 - FRAME

FIGURE 1-11. KUBOTA MOTOR/GENERATOR INSTALLATION (M400A/M400ANARROW/M400AJP/M400AJPNARROW/M450A/M450AJ ONLY)



SECTION 1 - FRAME

**FIGURE 1-11. KUBOTA MOTOR/GENERATOR INSTALLATION
(M400A/M400ANARROW/M400AJP/M400AJPNARROW/M450A/M450AJ ONLY)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	MOTOR/GENERATOR INSTALLATION (KUBOTA DIESEL)	
	0274617	Ref	Motor/Generator Installation (Kubota Diesel) (Use p/n 1001159362) (Prior to SN 0300182839)	G
	1001159362	1	Motor/Generator Installation (Kubota Diesel) (SN 0300182839 through 0300189901)	A
1	0100011	AR	Compound, Locking	
3	0259481	1	Plenum Box Assembly	
4	0362966	1	Tube, Battery Hold-Down	
5	0400201	1	Battery	
7	0641406	4	Bolt 1/4in-20NC x 3/4in	
10	0641505	2	Bolt 5/16in-18NC x 5/8in	
11	0641507	2	Bolt 5/16in-18NC x 7/8in	
12	0641512	2	Bolt 5/16in-18NC x 1-1/2in	
14	0641618	3	Bolt 3/8in-16NC x 2-1/4in	
15	1320135	1	Clamp	
16	1060730	1	Cable, Battery (Battery +)	
17	1060731	1	Cable, Battery (Battery -)	
18	1060754	1	Cable, Battery (Includes Terminal Boot) (- Generator)	
19	1060755	1	Cable, Battery (Includes Terminal Boot) (+ Generator)	
20	1320012	2	Clamp	
21	1320022	4	Clamp	
22	1380164	8	Clip	
27	2000320	Ref	Motor/Generator Assembly (Use p/n 1001159361) (Prior to SN 0300182839)	
27	1001159361	1	Motor/Generator Assembly (SN 0300182839 through 0300189901)	
28	2120042	1	Filter, In-Line Fuel (SN 0300088539 through 0300093848)	
32	2720058	1 ft/.3m	Hose	
34	2720559	1	Hose, Air Intake	
35	2820111	2	Insulation	
36	2820112	1	Insulation (Right Side)	
37	2820116	1	Insulation (Left Side)	
38	2820117	1	Foam, Sound (Steer Axle)	
39	2820218	2	Insulation, Acoustic Barrier	
41		Ref	Mount, Insolated Engine Options:	
41	3200404	3	Mount, Insolated Engine (Prior to SN 0300145130)	
41	1001125248	3	Mount, Insolated Engine (SN 0300145130 through 0300189901)	
42	3311405	4	Locknut 1/4in-20NC	
43	3311505	2	Locknut 5/16in-18NC	
44	3311605	3	Locknut 3/8in-16NC	
45	3380602	1	Shield, Heat	
46	3460457	1	Pipe, Exhaust	
48	3575961	1	Plate, Exhaust Mounting	
50	3960389	5 ft/1.5m	Seal	
51	3960417	28 in/71cm	Seal	
52	3960418	3 ft/.9m	Seal	
53	3980035	1	Battery Seat	

SECTION 1 - FRAME

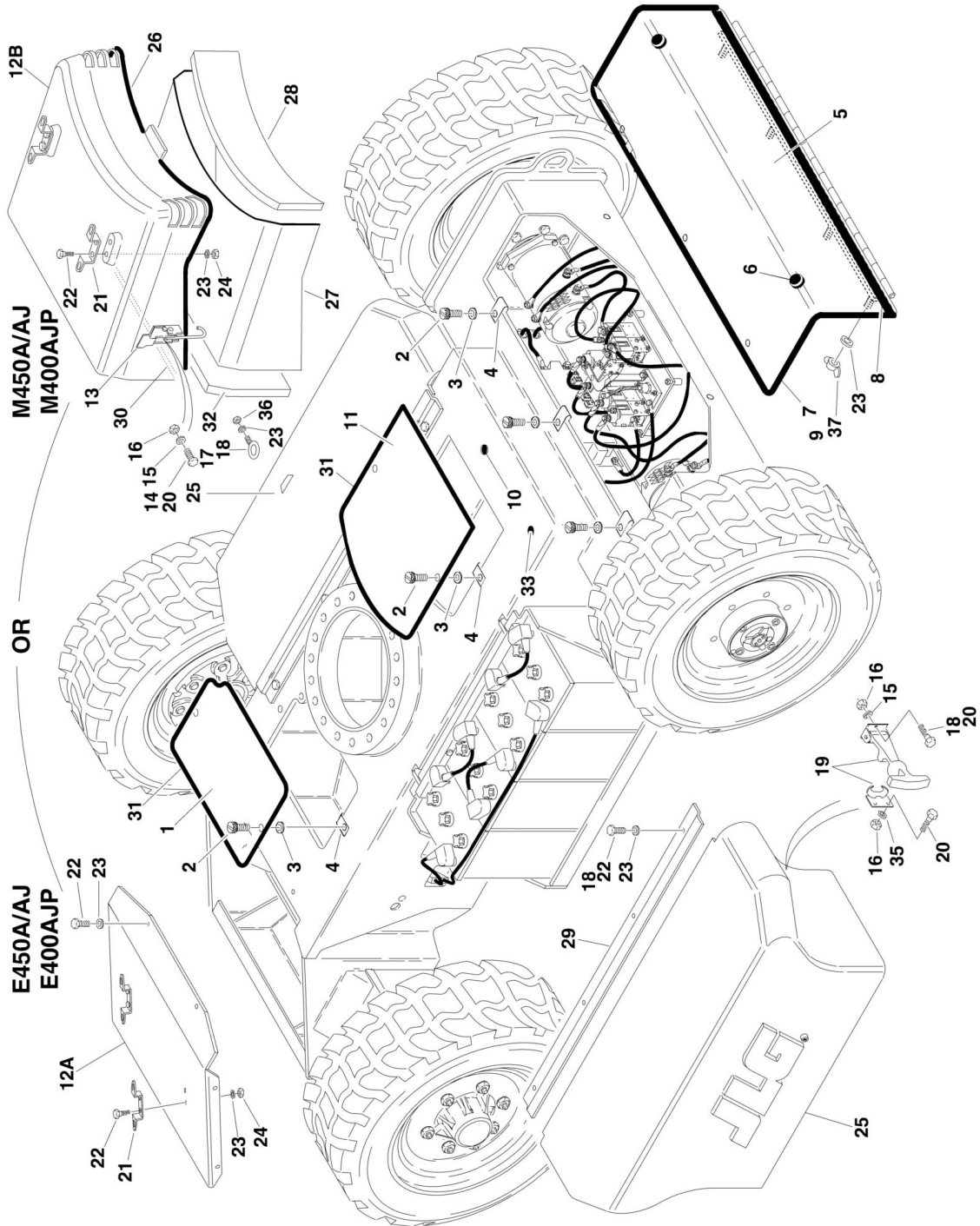
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
55	4100025	22 in/55cm	Sleeve, Fiberglass	
58	4341072	2	Support, Exhaust Mount	
67	4711400	8	Flatwasher 1/4in Narrow	
68	4711500	6	Flatwasher 5/16in Narrow	
69	4751500	6	Flatwasher 5/16in Wide	
70	4751600	6	Flatwasher 3/8in Wide	
73	4891600	2	Flatwasher 3/8in Hardened	
74	4920385	6 in/15cm	Wire, Safety	
79	2220805	1	Fitting, Coupling	
		Ref	Motor/generator assembly	
	2000320	Ref	Motor/Generator Assembly (Use p/n 1001159361) (Prior to SN 0300182839)	F
	1001159361	1	Motor/Generator Assembly (SN 0300088539 through 0300189901)	B
101	70003557	1	Regulator, Voltage (Not Shown - Located on Opposite Side of Engine) (was p/n 70000289)	
102	70000290	1	Glow Plug (Not Shown)	
102	70000291	1	Harness, Glow Plug (Not Shown)	
103	70000292	1	Screen, Oil Sump (Includes O-Ring)	
104	70000293	1	Cap, Oil Filler (Includes O-Ring) (Not Shown - Located on the Engine Block - See Item 130 for Fill Cap on Top of Head)	
105	70000294	1	Dipstick	
106	70000295	1	Pump, Oil Rotor (Not Shown - Located Beside Item 107)	
106	70000296	1	O-Ring, Oil Rotor Pump (Not Shown)	
107	70000297	1	Switch, Oil	
108	70000298	1	Lever, Governor	
108	70000299	1	Pin, Governor Lever	
108	70000300	1	Spring, Governor Lever	
109	70000301	1	Spring, Idling	
109	70000304	1	Lever, Spring Control	
109	70000305	1	Spring, Stop (Speed Control Lever)	
110	70000302	1	Valve, Fuel Limit (Not Shown)	
110	70000303	1	Gasket, Fuel Limit Valve (Not Shown)	
111	70000306	1	Pump, Injection	
111	70000307	1	Kit, Pump Adjustment Shim	
112	70000308	1	Flywheel/Ring Gear Assembly (Not Shown - Located Behind Front Cover)	
112	70000309	1	Ring Gear (Not Shown)	
112	70001121	1	Stator, Engine (Not Shown - Located Behind Flywheel) (Includes Coil and Grommet)	
113	3575952	1	Tray, Engine	
114	70000311	1	Solenoid, Starter (Not Shown - Located on Opposite Side of Engine)	
115	70000312	1	Air Cleaner Assembly	
115	70000313	1	Element, Air Cleaner	
115	70000314	1	Gasket, Air Cleaner	
116	70000315	1	Muffler Assembly	
116	70000316	1	Gasket, Muffler	
117	70000317	1	Inline Fuel Check Valve Assembly (Not Shown)	
117	70000967	1	Fuel Filter Assembly	
117	70000318	1	Element, Fuel Filter	
118	70000319	1	Element, Oil Filter	

SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
118	70001144	1	Head, Oil Filter Head (Note: Does not Include element)	
119	70000320	1	Pump, Fuel	
120	70000322	1	Relay	
121	70000323	2	Relay	
122	70000324	1	Sensor, Speed (Not Shown - Located Inside Front Cover)	
122	70004265	1	Bracket, Speed Sensor (Not Shown - Located Inside Front Cover)	
123	70000325	1	Sensor, Oil Temperature (Not Shown - Located on Opposite Side of Engine on Base)	
124	70000326	1	Module, Engine Control	
125	70000327	1	Alternator	
125	70000382	1	Stator, Alternator	
126	70000328	1	Harness, Engine	
127	70000329	1	Fuse 15Amp (Not Shown)	
128	70000330	1	Fuse 20Amp (Not Shown)	
129	70000321	1	Solenoid, Fuel	
130	70002244	1	Cap, Oil Filler (Includes O-Ring) (See Item 104 for Fill Cap on Engine Block)	
131	70003618	1	Adapter, Solenoid	
132	70000321	1	Rod, Adapter	
133	70000310	1	Starter (Not Shown - Located on Opposite Side of Engine)	
134	70004785	1	Cooler, Oil	

SECTION 1 - FRAME

FIGURE 1-12. FRAME COVERS INSTALLATION



SECTION 1 - FRAME

FIGURE 1-12. FRAME COVERS INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	FRAME COVERS INSTALLATIONS	
	0258974	Ref	Frame Covers Installations (Standard E450A & E450AJ Built) (Prior to SN 0300059390)	4
	0270510	Ref	Frame Covers Installations (Standard E450A & E450AJ Built) (SN 0300059390 through 0300189898)	E
	0258035	Ref	Frame Covers Installations (Standard M450A & M450AJ Built) (Prior to SN 0300059390)	7
	0270509	Ref	Frame Covers Installations (Standard M450A & M450AJ Built) (SN 0300059390 through 0300189898)	F
	0270510	Ref	Frame Covers Installations (Standard E400A & E400AJP)	E
	0270509	Ref	Frame Covers Installations (Standard M400A & M400AJP)	F
	0270101	Ref	Frame Covers Installations (Standard E400Anarrow & E400AJPnarrow)	E
	0270100	Ref	Frame Covers Installations (Standard M400Anarrow & M400AJPnarrow)	F
1	3570572	1	Cover, Charger	
2	3900174	7	Screw, Special	
3	3760308	7	Retainer	
4	1380138	1	Cup, Receptacle	
5		Ref	Axle Cover Options:	
5	4844603	1	Standard Width (E400A/M400A/E400AJP/M400AJP/E450A/M450A/E450AJ/M450AJ)	
5	4846223	1	Narrow Width (E400Anarrow/M400Anarrow/E400AJPnarrow/M400AJPnarrow)	
6	0940036	2	Bumper	
7	3960447	AR	Seal	
8	3960433	AR	Seal	
9		Ref	Hardware Options:	
9	3300371	AR	Wingnut (Prior to SN 0300104964)	
9	3311401	AR	Nut 1/4 (SN 0300104964 through 0300189901)	
10	3520026	2	Plug, Hole	
11	3570573	1	Cover, Pump	
12		Ref	Cover Options:	
12A	3571094	1	Cover (E400A/E400Anarrow/E400AJP/E400AJPnarrow/E450A/E450AJ)	
12B	1670880	1	Cover (M400A/M400Anarrow/M400AJP/M400AJPnarrow/M450A/M450AJ)	
13		Ref	Latch Options:	
13	Not Required	0	Latch (E400A/E400Anarrow/E400AJP/E400AJPnarrow/E450A/E450AJ)	
13	2940115	2	Latch (M400A/M400Anarrow/M400AJP/M400AJPnarrow/M450A/M450AJ)	
14	0721006	AR	Screw #10 x 3/4 (Prior to SN 0300070080)	
15	4751000	AR	Washer #10	
16	3311005	12	Nut #10	
17	0630440	AR	Eyebolt	
18	0100011	AR	Compound, Locking	

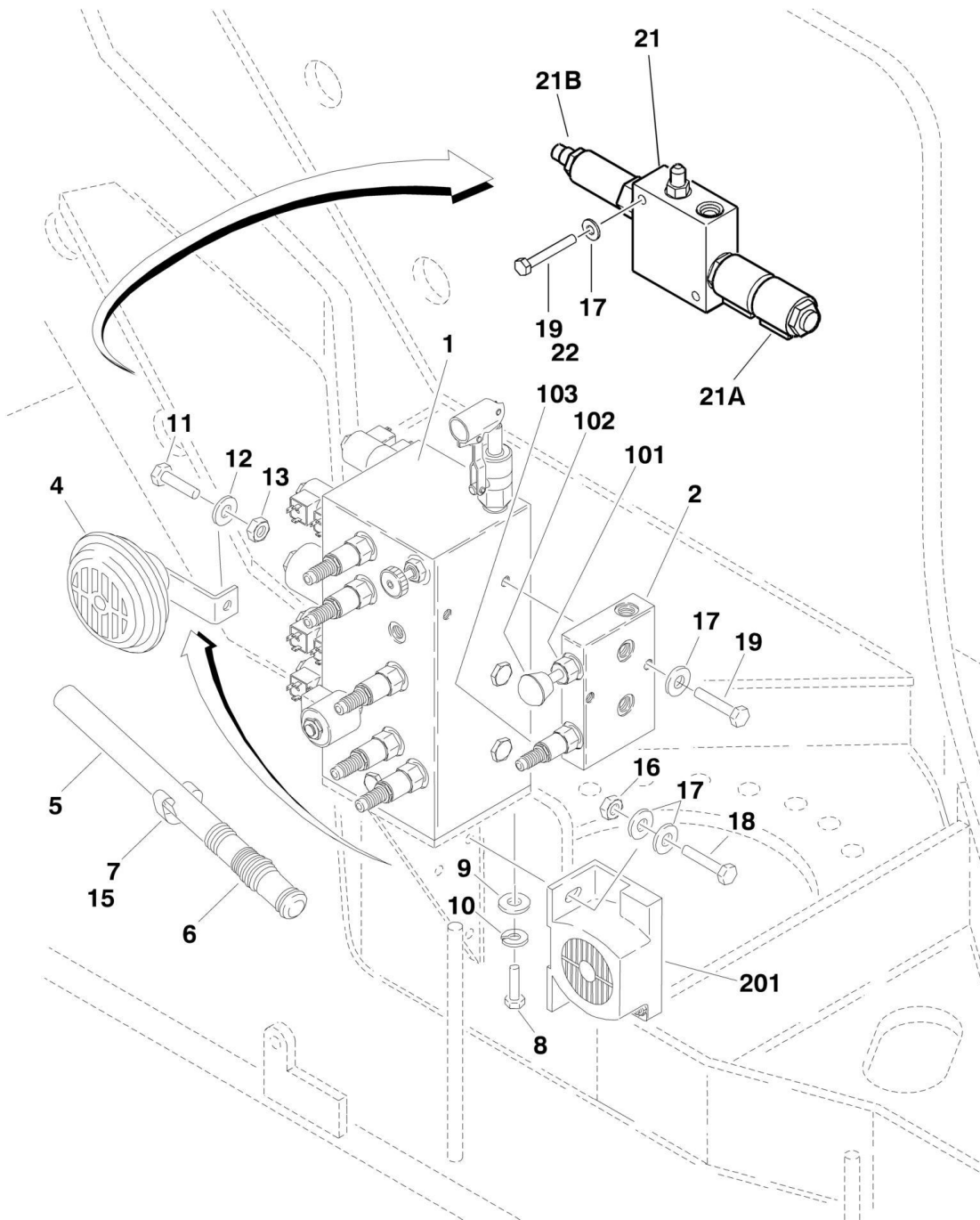
SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
19	2940095	4	Latch	
20	0721004	AR	Screw #10 x 1/2	
21	2700093	2	Hook	
22	0641406	AR	Bolt 1/4 x 3/4	
23	4751400	AR	Washer 1/4	
24	3311405	4	Nut 1/4	
25		Ref	Battery Cover Options:	
25		Ref	Standard Spec Machines:	
25	1670879	2	Cover (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300059390)	
25	1670951	2	Cover (E450A, M450A, E450AJ & M450AJ) (SN 0300059390 through 0300189901)	
25	1670951	2	Cover (E400A, M400A, E400A narrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
26		Ref	Flex-Trim Options:	
26	Not Required	0	Standard Spec (E400A, E400Anarrow, E400AJP, E400AJPnarrow, E450A & E450AJ)	
26	4060804	6 ft/1.8m	Standard Spec (M400A, M400Anarrow, M400AJP, M400AJPnarrow, M450A & M450AJ)	
27		Ref	Flex-Trim Options:	
27	Not Required	0	Standard Spec (E400A, E400Anarrow, E400AJP, E400AJPnarrow, E450A & E450AJ)	
27	2820105	1	Standard Spec (M400A, M400Anarrow, M400AJP, M400AJPnarrow, M450A & M450AJ)	
28		Ref	Flex-Trim Options:	
28	Not Required	0	Standard Spec (E400A, E400Anarrow, E400AJP, E400AJPnarrow, E450A & E450AJ)	
28	2820106	1	Standard Spec (M400A, M400Anarrow, M400AJP, M400AJPnarrow, M450A & M450AJ)	
29		Ref	Strip, Mounting Options:	
29	0902543	2	Standard Spec (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300059390)	
29	0902681	2	Standard Spec (E450A, M450A, E450AJ & M450AJ) (SN 0300059390 through 0300189898)	
29	0902681	2	Standard Spec (E400A, M400A, E400A narrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
30		Ref	Seal Options:	
30	Not Required	0	Seal (E400A, E400Anarrow, E400AJP, E400AJPnarrow, E450A & E450AJ)	
30	3960389	2.5 ft/7.6m	Seal (M400A, M400Anarrow, M400AJP, M400AJPnarrow, M450A & M450AJ)	
31		Ref	Seal Options:	
31	Not Required	0	Seal (E400A, E400Anarrow, E400AJP, E400AJPnarrow, E450A & E450AJ)	
31	3960417	10 ft/3m	Seal (M400A, M400Anarrow, M400AJP, M400AJPnarrow, M450A & M450AJ)	
32		Ref	Insulation Options:	
32	Not Required	0	Insulation (E400A, E400Anarrow, E400AJP, E400AJPnarrow, E450A & E450AJ)	
32	2820110	1	Insulation (M400A, M400Anarrow, M400AJP, M400AJPnarrow, M450A & M450AJ)	
33	3520082	1	Plug	
35	4750800	AR	Washer #8	
36	3311401	AR	Nut 1/4	
37	0100035	AR	Compound, Locking	

SECTION 2 - TURNTABLE

SECTION 2 - TURNTABLE

FIGURE 2-1. VALVES AND HORN INSTALLATIONS



SECTION 2 - TURNTABLE

FIGURE 2-1. VALVES AND HORN INSTALLATIONS

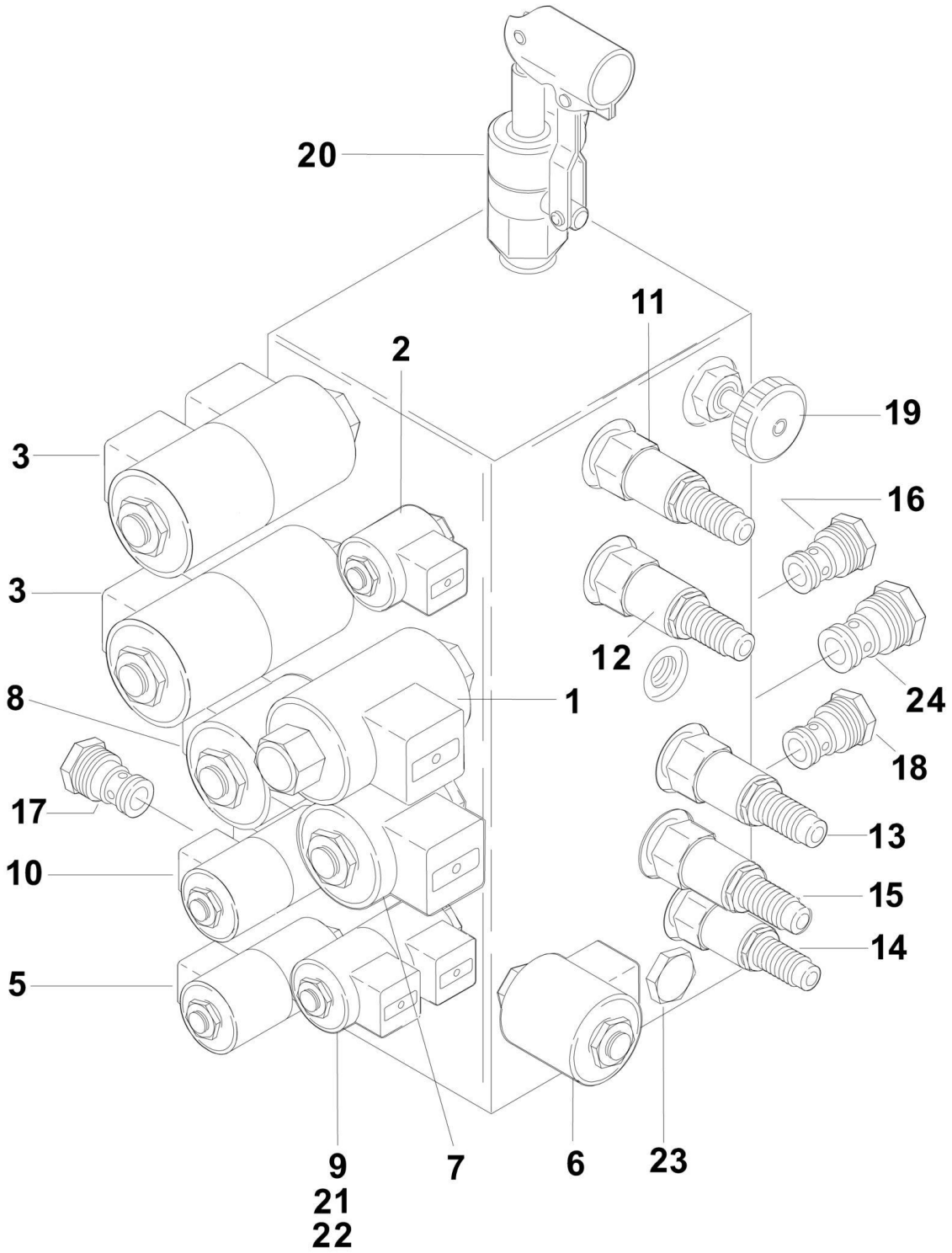
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	VALVE AND HORN INSTALLATIONS	
	0258034	Ref	Valve and Horn Installations (E450A & M450A)	E
	0259399	Ref	Valve and Horn Installations (E450AJ & M450AJ)	E
	0258034	Ref	Valve and Horn Installations (E400A, M400A, E400Anarrow & M400Anarrow)	E
	0259951	Ref	Valve and Horn Installations (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
1		Ref	Main Control Valve Assembly (See MAIN CONTROL VALVE ASSEMBLY for Breakdown)	
1	4641070	1	Main Control Valve Assembly (Prior to SN 0300062642)	
1	4641195	NLA	Main Control Valve Assembly (Note: Use p/ns 1001097507 & 1001104864 as Replacement) (SN 0300062642 through 0300129141)	
1	1001097507	1	Main Control Valve Assembly (SN 0300129142 through 0300189901)	
2		Ref	Releveling Valve Assembly Options (See Items 101-103 for Breakdown):	
2	4641029	1	Releveling Valve Assembly (E450A, M450A, E450AJ & M450AJ) (Use p/n 1001097777) (Prior to SN 0300091053)	
2	4641394	NLA	Releveling Valve Assembly (E450A, M450A, E450AJ & M450AJ) (Use p/n 1001097777) (SN 0300091053 through 0300129141)	
2	1001097777	1	Releveling Valve Assembly (E450A, M450A, E450AJ & M450AJ) (SN 0300129142 through 0300189898)	
2	4641029	1	Releveling Valve Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300086022)	
2	4641394	NLA	Releveling Valve Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (Use p/n 1001097777) (SN 0300086022 through 0300129141)	
2	1001097777	1	Releveling Valve Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300129142 through 0300189898)	
2	4641029	1	Releveling Valve Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300086022)	
2	4641394	NLA	Releveling Valve Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Use p/n 1001097777) (SN 0300086022 through 0300129141)	
2	1001097777	1	Releveling Valve Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300129142 through 0300189901)	
4	0140028	1	Horn	
5	2560122	1	Handle	
6	2560123	1	Grip, Handle	
7	1380136	1	Clip	
8	0641608	4	Bolt 3/8in-16NC x 1in	
9	4711400	4	Flatwasher 3/8in Narrow	
10	4761400	4	Lockwasher 3/8in	
11	0641508	1	Bolt 5/16in-18NC x 1in	
12	4711500	2	Flatwasher 5/16in Narrow	
13	3311505	1	Locknut 5/16in-18NC	
15	4300106	1	Stud	
16	3311405	AR	Locknut 1/4in-20NC	
17	4711400	AR	Flatwasher 1/4in Narrow	
18	0641408	AR	Bolt 1/4in-20NC x 1in	
19		Ref	Bolt Options:	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
19	0641413	AR	Bolt 1/4in-20NC x 1-5/8in	
19	0641426	AR	Bolt 1/4in-20NC x 3-1/4in	
21		Ref	Jib Valve Assembly Options:	
21	Not Required	0	Jib Valve Assembly (E450A, M450A, E400A, M400A, E400Anarrow & M400Anarrow)	
21	4641102	NLA	Jib Valve Assembly (E450AJ & M450AJ) (Use p/n 1001097775) (Prior to SN 0300129142)	
21	1001097775	1	Jib Valve Assembly (E450AJ & M450AJ) (Shown) (SN 0300129142 through 0300189898)	
21	4641119	NLA	Jib Valve Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Use p/n 1001097505) (Prior to SN 0300129142)	
21	1001097505	1	Jib Valve Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300129142 through 0300189901)	
21A	7017452	1	Cartridge without Coils	
21A	7017402	1	Seal Kit - 7017452 Cartridge	
21A	7021609	2	Coil	
21B		Ref	Cartridge, Relief Valve Options:	
21B	70002807	1	Port RV1(was p/n 7017460)	
21B	70002808	1	Port RV2 (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (was p/ns 7021623 & 7017460)	
21B	7021653	AR	Seal Kit - 70002807 & 70002808 Cartridges	
22	0100011	AR	Compound, Locking	
		Ref	RELEVELING VALVE ASSEMBLIES	
		Ref	Note: Refer to Item 2 for Usage.	
	4641029	Ref	Releveling Valve	
	4641394	Ref	Releveling Valve	
	1001097777	Ref	Releveling Valve	
101	7017466	1	Cartridge	
101	2900708	1	Seal Kit - 7017466 Cartridge	
102	7012959	1	Knob	
103		Ref	Cartridge Options:	
103	7012981	1	4641029 Valve	
103	7012998	1	Seal Kit - 7012981 Cartridge	
103	7024891	1	4641394 & 1001097777 Valves	
103	7012953	1	Seal Kit - 7024891 Cartridge	
	0259064	Ref	ALARM INSTALLATIONS	1
201	0140031	1	Alarm, Motion (Remove ground strap before installation)	
201	3311405	2	Locknut 1/4in-20NC	
201	4711400	4	Flatwasher 1/4in Narrow	
201	0641408	2	Bolt 1/4in-20NC	
201	4460685	2	Terminal, Stud Mounted Tab	

SECTION 2 - TURNTABLE

FIGURE 2-2. MAIN CONTROL VALVE ASSEMBLY



SECTION 2 - TURNTABLE

FIGURE 2-2. MAIN CONTROL VALVE ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	MAIN CONTROL VALVE ASSEMBLY OPTIONS:	
	4641070	Ref	Main Control Valve Assembly (Prior to SN 0300062642)	G
	4641195	Ref	Main Control Valve Assembly (Use p/ns 1001097507 & 1001104864 as Replacement) (SN 0300062642 through 0300129141)	
	1001097507	Ref	Main Control Valve Assembly (SN 0300129142 through 0300189901)	C
1		Ref	Cartridge without Coil Options (Flow Regulator):	
1	7021611	1	4641070 Valve (was p/n 7017450)	
1	7021611	1	4641195 & 1001097507 Valves	
1	7012518	1	Seal Kit - 7017450/7021611 Cartridge	
1	7021618	1	Coil	
2	7017410	1	Cartridge without Coil (Bypass Unloading)	
2	7012998	1	Seal Kit - 7017410 Cartridge (was p/n 7012967)	
2	7021609	2	Coil	
3	7021603	2	Cartridge without Coil (Lower and Upper Lift)	
3	7012903	2	Seal Kit - 7021603 Cartridge (1 Per Cartridge)	
3	7021610	4	Coil (2 Per Valve)	
5	7017433	1	Cartridge without Coil (Swing)	
5	7017402	1	Seal Kit - 7017433 Cartridge	
5	7021609	1	Coil	
6	7021604	1	Cartridge without Coil (Swing Restrictor)	
6	7012953	1	Seal Kit - 7021604 Cartridge	
6	7021609	1	Coil	
7		Ref	Cartridge without Coil Options (Telescope Out):	
7	7017479	1	4641070 & 4641195 Valves	
7	7012995	1	1001097507 Valve	
7	7012518	1	Seal Kit - 7017479 & 7012995 Cartridges	
7	7021610	1	Coil	
8		Ref	Cartridge without Coil Options (Telescope In):	
8	7017479	1	4641070 & 4641195 Valves	
8	7022394	1	1001097507 Valve	
8	7012518	1	Seal Kit - 7017479 & 7022394 Cartridges	
8	7021610	1	Coil	
9	7017452	1	Cartridge without Coil (Platform Level)	
9	7017402	1	Seal Kit - 7017452 Cartridge	
9	7021609	2	Coil	
10	7017452	1	Cartridge without Coil (Rotator)	
10	7017402	1	Seal Kit - 7017452 Cartridge	
10	7021609	2	Coil	
11		Ref	Cartridge Options:	
		Ref	(Note: Before ordering parts, refer to p/n stamped on hose side of valve block to determine if valve has been replaced.)	
11		Ref	4641070 Valve Components: (Prior to SN 0300062642)	
11	70001876	1	Cartridge, (Lower Lift Down) (was p/n 7017423)	
11	7012998	1	Seal Kit - 7017423 & 70001876 Cartridge	
11		Ref	4641195 & 1001097507 Valve Components (E/M400A): (SN 0300062642 through 0300189901)	
11		Ref	4641195 & 1001097507 Valve Components (E/M450A/J): (SN 0300062642 through 0300189898)	

SECTION 2 - TURNTABLE

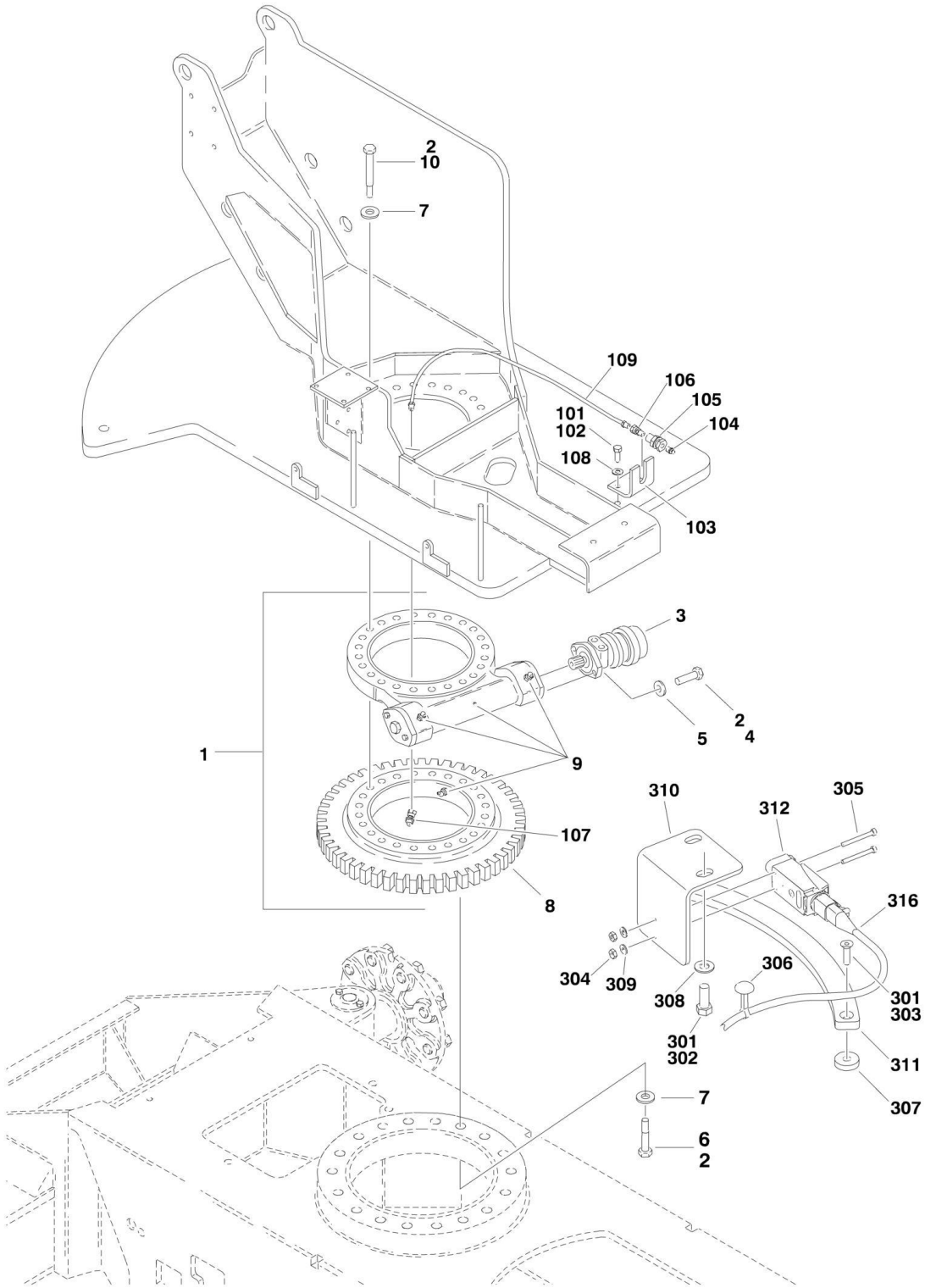
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
11	70002806	1	Cartridge, (Upper Lift Down)	
11	7012998	1	Seal Kit - 70002806 Cartridge	
12		Ref	Cartridge Options:	
		Ref	(Note: Before ordering parts, refer to p/n stamped on hose side of valve block to determine if valve has been replaced.)	
12		Ref	4641070 Valve Components: (Prior to SN 0300062642)	
12	7021606	1	Cartridge, (Upper Lift Down)	
12	7012998	1	Seal Kit - 7021606 Cartridge	
12		Ref	4641195 Components (SN 0300062642 through 0300129141)	
12	70001876	1	Cartridge, (Lower Lift Down) (E450AJ, M450AJ, E400A, M400A, E400Anarrow & M400Anarrow) (was p/n 7017423) (SN 0300062642 through 0300086021)	
12	70001876	1	Cartridge, (Lower Lift Down) (E450A, M450A, E400AJP, M400AJP, E400AJPanarrow & M400AJPnarrow) (was p/n 7017423) (SN 0300086022 through 0300129142)	
12	70001876	1	Cartridge, (Lower Lift Down) (SN 0300091053 through 0300129142)	
12	7012998	1	Seal Kit - 7017423 & 70001876 Cartridge	
12		Ref	1001097507 Valve Components: (SN 0300129142 through 0300189901)	
12	70001876	1	Cartridge, (Lower Lift Down)	
12	7012998	1	Seal Kit - 70001876 Cartridge	
13		Ref	Cartridge (Telescope) Options:	
13	7021607	1	4641070 & 4641195 Valves	
13	7017418	1	1001097507 Valve	
13	7012998	1	Seal Kit - 7021607 & 7017418 Cartridges	
14		Ref	Cartridge Options:	
14		Ref	4641070 Valve Components:	
14	7017421	1	Cartridge (Platform Level Backward Piston End)	
14	7012998	1	Seal Kit - 7017421 Cartridge	
14		Ref	4641195 & 1001097507 Valve Components:	
14	7017418	1	Cartridge (Platform Level Forward Rod End) (was p/n 7017422)	
14	7012998	1	Seal Kit - 7017418 Cartridge	
15		Ref	Cartridge Options:	
15		Ref	4641070 Valve Components:	
15	7017418	1	Cartridge (Platform Level Forward Rod End) (was p/n 7017422)	
15	7012998	1	Seal Kit - 7017418 Cartridge	
15		Ref	4641195 & 1001097507 Valve Components:	
15	7017421	1	Cartridge (Platform Level Backward Piston End)	
15	7012998	1	Seal Kit - 7017421 Cartridge	
16	10837580	1	Cartridge (Telescope)	
16	7010543	1	Seal Kit - 10837580 Cartridge	
17	7012914	1	Cartridge (Platform Level Piston Side)	
17	7021653	1	Seal Kit - 7012914 Cartridge (was p/n 7012918)	
18	7012914	1	Cartridge (Platform Level Rod Side)	
18	7021653	1	Seal Kit - 7012914 Cartridge (was p/n 7012918)	
19	7012947	1	Cartridge, (Emergency Descent)	
19	7012518	1	Seal Kit - 7012947 Cartridge	
19		Ref	Knob Options:	
19	7012949	1	4641070 & 4641195 Valves	
19	7012961	1	1001097507 Valve	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
20	70004019	1	Pump, Manual (was p/n 7012694)	
20	7017496	1	Seal Kit - 7012694 Cartridge	
21	See Note	1	Plug, Orifice (.031in) (Note: Not available for purchase)	
22	7021624	1	Disc, Orifice (.028v)	
23	70000381	1	Cartridge, Plug	
24	7012975	1	Valve, Check (4641195 & 1001097507 Valves Only)	
24	7012540	1	Seal Kit - 7012975 Cartridge	

SECTION 2 - TURNTABLE

FIGURE 2-3. TURNTABLE AND SWING DRIVE INSTALLATION



SECTION 2 - TURNTABLE

FIGURE 2-3. TURNTABLE AND SWING DRIVE INSTALLATION

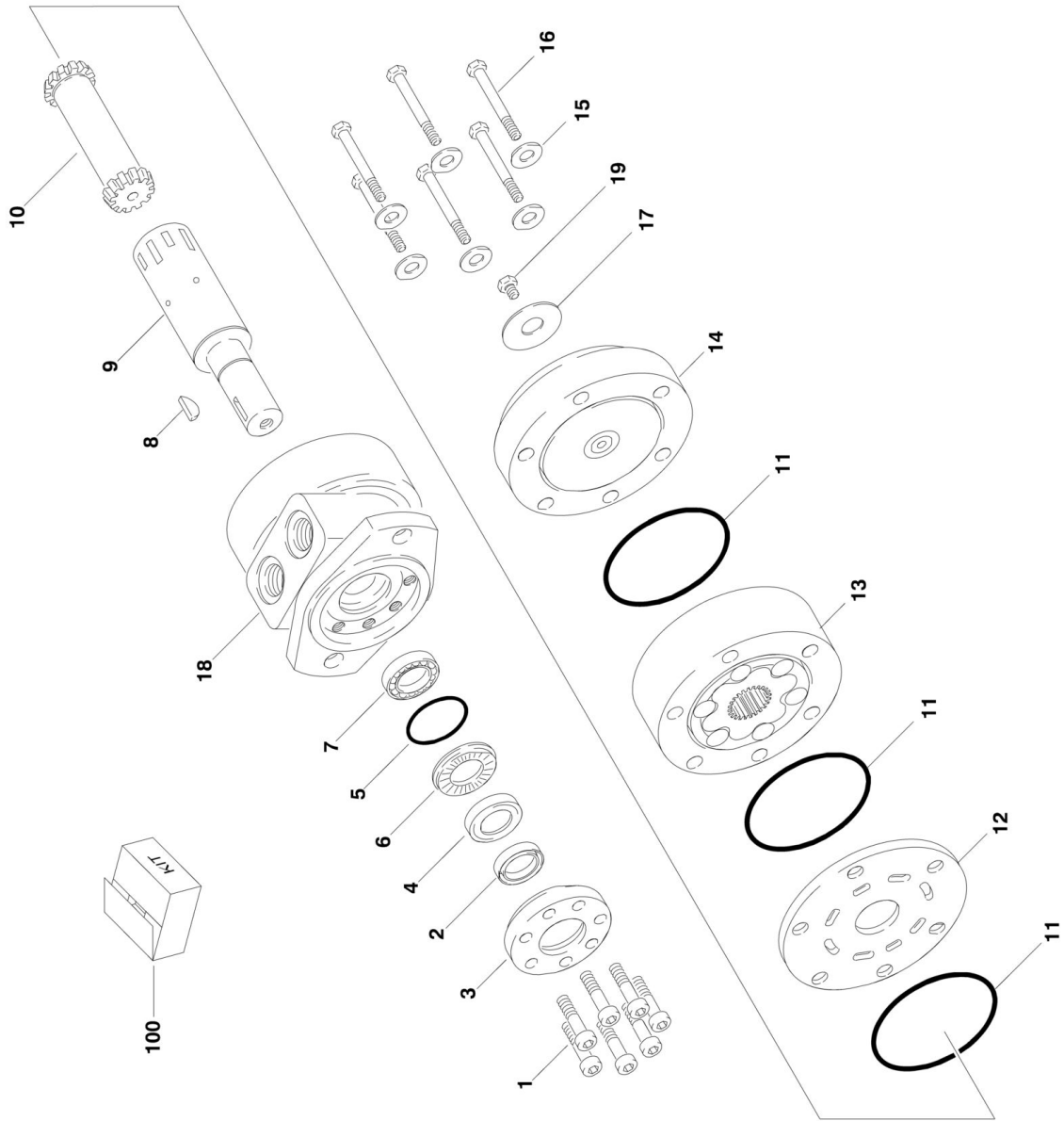
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	TURNTABLE BEARING AND SWING DRIVE INSTALLATIONS	
	0258653	Ref	Turntable Bearing and Swing Drive (DOHI)	5
	1001153366	Ref	Turntable Bearing and Swing Drive (JING WEI)	A
1		Ref	Turntable Bearing and Rotation Box Assembly Options (See Separate Breakdown in this Section)	
1	0440203	NLA	Turntable Bearing (DOHI) (Use p/n 0440339) (Prior to SN 0300097888)	
1	0440339	1	Turntable Bearing (DOHI) (SN 0300097888 through 0300189901)	
1	1001153017	1	Turntable Bearing (JING WEI)	
2	0100019	AR	Compound, Locking	
3		Ref	Swing Motor Assembly Options:	
3	3160233	NLA	Swing Motor Assembly (See Separate Breakdown in this Section) (Use p/n 1001105455) (Prior to SN 0300135649)	
3	1001104850	1	Swing Motor Assembly (See Separate Breakdown in this Section) (SN 0300135649 through 0300189901)	
4		Ref	Bolt Options:	
4	0681814	2	Bolt 1/2 x 1-3/4 (Prior to SN 0300099082)	
4	0681816	2	Bolt 1/2 x 2 (SN 0300099082 through 0300135648)	
4	3931832	2	Bolt 1/2 x 2 (SN 0300135649 through 0300189901)	
5	4740171	2	Washer, Hardened	
6	0682026	18	Bolt 5/8 x 3-1/4	
7	4892000	42	Washer	
7	4892000	41	Washer	
8	3020036	AR	Lube (5 gal bucket) (Use p/n 3020027)	
8	70010724	AR	Lube (14 oz. tube)	
9	3020029	AR	Grease, Bearing	
10	0682028	24	Bolt 5/8 x 3-1/2	
10	0682028	23	Bolt 5/8 x 3-1/2	
	1001103732	Ref	REMOTE BEARING LUBE INSTALLATION (OPTIONAL)	A
101	0100011	AR	Compound, Locking	
102	0641608	1	Bolt 3/8 x 1	
103	0902520	1	Bracket	
104	2160002	1	Fitting, Straight	
105	2180344	1	Fitting, Bulkhead	
106	2220001		Fitting, Straight	
107	2220124	1	Fitting, Elbow	
108	4711600	1	Washer 3/8	
109	2751095	1	Hose	
	1001116193	Ref	DRIVE ORIENTATION INSTALLATION ONLY (SN 0300141884 through 0300189901)	B
301	0100011	AR	Compound, Locking	
302	0641608	2	Bolt 3/8 x 1	
303	0741408	2	Capscrew 1/4 x 1	
304	3310805	2	Nut #8	
305	3930824	2	Capscrew #8 x 1-1/2	
306	4240175	2	Tie-Strap	
307	4564417	2	Tube, Spacer	
308	4711600	2	Washer 3/8	
309	4750800	2	Washer #8	
310	1001116130	1	Bracket, Mounting	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
311	1001116195	1	Cam	
312	1001116232	1	Switch, Limit	
316	1001116522	1	Harness, Drive Orientation (See Separate Breakdown in ELECTRICAL Section)	

SECTION 2 - TURNTABLE

FIGURE 2-4. SWING MOTOR ASSEMBLY (Prior to SN 0300135649)



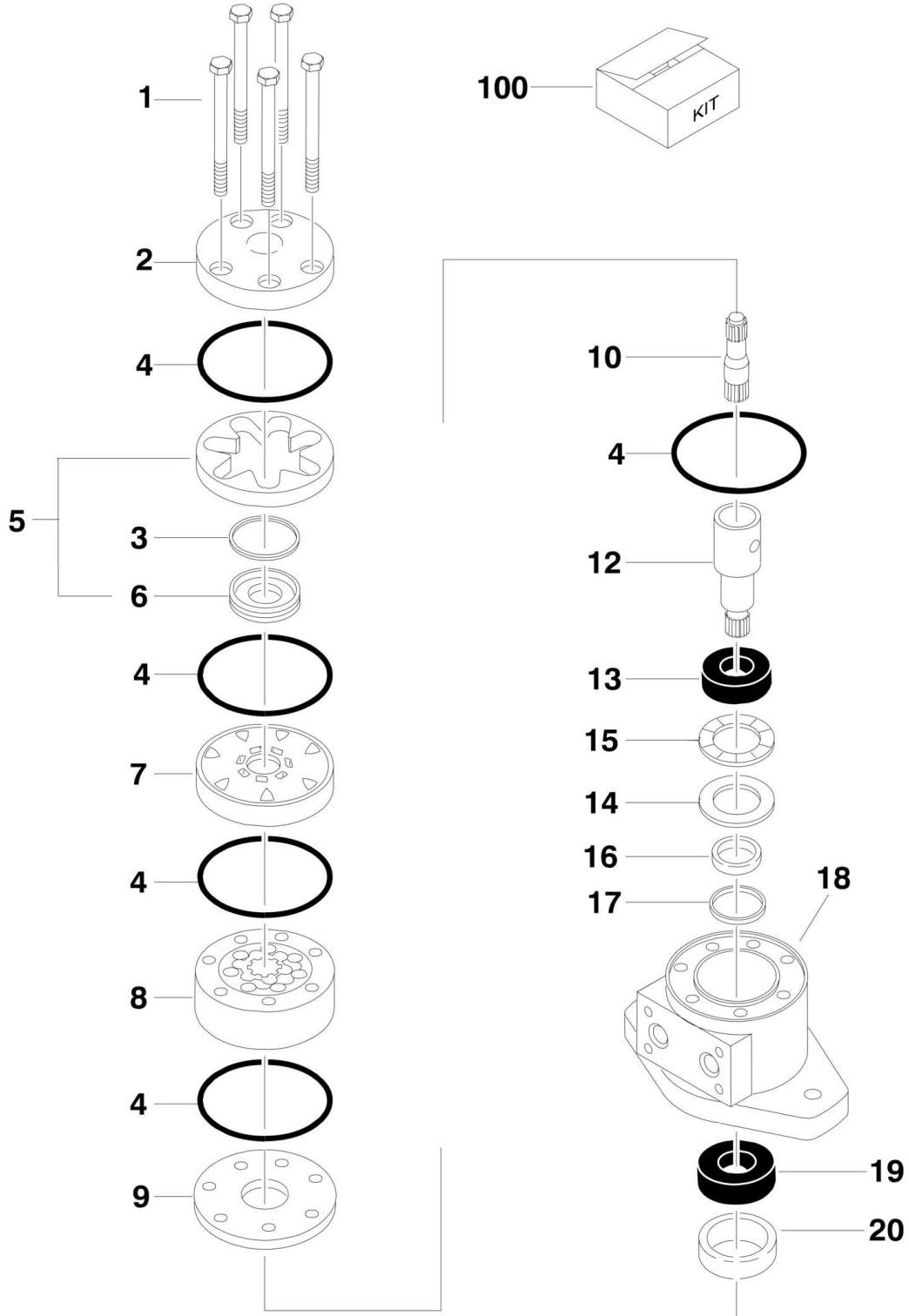
SECTION 2 - TURNTABLE

FIGURE 2-4. SWING MOTOR ASSEMBLY (Prior to SN 0300135649)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3160233	Ref	SWING MOTOR ASSEMBLY	D
		Ref		
			Note: Identify motor before ordering parts. Original Equipment Motors up to SN 0300135649 use 6 bolts in motor cover. Service Replacement Motor from SN 0300135649 to present use 5 bolts in motor cover. Make sure the motor has not been replaced with a Service Replacement Motor before ordering parts. See next illustration for Service Replacement Motor components.	
1	See Note	6	Screw, Metric M6 x 20mm (Note: Not Available - Purchase Locally)	
2	See Note	1	Ring, Dust (Note: Not Available for Purchase)	
3	3160233	1	Flange, Spigot (Note: Not Available for Purchase)	
4	See Note	NSS	Seal, Shaft, (Note: Use Item 100)	
5	See Note	NSS	O-Ring, (Note: Use Item 100)	
6	7020128	1	Race, Bearing	
7	7020129	1	Bearing, Needle	
8	7020126	1	Key, Woodruff	
9	3160233	1	Shaft, Output (Note: Not Available for Purchase)	
10	7020130	1	Shaft	
11	See Note	NSS	O-Ring, (Note: Use Item 100)	
12	3160233	1	Plate, Distributor (Note: Not Available for Purchase)	
13	7020131	1	Gear Set (Note: Not Available for Purchase)	
14	3160233	1	Cover, End (Note: Not Available for Purchase)	
15	See Note	6	Washer (Note: Not Available - Purchase Locally)	
16	See Note	6	Screw, Metric M8 x 35mm (Note: Not Available - Purchase Locally)	
17	See Note	1	Nameplate (Note: Not Available for Purchase)	
18	3160233	1	Housing (Note: Not Available for Purchase)	
19	See Note	1	Plug, Drain 7/16in-20NF (Note: Not Available - Purchase Locally)	
100	7020127	1	Seal Kit (Includes Items 4, 5 & 11)	

SECTION 2 - TURNTABLE

FIGURE 2-5. SWING MOTOR ASSEMBLY



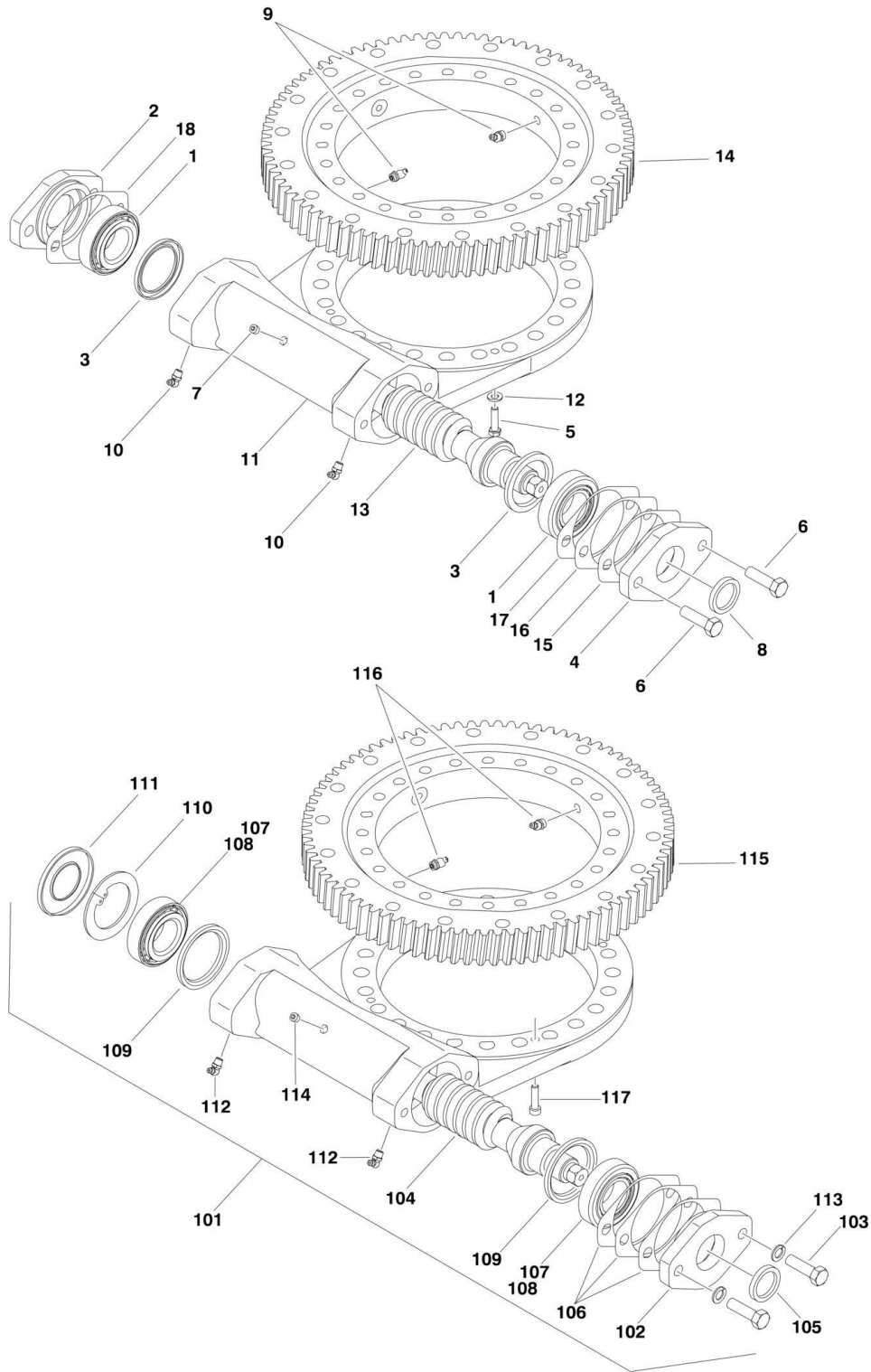
SECTION 2 - TURNTABLE

FIGURE 2-5. SWING MOTOR ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001104850	Ref	SWING MOTOR ASSEMBLY	A
1	See Note	5	Bolt, Special (Note: Not Available for Purchase)	
2	7004035	1	Cover, End	
3	7023318	1	Seal, Commutator	
4	7004036	5	O-Ring	
5	7024453	1	Commutator and Ring Assembly	
6	7024453	1	Ring	
7	7024379	1	Manifold	
8	70002206	1	Rotor Set	
9	7024380	1	Plate, Ware	
10	70002207	1	Link, Drive	
12	70000088	1	Shaft, Coupling	
12A	70000089	1	Key, Woodruff	
13	7024381	1	Bearing, Inner	
14	7004043	1	Washer, Thrust	
15	7004044	1	Bearing, Thrust	
16	7004049	1	Seal, Inner	
17	7004045	1	Washer, Back-up	
18	See Note	NSS	Housing (Note: Use p/n 1001104850)	
19	7024390	1	Bearing, Outer	
20	7004047	1	Seal	
100	7024389	1	Seal Kit (Includes Items 3, 4, 16, 17 & 20)	

SECTION 2 - TURNTABLE

FIGURE 2-6. SWING BEARING ASSEMBLY



SECTION 2 - TURNTABLE

FIGURE 2-6. SWING BEARING ASSEMBLY

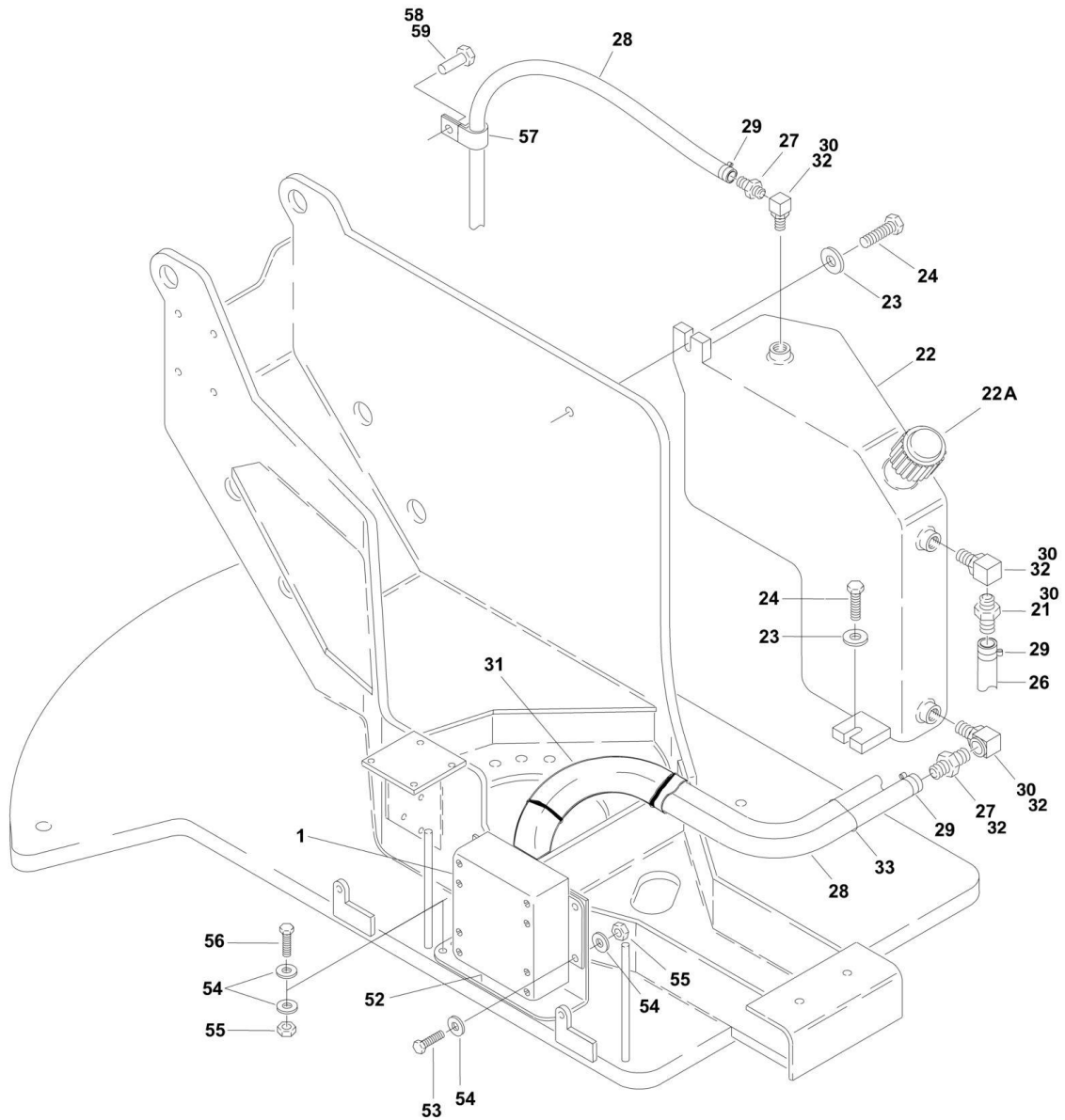
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	Note: For Machines Built Prior to SN 0300097888, visually identify the brand before ordering replacement parts.	
		Ref	SWING BEARING ASSEMBLIES (PERFECTION GEAR) (SN 0300097888 through 0300189901)	
	0440339	Ref	Turntable Bearing (DOHI)	D
	1001153017	Ref	Turntable Bearing (JING WEI)	A
1	7026042	2	Bearing, Cup	
1	7026043	2	Bearing, Cone	
2	7027356	1	Adapter, Motor	
3	7027361	2	Seal	
4	7027354	1	Cap, End	
5	0641510	2	Bolt 5/16in-18NC x 1-1/4in	
6	0641812	2	Bolt 1/2in-13NC x 1-1/2in	
7	70000865	1	Plug	
8	7027360	1	Seal	
9	7027359	2	Straight Fitting, Grease	
9	2160003	2	Fitting, Grease - Elbow	
10	7027358	2	Fitting, Grease - Elbow	
11	0440339	1	Housing (Note: Not Available for Purchase)	
12	4891500	2	Flatwasher 5/16in (Hardened)	
13	7027363	1	Gear, Worm	
14		Ref	Ring Gear Options:	
14	1001104626	1	DOHI (Ring Gear Kit Includes Ring Gear and Mounting Hardware) (was p/n 70000868)	
14	70004159	1	JING WEI (Ring Gear Only)	
15	7027352	AR	Gasket (.010 - Brown)	
16	7027351	AR	Gasket (.0075 - Clear)	
17	7027350	AR	Gasket (.005 - Blue)	
18	7027353	1	Gasket (.020 - Yellow)	
	0440203	Ref	SWING BEARING ASSEMBLY (KAYDON) (Prior to SN 0300097888)	G
		Ref	Note: When replacing major components, consider replacing with p/n 0440339 Complete Bearing Assembly.	
101	7012597	1	Swing Rotation Box Assembly	
102	7023484	1	Cap, End	
103	See Note	2	Bolt 1/2in-13NC x 1-1/2in Grade 8 (Note: Not Available - Purchase Locally)	
104	0440203	1	Gear, Worm (Note: Not Available for Purchase)	
105	7012654	1	Seal, Outer - Capped End (1.75 O.D.)	
106	7016682	1	Shims Kit (Includes Qty 3 each of .005, .0075 & .010 Shims)	
107	70001677	2	Cup, Bearing	
108	90206369	2	Cone, Bearing	
109	7016676	1	Seal, Outer - Capped End (2.063 O.D.)	
110	See Note	1	Ring, Retaining (Note: Not Available for Purchase)	
111	7012655	1	Seal, Outer - Motor End	
112	2160001	2	Fitting, Grease - Elbow	
113	See Note	2	Lockwasher 1/2in (Note: Not Available - Purchase Locally)	
114		Ref	Component Options:	
114	See Note	1	Plug, Pipe (Note: Not Available - Purchase Locally)	
114	2160001	1	Fitting, Grease - Elbow	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
115	2915104	1	Ring Gear Kit (was p/n 7012596) (Kit Includes Ring Gear and Mounting Hardware)	
116	2160003	2	Fitting, Grease - Elbow	
117	See Note	4	Capscrew, Socket Head 5/16in-18NC (Note: Not Available - Purchase Locally)	
117	See Note	4	Washer 5/16in (Not Shown) (Note: Not Available - Purchase Locally)	

SECTION 2 - TURNTABLE

FIGURE 2-7. FUEL TANK AND MOTOR CONTROL MODULE INSTALLATION (M450A, M450AJ, M400A, M400AJP, M400ANARROW & M400AJPNARROW)



SECTION 2 - TURNTABLE

FIGURE 2-7. FUEL TANK AND MOTOR CONTROL MODULE INSTALLATION (M450A, M450AJ, M400A, M400AJP, M400ANARROW & M400AJPNARROW)

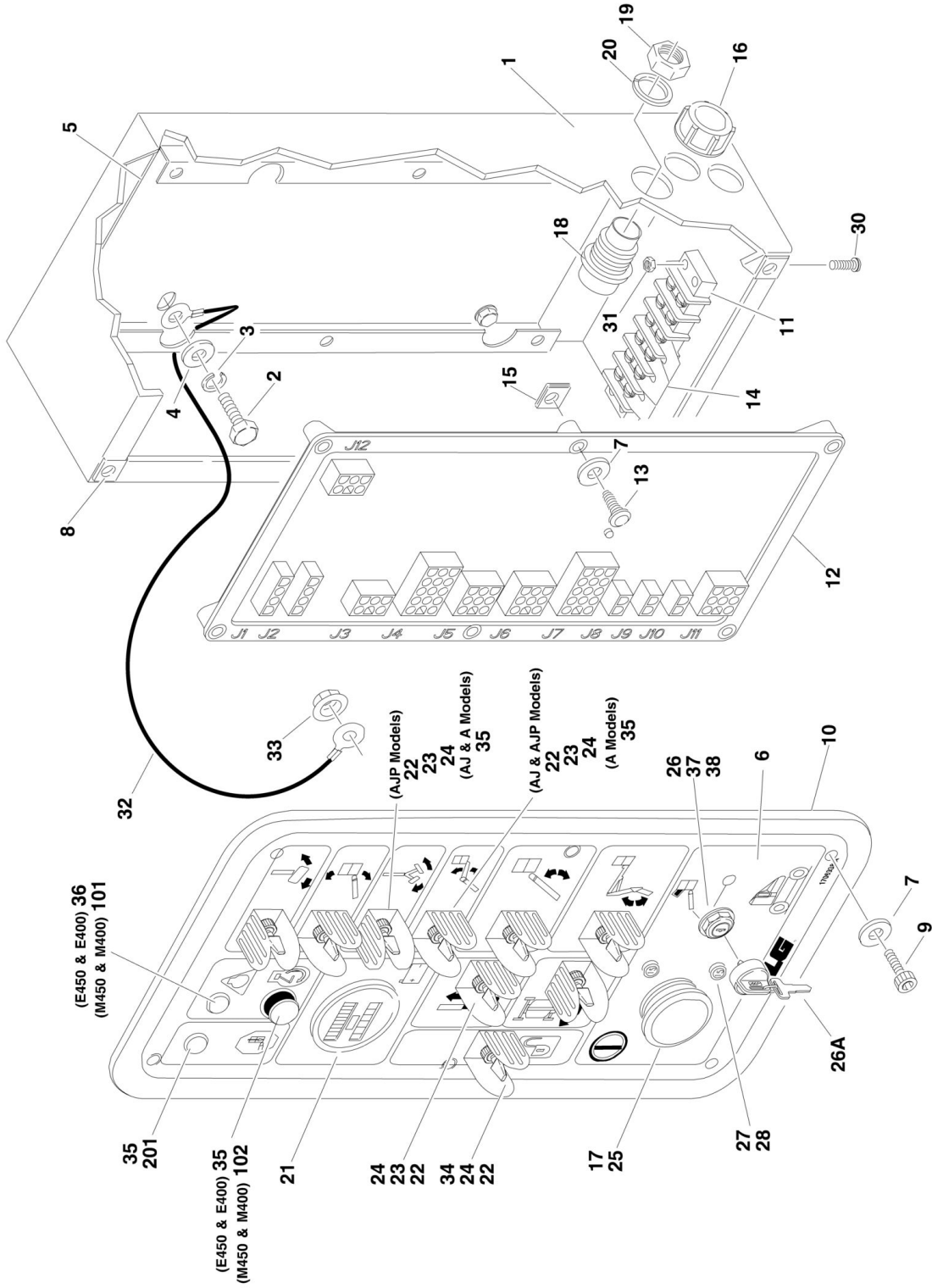
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	TANK AND MOTOR/GENERATOR COMPONENTS INSTALLATION (TURNTABLE MOUNTED)	
	0257824	Ref	Tank and Motor/Generator Components Installation (Turntable Mounted) (M450A & M450AJ) (Prior to SN 0300059390)	11
	0270344	Ref	Tank and Motor/Generator Components Installation (Turntable Mounted) (M450A & M450AJ) (SN 0300059390 through 0300079057)	5-B
	0270344	Ref	Tank and Motor/Generator Components Installation (Turntable Mounted) (M400A, M400AJP, M400Anarrow & M400AJPnarrow) (Prior to SN 0300079057)	5-B
	0273573	Ref	Tank and Motor/Generator Components Installation (Turntable Mounted) (SN 0300079057 through 0300088538)	B
	0274617	Ref	Tank and Motor/Generator Components Installation (Turntable Mounted) (Use p/n 1001159362) (SN 0300088539 through 0300182839)	G
	1001159362	1	Tank and Motor/Generator Components Installation (Turntable Mounted) (SN 0300182839 through 0300189901)	A
1		Ref	Module, Control Options:	
		Ref	Note: Re-calibration Required when Replaced.	
1	7020156	1	Module, Control (Prior to SN 0300088539)	
1	70000326	1	Module, Control (SN 0300088539 through 0300189901)	
2		Ref	Harness, Wiring (Not Shown - See Separate Breakdown in ELECTRICAL Section)	
2	7020155	1	Harness, Wiring (Prior to SN 0300063771)	
2	7023486	1	Harness, Wiring (SN 0300063771 through 0300088538)	
2	70000328	1	Harness, Wiring (SN 0300088539 through 0300189901)	
21		Ref	Fitting Options:	
21	2180536	2	Fitting, Barbed (Prior to SN 0300098816)	
21	2221047	2	Fitting, Elbow (SN 0300098816 through 0300189901)	
22	4400417	1	Tank, Gas	
22A	7016314	1	Cap (Standard)	
22A	1120487	1	Lockable Cap (Blue) (Optional)	
23	4751600	2	Washer 3/8	
24	0641616	2	Bolt 3/8 x 2	
26	2720271	10 ft/3m	Hose	
27		Ref	Fitting Options:	
27	2220315	2	Fitting, Barbed (Prior to SN 0300098816)	
27	2221046	2	Fitting, Elbow (SN 0300098816 through 0300189901)	
28	2720058	16 ft/4.9m	Hose	
29	1320022	AR	Clamp, Hose	
30	0100020	AR	Sealant	
31	4100026	3 ft/1m	Sleeve, Hose	
32	2220459	3	Fitting, Elbow (Prior to SN 0300098816)	
33	4240033	10	Strap, Tie	
52	3571157	1	Plate	
53	0641406	4	Bolt 1/4 x 3/4	
54	4711400	16	Washer 1/4	
55	3311405	8	Nut 1/4	
56	0641413	4	Bolt 1/4 x 1-1/2	
57	1320041	1	Clamp	
58	0641408	1	Bolt 1/4 x 1	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
59	0100011	AR	Compound, Locking	

SECTION 2 - TURNTABLE

FIGURE 2-8. GROUND CONTROL BOX ASSEMBLY



SECTION 2 - TURNTABLE

FIGURE 2-8. GROUND CONTROL BOX ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	GROUND CONTROL BOX ASSEMBLY	
		Ref	Ground Control Box Assembly (Prior to SN 0300100450)	
	0861263	Ref	Ground Control Box Assembly (E450A & M450A)	8-E
	0861401	Ref	Ground Control Box Assembly (EM450AJ & M450AJ)	5
	0861263	Ref	Ground Control Box Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	8-E
	0861352	Ref	Ground Control Box Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	8-E
		Ref	Ground Control Box Assembly (SN 0300100450 through 0300189901)	
		Ref	CE Spec	
	1810137	Ref	Ground Control Box Assembly (E450A & M450A)	D
	1810139	Ref	Ground Control Box Assembly (EM450AJ & M450AJ)	D
	1810137	Ref	Ground Control Box Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	D
	1810135	Ref	Ground Control Box Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	D
		Ref	Australian Spec	
	1810139	Ref	Ground Control Box Assembly (EM450AJ & M450AJ) (SN 0300100150 through 0300149144)	D
	1810138	Ref	Ground Control Box Assembly (EM450AJ & M450AJ) (SN 0300149145 through 0300189898)	D
	1810135	Ref	Ground Control Box Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300100150 through 0300149144)	D
	1810134	Ref	Ground Control Box Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300149145 through 0300189901)	D
1	0861152	1	Box Weldment	
2	0641605	4	Bolt 3/8 x 5/8	
3	4761600	4	Washer 3/8	
4	4751600	4	Washer 3/8	
5	0902406	1	Bracket, Module Mounting	
6		Ref	Nameplate Options:	
6	3252632	NLA	Nameplate (Use p/n 3252812) (Prior to SN 0300057535)	
6	3252669	NLA	Nameplate (Use p/n 3252812) (SN 0300057535 through 0300074683)	
6	3252812	1	Nameplate (SN 0300074684 through 0300100449)	
6	1706938	1	Nameplate (SN 0300100450 through 0300189901)	
7	4740120	12	Washer, Nylon	
8	3300365	6	Nut, Retainer	
9	0630518	6	Screw #10 x 3/4	
10	3960438	50	Seal	
		in/1.26m		
11	4460007	1	Strip, Terminal - 6 Position	
12		Ref	Module Options:	
		Ref	Note: Re-calibration Required when Replaced.	
12	0610129	NLA	Module (Use p/n 1001109497) (Prior to SN 0300059841)	
12	0610139	NLA	Module (Use p/n 1001109497) (SN 0300059841 through 0300072453)	
12	0610166	NLA	Module (Use p/n 1001109497) (SN 0300072454 through 0300189901)	
13	0750808	6	Screw #8 x 1	

SECTION 2 - TURNTABLE

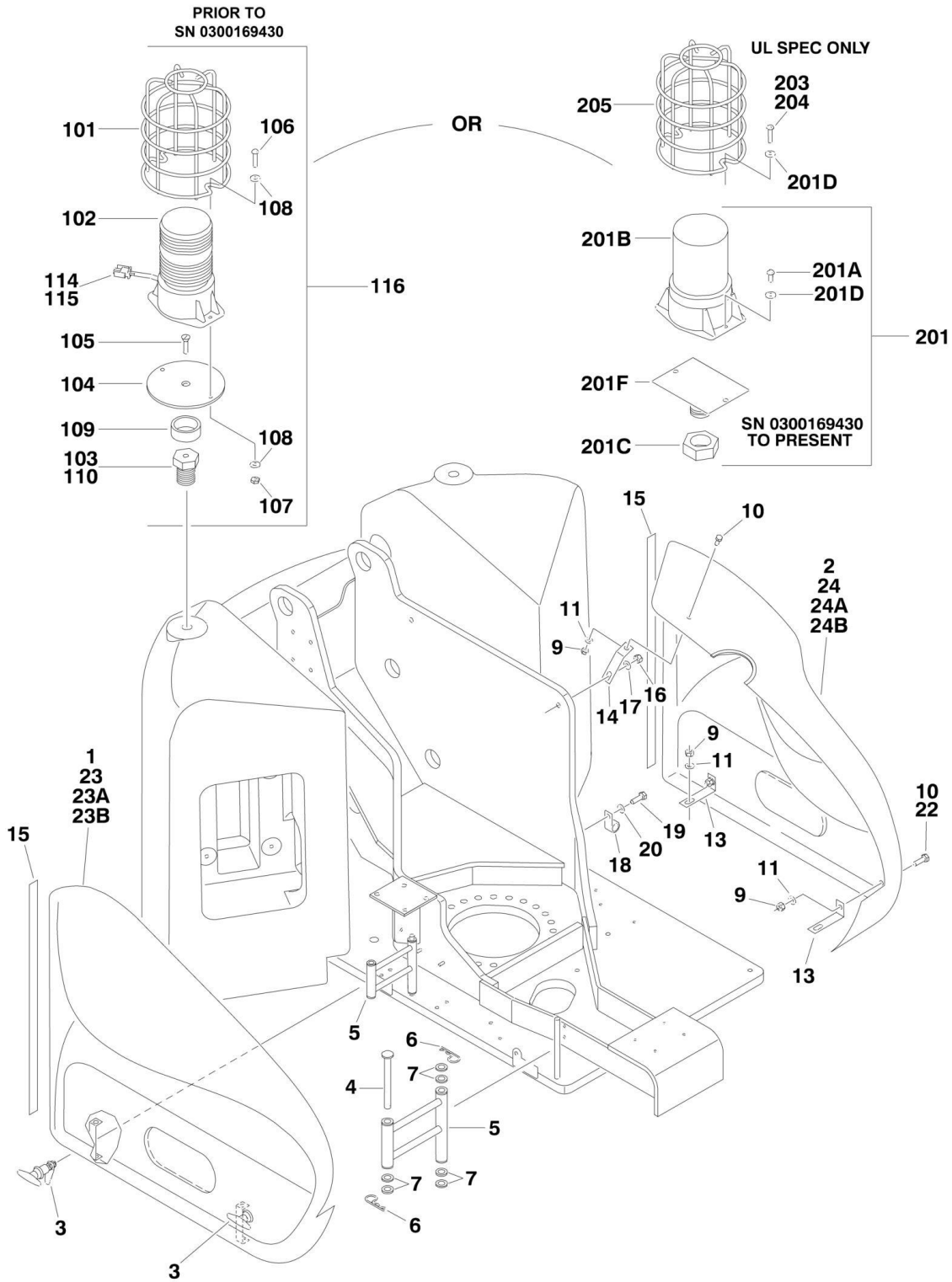
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
14	4460264	3	Buss, Terminal	
15	3300188	6	Nut, Tinnerman	
16	4460425	1	Connector, Strain Relief	
17	4360476	1	Block, Contact	
18	4460495	1	Connector 14 Position	
19	4460497	1	Nut, Conduit	
20	4460496	1	Lockwasher	
21	2420106	1	Gauge, Hourmeter/Battery Capacity	
22	4740397	AR	Spacer	
23	4360328	AR	Switch, Toggle	
24		Ref	Guard, Switch Options:	
24	4060906	AR	Guard, Switch (Prior to SN 0300079931)	
24	4060802	AR	Guard, Switch (SN 0300079931 through 0300189901)	
25	4360475	1	Switch, Emergency Stop	
25	7020175	1	Mushroom Head	
25	7020176	1	Block, Contact	
26		Ref	Keyswitch Options:	
26	4360470	1	CE Spec	
26		Ref	Australian Spec	
26	4360470	1	Australian Spec (SN 0300100150 through 0300149144)	
26	4360469	1	Australian Spec (SN 0300149145 through 0300189901)	
26A	2860030	AR	Key, Replacement (Set of 2)	
27	4360070	2	Breaker, Circuit - 15Amp	
28	3300396	2	Nut, Special	
30	0721005	2	Screw #10 x 5/8	
31	3311005	2	Nut #10	
32	1060584	1	Cable, Lanyard	
33	3311011	1	Nut #10	
34	4360330	1	Switch, Toggle (SN 0300100450 through 0300189901)	
35	3520028	AR	Plug, Hole 1/2	
36		Ref	Plug, Hole Options:	
36	3520054	1	Plug, Hole 7/16 (Prior to SN 0300072854)	
36	3520026	1	Plug, Hole 5/8 (SN 0300072854 through 0300189901)	
37		Ref	Shim, Nylon Options:	
37	4070987	5	Shim, Nylon (Prior to SN 0300175721)	
37	1001151393	1	Shim, Nylon (SN 0300175721 through 0300189901)	
38	3910804	6	Screw #8 x 1/4	
		Ref	MOTOR CONTROLS INSTALLATION (M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow)	
	0257824	Ref	Motor Controls Installation (M450A & M450AJ) (Prior to SN 0300059390)	11
	0270344	Ref	Motor Controls Installation (M450A & M450AJ) (SN 0300059390 through 0300079057)	5-B
	0270344	Ref	Motor Controls Installation (M400A, M050AJP, M400Anarrow & M400AJPnarrow) (Prior to SN 0300079057)	5-B
	0273573	Ref	Motor Controls Installation (SN 0300079057 through 0300088538)	B
	0274617	Ref	Tank and Motor/Generator Components Installation (Turntable Mounted) (Use p/n 1001159362) (Prior to SN 0300182839)	G
	1001159362	Ref	Motor/Generator Installation (Kubota Diesel) (SN 0300182839 through 0300189901)	A
101	4460248	2	Terminal, Button Splice	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
101	4922319	1	Harness Generator (See Separate Breakdown in ELECTRICAL Section)	
101	4460267	1	Pin, Male	
102	4360274	1	Switch, Push Button	
102	4460259	2	Terminal, Posi-Lock	
102	4460260	2	Terminal, Housing	
	0273104	Ref	INDICATOR LIGHT INSTALLATION	1-A
201	2920151	1	Light, LED	

SECTION 2 - TURNTABLE

FIGURE 2-9. HOODS AND BEACON LIGHT INSTALLATIONS



SECTION 2 - TURNTABLE

FIGURE 2-9. HOODS AND BEACON LIGHT INSTALLATIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	HOODS INSTALLATION	
	0258953	Ref	Hoods Installation (M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow) (Prior to SN 0300075499)	5-C
	0253709	Ref	Hoods Installation (E450A, E450AJ, E400A, E400AJP, E400Anarrow & E400AJPnarrow) (Prior to SN 0300075499)	7-G
	0258953	Ref	Hoods Installation (SN 0300075499 through 0300189901)	5-C
1	See Note	1	Hood, LH (was p/n 2680473) (Note: Use Items 23A or 23B)	
2		Ref	Hood Options:	
2	See Note	1	Hood (M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow) (was p/n 2680474) (Note: Use Items 24A or 24B)	
2	See Note	1	Hood (E450A, E450AJ, E400A, E400AJP, E400Anarrow & E400AJPnarrow) (was p/n 2680475) (Note: Use Items 24A or 24B)	
3	2940071	2	Latch	
4	3430840	2	Pin, Clevis	
5	0253687	2	Hinge, Swing	
5	0961749	4	Bushing	
6	3420156	4	Pin, Hair Cotter	
7	4751800	AR	Washer 1/2	
9	3311501	AR	Nut 5/16	
10	0630468	3	Bolt 5/16 x 1	
11	4751500	5	Washer 5/16	
12		Ref	Shield, Flex Trim Options:	
12	4060803	AR	Shield, Flex Trim (Prior to SN 0300134967)	
12	4060805	AR	Shield, Flex Trim (SN 0300134967 through 0300189901)	
13	0901923	2	Bracket, Hood Mounting	
14	0901921	1	Bracket, Hood Mounting	
15	3960453	5 ft/1.5m	Seal, Door	
16	3311601	AR	Nut 3/8	
17	4751600	AR	Washer 3/8	
18		Ref	Clamp Options:	
18	1320043	1	Clamp, Insulated Cable 3/8 (Prior to SN 0300093848)	
18	1320041	1	Clamp, Insulated Cable 1/2 (SN 0300093848 through 0300189901)	
19	0641510	AR	Bolt 5/16 x 1-1/4	
20	4751400	1	Washer 1/4	
21	3311401	1	Nut 1/4	
22	0100011	AR	Compound, Locking	
23		Ref	LH Side Hood Kit Options:	
		Ref	Note: Replacement Decals Must be Ordered Separately - See DECAL SECTION.	
23A	2901482	1	LH Side Hood Kit - (E450A, E450AJ, E400A, E400AJP, E400Anarrow & E400AJPnarrow) (Includes Items 1, 3-6 & 15) (Use p/n 2901778)	
23B	2901778	1	LH Side Hood Kit (M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow) (Includes Items 1, 3-6 & 15)	
24		Ref	RH Side Hood Kit Options:	
		Ref	Note: Replacement Decals Must be Ordered Separately - See DECAL SECTION.	
24A	2901486	1	RH Side Hood Kit (E450A, E450AJ, E400A, E400AJP, E400Anarrow & E400AJPnarrow) (Includes Items 7-10, 13-15 & #2 - 2680475 Hood) (Use p/n 2901777)	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
24B	2901777	1	RH Side Hood Kit (M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow) (Includes Items 7, 10, 13-15 & #2 - 2680474 Hood)	
	0259305	Ref	STROBE LIGHT INSTALLATION (AMBER) (OPTIONAL) (Prior to SN 0300169430)	2
		Ref	Note: If machine is equipped with BLUE Strobe Light, see SPECIAL OPTIONS SECTION SkyGuard Kit.	
101	4060865	1	Guard, Light	
102	2920146	1	Light, Strobe (Amber) (Use p/n 0272529)	
102	7016319	1	Bulb, Light	
102	7016372	1	Amber Lens	
103	0630491	1	Bolt, Special (Prior to SN 0300069568)	
104		Ref	Plate, Mounting Options:	
104	3537903	1	Plate, Mounting (Prior to SN 0300069568)	
104	4846698	1	Plate, Mounting (SN 0300069568 through 0300189901)	
105	0741606	1	Screw 3/8 x 3/4 (Prior to SN 0300069568)	
106		Ref	Hardware Options:	
106	0721008	2	Bolt #10 x 1 (Prior to SN 0300069568)	
106	3911014	2	Screw (SN 0300069568 through 0300189901)	
107		Ref	Nut Options:	
107	3311005	2	Nut #10 (Prior to SN 0300069568)	
107	3311001	2	Nut #10 (SN 0300069568 through 0300189901)	
108	4751000	4	Washer #10	
109	4220162	1	Spacer	
110	0100011	AR	Compound, Locking	
111	4240032	1	Tie-Strap	
112	4460234	1	Clamp	
113		Ref	Loom Options (Not Shown):	
113	2820036	16 in/41cm	Loom (Prior to SN 0300069568)	
113	2820035	16 in/41cm	Loom (SN 0300069568 through 0300189901)	
114	4460267	2	Pin, Male (SN 0300069568 through 0300189901)	
115	4460320	1	Plug, Male, 2 Position (SN 0300069568 through 0300189901)	
116	0272529	1	Kit Light, Strobe Assembly (Includes Items 101, 102, 104, 106, 107, 108, 109, 110, 113, 114 & 115) (SN 0300069568 through 0300189901)	A
116		Ref	STROBE LIGHT INSTALLATIONS (AMBER) (OPTIONAL) (SN 0300169430 through 0300189901)	
	1001149955	Ref	Standard Spec	A
	1001158612	Ref	UL Spec	A
		Ref	Note: If machine is equipped with BLUE Strobe Light, see SPECIAL OPTIONS SECTION SkyGuard Kit.	
201	1001150406	1	Strobe Light Assembly	
201A	0100035	AR	Compound, Locking	
201B	2920161	1	Light, Strobe (Amber)	
201B	7016319	1	Bulb, Light	
201B	7016372	1	Amber Lens	
201C	3312602	1	Nut, 1	
201D	3900085	2	Screw #10 X 1/2	
201E	4751000	2	Washer #10	
201F	1001149994	1	Plate, Mounting	
202	1001149818	1	Harness, Strobe Light (Not Shown - See Separate Breakdown in ELECTRICAL Section)	

SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
203	0100035	AR	Compound, Locking (UL Spec Only)	
204	3900128	2	Screw #10 X 7/8 (UL Spec Only)	
205	4060865	1	Guard (UL Spec Only)	

SECTION 3 - BOOM

SECTION 3 - BOOM

FIGURE 3-1. BOOMS AND CYLINDERS INSTALLATION

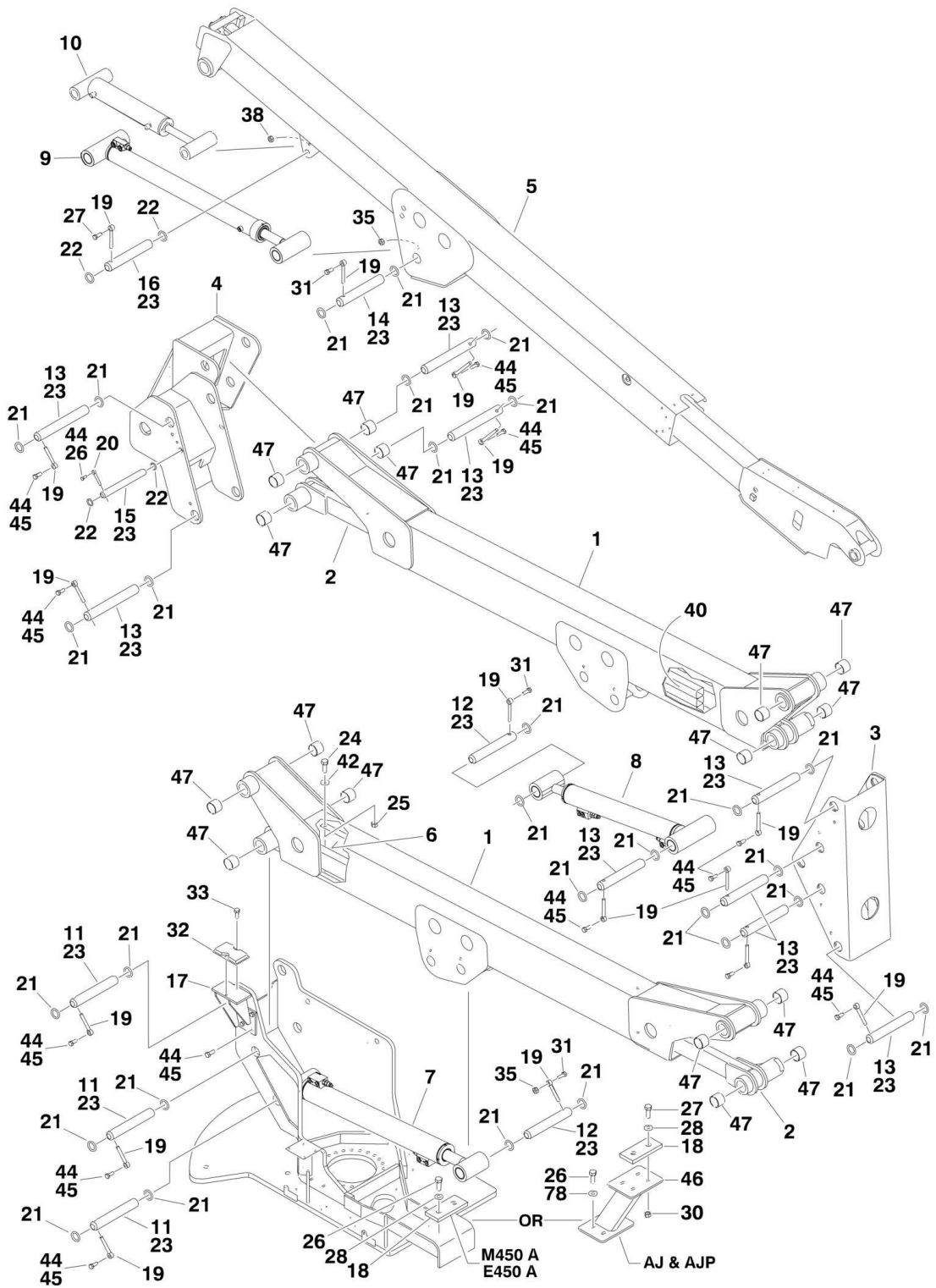


FIGURE 3-1. BOOMS AND CYLINDERS INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	BOOMS INSTALLATIONS	
	0258691	Ref	Booms Installations (E450A & M450A)	B
	0259366	Ref	Booms Installations (E450AJ & M450AJ)	I
	0270724	Ref	Booms Installations (E400A, M400A, E400Anarrow & M400Anarrow)	F
	0259939	Ref	Booms Installations (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300064958)	4-E
	0271647	Ref	Booms Installations (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300064958 through 0300189901)	D
1		Ref	Boom Assembly -Tower Options:	
1	0800852	2	Boom Assembly -Tower (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300056571)	
1	0801264	2	Boom Assembly -Tower (E450A, M450A, E450AJ & M450AJ) (SN 0300056571 through 0300189898)	
1	0801262	2	Boom Assembly -Tower (E400A, M400A, E400Anarrow & M400Anarrow)	
1	0801227	2	Boom Assembly -Tower (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
2		Ref	Level Link Options:	
2	4844541	2	Level Link (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300056571)	
2	4846307	2	Level Link (E450A, M450A, E450AJ & M450AJ) (SN 0300056571 through 0300189898)	
2	4846209	2	Level Link (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
3		Ref	Upright Weldment (Lower)	
3	4844427	1	Upright Weldment (Lower) (E450A, M450A, E450AJ & M450AJ)	
3	4844303	1	Upright Weldment (Lower) (E400A, M400A, E400Anarrow & M400Anarrow)	
3	4844427	1	Upright Weldment (Lower) (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
4		Ref	Upright Weldment (Upper) Options:	
4	4844304	1	Upright Weldment (Upper) (E450A, M450A, E400A, M400A, E400Anarrow & M400Anarrow)	
4	4846026	1	Upright Weldment (Upper) (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
5		Ref	Boom Assembly - Main Options:	
5	0801169	1	Boom Assembly - Main (E450A & M450A) (See Separate Breakdown in this Section)	
5	0801197	1	Boom Assembly - Main (E450AJ & M450AJ) (See Separate Breakdown in this Section)	
5	0270725	1	Boom Assembly - Main (E400A, M400A, E400Anarrow & M400Anarrow) (See Separate Breakdown in this Section)	
5	0801225	1	Boom Assembly - Main (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (See Separate Breakdown in this Section)	
6		Ref	Hose Guard Plate Options:	
6	3537045	1	Hose Guard Plate (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300093848)	
6	3536491	1	Hose Guard Plate (E400A, M400A, E400AJP, M400AJP, E400Anarrow, M400Anarrow, E400AJPnarrow & M400AJPnarrow)	
7		Ref	Lift Cylinder Assembly - Lower (See Separate Breakdown in CYLINDER Section):	
7	1683711	1	Lift Cylinder Assembly - Lower (E450A & M450A) (Prior to SN 0300058843)	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
7	1684058	1	Lift Cylinder Assembly - Lower (E450A & M450A) (SN 0300058843 through 0300091052)	
7	1684492	NLA	Lift Cylinder Assembly - Lower (E450A & M450A) (Use p/n 1001228039) (Original Equipment) (SN 0300091053 through 0300189898)	
7	1001228039	1	Lift Cylinder Assembly - Lower (E450A & M450A) (Service Replacement)	
7	1683826	1	Lift Cylinder Assembly - Lower (E450AJ & M450AJ) (Prior to SN 0300056571)	
7	1683939	1	Lift Cylinder Assembly - Lower (E450AJ & M450AJ) (SN 0300056571 through 0300086021)	
7	1684451	NLA	Lift Cylinder Assembly - Lower (E450AJ & M450AJ) (Use p/n 1001228035) (Original Equipment) (SN 0300086022 through 0300189898)	
7	1001228035	1	Lift Cylinder Assembly - Lower (E450AJ & M450AJ) (Service Replacement)	
7	1684024	1	Lift Cylinder Assembly - Lower (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300086022)	
7	1684453	NLA	Lift Cylinder Assembly - Lower (E400A, M400A, E400Anarrow & M400Anarrow) (Use p/n 1001228037) (Original Equipment) (SN 0300086022 through 0300189901)	
7	1001228037	1	Lift Cylinder Assembly - Lower (E400A, M400A, E400Anarrow & M400Anarrow) (Service Replacement)	
7	1683939	1	Lift Cylinder Assembly - Lower (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300091053)	
7	1684451	NLA	Lift Cylinder Assembly - Lower (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Use p/n 1001228035) (Original Equipment) (SN 0300091053 through 0300189901)	
7	1001228035	1	Lift Cylinder Assembly - Lower (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Service Replacement)	
8		Ref	Lift Cylinder Assembly - Mid Options (See Separate Breakdown in CYLINDER Section):	
8	1683713	1	Lift Cylinder Assembly - Mid (E450A & M450A) (Prior to SN 0300058843)	
8	1684057	1	Lift Cylinder Assembly - Mid (E450A & M450A) (SN 0300058843 through 0300091052)	
8	1684493	NLA	Lift Cylinder Assembly - Mid (E450A & M450A) (use p/n 1001237443) (Original Equipment) (SN 0300091053 through 0300189898)	
8	1001237443	1	Lift Cylinder Assembly - Mid (E450A & M450A) (Service Replacement)	
8	1683825	1	Lift Cylinder Assembly - Mid (E450AJ & M450AJ) (Prior to SN 0300056571)	
8	1683942	1	Lift Cylinder Assembly - Mid (E450AJ & M450AJ) (SN 0300056571 through 0300086021)	
8	1684452	NLA	Lift Cylinder Assembly - Mid (E450AJ & M450AJ) (use p/n 1001228036) (Original Equipment) (SN 0300086022 through 0300189898)	
8	1001228036	1	Lift Cylinder Assembly - Mid (E450AJ & M450AJ) (Service Replacement)	
8	1684027	NLA	Lift Cylinder Assembly - Mid (E400A, M400A, E400Anarrow & M400AJPnarrow) (use p/n 1684447) (Prior to SN 0300080496)	
8	1684447	1	Lift Cylinder Assembly - Mid (E400A, M400A, E400Anarrow & M400AJPnarrow) (SN 0300080496 through 0300086021)	
8	1684454	NLA	Lift Cylinder Assembly - Mid (E400A, M400A, E400Anarrow & M400AJPnarrow) (use p/n 1001228038) (Original Equipment) (SN 0300086022 through 0300189901)	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
8	1001228038	1	Lift Cylinder Assembly - Mid (E400A, M400A, E400Anarrow & M400AJNarrow) (Service Replacement)	
8	1683942	1	Lift Cylinder Assembly - Lower (E400AJP, M400AJP, E400AJNarrow & M400AJNarrow) (Prior to SN 0300091053)	
8	1684452	NLA	Lift Cylinder Assembly - Lower (E400AJP, M400AJP, E400AJNarrow & M400AJNarrow) (use p/n 1001228036) (Original Equipment) (SN 0300091053 through 0300189901)	
8	1001228036	1	Lift Cylinder Assembly - Lower (E400AJP, M400AJP, E400AJNarrow & M400AJNarrow) (Service Replacement)	
9		Ref	Lift Cylinder Assembly - Upper Options (See Separate Breakdown in CYLINDER Section):	
9	1683708	1	Lift Cylinder Assembly - Upper (E450A & M450A) (Prior to SN 0300058843)	
9	1684061	NLA	Lift Cylinder Assembly - Upper (E450A & M450A) (use p/n 1001228018) (Original Equipment) (SN 0300058843 through 0300189898)	
9	1001228018	1	Lift Cylinder Assembly - Upper (E450A & M450A) (Service Replacement)	
9	1683813	1	Lift Cylinder Assembly - Upper (E450AJ & M450AJ) (Prior to SN 0300056571)	
9	1683945	NLA	Lift Cylinder Assembly - Upper (E450AJ & M450AJ) (use p/n 1001228016) (Original Equipment) (SN 0300056571 through 0300189898)	
9	1001228016	1	Lift Cylinder Assembly - Upper (E450AJ & M450AJ) (Service Replacement)	
9	1684033	1	Lift Cylinder Assembly - Upper (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300073768)	
9	1684061	NLA	Lift Cylinder Assembly - Upper (E400A, M400A, E400Anarrow & M400Anarrow) (use p/n 1001228018) (Original Equipment) (SN 0300073768 through 0300189901)	
9	1001228018	1	Lift Cylinder Assembly - Upper (E400A, M400A, E400Anarrow & MLift Cylinder Assembly - Upper (E400A, M400A, E400Anarrow & M400Anarrow) (Service Replacement)400Anarrow) (Service Replacement)	
9	1683945	NLA	Lift Cylinder Assembly - Upper (E400AJP, M400AJP, E400AJNarrow & M400AJNarrow) (use p/n 1001228016) (Original Equipment)	
9	1001228016	1	Lift Cylinder Assembly - Upper (E400AJP, M400AJP, E400AJNarrow & M400AJNarrow) (Service Replacement)	
10		Ref	Master Cylinder Assembly Options (See Separate Breakdown in CYLINDER Section):	
10		Ref	Master Cylinder Assembly (E450A & M450A) Options:	
10	1683325	1	Master Cylinder Assembly (Prior to SN 0300056894)	
10	1683932	NLA	Master Cylinder Assembly (use p/n 1001140597) (SN 0300056894 through 0300165127)	
10	1001140597	1	Master Cylinder Assembly (SN 0300165128 through 0300189898)	
10		Ref	Master Cylinder Assembly (E450AJ & M450AJ) Options:	
10	1683923	NLA	Master Cylinder Assembly (use p/n 1001140278) (Prior to SN 0300163453)	
10	1001140278	1	Master Cylinder Assembly (SN 0300163453 through 0300189898)	
10		Ref	Master Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow) Options:	
10	1683932	NLA	Master Cylinder Assembly (use p/n 1001140597) (Prior to SN 0300165128)	
10	1001140597	1	Master Cylinder Assembly (SN 0300165128 through 0300189901)	

SECTION 3 - BOOM

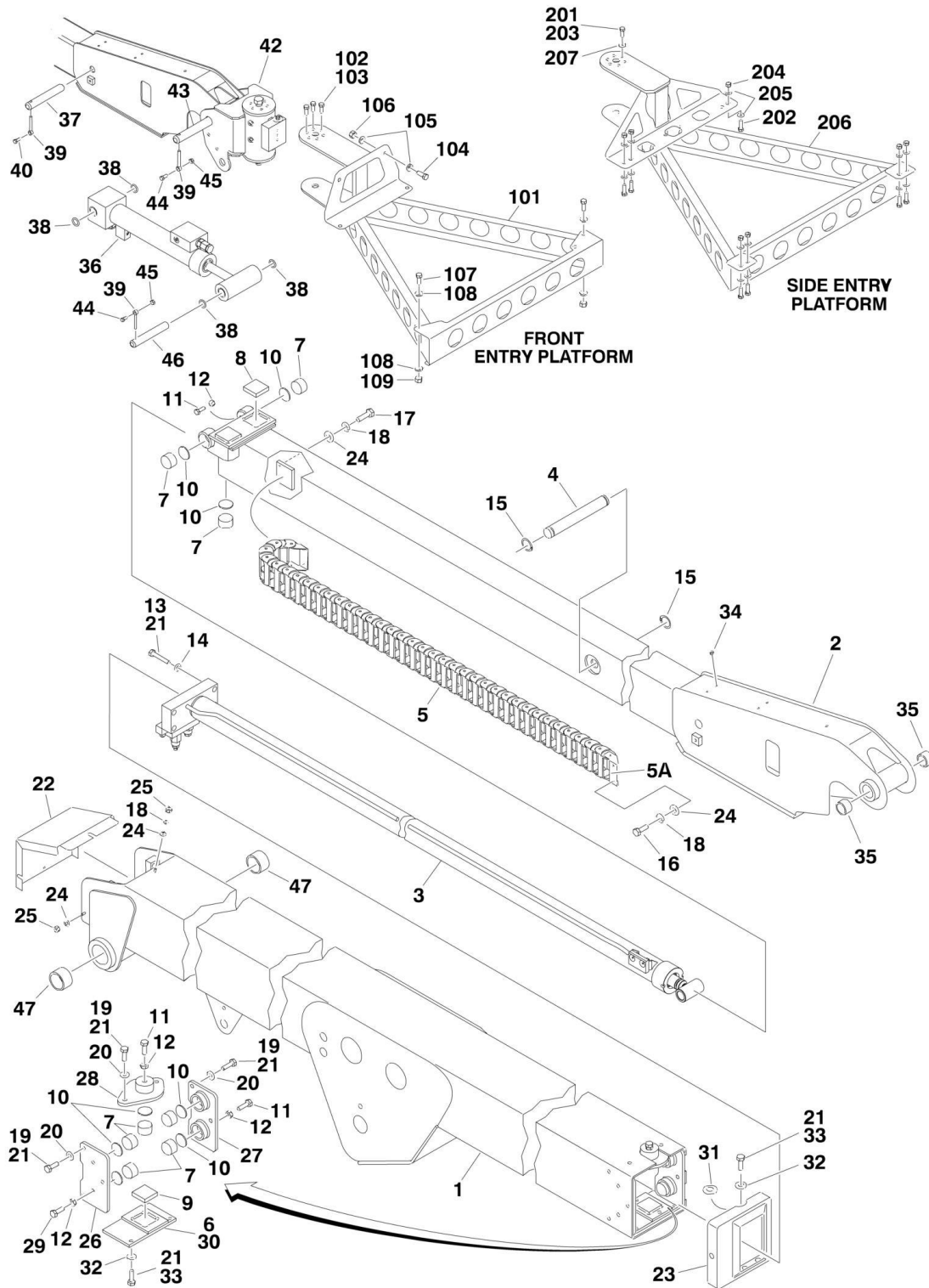
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
10		Ref	Master Cylinder Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) Options:	
10	1683923	NLA	Master Cylinder Assembly (use p/n 1001140278) (Prior to SN 0300163453)	
10	1001140278	1	Master Cylinder Assembly (SN 0300163453 through 0300189901)	
11		Ref	Pin Options:	
11	3422175	3	Pin (E450A, M450A, E450AJ & M450AJ)	
11	3422175	3	Pin (E400A, M400A, E400Anarrow & M400Anarrow)	
11	3422481	3	Pin (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
12		Ref	Pin Options:	
12	3422176	2	Pin (E450A, M450A, E450AJ & M450AJ)	
12	3422176	2	Pin (E400A, M400A, E400Anarrow & M400Anarrow)	
12	3422845	2	Pin (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
13		Ref	Pin Options:	
13	3422177	9	Pin (E450A, M450A, E450AJ & M450AJ)	
13	3422177	9	Pin (E400A, M400A, E400Anarrow & M400Anarrow)	
13	3422177	9	Pin (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300064627)	
13	3422480	9	Pin (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300064627 through 0300189901)	
14		Ref	Pin Options:	
14	3422178	1	Pin (E450A, M450A, E450AJ & M450AJ)	
14	3422178	1	Pin (E400A, M400A, E400Anarrow & M400Anarrow)	
14	3422844	1	Pin (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
15		Ref	Pin Options:	
15	3422179	1	Pin (E450A & M450A)	
15	3422179	1	Pin (E400A, M400A, E400Anarrow & M400Anarrow)	
15	3422806	1	Pin (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
16		Ref	Pin Options:	
16	3422180	1	Pin (E450A & M450A)	
16	3422180	1	Pin (E400A, M400A, E400Anarrow & M400Anarrow)	
16	3422582	1	Pin (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
17	4844467	1	Boom Rest Weldment	
18	0561076	1	Block, Boom Rest	
19	3841203	AR	Keeper, Pin	
20	3841143	AR	Keeper, Pin	
21	3780184	30	O-Ring (E450A, M450A, E450AJ & M450AJ Only) (Prior to SN 0300058843)	
22	3780181	4	O-Ring (E450A, M450A, E450AJ & M450AJ Only) (Prior to SN 0300058843)	
23	3020022	AR	Grease Only (Prior to SN 0300058843)	
24	0641506	4	Bolt 5/16 x 3/4 (Prior to SN 0300093848)	
25	3311505	4	Nut 5/16 (Prior to SN 0300093848)	
26	0641608	AR	Bolt 3/8 x 1	
27	0641610	AR	Bolt 3/8 x 1-1/4	
28	4751600	AR	Washer 5/16	
30	3311605	3	Nut 3/8	
31	0641812	3	Bolt 1/2 x 1-1/2	
32	0940048	1	Bumper	
33	0641806	AR	Bolt 1/2 x 3/4	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
35	3311805	AR	Nut 1/2	
40		Ref	Tube	
40	4566356	AR	Tube (E450A, M450A, E450AJ & M450AJ)	
40	4566427	AR	Tube (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
42	4751500	AR	Washer 5/16	
44	0100011	AR	Compound, Locking	
45	0641810	12	Bolt 1/2 x 1-1/4	
46	4846091	1	Rest, Boom (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300084057)	
47		Ref	Teflon Bushing Options:	
47	0961726	16	Teflon Bushing (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300056571)	
47	0961950	16	Teflon Bushing (E450A, M450A, E450AJ & M450AJ) (SN 0300056571 through 0300189898)	
47	0961950	16	Teflon Bushing (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	

SECTION 3 - BOOM

FIGURE 3-2. MAIN BOOM ASSEMBLY AND PLATFORM SUPPORT INSTALLATION (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW)



SECTION 3 - BOOM

FIGURE 3-2. MAIN BOOM ASSEMBLY AND PLATFORM SUPPORT INSTALLATION (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	MAIN BOOM ASSEMBLY	
	0801169	Ref	Main Boom Assembly (E450A & M450A)	D
	0270725	Ref	Main Boom Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	D
1		Ref	Base Weldment Options:	
1	0800584	1	Base Weldment (E450A & M450A) (Prior to SN 0300056571)	
1	0801261	1	Base Weldment (E450A & M450A) (SN 0300056571 through 0300189898)	
1	0801263	1	Base Weldment (E400A, M400A, E400Anarrow & M400Anarrow)	
2		Ref	Fly Weldment Options:	
2	0801154	1	Fly Weldment (E450A & M450A)	
2	0801267	1	Fly Weldment (E400A, M400A, E400Anarrow & M400Anarrow)	
3		Ref	Telescope Cylinder Assembly Options (See Separate Breakdown in CYLINDER Section):	
3		Ref	Telescope Cylinder Assembly (E450A & M450A) Options:	
3	1683704	NLA	Telescope Cylinder Assembly (use p/n 1001228062) (Original Equipment) (Prior to SN 0300175016)	
3	1001151414	NLA	Telescope Cylinder Assembly (use p/n 1001228062) (Original Equipment) (SN 0300175016 through 0300189898)	
3	1001228062	1	Telescope Cylinder Assembly (Service Replacement)	
3		Ref	Telescope Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow) Options:	
3	1684030	NLA	Telescope Cylinder Assembly (use p/n 1001228063) (Original Equipment) (Prior to SN 0300175016)	
3	1001151497	NLA	Telescope Cylinder Assembly (use p/n 1001228063) (Original Equipment) (SN 0300175016 through 0300189901)	
3	1001228063	1	Telescope Cylinder Assembly (Service Replacement)	
4		Ref	Pin Options:	
4	3422185	1	Pin (Prior to SN 0300067313)	
4	3422901	1	Pin (SN 0300067313 through 0300189901)	
5	1180302	1	Powertrack Assembly	
5	7019698	1	Link, Repair	
5A	7019699	1	Feet, Mounting	
6	4844579	1	Holder, Wear Pad	
7	3340663	8	Pad, Wear (Base Front Top and Sides/Fly Rear Sides and Bottom)	
8	3340820	2	Pad, Wear (Fly Rear Top)	
9	3340682	1	Pad, Wear (Base Front Bottom)	
10	1760160	8	Disc	
11	0630487	6	Bolt, Special	
12	3311602	8	Nut 3/8	
13	0641818	4	Bolt 1/2 x 2-1/4	
14	4761800	4	Washer 1/2	
15	3760115	2	Ring, Snap	
16	0641405	2	Bolt 1/4 x 5/8	
17	0641404	2	Bolt 1/4 x 1/2	
18	4761400	7	Washer 1/4	
19	0641606	7	Bolt 3/8 x 3/4	
20	4761600	7	Washer 3/8	
21	0100011	AR	Compound, Locking	

SECTION 3 - BOOM

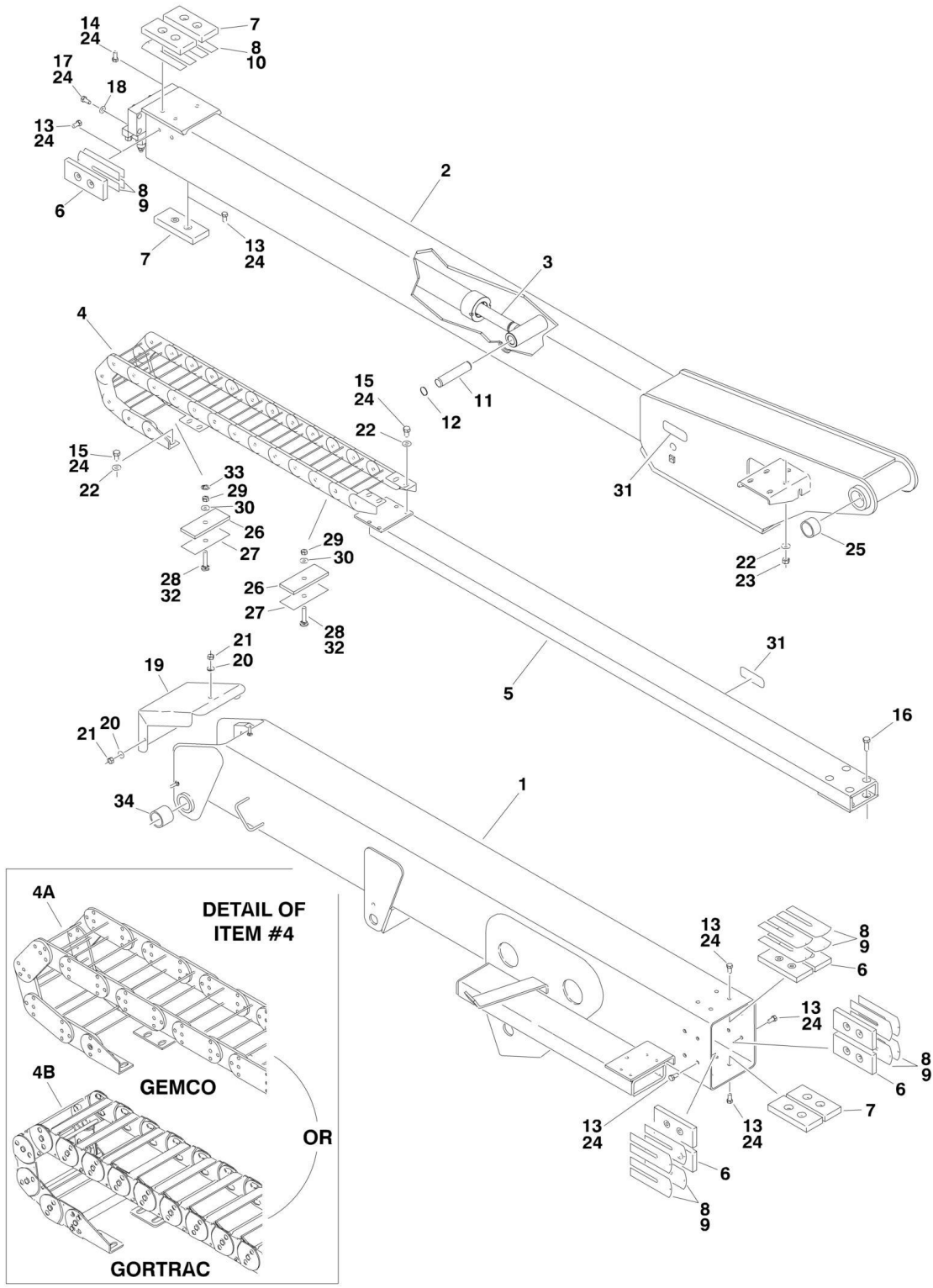
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
22	1670678	1	Cover, Boom (Use p/n 1670679) (Prior to SN 0300137414)	
23	1670698	1	Cover, Boom	
24	4751400	7	Washer 1/4	
25	3311401	3	Nut 1/4	
26	1220038	1	Holder, Wear Pad (Base Front Left Sides)	
27	1220039	1	Holder, Wear Pad (Base Front Right Side)	
28	1220040	1	Holder, Wear Pad (Base Front Top)	
29	0630399	2	Bolt, Special	
30	0100009	AR	Silicone	
31	4740413	5	Washer, Spacer	
32	4751600	5	Washer 3/8	
33	0641608	5	Bolt 3/8 x 1	
34	3520034	4	Plug, Hole	
35	0961951	2	Bearing, Garmax	
36		Ref	Cylinder Assembly Options (See Separate Breakdown in CYLINDER Section):	
36		Ref	Cylinder Assembly (E450A & M450A) Options:	
36	1683285	1	Cylinder Assembly (Prior to SN 0300056894)	
36	1683933	NLA	Cylinder Assembly (use p/n 1001140598) (SN 0300056894 through 0300165127)	
36	1001140598	1	Cylinder Assembly (SN 0300165128 through 0300189898)	
36		Ref	Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow) Options:	
36	1683933	NLA	Cylinder Assembly (use p/n 1001140598) (Prior to SN 0300165128)	
36	1001140598	1	Cylinder Assembly (SN 0300165128 through 0300189901)	
37	3422181	1	Shaft, Pin	
38	3780181	4	O-Ring (Prior to SN 0300103057)	
39	3841143	3	Keeper	
40	0641607	1	Bolt 3/8 x 7/8	
42	0060052	1	Rotator Assembly (See Separate Breakdown in this Section)	
43	3422709	1	Shaft, Pin	
44	0641608	2	Bolt 3/8 x 1	
45	3311605	2	Nut 3/8	
46	3422180	1	Shaft, Pin	
47	0961950	2	Bearing	
		Ref	PLATFORM ROTATOR AND SUPPORT INSTALLATION (FRONT ENTRY PLATFORM)	
	0259754	Ref	Platform Rotator and Support Installation (Front Entry Platform) (E450A & M450A Models) (Australian Spec) (Prior to SN 0300063775)	3-C
	0259439	Ref	Platform Rotator and Support Installation (Front Entry Platform) (E400A, M400A, E400Anarrow, M400narrow, E450A & M450A) (Australian Spec)	E
	0270702	Ref	Platform Rotator and Support Installation (Front Entry Platform) (E/M400A & E/M450A Models) (CE Spec) (Prior to SN 0300063775)	2-B
	0259439	Ref	Platform Rotator and Support Installation (Front Entry Platform) (CE/Australian Specs) (SN 0300063775 through 0300189901)	E
101	4846322	1	Weldment, Support	
102	0681608	6	Bolt 3/8 x 1	
103	0100011	AR	Compound, Locking	
104	0641407	2	Bolt 1/4 x 7/8	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
105	4740362	4	Washer, Fender	
106	3311405	2	Nut 1/4	
107	0641610	6	Bolt 3/8 x 1-1/4	
108	4711600	18	Washer	
109	3311605	6	Nut 3/8	
		Ref	PLATFORM ROTATOR AND SUPPORT INSTALLATION (SIDE ENTRY PLATFORM)	
	0272976	Ref	Platform Rotator and Support Installation (Side Entry Platform) (E450A & M450A Models) without Load Sensing	A
	See Note	Ref	Platform Rotator and Support Installation (Side Entry Platform) (E450A & M450A Models) without Load Sensing (Note: See Separate Breakdown in this Section)	
201	0100011	AR	Compound, Locking	
202	0641610	8	Bolt 3/8 x 1-1/4	
203	0681608	6	Bolt 3/8 x 1	
204	3311605	8	Nut 3/8	
205	4711600	16	Washer 3/8	
206		Ref	Weldment, Support Options:	
206	4846608	1	Weldment, Support E450A & E450A without Load Sensing	
206	See Note Above	1	Weldment, Support E450A & M450A with Load Sensing	
207	4891600	6	Washer 3/8	

SECTION 3 - BOOM

FIGURE 3-3. MAIN BOOM ASSEMBLY (E450AJ & M450AJ)



SECTION 3 - BOOM

FIGURE 3-3. MAIN BOOM ASSEMBLY (E450AJ & M450AJ)

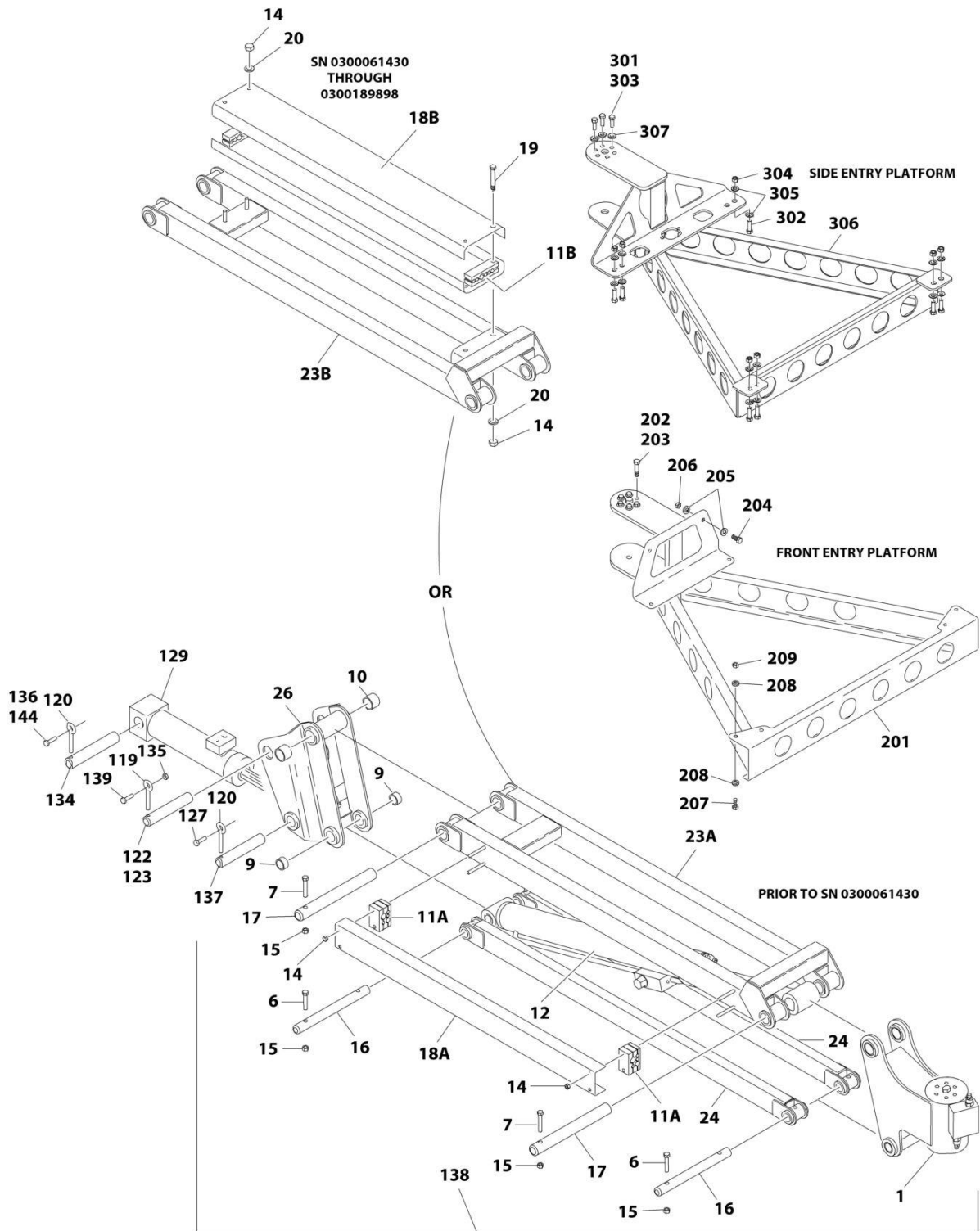
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0801197	Ref	MAIN BOOM ASSEMBLY	J
1		Ref	Base Weldment Options:	
1	0801198	1	Base Weldment (Prior to SN 0300056571)	
1	0801260	1	Base Weldment (SN 0300056571 through 0300189898)	
2	0801192	1	Fly Weldment	
3		Ref	Telescope Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
3	1683798	NLA	Telescope Cylinder Assembly (use p/n 1001228061) (Original Equipment) (Prior to SN 0300175016)	
3	1001151368	NLA	Telescope Cylinder Assembly (use p/n 1001228061) (Original Equipment) (SN 0300175016 through 0300189898)	
3	1001228061	1	Telescope Cylinder Assembly (Service Replacement)	
4		Ref	Powertrack Assembly Options:	
		Ref	Note: Various Power Tracks use on this model. Identify brand before ordering parts.	
4A	1180352	NLA	Powertrack (Gemco) (Use p/n 1001099833) (Prior to SN 0300135622)	
4A	7006139	AR	1ft Repair Section (Includes 1ft Section, 4 Rod Carriers, Pins and Mounting Slugs)	
4A	7006151	AR	Feet, Mounting (Includes Left and Right Mounting Feet and 2 Round Spacers)	
4A	7006152	AR	Pin Kit (Includes 1 Pin, 4 Washers and 1 Retaining Ring)	
4B	1001099833	1	Powertrack (Gortrac) (SN 0300135622 through 0300189898)	
4B	70001996	1	2ft Repair Section (Includes 4 links, 10 pins, 10 washers, 10 snap rings, 2 Rod Carriers and 4 self-tapping screws)	
4B	70001998	1	Bracket Kit (Includes 2 Left and 2 Right Mounting Feet, 4 center pins, 4 center pin snap rings, 8 pins for bracket lockout, 8 washers and 8 snap rings)	
5	4846033	1	Pushtube Weldment	
6	3340756	8	Pad, Wear (Base Front Top and Sides/Fly Rear Sides) (Use p/n 3340881)	
7	3340837	5	Pad, Wear (Base Bottom/Fly Rear Top and Bottom)	
8	4070897	10	Shim 18 Gauge	
9	4070898	8	Shim 16 Gauge	
10	4070982	2	Shim 11 Gauge	
11	3422804	1	Pin	
12	3760115	2	Ring, Snap	
13	0641606	22	Bolt 3/8in-16NC x 3/4in	
14	0641607	4	Bolt 3/8in-16NC x 7/8in	
15	0641605	8	Bolt 3/8in-16NC x 5/8in	
16	0641608	4	Bolt 3/8in-16NC x 1in	
17	0641818	4	Bolt 1/2in-13NC x 2-1/4in	
18	4761800	4	Lockwasher 1/2in	
19	1670678	1	Cover, Boom (Use p/n 1670679) (Prior to SN 0300137414)	
20	4761400	3	Lockwasher 1/4in	
21	3311401	3	Nut 1/4in-20NC	
22	4711600	12	Flatwasher 3/8in	
23	3311605	4	Locknut 3/8in-16NC	
24	0100011	AR	Compound, Locking	
25	0961948	AR	Bearing, Garmax	
26		Ref	Plate, Clamp Options:	
26	3570958	3	Plate, Clamp (SN 0300057118 through 0300135621)	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
26	1001106757	3	Plate, Clamp (SN 0300135622 through 0300189898)	
27		Ref	Pad, Rubber Options:	
27	Not Required	0	Pad, Rubber (Prior to SN 0300057118)	
27	3340859	2	Pad, Rubber (SN 0300057118 through 0300074607)	
27	3340940	2	Pad, Rubber (SN 0300074608 through 0300135621)	
27	3340939	2	Pad, Rubber (SN 0300135622 through 0300189898)	
28	0630401	2	Bolt, Carriage 5/16in-18NC x 2in (SN 0300057118 through 0300189898)	
29	3311505	2	Locknut 5/16in-18NC (SN 0300057118 through 0300189898)	
30	4711500	2	Flatwasher 5/16in Narrow (SN 0300057118 through 0300189898)	
31	4060804	15	Flex-Trim	
32	0100081	AR	Adhesive	
33	1001119228	1	Push Nut, M8 (SN 0300175016 through 0300189898)	
34	0961726	2	Bearing (Prior to SN 0300056571)	
34	0961950	2	Bearing (SN 030056571 through 0300189898)	

SECTION 3 - BOOM

FIGURE 3-4. JIB AND PLATFORM SUPPORT AND ROTATOR INSTALLATION (E450AJ & M450AJ)



SECTION 3 - BOOM

FIGURE 3-4. JIB AND PLATFORM SUPPORT AND ROTATOR INSTALLATION (E450AJ & M450AJ)

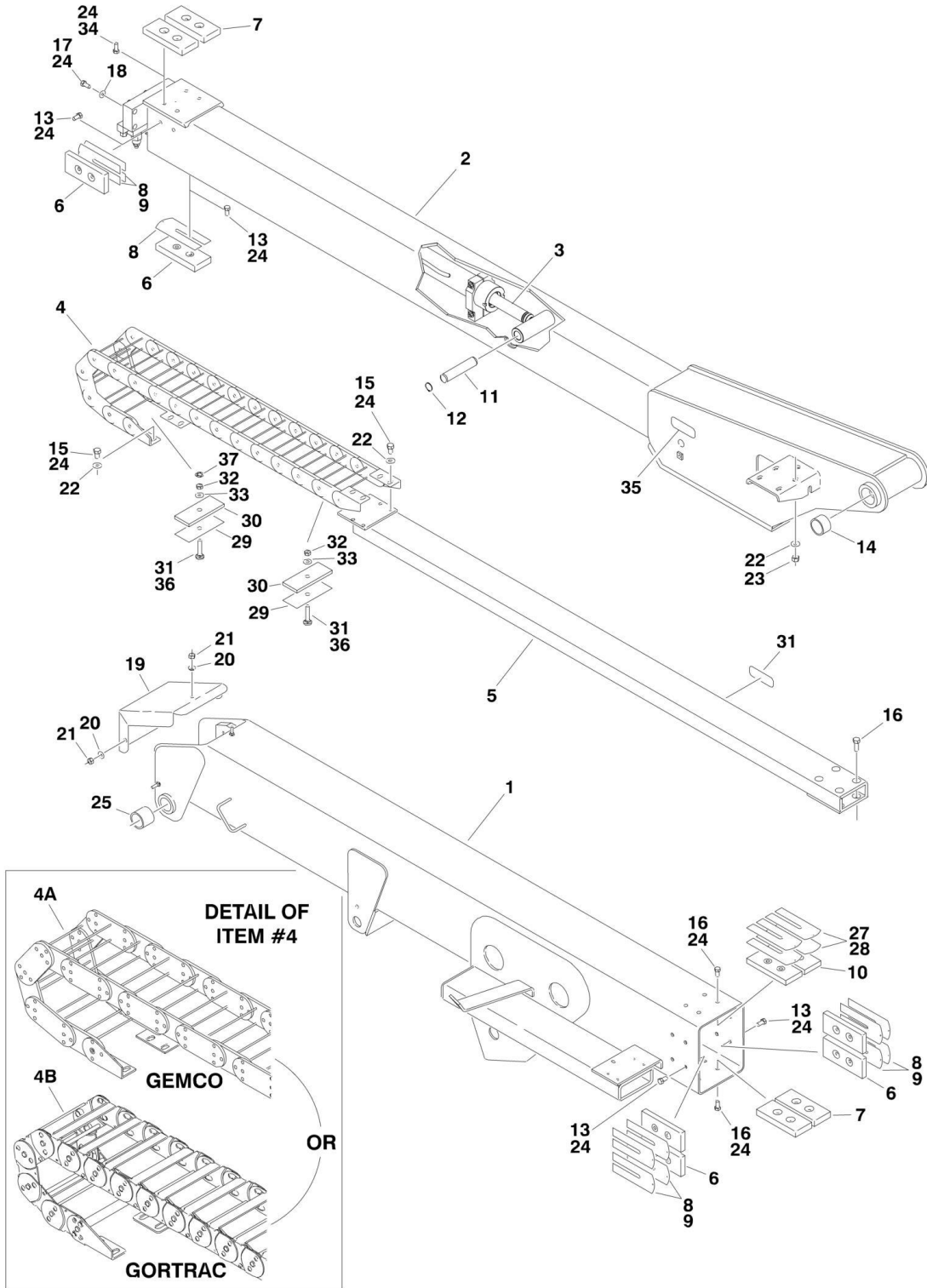
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	JIB ASSEMBLIES	
	0259440	Ref	Jib Assemblies (Prior to SN 0300061430)	D
	0270400	Ref	Jib Assemblies (SN 0300061430 through 0300189898)	F
1	0060044	1	Rotator Assembly (See ROTATOR ASSEMBLY for Breakdown)	
6	0641616	4	Bolt 3/8in-16NC x 2in	
7	0641618	2	Bolt 3/8in-16NC x 2-1/4in	
8	0641810	AR	Bolt 1/2in-13NC x 1-1/4in	
9		Ref	Bushing, Garmax Options:	
9	0961947	AR	Bushing, Garmax (Prior to SN 0300144003)	
9	0962292	AR	Bushing, Garmax (SN 0300144003 through 0300189898)	
10	0961951	2	Bushing, Garmax	
11		Ref	Clamp, Block Options:	
11A	1320259	2	Clamp, Block (Prior to SN 0300061430)	
11B	3340860	4	Clamp, Block (SN 0300061430 through 0300189898)	
12		Ref	Jib Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
12	1683779	NLA	Jib Cylinder Assembly (Use p/n 1001140280) (Prior to SN 0300164333)	
12	1001140280	1	Jib Cylinder Assembly (SN 0300164333 through 0300189898)	
14	3311501	AR	Nut 5/16in-18NC	
15	3311605	12	Locknut 3/8in-16NC	
16	3422791	2	Pin	
17	3422794	2	Pin	
18		Ref	Plate, Jib Cover Options:	
18A	3571406	1	Plate, Jib Cover (Prior to SN 0300061430)	
18B	3572551	2	Plate, Jib Cover (SN 0300061430 through 0300189898)	
19	0641516	2	Bolt 5/16in-18NC x 2in Only (SN 0300061430 through 0300189898)	
20	4751500	4	Flatwasher 5/16in (Wide Only) (SN 0300061430 through 0300189898)	
23		Ref	Link Options: (Upper)	
23A	4845926	1	Link (Prior to SN 0300061430)	
23B	4846278	1	Link (SN 0300061430 through 0300189898)	
24	4845927	2	Link (Lower) (Use p/n 1001094670)	
26	4845925	1	Pivot	
		Ref	SUPPORT AND ROTATOR ASSEMBLY	
	0259366	Ref	Support and Rotator Assembly E/M450AJ	H
119	3841203	1	Keeper, Pin	
120	3841143	2	Keeper, Pin	
122	3422793	1	Pin	
123	3020022	AR	Grease	
127	0641610	1	Bolt 3/8in-16NC x 1-1/4in	
129		Ref	Platform Level Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
129	1683760	NLA	Platform Level Cylinder Assembly (E450AJ & M450AJ) (use p/n 1001140279) (Prior to SN 0300056571)	
129	1683924	NLA	Platform Level Cylinder Assembly (E450AJ & M450AJ) (use p/n 1001140279) (SN 0300056571 through 0300163452)	
129	1001140279	1	Platform Level Cylinder Assembly (E450AJ & M450AJ) (SN 0300163453 through 0300189898)	
134	3422669	1	Pin	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
135	3311805	1	Locknut 1/2in-13NC	
136	0641607	1	Bolt 3/8in-16NC x 7/8in	
137	3422792	1	Pin	
138		Ref	Jib Assembly Options (Includes Items 1-27):	
138	0259440	1	Jib Assembly (E450AJ & M450AJ) (Prior to SN 0300061430)	
138	0270400	1	Jib Assembly (E450AJ & M450AJ) (SN 0300061430 through 0300189901)	
139	0641809	1	Bolt 1/2 x 1-1/8	
144	0100011	AR	Compound, Locking	
		Ref	PLATFORM ROTATOR AND SUPPORT INSTALLATION (FRONT ENTRY PLATFORM)	
	0259754	Ref	Platform Rotator and Support Installation (Front Entry Platform) (Australian Spec) (Prior to SN 0300063775)	3/C
	0270702	Ref	Platform Rotator and Support Installation (Front Entry Platform) (CE Spec) (Prior to SN 0300063775)	2/B
	0259439	Ref	Platform Rotator and Support Installation (Front Entry Platform) (CE/Australian Specs) (SN 0300063775 through 0300189898)	E
201	4846322	1	Weldment, Support	
202	0681608	6	Bolt 3/8 x 1	
203	0100011	AR	Compound, Locking	
204	0641407	2	Bolt 1/4 x 7/8	
205	4740362	4	Washer, Fender	
206	3311405	2	Nut 1/4	
207	0641610	6	Bolt 3/8 x 1-1/4	
208	4711600	18	Washer	
209	3311605	6	Nut 3/8	
		Ref	PLATFORM ROTATOR AND SUPPORT INSTALLATION (SIDE ENTRY PLATFORM)	
	0272976	Ref	Platform Rotator and Support Installation (Side Entry Platform) (Without Load Sensing)	A
	See Note	Ref	Platform Rotator and Support Installation (Side Entry Platform) (With Load Sensing) (Note: See Separate Breakdown in this Section)	
301	0100011	AR	Compound, Locking	
302	0641610	8	Bolt 3/8 x 1-1/4	
303	0681608	6	Bolt 3/8 x 1	
304	3311605	8	Nut 3/8	
305	4711600	16	Washer 3/8	
306		Ref	Weldment, Support Options:	
306	4846608	1	Weldment, Support without Load Sensing	
306	See Note Above	1	Weldment, Support with Load Sensing	
307	4891600	6	Washer 3/8	

SECTION 3 - BOOM

FIGURE 3-5. MAIN BOOM ASSEMBLY (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW)



SECTION 3 - BOOM

FIGURE 3-5. MAIN BOOM ASSEMBLY (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW)

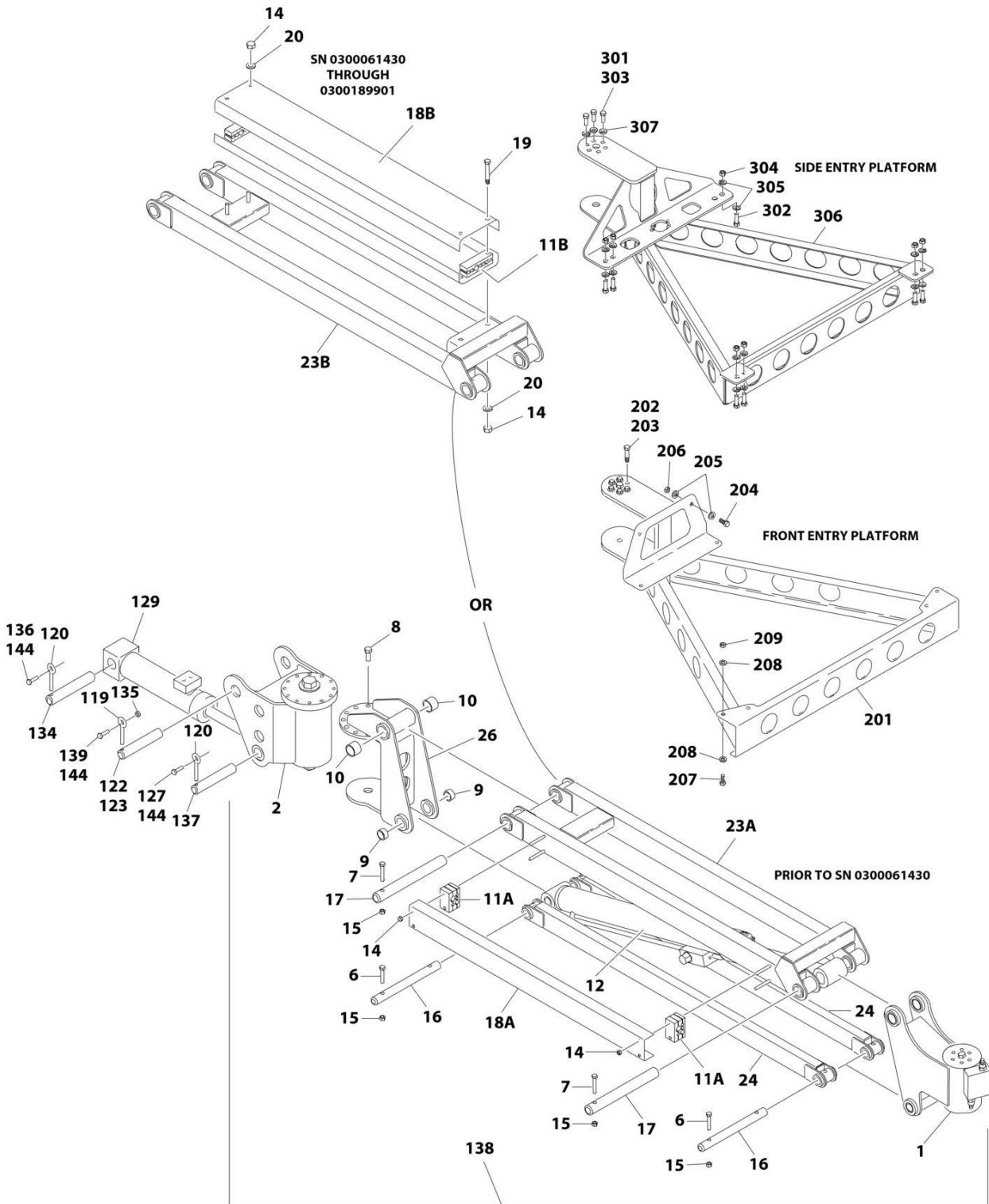
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0801225	Ref	MAIN BOOM ASSEMBLY	I
1	0801224	1	Base, Boom	
2	0801226	1	Fly, Boom	
		Ref	Cylinder, Telescope Assembly (See CYLINDER SECTION for Breakdown)	
3	1683911	NLA	Cylinder, Telescope Assembly (Use p/n 1001228015) (Original	
3	1001228015	1	Cylinder, Telescope Assembly (Service Replacement)	
4		Ref	Carrier, Power Track Options:	
		Ref	Note: Various Power Tracks use on this model. Identify brand before ordering parts.	
4A	1180353	NLA	Powertrack (Gemco) (Use p/n 1001099834) (Prior to SN 0300135622)	
4A	7006139	AR	1ft Repair Section (Includes 1ft Section, 4 Rod Carriers, Pins and Mounting Slugs)	
4A	7006151	AR	Feet, Mounting (Includes Left and Right Mounting Feet and 2 Round Spacers)	
4A	7006152	AR	Pin Kit (Includes 1 Pin, 4 Washers and 1 Retaining Ring)	
4B	1001099834	1	Powertrack (Gortrac) (SN 0300135622 through 0300189901)	
4B	70001996	1	2ft Repair Section (Includes 4 links, 10 pins, 10 washers, 10 snap rings, 2 Rod Carriers and 4 self-tapping screws)	
4B	70001998	1	Bracket Kit (Includes 2 Left and 2 Right Mounting Feet, 4 center pins, 4 center pin snap rings, 8 pins for bracket lockout, 8 washers and 8 snap rings)	
5	4846180	1	Weldment, Push Tube	
6	3340878	10	Pad, Wear	
7	3340884	4	Pad, Wear	
8	4070864	12	Shim 18 Gauge	
9	4070863	8	Shim 11 Gauge	
10	3340886	2	Pad, Wear	
11	3422804	1	Pin	
12	3760115	2	Ring, Retaining	
13	0641606	30	Bolt 3/8in-16NC x 3/4in	
14	0961948	2	Bearing	
15	0641605	8	Bolt 3/8in-16NC x 5/8in	
16	0641608	16	Bolt 3/8in-16NC x 1in	
17	0641818	4	Bolt 1/2in-13NC x 2-1/4in	
18	4761800	4	Lockwasher 1/2in	
19	1670959	1	Cover	
20	4761400	3	Lockwasher 1/4in	
21	3311401	3	Nut 1/4in-20NC	
22	4711600	12	Flatwasher 3/8in	
23	3311605	4	Locknut 3/8in-16NC	
24	0100011	AR	Compound, Locking	
25	0961950	2	Bearing	
26	3520082	2	Plug (Not Shown)	
27	4070997	2	Shim 16 Gauge	
28	4070998	2	Shim 18 Gauge	
29		Ref	Plate, Clamp Options:	
29	3570958	3	Plate, Clamp (SN 0300057118 through 0300135621)	
29	1001106757	3	Plate, Clamp (SN 0300135622 through 0300189901)	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
30		Ref	Pad, Rubber Options:	
30	Not Required	0	Pad, Rubber (Prior to SN 0300057118)	
30	3340859	2	Pad, Rubber (SN 0300057118 through 0300074607)	
30	3340940	2	Pad, Rubber (SN 0300074608 through 0300135621)	
30	3340939	2	Pad, Rubber (SN 0300135622 through 0300189901)	
31	0630401	2	Bolt, Carriage 5/16in-18NC x 2in (SN 0300057118 through 0300189901)	
32	3311505	2	Locknut 5/16in-18NC (SN 0300057118 through 0300189901)	
33	4711500	2	Flatwasher 5/16in Narrow (SN 0300057118 through 0300189901)	
34		Ref	Screw, Countersunk 3/8in-16NC Options:	
34	0741608	6	Screw, Countersunk 3/8in-16NC x 1in	
34	0741606	6	Screw, Countersunk 3/8in-16NC x 3/4in	
35	4060804	15 in/38cm	Flex-Trim	
36	0100081	AR	Adhesive	
37	1001119228	1	Push Nut, M8 (SN 0300175016 through 0300189901)	

SECTION 3 - BOOM

FIGURE 3-6. JIB AND PLATFORM SUPPORT AND ROTATOR INSTALLATION (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW)



SECTION 3 - BOOM

FIGURE 3-6. JIB AND PLATFORM SUPPORT AND ROTATOR INSTALLATION (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	JIB ASSEMBLIES	
	0259441	Ref	Jib Assemblies (Prior to SN 0300061430)	E
	0270402	Ref	Jib Assemblies (SN 0300061430 through 0300064957)	C
	0271649	Ref	Jib Assemblies (SN 03000 64958 through 0300189901)	C
1	0060044	1	Rotator Assembly (Jib to Platform Support) (See ROTATOR ASSEMBLY for Breakdown)	
2		Ref	Rotator Assembly (Main Boom to Jib) Options (See ROTATOR ASSEMBLY for Breakdown):	
2	0060046	1	Rotator Assembly (E400AJP, M400AJP, E400AJPNarrow & M400AJPNarrow) (Prior to SN 0300064958)	
2	0060065	1	Rotator Assembly (E400AJP, M400AJP, E400AJPNarrow & M400AJPNarrow) (SN 0300064958 through 0300189901)	
6	0641616	4	Bolt 3/8in-16NC x 2in	
7	0641618	2	Bolt 3/8in-16NC x 2-1/4in	
8		Ref	Bolt 1/2in Options:	
8	0641810	AR	Rotator Assembly (E400AJP, M400AJP, E400AJPNarrow & M400AJPNarrow) (Prior to SN 0300064958)	
8	3931816	AR	Rotator Assembly (E400AJP, M400AJP, E400AJPNarrow & M400AJPNarrow) (SN 0300064958 through 0300189901)	
9		Ref	Bushing, Garmax Options:	
9	0961947	AR	Bushing, Garmax (Prior to SN 0300144003)	
9	0962292	AR	Bushing, Garmax (SN 0300144003 through 0300189901)	
10	0961951	2	Bushing, Garmax	
11		Ref	Clamp, Block Options:	
11A	1320259	2	Clamp, Block (Prior to SN 0300061430)	
11B	3340860	4	Clamp, Block (SN 0300061430 through 0300189901)	
12		Ref	Jib Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
12	1683779	NLA	Jib Cylinder Assembly (use p/n 1001140280) (Prior to SN 0300163453)	
12	1001140280	1	Jib Cylinder Assembly (SN 0300163453 through 0300189901)	
14	3311501	AR	Nut 5/16in-18NC	
15	3311605	12	Locknut 3/8in-16NC	
16	3422791	2	Pin	
17	3422794	2	Pin	
18		Ref	Plate, Jib Cover Options:	
18A	3571406	1	Plate, Jib Cover (Prior to SN 0300061430)	
18B	3572551	2	Plate, Jib Cover (SN 0300061430 through 0300189901)	
19	0641516	2	Bolt 5/16in-18NC x 2in Only (SN 0300061430 through 0300189901)	
20	4751500	4	Flatwasher 3/8in Wide Only (SN 0300061430 through 0300189901)	
23		Ref	Link Options: (Upper)	
23A	4845926	1	Link (Prior to SN 0300061430)	
23B	4846278	1	Link (SN 0300061430 through 0300189901)	
24	4845927	NLA	Link (Lower) (Use p/n 1001094670)	
26		Ref	Pivot Options:	
26	4846073	1	Pivot (Prior to SN 0300064958)	
26	4846502	1	Pivot (SN 0300064958 through 0300189901)	
		Ref	SUPPORT AND ROTATOR ASSEMBLY	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0259939	Ref	Support and Rotator Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300064958)	4
	0271647	Ref	Support and Rotator Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300064958 through 0300189901)	D
119	3841203	1	Keeper, Pin	
120	3841143	2	Keeper, Pin	
122	3422814	1	Pin	
123	3020022	AR	Grease	
127	0641610	1	Bolt 3/8in-16NC x 1-1/4in	
129		Ref	Platform Level Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
129	1683924	NLA	Platform Level Cylinder Assembly (Use p/n 1001140279) (Prior to SN 0300163453)	
129	1001140279	1	Platform Level Cylinder Assembly (SN 0300163453 through 0300189901)	
134	3422669	1	Pin	
135	3311805	1	Locknut 1/2in-13NC	
136	0641607	1	Bolt 3/8in-16NC x 7/8in	
137	3422792	1	Pin	
138		Ref	Jib Assembly Options (Includes Items 1-27):	
138	0259441	1	Jib Assembly (Prior to SN 0300061430)	
138	0270402	1	Jib Assembly (SN 0300061430 through 0300064957)	
138	0271649	1	Jib Assembly (SN 0300064958 through 0300189901)	
139		Ref	Bolt Options:	
139	0641809	1	Bolt 1/2in-13NC x 1-1/8in (Prior to SN 0300093848)	
139	0641810	1	Bolt 1/2in-13NC x 1-1/4in (SN 0300093848 through 0300189901)	
144	0100011	AR	Compound, Locking	
		Ref	PLATFORM ROTATOR AND SUPPORT INSTALLATION (FRONT ENTRY PLATFORM)	
	0259439	Ref	Platform Rotator and Support Installation (Australian Spec)	E
	0270702	Ref	Platform Rotator and Support Installation (CE Spec) (Prior to SN 0300063775)	2-B
	0259439	Ref	Platform Rotator and Support Installation (CE/Australian Specs) (SN 0300063775 through 0300189901)	E
201	4846322	1	Weldment, Support	
202	0681608	6	Bolt 3/8in-16NC x 1in (Grade 8)	
203	0100011	AR	Compound, Locking	
204	0641407	2	Bolt 1/4in-20NC x 7/8in	
205	4740362	4	Washer, Fender	
206	3311405	2	Nut 1/4in-20NC	
207	0641610	6	Bolt 3/8in-16NC x 1-1/4in	
208	4711600	18	Flatwasher	
209	3311605	6	Locknut 3/8in-16NC	
		Ref	PLATFORM ROTATOR AND SUPPORT INSTALLATION (SIDE ENTRY PLATFORM)	
	0272976	Ref	Platform Rotator and Support Installation - without Load Sensing	A
	See Note	Ref	Platform Rotator and Support Installation - with Load Sensing (Note: See Separate Breakdown in this Section)	
301	0100011	AR	Compound, Locking	
302	0641610	8	Bolt 3/8in-16NC x 1-1/4in	
303	0681608	6	Bolt 3/8in-16NC x 1in (Grade 8)	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
304	3311605	8	Locknut 3/8in-16NC	
305	4711600	16	Flatwasher 3/8in	
306		Ref	Weldment, Support Options:	
306	4846608	1	Weldment, Support - Without Load Sensing	
306	See Note Above	1	Weldment, Support - With Load Sensing	
307	4891600	6	Washer 3/8	

SECTION 3 - BOOM

FIGURE 3-7. ROTATOR ASSEMBLY

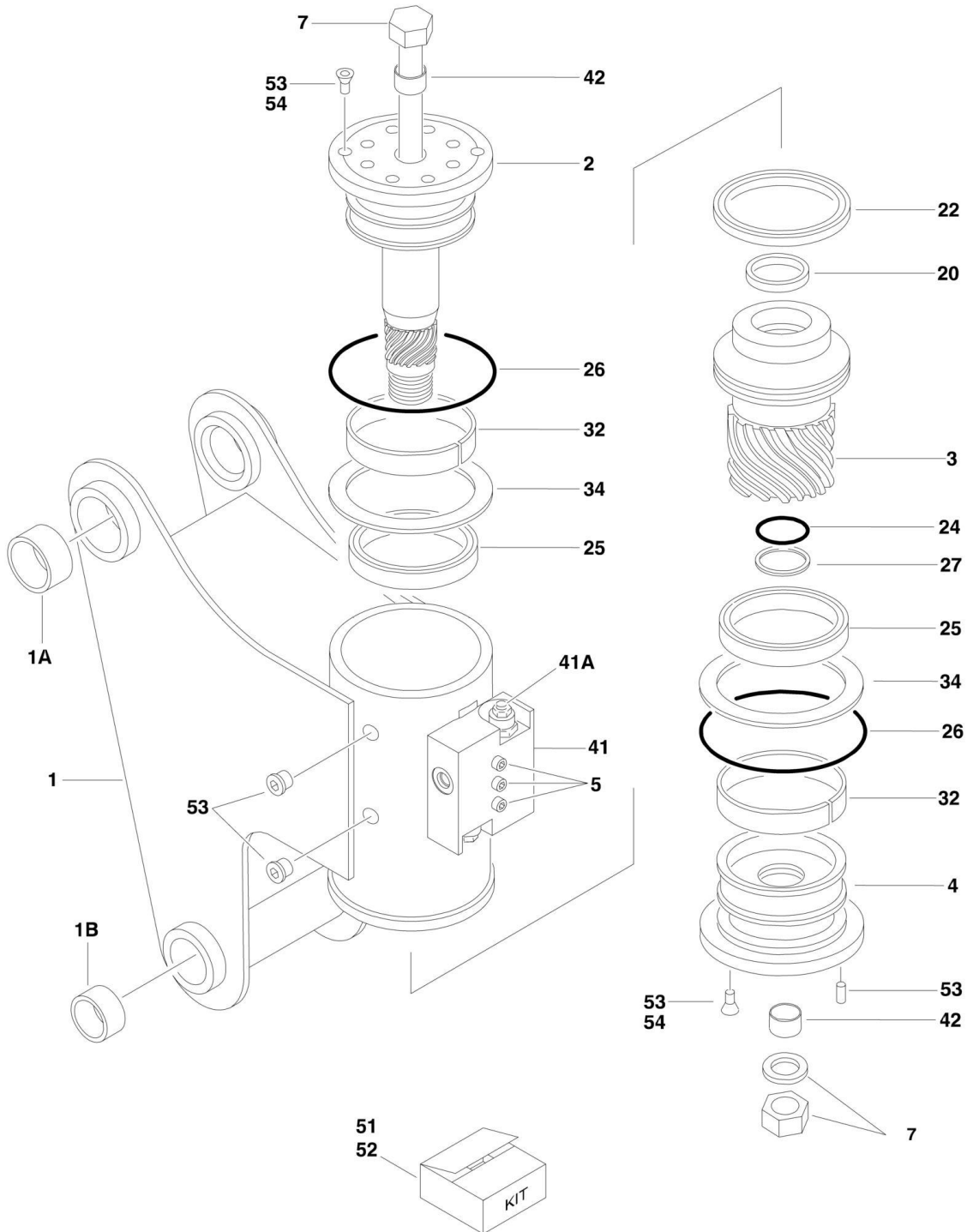


FIGURE 3-7. ROTATOR ASSEMBLY

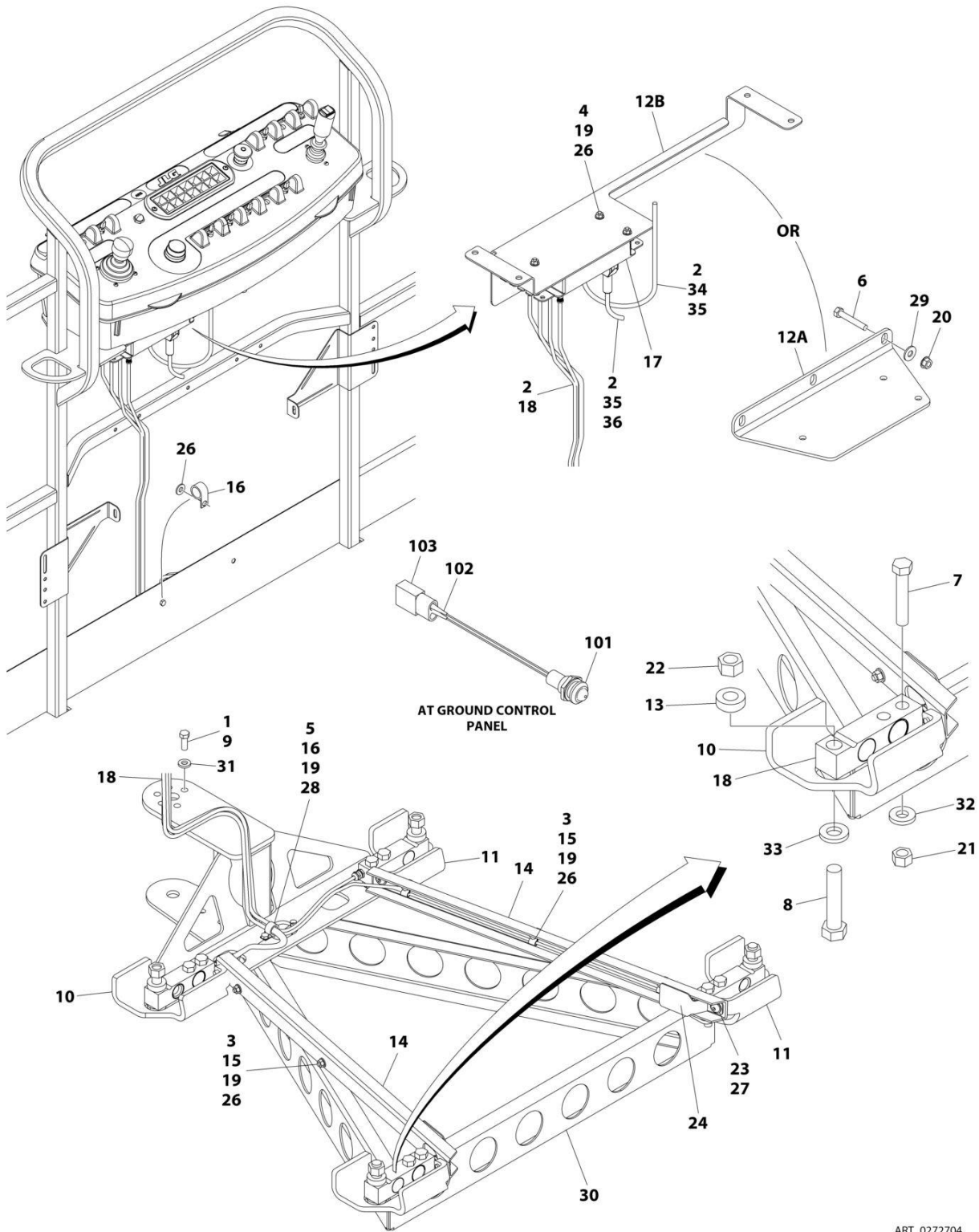
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	ROTATOR ASSEMBLIES	
	0060052	Ref	Rotator Assemblies (E450A, M450A, E400A, M400A, E400Anarrow & M400Anarrow)	F
	0060044	Ref	Rotator Assemblies (E450AJ & M450AJ)	D
	0060044	Ref	Rotator Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Platform Support to Jib)	D
	0060046	Ref	Rotator Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Main Boom to Jib) (Prior to SN 0300064958)	C
	0060065	Ref	Rotator Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Main Boom to Jib) (SN 0300064958 through 0300189901)	C
		Ref	Note: There are 2 different versions each of Rotators p/n 0060044 & 0060052. No SN break exists. Order parts by the Helac Control #.	
1	See Note	1	Case/Bracket Weldment (Note: Purchase Complete Assembly)	
1A	0962257	2	Bushing, Garmax (0060044 Rotator Only)	
1B	0961947	2	Bushing, Garmax (0060044 Rotator Only)	
2		Ref	Shaft Options:	
2	7017120	1	0060052 Rotators with Helac Control #26409	
2	7017196	1	0060052 Rotators with Helac Control #26966	
2	7017120	1	0060044 Rotators with Helac Control #25928	
2	7017196	1	0060044 Rotators with Helac Control #26962	
2	7017130	1	0060046 Rotator	
2	7017167	1	0060065 Rotator	
3		Ref	Piston Sleeve Options:	
3	7017121	1	0060052 Rotators with Helac Control #26409	
3	7027900	1	0060052 Rotators with Helac Control #26966	
3	7017121	1	0060044 Rotators with Helac Control #25928	
3	7027900	1	0060044 Rotators with Helac Control #26962	
3	7017131	1	0060046 Rotator	
3	7017168	1	0060065 Rotator	
4		Ref	Cap, End Options:	
4	7017153	1	0060052 Rotators with Helac Control #26409	
4	7027901	1	0060052 Rotators with Helac Control #26966	
4	0060044	1	0060044 Rotators with Helac Control #25928 (Note: Not available for purchase)	
4	7027901	1	0060044 Rotators with Helac Control #26962	
4	0060046	1	0060046 Rotator (Note: Not Available for Purchase)	
4	7017169	1	0060065 Rotator	
5	See Note	3	Capscrew 1/4in-20NC (Grade 8) (Note: Not available for purchase)	
7		Ref	Tie Rod Assembly Options:	
7	7017126	1	0060044 & 0060052 Rotators	
7	7017135	1	0060046 Rotator	
7	7017173	1	0060065 Rotator	
20	See Note	1	Seal, Rod (Note: Use Items 100A-102B)	
22	See Note	1	Seal, Piston (Note: Use Items 100A-102B)	
24	See Note	1	Seal, Cap (Note: Use Items 100A-102B)	
25	See Note	2	Packing, Bearing (Note: Use Items 100A-102B)	
26	See Note	2	Seal (Note: Use Items 100A-102B)	
27	See Note	1	Ring, Back-Up Cap (Note: Use Items 100A-102B)	
32	See Note	2	Bearing, Shaft (Note: See Item 51)	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
34	See Note	2	Washer, Thrust (Note: See Item 51)	
41		Ref	Counterbalance Valve Assembly Options:	
41	7017172	1	Helac p/n 24327 Stamped beside Mounting Screws (was p/n 7017125)	
41	7017172	1	Helac p/n 26553 or 26554 Stamped beside Mounting Screws	
41A		Ref	Valve, Cartridge Options:	
41A	7011323	2	Valve, Cartridge for Helac p/n 24327 Valve	
41A	2900770	2	Seal Kit - 7011323 Cartridge (1 Per Assembly)	
41A	7017192	2	Valve, Cartridge Helac p/n 26553 & 26554 (No Seal Kit Available)	
42	See Note	2	Bushing, Shaft	
51		Ref	Bearing Kit Options (Includes Items 32 - 34):	
51	7017122	1	0060044 & 0060052 Rotators	
51	7017134	1	0060046 Rotator	
51	7017178	1	0060065 Rotator	
52		Ref	Seal Kit Options (Includes Items 20, 22, 24, 25, 26 & 27):	
52		Ref	0060044 & 0060052 Rotators Options:	
52	7017127	1	Standard	
52	70000341	1	Low Temperature	
52		Ref	0060046 Rotator Options:	
52	7017165	1	Standard (was p/n 7017133)	
52	See Note	1	Low Temperature (Note: Not available for purchase)	
52		Ref	0060065 Rotator Options:	
52	7017165	1	Standard	
52	70000340	1	Low Temperature	
53		Ref	Hardware Kit Options:	
53	7017123	1	0060044 & 0060052 Rotators	
53	7017132	1	0060046 Rotator	
53	7017179	1	0060065 Rotator	
54	70001697	4	Screw, 1/4 x 3/8 Grades	

SECTION 3 - BOOM

FIGURE 3-8. PLATFORM SUPPORT INSTALLATION - WITH LSS



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SECTION 3 - BOOM

FIGURE 3-8. PLATFORM SUPPORT INSTALLATION - WITH LSS

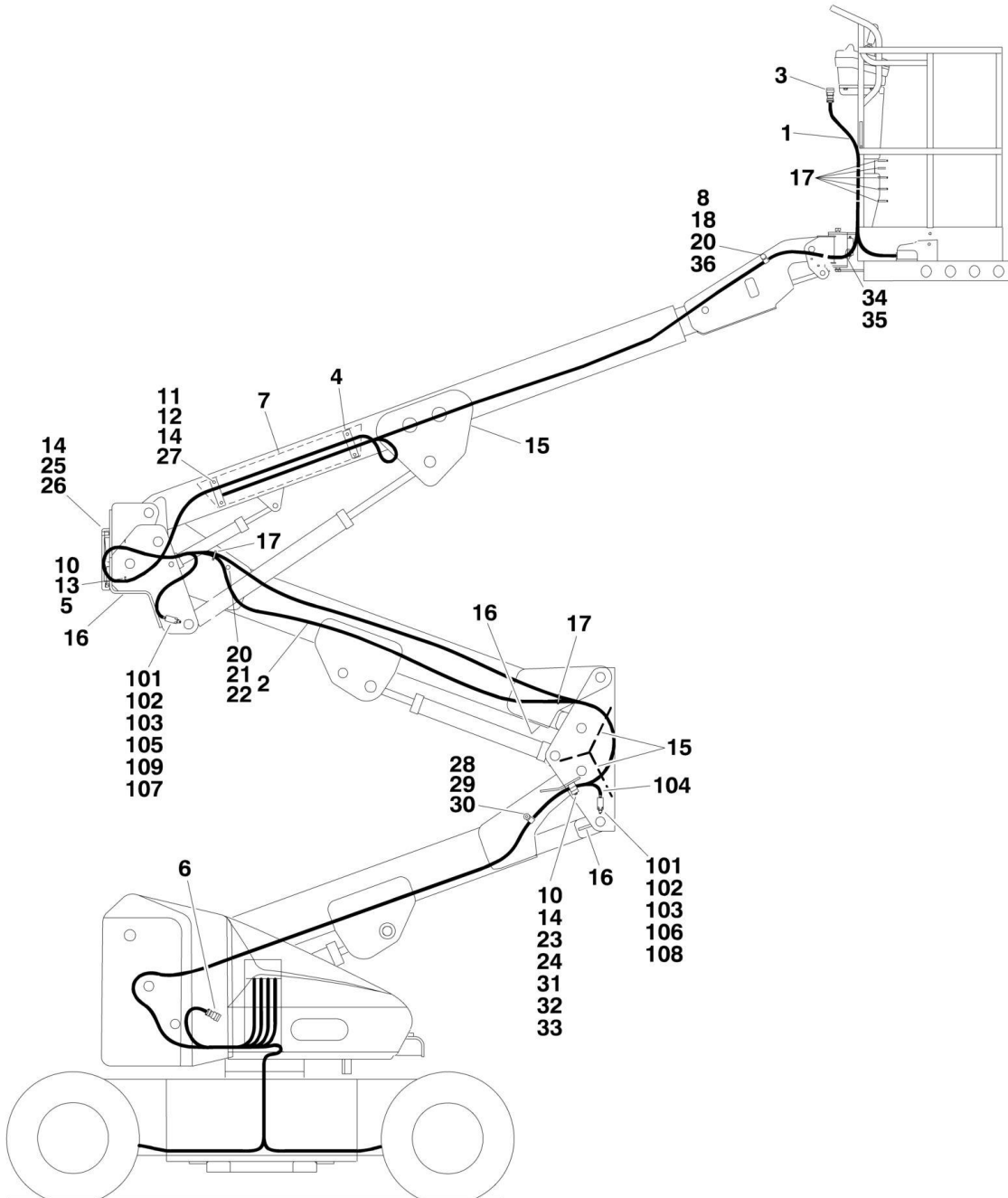
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM SUPPORT INSTALLATION - WITH LSS	
	0272704	Ref	Platform Support Installation (E400AJP, M400AJP, E400AJPnarrow, M400AJPnarrow, E450AJ & M450AJ)	K
	1001108604	Ref	Platform Support Installation (E400A, M400A, E400Anarrow, M400Anarrow, E450A & M450A)	C
1	0100011	AR	Compound, Locking	
2	0100048	AR	Grease, Dielectric	
3		Ref	Bolt Options:	
3	0630407	6	Capscrew 1/4 x 5/8	
3	0641405	6	Bolt 1/4 x 5/8	
4		Ref	Bolt Options:	
4	0641405	3	Bolt 1/4 x 5/8	
4	0641406	3	Bolt 1/4 x 3/4	
4	0641416	3	Bolt 1/4 x 2	
5	0641407	1	Bolt 1/4 x 7/8	
6	0641516	3	Bolt 5/16 x 2	
7	0641822	8	Bolt 1/2 x 2-3/4	
8	0642024	4	Bolt 5/8 x 3	
9	0681608	6	Bolt 3/8 x 1	
10	0902919	2	Bracket, Cell Guard	
11	0902920	2	Bracket, Cell Guard	
12		Ref	Bracket, Module Mounting Options:	
12A	0902894	1	Design A (Prior to SN 0300138471)	
12B	1001113483	1	Design B (SN 0300138471 through 0300189901)	
13	0962450	4	Bushing, Spacer	
14	1271538	2	Channel	
15	1320136	6	Clamp	
16	1320224	2	Clamp	
17		Ref	Electronic Interface Module Options (Note: Re-calibration Required when Replaced):	
17	1600350	1	Electronic Interface Module (Prior to SN 0300076525)	
17	1600387	1	Electronic Interface Module (SN 0300076525 to Present)	
18	2420202	4	Load Cell Assembly	
19	3311405	10	Nut 1/4	
20	3311508	3	Nut 5/16	
21	3311805	8	Nut 1/2	
22	3312005	4	Nut 5/8	
23	3900283	4	Screw 3/8 x 3/4	
24	4061054	2	Shield	
25	4240033	AR	Tie-Strap (Not Shown)	
26	4711400	13	Washer 1/4	
27	4711600	4	Washer 3/8	
28	4751400	1	Washer 1/4	
29	4751500	3	Washer 5/16	
30	4846608	1	Platform Support	
31	4891600	6	Washer 3/8	
32	4891800	8	Washer 1/2	
33	4892000	4	Washer 5/8	
34	4922916	1	Harness, LSS System	
34	4460933	1	Connector - 12 Position (Grey) (J1)	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
34	4460465	3	Socket, Female	
34	4460466	9	Plug, Terminal	
34	0840055	1	Boot	
34	4460313	3	Terminal, Ring	
35	4933289	1	EIM Load Cell to Platform Console Box Wiring (See Separate Breakdown in ELECTRICAL SECTION)	
36	4922917	1	Harness, Analyzer	
36	4460836	1	Connector - 12 Position (Black) (J2)	
36	4460465	4	Socket, Female	
36	4460466	8	Plug, Terminal	
36	0840055	1	Boot	
36	4460761	1	Connector - 4 Position	
36	4460227	4	Pin, Male	
37	4460225	1	Connector - 6 Position (Not Shown - Located in Platform Console Box (J8) (E400A, M400A, E400Anarrow, M400Anarrow, E450A & M450A Only)	
	0273104	Ref	INDICATOR LIGHT INSTALLATION (LSS)	A/1
101	2920151	1	Light (Located on Ground Control Box)	
102	4460226	2	Socket, Female	
103	4460424	1	Connector - 2 Position	
104	4922926	1	Harness, Indicator Lamp (Not Shown - Located at Ground Control Box)	
104	4460265	1	Plug, Male - 9 Position	
104	4460320	1	Plug, Male - 2 Position	
104	4460226	3	Socket, Female	
104	4460227	2	Pin, Male	
104	4460042	1	Terminal, Ring	
104	4460313	1	Terminal, Ring	

SECTION 3 - BOOM

FIGURE 3-9. CABLES/CLAMPS AND LIMIT SWITCHES INSTALLATIONS



SECTION 3 - BOOM

FIGURE 3-9. CABLES/CLAMPS AND LIMIT SWITCHES INSTALLATIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	CABLES AND CLAMPS INSTALLATION	
	0257735	Ref	Cables and Clamps Installation (E450A & M450A)	H
	0259367	Ref	Cables and Clamps Installation (E450AJ & M450AJ)	E
	0270817	Ref	Cables and Clamps Installation (E400A, M400A, E400Anarrow & M400Anarrow)	C
	0259970	Ref	Cables and Clamps Installation (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	D
1		Ref	Harness Assembly - Upper Boom Options (See Separate Breakdown in ELECTRICAL Section):	
1	4922178	1	Harness Assembly - Upper Boom (E450A & M450A)	
1	4922552	1	Harness Assembly - Upper Boom (E450AJ & M450AJ)	
1	4922496	1	Harness Assembly - Upper Boom (E400A, M400A, E400Anarrow & M400Anarrow)	
1	4922364	1	Harness Assembly - Upper Boom (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300071419)	
1	4922496	1	Harness Assembly - Upper Boom (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300071419 through 0300189901)	
2		Ref	Harness Assembly - Lower Boom Options (See Separate Breakdown in ELECTRICAL Section):	
2	4922179	1	Harness Assembly - Lower Boom (E450A, M450A, E450AJ & M450AJ)	
2	4922495	1	Harness Assembly - Lower Boom (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300071418)	
2	4922363	1	Harness Assembly - Lower Boom (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300071418 through 0300189901)	
2	4922363	1	Harness Assembly - Lower Boom (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
3	4460754	1	Connector	
4	1320260	2	Block, Hose Clamp	
5	0561317	1	Block, Hose Clamp	
6	4460753	1	Connector	
7		Ref	Shield Options:	
7	3536999	1	Shield (E450A, M450A, E400A, M400A, E400Anarrow & M400Anarrow)	
7	3571462	1	Shield (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
8		Ref	Cover, Clamp Options:	
8	1320195	1	Cover, Clamp (E450A & M450A) (Prior to SN 0300060132)	
8	Not Required	0	Cover, Clamp (E450A & M450A) (SN 0300060132 through 0300189898)	
8	Not Required	0	Cover, Clamp (E450AJ, M450AJ, E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
10	4751500	5	Washer 5/16	
11	4751400	12	Washer 1/4	
12	3311401	6	Nut 1/4	
13	0641514	3	Bolt 5/16 x 1-3/4	
14	0100011	AR	Compound, Locking	
15	4060805	AR	Trim	
16	4060808	8 ft/2.4m	Trim 1/2	
17	4240099	26	Tie-Strap	

SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
18	0641516	AR	Bolt 5/16 x 2	
20	3311505	2	Nut 5/16	
21	4566243	1	Roller	
22	0641560	1	Bolt 5/16 x 7-1/2	
23	4300140	2	Stud, Weld 5/16 x 3-5/8	
24		Ref	Hose Clamp Block Options:	
24	0561384	1	Hose Clamp Block (E450A & M450A)	
24	0561359	1	Hose Clamp Block (E450AJ & M450AJ)	
24	0561384	1	Hose Clamp Block (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
25	1670697	1	Cover, Hose	
26	0630467	4	Capscrew, Button 5/16 x 1/2	
27	3300151	6	Nut 1/4	
28		Ref	Clamp, Cable Options:	
28	1320040	1	Clamp, Cable (Prior to SN 0300177913)	
28	1320043	1	Clamp, Cable (SN 0300177913 through 0300189901)	
29	0641410	1	Bolt 1/4 x 1-1/4	
30	3311405	1	Nut 1/4	
31		Ref	Hose Clamp Block Options:	
31	0561360	1	Hose Clamp Block (E450A, M450A, E450AJ & M450AJ)	
31	0561385	1	Hose Clamp Block (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
32		Ref	Hose Clamp Block Options:	
32	0561361	1	Hose Clamp Block (E450A, M450A, E450AJ & M450AJ)	
32	0561386	1	Hose Clamp Block (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
33	0100019	AR	Compound, Locking	
34		Ref	Clamp Options:	
34	Not Required	0	Clamp (E450A & M450A)	
34	1320095	1	Clamp (E450AJ & M450AJ)	
34	Not Required	0	Clamp (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
35		Ref	Sleeve Options:	
35	4100065	1	Sleeve (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
35	4100065	1	Sleeve (E450A, M450A, E400A, M400A, E400Anarrow & M400AJPnarrow) (Prior to SN 0300070932)	
35	4100067	1	Sleeve (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
35	4100067	1	Sleeve (E450AJ & M450AJ)	
36		Ref	Clamp Options:	
36	1320199	1	Clamp (E450A & M450A) (Prior to SN 0300060132)	
36	0561424	1	Clamp (E450A & M450A) (SN 0300060132 through 0300189898)	
36	Not Required	0	Clamp (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
36	0561424	1	Clamp (E400A, M400A, E400Anarrow & M400Anarrow)	
		Ref	LIMIT SWITCHES INSTALLATION	
	0254875	Ref	Limit Switches Installation (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300063768)	5

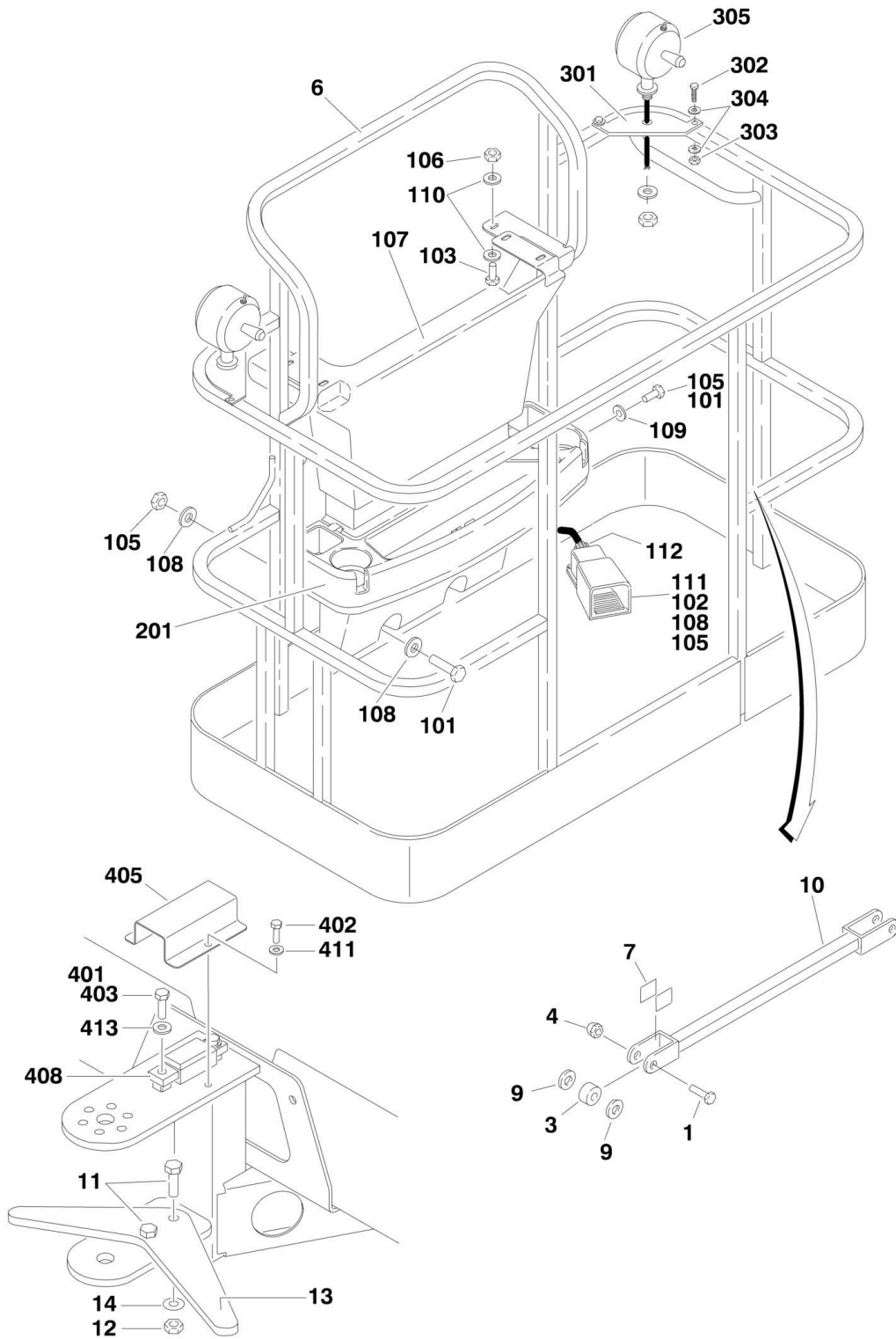
SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0271493	Ref	Limit Switches Installation (E450A, M450A, E450AJ & M450AJ) (SN 0300063768 through 0300189898)	2
	0254875	Ref	Limit Switches Installation (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300063768)	5
	0253704	Ref	Limit Switches Installation (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300063768)	6
	0271494	Ref	Limit Switches Installation (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300063768 through 0300189901)	2
101		Ref	Switch, Limit Options:	
101	4360321	2	Switch, Limit (Prior to SN 0300074300)	
101	4360548	2	Switch, Limit (SN 0300074300 through 0300189901)	
102		Ref	Connector, Strain Relief Options:	
102	4460428	2	Use with 4360321 Limit Switch	
102	4460968	2	Use with 4360548 Limit Switch	
103	3311005	4	Nut #10	
104		Ref	Harness (Lower) Options:	
104	1060341	AR	Harness (Lower) (Prior to SN 0300063768)	
104	4922614	1	Harness (Lower) (SN 0300063768 through 0300189901)	
105		Ref	Screw Options:	
105	3900246	2	Screw #10 x 1-3/4 (Prior to SN 0300070080)	
105	3931028	2	Screw #10 x 1-3/4 (SN 0300070080 through 0300189901)	
106	3900104	2	Screw #10 x 2-1/4	
107		Ref	Harness (Upper) Options:	
107	1060341	AR	Harness (Upper) (Prior to SN 0300063768)	
107	4922613	1	Harness (Upper) (E450A, M450A, E450AJ & M450AJ) (SN 0300063768 through 0300189898)	
107	4922615	1	Harness (Upper) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300063768 through 0300189901)	
108	1670832	1	Cover, Switch Lower	
109	1670833	1	Cover, Switch Upper	

SECTION 4 - PLATFORM

SECTION 4 - PLATFORM

FIGURE 4-1. PLATFORM COMPONENTS INSTALLATION (FRONT ENTRY PLATFORM)



SECTION 4 - PLATFORM

FIGURE 4-1. PLATFORM COMPONENTS INSTALLATION (FRONT ENTRY PLATFORM)

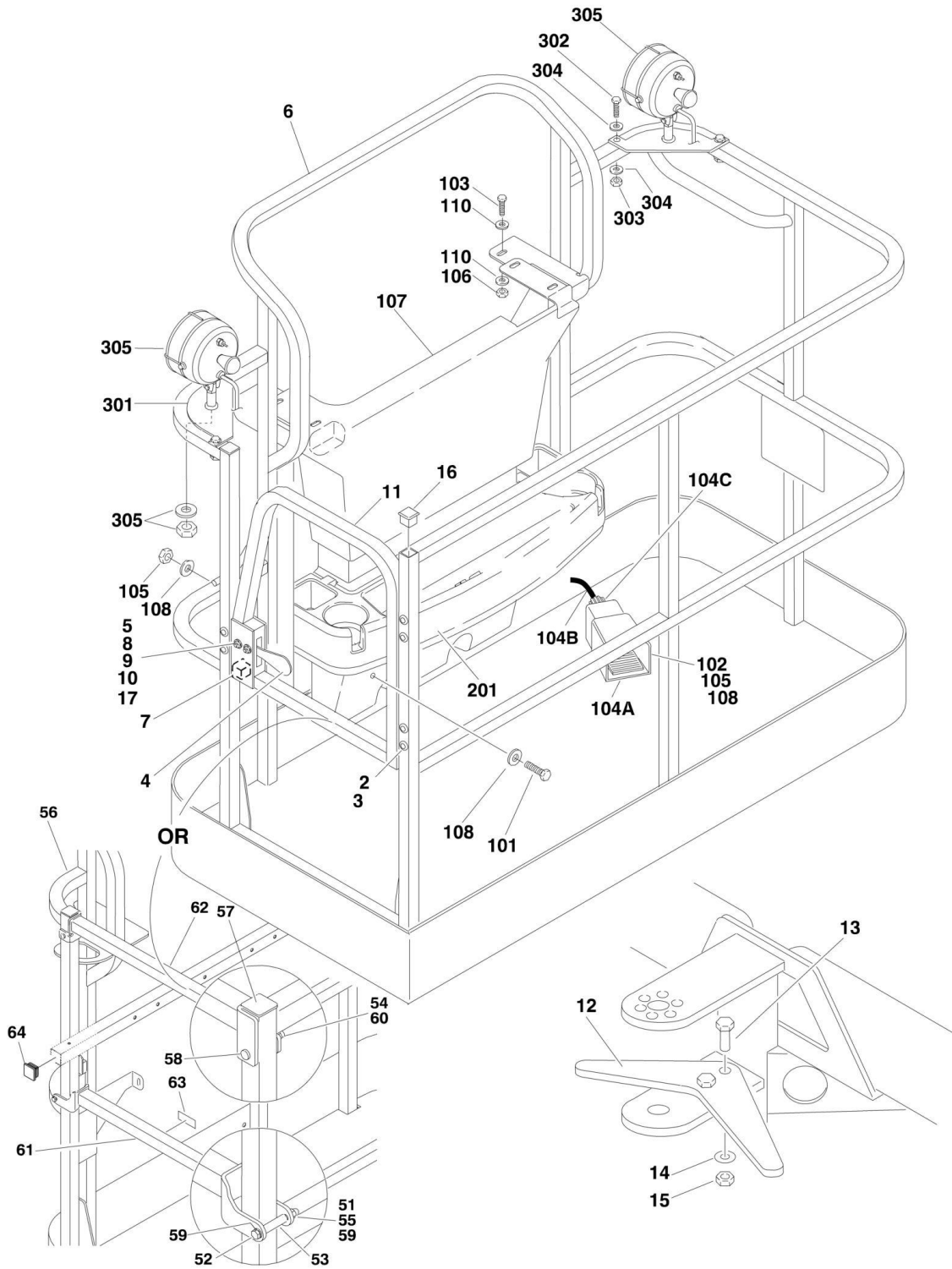
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM INSTALLATIONS WITH LIFT GATE	
	3510696	Ref	4ft/1.22m Width	B
	3510695	Ref	5ft/1.52m Width (Without Stop)	B
	0270408	Ref	5ft/1.52m Width (With Stop)	C
		Ref	Note: Replacement Decals Must be Ordered Separately - See DECAL SECTION for Breakdown.	
1	0641418	2	Bolt 1/4in-20NC x 2-1/4in (Grade 8)	
3	0961845	2	Bushing	
4	3300151	2	Nut Acorn 1/4in-20NC	
6		Ref	Platform Options (Purchase Complete Platform):	
6	3510696	1	4ft/1.22m Width	
6	3510695	1	5ft/1.52m Width (Without Stops)	
6	0270408	1	5ft/1.52m Width (With Stops)	
7	4420055	4 in/10cm	Tape	
9	4740411	4	Washer, Nylon	
10	4845288	1	Slide Bar Weldment	
11	0641609	2	Bolt 3/8in-16NC x 1-1/8in (Platform with Stop Only)	
12	3311605	2	Locknut 3/8in-16NC (Platform with Stop Only)	
13		Ref	Stop Options (Platform with Stop Only):	
13	4846276	1	Stop (Prior to SN 0300072144)	
13	3572413	1	Stop (SN 0300072144 through 0300189901)	
14	4711600	4	Flatwasher 3/8in Narrow (Platform with Stop Only)	
		Ref	CONSOLE BOX INSTALLATIONS AND ASSEMBLIES	
	0861176	Ref	Console Box Installations and Assemblies (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300068945)	10-G
	0272082	Ref	Console Box Installations and Assemblies (E450A, M450A, E450AJ & M450AJ) (SN 0300068945 through 0300189898)	A
	0861176	Ref	Console Box Installations and Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300068945)	10-G
	0272082	Ref	Console Box Installations and Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300068945 through 0300189901)	A
	0861314	Ref	Console Box Installations and Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300068945)	4-D
	0272106	Ref	Console Box Installations and Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300068945 through 0300189901)	A
101	0641406	4	Bolt 1/4in-20NC x 3/4in	
102	0641408	3	Bolt 1/4in-20NC x 1in	
103	0641610	4	Bolt 3/8in-16NC x 1-1/4in	
104		Ref	Console Box Assembly Options: (Not Shown - See PLATFORM CONSOLE ASSEMBLY for Breakdown)	
104	0861529	1	Console Box Assembly (E450A, M450A, E450AJ, M450AJ, E400A, M400A, E400Anarrow & M400Anarrow)	
104	0861532	1	Console Box Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
105	3311405	7	Locknut 1/4in-20NC	
106	3311605	4	Locknut 3/8in-16NC	
107	3380434	1	Panel, Decal Mount	
108	4740362	7	Washer, Fender 1/4in	
109	4751400	4	Washer 1/4in (Wide)	

SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
110	4751600	8	Washer 3/8in (Wide)	
111	4360031	1	Footswitch	
111	7000625	2	Block, Contact	
111	3252347	1	Nameplate (Note: See DECAL SECTION for Other Languages)	
112	4460071	1	Connector, Strain Relief	
		Ref	TRAY INSTALLATIONS (OPTIONAL)	
201	1580012	1	Tray, Storage (Center)	
202	1580013	1	Tray, Storage (Rail Mounted - Not Shown)	
	0259338	Ref	WORKLIGHTS INSTALLATION (OPTIONAL)	1-A
301	3536089	2	Plate, Mounting	
302	0641414	4	Bolt 1/4in-20NC x 1-3/4in	
303	3311405	4	Locknut 1/4in-20NC	
304	4711400	8	Flatwasher 1/4in Narrow	
305	2920095	2	Worklight	
305	7016356	2	Bulb, Replacement (1 Per Assembly)	
306	4240099	10	Tie-Strap (Not Shown)	
307	2820035	9	Loom, Vinyl (Not Shown)	
309	4460428	1	Connector, Strain Relief (Not Shown - Located at Console Box)	
		Ref	PLATFORM LOAD SENSING INSTALLATION (OPTIONAL)	
	0259358	Ref	CE Spec	D
	0271489	Ref	CE Spec (Lift Down)	B
401	0100011	AR	Compound, Locking	
402	0641404	2	Bolt 1/4in-20NC x 1/2in	
403	0701010	2	Bolt, Metric 10mm x 20mm	
405	1670905	1	Cover, Cell	
408	3990108	1	Cell, Load	
411	4711400	2	Flatwasher 1/4in Narrow	
413	4812000	2	Lockwasher 7/16in	

SECTION 4 - PLATFORM

FIGURE 4-2. PLATFORM COMPONENTS INSTALLATION (SIDE ENTRY PLATFORM)



SECTION 4 - PLATFORM

FIGURE 4-2. PLATFORM COMPONENTS INSTALLATION (SIDE ENTRY PLATFORM)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM ASSEMBLY WITH GATE	
		Ref	Platform Assembly With Gate (Prior to SN 0300163749)	
	3510831	Ref	5ft (1.52m) with No Mesh and No Stop (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ) (Use p/n 1001144026)	L
	3510844	Ref	5ft (1.52m) with No Mesh and With Stop (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	D
	3510830	Ref	4ft (1.22m) with No Mesh and No Stop (Use p/n 1001144027)	M
		Ref	Platform Assembly With Gate	
	1001144026	Ref	5ft (1.52m) with No Mesh and No Stop (E400A, M400A, E400Anarrow, M400Anarrow) (SN 0300163749 through 0300189901)	C
	1001144026	Ref	5ft (1.52m) with No Mesh and No Stop (E450A, M450A, E450AJ & M450AJ) (SN 0300163749 through 0300189901)	C
	3510844	Ref	5ft (1.52m) with No Mesh and With Stop (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300163749 through 0300189901)	E
	1001144027	Ref	4ft (1.22m) with No Mesh and No Stop (SN 0300163749 through 0300189901)	C
		Ref	Note: Platform and Mesh must be ordered separately for Platforms with Mesh. See SPECIAL OPTIONS SECTION for Mesh Installations.	
		Ref	Note: Replacement Decals Must be Ordered Separately - See DECAL SECTION for Breakdown.	
1	0100040	AR	Sealant, Adhesive (Not Shown) (Prior to SN 0300103057)	
2	2080040	16	Fastener, Huck	
3	2600281	2	Hinge, Self-Closing	
4	2940074	1	Latch	
5	3311001	4	Nut #10-24NC - Platform with No Stop Only (Prior to SN 0300077390)	
6	See Note	1	Platform Weldment (Note: Not Available - Purchase Platform Assembly)	
7	3520072	1	Cap-Plug	
8		Ref	Hardware Options:	
8		Ref	Platform with No Stop:	
8	3911008	4	Screw #10-24NC x 1in (Prior to SN 0300077390)	
8	3820020	4	Pop Rivet (SN 0300077390 through 0300189901)	
8		Ref	Platform with Stop:	
8	3911008	4	Screw #10-24NC x 1in1	
9	4751000	AR	Flatwasher #10 - Platform with No Stop Only (Prior to SN 0300077390)	
10	4761000	AR	Lockwasher #10 - Platform with No Stop Only (Prior to SN 0300077390)	
11		Ref	Gate Weldment Options:	
11	4846452	1	Gate Weldment (Prior to SN 0300163749)	
11	1001144629	1	Gate Weldment (SN 0300163749 through 0300189901)	
12	3572413	1	Stop (Platform with Stop Only)	
13	0641610	2	Bolt 3/8in-16NC x 1-1/4in (Platform with Stop Only)	
14	4711600	4	Flatwasher 3/8in Narrow (Platform with Stop Only)	
15	3311605	2	Locknut 3/8in-16NC (Platform with Stop Only)	
16	3520198	2	Cap-Plug	
17	0100011	AR	Compound, Locking - Platform with No Stop Only (Prior to SN 0300077390)	

SECTION 4 - PLATFORM

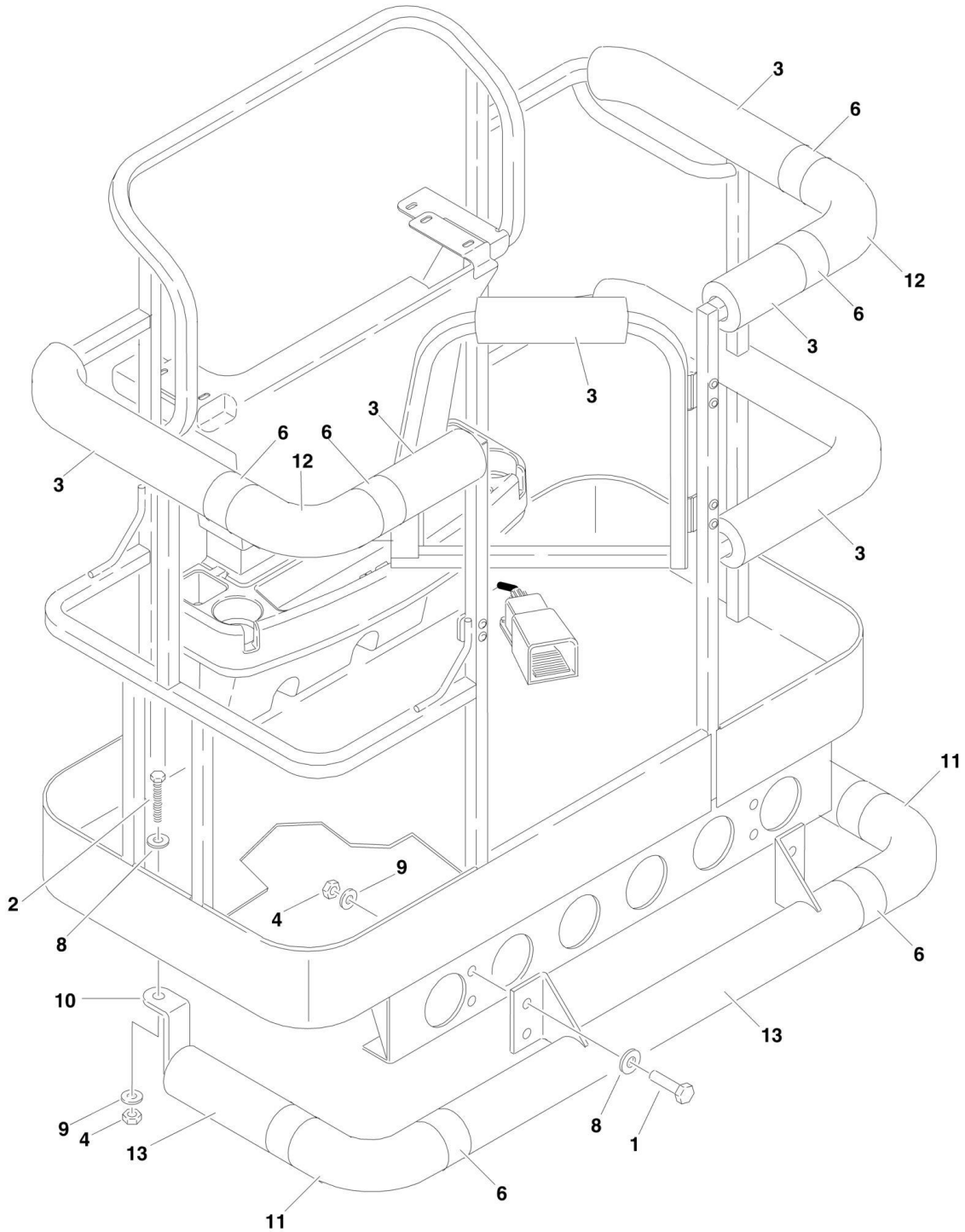
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM ASSEMBLY WITH DROP-BAR	
		Ref	Platform Assembly With Drop-Bar (Prior to SN 0300163749)	
	1001138431	Ref	4ft x 2.5ft (1.2m x .76m) (Use p/n 1001144018)	B
	1001138432	Ref	5ft x 2.5ft (1.5m x .76m) (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ) (Use p/n 1001144019)	B
		Ref	Platform Assembly With Drop-Bar (SN 0300163749 through 0300189901)	
	1001144018	Ref	4ft x 2.5ft (1.2m x .76m) (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ) (SN 0300163749 through 0300189901)	C
	1001144019	Ref	5ft x 2.5ft (1.5m x .76m) (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ) (SN 0300163749 through 0300189901)	C
		Ref	Note: Replacement Decals Must be Ordered Separately - See DECAL SECTION for Breakdown.	
51	0100011	AR	Compound, Locking	
52	0641418	2	Bolt 1/4in-20NC x 2-1/4in	
53	0961845	2	Bushing	
54	3290606	2	Nut M6	
55	3300151	2	Nut, Acorn	
56	See Note	1	Platform Weldment (Note: Purchase Platform Assembly.)	
57	3520198	2	Cap-Plug	
58	4010618	2	Screw M6 x 50mm	
59	4711400	4	Flatwasher 1/4in	
60	4811700	2	Flatwasher M6	
61	1001138494	1	Bar, Drop	
62	1001138514	1	Rail (Top)	
63	1001140429	1	Decal - Drop-Bar	
64	3520072	2	Cap-Plug	
		Ref	CONSOLE BOX INSTALLATIONS AND ASSEMBLIES	
	0272082	Ref	Console Box Installations and Assemblies (E450A, M450A, E450AJ & M450AJ) (Use p/n 0272082)	A-B
	0272082	Ref	Console Box Installations and Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (Use p/n 1001146082)	A-B
	0272106	Ref	Console Box Installations and Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Use p/n 1001145801)	A-B
101	0641406	4	Bolt 1/4in-20NC x 3/4in	
102	0641408	3	Bolt 1/4in-20NC x 1in	
103	0641610	4	Bolt 3/8in-16NC x 1-1/4in	
104		Ref	Console Box Assembly Options: (Not Shown - See PLATFORM CONSOLE ASSEMBLY for Breakdown)	
104	0861529	NLA	Console Box Assembly (E450A, M450A, E450AJ, M450AJ, E400A, M400A, E400Anarrow & M400Anarrow) (Use p/n 1001146083)	
104	0861532	NLA	Console Box Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Use p/n 1001145799)	
104A		Ref	Footswitch Assembly Options:	
104A	0272971	1	Footswitch Assembly (Prior to SN 0300167691)	
104A	1001136889	1	Footswitch Assembly (SN 0300167691 through 0300189901)	
104A		Ref	Footswitch Options:	
104A	4360031	1	Footswitch (Prior to SN 0300143940)	
104A	7000625	2	Block, Contact for 4360031 Footswitch	

SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
104A	1001117320	1	Footswitch (E/M400 & E/M450) (SN 0300143940 through 0300167690)	
104A	70003483	1	Block, Contact for 1001117320 Footswitch	
104A	1001117172	1	Footswitch (SN 0300167691 through 0300189901)	
104A	70002902	1	Block, Contact for 1001117172 Footswitch	
104A	70002903	1	Gasket for 1001117172 Footswitch	
104A	70002905	1	Cover for 1001117172 Footswitch	
104A	70002904	1	Bolt Replacement Kit for 1001117172 Footswitch	
104B	1060330	7 ft/2.14m	Cable, Electrical - 16/3	
104C	4460071	1	Connector, Strain Relief	
105	3311405	7	Locknut 1/4in-20NC	
106	3311605	4	Locknut 3/8in-16NC	
107	3380434	1	Panel, Decal Mount	
108	4740362	7	Washer, Fender 1/4in	
109	4751400	4	Flatwasher 1/4in (Wide)	
110	4751600	8	Flatwasher 3/8in (Wide)	
		Ref	TRAY INSTALLATIONS (OPTIONAL)	
201	1580012	1	Tray, Storage (Center)	
202	1580013	1	Tray, Storage (Rail Mounted - Not Shown)	
	0259338	Ref	WORKLIGHTS INSTALLATION (OPTIONAL)	C
301	3536089	2	Plate, Mounting	
302	0641414	4	Bolt 1/4in-20NC x 1-3/4in	
303	3311405	4	Locknut 1/4in-20NC	
304	4711400	8	Flatwasher 1/4in Narrow	
305	2920095	2	Worklight	
305	7016356	2	Bulb, Replacement (1 Per Assembly)	
306	4240099	10	Tie-Strap (Not Shown)	
307	2820035	9	Loom, Vinyl (Not Shown)	
309	4460428	1	Connector, Strain Relief (Not Shown - Located at Console Box)	
312	4923061	1	Harness, Platform Work Lights (Not Shown)	
312	4460464	1	Pin, Male	

SECTION 4 - PLATFORM

FIGURE 4-3. PLATFORM PADDING INSTALLATION (FRONT ENTRY PLATFORM)



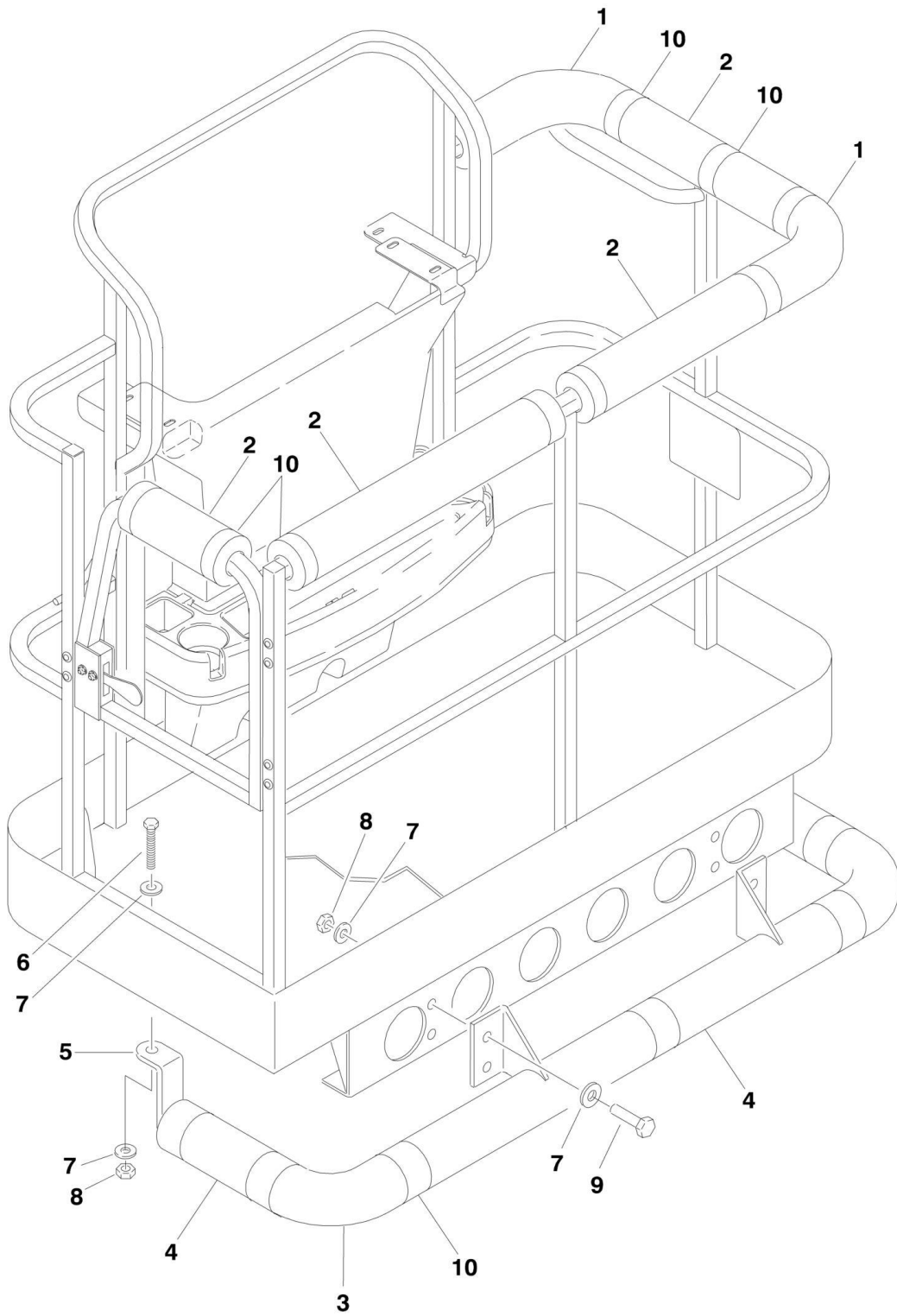
SECTION 4 - PLATFORM

FIGURE 4-3. PLATFORM PADDING INSTALLATION (FRONT ENTRY PLATFORM)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM PADDING INSTALLATION	
	0270338	Ref	30in x 48in	B
	0271937	Ref	30in x 60in	1-A
1		Ref	Bolt Options:	
1	0641508	4	30in x 48in Assemblies (Bolt 5/16in-18NC x 1in)	
1	0641506	4	30in x 60in Assemblies (Bolt 5/16in-18NC x 3/4in)	
2	0641516	2	Bolt 5/16in-18NC x 2in	
3	0940094	AR	Padding	
4		Ref	Nut Options:	
4	3311501	6	30in x 48in Assemblies (Nut 5/16in-18NC)	
4	3311505	6	30in x 60in Assemblies (Locknut 5/16in-18NC)	
6	4420068	36 ft/11m	Tape, Yellow Adhesive	
8	4751500	6	Flatwasher 5/16in (Wide)	
9	4761500	6	Lockwasher 5/16in	
10		Ref	Bumper Rail Options:	
10	4844917	1	30in x 48in Assemblies	
10	4845346	1	30in x 60in Assemblies	
11	0940091	2	Corner, Padded	
12	0940092	2	Corner, Padded	
13	0940093	AR	Padding (Bottom)	

SECTION 4 - PLATFORM

FIGURE 4-4. PLATFORM PADDING INSTALLATION (SIDE ENTRY PLATFORM)



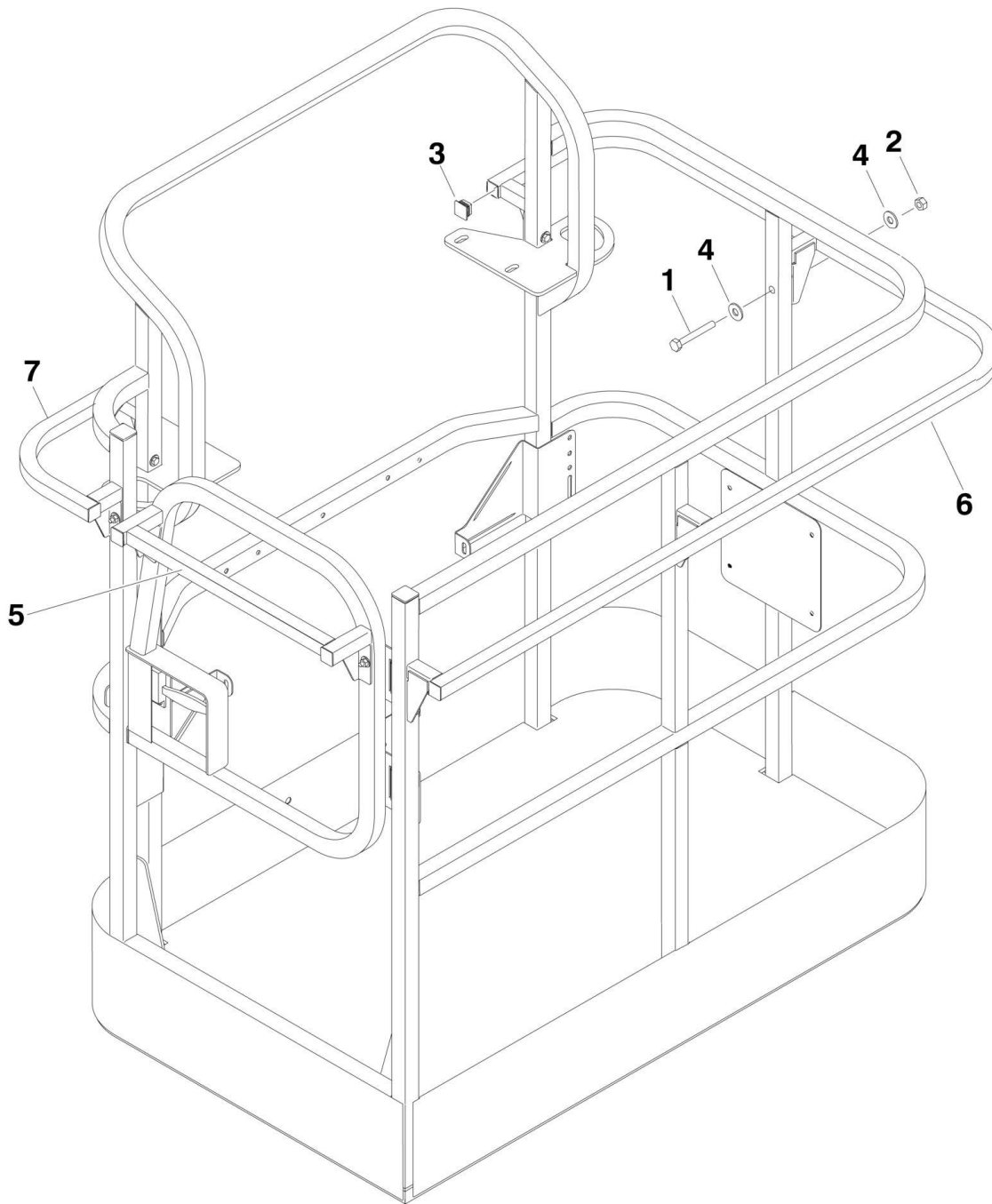
SECTION 4 - PLATFORM

FIGURE 4-4. PLATFORM PADDING INSTALLATION (SIDE ENTRY PLATFORM)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM PADDING INSTALLATION	
	0273381	Ref	30in x 48in Platform	2-A
	0273382	Ref	30in x 60in Platform	2-A
1	0940092	Ref	Pad, Corner Bumper Options:	
1	0940092	2	30in x 48in Platform	
1	0940092	3	30in x 60in Platform	
2	0940094	Ref	Pad, Bumper Options:	
2	0940094	63 in	Pad, Bumper 30in x 48in Platform	
2	0940094	87 in	Pad, Bumper 30in x 60in Platform	
3	0940091	2	Pad, Corner Bumper	
4	0940093	Ref	Pad, Bumper Options:	
4	0940093	51 in	Pad, Bumper 30in x 48in Platform	
4	0940093	66 in	Pad, Bumper 30in x 60in Platform	
5		Ref	Rail, Bumper Options:	
5	4846936	1	30in x 48in Platform	
5	4846937	1	30in x 60in Platform	
6	0641516	2	Bolt 5/16in-18NC x 2in	
7	4751500	6	Flatwasher 5/16in Wide	
8	3311501	6	Nut 5/16in-18NC	
9	0641506	4	Bolt 5/16in-18NC x 3/4in	
10	4420068	Ref	Tape, Yellow Safety Options:	
10	4420068	30 ft	Tape, Yellow Safety 30in x 48in Platform	
10	4420068	34 ft	Tape, Yellow Safety 30in x 60in Platform	

SECTION 4 - PLATFORM

FIGURE 4-5. PLATFORM TOP RAIL EXTENSION INSTALLATION (SIDE ENTRY PLATFORM)



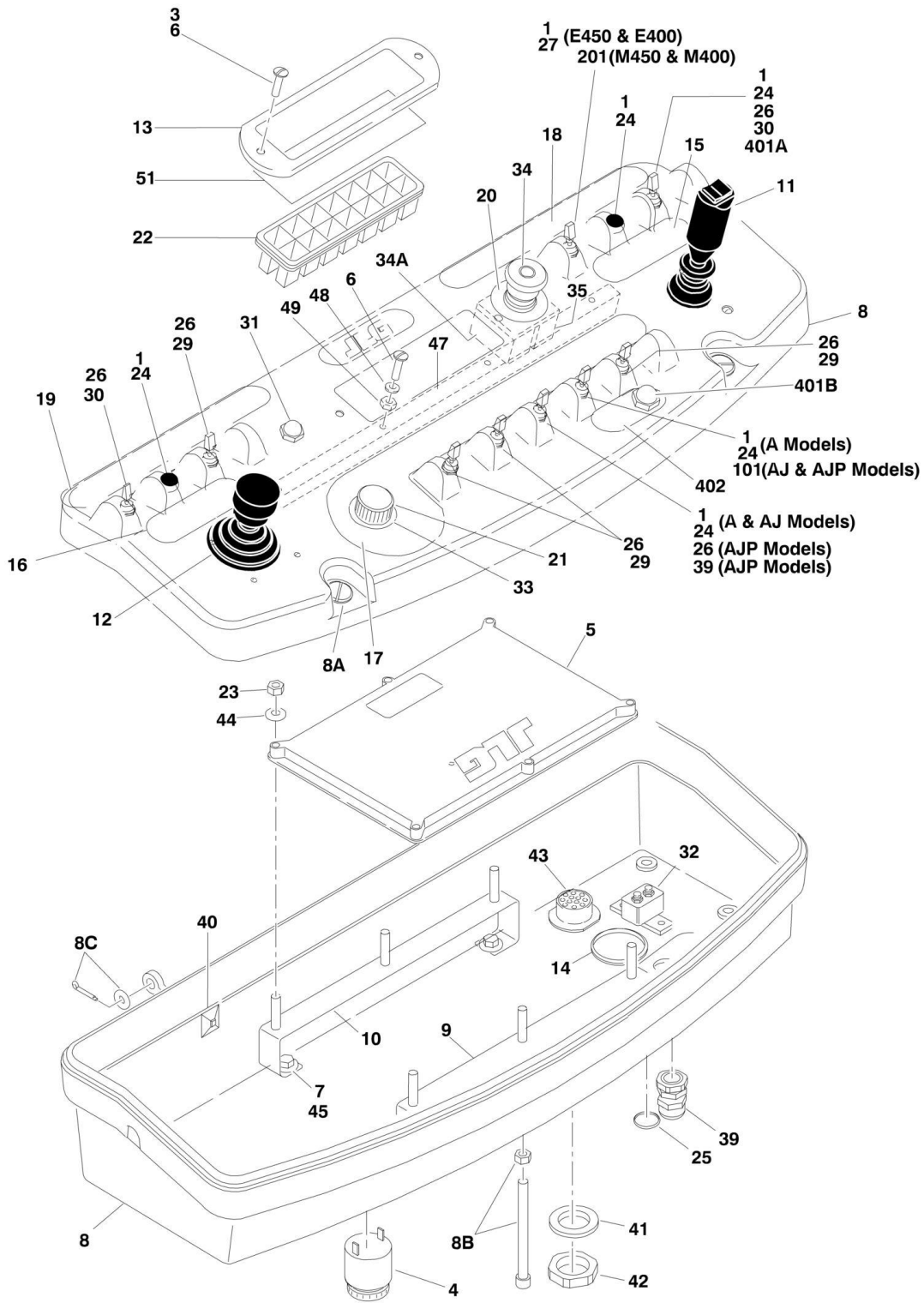
SECTION 4 - PLATFORM

FIGURE 4-5. PLATFORM TOP RAIL EXTENSION INSTALLATION (SIDE ENTRY PLATFORM)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM TOP RAIL EXTENSION INSTALLATION	
	1001103617	Ref	30in x 48in Platform	A
	1001103558	Ref	30in x 60in Platform	A
1	0641416	8	Bolt 1/4in-20NC x 2in	
2	3311405	8	Locknut 1/4in-20NC	
3	3520182	6	Plug	
4	4751400	16	Flatwasher 1/4in	
5	4846759	1	Rail, Extension Gate	
6		Ref	Rail, Rear Extension Options:	
6	1001103614	1	30in x 48in Platform	
6	1001103559	1	30in x 60in Platform	
7		Ref	Rail, Extension Options:	
7	1001103616	1	30in x 48in Platform	
7	1001103560	1	30in x 60in Platform	

SECTION 4 - PLATFORM

FIGURE 4-6. PLATFORM CONSOLE ASSEMBLY



SECTION 4 - PLATFORM

FIGURE 4-6. PLATFORM CONSOLE ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	CONSOLE BOX ASSEMBLIES	
	0861176	Ref	Console Box Assemblies (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300068945)	10-G
	0861529	Ref	Console Box Assemblies (E450A, M450A, E450AJ & M450AJ) (SN 0300068945 through 0300189898)	A-O
	0861176	Ref	Console Box Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300068945)	10-G
	0861529	Ref	Console Box Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300068945 through 0300189901)	A-O
	0861314	Ref	Console Box Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300068945)	4-D
	0861532	Ref	Console Box Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300068945 to Present)	A-L
	0273089	Ref	Light Panel Installation	B
1	0100009	AR	Sealant	
3	0100035	AR	Compound, Locking	
4	0140011	1	Alarm	
5		Ref	Module, PC Options:	
		Ref	Note: Re-calibration Required when Replaced.	
5	0610128	NLA	Module (Use p/n 1001109498) (Prior to SN 0300139889)	
5	1001109498	1	Module (SN 0300139889 through 0300189901)	
6	0630464	2	Bolt #10-24 x 1/2in	
7	0720804	6	Bolt #8-32 x 1/2in	
8		Ref	Console Box Assembly Options:	
8	0861215	1	Console Assembly (Prior to SN 0300068945)	
8A	7020099	2	Screw	
8A	3760308	2	Retainer, Screw	
8A	7020100	2	Receptacle, Clip-on Screw	
8A	0861537	1	Console Assembly (SN 0300068945 through 0300189901)	
8A	0861537	1	Casting, Console (Bottom) (Note: Not available for purchase)	
8A	0861537	1	Casting, Console (Top) (Note: Not available for purchase)	
8B	0630568	1	Capscrew, Socket Head 3/8in-16NC x 4-1/2in	
8B	3311601	1	Nut 3/8in-16NC	
8C	3420156	2	Pin, Cotter	
8C	4711500	2	Flatwasher 5/16in Narrow	
9	0902575	1	Bracket, Platform Module	
10	0902588	1	Bracket, Platform Module	
11		Ref	Controller Assembly (Drive and Steer) (See CONTROLLER ASSEMBLY (DRIVE AND STEER) for Breakdown)	
11	1600273	NLA	Controller Assembly (Drive and Steer) (Use p/n 1001118418) (Prior to SN 0300145789)	
11	1001118418	1	Controller Assembly (Drive and Steer) (SN 0300145789 through 0300189901)	
12		Ref	Controller Assembly (Lift and Swing) (See CONTROLLER ASSEMBLY (LIFT AND SWING) for Breakdown)	
12	1600274	NLA	Controller Assembly (Lift and Swing) (Use p/n 1001118419) (Prior to SN 0300145789)	
12	1001118419	1	Controller Assembly (Lift and Swing) (SN 0300145789 through 0300189901)	
13	1670829	1	Bezel	
14		Ref	Cover Options:	

SECTION 4 - PLATFORM

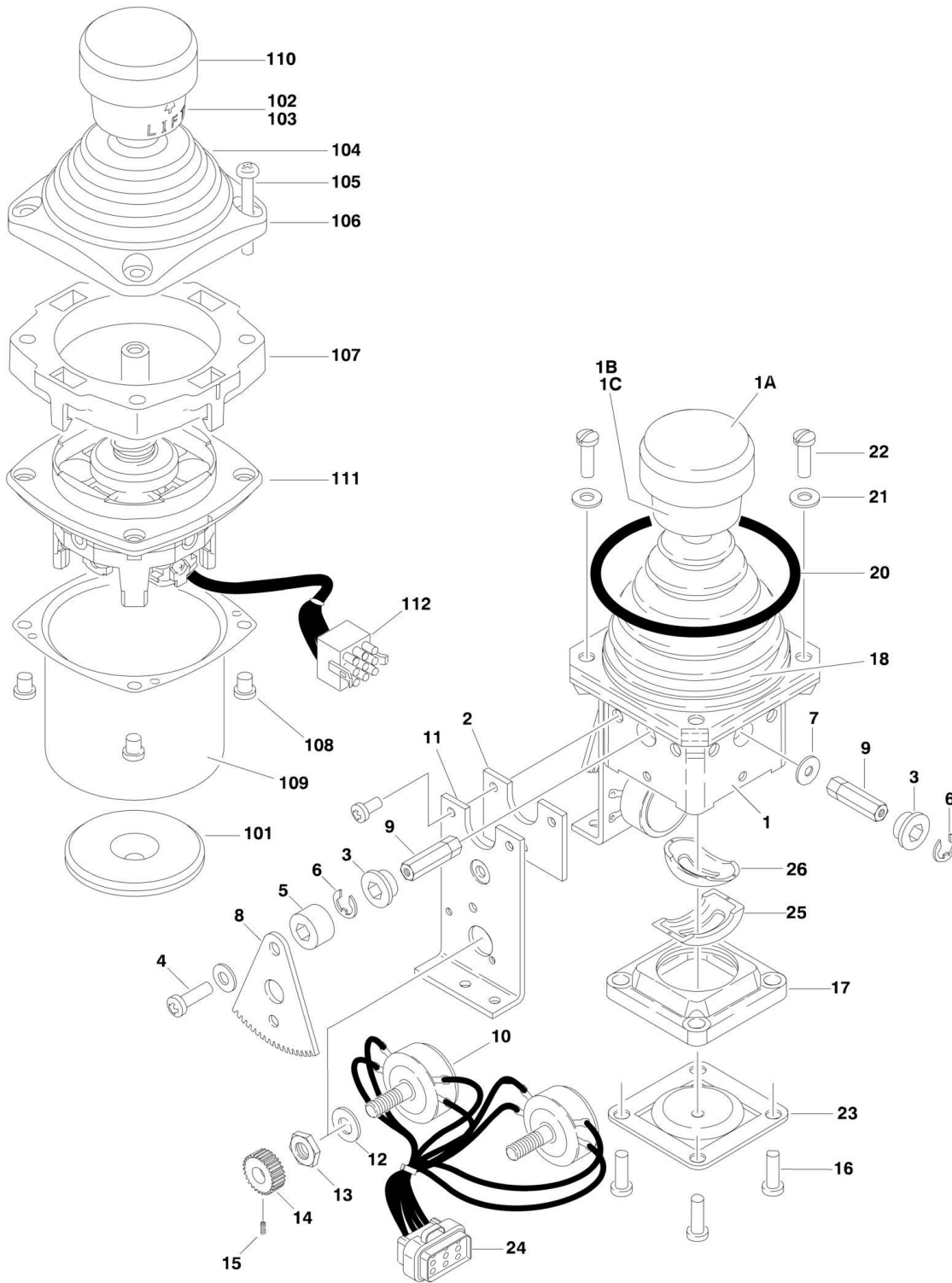
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
14	Not Required	0	Cover (Prior to SN 0300068945)	
14	1671037	1	Cover (SN 0300068945 through 0300139524)	
14	1001110435	1	Cover (SN 0300139525 through 0300189901)	
15	1702565	1	Decal - Drive and Steer	
16	1702566	1	Decal - Lift and Swing	
17		Ref	Decal - Function Speed Options:	
17	1702567	1	Decal - Function Speed (E450A, M450A, E450AJ & M450AJ)	
17	1702567	1	Decal - Function Speed (E400A, M400A, E400Anarrow & M400Anarrow)	
17	1704422	1	Decal - Function Speed (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
18		Ref	Decal - Stop Options:	
18	1704192	NLA	Decal, (Use p/n 1001132175) (Prior to SN 0300139889)	
18	1001132175	1	Decal - Stop (SN 0300139889 through 0300150083)	
18	1001132175	1	Decal - Stop (SN 0300150084 through 0300189901)	
19	1704240	1	Decal - Horn	
20	1704260	1	Decal - EMS	
21	2560136	1	Handle, Knob	
22	2760105	1	Fixture, Light	
23	3310601	6	Nut #6-32	
24		Ref	Plug, Hole Options:	
24	3520028	AR	Plug, Hole (Prior to SN 0300077413)	
24	3520054	AR	Plug, Hole (SN 0300077413 through 0300189901)	
25	3520030	2	Hole, Plug	
26	3790012	AR	Ring	
27	4240032	2	Tie, Wire (Not Shown)	
29	4360328	AR	Switch, Toggle	
30		Ref	Switch, Toggle Options:	
30	4360330	AR	Switch for Positrack and Drive Orientation	
30	4360336	AR	Switch for Lights	
31	4360387	1	Switch, Push Button	
32	4360448	1	Circuit Breaker - 10 Amp	
33	4360462	1	Switch, Potentiometer	
34	4360475	1	Switch, Emergency Stop	
34	7020175	1	Cap, Mushroom with Sealing Ring	
34A	7020176	1	Block, Contact	
35	4360476	1	Block, Contact	
38	4460234	3	Tie, Wire (Not Shown)	
39	4460428	1	Connector, Strain Relief	
40	4460488	1	Base, Terminal Mounting	
41	4460496	1	Lockwasher, Receptacle	
42	4460497	1	Nut, Terminal	
43	4460752	1	Connector - 14 Position	
44	4750600	6	Flatwasher #6	
45	4750800	4	Flatwasher #8	
47	3571222	1	Angle, Relay Mounting Only (Prior to SN 0300068945)	
48	4740120	4	Washer, Nylon Only (Prior to SN 0300068945)	
49	3311005	4	Locknut #10-24NC Only (Prior to SN 0300068945)	
51		Ref	Display - Light Panel Options:	
51	1704239	1	Display (Prior to SN 0300139889)	
51	1001110226	1	Display (SN 0300139889 through 0300189901)	

SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0259102	Ref	JIB CONSOLE SWITCH (E450AJ, M450AJ, E450AJP, M450AJP, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow ONLY)	2-B
101	4360328	1	Switch, Toggle	
101	3790012	1	O-Ring	
101	4922294	1	Harness, Jib Function (See ELECTRICAL SECTION for Breakdown)	
101	4240032	6	Tie-Strap	
		Ref	MOTOR CONTROLS INSTALLATION (M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow ONLY)	
	0257824	Ref	M450 & M450AJ Models Built (Prior to SN 0300059390)	11
	0270344	Ref	M450 & M450AJ Models Built (SN 0300059390 through 0300079057)	5-B
	0270344	Ref	M400A, M400AJPP, M400Anarrow & M400AJPnarrow Models (Prior to SN 0300079057)	5-B
	0273573	Ref	M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow Models (SN 0300079057 through 0300088538)	B
	0274617	Ref	Motor/Generator Installation (Kubota Diesel) (Prior to SN 0300182839)	G
	1001159362	Ref	Motor/Generator Installation (Kubota Diesel) (M450A, M450AJ, M400A, M400AJP, M400Anarrow & M400AJPnarrow ONLY) (SN 0300182839 through 0300189901)	A
201	4360336	1	Switch, Toggle	
201	3790012	1	O-Ring	
201	4922222	1	Harness (See ELECTRICAL SECTION for Breakdown)	
201	4922223	1	Harness (See ELECTRICAL SECTION for Breakdown)	
		Ref	PLATFORM OVERLOAD SENSING INSTALLATION (OPTIONAL - FRONT ENTRY PLATFORM) (NOT SHOWN)	
	0259358	Ref	CE Spec	D
	0271489	Ref	CE Spec (Lift Down)	B
		Ref	Note: For Side Entry Platform Refer to JLG Supplement 3124287.	
301	1600310	1	Controller, Load Sensing	
301	3910614	2	Screw #6-32NC x 7/8in	
301	4750600	2	Flatwasher #6	
301	3310601	2	Nut #6-32NC	
	0259338	Ref	WORKLIGHTS INSTALLATION (OPTIONAL)	C
401		Ref	Switch Options:	
401A	4360336	1	Switch, Toggle (Prior to SN 0300161792)	
401B	4360522	1	Switch, Push Button (SN 0300161792 through 0300189901)	
402	1705170	1	Decal, Lights (SN 0300161792 through 0300189901)	

SECTION 4 - PLATFORM

FIGURE 4-7. CONTROLLER ASSEMBLY (SWING AND LIFT)



SECTION 4 - PLATFORM

FIGURE 4-7. CONTROLLER ASSEMBLY (SWING AND LIFT)

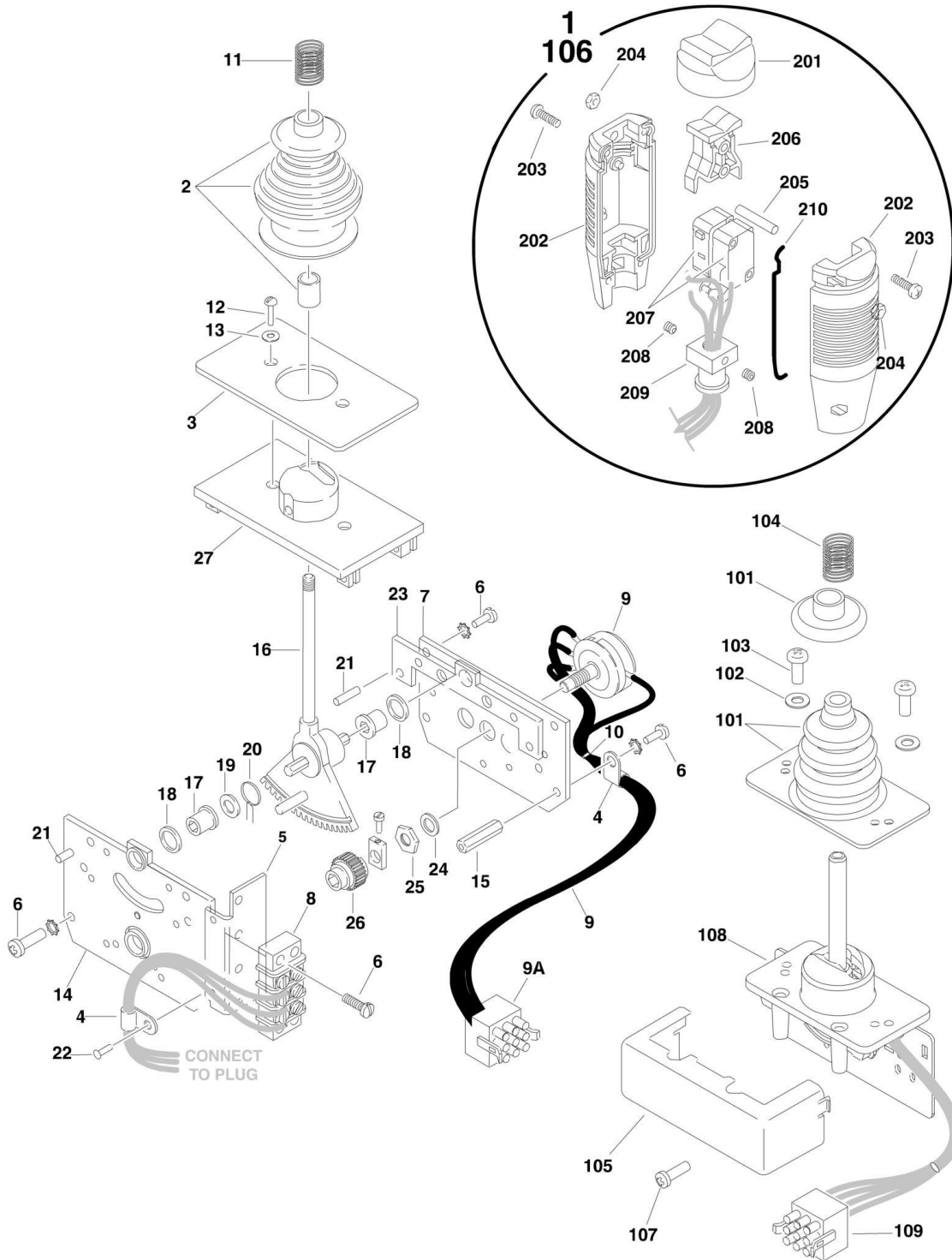
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	CONTROLLER ASSEMBLY	
	1600274	Ref	Controller Assy (Original Equipment) (Prior to SN 0300145789)	F
1	7019141	1	Mechanical Assembly (Includes Base, Handle Stem and Items 18, 1A, 1B & 1C)	
1A	7019197	1	Handle Cap and Rod	
1B	7003928	1	Spring	
1C	7022808	1	Cap, Lift	
2	7019142	2	Plate	
3	7019111	4	Bearing, Gear	
4	7019143	2	Screw	
5	7019144	2	Spacer	
6	7019145	4	E-Clip	
7	7019174	2	Spacer, Cam	
8	7003977	2	Gear, Drive	
9	7019147	4	Shaft	
10	7019195	2	Potentiometer Assembly	
10	7003974	1	Potentiometer	
11	7019142	2	Plate	
12	7003992	2	Washer	
13	7003993	2	Nut	
14	7003976	2	Gear, Slave	
15	7019149	2	Setscrew	
16	7003952	4	Screw	
17	7019150	1	Gate	
18	7022813	1	Boot (was p/n 7003955)	
19	7022813	1	Plate, Plastic (was p/n 7003954)	
20	7003956	1	O-Ring	
21	7003953	4	Washer	
22	7019137	4	Screw	
23	7019170	1	Center, Detent	
24	4460265	1	Plug, Male - 9 Position	
24	4460226	8	Socket, Female	
25	7019122	1	Gimble, Outer	
26	7019123	1	Gimble, Inner	
	1001118419	Ref	Controller Assembly (Service Replacement) (Prior to SN 0300145789)	B
	1001118419	Ref	Controller Assembly (Original Equipment) (SN 0300145789 through 0300189901)	B
101	70002730	1	Gasket	
102	7003928	1	Spring	
103	7022808	1	Cap, Lift	
104	70002731	1	Boot	
105	70002732	4	Screw	
106	7022815	1	Bezel	
107	70002733	1	Adapter	
108	70002734	4	Screw	
109	70002735	1	Can, Enclosure	
110	70002906	1	CAP	
111	1001118419	1	Mechanical Assembly (Note: Not available for purchase)	
112	4460265	1	Plug, Male - 9 Position	

SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
112	4460226	8	Socket, Female	

SECTION 4 - PLATFORM

FIGURE 4-8. CONTROLLER ASSEMBLY (DRIVE AND STEER)



SECTION 4 - PLATFORM

FIGURE 4-8. CONTROLLER ASSEMBLY (DRIVE AND STEER)

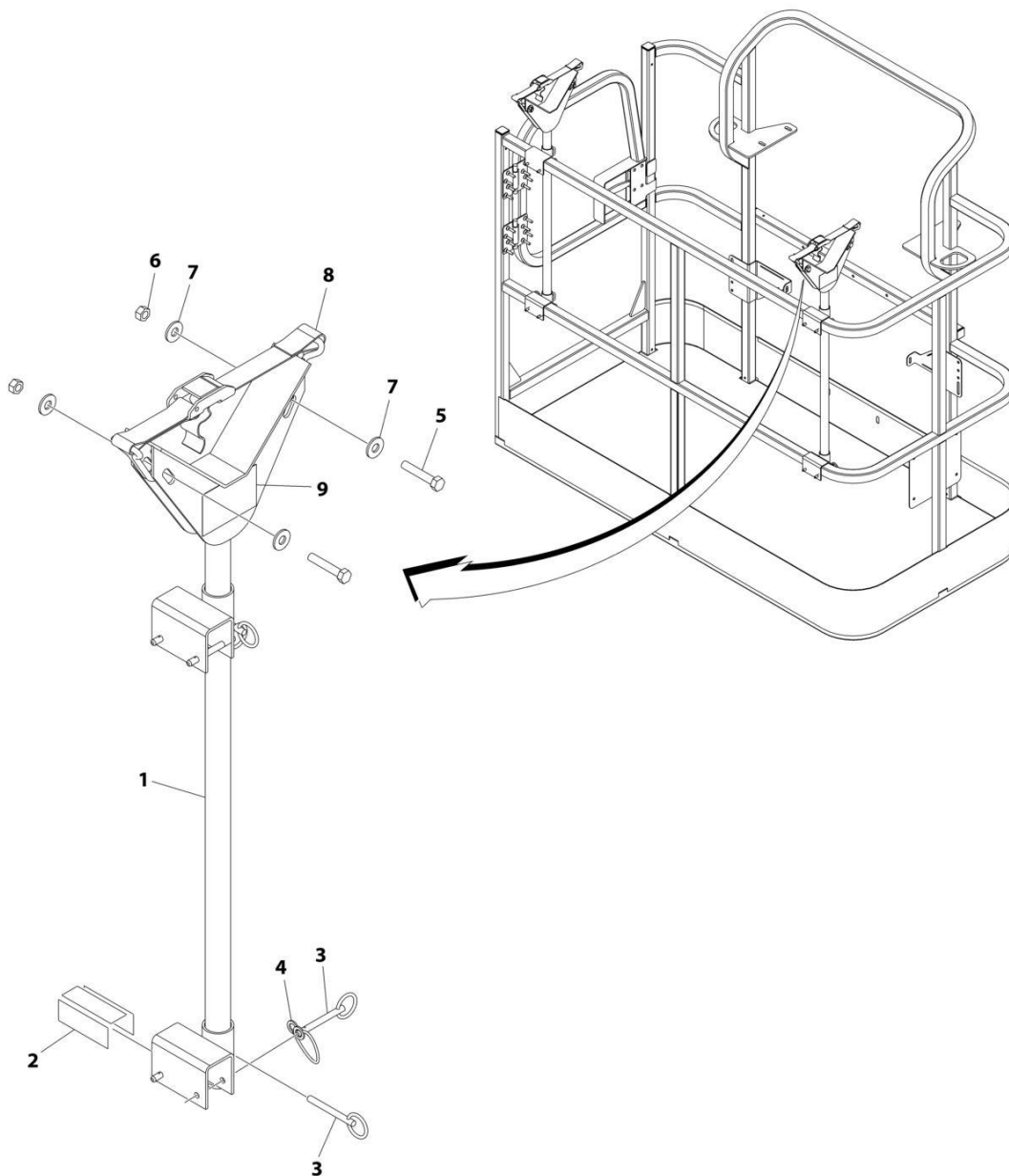
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	CONTROLLER ASSEMBLY	
	1600273	Ref	Controller Assembly (Original Equipment) (Prior to SN 0300145789)	G
1	7022812	1	Handle Assembly (See Items 201-210 for Breakdown)	
2	7019161	1	Boot and Sleeve	
3	7003933	1	Gasket	
4	7019154	2	Clamp, Wire	
5	7019159	1	Bracket, Mounting	
6	7003994	10	Screw	
7	7019157	1	Plate, Pot Mounting	
8	7003986	1	Strip, Terminal - 3 Position	
9	7019191	1	Electric Assembly	
9	7003974	1	Potentiometer	
9A	4460265	1	Plug, Male - 9 Position	
9A	4460226	7	Socket, Female	
10	7019151	AR	Tie-Strap	
11	7019162	1	Spring	
12	7003940	2	Screw (was p/n 7003969)	
13	7003941	2	Washer	
14	7019158	1	Plate, Mounting (Left Side)	
15	7019115	2	Stand-Off	
16	1600273	1	Shaft 8mm (Note: Not available for purchase)	
17	7019111	2	Bearing	
18	7019110	2	Spacer, Head Gear	
19	7019112	1	Washer	
20	7003946	1	Spring, Return	
21	7019103	4	Pin	
22	See Note	1	Rivet (Note: Not available for purchase)	
23	7019168	1	Plate, Mounting (Right Side)	
24	7003992	1	Washer	
25	7003993	1	Nut	
26	7003935	1	Gear, Slave	
27	7019160	1	Base	
	1001118418	Ref	Controller Assembly (Service Replacement) (Prior to SN 0300145789)	
	1001118418	Ref	Controller Assembly (Original Equipment) (SN 0300145789 through 0300189901)	B
101	70002724	1	Boot and Control Lock Assembly	
102	7003941	2	Washer	
103	70002725	2	Screw	
104	7019162	1	Spring	
105	70002726	1	Enclosure	
106	70002736	1	Handle Assembly (See Items 201-210 for Breakdown)	
107	70002728	1	Screw	
108	1001118418	1	Mechanical Assembly (Note: Not available for purchase)	
109	4460265	1	Plug, Male - 9 Position	
109	4460226	7	Socket, Female	
		Ref	HANDLE ASSEMBLIES	
	7022812	Ref	Controller Assembly p/n 1600273	
	70002736	Ref	Controller Assembly p/n 1001118418	

SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
201	7003972	1	Boot, Switch	
202	7003973	2	Half, Handle	
203	7003980	4	Screw	
204	7019167	4	Nut	
205	7019164	1	Axle	
206	7019165	1	Rocker	
207		Ref	Wiring Assembly Options:	
207	7019196	1	Controller Assembly p/n 1600273	
207	7003982	2	Switch, Micro	
207	70002737	1	Controller Assembly p/n 1001118418	
207	7003982	2	Switch, Micro	
208	7003983	2	Setscrew	
209	7019194	1	Coupling	
210	7003989	2	Gasket	

SECTION 4 - PLATFORM

FIGURE 4-9. PIPE RACKS INSTALLATION



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SECTION 4 - PLATFORM

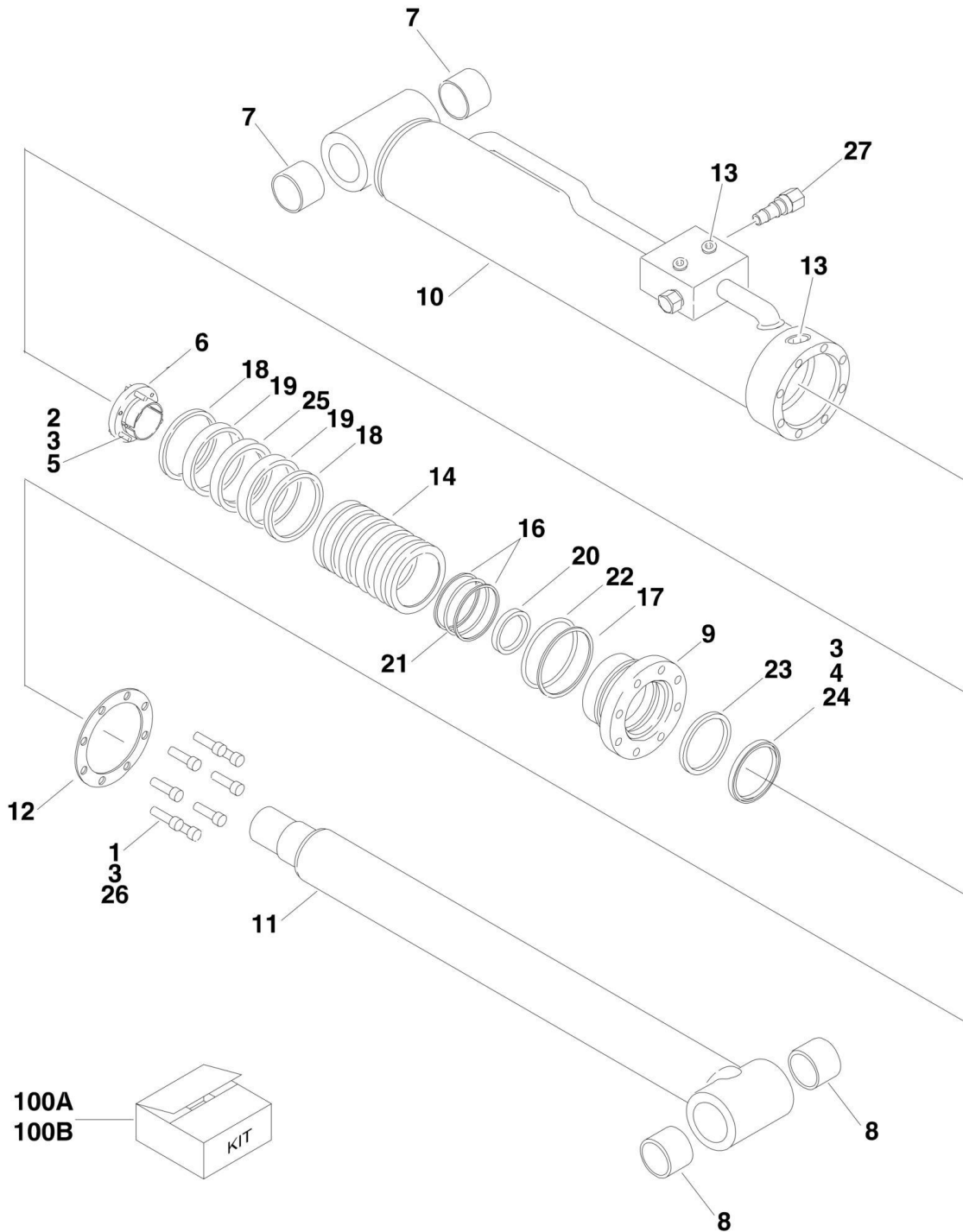
FIGURE 4-9. PIPE RACKS INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0257728	Ref	PIPE RACKS INSTALLATION	
1	4845582	2	Rack, Pipe	
2	4420062	AR	Tape	
3	3422661	10	Pin	
4	1060379	4	Lanyard	
5	0641514	4	Bolt 5/16 x 1-3/4	
6	3311505	4	Nut 5/16	
7	4751500	8	Washer 5/16	
8	0480100	2	Tie-Down	
9	1703683	2	Decal - Capacity	

SECTION 5 - CYLINDER

SECTION 5 - CYLINDER

FIGURE 5-1. JIB CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW)



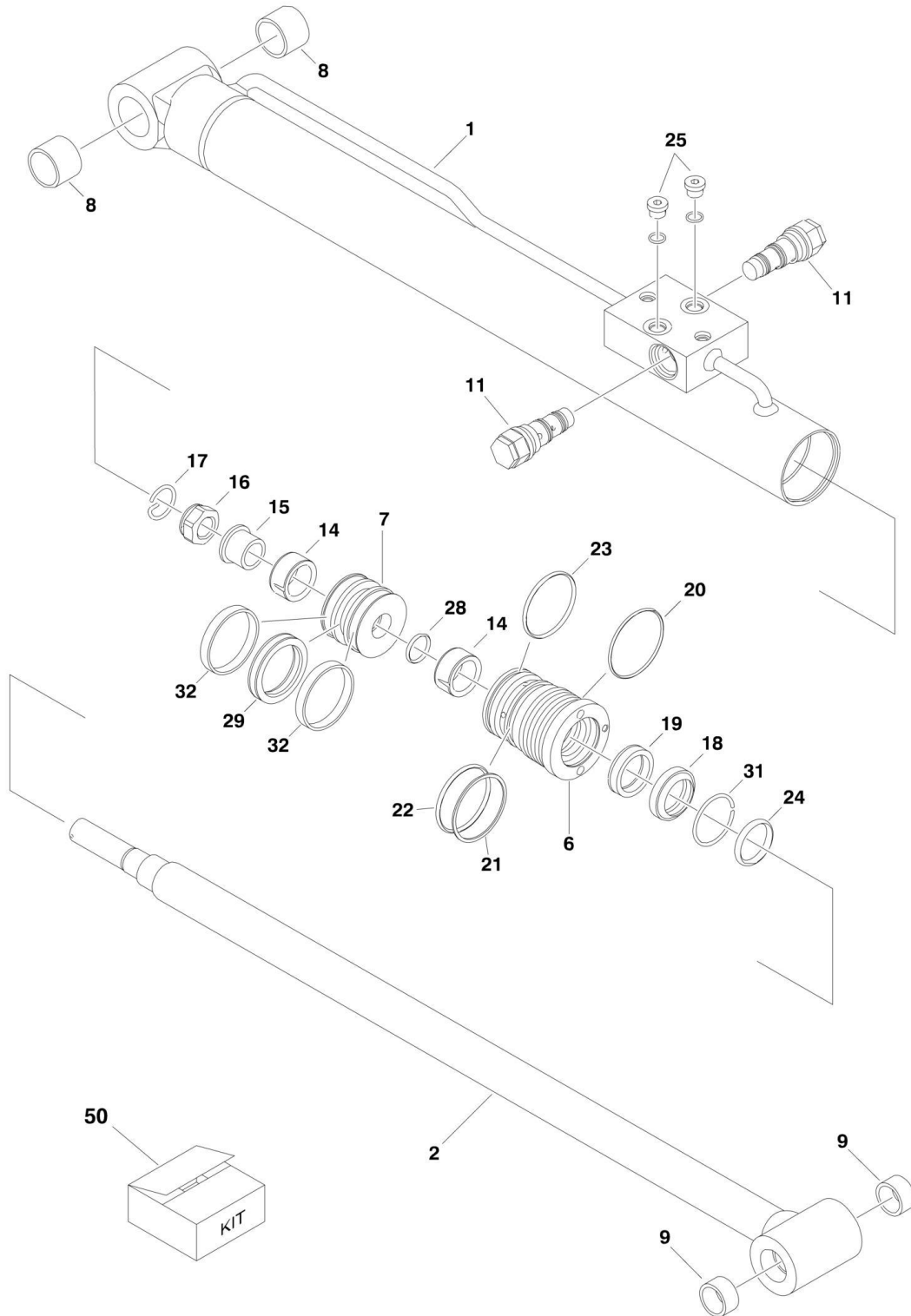
SECTION 5 - CYLINDER

FIGURE 5-1. JIB CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1683779	Ref	JIB CYLINDER ASSEMBLY	H
		Ref			Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.
1	0100011	AR	Compound, Locking	
2	0100035	AR	Compound, Locking (Prior to SN 0300052727)	
3	0100038	AR	Primer, Locking	
4	0100063	AR	Adhesive (Prior to SN 0300106518)	
5	0630534	3	Bolt #10-24NC x 1in	
6	0961893	1	Bushing, Tapered	
7	0961947	2	Bearing, Garmax	
8	0961951	2	Bushing, Garmax	
9	1683051	1	Head, Cylinder	
10	1683780	1	Barrel	
11	1683783	1	Rod	
12	3760367	1	Ring, Washer	
13	2220885	3	O-Ring Plug	
14	3480249	1	Piston, Head	
16	See Note	2	Back-Up (Note: Use Items 100A or 100B)	
17	See Note	1	Back-Up (Note: Use Items 100A or 100B)	
18	See Note	2	Ring, Seal (Note: Use Items 100A or 100B)	
19	See Note	2	Ring, Wear (Note: Use Items 100A or 100B)	
20	See Note	1	Ring, Wear (Note: Use Items 100A or 100B)	
21	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
22	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
23	See Note	1	Seal (Note: Use Items 100A or 100B)	
24	See Note	1	Wiper (Note: Use Items 100A or 100B)	
25	See Note	1	Seal (Note: Use Items 100A or 100B)	
26	3931516	8	Bolt 5/16in-18NC x 1in	
27	4640509	2	Cartridge, Valve	
27	2900792	2	Seal Kit- 4640509 Valve (1 Per Cartridge)	
100		Ref	Seal Kit Options (Includes Items 16-25):	
100A	2901810	1	Seal Kit (Prior to SN 0300068111)	
100B	2902209	1	Seal Kit (SN 0300068111 through 0300189901)	

SECTION 5 - CYLINDER

FIGURE 5-2. JIB CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW)



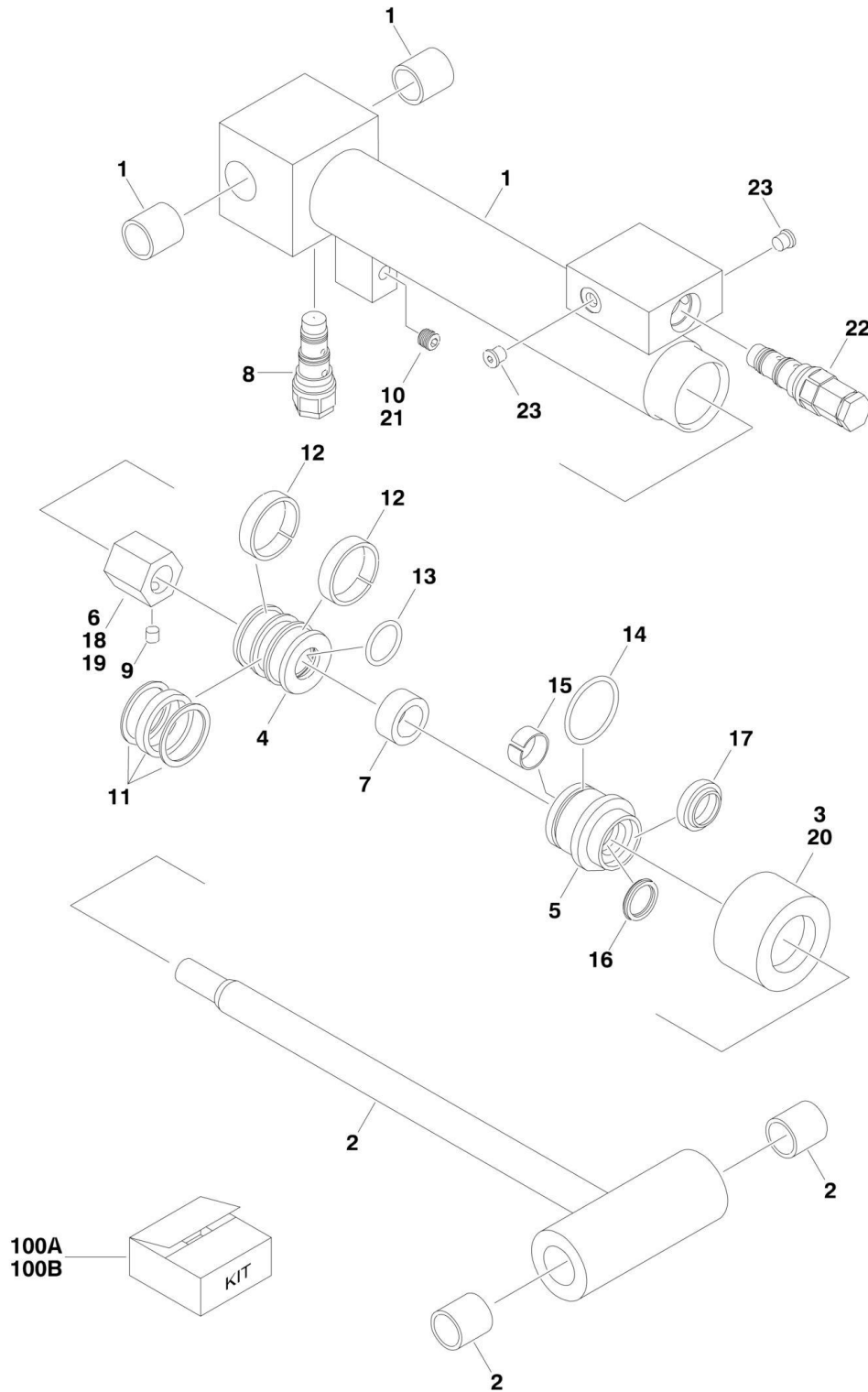
SECTION 5 - CYLINDER

FIGURE 5-2. JIB CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001140280	Ref	JIB CYLINDER ASSEMBLY Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts. Note: Jib cylinder with manual descent Valve See SPECIAL OPTIONS SECTION for Breakdown.	A
		Ref		
		Ref		
1	70003863	1	Barrel	
2	70003864	1	Rod	
6	7026088	1	Head	
7	70003833	1	Piston	
8	0961951	2	Bushing	
9	0961947	2	Bushing	
11	4640509	1	Cartridge, Counterbalance Valve	
11	2900792	2	Seal Kit - 4640509 Valve	
14	7026090	2	Bushing	
15	7026091	1	Sleeve	
16	7026092	1	Nut	
17	70002223	1	Retainer	
18	See Note	1	Wiper, (Note: Use Item 50)	
19	See Note	1	Seal, (Note: Use Item 50)	
20	See Note	1	O-Ring, (Note: Use Item 50)	
21	See Note	1	Ring, Backup, (Note: Use Item 50)	
22	See Note	1	O-Ring, (Note: Use Item 50)	
23	See Note	1	O-Ring, (Note: Use Item 50)	
24	7026068	1	O-Ring	
25	7024844	2	Plug	
28	See Note	1	O-Ring, (Note: Use Item 50)	
29	See Note	1	Seal, (Note: Use Item 50)	
31	70002220	1	Ring, Retaining	
32	See Note	2	Ring, Wear, (Note: Use Item 50)	
50	70003836	1	Seal Kit - 1001140280 Cylinder (Includes Items 18-23, 28, 29 & 32)	

SECTION 5 - CYLINDER

FIGURE 5-3. PLATFORM LEVEL CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (Prior to SN 0300165128)



SECTION 5 - CYLINDER

FIGURE 5-3. PLATFORM LEVEL CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (Prior to SN 0300165128)

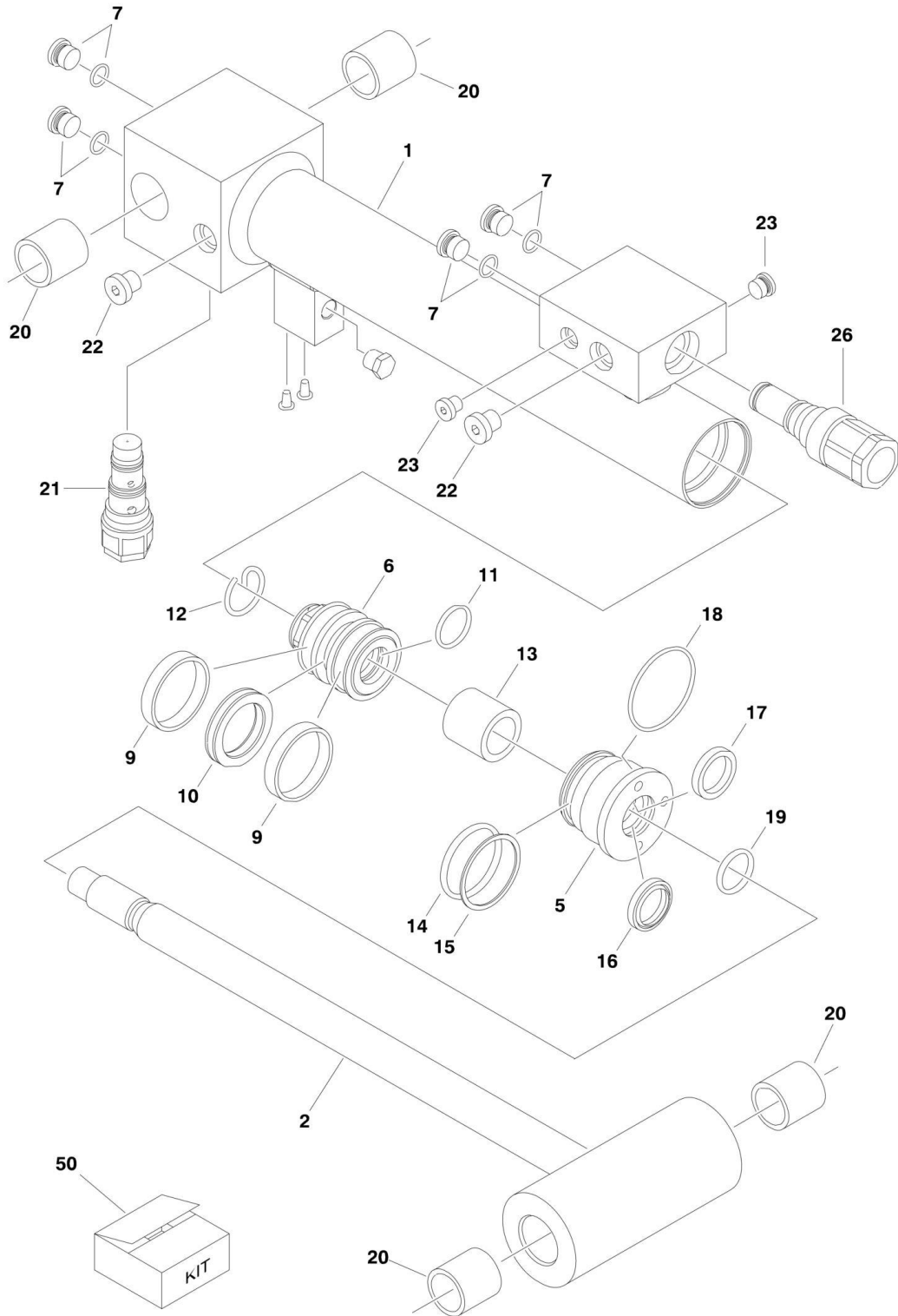
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM LEVEL CYLINDER ASSEMBLY	
	1683285	Ref	Platform Level Cylinder (E450A & M450A) (Prior to SN 0300056894)	A
	1683933	Ref	Platform Level Cylinder (E450A & M450A) (SN 0300056894 through 0300189898)	G
	1683933	Ref	Platform Level Cylinder (E400A, M400A, E400Anarrow & M400Anarrow)	G
		Ref	Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	
1		Ref	Barrel Weldment Options:	
1	1682878	1	Barrel Weldment (1683285 Cylinder)	
1	1683995	1	Barrel Weldment (1683933 Cylinder)	
1		Ref	Bushing Options:	
1	0961608	2	Bushing (1683285 Cylinder)	
1	0962356	2	Bushing (1683933 Cylinder)	
2		Ref	Rod Weldment Options:	
2	1683286	1	Rod Weldment (1683285 Cylinder)	
2	1684007	1	Rod Weldment (1683933 Cylinder)	
2		Ref	Bushing Options:	
2	0961608	2	Bushing (1683285 Cylinder)	
2	0962356	2	Bushing (1683933 Cylinder)	
3	1120110	1	Retainer	
4		Ref	Piston Options:	
4	3480217	1	Piston (1683285 Cylinder)	
4	3480261	1	Piston (1683933 Cylinder)	
5		Ref	Head Options:	
5	1682154	1	Head (1683285 Cylinder)	
5	1683934	1	Head (1683933 Cylinder)	
6	3300308	1	Nut, Hex	
7		Ref	Spacer, Tube Options:	
7	4566023	1	Spacer, Tube (1683285 Cylinder)	
7	4568136	1	Spacer, Tube (1683933 Cylinder)	
8	4640509	1	Valve, Holding	
8	2900792	1	Seal Kit - 4640509 Valve	
9	3900170	1	Setscrew 3/8in-16NC x 3/8in	
10	2200222	1	Plug, Pipe	
11	See Note	1	T-Seal (Note: Use Items 100A or 100B)	
12	See Note	Ref	Ring, Wear (Note: Use Items 100A or 100B)	
12	See Note	1	Ring, Wear (Prior to SN 0300056894)	
12	See Note	2	Ring, Wear (SN 0300056894 through 0300189901)	
13	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
14	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
15	See Note	1	Ring, Wear (Note: Use Items 100A or 100B)	
16	See Note	1	Seal, Rod (Note: Use Items 100A or 100B)	
17	See Note	1	Wiper, Rod (Note: Use Items 100A or 100B)	
18	0100038	AR	Primer, Locking	
19	0100011	AR	Compound, Locking	
20	0100035	AR	Compound, Locking	
21	0100020	AR	Sealant, Pipe	

SECTION 5 - CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
22	4640932	1	Cartridge, Holding Valve	
22	7011112	1	Seal Kit - 4640932 Valve	
23	2220883	2	Plug, Socket Hex	
100		Ref	Seal Kit Options (Includes Items 11-17):	
100A	2901147	1	Level Cylinder p/n 1683285	
100B	2901902	1	Level Cylinder p/n 1683933	

SECTION 5 - CYLINDER

FIGURE 5-4. PLATFORM LEVEL CYLINDER ASSEMBLY (E450A, M450A,E400A, M400A, E400ANARROW & M400ANARROW)



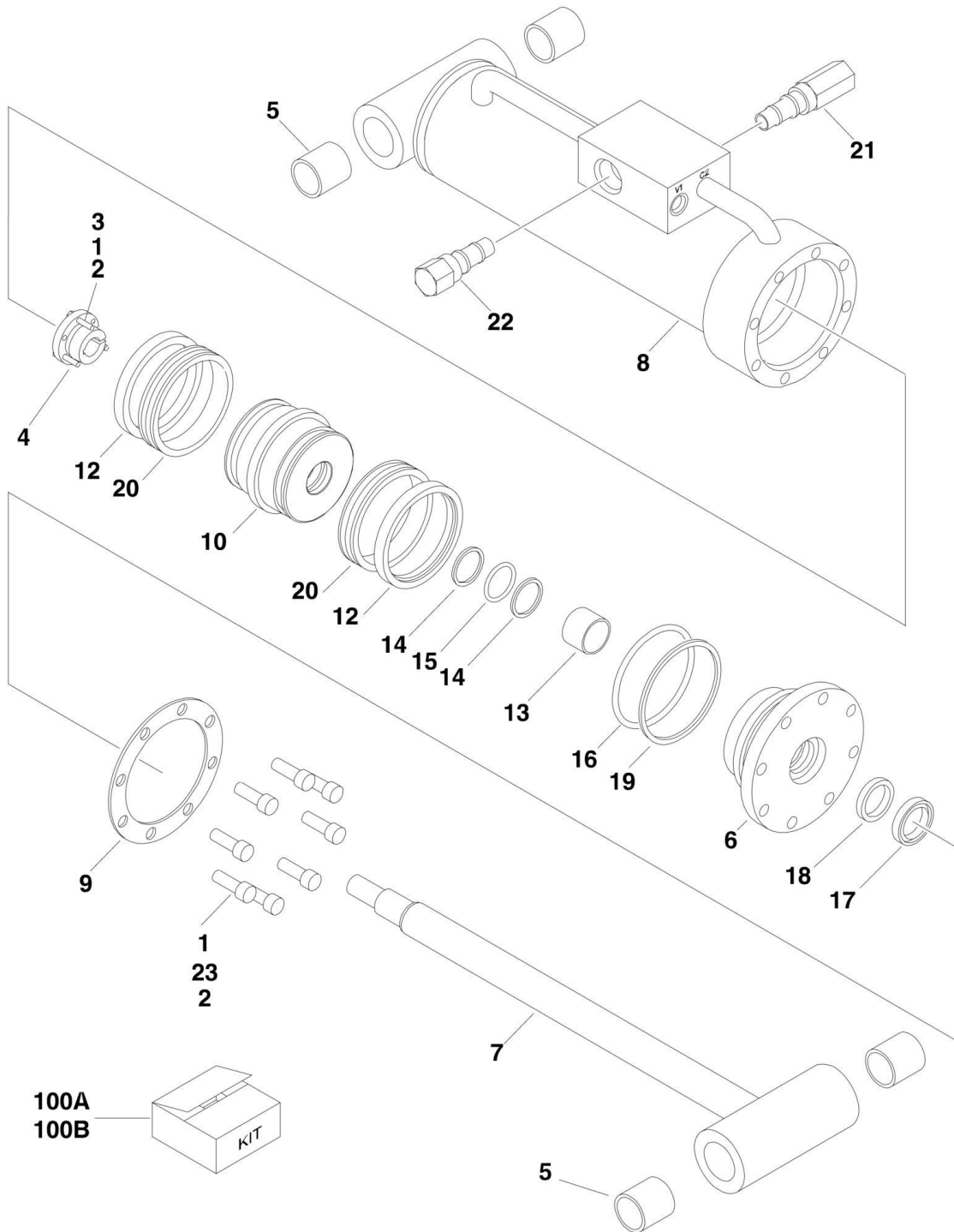
SECTION 5 - CYLINDER

FIGURE 5-4. PLATFORM LEVEL CYLINDER ASSEMBLY (E450A, M450A,E400A, M400A, E400ANARROW & M400ANARROW)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001140598	Ref	PLATFORM LEVEL CYLINDER ASSEMBLY Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	A
		Ref		
1	70004146	1	Barrel	
2	70004147	1	Rod	
5	70000739	1	Head	
6	70004141	1	Piston	
7	See Note	4	Plug (Note: Not available for purchase)	
9	See Note	2	Ring, Wear, (Note: Use Item 50)	
10	See Note	1	Seal, (Note: Use Item 50)	
11	70023094	1	O-Ring, (Note: Use Item 50)	
12	70004142	1	Retainer	
13	70004143	1	Spacer	
14	See Note	1	O-Ring, (Note: Use Item 50)	
15	See Note	1	Ring, Back-up, (Note: Use Item 50)	
16	See Note	1	Wiper, (Note: Use Item 50)	
17	See Note	1	Seal, (Note: Use Item 50)	
18	See Note	1	O-Ring, (Note: Use Item 50)	
19	70000740	1	O-Ring	
20	0962356	4	Bushing	
21	4640509	1	Cartridge, Counterbalance Valve	
21	2900792	1	Seal Kit - 4640509 Valve	
22	70024262	2	Plug	
23	See Note	2	Plug (Note: Not available for purchase)	
26	4640932	1	Cartridge, Counterbalance Valve	
26	7011112	1	Seal Kit - 4640832 Valve	
50	70004131	1	Seal Kit (Includes Items 9-11 & 14-18)	

SECTION 5 - CYLINDER

FIGURE 5-5. PLATFORM LEVEL CYLINDER ASSEMBLY - JIB (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (Prior to SN 0300163453)



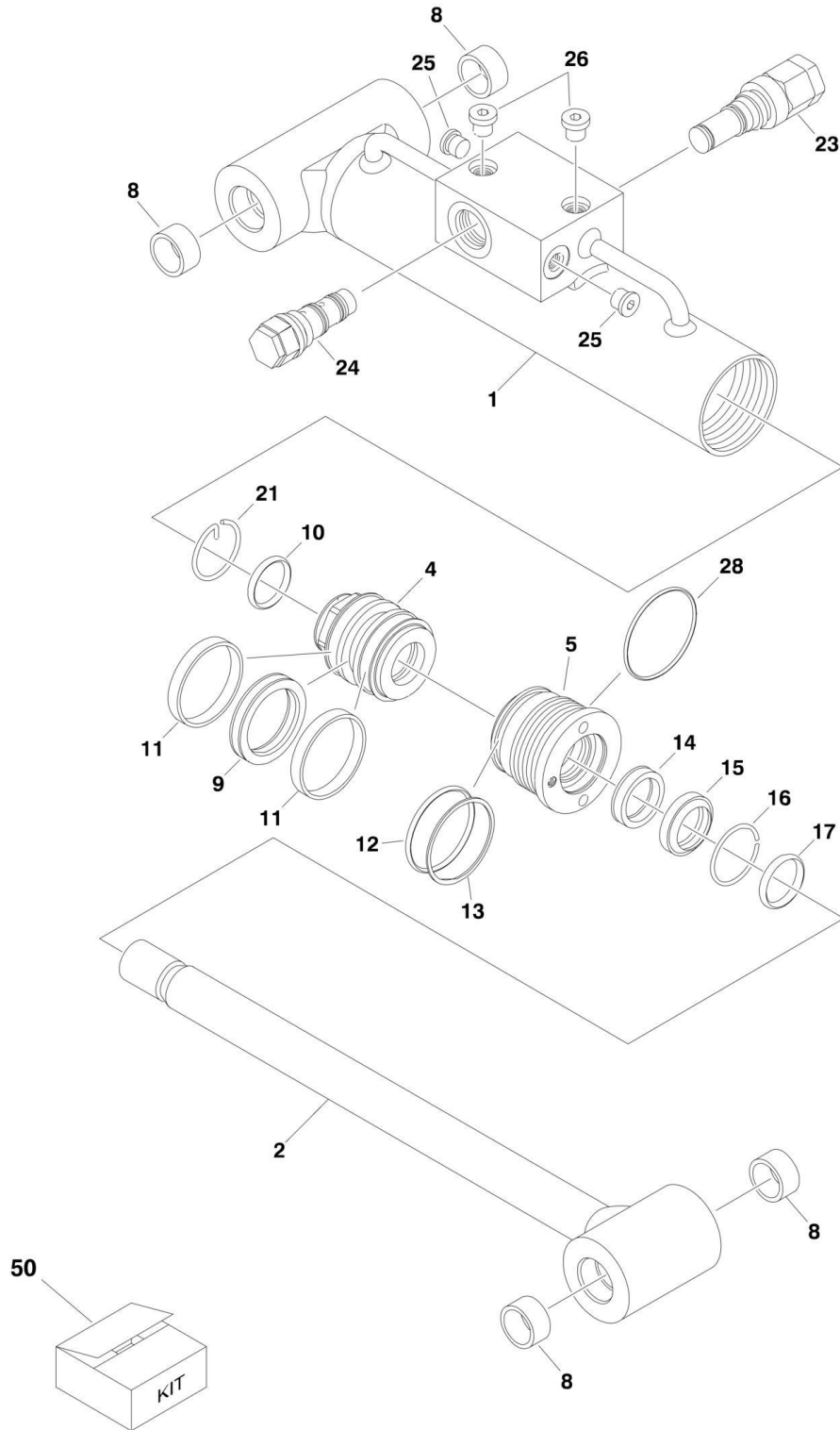
SECTION 5 - CYLINDER

FIGURE 5-5. PLATFORM LEVEL CYLINDER ASSEMBLY - JIB (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (Prior to SN 0300163453)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM LEVEL CYLINDER ASSEMBLY	
	1683760	Ref	Platform Level Cylinder Assembly (E450AJ or M450AJ) (Prior to SN 0300056571)	B
	1683924	Ref	Platform Level Cylinder Assembly (E450AJ or M450AJ) (SN 0300056571 through 0300163452)	G
	1683924	Ref	Platform Level Cylinder Assembly (E400AJP, M400AJP, E400AJPNarrow & M400AJPNarrow)	G
		Ref	Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	
1	0100011	AR	Compound, Locking	
2	0100038	AR	Primer, Locking	
3	3931016	3	Bolt, Socket Head #10-24NC x 1in	
4		Ref	Tapered Bushing Options:	
4	0961900	1	1683760 Cylinder	
4	0962185	1	1683924 Cylinder	
5	0961951	4	Bushing, Garmax	
6		Ref	Head Options:	
6	1683052	1	1683760 Cylinder	
6	1683925	1	1683924 Cylinder	
7	1683759	1	Rod	
8	1683761	1	Barrel	
9	3760368	1	Washer, Ring	
10		Ref	Piston Options:	
10	3480247	1	1683760 Cylinder	
10	3480259	1	1683924 Cylinder	
12	See Note	2	Ring, Lock (Note: Use Items 100A or 100B)	
13	See Note	1	Ring, Wear (Note: Use Items 100A or 100B)	
14	See Note	2	Ring, Back-up (Note: Use Items 100A or 100B)	
15	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
16	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
17	See Note	1	Wiper (Note: Use Items 100A or 100B)	
18	See Note	1	Seal (Note: Use Items 100A or 100B)	
19	See Note	1	Ring, Back-up (Note: Use Items 100A or 100B)	
20	See Note	2	Seal (Note: Use Items 100A or 100B)	
21	4640932	1	Cartridge, Valve (Counterbalance Vented)	
21	7011112	1	Seal Kit-4640932 Valve	
22	4641086	1	Cartridge, Valve (Counterbalance Non vented)	
22	2900792	1	Seal Kit-4641086 Valve	
23	3931516	8	Bolt, Socket Head 5/16in-18NC x 1in	
100		Ref	Seal Kit Options (Includes Items 12-20):	
100A	2901776	1	1683760 Cylinder	
100B	2901898	1	1683924 Cylinder	

SECTION 5 - CYLINDER

FIGURE 5-6. PLATFORM LEVEL CYLINDER ASSEMBLY - JIB (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (SN 0300163453 through 0300189901)



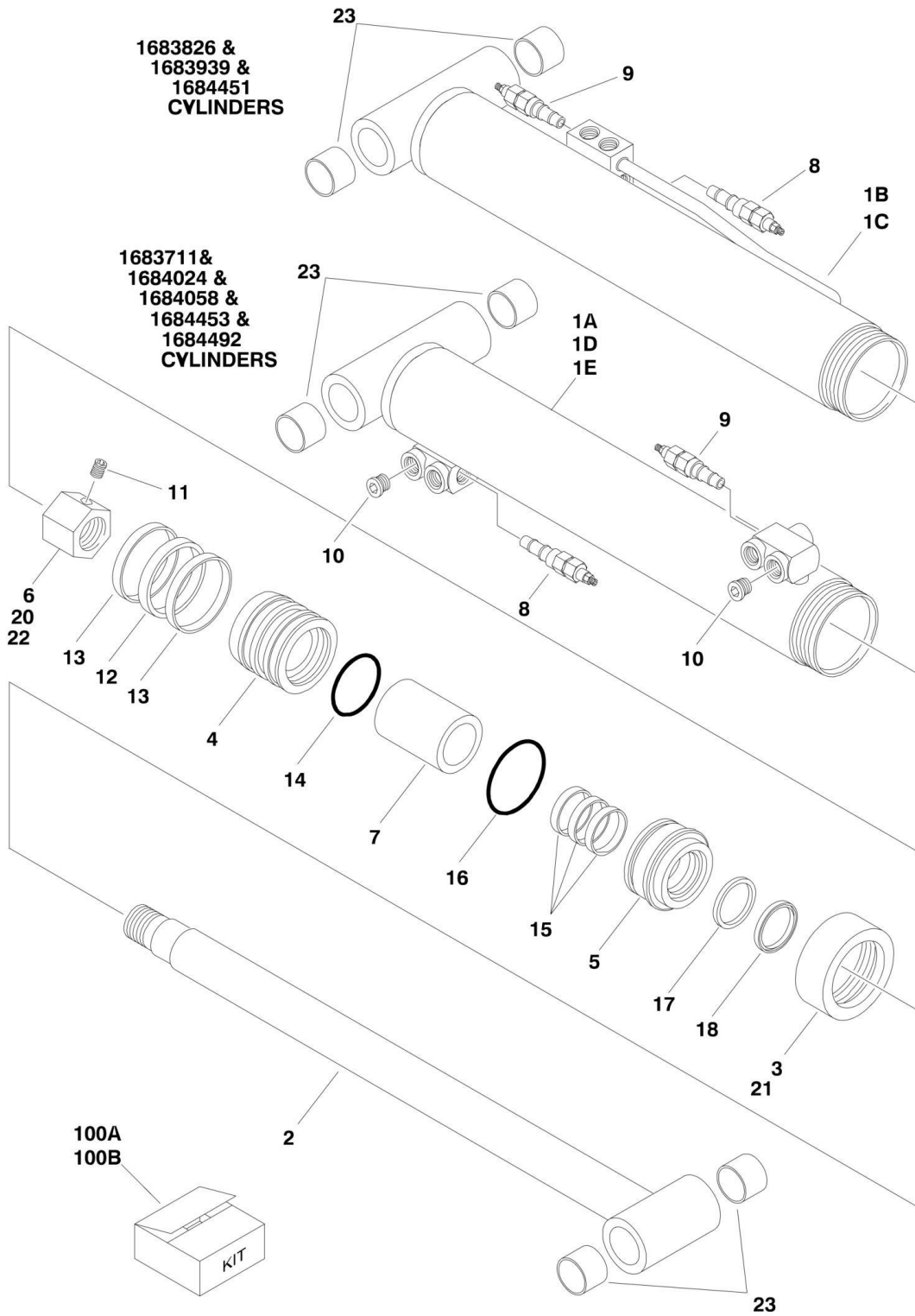
SECTION 5 - CYLINDER

FIGURE 5-6. PLATFORM LEVEL CYLINDER ASSEMBLY - JIB (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (SN 0300163453 through 0300189901)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001140279	Ref	PLATFORM LEVEL CYLINDER ASSEMBLY Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	A
		Ref		
1	70003846	1	Barrel	
2	70003847	1	Rod	
4	70003819	1	Piston	
5	7026082	1	Head	
8	0961951	4	Bushing	
9	See Note	1	Seal, (Note: Use Item 50)	
10	See Note	1	O-Ring, (Note: Use Item 50)	
11	See Note	2	Ring, Wear, (Note: Use Item 50)	
12	See Note	1	O-Ring, (Note: Use Item 50)	
13	See Note	1	Ring, Back-up, (Note: Use Item 50)	
14	See Note	1	Seal, (Note: Use Item 50)	
15	See Note	1	Wiper, (Note: Use Item 50)	
16	70002217	1	Ring, Retaining	
17	7026084	1	O-Ring	
21	70002216	1	Retainer	
23	4640932	1	Cartridge, Counterbalance Valve	
23	7011112	1	Seal Kit - 4640932 Valve	
24	4641086	1	Cartridge, Counterbalance Valve	
24	2900792	1	Seal Kit - 4641086 Valve	
25	7024844	2	Plug	
26	See Note	2	Plug (Note: Not available for purchase)	
28	See Note	1	O-Ring, (Note: Use Item 50)	
50	70003845	1	Seal Kit (Includes Items 9-15 & 28)	

SECTION 5 - CYLINDER

FIGURE 5-7. LIFT CYLINDER ASSEMBLY - LOWER



SECTION 5 - CYLINDER

FIGURE 5-7. LIFT CYLINDER ASSEMBLY - LOWER

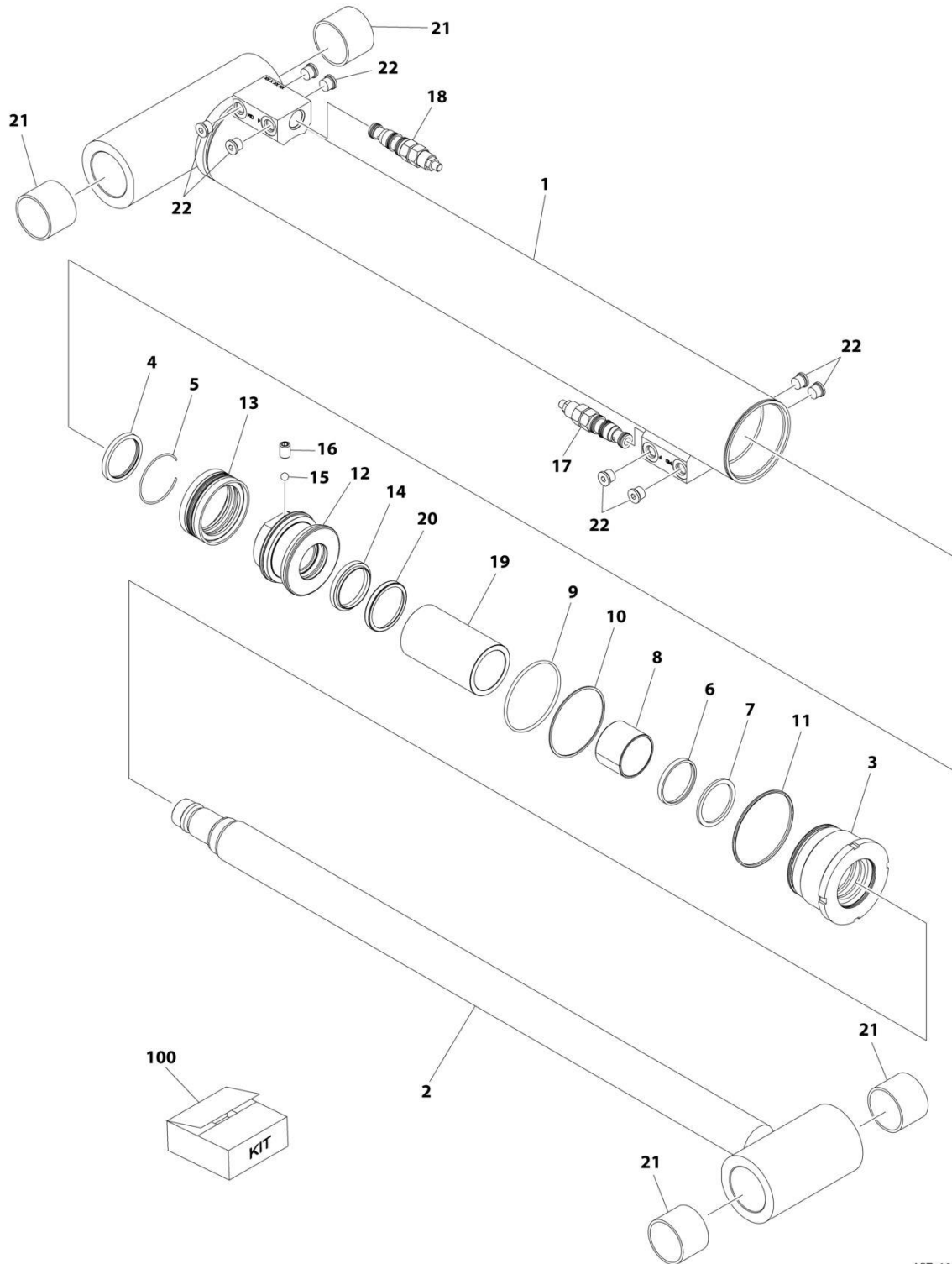
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	LOWER LIFT CYLINDER ASSEMBLIES	
	1683711	Ref	Lower Lift Cylinder Assemblies (E450A & M450A) (Prior to SN 0300058843)	1-A
	1684058	Ref	Lower Lift Cylinder Assemblies (E450A & M450A) (SN 0300058843 through 0300091052)	3-B
	1684492	Ref	Lower Lift Cylinder Assemblies (E450A & M450A) (Original Equipment) (SN 0300091053 through 0300189898)	B
	1683826	Ref	Lower Lift Cylinder Assemblies (E450AJ & M450AJ) (Prior to SN 0300056571)	1-A
	1683939	Ref	Lower Lift Cylinder Assemblies (E450AJ & M450AJ) (SN 0300056571 through 0300086021)	3-B
	1684451	Ref	Lower Lift Cylinder Assemblies (E450AJ & M450AJ) (Original Equipment) (SN 0300086022 through 0300189898)	D
	1684024	Ref	Lower Lift Cylinder Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300086022)	3-B
	1684453	Ref	Lower Lift Cylinder Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (Original Equipment) (SN 0300086022 through 0300189901)	C
	1683939	Ref	Lower Lift Cylinder Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300091053)	3-B
	1684451	Ref	Lower Lift Cylinder Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Original Equipment) (SN 0300091053 through 0300189901)	C
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1		Ref	Barrel Weldment Options:	
1A	1683515	1	1683711 Cylinder (Note: Includes Item #23)	
1B	1683827	1	1683826 Cylinder (Note: Includes Item #23)	
1C	1683940	1	1683939 & 1684451 Cylinders	
1D	1684022	1	1684024 & 1684453 Cylinder	
1E	1684055	1	1684058 & 1684492 Cylinder	
2		Ref	Rod Weldment Options:	
2	1683016	1	1683711 & 1683826 Cylinders (Note: Includes Item #23)	
2	1683941	1	1683939, 1683941, 1684451 & 1684492 Cylinders	
2	1684023	1	1684024 & 1684453 Cylinder	
3		Ref	Retainer Options:	
3	1120094	1	1683711, 1683826, 1683939, 1684024, 1684451 & 1684058 Cylinders	
3	1120305	1	1684024 & 1684453 Cylinder	
3	1120407	1	1684492 Cylinder	
4		Ref	Piston Options:	
4	3480241	1	1683711, 1683826, 1683939, 1684024, 1684492, 1684451 & 1684058 Cylinders	
4	3480242	1	1684024 & 1684453 Cylinder	
5		Ref	Head Options:	
5	1683710	1	1683711, 1683826, 1683939, 1684024, 1684492, 1684451 & 1684058 Cylinders	
5	1683712	1	1684024 & 1684453 Cylinder	
6	3300281	1	Nut, Hex	
7		Ref	Spacer Options:	
7	4566432	1	1683711, 1683826, 1683939, 1684024, 1684492, 1684451 & 1684058 Cylinders	

SECTION 5 - CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
7	4565992	1	1684024 & 1684453 Cylinder (Spacer)	
7	4740207	1	1684024 & 1684453 Cylinder (Washer)	
8		Ref	Cartridge, Holding Valve Options:	
8	4640816	1	Cartridge, Holding Valve For 1683711, 1683826, 1683939, 1684024 & 1684058 Cylinder	
8	2900770	1	Seal Kit - 4640816 Valve	
8	4641386	1	Cartridge, Holding Valve For 1684451, 1684453 & 1684492 Cylinder	
8	7011376	1	Seal Kit - 4641386 Valve	
9	4640634	1	Cartridge, Holding Valve	
9	2900770	1	Seal Kit - 4640634 Valve	
10		Ref	Plug Options:	
10	2220885	2	1683711, 1684024, 1684058, 1684453 & 1684492 Cylinders	
10	Not Required	0	1683826, 1683939 & 1684451 Cylinders	
11	3900170	1	Setscrew	
12	See Note	1	Seal, Piston (Note: Use Items 100A or 100B)	
13	See Note	2	Ring, Wear (Note: Use Items 100A or 100B)	
14	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
15	See Note	3	Ring, Wear (Note: Use Items 100A or 100B)	
16	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
16	See Note	1	Ring, Back-up (1684024 Cylinder Only) (Note: Use item 100B)	
17	See Note	1	Seal, Rod (Note: Use Items 100A or 100B)	
18	See Note	1	Wiper, Rod (Note: Use Items 100A or 100B)	
20	0100011	AR	Compound, Locking	
21	0100035	AR	Compound, Locking	
22	0100038	AR	Primer, Locking	
23		Ref	Bushing Options:	
23	0961726	4	1683711 & 1683826 Cylinders	
23	0961950	4	1683939, 1684024, 1684058, 1684551, 1684453 & 1684492 Cylinders	
100		Ref	Seal Kit Options (Includes Items 12-18):	
100A	2901806	1	1683711, 1683826, 1683939, 1684492, 1684451 & 1684058 Cylinders	
100B	2901805	1	1684024 & 1684453 Cylinders	

SECTION 5 - CYLINDER

FIGURE 5-8. LIFT CYLINDER ASSEMBLY - LOWER (E400A, M400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)



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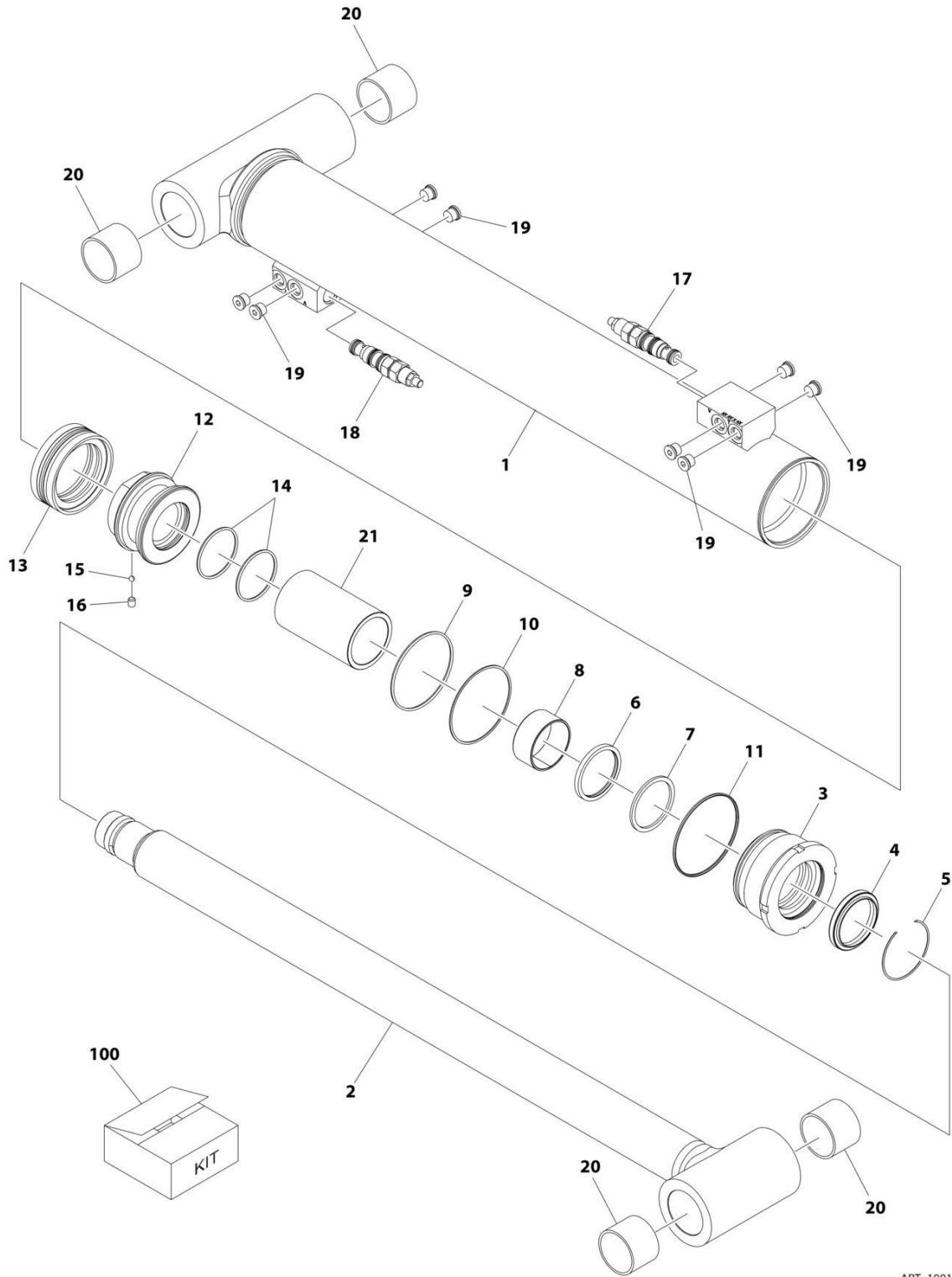
SECTION 5 - CYLINDER

**FIGURE 5-8. LIFT CYLINDER ASSEMBLY - LOWER (E400A, M400ANARROW & M400ANARROW)
(SERVICE REPLACEMENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228037	Ref	LIFT CYLINDER ASSEMBLY - LOWER	A
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel (Note: Not Available for Purchase)	
2	70006593	1	Rod	
3	70006592	1	Head	
4	See Note	NSS	Wiper (Note: Use Item 100)	
5	70002412	1	Retainer	
6	See Note	NSS	Seal, Rod (Note: Use Item 100)	
7	See Note	NSS	Ring, Back-up (Note: Use Item 100)	
8	70006591	1	Bearing	
9	See Note	NSS	O-Ring (Note: Use Item 100)	
10	See Note	NSS	Ring, Back-up (Note: Use Item 100)	
11	70050801	1	O-Ring	
12	70006590	1	Piston	
13	See Note	NSS	Seal (Note: Use Item 100)	
14	See Note	NSS	O-Ring (Note: Use Item 100)	
15	70022564	1	Ball, Steel	
16	70006601	1	Setscrew	
17	4640634	1	Cartridge, Holding Valve	
17	2900770	1	Seal Kit - 4640634 Valve	
18	4641386	1	Cartridge, Holding Valve	
18	7011376	1	Seal Kit - 4641386 Valve	
19	70006589	1	Spacer	
20	70006588	1	O-Ring	
21	0961950	4	Bushing	
22	2220883	8	Plug, O-Ring	
100	70006587	1	Seal Kit (Includes Items 4, 6, 7, 9, 10, 13 & 14)	

SECTION 5 - CYLINDER

FIGURE 5-9. LIFT CYLINDER ASSEMBLY - LOWER (E450A & M450A) (SERVICE REPLACEMENT)



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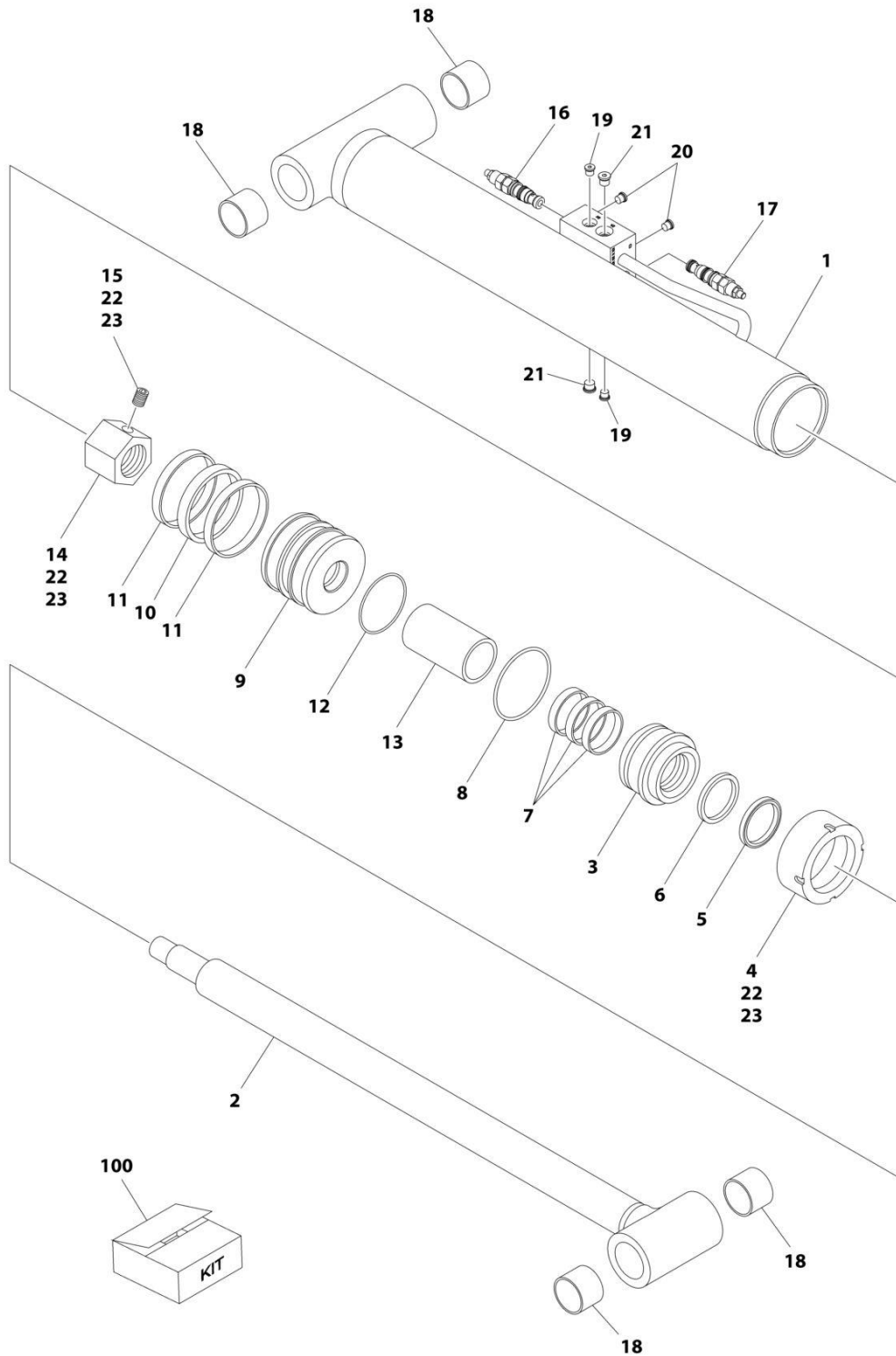
SECTION 5 - CYLINDER

FIGURE 5-9. LIFT CYLINDER ASSEMBLY - LOWER (E450A & M450A) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228039	Ref	LIFT CYLINDER ASSEMBLY - LOWER	B
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel (Note: Not Available for Purchase)	
2	70006602	1	Rod	
3	70006603	1	Head	
4	70006604	NSS	Wiper (Note: Use Item 100)	
5	70027244	1	Retainer	
6	70006605	NSS	Seal, Rod (Note: Use Item 100)	
7	See Note	NSS	Ring, Back-up (Note: Use Item 100)	
8	70004637	1	Bearing	
9	70006606	NSS	O-Ring (Note: Use Item 100)	
10	See Note	NSS	Ring, Back-up (Note: Use Item 100)	
11	See Note	NSS	O-Ring	
12	70006607	1	Piston	
13	See Note	NSS	Seal (Note: Use Item 100)	
14	See Note	NSS	O-Ring (Note: Use Item 100)	
15	70022564	1	Ball, Steel	
16	70023369	1	Setscrew	
17	4640634	1	Cartridge, Holding Valve	
17	2900770	1	Seal Kit - 4640634 Valve	
18	4641386	1	Cartridge, Holding Valve	
18	7011376	1	Seal Kit - 4641386 Valve	
19	2220885	8	Plug, O-Ring	
20	0961950	4	Bushing	
21	70006608	1	Spacer	
100	70006609	1	Seal Kit (Includes Items 4, 6, 7, 9-11, 13 & 14)	

SECTION 5 - CYLINDER

FIGURE 5-10. LIFT CYLINDER ASSEMBLY - LOWER (E400AJP, M400AJP, E400AJPNARROW, M400AJPNARROW, E450AJ & M450AJ) (SERVICE REPLACEMENT)



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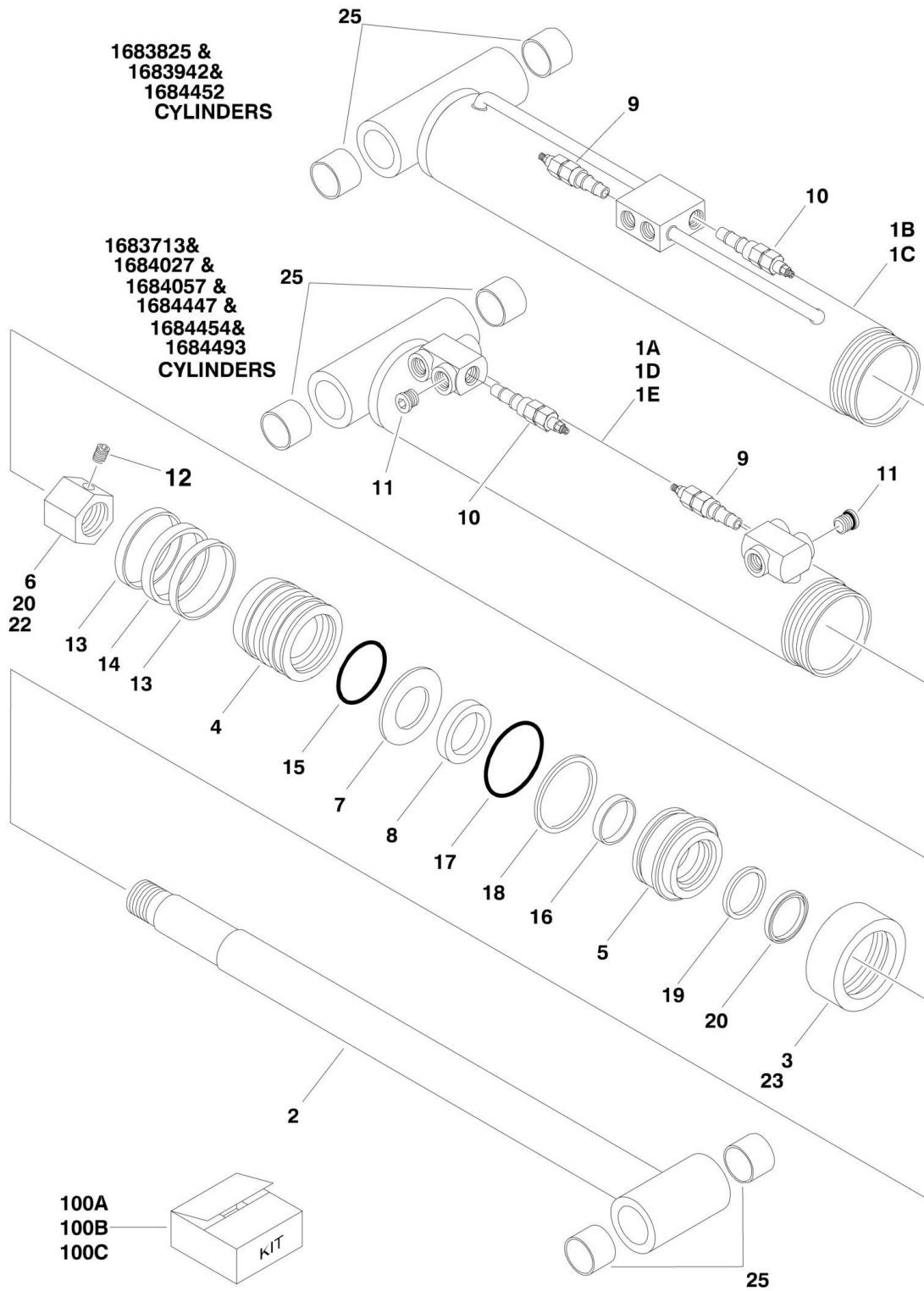
SECTION 5 - CYLINDER

FIGURE 5-10. LIFT CYLINDER ASSEMBLY - LOWER (E400AJP, M400AJP, E400AJPNARROW, M400AJPNARROW, E450AJ & M450AJ) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228035	Ref	LIFT CYLINDER ASSEMBLY - LOWER	C
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel Weldment (Note: Not Available for Purchase)	
2	70006535	1	Rod Weldment	
3	70006533	1	Head	
4	70006533	1	Retainer	
5	See Note	NSS	Wiper (Note: Use Item 100)	
6	See Note	NSS	Seal, Rod (Note: Use Item 100)	
7	See Note	NSS	Ring, Wear (Note: Use Item 100)	
8	See Note	NSS	O-Ring (Note: Use Item 100)	
9	70006532	1	Piston	
10	See Note	NSS	Seal (Note: Use Item 100)	
11	See Note	NSS	Ring, Wear (Note: Use Item 100)	
12	See Note	NSS	O-Ring (Note: Use Item 100)	
13	70006531	1	Spacer	
14	3300281	1	Nut	
15	3900170	1	Setscrew	
16	4640634	1	Cartridge, Holding Valve	
16	2900770	1	Seal Kit - 4640634 Valve	
17	4641386	1	Cartridge, Holding Valve	
17	7011376	1	Seal Kit - 4641386 Valve	
18	0961950	4	Bushing	
19	2220883	2	Plug, O-Ring	
20	2220883	2	Plug, O-Ring	
21	2220885	2	Plug, O-Ring	
22	0100011	AR	Compound, Locking	
23	0100038	AR	Primer, Locking	
100	2901806	1	Seal Kit (Includes Items 5-8 & 10-12)	

SECTION 5 - CYLINDER

FIGURE 5-11. LIFT CYLINDER ASSEMBLY - MID



SECTION 5 - CYLINDER

FIGURE 5-11. LIFT CYLINDER ASSEMBLY - MID

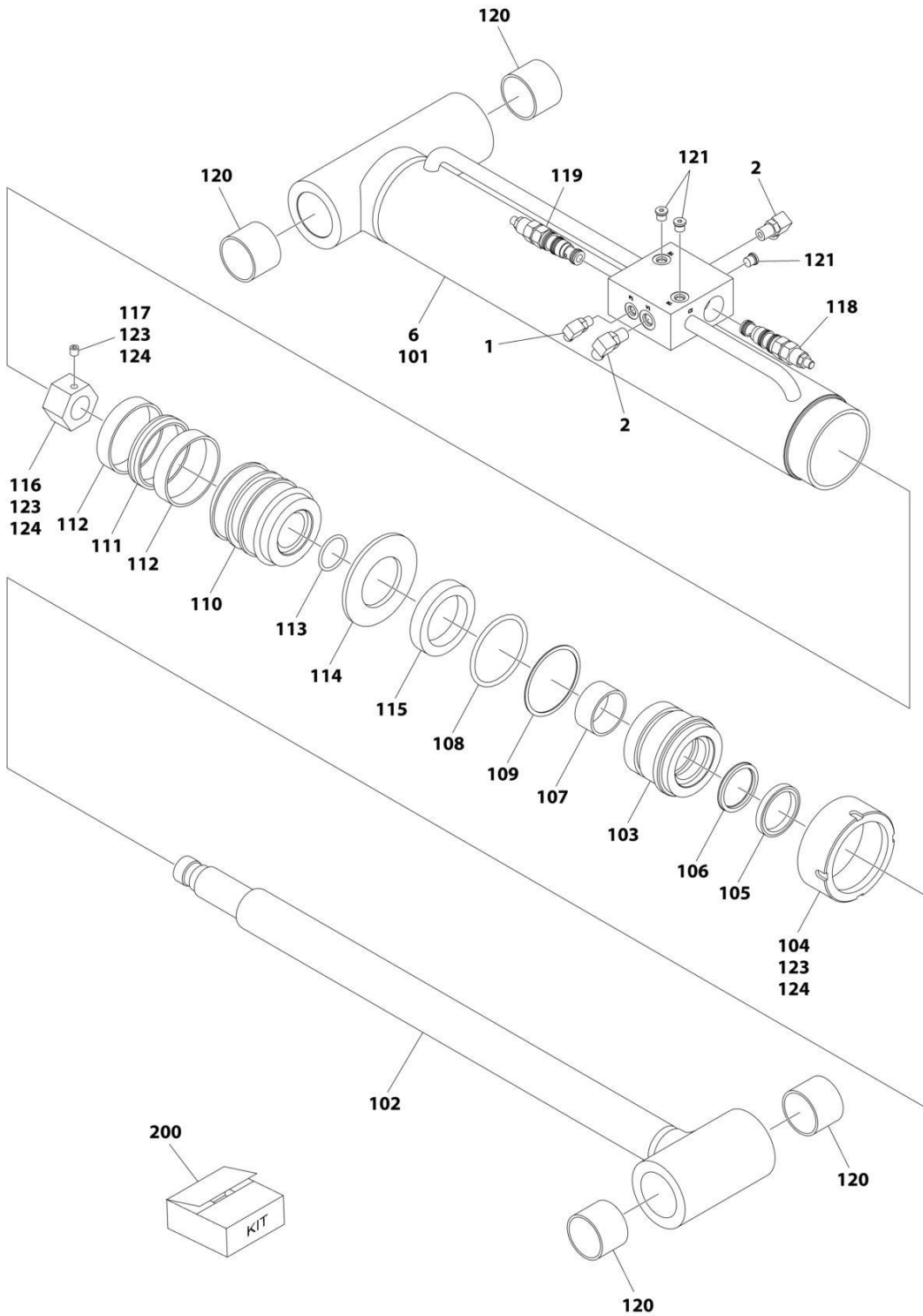
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	MID LIFT CYLINDER ASSEMBLY	
	1683713	Ref	Mid Lift Cylinder Assembly (E450A & M450A) (Prior to SN 0300058843)	1-A
	1684057	Ref	Mid Lift Cylinder Assembly (E450A & M450A) (SN 0300058843 through 0300091052)	3-B
	1684493	Ref	Mid Lift Cylinder Assembly (E450A & M450A) (Original Equipment) (SN 0300091053 through 0300189898)	B
	1683825	Ref	Mid Lift Cylinder Assembly (E450AJ & M450AJ) (Prior to SN 0300056571)	1-A
	1683942	Ref	Mid Lift Cylinder Assembly (E450AJ & M450AJ) (SN 0300056571 through 0300086021)	3-C
	1684452	Ref	Mid Lift Cylinder Assembly (E450AJ & M450AJ) (Original Equipment) (SN 0300086022 through 0300189898)	C
	1684027	Ref	Mid Lift Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (Original Equipment) (Prior to SN 0300080496)	1-A
	1684447	Ref	Mid Lift Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300080496 through 0300086021)	B
	1684454	Ref	Mid Lift Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (Original Equipment) (SN 0300086022 through 0300189901)	A
	1683942	Ref	Mid Lift Cylinder Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300091053)	3-C
	1684452	Ref	Mid Lift Cylinder Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Original Equipment) (SN 0300091053 through 0300189901)	C
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1		Ref	Barrel Weldment Options:	
1A	1683516	1	1683713 Cylinder (Note: Includes Item #25)	
1B	1683829	1	1683825 Cylinder (Note: Includes Item #25)	
1C	1683943	1	1683942 & 1684452 Cylinders	
1D	1684025	1	1684027 & 1684447 & 1684454 Cylinders	
1E	1684056	1	1684057 & 1684493 Cylinder	
2		Ref	Rod Weldment Options:	
2	1683021	1	1683713 & 1683825 Cylinders (Note: Includes Item #25)	
2	1683944	1	1683942, 1684057, 1684452 & 1684493 Cylinders	
2	1684026	1	1684027 & 1684447 & 1684454 Cylinders	
3		Ref	Retainer Options:	
3	1120305	1	1683713, 1684057, 1683825, 1683942 & 1684452 Cylinders	
3	1120108	1	1684027, 1684447 & 1684454 Cylinder	
3	1120375	1	1684493 Cylinder	
4		Ref	Piston Options:	
4	3480242	1	1683713, 1684057, 1683825, 1683942, 1684452 & 1684493 Cylinders	
4	3480115	1	1684027 Cylinder (Not Shown) (Use p/n 3480240) Note: When replacing the piston you must order seal kit p/n 2902419 separate from piston.	
4	3480240	1	1684447 & 1684454 Cylinder (Not Shown)	
5		Ref	Head Options:	
5	1683712	1	1683713, 1684057, 1683825, 1683942, 1684452 & 1684493 Cylinders	
5	1681344	1	1684027, 1684447 & 1684454 Cylinder	
6		Ref	Nut, Hex Options:	

SECTION 5 - CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
6	3300281	1	1683713, 1684057, 1683825, 1683942, 1684452 & 1684493 Cylinders	
6	3300279	1	1684027, 1684447 & 1684454 Cylinder	
7		Ref	Washer Options:	
7	4740207	1	1683713, 1684057, 1683825, 1683942, 1684452 & 1684493 Cylinders	
7	4740394	1	1684027, 1684447 & 1684454 Cylinder	
8		Ref	Spacer Options:	
8	4566435	1	1683713, 1684057, 1683825, 1683942, 1684452 & 1684493 Cylinders	
8	4565994	1	1684027, 1684447 & 1684454 Cylinders	
8	3951402	1	Setscrew 1/4in-20NC x 1/4in (1684027, 1684447 & 1684454Cylinder Only)	
9	4640634	1	Cartridge, Holding Valve	
9	2900770	1	Seal Kit - 4640634 Valve	
10		Ref	Cartridge, Holding Valve Options:	
10	4640816	1	Cartridge, Holding Valve For 1683713, 1683825, 1683942, 1684027, 1684056 & 1684447 Cylinders	
10	2900770	1	Seal Kit - 4640816 Valve	
10	4641386	1	Cartridge, Holding Valve For 1684452, 1684454 & 1684493 Cylinder	
10	7011376	1	Seal Kit - 464136 Valve	
11		Ref	Plug Options:	
11	2220885	2	1683713, 1684027, 1684057, 1684447, 1684454 & 1684493 Cylinders	
11	Not Required	0	1683825, 1683942 & 1684452 Cylinders	
12	3900170	2	Setscrew	
13	See Note		Ring (Note: Use Items 100A, 100B or 100C)	
14	See Note	AR	Seal, Piston (Note: Use Items 100A, 100B or 100C)	
15	See Note	1	O-Ring (Note: Use Items 100A, 100B or 100C)	
16	See Note	1	Ring, Wear (Note: Use Items 100A, 100B or 100C)	
17	See Note	1	O-Ring (Note: Use Items 100A, 100B or 100C)	
18	See Note	1	Ring, Back-up (All except 1684027, 1684447 & 1684454 Cylinders) (Note: Use Items 100B or 100C)	
19	See Note	1	Seal, Rod (Note: Use Items 100A, 100B or 100C)	
20	See Note	1	Wiper, Rod (Note: Use Items 100A, 100B or 100C)	
21	0100011	AR	Compound, Locking	
22	0100035	AR	Compound, Locking	
23	0100038	AR	Primer, Locking	
25		Ref	Bushing Options:	
25	0961726	4	1683713 & 1683825 Cylinders	
25	0961950	4	1683942, 1684027, 1684057, 1684447, 1684452, 1684454 & 1684493 Cylinders	
100		Ref	Seal Kit Options (Includes Items 13-20):	
100A	2901805	1	All Cylinders except 1684027, 16844447 & 1684454	
100B	2900371	1	1684027 Cylinder (Use p/n 2902419) Note: If piston has not been replaced before, order piston p/n 3480240 also. Old style piston and seal kit must be replaced.	
100C	2902419	1	1684447 & 1684454 Cylinders	

SECTION 5 - CYLINDER

FIGURE 5-12. LIFT CYLINDER ASSEMBLY - MID (E450A & M450A) (SERVICE REPLACEMENT)



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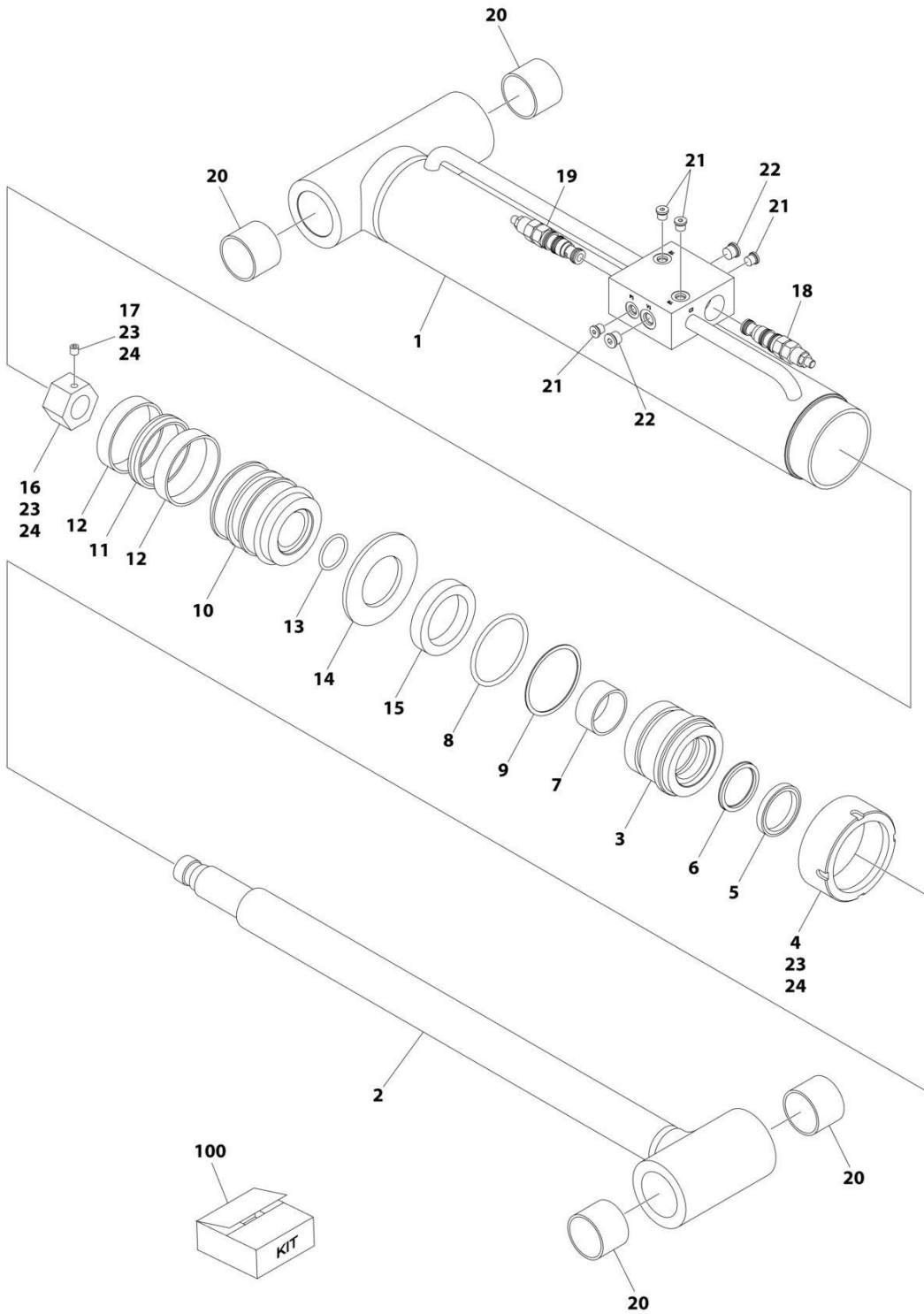
SECTION 5 - CYLINDER

FIGURE 5-12. LIFT CYLINDER ASSEMBLY - MID (E450A & M450A) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001237443	Ref	LIFT CYLINDER ASSEMBLY - MID	A
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	2220446	1	Fitting, 90 JIC/ORB	
2	2220473	2	Fitting, 90 JIC/ORB	
	See Note	Ref	Note: See Hydraulic Diagram p/n 1001178385 for item 3 hose replaces hose p/n 2751126 & item 4 hose replaces p/n 2751127.	
3	2751009	1	Hose (Not Shown)	
4	2753301	1	Hose (Not Shown)	
6	1001228036	1	Lift Cylinder Assembly - Mid (See Items 101-124 for Breakdown)	
101	See Note	NSS	Barrel Weldment (Note: Not Available for Purchase)	
102	70006543	1	Rod Weldment	
103	70006542	1	Head	
104	70006533	1	Retainer	
105	See Note	NSS	Wiper (Note: Use Item 200)	
106	See Note	NSS	Seal, Rod (Note: Use Item 200)	
107	See Note	NSS	Ring, Wear (Note: Use Item 200)	
108	See Note	NSS	O-Ring (Note: Use Item 200)	
109	See Note	NSS	Ring, Back-up (Note: Use Item 200)	
110	70006532	1	Piston	
111	See Note	NSS	Seal (Note: Use Item 200)	
112	See Note	NSS	Ring, Wear (Note: Use Item 200)	
113	See Note	NSS	O-Ring (Note: Use Item 200)	
114	4740207	1	Washer	
115	70006539	1	Spacer	
116	3300281	1	Nut	
117	3900170	1	Setscrew	
118	4640634	1	Cartridge, Holding Valve	
118	2900770	1	Seal Kit - 4640634 Valve	
119	4641386	1	Cartridge, Holding Valve	
119	7011376	1	Seal Kit - 4641386 Valve	
120	0961950	4	Bushing	
121	2220883	3	Plug, O-Ring	
123	0100011	AR	Compound, Locking	
124	0100038	AR	Primer, Locking	
200	2901806	1	Seal Kit (Includes Items 105-109 & 111-113)	

SECTION 5 - CYLINDER

FIGURE 5-13. MID LIFT CYLINDER ASSEMBLY (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW) (SERVICE REPLACEMENT)



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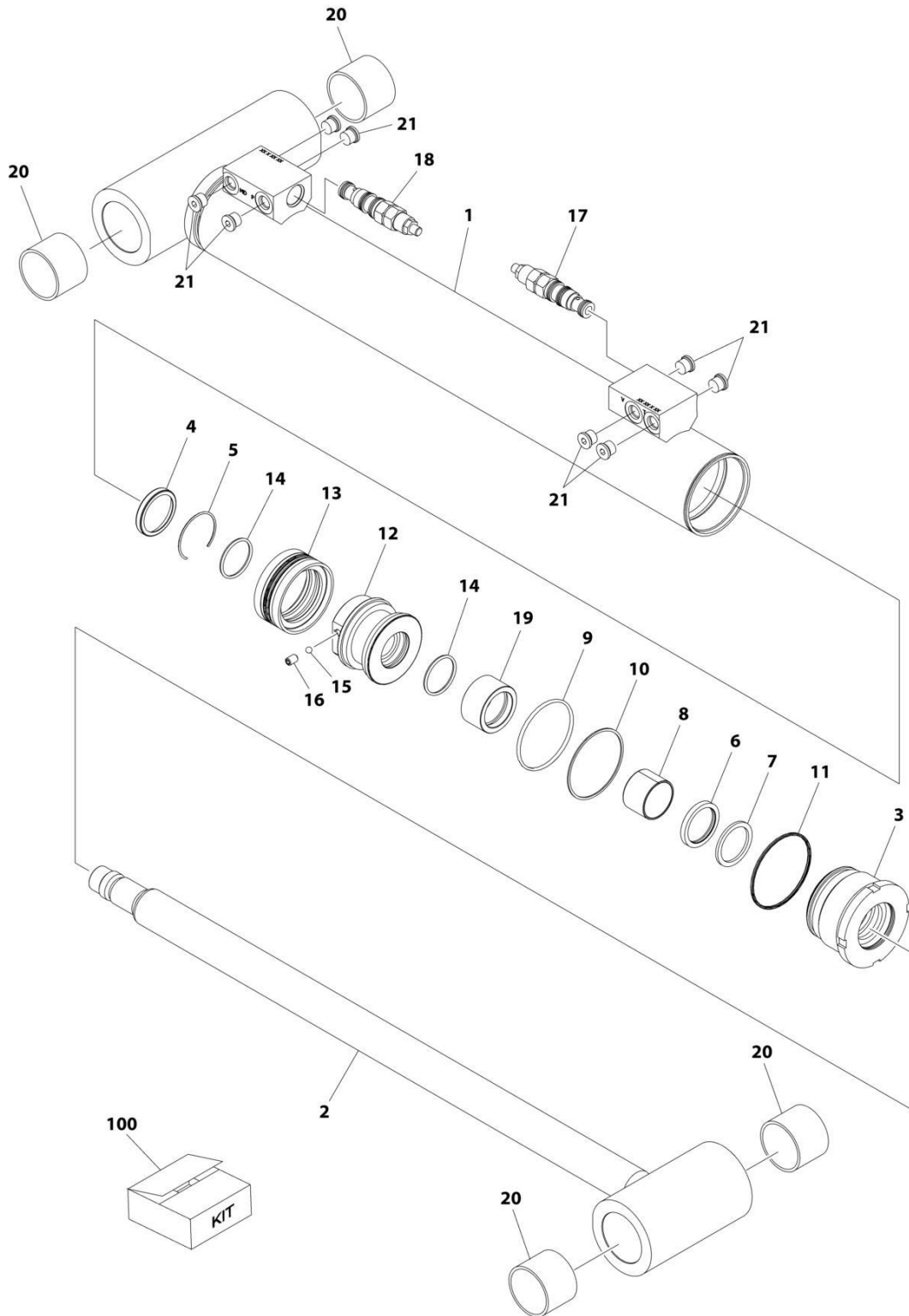
SECTION 5 - CYLINDER

FIGURE 5-13. MID LIFT CYLINDER ASSEMBLY (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228036	Ref	LIFT CYLINDER ASSEMBLY - MID	F
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel Weldment (Note: Not Available for Purchase)	
2	70006543	1	Rod Weldment	
3	70006542	1	Head	
4	70006533	1	Retainer	
5	See Note	NSS	Wiper (Note: Use Item 100)	
6	See Note	NSS	Seal, Rod (Note: Use Item 100)	
7	See Note	NSS	Ring, Wear (Note: Use Item 100)	
8	See Note	NSS	O-Ring (Note: Use Item 100)	
9	See Note	NSS	Ring, Back-up (Note: Use Item 100)	
10	70006532	1	Piston	
11	See Note	NSS	Seal (Note: Use Item 100)	
12	See Note	NSS	Ring, Wear (Note: Use Item 100)	
13	See Note	NSS	O-Ring (Note: Use Item 100)	
14	4740207	1	Washer	
15	70006539	1	Spacer	
16	3300281	1	Nut	
17	3900170	1	Setscrew	
18	4640634	1	Cartridge, Holding Valve	
18	2900770	1	Seal Kit - 4640634 Valve	
19	4641386	1	Cartridge, Holding Valve	
19	7011376	1	Seal Kit - 4641386 Valve	
20	0961950	4	Bushing	
21	2220883	4	Plug, O-Ring	
22	2220885	2	Plug, O-Ring	
23	0100011	AR	Compound, Locking	
24	0100038	AR	Primer, Locking	
100	2901805	1	Seal Kit (Includes Items 5-9 & 11-13)	

SECTION 5 - CYLINDER

FIGURE 5-14. MID LIFT CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW & M400ANARROW)
(SERVICE REPLACEMENT)



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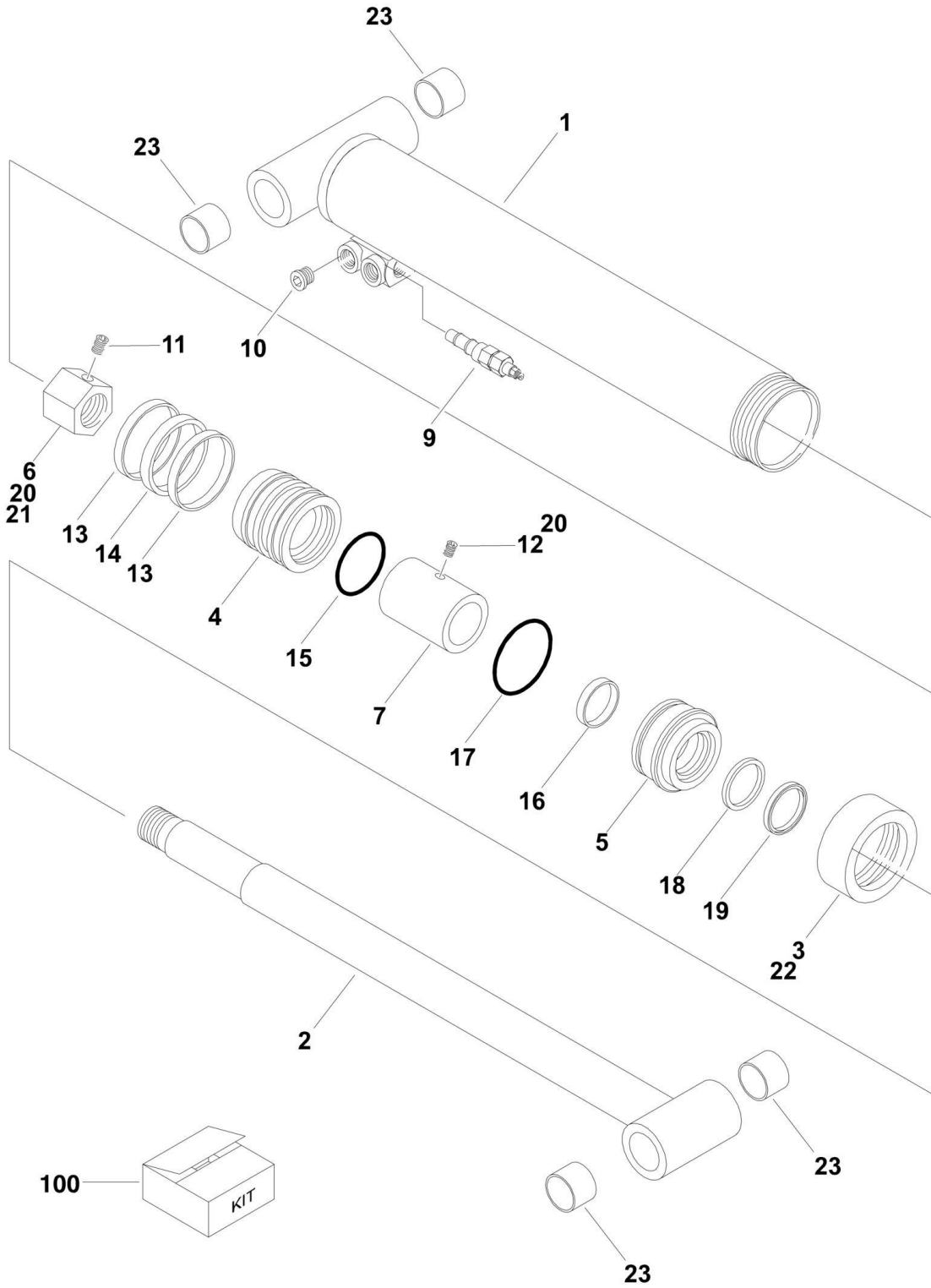
SECTION 5 - CYLINDER

**FIGURE 5-14. MID LIFT CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW & M400ANARROW)
(SERVICE REPLACEMENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228038	Ref	LIFT CYLINDER ASSEMBLY - MID	A
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel Weldment (Note: Not Available for Purchase)	
2	70006600	1	Rod Weldment	
3	70006599	1	Head	
4	See Note	1	Wiper (Note: Use Item 100)	
5	70002373	1	Retainer	
6	See Note	NSS	Seal, Rod (Note: Use Item 100)	
7	See Note	NSS	Ring, Back-up (Note: Use Item 100)	
8	70005143	1	Bearing	
9	See Note	NSS	O-Ring (Note: Use Item 100)	
10	See Note	NSS	Ring, Back-up (Note: Use Item 100)	
11	70006598	1	O-Ring	
12	70006597	1	Piston	
13	See Note	NSS	Seal (Note: Use Item 100)	
14	See Note	NSS	O-Ring (Note: Use Item 100)	
15	70022564	1	Ball, Steel	
16	70006596	1	Setscrew	
17	4640634	1	Cartridge, Holding Valve	
17	2900770	1	Seal Kit - 4640634 Valve	
18	4641386	1	Cartridge, Holding Valve	
18	7011376	1	Seal Kit - 4641386 Valve	
19	70006595	1	Spacer	
20	0961950	4	Bushing	
21	2220885	8	Plug, O-Ring	
100	70006594	1	Seal Kit (Includes 4, 6, 7, 9, 10, 13 & 14)	

SECTION 5 - CYLINDER

FIGURE 5-15. LIFT CYLINDER ASSEMBLY - UPPER



SECTION 5 - CYLINDER

FIGURE 5-15. LIFT CYLINDER ASSEMBLY - UPPER

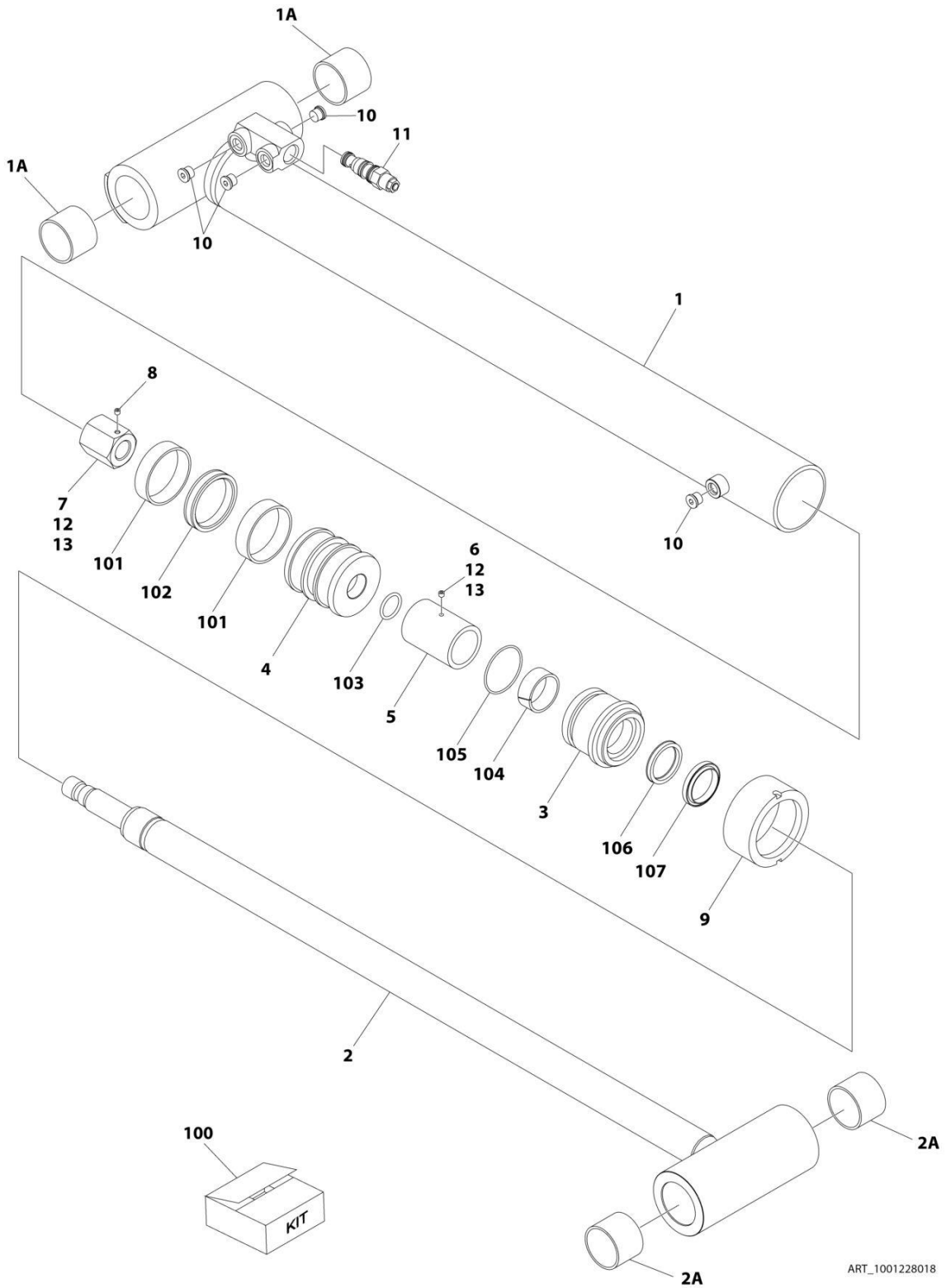
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	UPPER LIFT CYLINDER ASSEMBLIES	
	1683708	Ref	Upper Lift Cylinder Assemblies (E450A & M450A) (Prior to SN 0300058843)	2-B
	1684061	Ref	Upper Lift Cylinder Assemblies (E450A & M450A) (Original Equipment) (SN 0300058843 through 0300189898)	5-F
	1683813	Ref	Upper Lift Cylinder Assemblies (E450AJ & M450AJ) (Prior to SN 0300056571)	1-A
	1683945	Ref	Upper Lift Cylinder Assemblies (E450AJ & M450AJ) (Original Equipment) (SN 0300056571 through 0300189898)	4-F
	1684033	Ref	Upper Lift Cylinder Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (Original Equipment) (Prior to SN 0300073768)	1-A
	1684061	Ref	Upper Lift Cylinder Assemblies (E400A, M400A, E400Anarrow & M400Anarrow) (Original Equipment) (SN 0300073768 through 0300189901)	5-F
	1683945	Ref	Upper Lift Cylinder Assemblies (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Original Equipment)	4-F
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1		Ref	Barrel Weldment Options:	
1	1683514	1	1683708 Cylinder (Note: Includes Item #23)	
1	1683815	1	1683713 Cylinder (Note: Includes Item #23)	
1	1683946	1	1683945 Cylinder	
1	1684031	1	1684033 Cylinder	
1	1684060	1	1684061 Cylinder	
2		Ref	Rod Weldment Options:	
2	1683505	1	1683708 Cylinder (Note: Includes Item #23)	
2	1683817	1	1683713 Cylinder (Note: Includes Item #23)	
2	1683947	1	1683945 Cylinder	
2	1684032	1	1684033 Cylinder	
2	1684059	1	1684061 Cylinder	
3	1120108	1	Cap, End	
4	3480240	1	Piston	
5	1683709	1	Head	
6		Ref	Nut, Hex Options:	
6	3300315	1	1683708, 1684033 & 1684061 Cylinders	
6	3300279	1	1683713 & 1683945 Cylinder	
7		Ref	Spacer, Tube Options:	
7	4567177	1	1683708, 1684033 & 1684061 Cylinders	
7	4567908	1	1683713 & 1683945 Cylinders	
9	4640936	1	Cartridge, Valve	
9	2900770	1	Seal Kit - 4640936 Valve	
10	2220885	4	Plug, O-Ring	
11	3900170	1	Setscrew	
12		Ref	Setscrew Options:	
12	3951402	1	1683708, 1684033 & 1684061 Cylinders	
12	3900142	1	1683713 & 1683945 Cylinders	
13	See Note	2	Ring, Wear, (Note: Use Item 100)	
14	See Note	1	Seal, (Note: Use Item 100)	
15	See Note	1	O-Ring, (Note: Use Item 100)	
16	See Note	1	Ring, Wear, (Note: Use Item 100)	

SECTION 5 - CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
17	See Note	1	O-Ring, (Note: Use Item 100)	
18	See Note	1	Seal, (Note: Use Item 100)	
19	See Note	1	Wiper, (Note: Use Item 100)	
20	0100011	AR	Compound, Locking	
21	0100038	AR	Primer, Locking	
22	0100035	AR	Compound, Locking	
23		Ref	Bushing Options:	
23	0961726	4	1683708, 1683813 & 1684061 Cylinders	
23	0961950	4	1683945 & 1684033 Cylinders	
100	2901804	1	Seal Kit (Includes Items 13-19)	

SECTION 5 - CYLINDER

FIGURE 5-16. LIFT CYLINDER ASSEMBLY - UPPER (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)



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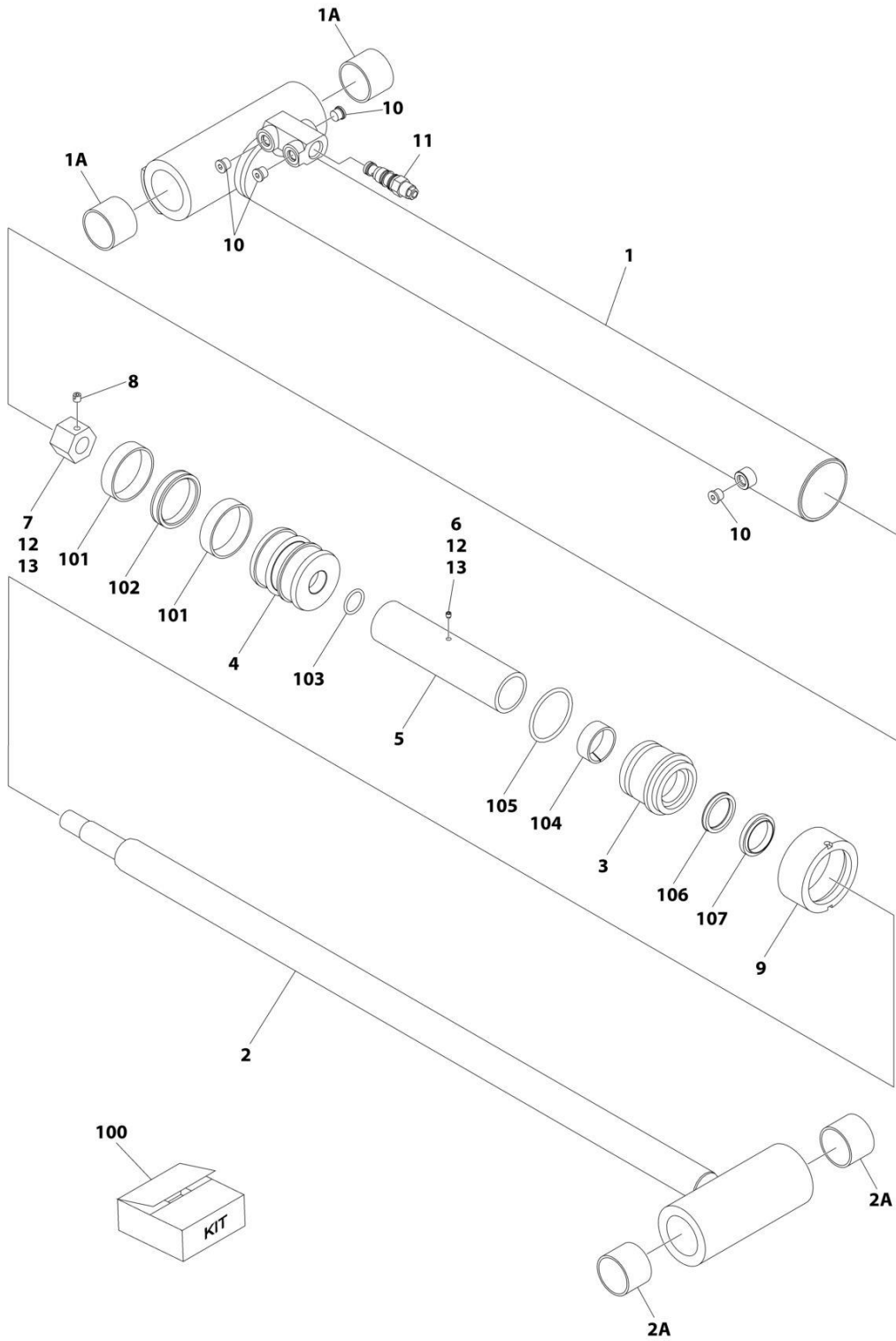
SECTION 5 - CYLINDER

FIGURE 5-16. LIFT CYLINDER ASSEMBLY - UPPER (E450A, M450A,E400A, M400A, E400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228018	Ref	LIFT CYLINDER ASSEMBLY - UPPER	B
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel Weldment (Note: Not Available for Purchase)	
1A	0961950	2	Bushing	
2	70006415	1	Rod Weldment	
2A	0961950	2	Bushing	
3	70006401	1	Head	
4	70006400	1	Piston	
5	70006414	1	Spacer	
6	70006413	1	Setscrew	
7	70006412	1	Nut	
8	70023915	1	Setscrew	
9	70006411	4	Retainer	
10	2220885	1	Plug, O-Ring	
11	4640936	1	Cartridge, Holding Valve	
11	2900770	1	Seal Kit - 4640936 Valve	
12	0100011	AR	Compound, Locking	
13	0100038	AR	Primer, Locking	
100	2901804	1	Seal Kit (Includes Items 101-107)	
101	See Note	NSS	Ring, Wear (Note: Use Item 100)	
102	See Note	NSS	Seal, Piston (Note: Use Item 100)	
103	See Note	NSS	O-Ring (Note: Use Item 100)	
104	See Note	NSS	Ring, Wear (Note: Use Item 100)	
105	See Note	NSS	O-Ring (Note: Use Item 100)	
106	See Note	NSS	Seal, Rod (Note: Use Item 100)	
107	See Note	NSS	Wiper, Rod (Note: Use Item 100)	

SECTION 5 - CYLINDER

FIGURE 5-17. LIFT CYLINDER ASSEMBLY - UPPER (E400AJP, M400AJP, E400AJPNARROW, M400AJPNARROW, E450AJ & M450AJ) (SERVICE REPLACEMENT)



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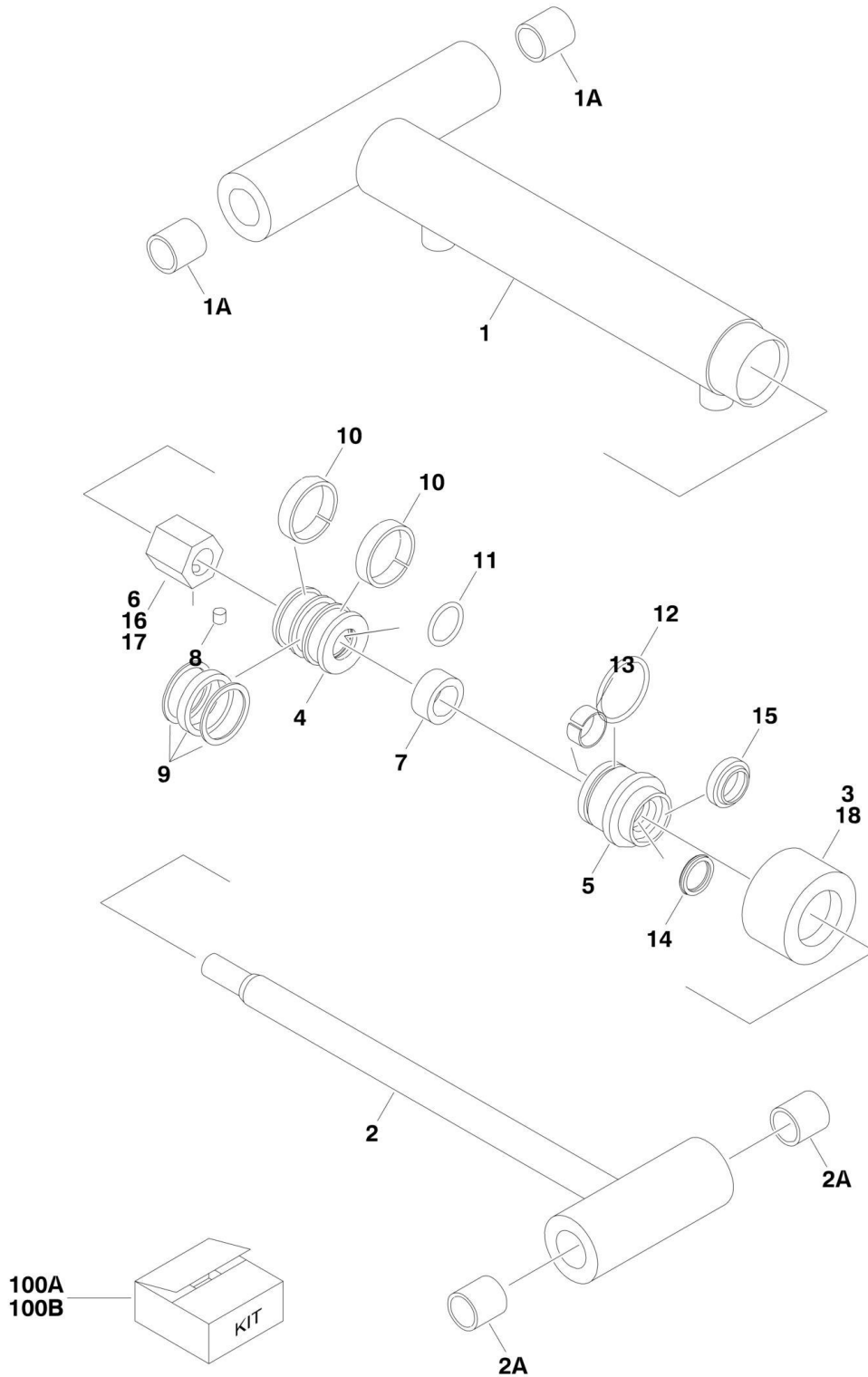
SECTION 5 - CYLINDER

FIGURE 5-17. LIFT CYLINDER ASSEMBLY - UPPER (E400AJP, M400AJP, E400AJPNARROW, M400AJPNARROW, E450AJ & M450AJ) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228016	Ref	LIFT CYLINDER ASSEMBLY - UPPER	C
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel Weldment (Note: Not Available for Purchase)	
1A	0961950	2	Bushing	
2	70006402	1	Rod Weldment	
2A	0961950	2	Bushing	
3	70006401	1	Head	
4	70006400	1	Piston	
5	70006399	1	Spacer	
6	70006398	1	Setscrew	
7	70006397	1	Nut	
8	70023915	1	Setscrew	
9	70006396	1	Retainer	
10	2220885	4	Plug, O-Ring	
11	4640936	1	Cartridge, Holding Valve	
11	2900770	1	Seal Kit - 4640936 Valve	
12	0100011	AR	Compound, Locking	
13	0100038	AR	Primer, Locking	
100	2901804	1	Seal Kit (Includes Items 101-107)	
101	See Note	NSS	Ring, Wear (Note: Use Item 100)	
102	See Note	NSS	Seal, Piston (Note: Use Item 100)	
103	See Note	NSS	O-Ring (Note: Use Item 100)	
104	See Note	NSS	Ring, Wear (Note: Use Item 100)	
105	See Note	NSS	O-Ring (Note: Use Item 100)	
106	See Note	NSS	Seal, Rod (Note: Use Item 100)	
107	See Note	NSS	Wiper, Rod (Note: Use Item 100)	

SECTION 5 - CYLINDER

FIGURE 5-18. MASTER CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (Prior to SN 0300165128)



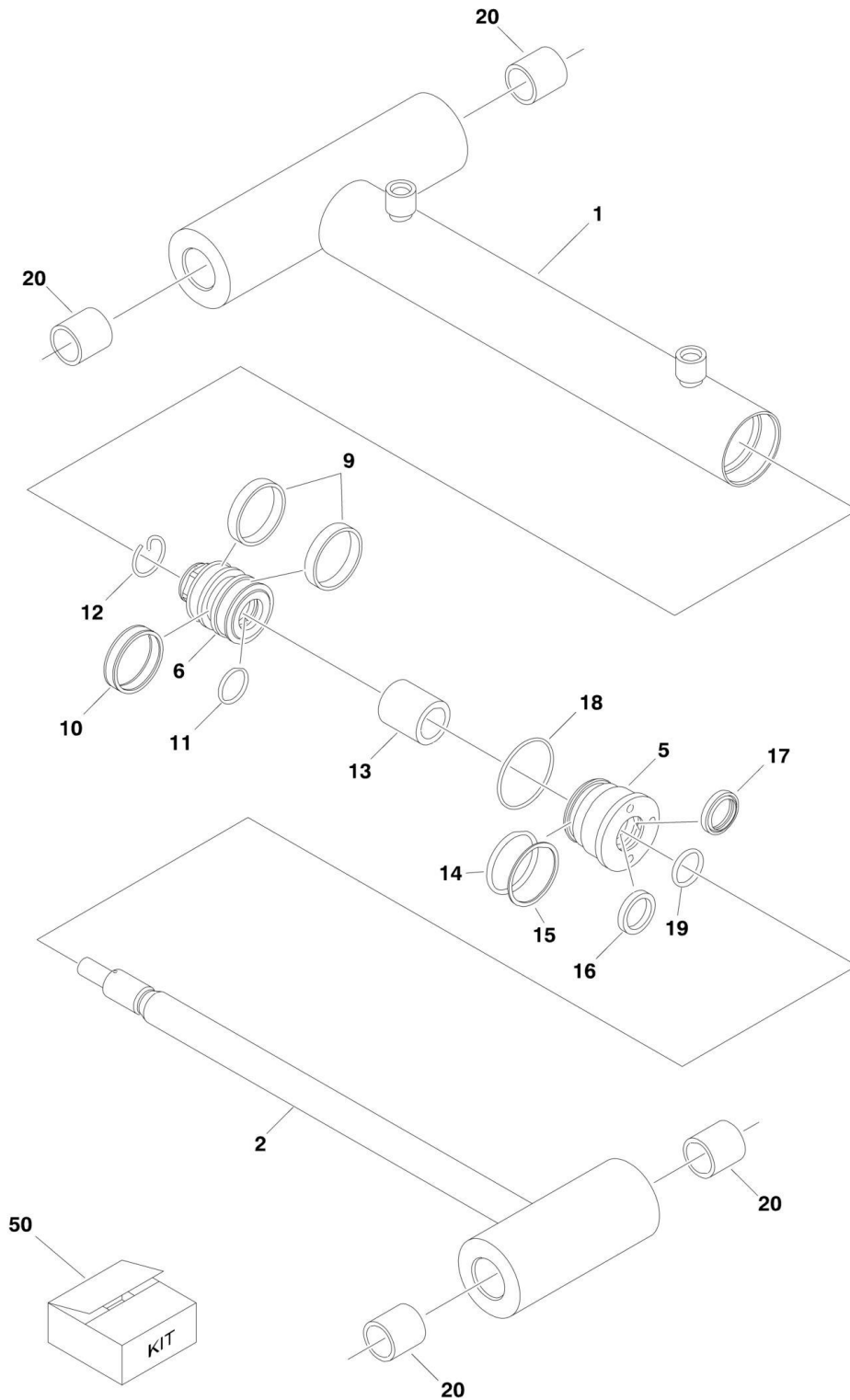
SECTION 5 - CYLINDER

FIGURE 5-18. MASTER CYLINDER ASSEMBLY (E450A, M450A,E400A, M400A, E400ANARROW & M400ANARROW) (Prior to SN 0300165128)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	MASTER CYLINDER ASSEMBLY	
	1683325	Ref	Master Cylinder Assembly (Prior to SN 0300056894)	1-A
	1683932	Ref	Master Cylinder Assembly (SN 0300056894 through 0300165128)	G
		Ref	Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	
1		Ref	Barrel Weldment Options:	
1	1682879	1	Barrel Weldment (1683325 Cylinder)	
1	1684002	1	Barrel Weldment (1683932 Cylinder)	
1A		Ref	Bushing Option:	
1A	0961608	2	Bushing (1683325 Cylinder)	
1A	0962356	2	Bushing (1683932 Cylinder)	
2		Ref	Rod Weldment Options:	
2	1682886	1	Rod Weldment (1683325 Cylinder)	
2	1684007	1	Rod Weldment (1683932 Cylinder)	
2A		Ref	Bushing Options:	
2A	0961608	2	Bushing (1683325 Cylinder)	
2A	0962356	2	Bushing (1683932 Cylinder)	
3	1120110	1	Retainer	
4		Ref	Piston Options:	
4	3480217	1	Piston (1683325 Cylinder)	
4	3480261	1	Piston (1683932 Cylinder)	
5		Ref	Head Options:	
5	1682154	1	Head (1683325 Cylinder)	
5	1683934	1	Head (1683932 Cylinder)	
6	3300308	1	Nut, Hex	
7		Ref	Spacer, Tube Options:	
7	4566023	1	Spacer, Tube (1683325 Cylinder)	
7	4568136	1	Spacer, Tube (1683932 Cylinder)	
8	3900170	1	Setscrew 3/8in-16NC x 3/8in	
9	See Note	1	T-Seal (Note: Use Items 100A or 100B)	
10	See Note	Ref	Ring, Wear (Note: Use Items 100A or 100B)	
11	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
12	See Note	1	O-Ring (Note: Use Items 100A or 100B)	
13	See Note	1	Ring, Wear (Note: Use Items 100A or 100B)	
14	See Note	1	Seal, Rod (Note: Use Items 100A or 100B)	
15	See Note	1	Wiper, Rod (Note: Use Items 100A or 100B)	
16	0100038	AR	Primer, Locking	
17	0100011	AR	Compound, Locking	
18	0100035	AR	Compound, Locking	
100		Ref	Seal Kit - Cylinder Options (Includes Items 9-15):	
100A	2901147	1	Level Cylinder p/n 1683325	
100B	2901902	1	Level Cylinder p/n 1683932	

SECTION 5 - CYLINDER

FIGURE 5-19. MASTER CYLINDER ASSEMBLY (E450A, M450A, E400A, M400A, E400ANARROW & M400ANARROW) (SN 0300165128 through 0300189901)



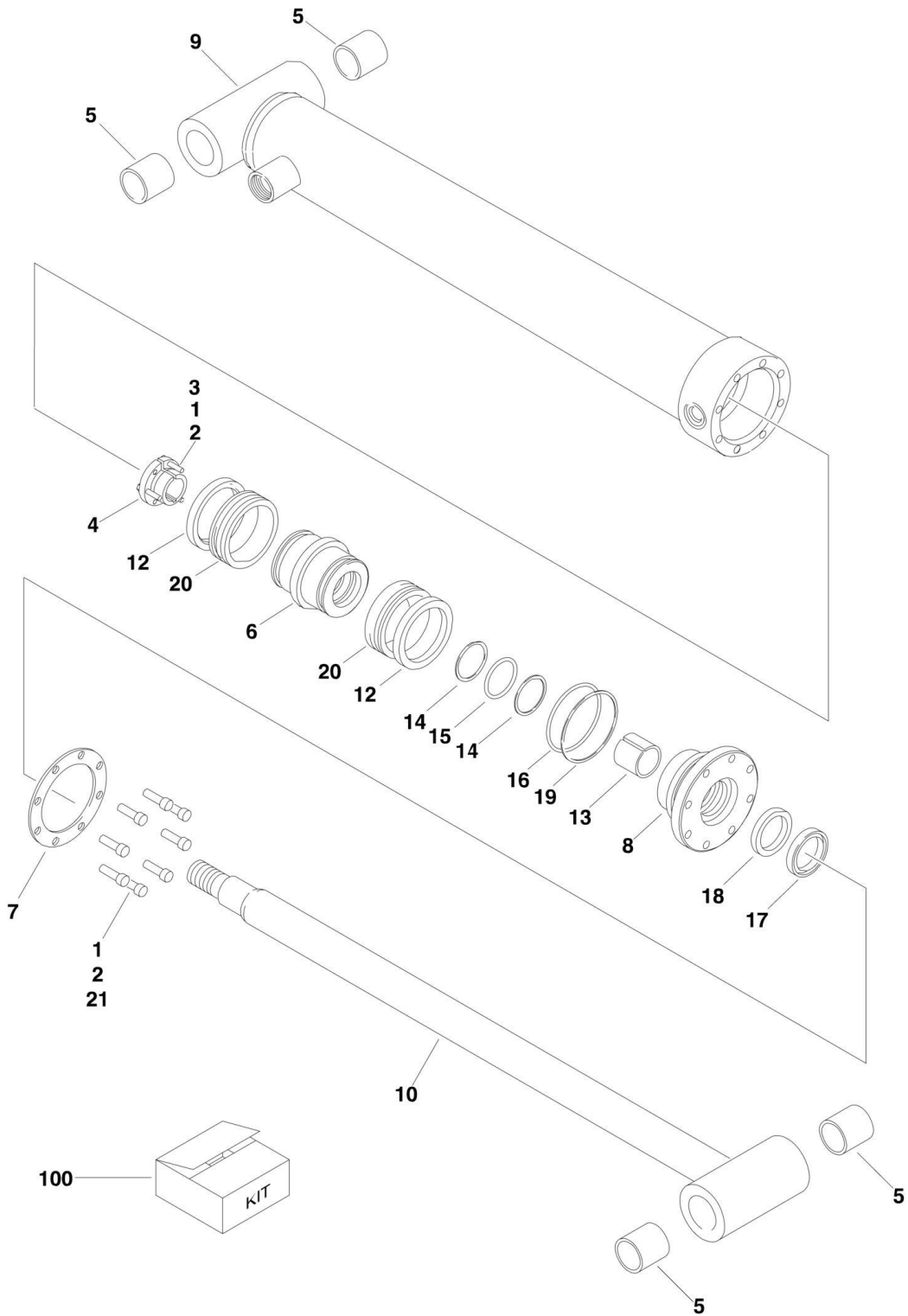
SECTION 5 - CYLINDER

FIGURE 5-19. MASTER CYLINDER ASSEMBLY (E450A, M450A,E400A, M400A, E400ANARROW & M400ANARROW) (SN 0300165128 through 0300189901)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001140597	Ref	MASTER CYLINDER ASSEMBLY Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	A
		Ref		
1	70004144	1	Barrel	
2	70004145	1	Rod	
5	70000739	1	Head	
6	70004141	1	Piston	
9	See Note	2	Head, (Note: Use Item 50)	
10	See Note	1	Piston, (Note: Use Item 50)	
11	70023094	1	O-Ring, (Note: Use Item 50)	
12	70004142	1	Retainer	
13	70004143	1	Spacer	
14	See Note	1	O-Ring, (Note: Use Item 50)	
15	See Note	1	Ring, Back-up, (Note: Use Item 50)	
16	See Note	1	Seal, (Note: Use Item 50)	
17	See Note	1	Wiper, (Note: Use Item 50)	
18	See Note	1	O-Ring, (Note: Use Item 50)	
19	70000740	1	O-Ring	
20	0962356	4	Bushing	
50	70004130	1	Seal Kit (Includes Items 9-11 & 14-18)	

SECTION 5 - CYLINDER

FIGURE 5-20. MASTER CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (Prior to SN 0300163453)



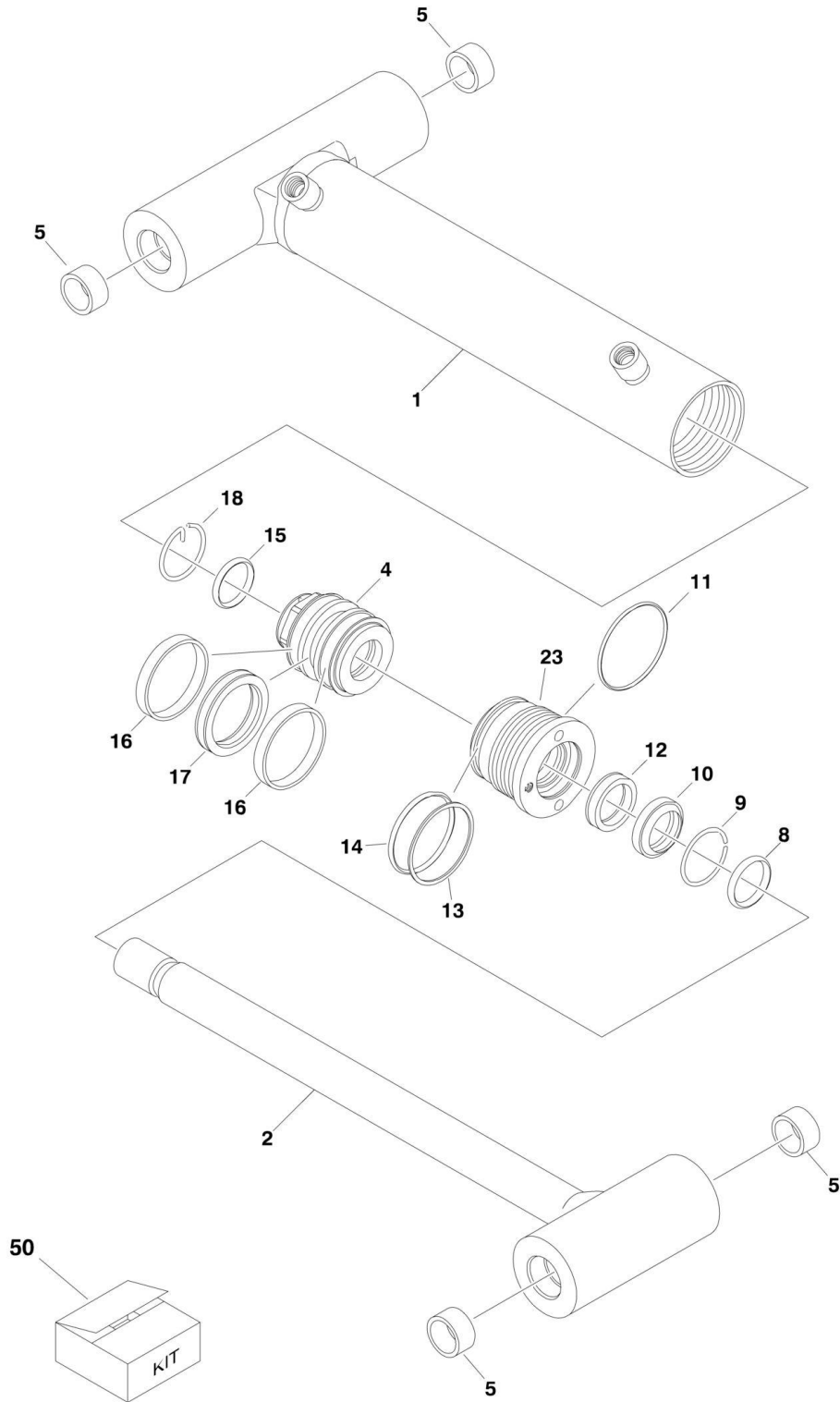
SECTION 5 - CYLINDER

FIGURE 5-20. MASTER CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (Prior to SN 0300163453)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1683923	Ref	MASTER CYLINDER ASSEMBLIES Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	E
		Ref		
1	0100011	AR	Compound, Locking	
2	0100038	AR	Primer, Locking	
3	3931016	3	Bolt Socket Head #10-24NC x 1in	
4	0962185	1	Tapered Bushing	
5	0961951	4	Bushing, Garmax	
6	3480259	1	Piston	
7	3760368	1	Washer, Ring	
8	1683925	1	Head	
9	1683756	1	Barrel	
10	1683772		Rod	
12	See Note	2	Ring, Lock, (Note: Use Item 100)	
13	See Note	1	Ring, Wear, (Note: Use Item 100)	
14	See Note	2	Ring, Back-Up, (Note: Use Item 100)	
15	See Note	1	O-Ring, (Note: Use Item 100)	
16	See Note	1	O-Ring, (Note: Use Item 100)	
17	See Note	1	Wiper, (Note: Use Item 100)	
18	See Note	1	Seal, (Note: Use Item 100)	
19	See Note	1	Ring, Back-Up, (Note: Use Item 100)	
20	See Note	2	Seal, (Note: Use Item 100)	
21	3931516	8	Bolt Socket Head 5/16in-18NC x 1in	
100	2901898	1	Seal Kit (Includes Items 12-20)	

SECTION 5 - CYLINDER

FIGURE 5-21. MASTER CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (SN 0300163453 through 0300189901)



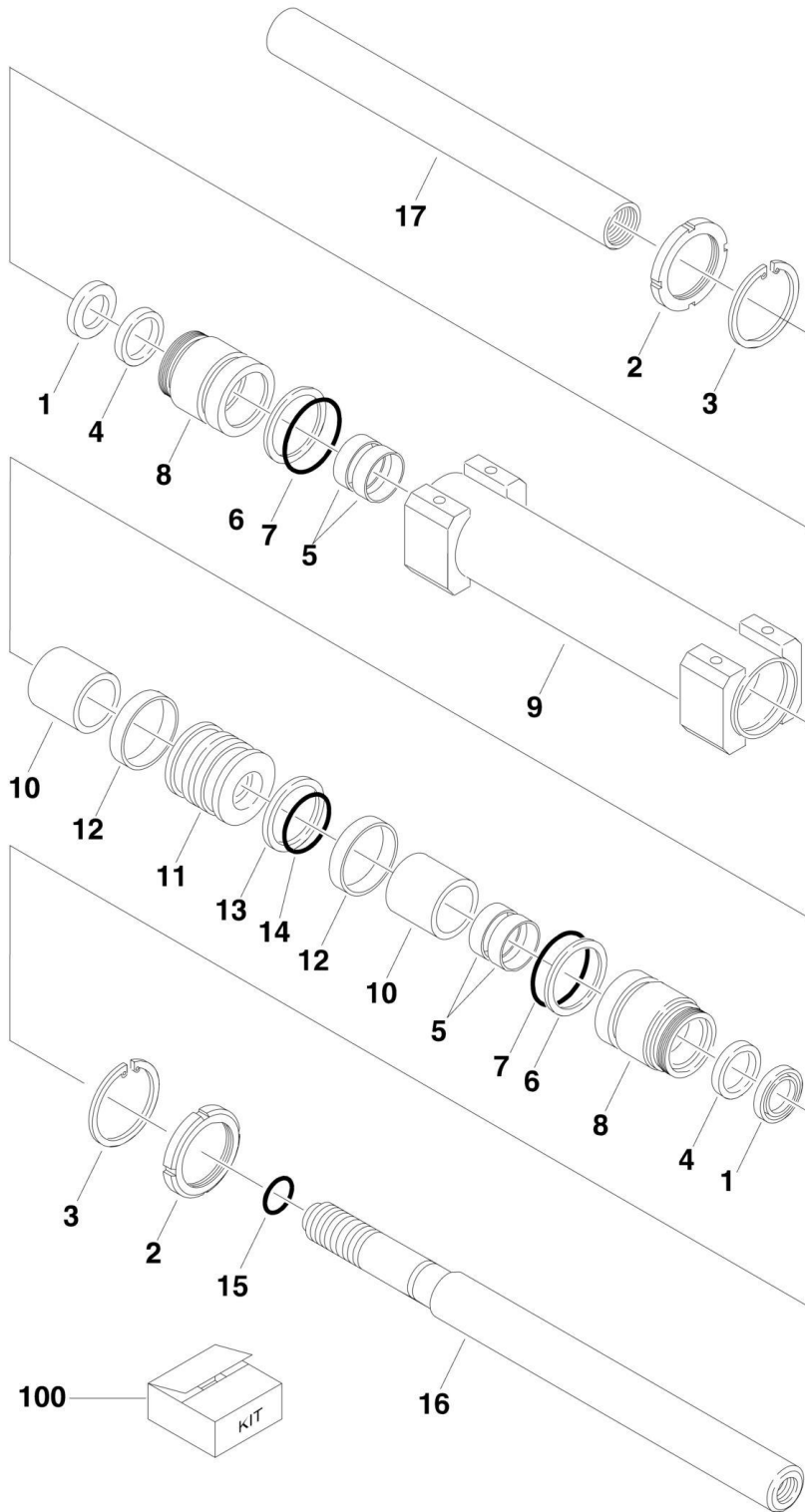
SECTION 5 - CYLINDER

FIGURE 5-21. MASTER CYLINDER ASSEMBLY (E450AJ, M450AJ, E450AJP, M450AJP, E400AJPNARROW & M400AJPNARROW) (SN 0300163453 through 0300189901)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001140278	Ref	MASTER CYLINDER ASSEMBLIES Note: Original Equipment components may have been replaced with Service Replacement components part. Identify p/n stamped on cylinder before ordering parts.	A
		Ref		
1	70003843	1	Barrel	
2	70003844	1	Rod	
4	70003819	1	Piston	
5	0961951	4	Bushing	
8	7026084	1	O-Ring	
9	70002217	1	Ring, Retaining	
10	See Note	1	Wiper, (Note: Use Item 50)	
11	See Note	1	O-Ring, (Note: Use Item 50)	
12	See Note	1	Seal, (Note: Use Item 50)	
13	See Note	1	Ring, Back-up, (Note: Use Item 50)	
14	See Note	1	O-Ring, (Note: Use Item 50)	
15	See Note	1	O-Ring, (Note: Use Item 50)	
16	See Note	2	Ring, Wear, (Note: Use Item 50)	
17	See Note	1	Seal, (Note: Use Item 50)	
18	70002216	1	Retainer	
23	7026082	1	Head	
50	70003845	1	Seal Kit (Includes Items 10-17)	

SECTION 5 - CYLINDER

FIGURE 5-22. STEER CYLINDER ASSEMBLY



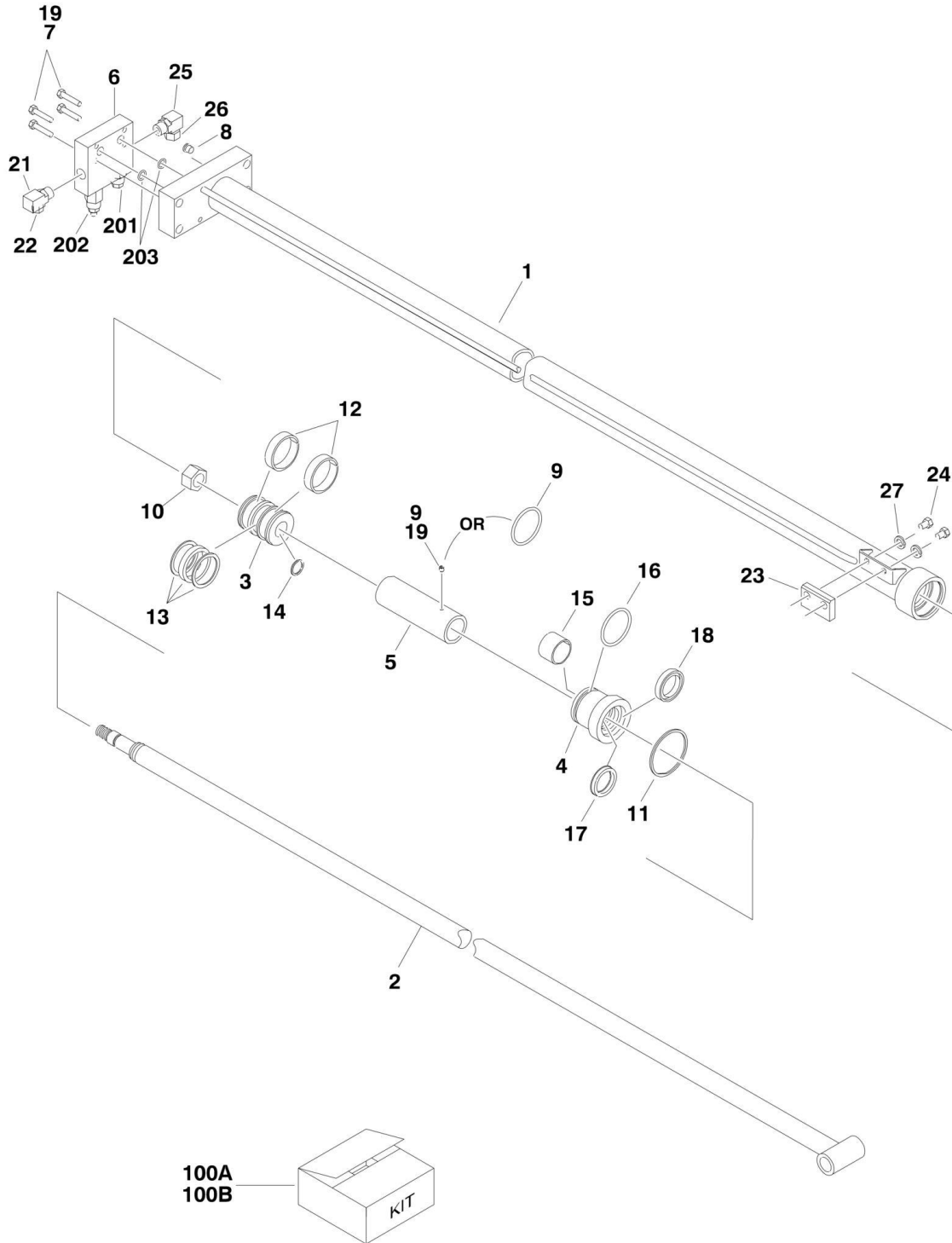
SECTION 5 - CYLINDER

FIGURE 5-22. STEER CYLINDER ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1683591	Ref	STEER CYLINDER ASSEMBLY	B
1	See Note	2	Wiper, (Note: Use Item 100)	
2	7001630	2	Nut, Spanner	
3	7017247	2	Ring, Retaining	
4	See Note	2	Seal, Lip, (Note: Use Item 100)	
5	See Note	4	Ring, Wear, (Note: Use Item 100)	
6	See Note	2	Ring, Back-up, (Note: Use Item 100)	
7	See Note	2	O-Ring, (Note: Use Item 100)	
8	7017248	2	Guide	
9	70003341	1	Barrel Weldment	
10	7017249	2	Tube	
11	7017250	1	Piston	
12	See Note	2	Ring, Wear, (Note: Use Item 100)	
13	See Note	1	Seal, (Note: Use Item 100)	
14	See Note	1	O-Ring, (Note: Use Item 100)	
15	See Note	1	O-Ring, (Note: Use Item 100)	
16	7017251	1	Rod (Male End)	
17	7017252	1	Rod (Female End)	
100	7017246	1	Seal Kit (Includes Items 1, 4-7 & 12-15)	

SECTION 5 - CYLINDER

FIGURE 5-23. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW, M400ANARROW, E450A, M450A, E450AJ & M450AJ) (ORIGINAL EQUIPMENT) (Prior to SN 0300175016)



SECTION 5 - CYLINDER

FIGURE 5-23. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW, M400ANARROW, E450A, M450A, E450AJ & M450AJ) (ORIGINAL EQUIPMENT) (Prior to SN 0300175016)

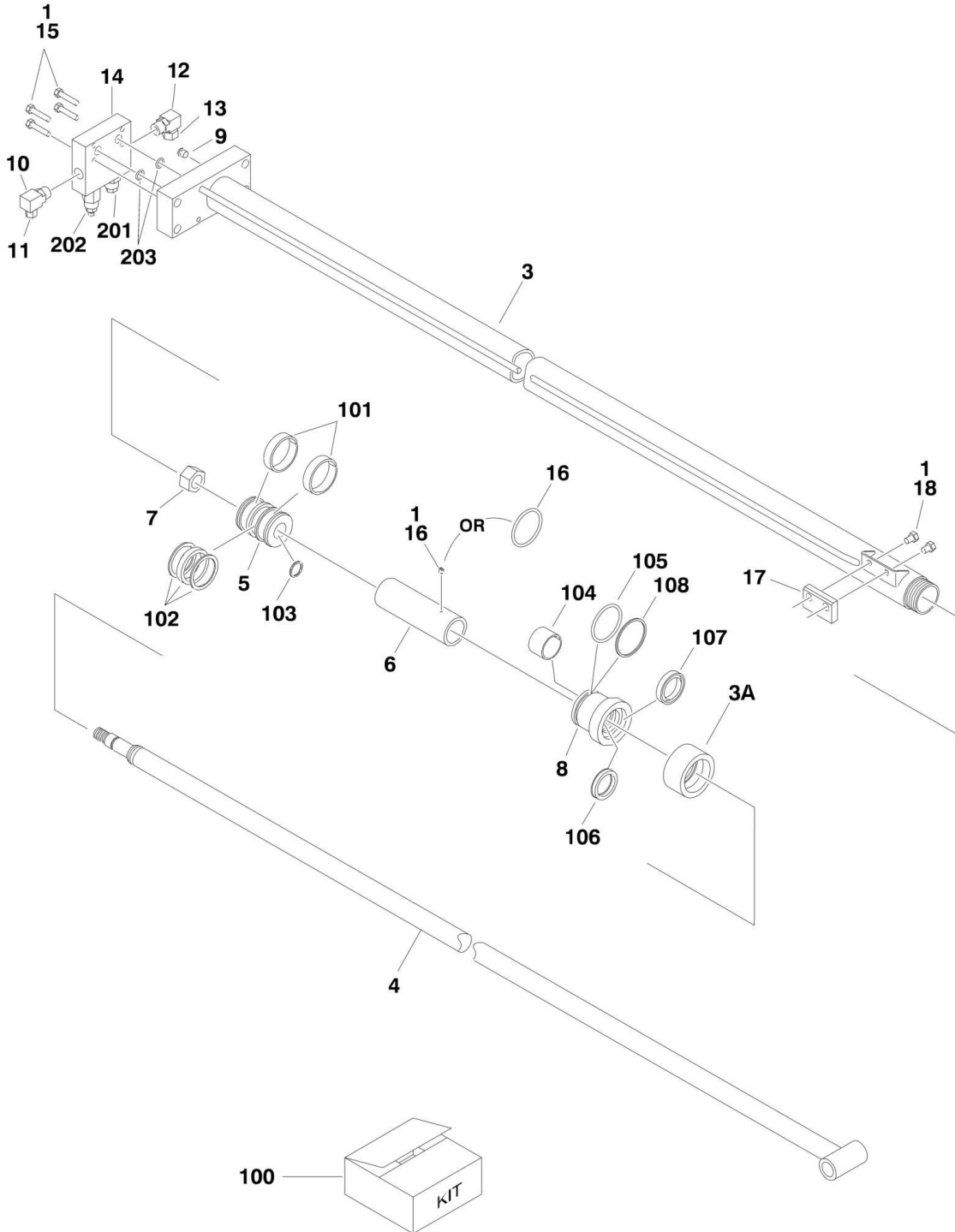
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	TELESCOPE CYLINDER ASSEMBLY	
	1683704	Ref	Telescope Cylinder Assembly (E450A & M450A)	D
	1683798	Ref	Telescope Cylinder Assembly (E450AJ & M450AJ)	E
	1684030	Ref	Telescope Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	B
1		Ref	Barrel Weldment Options:	
1	1682948	1	Barrel Weldment (E450A & M450A)	
1	1683800	1	Barrel Weldment (E450AJ & M450AJ)	
1	1682888	1	Barrel Weldment (E400A, M400A, E400Anarrow & M400Anarrow)	
2		Ref	Rod Weldment Options:	
2	1683706	1	Rod Weldment E450A & M450A	
2	1683802	1	Rod Weldment E450AJ & M450AJ	
2	1684029	1	Rod Weldment (E400A, M400A, E400Anarrow & M400Anarrow)	
3	3480239	1	Piston	
4	1683705	1	Head	
5		Ref	Spacer, Tube Options:	
5	4567704	1	Spacer, Tube (E450A, M450A, E400A, M400A, E400Anarrow & M400Anarrow)	
5	4566027	1	Spacer, Tube (E450AJ & M450AJ)	
6	4640807	1	Counterbalance Valve Assy (See Items 201-203 for Breakdown)	
7	0641512	4	Bolt 5/16in-18NC x 1-1/2in	
8	2220883	2	Plug, O-Ring	
9	3951402	1	Setscrew 1/4in-20NC x 1/4in	
9	See Note	1	O-Ring (Note: Use Item 100B)	
10	3322205	1	Locknut	
11	3760318	1	Ring, Retaining	
12	See Note	2	Ring, Wear (Note: Use Item 100A or 100B)	
13	See Note	1	Seal, Cap (Note: Use Item 100A or 100B)	
14	See Note	1	O-Ring (Note: Use Item 100A or 100B)	
15	See Note	1	Ring, Wear (Note: Use Item 100A or 100B)	
16	See Note	1	O-Ring (Note: Use Item 100A or 100B)	
17	See Note	1	Seal, Rod (Note: Use Item 100A or 100B)	
18	See Note	1	Wiper (Note: Use Item 100A or 100B)	
19	0100011	AR	Compound, Locking	
19	0100038	AR	Primer, Locking	
21	2220628	1	Fitting, Elbow	
22	2220516	1	Fitting, Cap	
23	3340679	1	Wear Pad Assembly	
24	0641604	2	Bolt 3/8in-16NC x 1/2in	
25	2220596	1	Fitting, Elbow	
26	2220517	1	Fitting, Cap	
27	4761600	2	Lockwasher 3/8in	
100		Ref	Seal Kit Options:	
100A	2901807	1	Seal Kit (Includes Items 12-18) (Telescope Cylinder p/n 1683704 & p/n 1684030)	
100B	1001141760	1	Seal Kit (Includes Items 12-18 & 9) (Telescope Cylinder p/n 1683798)	

SECTION 5 - CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4640807	Ref	COUNTERBALANCE VALVE ASSEMBLY	D
201	4640771	1	Cartridge, Counterbalance	
201	2900770	1	Seal Kit - 4640771 Cartridge	
202	4640709	1	Cartridge, Vented Counterbalance	
202	2900770	1	Seal Kit - 4640709 Cartridge	
203	3790113	2	O-Ring (Between Valve and Cylinder Block)	

SECTION 5 - CYLINDER

FIGURE 5-24. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW, M400ANARROW, E450A, M450A, E450AJ & M450AJ) (ORIGINAL EQUIPMENT) (SN 0300175016 through 0300189901)



SECTION 5 - CYLINDER

FIGURE 5-24. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW, M400ANARROW, E450A, M450A, E450AJ & M450AJ) (ORIGINAL EQUIPMENT) (SN 0300175016 through 0300189901)

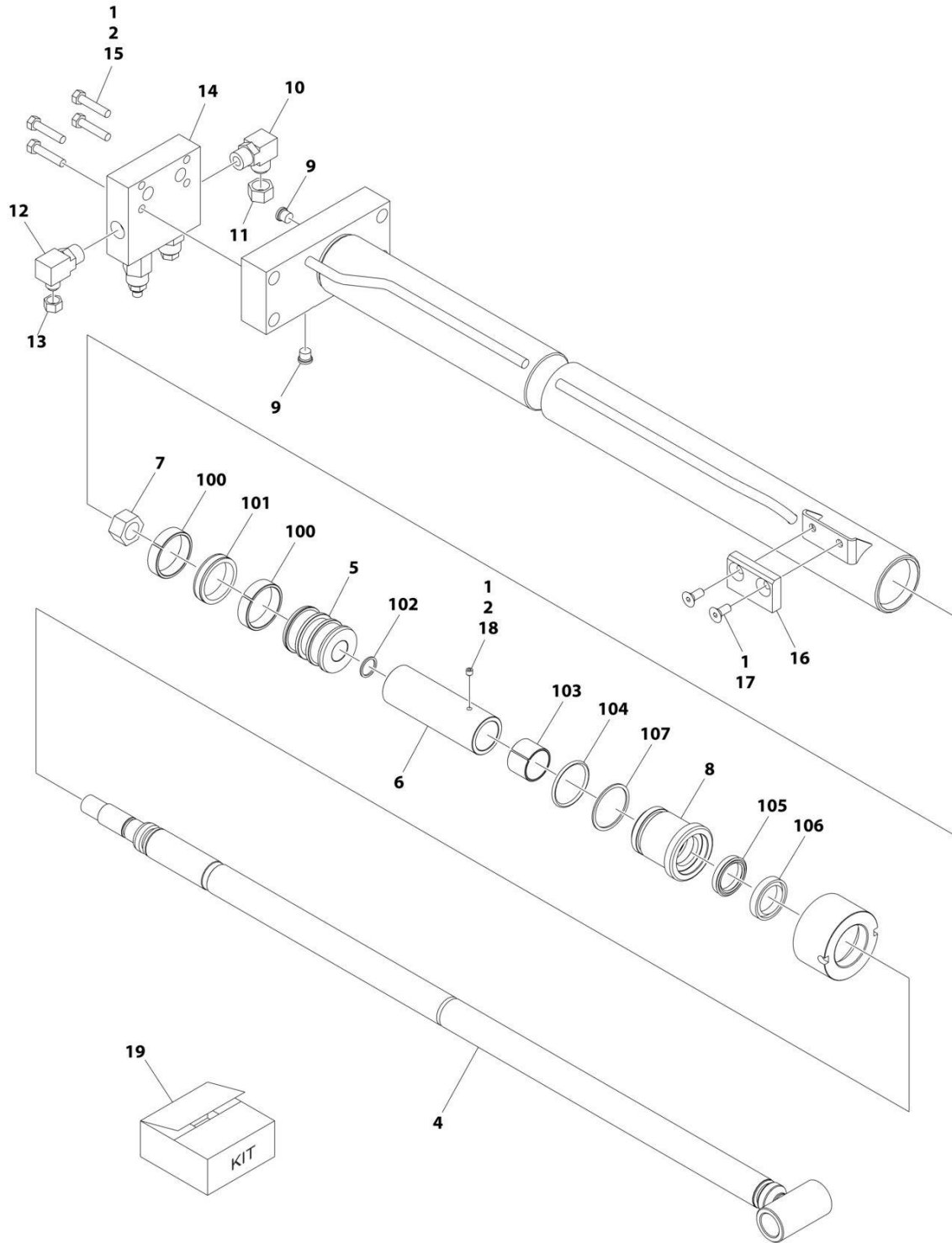
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	TELESCOPE CYLINDER ASSEMBLY	
	1001151414	Ref	Telescope Cylinder Assembly (E450A & M450A)	A
	1001151368	Ref	Telescope Cylinder Assembly (E450AJ & M450AJ)	B
	1001151497	Ref	Telescope Cylinder Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	A
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	0100011	AR	Compound, Locking	
1	0100038	AR	Primer, Locking	
3		Ref	Barrel Weldment Options:	
3	1001151413	1	Barrel Weldment (E450A & M450A)	
3	1001151386	1	Barrel Weldment (E450AJ & M450AJ)	
3	1001151496	1	Barrel Weldment (E400A, M400A, E400Anarrow & M400Anarrow)	
3A	1120110	1	Cap, End	
4		Ref	Rod Weldment Options:	
4	1683706	1	Rod Weldment E450A & M450A	
4	1683802	1	Rod Weldment E450AJ & M450AJ	
4	1684029	1	Rod Weldment Barrel Weldment (E400A, M400A, E400Anarrow & M400Anarrow)	
5	3480239	1	Piston	
6		Ref	Spacer, Tube Options:	
6	4567704	1	Spacer, Tube (E450A, M450A, E400A, M400A, E400Anarrow & M400Anarrow)	
6	4566027	1	Spacer, Tube (E450AJ & M450AJ)	
7	3322205	1	Locknut	
8	1683584	1	Head	
9	2220883	1	Plug, O-Ring	
10	2220596	1	Fitting, Elbow	
11	2220517	1	Fitting, Cap	
12	2220628	1	Fitting, Elbow	
13	2220516	1	Fitting, Cap	
14	4640807	1	Counterbalance Valve Assy (See Items 201-203 for Breakdown)	
15	0641512	4	Bolt 5/16in-18NC x 1-1/2in	
16	3951402	1	Setscrew 1/4in-20NC x 1/4in	
16	See Note	1	O-Ring (Note: Use Item 100)	
17	3340679	1	Wear Pad Assembly	
18	0641604	2	Bolt 3/8in-16NC x 1/2in	
100	1001152230	1	Seal Kit Options (Includes Items 101-108):	
101	See Note	2	Ring, Wear (Note: Use Item 100)	
102	See Note	1	Seal, Cap (Note: Use Item 100)	
103	See Note	1	O-Ring (Note: Use Item 100)	
104	See Note	1	Ring, Wear (Note: Use Item 100)	
105	See Note	1	O-Ring (Note: Use Item 100)	
106	See Note	1	Seal, Rod (Note: Use Item 100)	
107	See Note	1	Wiper (Note: Use Item 100)	
108	See Note	1	Ring, Back-up (Note: Use Item 100)	

SECTION 5 - CYLINDER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4640807	Ref	COUNTERBALANCE VALVE ASSEMBLY	D
201	4640771	1	Cartridge, Counterbalance	
201	2900770	1	Seal Kit - 4640771 Cartridge	
202	4640709	1	Cartridge, Vented Counterbalance	
202	2900770	1	Seal Kit - 4640709 Cartridge	
203	3790113	2	O-Ring (Between Valve and Cylinder Block)	

SECTION 5 - CYLINDER

FIGURE 5-25. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)



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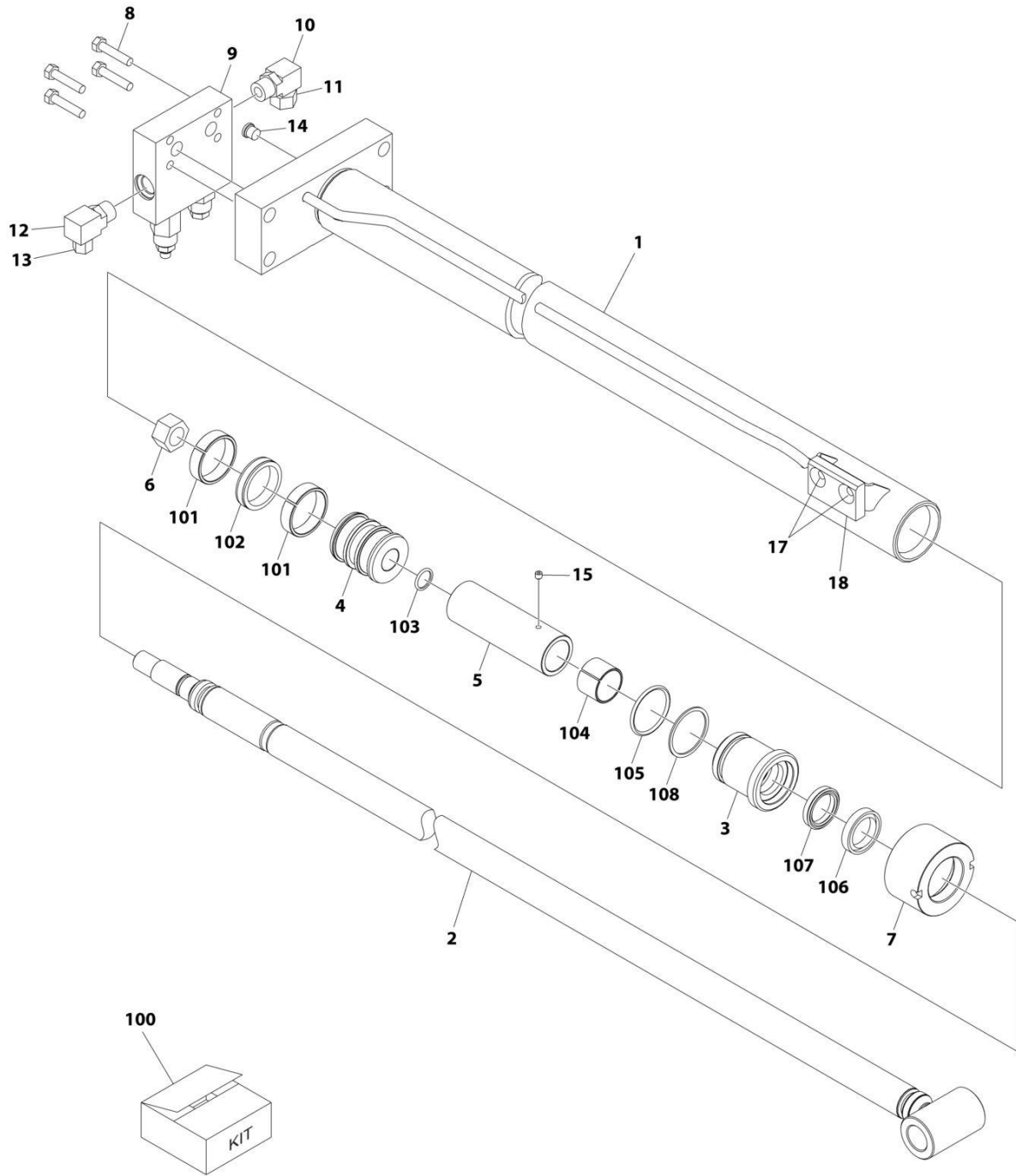
SECTION 5 - CYLINDER

FIGURE 5-25. TELESCOPE CYLINDER ASSEMBLY (E400A, M400A, E400ANARROW & M400ANARROW) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228063	Ref	TELESCOPE CYLINDER ASSEMBLY	B
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	0100011	AR	Compound, Locking	
2	0100038	AR	Primer, Locking	
4	70006566	1	Rod	
5	70006564	1	Piston	
6	70006563	1	Spacer	
7	70006971	1	Nut	
8	70006565	1	Head	
9	2220883	1	Plug	
10	2220596	1	Fitting, 90 JIC/ORB	
11	2220517	1	Fitting, Cap	
12	2220628	1	Fitting, 90 JIC/ORB	
13	2220516	1	Fitting, Cap	
14	4640807	1	Counterbalance Valve Assembly (See Separate Breakdown in this Section)	
15	0641512	4	Bolt 5/16 x 1-1/2	
16	3340679	1	Pad, Wear	
17	70006976	2	Screw	
18	70023915	1	Setscrew M6 x 8	
19	1001152230	1	Seal Kit (Includes Items 100-107)	
100	See Note	NSS	Ring, Wear (Note: Use p/n 1001152230)	
101	See Note	NSS	Seal, Piston (Note: Use p/n 1001152230)	
102	See Note	NSS	O-Ring (Note: Use p/n 1001152230)	
103	See Note	NSS	Ring, Wear (Note: Use p/n 1001152230)	
104	See Note	NSS	O-Ring (Note: Use p/n 1001152230)	
105	See Note	NSS	Seal, Rod (Note: Use p/n 1001152230)	
106	See Note	NSS	Seal, Rod (Note: Use p/n 1001152230)	
107	See Note	NSS	Ring, Back-Up (Note: Use p/n 1001152230)	

SECTION 5 - CYLINDER

FIGURE 5-26. TELESCOPE CYLINDER ASSEMBLY (E450A & M450A) (SERVICE REPLACEMENT)



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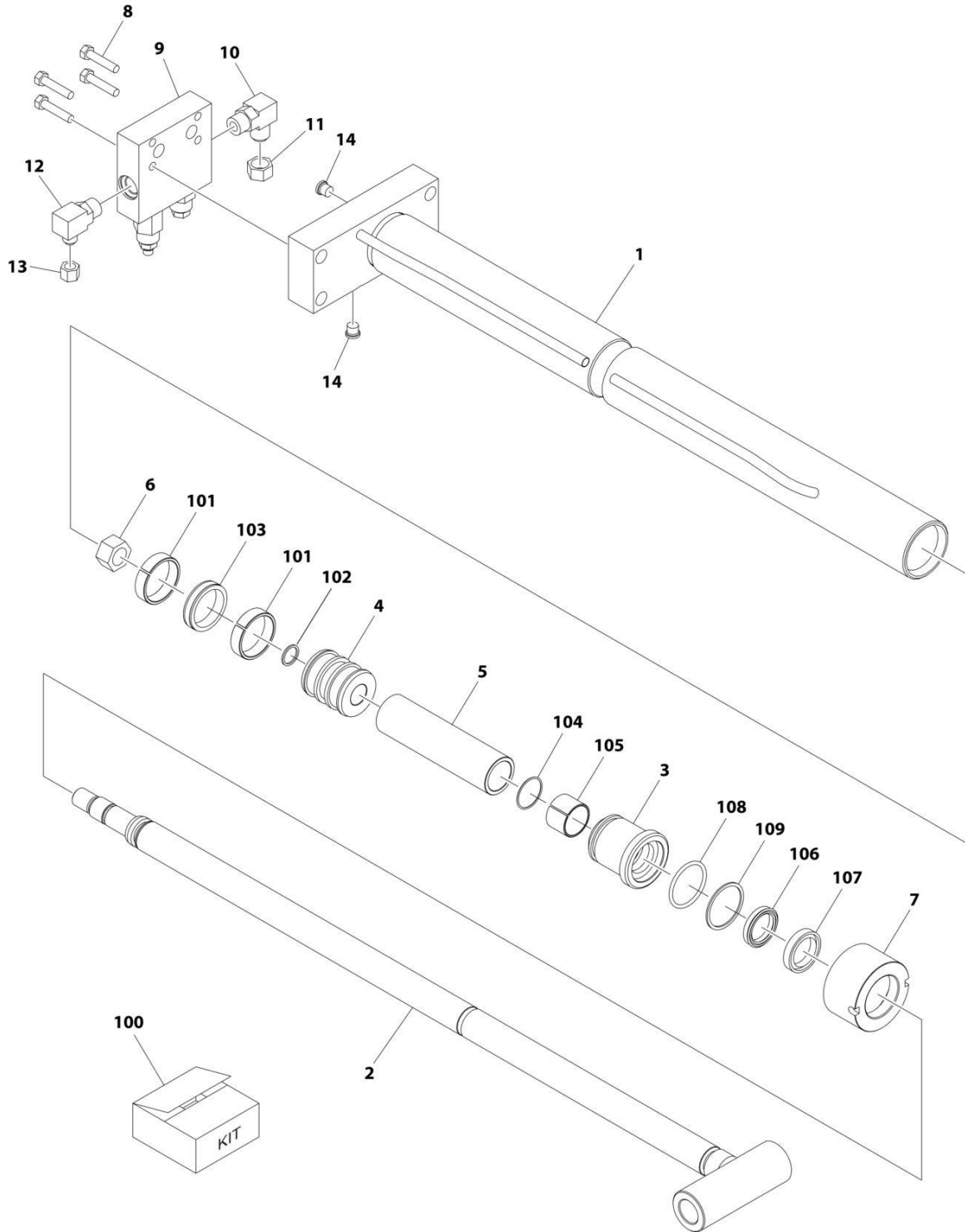
SECTION 5 - CYLINDER

FIGURE 5-26. TELESCOPE CYLINDER ASSEMBLY (E450A & M450A) (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228062	Ref	TELESCOPE CYLINDER ASSEMBLY	A
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel (Note: Not Available for Purchase)	
2	70006567	1	Rod	
3	70006565	1	Head	
4	70006564	1	Piston	
5	70006563	1	Spacer	
6	70006971	1	Nut, Lock	
7	70006561	1	Cap, End	
8	0641512	4	Bolt 5/16 X 1-1/2	
9	4640807	1	Counterbalance Valve Assembly (See Separate Breakdown in this Section)	
10	2220596	1	Fitting, 90 JIC/ORB	
11	2220517	1	Fitting, Cap	
12	2220628	1	Fitting, 90 JIC/ORB	
13	2220516	1	Fitting, Cap	
14	2220883	2	Plug	
15	70023915	1	Setscrew M6 x 8	
17	70006976	2	Screw	
18	3340679	1	Pad, Wear	
100	1001152230	1	Seal Kit (Includes Items 101-108)	
101	See Note	NSS	Ring, Wear (Note: Use p/n 1001152230)	
102	See Note	NSS	Seal, Cap (Note: Use p/n 1001152230)	
103	See Note	NSS	O-Ring (Note: Use p/n 1001152230)	
104	See Note	NSS	Ring, Wear (Note: Use p/n 1001152230)	
105	See Note	NSS	O-Ring (Note: Use p/n 1001152230)	
106	See Note	NSS	Seal, Rod (Note: Use p/n 1001152230)	
107	See Note	NSS	Wiper, Rod (Note: Use p/n 1001152230)	
108	See Note	NSS	Ring, Back-Up (Note: Use p/n 1001152230)	

SECTION 5 - CYLINDER

FIGURE 5-27. TELESCOPE CYLINDER ASSEMBLY - E450AJ/M450AJ (SERVICE REPLACEMENT)



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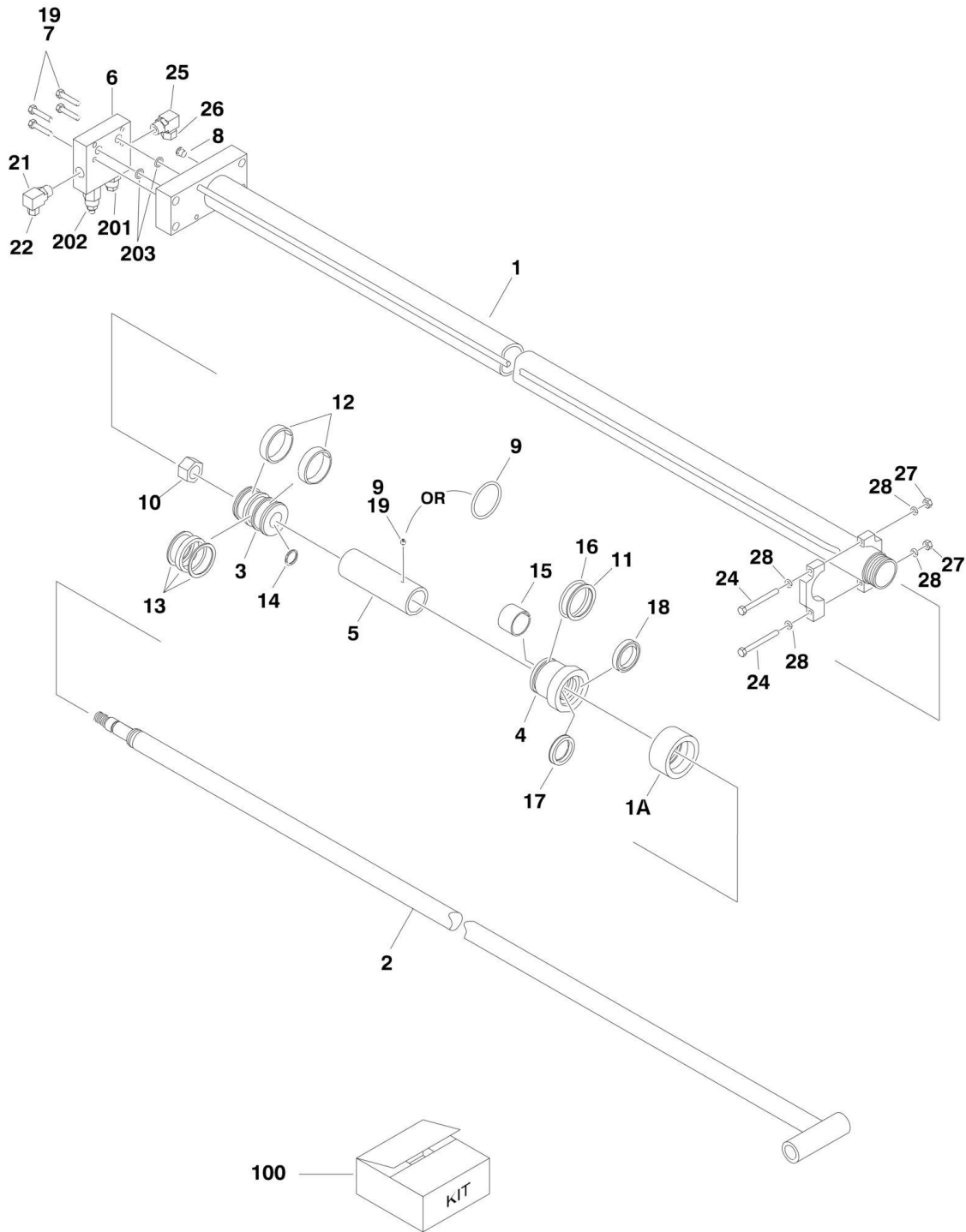
SECTION 5 - CYLINDER

FIGURE 5-27. TELESCOPE CYLINDER ASSEMBLY - E450AJ/M450AJ (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228061	Ref	TELESCOPE CYLINDER ASSEMBLY	B
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel (Note: Not Available for Purchase)	
2	70006973	1	Rod	
3	70006565	1	Head	
4	70006564	1	Piston	
5	70006972	1	Spacer	
6	70006971	1	Nut, Lock	
7	70006561	1	Cap, End	
8	0641512	4	Bolt, 5/16 X 1-1/2	
9	4640807	1	Counterbalance Valve Assembly (See Separate Breakdown in this Section)	
10	2220596	1	Fitting, 90 JIC/ORB	
11	2220517	1	Fitting, Cap	
12	2220628	1	Fitting, 90 JIC/ORB	
13	2220516	1	Fitting, Cap	
14	2220883	2	Plug	
100	1001152230	1	Seal Kit (Includes Items 101-108)	
101	See Note	NSS	Ring, Wear (Note: Use p/n 1001152230)	
102	See Note	NSS	Seal Cap (Note: Use p/n 1001152230)	
103	See Note	NSS	O-Ring (Note: Use p/n 1001152230)	
104	See Note	NSS	Ring, Wear (Note: Use p/n 1001152230)	
105	See Note	NSS	O-Ring (Note: Use p/n 1001152230)	
106	See Note	NSS	Seal, Rod (Note: Use p/n 1001152230)	
107	See Note	NSS	Wiper, Rod (Note: Use p/n 1001152230)	
108	See Note	NSS	Ring, Back-Up (Note: Use p/n 1001152230)	

SECTION 5 - CYLINDER

FIGURE 5-28. TELESCOPE CYLINDER ASSEMBLY (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW) (ORIGINAL EQUIPMENT)



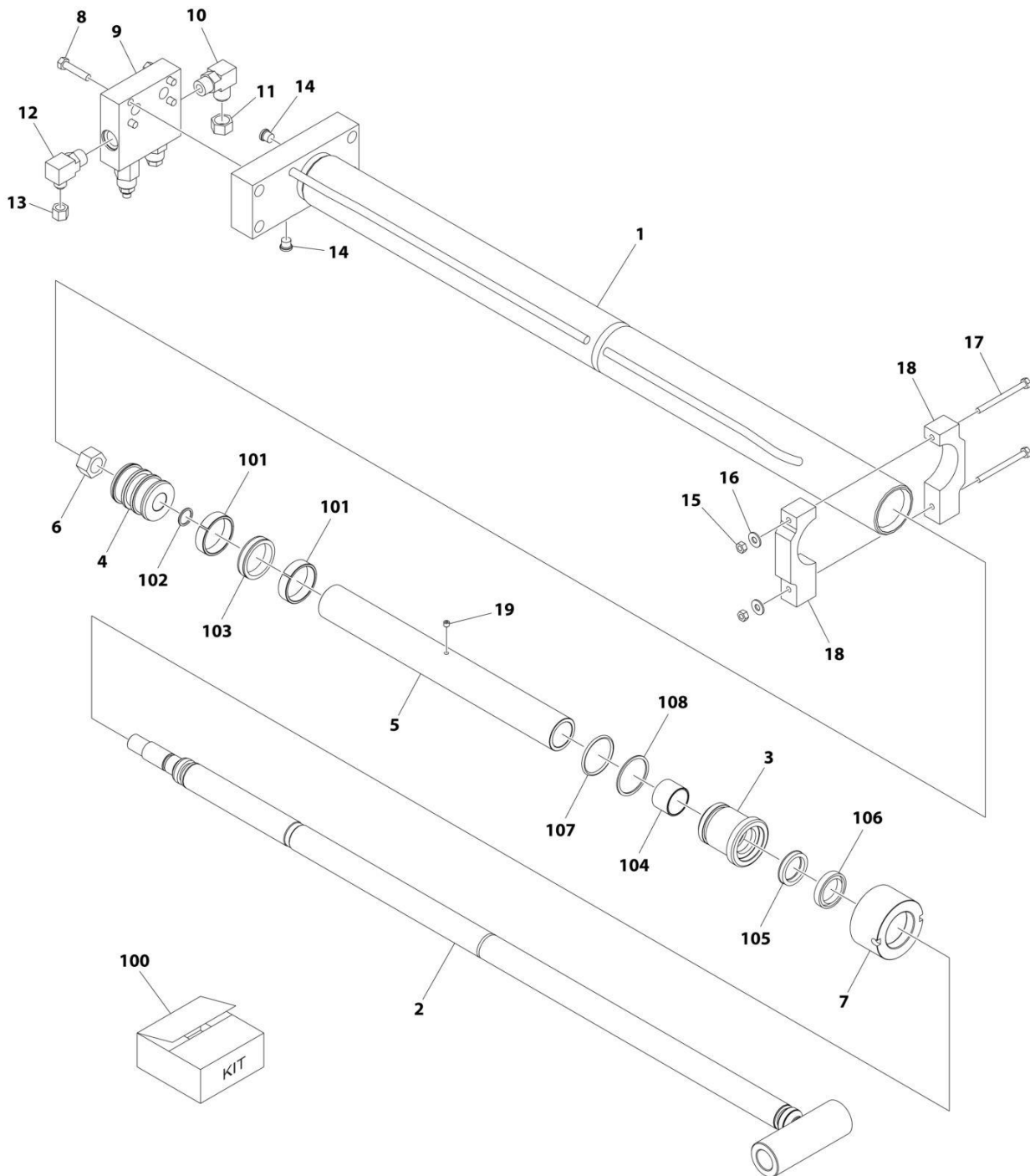
SECTION 5 - CYLINDER

FIGURE 5-28. TELESCOPE CYLINDER ASSEMBLY (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW) (ORIGINAL EQUIPMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1683911	Ref	TELESCOPE CYLINDER ASSEMBLY	4-C
		Ref			Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.
1	1683912	1	Barrel	
1A	1120110	1	Cap, End	
1A	0100035	AR	Compound, Locking (Note: Not Included with Barrel Weldment)	
2	1683980	1	Rod Weldment	
3	3480239	1	Piston	
4		Ref	Head	
4	1683863	1	Head (use p/n 1683584) (Prior to SN 0300122425)	
4	1683584	1	Head (SN 0300122425 through 0300189901)	
5	4567963	1	Spacer, Tube	
6	4640807	1	Counterbalance Valve Assembly (See Items 201-203 for Breakdown)	
7	0641512	4	Bolt 5/16in-18NC x 1-1/2in	
8	2220883	2	Plug, O-Ring	
9	3951402	1	Setscrew 1/4in-20NC x 1/4in	
10	3322205	1	Locknut	
11	3760318	1	Ring, Retaining	
12	See Note	2	Ring, Wear, (Note: Use Item 100)	
13	See Note	1	Seal, Cap, (Note: Use Item 100)	
14	See Note	1	O-Ring, (Note: Use Item 100)	
15	See Note	1	Ring, Wear, (Note: Use Item 100)	
16	See Note	1	O-Ring, (Note: Use Item 100)	
17	See Note	1	Seal, Rod, (Note: Use Item 100)	
18	See Note	1	Wiper, (Note: Use Item 100)	
19	0100011	AR	Compound, Locking	
19	0100038	AR	Primer, Locking	
21	2220628	1	Fitting, Elbow	
22	2220516	1	Fitting, Cap	
23	3340882	1	Wear Pad Assembly	
24	0641424	2	Bolt 1/4in-20NC x 3in	
25	2220596	1	Fitting, Elbow	
26	2220517	1	Fitting, Cap	
27	3311405	2	Nut 1/4-20NC	
28	4751400	4	Flatwasher 1/4in	
100	2901903	1	Seal Kit (Includes Items 12-18)	
	4640807	Ref	COUNTERBALANCE VALVE ASSEMBLY	D
201	4640771	1	Cartridge, Counterbalance	
201	2900770	1	Seal Kit - 4640771 Cartridge	
202	4640709	1	Cartridge, Vented Counterbalance	
202	2900770	1	Seal Kit - 4640709 Cartridge	
203	3790113	2	O-Ring (Between Valve and Cylinder Block)	

SECTION 5 - CYLINDER

FIGURE 5-29. TELESCOPE CYLINDER ASSEMBLY - E450AJ/M450AJ (SERVICE REPLACEMENT)



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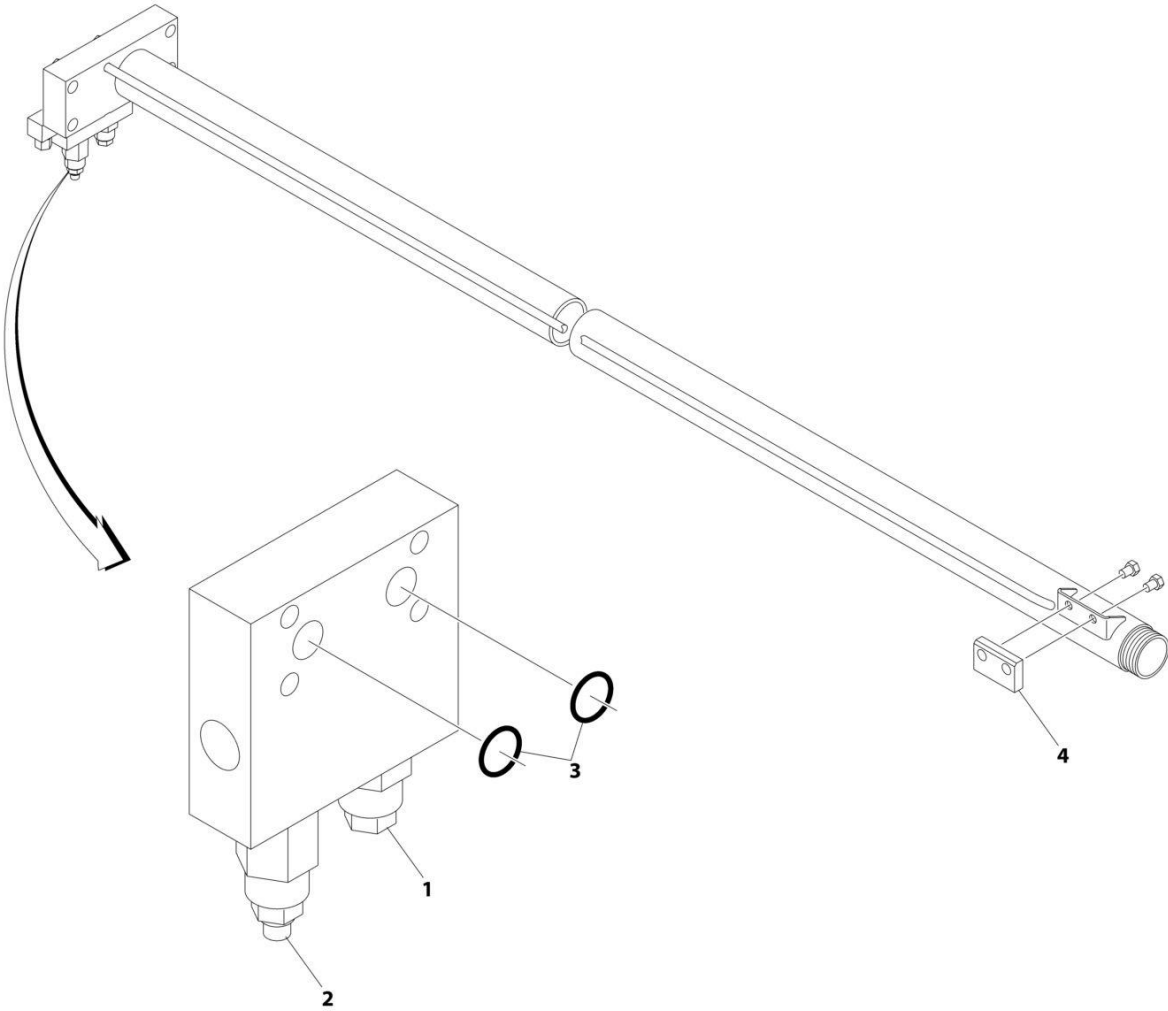
SECTION 5 - CYLINDER

FIGURE 5-29. TELESCOPE CYLINDER ASSEMBLY - E450AJ/M450AJ (SERVICE REPLACEMENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001228015	Ref	TELESCOPE CYLINDER ASSEMBLY	C
		Ref	Note: Original Cylinder may have been replaced with Service Replacement. Identify PN Stamped on Cylinder Before Ordering Parts.	
1	See Note	NSS	Barrel Weldment (Note: Not Available for Purchase)	
2	70006975	1	Rod	
3	70006565	1	Head	
4	70006564	1	Piston	
5	70006974	1	Spacer	
6	70006971	1	Nut, Lock	
7	70006561	1	Cap, End	
8	0641512	4	Bolt 5/16 x 1-1/2	
9	4640807	1	Counterbalance Valve Assembly (See Separate Breakdown in this Section)	
10	2220596	1	Fitting, 90 JIC/ORB	
11	2220517	1	Fitting, Cap	
12	2220628	1	Fitting, 90 JIC/ORB	
13	2220516	1	Fitting, Cap	
14	2220883	2	Plug	
15	3311405	2	Nut 1/4	
16	4751400	4	Flatwasher 1/4	
17	0641424	2	Bolt 1/4 x 3	
18	3340882	2	Wear Pad Assembly	
19	70006413	1	Setscrew	
100	2901903	1	Seal Kit (Includes Items 101-108)	
101	See Note	NSS	Ring, Wear (Note: Use p/n 2901903)	
102	See Note	NSS	O-Ring (Note: Use p/n 2901903)	
103	See Note	NSS	Seal, Piston (Note: Use p/n 2901903)	
104	See Note	NSS	Ring, Wear (Note: Use p/n 2901903)	
105	See Note	NSS	Seal, Rod (Note: Use p/n 2901903)	
106	See Note	NSS	Wiper, Rod (Note: Use p/n 2901903)	
107	See Note	NSS	O-Ring (Note: Use p/n 2901903)	
108	See Note	NSS	Ring, Back-Up (Note: Use p/n 2901903)	

SECTION 5 - CYLINDER

FIGURE 5-30. COUNTERBALANCE VALVE ASSEMBLY



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SECTION 5 - CYLINDER

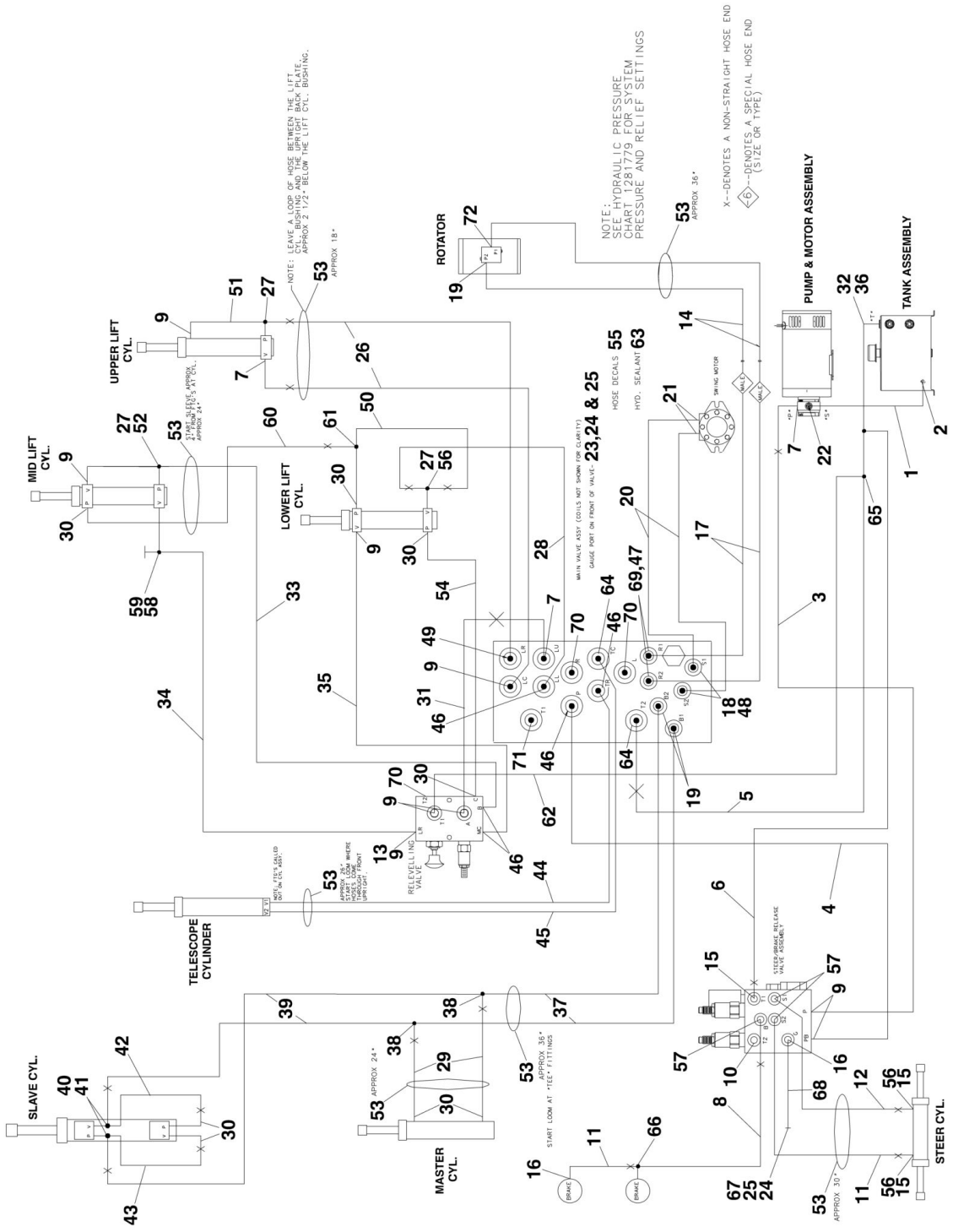
FIGURE 5-30. COUNTERBALANCE VALVE ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4640807	Ref	COUNTERBALANCE VALVE ASSEMBLY	D
1	4640771	1	Cartridge, Counterbalance	
1	2900770	1	Seal Kit - 4640771 Cartridge	
2	4640709	1	Cartridge, Vented Counterbalance	
2	2900770	1	Seal Kit - 4640709 Cartridge	
3	3790113	2	O-Ring (Between Valve and Cylinder Block)	

SECTION 6 - HYDRAULIC

SECTION 6 - HYDRAULIC

FIGURE 6-1. STANDARD HYDRAULIC DIAGRAM (E400A, M400A, E400ANARROW, M400ANARROW, E450A & M450A)



SECTION 6 - HYDRAULIC

FIGURE 6-1. STANDARD HYDRAULIC DIAGRAM (E400A, M400A, E400ANARROW, M400ANARROW, E450A & M450A)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	STANDARD HYDRAULIC DIAGRAM	
	2792506	Ref	Standard Hydraulic Diagram (E450A & M450A)	8-H
	2792510	Ref	Standard Hydraulic Diagram (E400A, M400A, E400Anarrow & M400Anarrow)	9-H
1	2752675	1	Hose	
2	1320033	1	Clamp	
3	2752487	1	Hose	
4	2752488	1	Hose	
5	2751498	1	Hose	
6	2752476	1	Hose	
7	2220371	AR	Fitting, Straight	
8	2752600	1	Hose	
9	2220473	AR	Fitting, Elbow	
10	2220885	5	Plug	
11	2752595	2	Hose	
12	2752446	1	Hose	
13	2220507	AR	Fitting, Elbow	
14		Ref	Hose Options:	
14	2753337	2	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
14	2753326	2	Hose (E450A & M450A)	
15	2220998	3	Fitting, Straight	
16	2220466	2	Fitting, Elbow	
17		Ref	Hose Options:	
17	2753332	2	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
17	2752795	2	Hose (E450A & M450A)	
18	2220415	2	Fitting, Straight	
19	2220502	3	Fitting, Elbow	
20	2752459	2	Hose	
21	2221033	2	Fitting, Straight	
22	2220593	1	Fitting, Straight	
23	2220873	1	Fitting, Straight	
24	2220428	2	Fitting, Quick Coupling	
25	2220429	2	Dust Cap	
26		Ref	Hose Options:	
26	2753519	2	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
26	2753050	2	Hose (E450A & M450A)	
27	2220899	3	Fitting, Tee	
28	2752620	1	Hose	
29		Ref	Hose Options:	
29	2752437	2	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
29	2752580	2	Hose (E450A & M450A)	
30	2220472	8	Fitting, Elbow	
31	2750910	1	Hose	
32	2220999	1	Fitting, Tee	
33		Ref	Hose Options:	
33	2753335	1	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
33	2751127	1	Hose (E450A & M450A)	
34		Ref	Hose Options:	
34	2753334	1	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	

SECTION 6 - HYDRAULIC

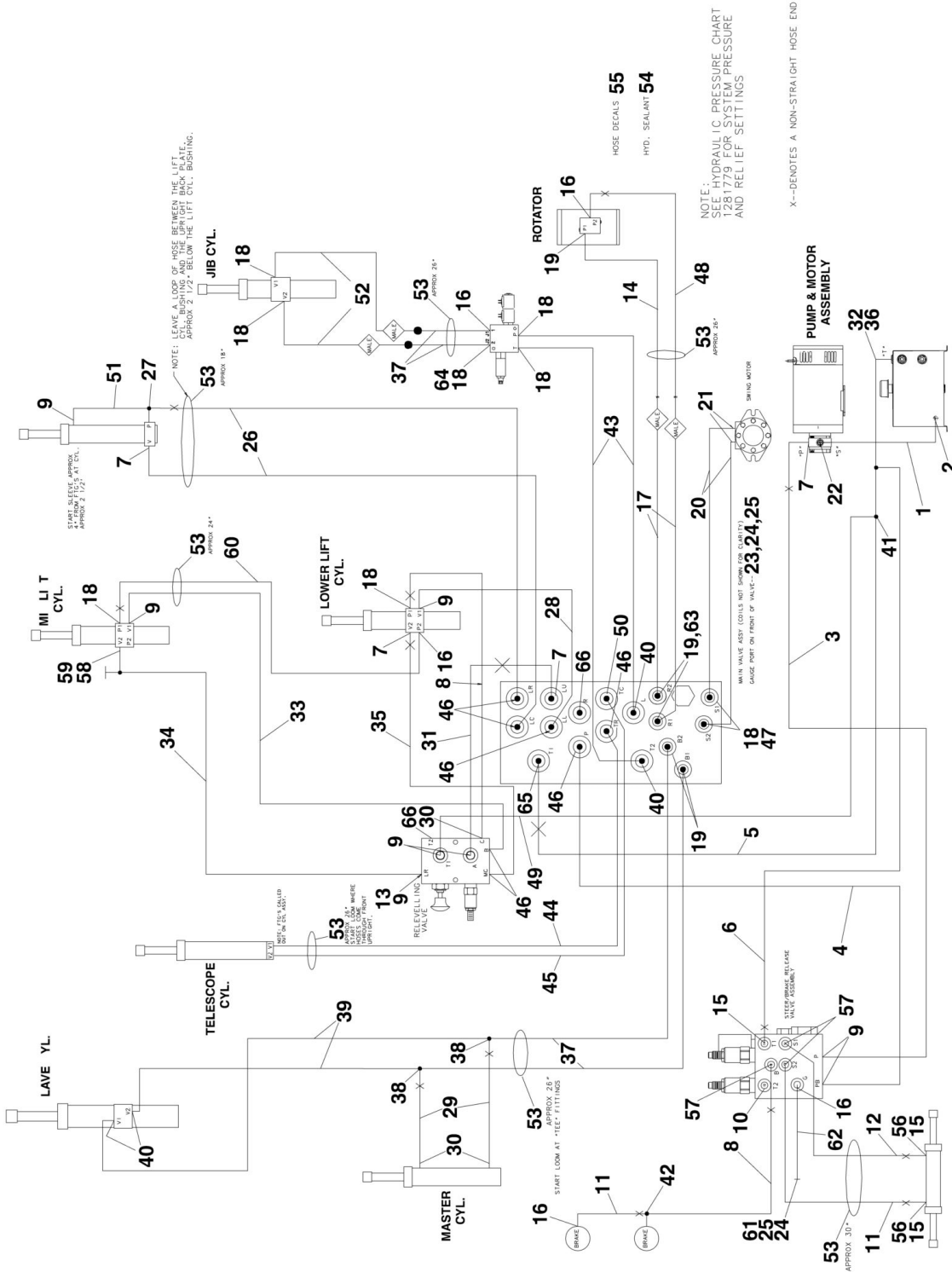
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
34	2751126	1	Hose (E450A & M450A)	
35	2752475	1	Hose	
36	2220386	1	Fitting, Elbow	
37		Ref	Hose Options:	
37	2753520	2	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
37	2752585	2	Hose(E450A & M450A)	
38	2220504	2	Fitting, Tee	
39		Ref	Hose Options:	
39	2753535	2	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
39	2752572	2	Hose(E450A & M450A)	
40	2220727	2	Fitting, Straight	
41	2220684	2	Fitting, Tee	
42	2752435	1	Hose	
43	2752573	1	Hose	
44		Ref	Hose Options:	
44	2753474	1	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
44	2750996	1	Hose(E450A & M450A)	
45		Ref	Hose Options:	
45	2753475	1	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
45	2751508	1	Hose(E450A & M450A)	
46	2220501	AR	Fitting, Elbow	
47	2220502	2	Fitting, Elbow	
48	2220677	2	Fitting, Adapter	
49		Ref	Fitting, Long Options:	
49	2220819	AR	Fitting, Long (Prior to SN 0300067501)	
49	2221147	AR	Fitting, Long (SN 0300067501 through 0300189901)	
50	2752581	1	Hose	
51	4566188	1	Tube	
52		Ref	Tube Options:	
52	4566187	1	Hose (E400A, M400A, E400Anarrow & M400Anarrow)	
52	4566623	1	Hose(E450A & M450A)	
53	4100026	AR	Nylon, Sleeve	
54	2752983	1	Hose	
55	1702124	1	Hose, Tags	
56	2220609	2	Fitting, Reducer	
57	2220923	3	Fitting, Adapter	
58	2220934	1	Fitting, Tee	
59	4640861	1	Bleeder, Kit	
60	2752440	1	Hose	
61	2220605	1	Fitting, Tee	
62	2752611	1	Hose	
63	0100020	AR	Sealant	
64	2220600	2	Fitting, Straight	
65	2221054	1	Fitting, Tee	
66	2220711	1	Fitting, Tee	
67	2220414	1	Fitting, Straight	
68	2790900	1	Hose	
69	2220909	2	Fitting, Restrictor	
70	2220237	3	Fitting, Plug	
71	2220239	1	Fitting, Plug	
72		Ref	Fitting Options:	

SECTION 6 - HYDRAULIC

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
72	2220466	1	Fitting, Elbow (Prior to SN 0300114239)	
72	2220502	1	Fitting, Elbow (SN 0300114239 through 0300189901)	

SECTION 6 - HYDRAULIC

FIGURE 6-2. STANDARD HYDRAULIC DIAGRAM (E450AJ & M450AJ)



SECTION 6 - HYDRAULIC

FIGURE 6-2. STANDARD HYDRAULIC DIAGRAM (E450AJ & M450AJ)

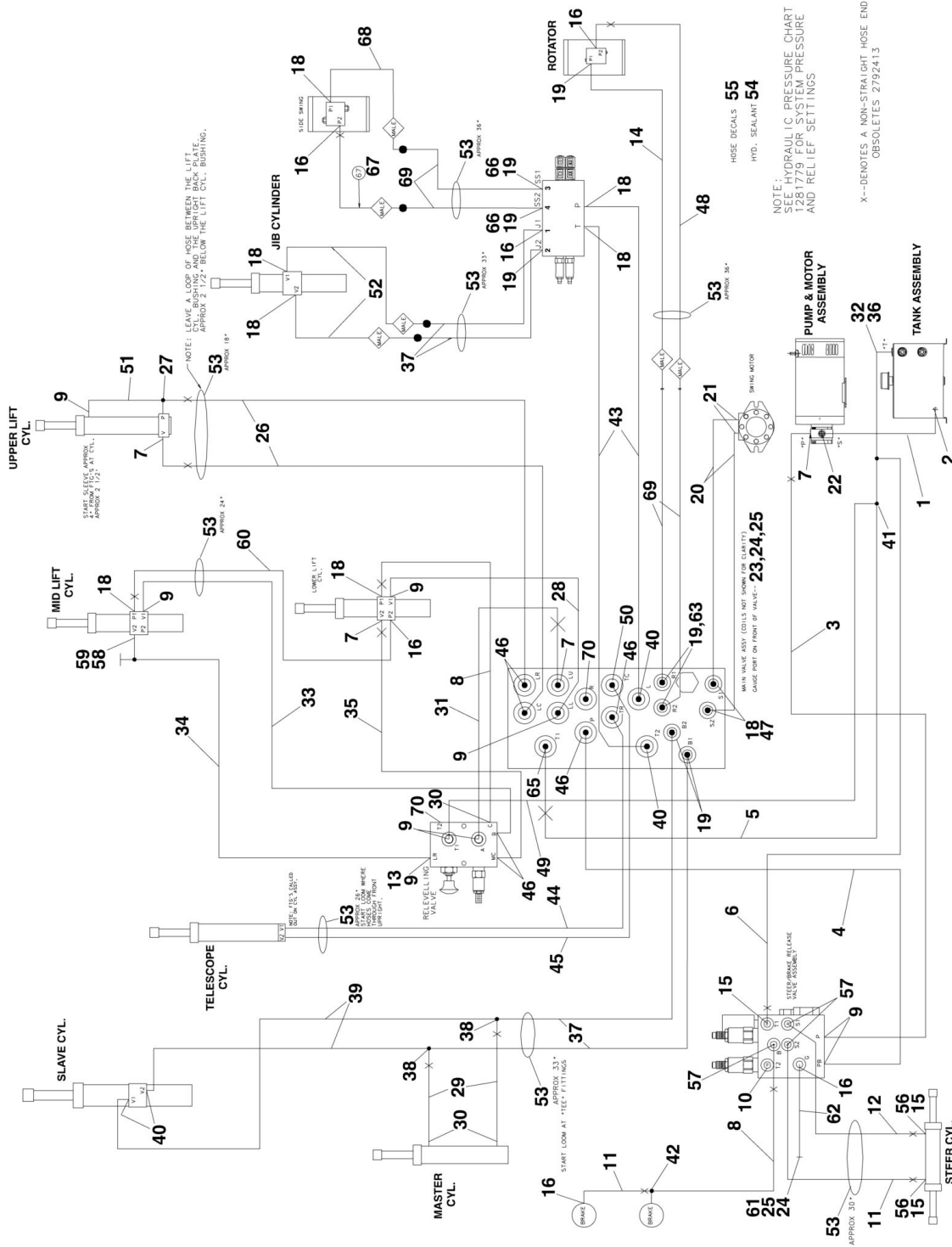
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2792507	Ref	STANDARD HYDRAULIC DIAGRAM	F
1	2752675	1	Hose	
2	1320017	1	Clamp (Use p/n 1320017)	
3	2752487	1	Hose	
4	2752488	1	Hose	
5	2751498	1	Hose	
6	2752476	1	Hose	
7	2220371	4	Fitting, Straight	
8	2752600	2	Hose	
9	2220473	7	Fitting, Elbow	
10	2220885	6	Plug	
11	2752595	2	Hose	
12	2752446	1	Hose	
13	2220507	1	Fitting, Elbow	
14	2753304	1	Hose	
15	2220998	3	Fitting, Straight	
16	2220466	5	Fitting, Elbow	
17	2752795	2	Hose	
18	2220415	9	Fitting, Straight	
19	2220502	5	Fitting, Elbow	
20	2752459	2	Hose	
21	2221033	2	Fitting, Straight	
22	2220593	1	Fitting, Straight	
23	2220873	1	Fitting, Straight	
24	2220428	2	Fitting, Quick Coupling	
25	2220429	2	Dust Cap	
26	2753050	2	Hose	
27	2220899	1	Fitting, Tee	
28	2752466	1	Hose	
29	2752437	2	Hose	
30	2220472	3	Fitting, Elbow	
31	2750910	1	Hose	
32	2220999	1	Fitting, Tee	
33	2753301	1	Hose	
34	2751009	1	Hose	
35	2752611	1	Hose	
36	2220386	1	Fitting, Elbow	
37	2752585	4	Hose	
38		Ref	Fitting, Tee Options:	
38	2220605	2	Fitting, Tee (Prior to SN 0300168138)	
38	2220504	2	Fitting, Tee (E450AJ, M450AJ) (SN 0300168138 through 0300189901)	
39	2753302	2	Hose	
40	2220582	4	Fitting, Straight	
41	2221054	1	Fitting, Tee	
42	2220711	1	Fitting, Tee	
43	2752430	2	Hose	
44	2750996	1	Hose	
45	2751508	1	Hose	
46	2220501	8	Fitting, Elbow	

SECTION 6 - HYDRAULIC

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	2220677	2	Fitting, Elbow	
48	2753305	1	Hose	
49	2752611	1	Hose	
50	2220600	2	Fitting, Straight	
51	4567946	1	Tube	
52	2753303	2	Hose	
53	4100026	AR	Nylon, Sleeve	
54	0100020	AR	Sealant (Not Shown)	
55	1702124	1	Hose, Tags (Not Shown)	
56	2220609	2	Fitting, Reducer	
57	2220923	3	Fitting, Adapter	
58	2220934	1	Fitting, Tee	
59	4640861	1	Bleeder, Kit	
60	2751414	1	Hose	
61	2220414	1	Fitting, Straight	
62	2750900	1	Hose	
63	2220909	2	Orifice (.015)	
64	2220654	1	Fitting, Straight	
65	2220374	1	Fitting, Straight	
66	2220237	2	Fitting, Plug	

SECTION 6 - HYDRAULIC

FIGURE 6-3. STANDARD HYDRAULIC DIAGRAM (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW)



SECTION 6 - HYDRAULIC

FIGURE 6-3. STANDARD HYDRAULIC DIAGRAM (E400AJP, M400AJP, E400AJPNARROW & M400AJPNARROW)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2792509	Ref	STANDARD HYDRAULIC DIAGRAM	G
1	2752675	1	Hose	
2	1320033	1	Clamp	
3	2752487	1	Hose	
4	2752488	1	Hose	
5	2751498	1	Hose	
6	2752476	1	Hose	
7	2220371	4	Fitting, Straight	
8	2752600	2	Hose	
9	2220473	8	Fitting, Elbow	
10	2220885	1	Plug	
11	2752595	2	Hose	
12	2752446	1	Hose	
13	2220507	1	Fitting, Elbow	
14	2753337	1	Hose	
15	2220998	3	Fitting, Straight	
16	2220466	6	Fitting, Elbow	
18	2220415	9	Fitting, Straight	
19	2220502	8	Fitting, Elbow	
20	2752459	2	Hose	
21	2221033	2	Fitting, Straight	
22	2220593	1	Fitting, Straight	
23	2220873	1	Fitting, Straight	
24	2220428	2	Fitting, Quick Coupling	
25	2220429	2	Dust Cap	
26	2752619	2	Hose	
27	2220899	1	Fitting, Tee	
28	2752466	1	Hose	
29	2752437	2	Hose	
30	2220472	3	Fitting, Elbow	
31	2750910	1	Hose	
32	2220999	1	Fitting, Tee	
33	2753335	1	Hose	
34	2753334	1	Hose	
35	2752611	1	Hose	
36	2220386	1	Fitting, Elbow	
37	2752571	4	Hose	
38		Ref	Fitting, Tee Options:	
38	2220605	2	Fitting, Tee (Prior to SN 0300168138)	
38	2220504	2	Fitting, Tee (E/M400AJP) (SN 0300168138 through 0300189901)	
39	2753333	2	Hose	
40	2220582	4	Fitting, Straight	
41	2221054	1	Fitting, Tee	
42	2220711	1	Fitting, Tee	
43	2752430	2	Hose	
44	2753474	1	Hose	
45	2753475	1	Hose	
46	2220501	7	Fitting, Elbow	

SECTION 6 - HYDRAULIC

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	2220677	2	Fitting, Elbow	
48	2753336	1	Hose	
49	2752611	1	Hose	
50	2220600	2	Fitting, Straight	
51	4567946	1	Tube	
52	2753329	2	Hose	
53	4100026	AR	Nylon, Sleeve	
54	0100020	AR	Sealant (Not Shown)	
55	1702124	1	Hose, Tags (Not Shown)	
56	2220609	2	Fitting, Reducer	
57	2220923	3	Fitting, Adapter	
58	2220934	1	Fitting, Tee	
59	4640861	1	Bleeder, Kit	
60	2751890	1	Hose	
61	2220414	1	Fitting, Straight	
62	2750900	1	Hose	
63	2220909	2	Orifice (.015)	
65	2220374	1	Fitting, Straight	
66	2221039	2	Orifice (.022)	
67	2753330	1	Hose	
68	2753331	1	Hose	
69	2753332	4	Hose	
70	2220237	2	Fitting, Plug	

SECTION 6 - HYDRAULIC

FIGURE 6-4. HYDRAULIC DIAGRAM LIST

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	Note: Information on diagrams not shown is available from JLG Service/Parts Departments.	
		Ref	Standard Hydraulic Diagram Options:	
	2792334	Ref	Standard Hydraulic Diagram (E450A & M450A) (Prior to SN 0300062857)	
	2792506	Ref	Standard Hydraulic Diagram (E450A & M450A) (SN 0300062857 through 0300189901)	
	2792395	Ref	Standard Hydraulic Diagram (E450AJ & M450AJ) (Prior to SN 0300062857)	
	2792507	Ref	Standard Hydraulic Diagram (E450AJ & M450AJ) (SN 0300062857 through 0300189901)	
	2792458	Ref	Standard Hydraulic Diagram (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300062857)	
	2792510	Ref	Standard Hydraulic Diagram (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300062857 through 0300189901)	
	2792413	Ref	Standard Hydraulic Diagram (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300062857)	
	2792509	Ref	Standard Hydraulic Diagram (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300062857 through 0300189901)	
		Ref	Standard Hydraulic Schematic Options:	
	2792337	Ref	Standard Hydraulic Schematic (Prior to SN 0300062857)	
	2792505	Ref	Standard Hydraulic Schematic (SN 0300062857 through 0300189901)	

SECTION 7 - ELECTRICAL

SECTION 7 - ELECTRICAL

FIGURE 7-1. ELECTRICAL DIAGRAM LIST

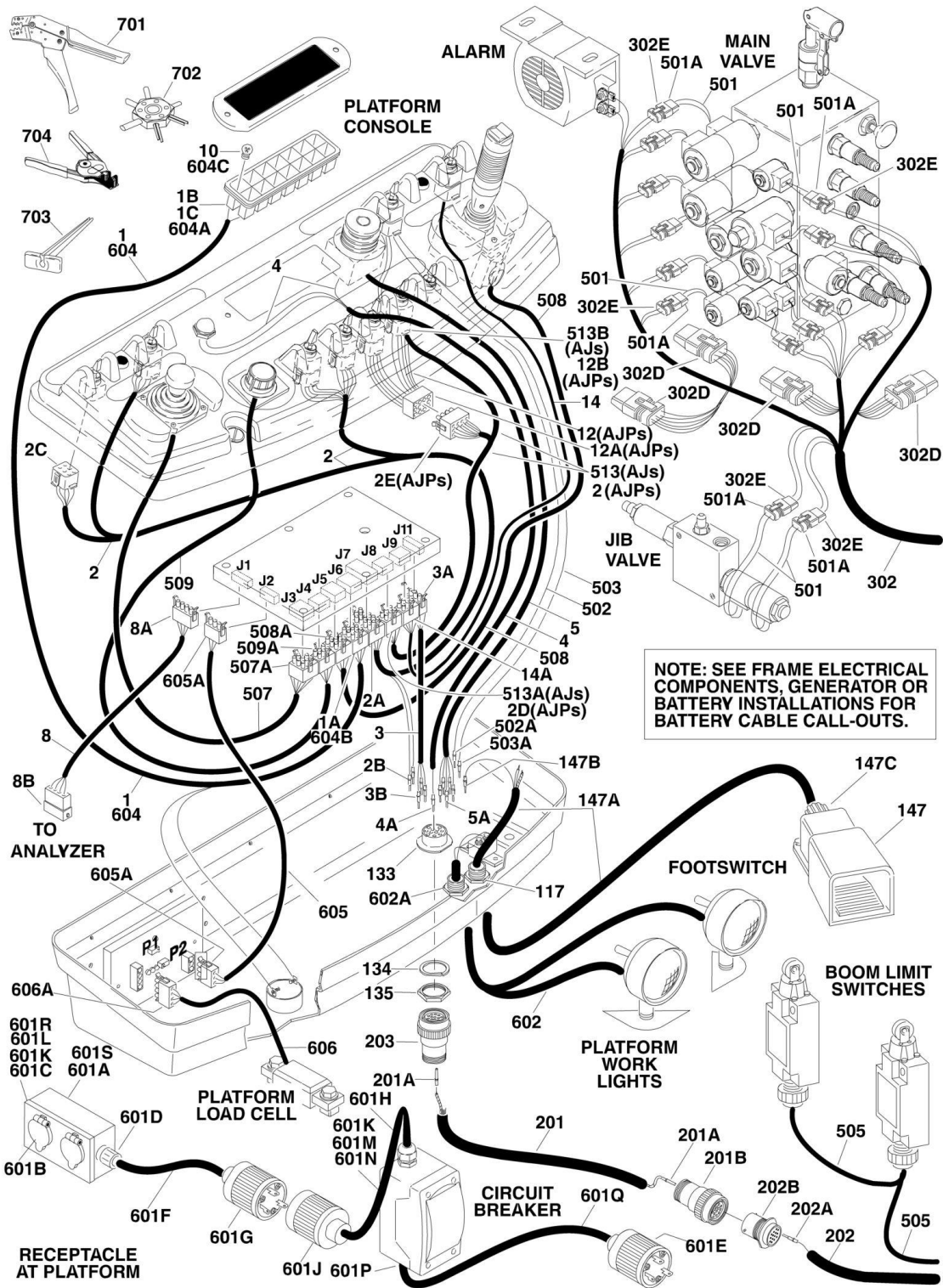
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	Note: Diagrams not shown are available from the JLG Service Department.	
		Ref	LIGHTS ELECTRICAL DIAGRAMS	
		Ref	Headlights and Taillights	
	4933102	Ref		
	4360336	1	Switch, Toggle (Located on Platform Console Box)	
	3740087	1	Relay (Located in Ground Control Box)	
	4120027	1	Socket, Relay (Located in Ground Control Box)	
	3740063	1	Spring (Located in Ground Control Box)	
	4360448	1	Breaker, Circuit 10 Amp (Located in Ground Control Box)	
		Ref	STROBE LIGHT OPTIONS:	
	0259305	Ref	Strobe Light (Prior to SN 0300169430)	
	1283055	Ref	Strobe Light (Prior to SN 0300169430)	
		Ref	Strobe Light (SN 0300169430 through 0300189901)	
	1001149955	Ref	Standard Spec	
	1001158612	Ref	UL Spec	
	4933289	Ref	LSS PLATFORM MODULE ELECTRICAL DIAGRAM	
	0259064	Ref	MOTION ALARM ELECTRICAL DIAGRAM	
	1283055	Ref	MOTION ALARM ELECTRICAL DIAGRAM	
		Ref	PLATFORM ELECTRICAL DIAGRAM	
	4933060	Ref	Platform Electrical Diagram (E450A, M450A, E450AJ & M450AJ)	
	4933060	Ref	Platform Electrical Diagram (E400A, M400A, E400Anarrow & M400Anarrow)	
	4933105	Ref	Platform Electrical Diagram (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
		Ref	STANDARD ELECTRICAL DIAGRAMS	
	4933059	Ref	Standard Electrical Diagrams (E450A & M450A) (Prior to SN 0300057534)	
	4933128	Ref	Standard Electrical Diagrams (E450A & M450A) (SN 0300057534 through 0300100449)	
	4933388	Ref	Standard Electrical Diagrams (E450A & M450A) (SN 0300100450 through 0300189898)	
	4933128	Ref	Standard Electrical Diagrams (E450AJ & M450AJ) (Prior to SN 0300100450)	
	4933388	Ref	Standard Electrical Diagrams (E450AJ & M450AJ) (SN 0300100450 through 0300189898)	
	4933059	Ref	Standard Electrical Diagrams (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300100450)	
	4933128	Ref	Standard Electrical Diagrams (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300057534 through 0300100449)	
	4933388	Ref	Standard Electrical Diagrams (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300100450 through 0300189901)	
	4933128	Ref	Standard Electrical Diagrams (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300100450)	
	4933388	Ref	Standard Electrical Diagrams (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300100450 through 0300189901)	
		Ref	STANDARD ELECTRICAL SCHEMATIC	
	1870072	Ref	Standard Electrical Schematic (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300100450)	
	1870227	Ref	Standard Electrical Schematic (E450A, M450A, E450AJ & M450AJ) (SN 0300100450 through 0300189898)	

SECTION 7 - ELECTRICAL

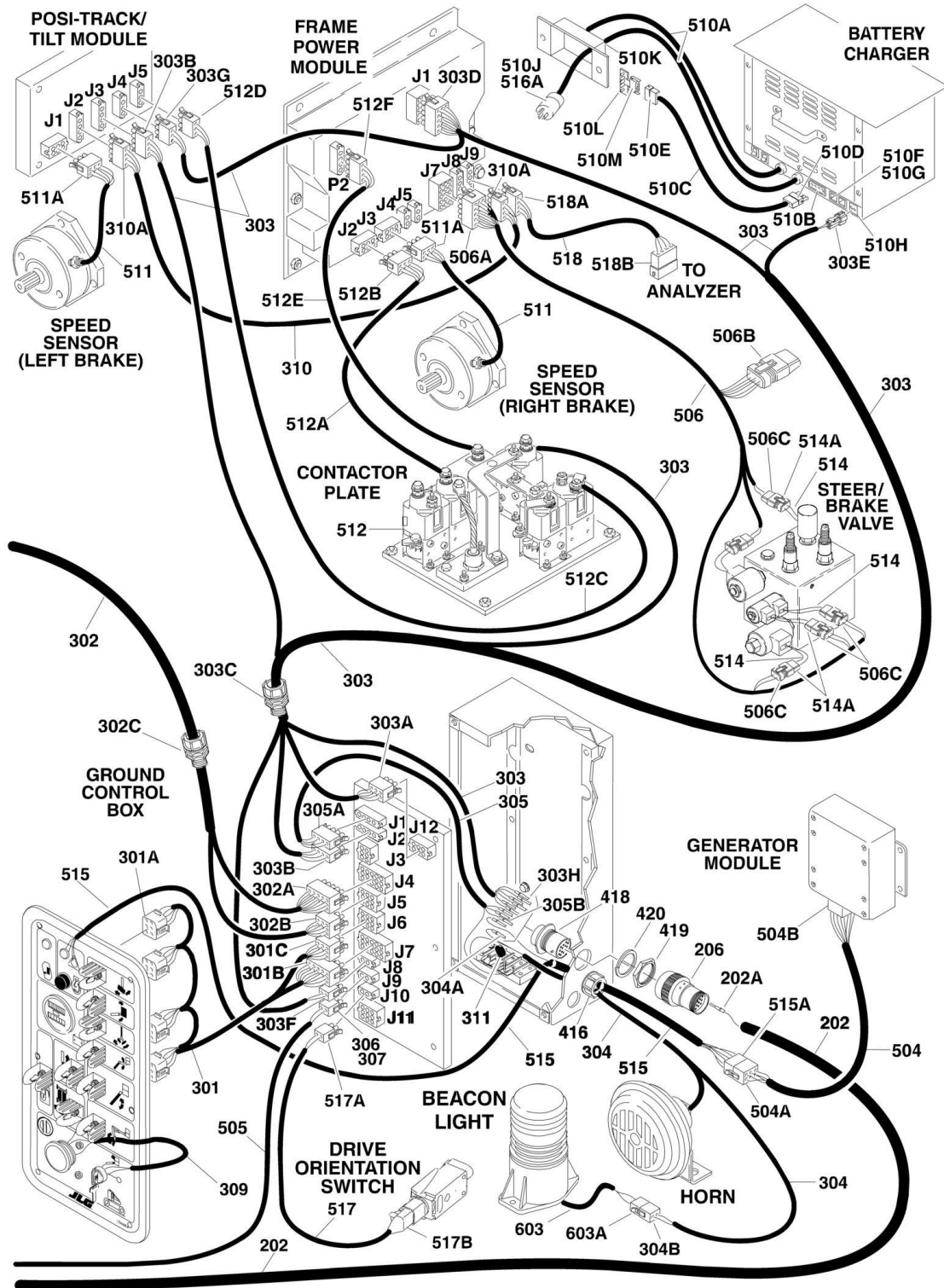
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1870072	Ref	Standard Electrical Schematic (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300100450)	
	1870227	Ref	Standard Electrical Schematic (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300100450 through 0300189901)	
	1870126	Ref	Standard Electrical Schematic (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300100450)	
	1870227	Ref	Standard Electrical Schematic (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300100450 through 0300189901)	

SECTION 7 - ELECTRICAL

FIGURE 7-2. HARNESS COMPONENTS INSTALLATION (WITH MAC CHARGER)



SECTION 7 - ELECTRICAL



SECTION 7 - ELECTRICAL

FIGURE 7-2. HARNESS COMPONENTS INSTALLATION (WITH MAC CHARGER)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	HARNESS COMPONENTS INSTALLATION	
		Ref	PLATFORM BOX ELECTRICAL DIAGRAM	
	4933060	Ref	Platform Box Electrical Diagram (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ)	7-L
	4933105	Ref	Platform Box Electrical Diagram (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	5-G
1		Ref	Harness, Indicator Lamp	
1	4922074	1	Harness (Prior to SN 0300141884)	5-H
1	1001109860	1	Harness (SN 0300141884 through 0300189901)	B
1A	4460265	1	Plug, Male - 9 Position	
1A	4460227	AR	Pin, Male	
1B	4120035	AR	Socket, Lamp	
1C	4460634	AR	Socket (Single Wire)	
1C	4460635	AR	Socket (Two Wire)	
2		Ref	Harness, Function Switch	
2	4922060	1	Harness, Function Switch (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ)	2-C
2	4922303	1	Harness, Function Switch (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	5-D
2A	4460434	1	Plug, Male - 15 Position	
2A	4460226	12	Pin, Male	
2B	4460464	2	Pin, Male	
2C	4460418	4	Connector, Female	
2C	4460419	12	Terminal	
2D	4460225	1	Plug, Male - 6 Position (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
2D	4460227	5	Socket, Female	
2E	4460343	1	Plug, Male - 12 Position (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
2E	4460227	10	Socket, Female	
3	4922071	1	Harness, Can Bus	2-B
3A	4460321	1	Plug, Male - 4 Position	
3A	4460227	2	Socket, Female	
3A	4460267	1	Pin, Male	
3B	4460464	3	Pin, Male	
4	4922118	1	Harness, Box Horn	2-B
4A	4460464	1	Pin, Male	
5	4922157	1	Harness, Miscellaneous	3-C
5A	4460464	5	Pin, Male	
8	4922160	1	Harness, Analyzer	3-C
8A	4460321	1	Plug, Male - 4 Position	
8A	4460226	4	Socket, Female	
8B	4460761	1	Connector, Female - 4 Position	
8B	4460227	4	Pin, Male	
10	2920129	3	Bulb, Light	
12	4922307	1	Jib Harness (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	3-C
12A	4460367	1	Connector, Female - 12 Position	
12A	4460226	10	Socket, Female	
12B	4460260	6	Connector, Female	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
12B	4460259	6	Terminal	
14	1001116368	1	Harness, Drive Orientation Override Switch (SN 0300141884 through 0300189901)	A
14A	4460225	1	Plug, Male - 6 Position	
14A	4460227	2	Socket, Female	
		Ref	PLATFORM BOX ASSEMBLY COMPONENTS	
117	4460428	1	Connector, Strain Relief	
133	4460752	1	Connector, 14 Position	
134	4460497	1	Nut, Conduit	
135	4460496	1	Lockwasher, Conduit	
147	0272971	1	Footswitch Assembly	B
147A	1060330	7 ft/2.2m	Cable, Electrical - 16/3	
147B	4460464	AR	Pin, Male	
147C	4460071	2	Connector, Strain Relief	
		Ref	BOOM CABLES INSTALLATION	
	0257735	Ref	Boom Cables Installation (E450A & M450A)	8-G
	0259367	Ref	Boom Cables Installation (E450AJ, M450AJ)	4-D
	0270817	Ref	Boom Cables Installation (E400A, M400A, E400Anarrow & M400Anarrow)	4-B
	0259970	Ref	Boom Cables Installation (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	5-C
201		Ref	Main Boom Harness Assembly Options:	
201	4922178	1	Main Boom Harness Assembly (E450A & M450A)	3
201	4922178	1	Main Boom Harness Assembly (E450AJ & M450AJ) (Use p/n 4922552)	1
201	4922496	1	Main Boom Harness Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	2
201	1060677	26.5 ft/8.1m	Cable, Electrical (E450A & M450A)	
201	1060677	28 ft/8.53m	Cable, Electrical (E450AJ & M450AJ)	
201	1060677	25.25 ft/7.7m	Cable, Electrical (E400A, M400A, E400Anarrow & M400Anarrow)	
201	4922364	1	Main Boom Harness Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300071419)	1
201	1060780	25.25 ft/7.7m	Cable, Electrical - 18/6 (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
201	1060781	25.25 ft/7.7m	Cable, Electrical - 18/5 (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
201	4922496	1	Main Boom Harness Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300071419 through 0300189901)	2
201	1060677	25.25 ft/7.7m	Cable, Electrical (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
201A	4460465	28	Socket, Female	
201B	4460754	1	Connector - 14 Position	
202		Ref	Tower Boom Harness Assembly Options:	
202	4922179	1	Tower Boom Harness Assembly (E450A, M450A, E450AJ & M450AJ)	3
202	4922363	1	Tower Boom Harness Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	3
202	4922495	1	Tower Boom Harness Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (Prior to SN 0300071418)	2

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
202	4922363	1	Tower Boom Harness Assembly (E400A, M400A, E400Anarrow & M400Anarrow) (SN 0300071418 through 0300189901)	3
202	1060677	Ref	Cable, Electrical Options: - 10/4-18/16	
202	1060677	35.5 ft/11m	Cable, Electrical (E450A, M450A, E450AJ & M450AJ)	
202	1060677	32 ft/9.8m	Cable, Electrical (E400A, M400A, E400AJPnarrow, M400AJPnarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
202A	4460464	28	Pin, Male	
202B		Ref	Connector - 14 Position Options:	
202B	4460495	1	Connector - 14 Position (Prior to SN 0300077939)	
202B	4460752	1	Connector - 14 Position (SN 0300077939 through 0300189901)	
203	4460754	1	Connector - 14 Position	
206	4460753	1	Connector - 14 Position	
		Ref	GROUND CONTROL BOX DIAGRAM	
	4933059	Ref	Ground Control Box Diagram (E450A & M450A) (Prior to SN 0300057534)	3-G
	4933128	Ref	Ground Control Box Diagram (E450A & M450A) (SN 0300057534 through 0300100539)	2-C
	4933388	Ref	Ground Control Box Diagram (E450A & M450A) (SN 0300100540 through 0300189901)	2-C
	4933128	Ref	Ground Control Box Diagram (E450AJ, M450AJ, E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300100540)	2-C
	4933388	Ref	Ground Control Box Diagram (E450AJ, M450AJ, E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300100540 through 0300189901)	2-C
301		Ref	Function Switch Harness Assembly Options:	
301	4922058	1	Function Switch Harness Assembly (E450A & M450A) (Prior to SN 0300057534)	4-D
301	4922366	1	Function Switch Harness Assembly (E450A & M450A) (SN 0300057534 through 0300100539)	2-B
301	4923625	1	Function Switch Harness Assembly (E450A & M450A) (SN 0300100540 through 0300189901)	1-C
301	4922366	1	Function Switch Harness Assembly (E450AJ, M450AJ, E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300100540)	2-B
301	4923625	1	Function Switch Harness Assembly (E450AJ, M450AJ, E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300100540 through 0300189901)	1-A
301A	4460418	AR	Connector - 6 Position	
301A	4460419	AR	Terminal, Female	
301B	4460434	1	Plug, Male - 15 Position	
301B	4460226	15	Socket, Female	
301C	4460265	1	Plug, Male - 9 Position	
301C	4460227	3	Pin, Male	
302		Ref	Harness Assembly - Valve	
302	4922057	1	Harness Assembly - Valve (E450A & M450A) (Prior to SN 0300057534)	4-C
302	4922367	1	Harness Assembly - Valve (E450A & M450A) (SN 0300057534 through 0300189898)	2-C

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
302	4922367	1	Harness Assembly - Valve (E450AJ, M450AJ, E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	2-C
302A	4460434	1	Plug, Male - 15 Position	
302A	4460227	14	Pin, Male	
302B	4460265	1	Plug, Male - 9 Position	
302B	4460226	4	Socket, Female	
302C	4460425	1	Connector, Strain Relief	
302D		Ref	Components Options:	
302D		Ref	Components (Prior to SN 0300057534)	
302D	4460744	6	Connector, 6 Position	
302D	4460746	24	Socket, Female	
302D	4460745	4	Lock, Secondary	
302D	4460749	4	Cap, Shell	
302D	4460750	4	Bar, Buss - 6 Position	
302D	4460458	24	Seal	
302D	4460751	4	Clip, Mounting	
302D		Ref	Components (SN 0300057534 through 0300189901)	
302D	4460836	2	Connector, 12 Position	
302D	4460837	2	Housing, Terminal - 12 Position	
302D	4460465	22	Pin, Terminal	
302E	4460742	17	Plug, Male - 2 Position	
302E	4460743	34	Terminal, Female	
302E	4460458	34	Seal	
303	4922104	1	Harness Assembly - Turntable/Frame (Includes Item 304 Also)	7-G
303A	4460225	1	Plug, Male - 6 Position	
303A	4460268	6	Socket, Female	
303B	4460321	2	Plug, Male - 4 Position	
303B	4460227	2	Pin, Male	
303B	4460267	8	Pin, Male	
303C	4460425	1	Connector, Strain Relief	
303D	4460343	1	Plug, Male, 12 Position	
303D	4460268	12	Socket, Female	
303E	4460320	1	Plug, Male, 2 Position	
303E	4460268	2	Socket, Female	
303F	4460320	1	Plug, Male, 2 Position	
303F	4460267	2	Pin, Male	
303G	4460326	1	Plug, Male, 3 Position	
303G	4460267	3	Pin, Male	
303H	4460465	6	Socket, Female	
304	4922073	1	Harness Assembly - Horn/Beacon	5-E
304	3990001	1	Diode (Not Shown)	
304A	4460465	1	Socket, Female	
304B	4460424	1	Plug, Male, 2 Position	
304B	4460268	2	Socket, Female	
305	4922117	1	Harness Assembly - Ground Control Can	3-B
305A	4460321	1	Plug, Male - 4 Position	
305A	4460227	2	Pin, Male	
305A	4460267	1	Pin, Male	
305B	4460465	1	Socket, Female	
306	4460320	1	Plug, Male, 2 Position	
307	4460268	2	Socket, Female	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
309	4922267	1	Harness Assembly - Power Supply	3-C
310	4922263	1	Harness Assembly - Posi-Track Module Can	2-A
310A	4460321	2	Plug, Male - 4 Position	
310A	4460227	4	Pin, Male	
310A	4460267	2	Pin, Male	
311	3990106	1	Limiter, Inrush	
		Ref	GROUND CONTROL BOX ASSY COMPONENTS	
416	4460425	1	Connector, Strain Relief	
418	4460495	1	Connector, Male - 14 Position	
419	4460497	1	Nut, Conduit	
420	4460496	1	Lockwasher	
		Ref	STANDARD HARNESS COMPONENTS	
501	See Note	17	Solenoid Harness (Note: Not Available - Purchase Complete Solenoid)	
501A	4460867	17	Connector, Female - 2 Position	
501A	4460979	34	Terminal, Male	
501A	4460458	34	Seal	
502	4922222	1	Generator Enable Harness (Yellow/Red) (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	B
502A	4460464	1	Pin, Male	
503	4922223	1	Generator Enable Harness (White/Yellow) (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	A
503A	4460464	1	Pin, Male	
504		Ref	Generator Harness (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	
504	7020155	1	Generator Harness (Prior to SN 0300063771)	
504	7023486	1	Generator Harness (SN 0300063771 through 0300088538)	
504	70000328	1	Generator Harness (SN 0300088539 through 0300189901)	
504A	4460224	1	Connector, Female - 6 Position	
504A	4460809	1	Plug, Sealing	
504A	4460268	5	Socket, Female	
504B	7023337	1	Receptacle - 35 Position	
504B	7023338	35	Pin, Male	
505		Ref	Boom Limit Switches Harness Options:	
505	1060341	58 ft/17.7m	Cable, Electrical - 16/2 (Prior to SN 0300063768)	
505	4922614	1	Cable, Electrical (Lower) (Includes Limit Switch) (SN 0300063768 through 0300189901)	
505	4922613	1	Cable, Electrical (Upper) (Includes Limit Switch) (SN 0300063768 through 0300189901)	
506	4922328	1	Harness Assembly - Valve	
506A	4460434	1	Plug, Male - 15 Position	
506A	4460226	7	Socket, Female	
506B	4460749	1	Cap, Shell	
506B	4460750	1	Bar, Buss - 6 Position	
506B	4460744	1	Connector, 6 Position	
506B	4460745	1	Lock, Secondary	
506B	4460746	5	Socket, Female	
506B	4460458	6	Seal	
506B	4460748	1	Plug, Cavity	
506B	4460751	1	Clip, Mounting	
506C	4460742	5	Plug, Male - 2 Position	
506C	4460743	10	Terminal, Female	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
506C	4460458	10	Seal	
507	See Note	1	Controller Harness Assembly (Lift and Swing) (Note: Not Available - Purchase Complete Controller)	
507A	4460265	1	Plug, Male - 9 Position	
507A	4460226	8	Socket, Female	
508	See Note	1	Controller Harness/Circuit Board Assembly (Drive and Steer) (Note: Not Available - Purchase Complete Controller)	
508A	4460265	1	Plug, Male - 9 Position	
508A	4460226	7	Socket, Female	
509	See Note	1	Controller Harness Assembly (Speed) (Note: Not Available - Purchase Complete Controller)	
509A	4460225	1	Plug, Male - 6 Position	
509A	4460226	4	Socket, Female	
510		Ref	Battery Charger Components	
510A		Ref	AC Cord Options:	
510A	1060777	1	AC Cord (Prior to SN 0300082279)	
510A	1060759	1	AC Cord (SN 0300082279 through 0300189901)	
510B	7020693	1	LED Internal Harness	
510B	4460761	1	Connector, Female - 4 Position	
510B	4460227	4	Male Pin	
510C	1060778	1	LED Remote Harness	
510D	4460321	1	Plug, Male - 4 Position	
510D	4460226	4	Socket, Female	
510E	4460761	1	Connector, Female - 4 Position	
510E	4460226	4	Socket, Female	
510F		Ref	DC Cord Options:	
510F	7020644	1	Charger with Automotive Fuse	
510F	7022909	1	Charger with Bussman Fuse	
510G	7011590	1	Connector, DC	
510H	7011621	1	Connector, Enable Switch	
510J		Ref	Plug, Connector (Not Supplied with Charger)	
510J	4460805	1	Australian Spec	
510J	See Item 516	1	CE Spec	
510K	4460428	1	Connector, Strain Relief (Not Supplied with Charger)	
510L	0610131	1	LED Assembly (Not Supplied with Charger)	
510M	4460321	1	Plug, Male - 4 Position	
510M	4460227	4	Male Pin	
511	3990105	2	Speed Sensor Harness (P/N 3990105 Includes Sensor)	
511A	4460225	1	Plug, Male - 6 Position	
511A	4460226	4	Socket, Female	
512	1600294	1	Contactora Plate Assembly	
512A	7022003	1	Contactora Harness	
512B	4460225	1	Plug, Male - 6 Position	
512B	4460226	6	Socket, Female	
512C	7022004	1	Posi-Track Harness	
512D	4460326	1	Plug, Male - 3 Position	
512D	4460227	3	Pin, Male	
512E	7022005	1	Shunt Harness	
512F	4460321	1	Plug, Male - 4 Position	
512F	4460227	4	Pin, Male	
513	4922294	1	Jib Harness (E450AJ & M450AJ)	1-B
513A	4460225	1	Plug, Male - 6 Position	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
513A	4460227	3	Pin, Male	
513B	4460418	1	Connector, Female	
513B	4460419	3	Terminal	
514	See Note	5	Solenoid Harnesses - Steer/Brake Valve (Note: Not Available - Purchase Complete Solenoid)	
514A	4460867	5	Connector, Female - 2 Position	
514A	4460979	10	Terminal, Male	
514A	4460458	10	Seal	
515	4922319	1	Harness, Generator to Ground Control Box	1-A
515A	4460225	1	Plug, Male - 6 Position	
515A	4460807	1	Seal, Terminal	
515A	4460808	1	Seal, Terminal	
515A	4460809	1	Plug, Sealing	
515A	4460267	5	Pin, Terminal	
516		Ref	PLUG CHARGER INSTALLATION	
516	0275663	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box)	A
516	0275664	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box)	A
516	0275665	Ref	220V with AFSINT 107 Keyed Ground Receptacle and Plug and Circuit Breaker (2x4 Box)	A
516	0275666	Ref	110V with IEC Yellow Receptacle and Plug and Circuit Breaker	A
516	0275667	Ref	220V with IEC Blue Receptacle and Plug and Circuit Breaker	A
516A		Ref	Plug Options:	
516A	4461202	1	Plug - 0275663 Installation	
516A	4461205	1	Plug - 0275664 Installation	
516A	4461249	1	Plug - 0275665 Installation	
516A	4461196	1	Plug - 0275666 Installation	
516A	4461199	1	Plug - 0275667 Installation	
517	1001116522	1	Harness, Drive Orientation Limit Switch (SN 0300141884 through 0300189901)	B
517A	4460320	1	Plug, Male - 2 Position	
517A	4460227	2	Pin, Male	
517B	4460884	1	Plug, Male - 4 Position	
517B	4460465	2	Socket, Female	
517B	4460466	2	Seal	
518	4922160	1	Harness, Analyzer	3-C
518A	4460321	1	Plug, Male - 4 Position	
518A	4460226	4	Socket, Female	
518B	4460761	1	Connector, Female - 4 Position	
518B	4460227	4	Pin, Male	
		Ref	OPTIONAL HARNESS COMPONENTS	
601		Ref	AC to Platform Receptacle Components Options:	
601	0253717	Ref	220V Receptacle (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300062642)	1
601	0271464	Ref	220V Receptacle (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300062642 through 0300189901)	2
601	0259127	Ref	220V Receptacle (E450A, M450A, E450AJ & M450AJ)	2
601	0275892	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601	1001091435	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E450A, M450A, E450AJ & M450AJ)	B
601	0275893	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300181900)	C
601	1001091436	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300181900)	B
601	0275894	Ref	220V with AFSINT 107 Keyed Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091437	Ref	220V with AFSINT 107 Keyed Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E450A, M450A, E450AJ & M450AJ)	B
601	0275895	Ref	110V with IEC Yellow Receptacle and Plug and Circuit Breaker (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091438	Ref	110V with IEC Yellow Receptacle and Plug and Circuit Breaker (E450A, M450A, E450AJ & M450AJ)	B
601	0275896	Ref	220V with IEC Blue Receptacle and Plug and Circuit Breaker (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091439	Ref	220V with IEC Blue Receptacle and Plug and Circuit Breaker (E450A, M450A, E450AJ & M450AJ)	B
601	0275897	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091440	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E450A, M450A, E450AJ & M450AJ)	B
601	0275898	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300181900)	C
601	1001091441	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300181900)	B
601A		Ref	Box, Switch Options:	
601A	Not Required	0	Box, Switch - 0271464 & 0259127 Installation (Purchase Locally)	
601A	0861731	1	Box, Switch - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001091437 Installation	
601A	0861781	1	Box, Switch - 0275895, 0275896, 1001091438 & 1001091439 Installation	
601A	See Note	1	Box, Switch - 0275897, 0275898, 1001091440 & 1001091441 Installations (Note: Was p/n 0861782 which is no longer available. Use p/n 1001100344 CEE 7 Side Ground Service Kit or p/n 1001100343 CEE 7 Post Ground Service Kit. Kit include Box p/n 1001141967 and items 601B, 601C & 601E.)	
601A	1001141967	1	Box, Switch - 1001100343, 1001100344, 1001141970 & 1001141971 Kits	
601B		Ref	Receptacle Options:	
601B	Not Required	0	Receptacle - 0271464 & 0259127 Installation (Purchase Locally)	
601B	4461244	1	Receptacle - 0275892 & 1001091435 Installation	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601B	4461245	1	Receptacle - 0275893 & 1001091436 Installation	
601B	4461246	1	Receptacle - 0275894 & 1001091437 Installation	
601B	4461198	1	Receptacle - 0275895 & 1001091438 Installation	
601B	4461201	1	Receptacle - 0275896 & 1001091439 Installation	
601B	4461204	NLA	Receptacle - 0275897 & 1001091440 Installation (Use p/n 1001100343)	
601B	4461207	NLA	Receptacle - 0275898 & 1001091441 Installation (Use p/n 1001100344)	
601B	1001141968	1	Receptacle - 1001100343 & 1001141971 Kits	
601B	1001141969	1	Receptacle - 1001100344 & 1001141970 Kits	
601C		Ref	Shield, Cover Options:	
601C	Not Required	0	Shield, Cover - 0271464 & 0259127 Installation (Purchase Locally)	
601C	4461244	1	Shield, Cover - 0275892 & 1001091435 Installation	
601C	4461245	1	Shield, Cover - 0275893 & 1001091436 Installation	
601C	4461246	1	Shield, Cover - 0275894 & 1001091437 Installation	
601C	4461198	1	Shield, Cover - 0275895 & 1001091438 Installation	
601C	4461201	1	Shield, Cover - 0275896 & 1001091439 Installation	
601C	4461204	NLA	Shield, Cover - 0275897 & 1001091440 Installation (Use p/n 1001100343)	
601C	4461207	NLA	Shield, Cover - 0275898 & 1001091441 Installation (Use p/n 1001100344)	
601C	1001141968	1	Shield, Cover - 1001100343 & 1001141971 Kits	
601C	1001141969	1	Shield, Cover - 1001100344 & 1001141970 Kits	
601D		Ref	Connector, Strain Relief Options:	
601D	Not Required	0	Connector, Strain Relief - 0271464 & 0259127 Installation (Purchase Locally)	
601D	4460968	1	Connector, Strain Relief - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001091437 Installation (Prior to SN 0300108574)	
601D	4460662	1	Connector, Strain Relief - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001091437 Installation (E/M400) (SN 0300108574 through 0300189901)	
601D	4460662	1	Connector, Strain Relief - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001091437 Installation (E/M450) (SN 0300108574 through 0300189898)	
601D	4460968	1	Connector, Strain Relief - 0275895, 0275896, 0275897, 0275898, 1001091438, 1001091439, 1001091440 & 1001091441 Installation	
601E		Ref	Plug, Male Options (All Specs):	
601E	Not Required	0	Plug, Male - 0271464 & 0259127 Installation (Purchase Locally)	
601E	4461202	1	Plug, Male - 0275892, 0275897, 1001091435 & 1001091440 Installation & 1001100343 & 1001141971 Kits	
601E	4461205	1	Plug, Male - 0275893, 0275898, 1001091436 & 1001091441 Installation & 1001100344 & 1001141970 Kits	
601E	4461249	1	Plug, Male - 0275894 & 1001091437 Installation	
601E	4461196	1	Plug, Male - 0275895 & 1001091438 Installation	
601E	4461199	1	Plug, Male - 0275896 & 1001091439 Installation	
601F		Ref	Harness (Main Boom) Options (All Specs):	
601F	4921595	1	Harness (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300063775)	2-A
601F	4922610	1	Harness (E450A, M450A, E450AJ & M450AJ) (SN 0300063775 through 0300189898)	1-A

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601F	4921571	1	Harness(E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300062642)	2-A
601F	4922610	1	Harness (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300062642 through 0300189901)	1-A
601F	1060461	Ref	Electrical Cable - 12/3 Options:	
601F	1060461	32 ft 9.75m	Electrical Cable - 12/3 (E450A, M450A, E450AJ & M450AJ)	
601F	1060461	AR	Electrical Cable - 12/3 (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
601G	4460709	1	Plug, Male (All Specs)	
601H		Ref	Harness (Tower Boom) Options (All Specs):	
601H	4921594	1	Harness (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300063775)	2-A
601H	4922609	1	Harness (E450A, M450A, E450AJ & M450AJ) (SN 0300063775 through 0300189901)	2-A
601H	4921570	1	Harness (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300062642)	2-A
601H	4922612	1	Harness (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300062642 through 0300189901)	2-B
601H	1060461	AR	Electrical Cable - 12/3 Options:	
601H		Ref	Electrical Cable - 12/3 (E450A, M450A, E450AJ & M450AJ)	
601H		Ref	Electrical Cable - 12/3 (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300062642)	
601H		Ref	Electrical Cable - 12/3 (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300062642 through 0300189901)	
601J		Ref	Connector, Female (All Specs) Options:	
601J	4460134	1	Connector, Female (Prior to SN 0300102882)	
601J	4460710	1	Connector, Female (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300102882 through 0300189901)	
601J	4460710	1	Connector, Female (E450A, M450A, E450AJ & M450AJ) (SN 0300102882 through 0300189898)	
601K		Ref	Hardware Options:	
601K	0641405	AR	Bolt 1/4in - 20NC x 5/8in	
601K	0641407	AR	Bolt 1/4in - 20NC x 7/8in	
601K	0641416	AR	Bolt 1/4in - 20NC x 2in	
601K	0700408	AR	Screw M4 x 16mm	
601K	3290405	AR	Locknut M4	
601K	3311405	AR	Locknut 1/4in - 20NC	
601K	4711400	AR	Flatwasher 1/4in (Narrow)	
601K	4751400	AR	Flatwasher 1/4in (Wide)	
601K	4811400	AR	Flatwasher M4	
601L		Ref	Bracket, Receptacle Box Mounting Options:	
601L	Not Required	0	Bracket, Receptacle Box Mounting - 020271464 & 0259127 Installation	
601L	0903484	1	Bracket, Receptacle Box Mounting - 0275892, 0275893, 0275894, 0275895, 0275896, 0275897, 0275898,	

SECTION 7 - ELECTRICAL

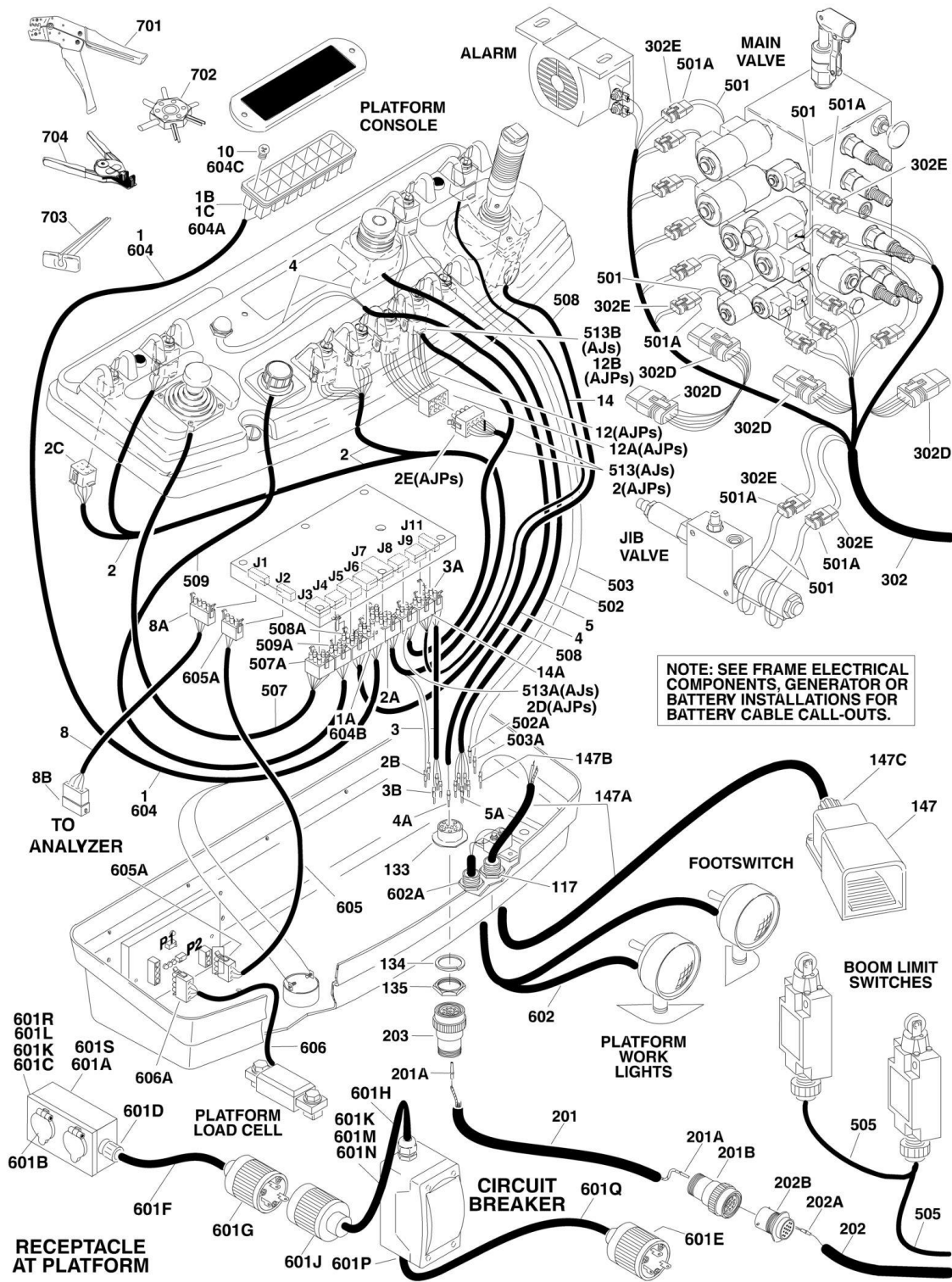
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601M		Ref	1001091435, 1001091436, 1001091437, 1001091438, 1001091439, 1001091440 & 1001091441 Installation	
601M	Not Required	0	Bracket, Circuit Breaker Mounting Options:	
601M	0903612	1	Bracket, Circuit Breaker Mounting - 0271464 & 0259127 Installation	
601M	0903612	1	Bracket, Circuit Breaker Mounting - 0275892, 0275893, 0275894, 0275895, 0275896, 0275897, 0275898, 1001091435, 1001091436, 1001091437, 1001091438, 1001091439, 1001091440 & 1001091441 Installation	
601N	2902549	AR	Circuit Breaker Kit (Includes items indented below and 601P & 601Q) (Required Only on CE Spec Installations Except 0271464 & 0259127 Installation):	D
601N	2400093	NLA	Circuit Breaker 16 Amp (Note: Use qty 1 each of p/ns 1001109475 & 1001109482 as replacement.)	
601N	1001109475	1	Circuit Breaker 16Amp (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300136275 through 0300189901)	
601N	1001109475	1	Circuit Breaker 16Amp (E450A, M450A, E450AJ & M450AJ) (SN 0300136275 through 0300189898)	
601N	1001109482	1	Circuit Breaker 30Amp (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300136275 through 0300189901)	
601N	1001109482	1	Circuit Breaker 30Amp (E450A, M450A, E450AJ & M450AJ) (SN 0300136275 through 0300189898)	
601N	0861880	1	Breaker Box	
601N	4460956	1	Barrier, Terminal Block	
601N	4460957	1	Terminal Block	
601P		Ref	Connector, Strain Relief Options:	
601P	4460633	2	Connector, Strain Relief M20 (Prior to SN 0300117527)	
601P	1001097150	2	Connector, Strain Relief M25 (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300117527 through 0300189901)	
601P	1001097150	2	Connector, Strain Relief M25 (E450A, M450A, E450AJ & M450AJ) (SN 0300117527 through 0300189898)	
601Q	1060908	6 ft/1.8m	Cable, Extension	
601R		Ref	Decal Options:	
601R	Not Required	0	Decal - 0271464 & 0259127 Installation	
601R	1705325	1	Decal - 110 Volt (0275895 & 1001091438 Installation)	
601R	3252507	1	Decal - 220 Volt (0275892, 0275893, 0255894, 0275896, 0275897, 0275898, 1001091435, 1001091436, 1001091437, 1001091439, 1001091440 & 1001091441 Installation)	
601S		Ref	Receptacle Box Kit Options:	
601S	0275452	1	Receptacle Box Kit (220V CEE 7 Post Ground) (Includes Items 601A, 601B, 601C & 601E) (0275892 & 1001091435 Installation)	1
601S	0275453	1	Receptacle Box Kit (220V CEE 7 Side Ground) (Includes Items 601A, 601B, 601C & 601E) (0275893 & 1001091436 Installation)	1
601S	0275454	1	Receptacle Box Kit (220V AFSINT 107 Keyed Ground) (Includes Items 601A, 601B, 601C & 601E) (0275894 & 1001091437 Installation)	1
601S	0275216	1	Receptacle Box Kit (110V IEC Yellow) (Includes Items 601A, 601B, 601C & 601E) (0275895 & 1001091438 Installation)	1
601S	0275217	1	Receptacle Box Kit (220V IEC Blue) (Includes Items 601A, 601B, 601C & 601E) (0275896 & 1001091439 Installation)	1

SECTION 7 - ELECTRICAL

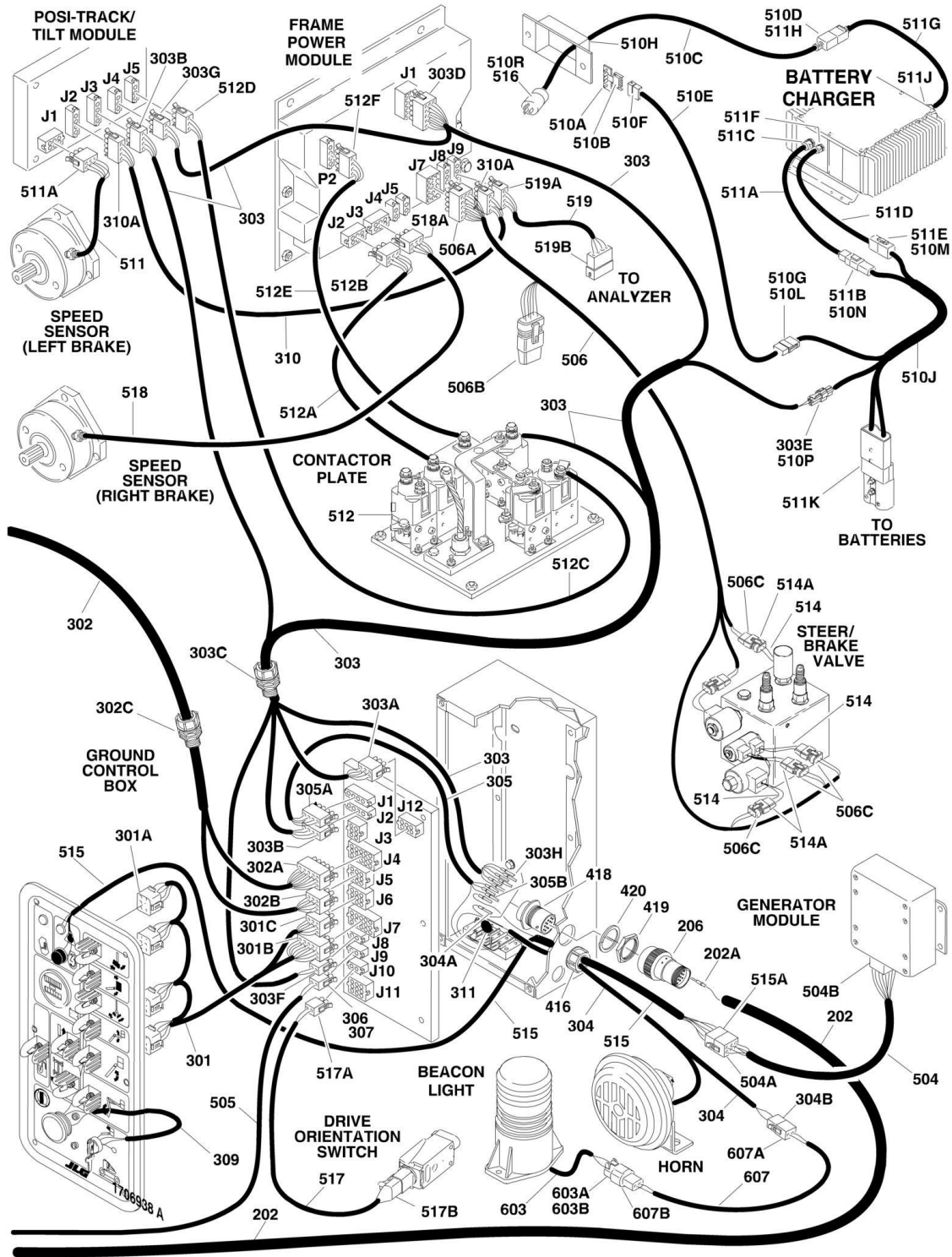
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601S	0275218	1	Receptacle Box Kit (220V CEE 7 Post Ground) (Includes Items 601A, 601B, 601C & 601E) (0275897 & 1001091440 Installation) (Use p/n 1001100343)	B-2
601S	0275219	1	Receptacle Box Kit (220V CEE 7 Side Ground) (Includes Items 601A, 601B, 601C & 601E) (0275898 & 1001091441 Installation) (Use p/n 1001100344)	B-2
602	2920095	2	Platform Worklights Harness (Includes Light and Wire Only)	
602A	4460428	1	Connector, Strain Relief	
603	See Note	1	Strobe Light Harness (Note: Not Available - Purchase Complete Strobe Light)	
603A	4460320	1	Plug, Male, 2 Position	
603A	4460268	2	Socket, Female	
604	4922534	1	Platform Overload Sensing Light Harness	
604A	4120035	1	Base, Light	
604B	4460227	1	Pin, Male	
604C	2920129	1	Bulb, Light	
605	4922443	1	Platform Overload Sensing PC Board to Platform Module Harness	
605A	4460326	2	Plug, Male - 3 Position	
605A	4460226	3	Socket, Female	
606	See Note	1	Platform Overload Sensing PC Board to Load Cell Harness (Front Entry Platform Only) (Note: Not available for purchase)	
		Ref	Note: For Side Entry Platform Refer to JLG Supplement 3124287.	
606A	4460321	1	Plug, Male - 4 Position	
606A	4460226	3	Socket, Female	
606A	4460268	1	Socket, Female	
606B	4460428	1	Receptacle, Strain Relief (Not Shown for Clarity)	
		Ref	TOOLS	
701	7002821	1	Crimper (For Wire to Pin/Socket Connections)	
702	7002823	1	Extractor (For Removal of Pin/Socket from Connectors)	
703	4460467	1	Extractor, Pin (Blue 16-18 Gauge) (For Removal of Pin/Socket from Connectors)	
703	4460510	1	Extractor, Pin (Yellow 12-14 Gauge) (For Removal of Pin/Socket from Connectors)	
704	7002828	1	Stripper, Wire	
705	2901443	1	Analyzer, Machine (Not Shown)	

SECTION 7 - ELECTRICAL

FIGURE 7-3. HARNESS COMPONENTS INSTALLATION (WITH DELTA-Q CHARGER)



SECTION 7 - ELECTRICAL



SECTION 7 - ELECTRICAL

FIGURE 7-3. HARNESS COMPONENTS INSTALLATION (WITH DELTA-Q CHARGER)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	PLATFORM BOX ELECTRICAL DIAGRAM	
	4933060	Ref	Platform Box Electrical Diagram (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ)	7-L
	4933105	Ref	Platform Box Electrical Diagram (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	5-G
1	1001109860	1	Harness, Indicator Lamp	B
1A	4460265	1	Plug, Male - 9 Position	
1A	4460227	AR	Pin, Male	
1B	4120035	AR	Socket, Lamp	
1C	4460634	AR	Socket (Single Wire)	
1C	4460635	AR	Socket (Two Wire)	
2		Ref	Harness, Function Switch	
2	4922060	1	Harness, Function Switch (E400A, M400A, E400Anarrow, M400Anarrow, E450A, M450A, E450AJ & M450AJ)	2-C
2	4922303	1	Harness, Function Switch (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	5-D
2A	4460434	1	Plug, Male - 15 Position	
2A	4460226	12	Pin, Male	
2B	4460464	2	Pin, Male	
2C	4460418	4	Connector, Female	
2C	4460419	12	Terminal	
2D	4460225	1	Plug, Male - 6 Position (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
2D	4460227	5	Socket, Female	
2E	4460343	1	Plug, Male - 12 Position (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
2E	4460227	10	Socket, Female	
3	4922071	1	Harness, Can Bus	2-B
3A	4460321	1	Plug, Male - 4 Position	
3A	4460227	2	Socket, Female	
3A	4460267	1	Pin, Male	
3B	4460464	3	Pin, Male	
4	4922118	1	Harness, Box Horn	2-B
4A	4460464	1	Pin, Male	
5	4922157	1	Harness, Miscellaneous	3-C
5A	4460464	5	Pin, Male	
8	4922160	1	Harness, Analyzer	3-C
8A	4460321	1	Plug, Male - 4 Position	
8A	4460226	4	Socket, Female	
8B	4460761	1	Connector, Female - 4 Position	
8B	4460227	4	Pin, Male	
10	2920129	3	Bulb, Light	
12	4922307	1	Jib Harness (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	3-C
12A	4460367	1	Connector, Female - 12 Position	
12A	4460226	10	Socket, Female	
12B	4460260	6	Connector, Female	
12B	4460259	6	Terminal	
14	1001116368	1	Harness, Drive Orientation Override Switch	A
14A	4460225	1	Plug, Male - 6 Position	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
14A	4460227	2	Socket, Female	
		Ref	PLATFORM BOX ASSEMBLY COMPONENTS	
117	4460428	1	Connector, Strain Relief	
133	4460752	1	Connector, 14 Position	
134	4460497	1	Nut, Conduit	
135	4460496	1	Lockwasher, Conduit	
147	0272971	1	Footswitch Assembly	B
147A	1060330	7 ft/2.2m	Cable, Electrical - 16/3	
147B	4460464	AR	Pin, Male	
147C	4460071	2	Connector, Strain Relief	
		Ref	BOOM CABLES INSTALLATION	
	0257735	Ref	Boom Cables Installation (E450A & M450A)	8-G
	0259367	Ref	Boom Cables Installation (E450AJ & M450AJ)	4-D
	0270817	Ref	Boom Cables Installation (E400A, M400A, E400Anarrow & M400Anarrow)	4-B
	0259970	Ref	Boom Cables Installation (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	5-C
201		Ref	Main Boom Harness Assembly Options:	
201	4922178	1	Main Boom Harness Assembly (E450A & M450A)	3
201	4922552	1	Main Boom Harness Assembly (E450AJ & M450AJ)	1
201	4922496	1	Main Boom Harness Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	2
201	1060677	26.5 ft/8.1m	Cable, Electrical (E450A & M450A)	
201	1060677	28 ft/8.53m	Cable, Electrical (E450AJ & M450AJ)	
201	1060677	25.25 ft/7.7m	Cable, Electrical (E400A, M400A, E400Anarrow & M400Anarrow)	
201	4922496	1	Main Boom Harness Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	2
201	1060677	25.25 ft/7.7m	Cable, Electrical (E400A, M400A, E400Anarrow & M400Anarrow)	
201A	4460465	28	Socket, Female	
201B	4460754	1	Connector - 14 Position	
202		Ref	Tower Boom Harness Assembly Options:	
202	4922179	1	Tower Boom Harness Assembly (E450A, M450A, E450AJ & M450AJ)	3
202	4922363	1	Tower Boom Harness Assembly (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	3
202	4922363	1	Tower Boom Harness Assembly (E400A, M400A, E400Anarrow & M400Anarrow)	3
202	1060677	Ref	Cable, Electrical Options: - 10/4-18/16	
202	1060677	35.5 ft/11m	Cable, Electrical (E450A, M450A, E450AJ & M450AJ)	
202	1060677	32 ft/9.8m	Cable, Electrical (E400A, M400A, E400AJPnarrow, M400AJPnarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
202A	4460464	28	Pin, Male	
202B	4460752	1	Connector - 14 Position	
203	4460754	1	Connector - 14 Position	
206	4460753	1	Connector - 14 Position	
		Ref	GROUND CONTROL BOX DIAGRAM	
	4933388	Ref	Ground Control Box Diagram	2-C
301		Ref	Function Switch Harness Assembly Options:	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
301	4923625	1	Function Switch Harness Assembly	1-C
301A	4460418	AR	Connector - 6 Position	
301A	4460419	AR	Terminal, Female	
301B	4460434	1	Plug, Male - 15 Position	
301B	4460226	15	Socket, Female	
301C	4460265	1	Plug, Male - 9 Position	
301C	4460227	3	Pin, Male	
302		Ref	Harness Assembly - Valve	
302	4922367	1	Harness Assembly - Valve	2-C
302A	4460434	1	Plug, Male - 15 Position	
302A	4460227	14	Pin, Male	
302B	4460265	1	Plug, Male - 9 Position	
302B	4460226	4	Socket, Female	
302C	4460425	1	Connector, Strain Relief	
302D	4460836	2	Connector, 12 Position	
302D	4460837	2	Housing, Terminal - 12 Position	
302D	4460465	22	Pin, Terminal	
302E	4460742	17	Plug, Male - 2 Position	
302E	4460743	34	Terminal, Female	
302E	4460458	34	Seal	
303	4922104	1	Harness Assembly - Turntable/Frame (Includes Item 304 Also)	7-G
303A	4460225	1	Plug, Male - 6 Position	
303A	4460268	6	Socket, Female	
303B	4460321	2	Plug, Male - 4 Position	
303B	4460227	2	Pin, Male	
303B	4460267	8	Pin, Male	
303C	4460425	1	Connector, Strain Relief	
303D	4460343	1	Plug, Male, 12 Position	
303D	4460268	12	Socket, Female	
303E	4460320	1	Plug, Male, 2 Position	
303E	4460268	2	Socket, Female	
303F	4460320	1	Plug, Male, 2 Position	
303F	4460267	2	Pin, Male	
303G	4460326	1	Plug, Male, 3 Position	
303G	4460267	3	Pin, Male	
303H	4460465	6	Socket, Female	
304	4922073	1	Harness Assembly - Horn/Beacon	5-E
304	3990001	1	Diode (Not Shown)	
304A	4460465	1	Socket, Female	
304B	4460424	1	Plug, Male, 2 Position	
304B	4460268	2	Socket, Female	
305	4922117	1	Harness Assembly - Ground Control Can	3-B
305A	4460321	1	Plug, Male - 4 Position	
305A	4460227	2	Pin, Male	
305A	4460267	1	Pin, Male	
305B	4460465	1	Socket, Female	
306	4460320	1	Plug, Male, 2 Position	
307	4460268	2	Socket, Female	
309	4922267	1	Harness Assembly - Power Supply	3-C
310	4922263	1	Harness Assembly - Posi-Track Module Can	2-A
310A	4460321	2	Plug, Male - 4 Position	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
310A	4460227	4	Pin, Male	
310A	4460267	2	Pin, Male	
311	3990106	1	Limiter, Inrush	
		Ref	GROUND CONTROL BOX ASSY COMPONENTS	
416	4460425	1	Connector, Strain Relief	
418	4460495	1	Connector, Male - 14 Position	
419	4460497	1	Nut, Conduit	
420	4460496	1	Lockwasher	
		Ref	STANDARD HARNESS COMPONENTS	
501	See Note	17	Solenoid Harness (Note: Not Available - Purchase Complete Solenoid)	
501A	4460867	17	Connector, Female - 2 Position	
501A	4460979	34	Terminal, Male	
501A	4460458	34	Seal	
502	4922222	1	Generator Enable Harness (Yellow/Red) (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	B
502A	4460464	1	Pin, Male	
503	4922223	1	Generator Enable Harness (White/Yellow) (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	A
503A	4460464	1	Pin, Male	
504	70000328	1	Generator Harness (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	
504A	4460224	1	Connector, Female - 6 Position	
504A	4460809	1	Plug, Sealing	
504A	4460268	5	Socket, Female	
504B	7023337	1	Receptacle - 35 Position	
504B	7023338	35	Pin, Male	
505		Ref	Boom Limit Switches Harness Options:	
505	4922614	1	Cable, Electrical (Lower) (Includes Limit Switch)	
505	4922613	1	Cable, Electrical (Upper) (Includes Limit Switch)	
506	4922328	1	Harness Assembly - Valve	
506A	4460434	1	Plug, Male - 15 Position	
506A	4460226	7	Socket, Female	
506B	4460749	1	Cap, Shell	
506B	4460750	1	Bar, Buss - 6 Position	
506B	4460744	1	Connector, 6 Position	
506B	4460745	1	Lock, Secondary	
506B	4460746	5	Socket, Female	
506B	4460458	6	Seal	
506B	4460748	1	Plug, Cavity	
506B	4460751	1	Clip, Mounting	
506C	4460742	5	Plug, Male - 2 Position	
506C	4460743	10	Terminal, Female	
506C	4460458	10	Seal	
507	See Note	1	Controller Harness Assembly (Lift and Swing) (Note: Not Available - Purchase Complete Controller)	
507A	4460265	1	Plug, Male - 9 Position	
507A	4460226	8	Socket, Female	
508	See Note	1	Controller Harness/Circuit Board Assembly (Drive and Steer) (Note: Not Available - Purchase Complete Controller)	
508A	4460265	1	Plug, Male - 9 Position	
508A	4460226	7	Socket, Female	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
509	See Note	1	Controller Harness Assembly (Speed) (Note: Not Available - Purchase Complete Controller)	
509A	4460225	1	Plug, Male - 6 Position	
509A	4460226	4	Socket, Female	
510		Ref	Battery Charger Installation Components	
510	1001123052	Ref	Australian Specs	B
510	1001107780	Ref	CE Specs	B
510A	0610131	1	LED Assembly (Not Supplied with Charger)	
510B	4460321	1	Plug, Male - 4 Position	
510B	4460227	4	Male Pin	
510C	1060689	1	AC Cord	
510D	1060689	1	End, Plug (Note: Not available for purchase)	
510E	1060778	1	LED Remote Harness	
510F	4460321	1	Plug, Male - 4 Position	
510F	4460226	4	Socket, Female	
510G	4460761	1	Connector, Female - 4 Position	
510G	4460226	4	Socket, Female	
510H	4460428	1	Connector, Strain Relief	
510J	1001113045	1	Harness, Connecting (MAC to Delta-Q)	B
510K	4460444	1	Connector, Anderson	
510L	4460761	1	Receptacle, Female - 4 Position	
510L	4460227	4	Pin, Male	
510M	4460931	1	Receptacle, Female - 8 Position	
510M	4460464	6	Pin, Male	
510M	4460466	2	Plug, Seal	
510N	1001096188	1	Plug, Male - 4 Position	
510N	4460509	2	Socket, Female	
510N	4460466	2	Plug, Seal	
510P	4460424	1	Receptacle, Female 2 Position	
510P	4460227	2	Pin, Male	
510R		Ref	Plug, AC Options:	
510R	4460805	1	Australian Specs	
510R	See Note	1	CE Specs (Note: See Item 516A)	
511		Ref	Battery Charger Components	
511A	See Note	1	Harness, Battery Charger Power (Note: Not Available - Purchase Complete Charger)	
511B	1001116811	1	Receptacle, Female - 4 Position	
511B	4460508	4	Pin, Male	
511C	See Note	1	Connector, Strain Relief (Note: Not available for purchase)	
511D	See Note	1	Harness, Battery Charger Signal (Note: Not available for purchase)	
511E	4460930	1	Plug, Male - 8 Position	
511E	4460464	7	Socket, Female	
511F	See Note	1	Connector, Strain Relief (Note: Not available for purchase)	
511G	See Note	1	Harness, Battery Charger AC Plug (Note: Not available for purchase)	
511H	See Note	1	Connector, Plug (Note: Not available for purchase)	
511J	See Note	1	Connector, Strain Relief (Note: Not available for purchase)	
512	1600294	1	Contacto Plate Assembly	
512A	7022003	1	Contacto Harness	
512B	4460225	1	Plug, Male - 6 Position	
512B	4460226	6	Socket, Female	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
512C	7022004	1	Posi-Track Harness	
512D	4460326	1	Plug, Male - 3 Position	
512D	4460227	3	Pin, Male	
512E	7022005	1	Shunt Harness	
512F	4460321	1	Plug, Male - 4 Position	
512F	4460227	4	Pin, Male	
513	4922294	1	Jib Harness (E450AJ & M450AJ)	1-B
513A	4460225	1	Plug, Male - 6 Position	
513A	4460227	3	Pin, Male	
513B	4460418	1	Connector, Female	
513B	4460419	3	Terminal	
514	See Note	5	Solenoid Harnesses - Steer/Brake Valve (Note: Not Available - Purchase Complete Solenoid)	
514A	4460867	5	Connector, Female - 2 Position	
514A	4460979	10	Terminal, Male	
514A	4460458	10	Seal	
515	4922319	1	Harness, Generator to Ground Control Box	1-A
515A	4460225	1	Plug, Male - 6 Position	
515A	4460807	1	Seal, Terminal	
515A	4460808	1	Seal, Terminal	
515A	4460809	1	Plug, Sealing	
515A	4460267	5	Pin, Terminal	
516		Ref	CE Plug Charger Installation	
		Ref	Note: See Item 510R for Australian Spec Plug.	
516	0275663	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box)	A
516	0275664	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box)	A
516	0275665	Ref	220V with AFSINT 107 Keyed Ground Receptacle and Plug and Circuit Breaker (2x4 Box)	A
516	0275666	Ref	110V with IEC Yellow Receptacle and Plug and Circuit Breaker	A
516	0275667	Ref	220V with IEC Blue Receptacle and Plug and Circuit Breaker	A
516A		Ref	Plug Options:	
		Ref	Note: See Item 510R for Australian Spec Plug.	
516A	4461202	1	Plug - 0275663 Installation and 1001100343 & 1001141971 Kits	
516A	4461205	1	Plug - 0275664 Installation and 1001100344 & 1001141970 Kits	
516A	4461249	1	Plug - 0275665 Installation	
516A	4461196	1	Plug - 0275666 Installation	
516A	4461199	1	Plug - 0275667 Installation	
517	1001116522	1	Harness, Drive Orientation Limit Switch	B
517A	4460320	1	Plug, Male - 2 Position	
517A	4460227	2	Pin, Male	
517B	4460884	1	Plug, Male - 4 Position	
517B	4460465	2	Socket, Female	
517B	4460466	2	Seal	
518	3990105	2	Speed Sensor Harness (P/N 3990105 Includes Sensor)	
518A	4460225	1	Plug, Male - 6 Position	
518A	4460226	4	Socket, Female	
519	4922160	1	Harness, Analyzer	3-C
519A	4460321	1	Plug, Male - 4 Position	
519A	4460226	4	Socket, Female	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
519B	4460761	1	Connector, Female - 4 Position	
519B	4460227	4	Pin, Male	
		Ref	OPTIONAL HARNESS COMPONENTS	
601		Ref	AC to Platform Receptacle Components Options:	
601	0271464	Ref	220V Receptacle (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	2
601	0259127	Ref	220V Receptacle (E450A, M450A, E450AJ & M450AJ)	2
601	0275892	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091435	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E450A, M450A, E450AJ & M450AJ)	B
601	0275893	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300181900)	D
601	1001153727	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300181900 through 0300189901)	A
601	1001091436	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300181900)	C
601	1001153729	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E450A, M450A, E450AJ & M450AJ) (SN 0300181900 through 0300189898)	A
601	0275894	Ref	220V with AFSINT 107 Keyed Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091437	Ref	220V with AFSINT 107 Keyed Ground Receptacle and Plug and Circuit Breaker (2x4 Box) (E450A, M450A, E450AJ & M450AJ)	B
601	0275895	Ref	110V with IEC Yellow Receptacle and Plug and Circuit Breaker (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091438	Ref	110V with IEC Yellow Receptacle and Plug and Circuit Breaker (E450A, M450A, E450AJ & M450AJ)	B
601	0275896	Ref	220V with IEC Blue Receptacle and Plug and Circuit Breaker (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091439	Ref	220V with IEC Blue Receptacle and Plug and Circuit Breaker (E450A, M450A, E450AJ & M450AJ)	B
601	0275897	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	C
601	1001091440	Ref	220V with CEE 7 Post Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E450A, M450A, E450AJ & M450AJ)	B
601	0275898	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Prior to SN 0300181900)	D
601	1001153728	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (SN 0300181900 through 0300189901)	A

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601	1001091441	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E450A, M450A, E450AJ & M450AJ) (Prior to SN 0300181900)	C
601	1001153730	Ref	220V with CEE 7 Side Ground Receptacle and Plug and Circuit Breaker (70mm x 70mm Box) (E450A, M450A, E450AJ & M450AJ) (SN 0300181900 through 0300189898)	A
601A		Ref	Box, Switch Options:	
601A	Not Required	0	Box, Switch - 0271464 & 0259127 Installation (Purchase Locally)	
601A	0861731	1	Box, Switch - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001091437 Installation	
601A	0861781	1	Box, Switch - 0275895, 0275896, 1001091438 & 1001091439 Installation	
601A	See Note	1	Box, Switch - 0275897, 0275898, 1001091440 & 1001091441 Installations (Note: Was p/n 0861782 which is no longer available. Use p/n 1001100344 CEE 7 Side Ground Service Kit or p/n 1001100343 CEE 7 Post Ground Service Kit. Kit include Box p/n 1001141967 and items 601B, 601C & 601E.)	
601A	1001141967	1	Box, Switch - 1001100343, 1001100344, 1001141970 & 1001141971 Kits	
601B		Ref	Receptacle Options:	
601B	Not Required	0	Receptacle - 0271464 & 0259127 Installation (Purchase Locally)	
601B	4461244	1	Receptacle - 0275892 & 1001091435 Installation	
601B	4461245	1	Receptacle - 0275893 & 1001091436 Installation	
601B	4461246	1	Receptacle - 0275894 & 1001091437 Installation	
601B	4461198	1	Receptacle - 0275895 & 1001091438 Installation	
601B	4461201	1	Receptacle - 0275896 & 1001091439 Installation	
601B	4461204	NLA	Receptacle - 0275897 & 1001091440 Installation (Use p/n 1001100343)	
601B	4461207	NLA	Receptacle - 0275898 & 1001091441 Installation (Use p/n 1001100344)	
601B	1001141968	1	Receptacle - 1001100343 & 1001141971 Kits	
601B	1001141969	1	Receptacle - 1001100344 & 1001141970 Kits	
601C		Ref	Shield, Cover Options:	
601C	Not Required	0	Shield, Cover - 0271464 & 0259127 Installation (Purchase Locally)	
601C	4461244	1	Shield, Cover - 0275892 & 1001091435 Installation	
601C	4461245	1	Shield, Cover - 0275893 & 1001091436 Installation	
601C	4461246	1	Shield, Cover - 0275894 & 1001091437 Installation	
601C	4461198	1	Shield, Cover - 0275895 & 1001091438 Installation	
601C	4461201	1	Shield, Cover - 0275896 & 1001091439 Installation	
601C	4461204	NLA	Shield, Cover - 0275897 & 1001091440 Installation (Use p/n 1001100343)	
601C	4461207	NLA	Shield, Cover - 0275898 & 1001091441 Installation (Use p/n 1001100344)	
601C	1001141968	1	Shield, Cover - 1001100343 & 1001141971 Kits	
601C	1001141969	1	Shield, Cover - 1001100344 & 1001141970 Kits	
601D		Ref	Connector, Strain Relief Options:	
601D	Not Required	0	Connector, Strain Relief - 0271464 & 0259127 Installation (Purchase Locally)	
601D	4460968	1	Connector, Strain Relief - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001091437 Installation (Prior to SN 0300108574)	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601D	4460662	1	Connector, Strain Relief - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001153727, 1001153729, 1001091437 Installation (E/M400) (SN 0300108574 through 0300189901)	
601D	4460662	1	Connector, Strain Relief - 0275892, 0275893, 0275894, 1001091435, 1001091436 & 1001153727, 1001153729, 1001091437 Installation (E/M450) (SN 0300108574 through 0300189898)	
601D	4460968	1	Connector, Strain Relief - 0275895, 0275896, 0275897, 0275898, 1001091438, 1001153728, 1001153730, 1001091439, 1001091440 & 1001091441 Installation	
601E		Ref	Plug, Male Options (All Specs):	
601E	Not Required	0	Plug, Male - 0271464 & 0259127 Installation (Purchase Locally)	
601E	4461202	1	Plug, Male - 0275892, 0275897, 1001091435 & 1001091440 Installation & 1001100343 & 1001141971 Kits	
601E	4461205	1	Plug, Male - 0275893, 0275898, 1001091436 & 1001091441 Installation & 1001100344 & 1001141970 Kits	
601E	4461249	1	Plug, Male - 0275894 & 1001091437 Installation	
601E	4461196	1	Plug, Male - 0275895 & 1001091438 Installation	
601E	4461199	1	Plug, Male - 0275896 & 1001091439 Installation	
601F		Ref	Harness (Main Boom) Options (All Specs):	
601F	4922610	1	Harness (E450A, M450A, E450AJ & M450AJ)	1-A
601F	4922610	1	Harness (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	1-A
601F	1060461	Ref	Electrical Cable - 12/3 Options:	
601F	1060461	32 ft/9.75m	Electrical Cable - 12/3 (E450A, M450A, E450AJ & M450AJ)	
601F	1060461	AR	Electrical Cable - 12/3 (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
601G	4460709	1	Plug, Male (All Specs)	
601H		Ref	Harness (Tower Boom) Options (All Specs):	
601H	4922609	1	Harness (E450A, M450A, E450AJ & M450AJ)	2-A
601H	4922612	1	Harness (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	2-B
601H	1060461	AR	Electrical Cable - 12/3 Options:	
601H		Ref	Electrical Cable - 12/3 E/M450	
601H		Ref	Electrical Cable - 12/3 (E400A, M400A, E400Anarrow, M400Anarrow, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
601J	4460710	1	Connector, Female (All Specs)	
601K		Ref	Hardware Options:	
601K	0641405	AR	Bolt 1/4in - 20NC x 5/8in	
601K	0641407	AR	Bolt 1/4in - 20NC x 7/8in	
601K	0641416	AR	Bolt 1/4in - 20NC x 2in	
601K	0700408	AR	Screw M4 x 16mm	
601K	3290405	AR	Locknut M4	
601K	3311405	AR	Locknut 1/4in - 20NC	
601K	4711400	AR	Flatwasher 1/4in (Narrow)	
601K	4751400	AR	Flatwasher 1/4in (Wide)	
601K	4811400	AR	Flatwasher M4	
601L		Ref	Bracket, Receptacle Box Mounting Options:	
601L	Not Required	0	Bracket, Receptacle Box Mounting - 020271464 & 0259127 Installation	

SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
601L	0903484	1	Bracket, Receptacle Box Mounting - 0275892, 0275893, 0275894, 0275895, 0275896, 0275897, 0275898, 1001091435, 1001091436, 1001091437, 1001153727, 1001153728, 1001153729, 1001153730, 1001091438, 1001091439, 1001091440 & 1001091441 Installation	
601M		Ref	Bracket, Circuit Breaker Mounting Options:	
601M	Not Required	0	Bracket, Circuit Breaker Mounting - 0271464 & 0259127 Installation	
601M	0903612	1	Bracket, Circuit Breaker Mounting - 0275892, 0275893, 0275894, 0275895, 0275896, 0275897, 0275898, 1001091435, 1001091436, 1001091437, 1001091438, 1001091439, 1001091440 & 1001091441 Installation	
601M	1001153899	1	Bracket, Circuit Breaker Mounting - 1001153727, 1001153728, 1001153729, 1001153730 Installation	
601N	2902549	AR	Circuit Breaker Kit with 2 Breakers (Includes items indented below and 601P & 601Q) (Required Only on CE Spec 1001153727 installations):	D
601N	1001152485	AR	Circuit Breaker Kit with 3 Breakers (Includes items indented below and 601P & 601Q) (Required Only on CE Spec 1001153727 Installations)	A
601N	1001109475	1	Circuit Breaker 16Amp	
601N	1001152479	1	Circuit Breaker 16Amp	
601N	1001109482	1	Circuit Breaker 30Amp	
601N	1001152482	1	Circuit Breaker 30Amp	
601N	0861880	1	Breaker Box	
601N	1001152483	1	Breaker Box	
601N	4460956	1	Barrier, Terminal Block	
601N	4460957	1	Terminal Block	
601P	1001097150	2	Connector, Strain Relief	
601Q	1060908	6 ft/1.8m	Cable, Extension	
601R		Ref	Decal Options:	
601R	Not Required	0	Decal - 0271464 & 0259127 Installation	
601R	1705325	1	Decal - 110 Volt (0275895 & 1001091438 Installation)	
601R	3252507	1	Decal - 220 Volt (0275892, 0275893, 0255894, 0275896, 0275897, 0275898, 1001091435, 1001091436, 1001153727, 1001153728, 1001153729, 1001153730, 1001091437, 1001091439, 1001091440 & 1001091441 Installation)	
601S		Ref	Receptacle Box Kit Options:	
601S	0275452	1	Receptacle Box Kit (220V CEE 7 Post Ground) (Includes Items 601A, 601B, 601C & 601E) (0275892 & 1001091435 Installation)	1
601S	0275453	1	Receptacle Box Kit (220V CEE 7 Side Ground) (Includes Items 601A, 601B, 601C & 601E) (0275893 & 1001091436, 1001153729, 1001153727 Installation)	1
601S	0275454	1	Receptacle Box Kit (220V AFSINT 107 Keyed Ground) (Includes Items 601A, 601B, 601C & 601E) (0275894 & 1001091437 Installation)	1
601S	0275216	1	Receptacle Box Kit (110V IEC Yellow) (Includes Items 601A, 601B, 601C & 601E) (0275895 & 1001091438 Installation)	1
601S	0275217	1	Receptacle Box Kit (220V IEC Blue) (Includes Items 601A, 601B, 601C & 601E) (0275896 & 1001091439 Installation)	1
601S	0275218	1	Receptacle Box Kit (220V CEE 7 Post Ground) (Includes Items 601A, 601B, 601C & 601E) (0275897 & 1001091440 Installation) (Use p/n 1001100343)	2
601S	0275219	1	Receptacle Box Kit (220V CEE 7 Side Ground) (Includes Items 601A, 601B, 601C & 601E) (0275898 & 1001091441 Installation) (Use p/n 1001100344)	2

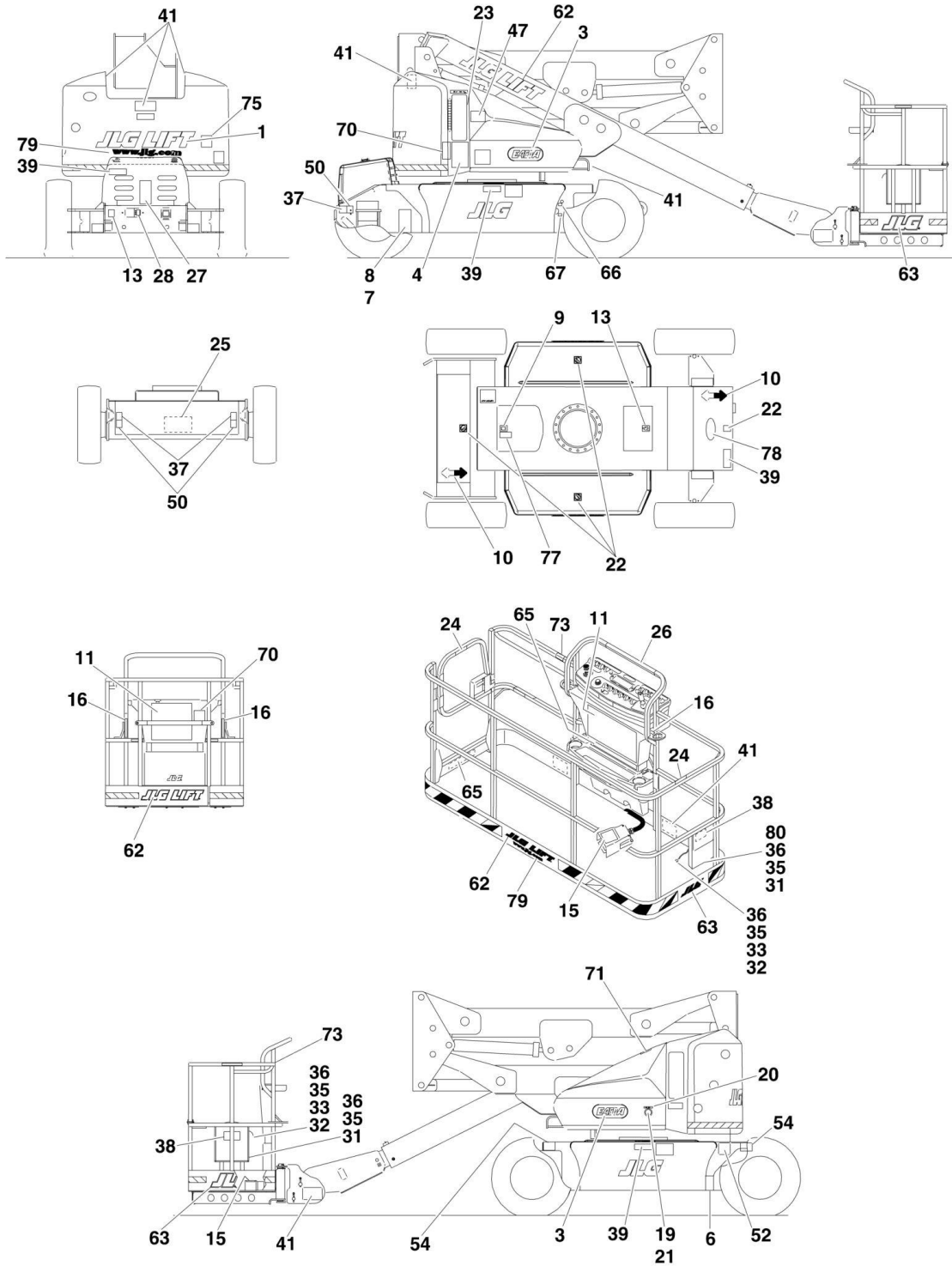
SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
602	2920095	2	Platform Worklights Harness (Includes Light and Wire Only)	
602A	4460428	1	Connector, Strain Relief	
603	See Note	1	Strobe Light Harness (Note: Not Available - Purchase Complete Strobe Light)	
603A	4460320	1	Plug, Male - 2 Position (Prior to SN 0300169430)	
603A	4460268	2	Socket, Female	
603B	4460891	1	Plug, Male - 2 Position (SN 0300169430 through 0300189901)	
603B	4460465	2	Socket, Female	
604	4922534	1	Platform Overload Sensing Light Harness	
604A	4120035	1	Base, Light	
604B	4460227	1	Pin, Male	
604C	2920129	1	Bulb, Light	
605	4922443	1	Platform Overload Sensing PC Board to Platform Module Harness	
605A	4460326	2	Plug, Male - 3 Position	
605A	4460226	3	Socket, Female	
606	See Note	1	Platform Overload Sensing PC Board to Load Cell Harness (Front Entry Platform Only) (Note: Not available for purchase)	
		Ref	Note: For Side Entry Platform Refer to JLG Supplement 3124287.	
606A	4460321	1	Plug, Male - 4 Position	
606A	4460226	3	Socket, Female	
606A	4460268	1	Socket, Female	
606B	4460428	1	Receptacle, Strain Relief (Not Shown for Clarity)	
607	1001149818	1	Strobe Light Harness (SN 0300169430 through 0300189901)	A
607A	4460320	1	Connector, Female - 2 Position	
607A	4460267	2	Pin, Male	
607B	4460897	1	Connector, Female - 2 Position	
607B	4460464	2	Pin, Male	
		Ref	TOOLS	
701	7002821	1	Crimper (For Wire to Pin/Socket Connections)	
702	7002823	1	Extractor (For Removal of Pin/Socket from Connectors)	
703	4460467	1	Extractor, Pin (Blue 16-18 Gauge) (For Removal of Pin/Socket from Connectors)	
703	4460510	1	Extractor, Pin (Yellow 12-14 Gauge) (For Removal of Pin/Socket from Connectors)	
704	7002828	1	Stripper, Wire	
705	2901443	1	Analyzer, Machine (Not Shown)	

SECTION 8 - DECALS

SECTION 8 - DECALS

FIGURE 8-1. DECAL INSTALLATION (Prior to SN 0300096809)



SECTION 8 - DECALS

FIGURE 8-1. DECAL INSTALLATION (Prior to SN 0300096809)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	COUNTRY SPEC DECAL INSTALLATIONS	
	0270273	Ref	Standard Decal Installations (E450A, M450A, E450AJ, M450AJ, E400A, E400Anarrow, M400A & M400Anarrow lift Decals)	3
	0270274	Ref	Standard Decal Installations (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow Lift Decals)	3
		Ref	Country Spec Decal Installations E450 & E400	
	0259534	Ref	Australian Spec	10
	0274989	Ref	CE Spec - Pictograms	2
	0259291	Ref	Dutch Spec	13
	0259289	Ref	French Spec	13
	0259292	Ref	German Spec	13
	0259290	Ref	Italian Spec	13
	0273196	Ref	Norwegian Spec	2
	0259293	Ref	Spanish Spec	13
	0259288	Ref	UK English Spec	15
		Ref	Country Spec Decal Installations (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	
	0259533	Ref	Australian Spec	11
	0259325	Ref	Dutch Spec	13
	0259323	Ref	French Spec	13
	0259326	Ref	German Spec	13
	0259324	Ref	Italian Spec	13
	0273197	Ref	Norwegian Spec	2
	0259327	Ref	Spanish Spec	13
	0259322	Ref	UK English Spec	15
1	1702860	AR	Decal - JLG Lift	
3		Ref	Decal - JLG Model Designation Options:	
3	1704787	2	Decal - JLG Model Designation E450A	
3	1704789	2	Decal - JLG Model Designation E450AJ	
3	1704788	2	Decal - JLG Model Designation M450A	
3	1704790	2	Decal - JLG Model Designation M450AJ	
3	1704958	2	Decal - JLG Model Designation E400A	
3	1704900	2	Decal - JLG Model Designation E400Anarrow	
3	1704959	2	Decal - JLG Model Designation M400A	
3	1704901	2	Decal - JLG Model Designation M400Anarrow	
3	1704791	2	Decal - JLG Model Designation E400AJP	
3	1704792	2	Decal - JLG Model Designation E400AJPnarrow	
3	1704793	2	Decal - JLG Model Designation M400AJP	
3	1704794	2	Decal - JLG Model Designation M400AJPnarrow	
4		Ref	Decal - Danger/Caution Options:	
4	1703807	1	Australian Spec	
4	1705822	1	CE Spec - Pictograms	
4	1703914	1	Dutch Spec	
4	1703918	1	French Spec	
4	1703800	1	German Spec	
4	1705255	1	Norwegian Spec	
4	1703916	1	Italian Spec	
4	1703920	1	Spanish Spec	
4	1703807	1	UK English Spec	
6	1700584	1	Decal - Patent	

SECTION 8 - DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
7	See Note	1	Nameplate - Serial Number (Note: Not available for purchase)	
8	3820001	AR	Rivet	
9		Ref	Decal - Hydraulic Oil Options:	
9	1701504	1	All Other Specs	
9	Not Required	0	CE Spec - Pictograms	
10	1701642	2	Decal - Arrow	
11		Ref	Decal - Caution/Danger Options:	
11	1703992	1	Australian Spec	
11	1705921	1	CE Spec - Pictograms	
11	1703913	1	Dutch Spec	
11	1703917	1	French Spec	
11	1703799	1	German Spec	
11	1703915	1	Italian Spec	
11	1705254	1	Norwegian Spec	
11	1703919	1	Spanish Spec	
11	1703806	1	UK English Spec	
13	1701644	2	Decal - Charger	
15		Ref	Decal - Footswitch Options:	
15	3252347	1	Australian Spec	
15	Not Required	0	CE Spec - Pictograms	
15	1703518	1	Dutch Spec	
15	1693292	1	French Spec	
15	1693294	1	German Spec	
15	1701600	1	Italian Spec	
15	1705275	1	Norwegian Spec	
15	1701791	1	Spanish Spec	
15	3252347	1	UK English Spec	
16	1704277	AR	Decal - Attach Lanyard	
19	0961127	1	Bushing, Snap	
20		Ref	Nameplate - 220V/50-60HZ Options:	
20	3252507	1	All Other Specs	
20	Not Required	0	CE Spec - Pictograms	
21	0100010	AR	Adhesive	
22	1701691	4	Decal - No Step	
23		Ref	Decal - Manual Descent Options:	
		Ref	Note: Refer to p/n stamped on hose side of valve.	
23	1704262	1	Decal - Manual Descent - 4641170 Valve	
23	1705085	1	Decal - Manual Descent - 4641195 Valve	
23	1001104864	1	Decal - Manual Descent - 1001097507 Valve	
25	1704254	1	Decal - Cable Routing	
27		Ref	Decal - Charger Options:	
27	1704446	1	Australian Spec	
27	1706378	1	CE Spec - Pictograms	
27	1704448	1	Dutch Spec	
27	1704450	1	French Spec	
27	1704447	1	German Spec	
27	1704449	1	Italian Spec	
27	1705261	1	Norwegian Spec	
27	1704451	1	Spanish Spec	
27	1704446	1	UK English Spec	
28	1704431	1	Decal - Battery Charger LED Indicator Only (SN 0300049542 through 0300096809)	

SECTION 8 - DECALS

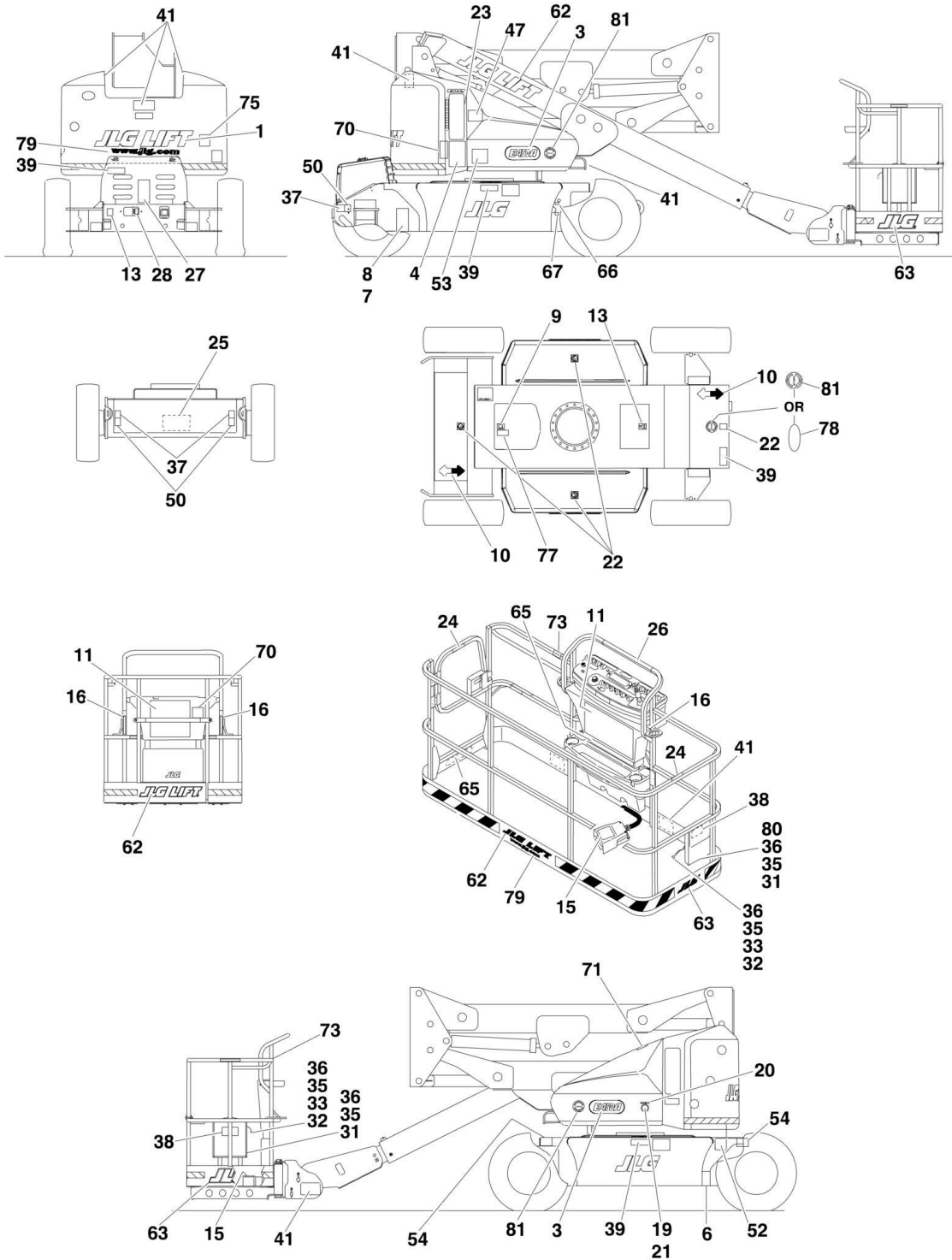
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
31	0860520	1	Box, Manual Storage	
32	1060279	1	Lanyard	
33	0641408	1	Bolt 1/4in-20NC x 1in	
35	4751400	6	Flatwasher 1/4in	
36	3311405	5	Locknut 1/4in-20NC	
37		Ref	Decal - Lift Options:	
37	1701500	4	All Other Specs	
37	1703811	4	CE Spec - Pictograms	
38	1701509	1	Decal - Manual	
39		Ref	Decal - Explosion Warning Options:	
39	1703813	2	Australian Spec	
39	Not Required	0	All Other Specs	
41	1701518	6	Decal - Crushing Hazard	
47		Ref	Decal Options:	
47	1702265	1	Australian Spec	
47	1705977	1	CE Spec - Pictograms	
47	1702268	1	Dutch Spec	
47	1702270	1	French Spec	
47	1702267	1	German Spec	
47	1702269	1	Italian Spec	
47	1705240	1	Norwegian Spec	
47	1702266	1	Spanish Spec	
47	1702265	1	UK English Spec	
50		Ref	Decal - Tie Down Options:	
50	1702300	4	All Other Specs	
50	1703814	4	CE Spec - Pictograms	
52	See Note	1	Decal - Bar Code (Note: Not available for purchase)	
54		Ref	Decal - Tire Load Options:	
54	1703488	4	Decal - Tire Load (E450A & M450A)	
54	1704445	4	Decal - Tire Load (E450AJ & M450AJ)	
54	1703247	4	Decal - Tire Load (E400A & M400A)	
54	1703488	4	Decal - Tire Load (E400Anarrow & M400Anarrow)	
54	1704727	4	Decal - Tire Load (E400AJP & M400AJP)	
54	1704752	4	Decal - Tire Load (E400AJPnarrow & M400AJPnarrow)	
62	1702774	Ref	Decal - JLG Lift	
62	1702774	2	Front Entry Platform	
62	1702774	3	Side Entry Platform	
63		Ref	Decal Options:	
63	1702773	2	JLG (with Front Entry Platform)	
63	1702773	1	JLG (with Side Entry Platform)	
63	1704200	2	Jib Plus (with Front Entry Platform)	
63	1704200	1	Jib Plus (with Side Entry Platform)	
65		Ref	Decal - 230kg/500lbs Maximum Capacity Options:	
65	1703996	1	Australian Spec (Prior to SN 0300068925)	
65	Not Required	0	Australian Spec (SN 0300068925 through 0300096809)	
65	Not Required	0	All Other Specs	
66	1701502	1	Decal - Hydraulic Oil Level High	
67	1701503	1	Decal - Hydraulic Oil Level Low	
70		Ref	Decal - Generator Danger Options (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow Only):	
70	1704286	AR	Australian Spec	
70	1704360	AR	Dutch Spec (Use p/n 1001093687)	

SECTION 8 - DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
70	1704358	AR	French Spec (Use p/n 1001093687)	
70	1704361	AR	German Spec (Use p/n 1001093687)	
70	1704359	AR	Italian Spec (Use p/n 1001093687)	
70	1705260	AR	Norwegian Spec (Use p/n 1001093687)	
70	1704362	AR	Spanish Spec (Use p/n 1001093687)	
70	1704286	AR	UK English Spec	
71	1701505	1	Decal - Fuel (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow Only)	
73	1702962	1	Decal - Fuel Warning (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow Only)	
75		Ref	Decal - CE Options:	
75		Ref	Decal - CE E450 & E400	
75	Not Required	0	Australian Specs	
75	1702298	1	All Other Specs (Use p/n 1705084) (Prior to SN 0300071112)	
75		Ref	Decal - CE M450 & M400	
75	Not Required	0	Australian Specs	
75	1702298	1	All Other Specs (Use p/n 1705084)	
70	1705260	AR	Norwegian Spec (Use p/n 1001093687)	
77	1704412	1	Decal - Oil Type	
78	1704830	1	Decal - Quikcharge Genset (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow Only)	
79	1704885	2	Decal - Website	
80	0641406	4	Bolt 1/4in-20NC x 3/4in	

SECTION 8 - DECALS

FIGURE 8-2. DECAL INSTALLATION



SECTION 8 - DECALS

FIGURE 8-2. DECAL INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	COUNTRY SPEC DECAL INSTALLATIONS	
	0270273	Ref	Country Spec Decal Installations (E450A, M450A, E450AJ, M450AJ, E400A, E400Anarrow, M400A & M400Anarrow Model Lift Decals)	3
	0270274	Ref	Country Spec Decal Installations (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow Model Lift Decals)	3
	0275070	Ref	Country Spec Decal Installations E450 & E400	7
	0275069	Ref	Country Spec Decal Installations (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow)	8
1	1702860	AR	Decal - JLG Lift	
3		Ref	Decal - JLG Model Designation Options:	
3	1704787	2	Decal - JLG Model Designation E450A	
3	1704789	2	Decal - JLG Model Designation E450AJ	
3	1704788	2	Decal - JLG Model Designation M450A	
3	1704790	2	Decal - JLG Model Designation M450AJ	
3	1704958	2	Decal - JLG Model Designation E400A	
3	1704900	2	Decal - JLG Model Designation E400Anarrow	
3	1704959	2	Decal - JLG Model Designation M400A	
3	1704901	2	Decal - JLG Model Designation M400Anarrow	
3	1704791	2	Decal - JLG Model Designation E400AJP	
3	1704792	2	Decal - JLG Model Designation E400AJPnarrow	
3	1704793	2	Decal - JLG Model Designation M400AJP	
3	1704794	2	Decal - JLG Model Designation M400AJPnarrow	
4	1705822	1	Decal - Danger/Caution	
6	1700584	1	Decal - Patent (SN 0300096809 through 0300161264)	
7	See Note	1	Nameplate - Serial Number (Note: Not available for purchase)	
8	3820001	AR	Rivet	
9	1701504	1	Decal - Hydraulic Oil	
10	1701642	2	Decal - Arrow	
11	1705921	1	Decal - Danger/Caution	
13	1701644	2	Decal - Charger	
15	1705828	1	Decal - Footswitch	
16	1704277	AR	Decal - Attach Lanyard	
19	0961127	1	Bushing, Snap	
21	0100010	AR	Adhesive	
22	1701691	4	Decal - No Step	
23		Ref	Decal - Manual Descent Options:	
23	1705085	1	Decal - Manual Descent (SN 0300096809 through 0300127572)	
23	1001104864	1	Decal - Manual Descent (E/M400) (SN 0300127572 through 0300189901)	
23	1001104864	1	Decal - Manual Descent (E/M450) (SN 0300127572 through 0300189898)	
23		Ref	Decal - Manual Descent Options:	
23		Ref	Note: Refer to p/n stamped on hose side of valve.	
23	1704262	1	Decal - Manual Descent - 4641170 Valve	
23	1705085	1	Decal - Manual Descent - 4641195 Valve	
23	1001104864	1	Decal - Manual Descent - 1001097507 Valve	
25	1704254	1	Decal - Cable Routing	
27	1706378	1	Decal - Charging Instructions	
28	1704431	1	Decal - Battery Charger LED Indicator	

SECTION 8 - DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
31	0860520	1	Box, Manual Storage	
32	1060279	1	Lanyard	
33	0641408	1	Bolt 1/4in-20NC x 1in	
35	4751400	6	Flatwasher 1/4in	
36	3311405	5	Locknut 1/4in-20NC	
37	1703811	4	Decal - Lift	
38	1701509	1	Decal - Manual	
39	1705670	2	Decal - Explosion Warning	
41	1701518	6	Decal - Crushing Hazard	
47	1705977	1	Decal - Upright Level Over-Ride	
50	1703814	4	Decal - Tie Down	
52	See Note	1	Decal - Bar Code (Note: Not available for purchase)	
53	1705978	1	Decal - Capacity (E/M400) (SN 0300102542 through 0300189901)	
53	1705978	1	Decal - Capacity (E/M450) (SN 0300102542 through 0300189898)	
54		Ref	Decal - Tire Load Options:	
54	1703488	4	Decal - Tire Load (E450A & M450A)	
54	1704445	4	Decal - Tire Load (E450AJ & M450AJ)	
54	1703247	4	Decal - Tire Load (E400A & M400A)	
54	1703488	4	Decal - Tire Load (E400Anarrow & M400Anarrow)	
54	1704727	4	Decal - Tire Load (E400AJP & M400AJP)	
54	1704752	4	Decal - Tire Load (E400AJPnarrow & M400AJPnarrow)	
62	1702774	Ref	Decal - JLG Lift	
62	1702774	2	Front Entry Platform	
62	1702774	3	Side Entry Platform	
63		Ref	Decal Options:	
63	1702773	2	JLG (with Front Entry Platform)	
63	1702773	1	JLG (with Side Entry Platform)	
63	1704200	2	Jib Plus (with Front Entry Platform)	
63	1704200	1	Jib Plus (with Side Entry Platform)	
65	1705978	1	Decal - 230kg/500lbs Maximum Capacity	
66	1701502	1	Decal - Hydraulic Oil Level High	
67	1701503	1	Decal - Hydraulic Oil Level Low	
70		Ref	Decal - Generator Danger Options (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow Only):	
70	1704286	AR	Decal - Generator Danger M450 & M400 - Australian Spec, (Use p/n 1001093687) (SN 0300096809 through 0300109260)	
70	1704360	AR	Decal - Generator Danger M450 & M400 - Dutch Spec, (Use p/n 1001093687) (SN 0300096809 through 0300109260)	
70	1706899	AR	Decal - Generator Danger M450 & M400 - Danish Spec	
70	1704358	AR	Decal - Generator Danger M450 & M400 - Australian Spec, (Use p/n 1001093687) (SN 0300096809 through 0300109260)	
70	1704361	AR	Decal - Generator Danger M450 & M400 - German Spec, (Use p/n 1001093687) (SN 0300096809 through 0300109260)	
70	1704359	AR	Decal - Generator Danger M450 & M400 - Italian Spec, (Use p/n 1001093687) (SN 0300096809 through 0300109260)	
70	1704286	AR	Decal - Generator Danger M450 & M400 - Norwegian Spec	
70	1704362	AR	Decal - Generator Danger M450 & M400 - Spanish Spec, (Use p/n 1001093687) (SN 0300096809 through 0300109260)	
70	1704286	AR	Decal - Generator Danger M450 & M400 - UK English Spec, (Use p/n 1001093687) (SN 0300096809 through 0300109260)	
77	1704412	1	Decal - Oil Type	

SECTION 8 - DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
78	1704830	1	Decal - QuikCharge GenSet (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow Only): (Prior to SN 0300143328)	
79	1704885	2	Decal - Website	
80	0641406	4	Bolt 1/4in-20NC x 3/4in	
81		Ref	Decal - Hybrid Options (M450A, M450AJ, M400A, M400Anarrow, M450AJP & M400AJPnarrow Only): (SN 0300143328 through 0300189901)	

SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

FIGURE 9-1. RECOMMENDED SERVICE PARTS STOCK (STANDARD PARTS)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	Note: The following list will service one machine (built to current production per date on the front cover) with emergency repair parts which can be installed in the field. Parts from the list should be replaced when inventory is depleted to keep service parts stock supplied. For further information, contact your JLG dealer or the JLG Industries Parts Department.	
		Ref	STANDARD PARTS	
	7021320	1	Cap, Breather	
	7021618	1	Coil	
	7021609	1	Coil	
	7021616	4	Filter Cartridge	
	7011593	2	Fuse, DC	
	7021610	1	Coil	
	4360328	1	Switch, Toggle	
	4360330	1	Switch, Toggle	
	4360475	1	Switch, Mushroom	
	4360476	1	Contact, Switch	
	4360469	1	Switch, Key (CE Spec)	
	4360470	1	Switch, Key (Australian Spec)	
	2860030	1	Key, Replacement	
	4360070	1	Breaker, Circuit	
	2940074	1	Latch	
	4360387	1	Switch, Push Button	
	4360448	1	Breaker, Circuit	
	100118419	1	Controller (Lift and Swing)	
	100118418	1	Controller (Drive and Steer)	
	3990001	2	Diode	

SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

FIGURE 9-2. RECOMMENDED SERVICE PARTS STOCK (VARIABLE PARTS)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	Note: The following list will service one machine (built to current production per date on the front cover) with emergency repair parts which can be installed in the field. Parts from the list should be replaced when inventory is depleted to keep service parts stock supplied. For further information, contact your JLG dealer or the JLG Industries Parts Department.	
		Ref	VARIABLE PARTS	
	7020653	1	Breaker, Circuit (CE Spec 110/220V-50Hz Charger)	
	7018525	1	Breaker, Circuit (Australian Spec 250V-50Hz Charger)	
	7018564	1	Relay (Black) (CE Spec)	
	7020654	1	Relay (Clear) (CE Spec)	
	7018563	1	Relay (Black) (Australian Spec)	
	1600293	1	Module (Posi-Trac)	
	1600292	1	Module (Frame Power)	
	70000318	4	Filter, Fuel (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	70000319	1 dz	Filter, Oil (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	70000323	1	Relay, Bosch (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	70000329	2	Fuse 15 Amp (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	70000330	2	Fuse 20 Amp (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	70000322	1	Relay, 12Votl 60Amp (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	70000313	4	Element, Air Cleaner (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	100116522	1	Switch, Limit	
	70000326	1	Module (Engine Control) (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	1001109497	1	Module (Ground Control)	
	4360274	1	Switch, Push Button (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	7019698	2	Power Track - 1 Link (E450A, M450A, E400A, M400A, E400Anarrow & M400Anarrow)	
	70001996	2	Power Track - 2ft Section (E450AJ, M450AJ, E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow)	
	4360548	1	Switch, Limit	
	1001109498	1	Module (Platform Control)	
	1600387	1	Module, Control (LSS System)	
	4360336	1	Switch, Toggle (M450A, M450AJ, M400A, M400Anarrow, M400AJP & M400AJPnarrow Only)	
	1001109475	1	Breaker, Circuit (AC to Platform Option)	
	1001109482	1	Breaker, Circuit (AC to Platform Option)	
	2900838	1	U.S. Standards Fastener (Hardware) Kit	
	7014676	1	U.S. Standards Tool Kit	

SECTION 10 - SPECIAL OPTIONS

SECTION 10 - SPECIAL OPTIONS

FIGURE 10-1. SPECIAL OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	Note: This list is to accommodate machines ordered with special equipment. Options may not be applicable to all models. For more specific parts information contact JLG Parts Department.	
		Ref	MISCELLANEOUS SPECIAL OPTIONS	
		Ref	Airline Installations - 1/2in	
	0259877	Ref	Airline Installations - 1/2in (E450A & M450A)	
	0271801	Ref	Airline Installations - 1/2in (E400A, M400A, E400Anarrow & M400Anarrow)	
	0275650	Ref	Airline Installations - 1/2in (E450AJ & M450AJ)	
	See Note	Ref	Airline Installations - 1/2in (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow) (Note: Not Available for Purchase)	
	0270723	Ref	Beacon Installation Mounted Under Platform	
	0256789	Ref	Camera Mounting Installation	
		Ref	ClearSky Telematics Add-on Kit Options:	
	1001234102	Ref	ClearSky Telematics Add-on Kit - 3 Wire	
	1001237110	Ref	ClearSky Telematics Add-on Kit - Canbus	
	0258703	Ref	Console Cover	
		Ref	Cylinder Bellows Installations	
	0259397	Ref	Cylinder Bellows Installations (E400A, M400A, E400Anarrow, M400Anarrow, E450A & M450A)	
	0271251	Ref	Cylinder Bellows Installations (E400AJP, M400AJP, E400AJPnarrow, M400AJPnarrow, E450AJ & M450AJ)	
		Ref	Bellows - Platform Level and Master Cylinders Options:	
	0460110	2	Bellows - Platform Level and Master Cylinders (E400A, M400A, E400Anarrow, M400Anarrow, E450A & M450A)	
	0460194	2	Bellows - Platform Level & Master Cylinders (E400AJP, M400AJP, E400AJPnarrow, M400AJPnarrow, E450AJ & M450AJ)	
	0460115	1	Bellows - Main Lift Cylinder	
	0460113	1	Bellows - Mid Lift Cylinder	
	0460114	1	Bellows - Tower Lift Cylinder	
	0460196	1	Bellows - Jib Cylinder (E400AJP, M400AJP, E400AJPnarrow, M400AJPnarrow, E450AJ & M450AJ)	
	1320037	6	Clamp	
	1001151286	1	Cylinder Service Kit (Add Manual Descent to Jib Lift Cylinder) (E400AJP, M400AJP, E400AJPnarrow, M400AJPnarrow, E450AJ & M450AJ)	
	1001237443	Ref	Cylinder Service Kit (Mid Lift) (E400A, M400A, E400Anarrow, M400Anarrow, E450A & M450A)	
		Ref	Decal Installations Options:	
	1702788	1	Decal - Biodegradable Hydraulic Fluid (All except German Spec)	
	1703479	1	Decal - Biodegradable Hydraulic Fluid (German Spec Only)	
	0259550	Ref	Decal - Warning Stripes Installation	
	1283014	Ref	Decal - Warning Stripes Installation	
	1001108727	Ref	Decal Kit - Platform	
	1001119566	Ref	Decal Kit - Platform Console	
	1001198647	Ref	Decal Kit - Standard Machine (E/M400 / E/M450)	
		Ref	Decal Kit Options	
	2910866	1	Decal Kit - Platform Box (Prior to SN 0300139889)	

SECTION 10 - SPECIAL OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1001119566	1	Decal Kit - Platform Box (SN 0300139889 through 0300189901)	
	1001091932	Ref	Drive Cutout at Tilt 3	
		Ref	Electrical Connector Kits	
	1001148902	Ref	Amp Connector Kit	
	1001148903	Ref	Deutsch DT Connector Kit	
	1001148904	Ref	Deutsch HD Connector Kit	
	1001148905	Ref	Packard Connector Kit	
	1001148906	Ref	Various Connector Kit	
		Ref	Filter Kits: (M400 & M450 Only)	
		Ref	Kubota Engines	
	1001111013	1	Combined Filter Kit (SN 0300088539 to Present)	
	1001110140	1	Engine Oil and Fuel Filter Kit (SN 0300088539 through 0300189901)	
	1001109716	1	Hydraulic and Air Filter Kit (SN 0300088539 through 0300189901)	
		Ref	Yanmar Engines	
	1001111012	1	Combined Filter Kit (Use p/n 100111011) (Prior to SN 0300088539)	
	1001110142	1	Engine Oil and Fuel Filter Kit (Prior to SN 0300088539)	
	1001109715	1	Hydraulic and Air Filter Kit (Prior to SN 0300088539)	
	4060959	Ref	Footswitch Shield (Note: Move Decal to Shield)	
	0259398	Ref	Headlight and Taillights Installation	
	2920150	2	Headlight	
	7016356	2	Lamp, Seal Beam (1 Per Headlight)	
	2920118	2	Taillight	
	7016623	2	Bulb - Brake (1 Per Taillight)	
	7016624	1	Bulb - Tail (1 Per Taillight)	
		Ref	Hose Kit Options:	
	1001239570	Ref	Hose Kit - Platform Valve	
	1001198659	Ref	Hose Kit - Power Track (Upper) (E400A, M400A, E400Anarrow & M400Anarrow)	
	1001198657	Ref	Hose Kit - Power Track (Upper) (E400AJP & M400AJP)	
	1001198658	Ref	Hose Kit - Power Track (Upper) (E400AJPnarrow & M400AJPnarrow)	
		Ref	Hose Kit - Power Track (E450A, M450A, E450AJ & M450AJ)	
	1001198660	Ref	Hose Kit - Power Track (Upper) (E/M450AJ)	
		Ref	Inverter Installation (E450A, E450AJ, E400A, E400AJP, E400Anarrow, & E400AJPnarrow)	
	0272034	Ref	CE Spec	
	0271687	Ref	Australian Spec	
	1001148971	Ref	Lanyard Kit (Platform Bolt-on)	
	1001222307	Ref	LSS Override Kit	
	1001151286	Ref	Manual Descent Add-on Kit (Italy Specs)	
	2902423	Ref	Mechron Service Kit (For the addition of separate fuse for engine generator controller)	
	2915225	Ref	Platform Conversion Kit (Converts Front to Side Entry) (E450A & M450A)	
		Ref	Platform Entry Kits	
	1001142504	Ref	Drop Bar (Replacing Swing Gate with Drop Bar)	
	1001142505	Ref	Swing Gate (Replacing Drop Bar with Swing Gate)	
		Ref	Platform Mesh Installations (Side Entry Platforms)	
	0273146	Ref	30in X 5ft (76cm x 1.52m)	

SECTION 10 - SPECIAL OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0273147	Ref	30in X 4ft (76cm x 1.22m)	
	1001212202	Ref	Rotary Actuator Protection Add-on Kit	
	1001149561	Ref	SkyGuard Installation Kit (Factory Installed)	
	1001149563	Ref	Platform Sensor Kit	
	1001149564	Ref	Optional (Blue) Beacon Light Kit	
		Ref	SkyGuard Kits (Dealer Add-on Kit):	
	1001206996	Ref	SkyGuard Kit (Dealer Add-on Kit) (Blue Beacon Light)	
	1001210033	Ref	SkyGuard Kit (Dealer Add-on Kit) (Red Beacon Light)	
	1001205501	Ref	Blue Light Kit (Dealer Add-on Kit)	
	1001210032	Ref	Red Light Kit (Dealer Add-on Kit)	
	1001149563	Ref	Platform Sensor Kit	
		Ref	Tools for Service	
	7002828	1	Wire Stripper	
	7002821	1	Wire Crimper (To install wire ends to wires)	
	7002823	1	Pin/Socket Extractor - Universal (To Remove Pins/Sockets from Connectors)	
	4460467	1	Extractor - 16-18 Gauge (For Removal of Pins/Sockets for Deutsch Connectors)	
	4460510	1	Extractor - 12-14 Gauge (For Removal of Pins/Sockets for Deutsch Connectors)	
	7002822	1	Screwdriver, Potentiometer (To Adjust Drive Controllers)	
	7016654	1	Screwdriver, Magnetic	
	7004275	1	Seal Installation Tool - 1in	
	7004276	1	Seal Installation Tool - 1 1/2in	
	7002826	1	Seal Installation Tool - 2in	
	2901443	1	Analyzer, Machine	
	2915230	1	Battery Charger Reprogram Controller Kit	
	1001137005	1	USB to RS232 Drive Installation (Service Kit)	
	1001160527	Ref	Turntable Bearing Kit	
	1001241269	Ref	Wear Pad Kit (E400AJP, M400AJP, E400AJPnarrow & M400AJPnarrow Only)	

PART NUMBER INDEX

SECTION 10 - SPECIAL OPTIONS

0060044.....105, 113, 117	0259291.....279	0271801.....294	0561386.....126
0060046.....113, 117	0259292.....279	0271937.....139	0561424.....126
0060052.....98, 117	0259293.....279	0272034.....295	0610128.....145
0060065.....113, 117	0259302.....19	0272082.....131, 136	0610129.....81
0100009.....98, 145	0259305.....86, 248	0272106.....131, 136	0610131.....34, 257, 270
0100010.....280, 285	0259322.....279	0272529.....86	0610139.....81
0100011.....13, 17, 19, 46, 49, 53, 58, 65, 78, 85, 86, 95, 97, 98, 99, 101, 106, 109, 114, 121, 125, 132, 135, 136, 161, 165, 171, 176, 183, 186, 189, 191, 196, 199, 201, 203, 207, 213, 217, 221, 227	0259323.....279	0272704.....121	0610166.....81
0100019...17, 41, 65, 126	0259324.....279	0272971...136, 253, 267	0630399.....98
0100020.....77, 165, 236, 240, 244	0259325.....279	0272976.....99, 106, 114	0630401.....102, 110
0100035...54, 86, 87, 145, 161, 165, 176, 186, 196, 203, 227	0259326.....279	0273089.....145	0630407.....121
0100038...161, 165, 171, 176, 183, 186, 189, 191, 196, 199, 201, 203, 207, 213, 217, 221, 227	0259327.....279	0273104.....83, 122	0630440.....53
0100040.....135	0259338...132, 137, 147	0273146.....295	0630464.....145
0100048.....34, 121	0259358.....132, 147	0273147.....295	0630467.....126
0100051.....34	0259366.....91, 105	0273196.....279	0630468.....85
0100063.....161	0259367...125, 253, 267	0273197.....279	0630487.....97
0100081.....102, 110	0259397.....294	0273381.....141	0630491.....86
0140011.....145	0259398.....295	0273382.....141	0630518.....81
0140028.....57	0259399.....29, 57	0273468.....18	0630534.....161
0140031.....58	0259439.....98, 106, 114	0273573..45, 77, 82, 147	0630568.....145
0182010.....33	0259440.....105, 106	0273683.....17	0641404.....34, 97, 132
0253687.....85	0259441.....113, 114	0273684.....18	064140534, 97, 121, 261, 274
0253704.....127	0259481.....46, 49	0274617..49, 77, 82, 147	0641406...34, 41, 46, 49, 54, 77, 121, 131, 136, 282, 287
0253709.....85	0259533.....279	0274989.....279	0641407.....98, 106, 114, 121, 261, 274
0253717.....258	0259534.....279	0275069.....285	0641408...34, 35, 57, 58, 77, 131, 136, 281, 286
0254875.....126, 127	0259550.....294	0275070.....285	0641410.....126
0256789.....294	0259679.....18	0275216.....262, 275	0641413.....58, 77
0257728.....157	0259693.....34	0275217.....262, 275	0641414.....132, 137
0257735...125, 253, 267	0259754.....98, 106	0275218.....262, 275	0641416...121, 143, 261, 274
0257816.....29	0259763.....33	0275219.....262, 275	0641418.....131, 136
0257817.....13	0259826.....34	0275452.....262, 275	0641424.....227, 229
0257824...45, 77, 82, 147	0259877.....294	0275453.....262, 275	0641426.....58
0257858.....45, 46	0259939.....91, 113	0275454.....262, 275	0641504.....33
0258034.....29, 57	0259951.....29, 57	0275650.....294	0641505.....45, 49
0258035.....53	0259970...125, 253, 267	0275663.....258, 271	0641506.33, 94, 139, 141
0258037.....18	0270010.....13	0275664.....258, 271	0641507.....46, 49
0258653.....65	0270028.....18	0275665.....258, 271	0641508.....41, 57, 139
0258688.....18	0270037.....18	0275666.....258, 271	0641510.....73, 85
0258689.....33	0270100.....53	0275667.....258, 271	064151245, 49, 213, 217, 221, 223, 225, 227, 229
0258691.....91	0270101.....53	0275892.....258, 272	0641514.....33, 125, 157
0258703.....294	0270103.....17, 41	0275893.....259, 272	0641516...105, 113, 121, 126, 139, 141
0258953.....85	0270273.....279, 285	0275894.....259, 272	0641518.....45
0258974.....53	0270274.....279, 285	0275895.....259, 272	0641524.....42
0258995.....17	0270338.....139	0275896.....259, 272	0641542.....19
0258996.....17	0270344...45, 77, 82, 147	0275897.....259, 272	0641560.....126
0258997.....18	0270400.....105, 106	0275898.....259, 272	0641604.....213, 217
0259064.....58, 248	0270402.....113, 114	0362966.....45, 49	0641605.....81, 101, 109
0259069.....17, 41	0270408.....131	0400055.....33	0641606.13, 97, 101, 109
0259102.....146	0270415.....18	0400195.....34, 37	0641607.....98, 101, 106, 114
0259127.....258, 272	0270416.....17	0400197.....34, 37	0641608...29, 57, 65, 94, 98, 101, 109
0259288.....279	0270417.....18	0400201.....45, 49	0641609.....17, 131
0259289.....279	0270418.....17	0440162.....13	064161094, 99, 105, 106, 114, 131, 135, 136
0259290.....279	0270418.....17	0440203.....65, 73	0641616.....77, 105, 113
	0270509.....53	0440339.....65, 73	0641618.45, 49, 105, 113
	0270702.....98, 106, 114	0460110.....294	0641806.....94
	0270723.....294	0460113.....294	0641808.....34
	0270724.....91	0460114.....294	0641809.....106, 114
	0270725.....91, 97	0460115.....294	
	0270817...125, 253, 267	0460194.....294	
	0271251.....294	0460196.....294	
	0271464.....258, 272	0480100.....157	
	0271489.....132, 147	0561076.....94	
	0271493.....126	0561317.....125	
	0271494.....127	0561359.....126	
	0271641.....45, 46	0561360.....126	
	0271647.....91, 114	0561361.....126	
	0271649.....113, 114	0561384.....126	
	0271687.....295	0561385.....126	

SECTION 10 - SPECIAL OPTIONS

0641810 95, 105, 113, 114	0902543 54	1001104626 73	1001142505 295
0641812 73, 94	0902575 145	1001104850 65, 71	1001144018 136
0641813 34	0902588 145	1001104864 280, 285	1001144019 136
0641818 97, 101, 109	0902681 54	1001106757 102, 109	1001144026 135
0641822 121	0902894 121	1001107779 35	1001144027 135
0641826 17	0902919 121	1001107780 34, 270	1001144629 135
0642024 121	0902920 121	1001108604 121	1001148902 295
068160898, 99, 106, 114, 121	0903099 46	1001108727 294	1001148903 295
0681810 13	0903484 261, 274	1001109475 262, 275, 292	1001148904 295
0681814 65	0903612 262, 275	1001109482 262, 275, 292	1001148905 295
0681816 65	0920113 17	1001109497 292	1001148906 295
0682010 17	0940036 53	1001109498 145, 292	1001148971 295
0682012 17	0940048 94	1001109498 145, 292	1001149561 296
0682026 65	0940091 139, 141	1001109715 295	1001149563 296
0682028 65	0940092 139, 141	1001109716 295	1001149564 296
0700408 261, 274	0940093 139, 141	1001109860 252, 266	1001149818 86, 276
0701010 132	0940094 139, 141	1001109860 252, 266	1001149955 86, 248
0720804 145	0961127 280, 285	1001110140 295	1001149994 86
0721004 54	0961608 165, 203	1001110142 295	1001150161 33
0721005 82	0961726 95, 102, 176, 186, 196	1001110226 146	1001150181 33
0721006 53	0961749 85	1001110435 146	1001150406 86
0721008 86	0961845 131, 136	1001110772 18	1001150513 33
0741408 65	0961893 161	1001110774 18	1001150514 33
0741506 29	0961900 171	1001110775 18	1001151286 294, 295
0741606 86, 110	0961947 ... 105, 113, 117, 161, 163	1001111012 295	1001151368 101, 217
0741608 110	0961948 101, 109	1001111013 295	1001151386 217
0750808 81	096195095, 98, 102, 109, 176, 179, 181, 183,	1001113045 270	1001151393 82
0800584 97	186, 189, 191, 193, 196, 199, 201	1001113483 121	1001151395 14
0800852 91	0961951 14, 98, 105, 113, 161, 163, 171, 173, 207, 209	1001114782 33	1001151413 217
0801154 97	0962140 14	1001116130 65	1001151414 97, 217
0801169 91, 97	0962185 171, 207	1001116193 65	1001151428 14
0801192 101	0962257 117	1001116195 66	1001151496 217
0801197 91, 101	0962292 105, 113	1001116232 66	1001151497 97, 217
0801198 101	0962356 ... 165, 169, 203, 205	1001116368 253, 266	1001152230 217, 221, 223, 225
0801224 109	0962450 121	100111652266, 258, 271, 292	1001152479 275
0801225 91, 109	1001091435 258, 272	1001116811 270	1001152482 275
0801226 109	1001091436 259, 272	1001117172 137	1001152483 275
0801227 91	1001091437 259, 272	1001117320 137	1001152485 275
0801260 101	1001091438 259, 272	1001118418 145, 153, 290	1001153017 65, 73
0801261 97	1001091439 259, 272	1001118419 145, 149, 290	1001153021 13
0801262 91	1001091440 259, 272	1001119228 102, 110	1001153023 13
0801263 97	1001091441 259, 272	1001119566 294	1001153366 65
0801264 91	1001091932 295	1001123052 34, 270	1001153727 272
0801267 97	1001096188 270	1001125248 49	1001153728 272
0840031 34	1001097150 262, 275	1001132175 146	1001153729 272
0840032 34	1001097505 58	1001136889 136	1001153730 273
0840055 122	1001097506 29, 31	1001137005 296	1001153899 275
0860520 281, 286	1001097507 57, 61	1001138431 136	1001158612 86, 248
0861152 81	1001097775 58	1001138432 136	1001159361 49, 50
0861176 131, 145	1001097777 57, 58	1001138494 136	1001159362 ... 49, 77, 82, 147
0861215 145	1001099833 101	1001138514 136	1001160527 296
0861263 81	1001099834 109	1001140278 ... 93, 94, 209	1001198647 294
0861314 131, 145	1001103105 35	1001140279 105, 114, 173	1001198657 295
0861352 81	1001103558 143	1001140280 105, 113, 163	1001198658 295
0861401 81	1001103559 143	1001140429 136	1001198659 295
0861529 ... 131, 136, 145	1001103560 143	1001140597 93, 205	1001198660 295
0861532 ... 131, 136, 145	1001103614 143	1001140598 98, 169	1001205501 296
0861537 145	1001103616 143	1001141760 213	1001206996 296
0861263 81	1001103617 143	1001141967 259, 273	1001210032 296
0861314 131, 145	1001103732 65	1001141968 260, 273	1001210033 296
0861352 81		1001141969 260, 273	1001212202 296
0861401 81		1001142504 295	1001222307 295
0861529 ... 131, 136, 145			1001228015 109, 229
0861532 ... 131, 136, 145			1001228016 93, 201
0861537 145			1001228018 93, 199
0861731 259, 273			
0861781 259, 273			
0861880 262, 275			
0901921 85			
0901923 85			
0902406 81			
0902520 65			

SECTION 10 - SPECIAL OPTIONS

1001228035.....	92, 183	1283055.....	248	1683706.....	213, 217	1684452.....	92, 93, 185
1001228036..	92, 93, 189, 191	1320012.....	46, 49	1683708.....	93, 195	1684453.....	92, 175
1001228037.....	92, 179	1320017.....	239	1683709.....	195	1684454.....	92, 185
1001228038.....	92, 193	1320022.....	46, 49, 77	1683710.....	175	1684492.....	92, 175
1001228039.....	92, 181	1320033.....	46, 235, 243	1683711.....	91, 175	1684493.....	92, 185
1001228061.....	101, 225	1320037.....	294	1683712.....	175, 185	1693292.....	280
1001228062.....	97, 223	1320040.....	126	1683713.....	92, 185	1693294.....	280
1001228063.....	97, 221	1320041.....	77, 85	1683756.....	207	1700584.....	279, 285
1001234102.....	294	1320043.....	85, 126	1683759.....	171	1701500.....	281
1001237110.....	294	1320095.....	126	1683760.....	105, 171	1701502.....	281, 286
1001237443..	92, 189, 294	1320135.....	46, 49	1683761.....	171	1701503.....	281, 286
1001239570.....	295	1320136.....	34, 35, 121	1683772.....	207	1701504.....	280, 285
1001241269.....	296	1320172.....	34, 42	1683779....	105, 113, 161	1701505.....	282
1060092.....	34	1320195.....	125	1683780.....	161	1701509.....	281, 286
1060279.....	281, 286	1320199.....	126	1683783.....	161	1701518.....	281, 286
1060330.....	137, 253, 267	1320224.....	121	1683798.....	101, 213	1701600.....	280
1060341.....	127, 256	1320259.....	105, 113	1683800.....	213	1701642.....	280, 285
1060379.....	157	1320260.....	125	1683802.....	213, 217	1701644.....	280, 285
1060461.....	261, 274	1380136.....	57	1683813.....	93, 195	1701691.....	280, 285
1060584.....	82	1380138.....	53	1683815.....	195	1701791.....	280
1060677.....	253, 254, 267	1380164.....	49	1683817.....	195	1702124....	236, 240, 244
1060689.....	270	1580012.....	132, 137	1683825.....	92, 185	1702265.....	281
1060717.....	41	1580013.....	132, 137	1683826.....	92, 175	1702266.....	281
1060718.....	41	1600273.....	145, 153	1683827.....	175	1702267.....	281
1060719.....	41	1600274.....	145, 149	1683829.....	185	1702268.....	281
1060720.....	41	1600292.....	41, 292	1683863.....	227	1702269.....	281
1060721.....	41	1600293.....	41, 292	1683911.....	109, 227	1702270.....	281
1060722.....	41	1600294..	41, 42, 257, 270	1683912.....	227	1702298.....	282
1060723.....	41	1600310.....	147	1683923.....	93, 94, 207	1702300.....	281
1060724.....	41	1600350.....	121	1683924....	105, 114, 171	1702565.....	146
1060725.....	41	1600387.....	121, 292	1683925.....	171, 207	1702566.....	146
1060726.....	41	1600466.....	35	1683932.....	93, 203	1702567.....	146
1060727.....	41	1670678.....	98, 101	1683933.....	98, 165	1702701.....	19
1060728.....	41	1670697.....	126	1683934.....	165, 203	1702740.....	19
1060730.....	46, 49	1670698.....	98	1683939.....	92, 175	1702773.....	281, 286
1060731.....	46, 49	1670829.....	145	1683940.....	175	1702774.....	281, 286
1060754.....	45, 49	1670832.....	127	1683941.....	175	1702788.....	294
1060755.....	45, 49	1670833.....	127	1683942.....	92, 93, 185	1702860.....	279, 285
1060759.....	257	1670879.....	54	1683943.....	185	1702962.....	282
1060760.....	33	1670880.....	53	1683944.....	185	1703247.....	281, 286
1060761.....	34	1670887.....	19	1683945.....	93, 195	1703479.....	294
1060777.....	257	1670905.....	132	1683946.....	195	1703488.....	281, 286
1060778.....	257, 270	1670951.....	54	1683947.....	195	1703518.....	280
1060780.....	253	1670959.....	109	1683980.....	227	1703683.....	157
1060781.....	253	1671037.....	146	1683995.....	165	1703799.....	280
1060809.....	34	1681344.....	185	1684002.....	203	1703800.....	279
1060810.....	41	1682154.....	165, 203	1684007.....	165, 203	1703806.....	280
1060811.....	34	1682878.....	165	1684022.....	175	1703807.....	279
1060908.....	262, 275	1682879.....	203	1684023.....	175	1703811.....	281, 286
10837580.....	62	1682886.....	203	1684024.....	92, 175	1703813.....	281
1120094.....	175	1682888.....	213	1684025.....	185	1703814.....	281, 286
1120108.....	185, 195	1682948.....	213	1684026.....	185	1703913.....	280
1120110....	165, 203, 217, 227	1683016.....	175	1684027.....	92, 185	1703914.....	279
1120305.....	175, 185	1683021.....	185	1684029.....	213, 217	1703915.....	280
1120375.....	185	1683051.....	161	1684030.....	97, 213	1703916.....	279
1120407.....	175	1683052.....	171	1684031.....	195	1703917.....	280
1120487.....	77	1683285.....	98, 165	1684032.....	195	1703918.....	279
1180302.....	97	1683286.....	165	1684033.....	93, 195	1703919.....	280
1180352.....	101	1683325.....	93, 203	1684055.....	175	1703920.....	279
1180353.....	109	1683505.....	195	1684056.....	185	1703992.....	280
1220038.....	98	1683514.....	195	1684057.....	92, 185	1703996.....	281
1220039.....	98	1683515.....	175	1684058.....	92, 175	1704192.....	146
1220040.....	98	1683516.....	185	1684059.....	195	1704200.....	281, 286
1271538.....	121	1683584.....	217, 227	1684060.....	195	1704239.....	146
1283014.....	294	1683591.....	13, 211	1684061.....	93, 195	1704240.....	146
		1683704.....	97, 213	1684447.....	92, 185	1704254.....	280, 285
		1683705.....	213	1684451.....	92, 175	1704260.....	146

SECTION 10 - SPECIAL OPTIONS

1704262	280, 285	2180344	65	2221147	236	2753336	244
1704277	280, 285	2180536	77	2400093	262	2753337	235, 243
1704286	281, 282, 286	2200222	165	2420106	82	2753474	236, 243
1704358	282, 286	2220001	65	2420202	121	2753475	236, 243
1704359	282, 286	2220124	65	2540019	41	2753519	235
1704360	281, 286	2220237	236, 240, 244	2540020	42	2753520	236
1704361	282, 286	2220239	236	2540021	41	2753535	236
1704362	282, 286	2220315	77	2560122	57	2760105	146
1704412	282, 286	2220371	235, 239, 243	2560123	57	2780236	17, 21
1704422	146	2220374	240, 244	2560136	146	2780241	13, 14
1704431	280, 285	2220386	236, 239, 243	2600281	135	2780242	13, 14
1704445	281, 286	2220414	236, 240, 244	2700093	54	2780250	13, 14
1704446	280	2220415	235, 239, 243	2720058	46, 49, 77	2780251	13, 14
1704447	280	2220428	235, 239, 243	2720271	77	2780282	17, 25
1704448	280	2220429	235, 239, 243	2720455	46	2790900	236
1704449	280	2220446	189	2720559	49	2792334	246
1704450	280	2220459	77	2750900	240, 244	2792337	246
1704451	280	2220466	235, 237, 239, 243	2750910	235, 239, 243	2792395	246
1704727	281, 286	2220472	235, 239, 243	2750996	236, 239	2792413	246
1704752	281, 286	2220473	189, 235, 239, 243	2751009	189, 239	2792458	246
1704787	279, 285	2220501	236, 239, 243	2751095	65	2792505	246
1704788	279, 285	2220502	235, 236, 237, 239, 243	2751126	236	2792506	235, 246
1704789	279, 285	2220504	236, 239, 243	2751127	235	2792507	239, 246
1704790	279, 285	2220507	235, 239, 243	2751414	240	2792509	243, 246
1704791	279, 285	2220516	213, 217, 221, 223, 225, 227, 229	2751498	235, 239, 243	2792510	235, 246
1704792	279, 285	2220517	213, 217, 221, 223, 225, 227, 229	2751508	236, 239	2820035	86, 132, 137
1704793	279, 285	2220582	239, 243	2751508	236, 239	2820036	86
1704794	279, 285	2220593	235, 239, 243	2751890	244	2820105	54
1704830	282, 286	2220596	213, 217, 221, 223, 225, 227, 229	2752430	239, 243	2820106	54
1704885	282, 287	2220600	236, 240, 244	2752435	236	2820107	46
1704900	279, 285	2220605	236, 239, 243	2752437	235, 239, 243	2820110	54
1704901	279, 285	2220609	236, 240, 244	2752440	236	2820111	46, 49
1704958	279, 285	2220628	213, 217, 221, 223, 225, 227, 229	2752446	235, 239, 243	2820112	46, 49
1704959	279, 285	2220654	240	2752459	235, 239, 243	2820116	46, 49
1705085	280, 285	2220677	236, 240, 244	2752466	239, 243	2820117	45, 49
1705170	147	2220684	236	2752475	236	2820165	46
1705240	281	2220711	236, 239, 243	2752476	235, 239, 243	2820218	49
1705254	280	2220727	236	2752487	235, 239, 243	2860030	82, 290
1705255	279	2220805	50	2752488	235, 239, 243	2900371	186
1705260	282	2220819	236	2752571	243	2900708	58
1705261	280	2220873	235, 239, 243	2752572	236	2900768	17
1705275	280	2220873	235, 239, 243	2752573	236	2900770	118, 176, 179, 181, 183, 186, 189, 191, 193, 195, 199, 201, 214, 218, 227, 231
1705325	262, 275	2220883	166, 179, 183, 189, 191, 213, 217, 221, 223, 225, 227, 229	2752580	235	2900792	161, 163, 165, 169, 171, 173
1705670	286	2220885	161, 176, 181, 183, 186, 191, 193, 195, 199, 201, 235, 239, 243	2752581	236	2900838	292
1705822	279, 285	2220886	29	2752585	236, 239	2901147	166, 203
1705828	285	2220899	235, 239, 243	2752595	235, 239, 243	2901443	263, 276, 296
1705921	280, 285	2220909	236, 240, 244	2752600	235, 239, 243	2901482	85
1705977	281, 286	2220923	236, 240, 244	2752611	236, 239, 240, 243, 244	2901486	85
1705978	286	2220934	236, 240, 244	2752619	243	2901776	171
1706378	280, 285	2220998	235, 239, 243	2752620	235	2901777	86
1706899	286	2220999	235, 239, 243	2752675	235, 239, 243	2901778	85
1706938	81	2221033	235, 239, 243	2752795	235, 239	2901804	196, 199, 201
1760160	97	2221039	244	2752983	236	2901805	176, 186, 191
1810134	81	2221046	77	2753050	235, 239	2901806	176, 183, 189
1810135	81	2221047	77	2753301	189, 239	2901807	213
1810137	81	2221054	236, 239, 243	2753302	239	2901810	161
1810138	81			2753303	240	2901898	171, 207
1810139	81			2753304	239	2901902	166, 203
1870072	248			2753305	240	2901903	227, 229
1870126	249			2753326	235	2902046	42
1870227	248, 249			2753329	244	2902209	161
2000320	49, 50			2753330	244	2902419	186
2080040	135			2753331	244	2902423	295
2120042	45, 49			2753332	235, 244		
2160001	73			2753333	243		
2160002	65			2753334	235, 243		
2160003	73, 74			2753335	235, 243		

SECTION 10 - SPECIAL OPTIONS

2902549.....262, 275	3311601 85, 145	3480242 175, 185	3900174.....53
2910866.....294	3311602 97	3480247 171	3900246.....127
2915104.....73	3311605 ... 29, 45, 49, 94,	3480249 161	3900283.....121
2915225.....295	98, 99, 101, 105, 106,	3480259 171, 207	3910614.....147
2915230.....296	109, 113, 114, 131,	3480261 165, 203	3910636.....41
2920095... 132, 137, 263,	135, 137	3510695 131	3910804.....82
275	3311805 94, 106, 114,	3510696 131	3911008.....135
2920118.....295	121	3510830 135	3911014.....86
2920129... 252, 263, 266,	3312005 121	3510831 135	3930824.....65
276	3312008 13	3510844 135	3931016..... 171, 207
2920146.....86	3312602 86	3520026 53, 82	3931028.....127
2920150.....295	3322202 13	3520028 82, 146	3931430..... 34, 41
2920151 83, 122	3322205 ... 213, 217, 227	3520030 146	3931516.... 161, 171, 207
2920161.....86	3323003 13	3520034 98	3931816.....113
2940071.....85	3340663 97	3520054 82, 146	3931832.....65
2940074..... 135, 290	3340679 ... 213, 217, 221,	3520072 135, 136	3951402.... 186, 195, 213,
2940095.....54	223	3520082 54, 109	217, 227
2940115.....53	3340682 97	3520182 143	3960389..... 46, 49, 54
3000003.....33	3340756 101	3520198 135, 136	3960417..... 46, 49, 54
3010119.....13	3340820 97	3536089 132, 137	3960418..... 46, 49
3010121 13	3340837 101	3536491 91	3960433.....53
3020008.....17	3340859 102, 110	3536999 125	3960438.....81
3020022.... 94, 105, 114	3340860 105, 113	3537045 91	3960447.....53
3020029.....65	3340878 109	3537903 86	3960453.....85
3020036.....65	3340882 227, 229	3570572 53	3980035..... 45, 49
3020037.....17	3340884 109	3570573 53	3990001.... 255, 268, 290
3160233..... 65, 69	3340886 109	3570581 47	3990105.... 17, 257, 271
3160239.....17	3340939 102, 110	3570958 101, 109	3990106..... 256, 269
3200404..... 45, 49	3340940 102, 110	3571094 53	3990108..... 132
3252347 132, 280	3380434 131, 137	3571157 77	4010618.....136
3252507.... 262, 275, 280	3380510 46	3571160 29	4060802.....82
3252632.....81	3380511 46	3571222 146	4060803..... 46, 85
3252669.....81	3380602 49	3571401 46	4060804.... 54, 102, 110
3252812.....81	3420156 85, 145	3571406 105, 113	4060805..... 85, 125
3290405..... 261, 274	3422175 94	3571412 47	4060808..... 125
3290606..... 136	3422176 94	3571462 125	4060865..... 86, 87
3300151 126, 131, 136	3422177 94	3571834 34, 35	4060906.....82
3300188.....82	3422178 94	3572413 131, 135	4060959..... 295
3300279..... 186, 195	3422179 94	3572551 105, 113	4061054..... 121
3300281 ... 175, 183, 186,	3422180 94, 98	3575952 50	4070863..... 109
189, 191	3422181 98	3575961 49	4070864..... 109
3300308..... 165, 203	3422185 97	3600289 29	4070897..... 101
3300315..... 195	3422480 94	3740063 248	4070898..... 101
3300365.....81	3422481 94	3740087 248	4070982..... 101
3300371.....53	3422582 94	3760115 97, 101, 109	4070987.....82
3300396.....82	3422661 157	3760308 53, 145	4070997..... 109
3300426..... 13, 14, 17	3422669 105, 114	3760318 213, 227	4070998..... 109
3310601 41, 146, 147	3422692 13	3760367 161	4100025..... 46, 49
3310805.....65	3422709 98	3760368 171, 207	4100026.... 77, 236, 240,
3311001 86, 135	3422791 105, 113	3780181 94, 98	244
3311005... 53, 82, 86, 127,	3422792 106, 114	3780184 94	4100065..... 126
146	3422793 105	3790012 146, 147	4100067..... 126
3311011 82	3422794 105, 113	3790113 ... 214, 218, 227,	4120027..... 248
3311401 ... 53, 54, 85, 98,	3422804 101, 109	231	4120035.... 252, 263, 266,
101, 109, 125	3422806 94	3820001 280, 285	276
3311405.... 29, 34, 35, 41,	3422814 114	3820020 135	4130350..... 14
46, 49, 54, 57, 58, 77,	3422844 94	3841143 94, 98, 105, 114	4130351..... 14
99, 106, 114, 121, 126,	3422845 94	3841203 94, 105, 114	4220162.....86
131, 132, 137, 143,	3422901 97	3841367 13	4220179..... 45
227, 229, 261, 274,	3430840 85	3841517 13	4240032.... 86, 146, 147
281, 286	3450810 13	3900085 86	4240033... 35, 46, 77, 121
3311501 85, 105, 113,	3460457 49	3900104 127	4240084..... 41
139, 141	3480115 185	3900109 13	4240099.... 125, 132, 137
3311505.... 29, 41, 45, 49,	3480217 165, 203	3900128 87	4240175.....65
57, 94, 102, 110, 126,	3480239 ... 213, 217, 227	3900142 195	4300106.....57
139, 157	3480240 185, 195	3900170 ... 165, 176, 183,	4300135..... 41
3311508..... 121	3480241 175	186, 189, 191, 195, 203	4300140..... 126

SECTION 10 - SPECIAL OPTIONS

4341072	50	4460418 ...	252, 254, 258, 266, 268, 271	4460867....	256, 258, 269, 271	4640709 ...	214, 218, 227, 231
4360031	132, 136	4460419 ...	252, 254, 258, 266, 268, 271	4460884.....	258, 271	4640771 ...	214, 218, 227, 231
4360070	82, 290	4460424 ...	122, 255, 268, 270	4460891.....	276	4640807 ...	213, 214, 217, 218, 221, 223, 225, 227, 229, 231
4360274	83, 292	4460425	82, 255, 256, 268, 269	4460897.....	276	4640816	176, 186
4360321	127	4460428 ...	127, 132, 137, 146, 253, 257, 263, 267, 270, 276	4460930.....	270	4640861	236, 240, 244
4360328	82, 146, 147, 290	4460434 ...	252, 254, 255, 256, 266, 268, 269	4460931.....	270	4640932 ...	166, 169, 171, 173
4360330	82, 146, 290	4460444	42, 270	4460933.....	121	4640936	195, 199, 201
4360336 ...	146, 147, 248, 292	4460458 ...	255, 256, 258, 268, 269, 271	4460956.....	262, 275	4641029	57, 58
4360387	146, 290	4460464 ...	137, 252, 253, 254, 256, 266, 267, 269, 270, 276	4460957.....	262, 275	4641070	57, 61
4360448	146, 248, 290	4460465 ...	122, 253, 255, 258, 267, 268, 271, 276	4460968....	127, 260, 273, 274	4641086	171, 173
4360462	146	4460466 ...	122, 258, 270, 271	4461196....	258, 260, 271, 274	4641102	58
4360469	82, 290	4460467	263, 276, 296	4461198.....	260, 273	4641102	58
4360470	82, 290	4460488	146	4461199....	258, 260, 271, 274	4641119	58
4360475	82, 146, 290	4460495	82, 254, 256, 269	4461201.....	260, 273	4641149	29, 31
4360476	82, 146, 290	4460496	82, 146, 253, 256, 267, 269	4461202....	258, 260, 271, 274	4641167	19
4360522	147	4460508	270	4461204.....	260, 273	4641195	57, 61
4360548	127, 292	4460509	270	4461205....	258, 260, 271, 274	4641386 ...	176, 179, 181, 183, 186, 189, 191, 193
4400416	29	4460510 ...	263, 276, 296	4461207.....	260, 273	4641394	57, 58
4400417	77	4460633	262	4461244....	259, 260, 273	4711400 ...	29, 34, 35, 41, 46, 50, 57, 58, 77, 121, 132, 136, 137, 261, 274
4420055	131	4460634	252, 266	4461245....	259, 260, 273	4711500 ...	19, 33, 45, 50, 57, 102, 110, 145
4420062	157	4460635	252, 266	4461246.....	260, 273	4711600 ...	17, 29, 65, 99, 101, 106, 109, 114, 115, 121, 131, 135
4420068	139, 141	4460662 ...	260, 273, 274	4461249....	258, 260, 271, 274	4711800	34
4460007	81	4460685	58	4520206.....	19	4740120	81, 146
4460042	122	4460709	261, 274	4520208.....	18	4740156	13
4460071 ...	132, 137, 253, 267	4460710	261, 274	4520209.....	19	4740171	65
4460134	261	4460742 ...	255, 256, 268, 269	4520232.....	18	4740207 ...	176, 186, 189, 191
4460224	256, 269	4460743 ...	255, 256, 268, 269	4520247.....	19	4740362	99, 106, 114, 131, 137
4460225 ...	122, 252, 253, 255, 257, 258, 266, 268, 270, 271	4460744	255, 256, 269	4520269.....	19	4740394	186
4460226 ...	122, 149, 150, 153, 252, 254, 255, 256, 257, 258, 263, 266, 268, 269, 270, 271, 276	4460745 ...	255, 256, 269	4520279.....	18	4740397	82
4460227 ...	122, 252, 253, 254, 255, 256, 257, 258, 263, 266, 267, 268, 269, 270, 271, 272, 276	4460746	255, 256, 269	4564417.....	65	4740411	131
4460234	86, 146	4460748	256, 269	4565992.....	176	4740413	98
4460248	82	4460749 ...	255, 256, 269	4565994.....	186	4750600	41, 146, 147
4460259	83, 253, 266	4460750 ...	255, 256, 269	4566023.....	165, 203	4750800	54, 65, 146
4460260	83, 252, 266	4460751 ...	255, 256, 269	4566027.....	213, 217	4751000	53, 86, 135
4460264	82	4460752 ...	146, 253, 254, 267	4566187.....	236	4751400 .	54, 85, 98, 121, 125, 131, 137, 143, 227, 229, 261, 274, 281, 286
4460265 ...	122, 149, 153, 252, 254, 255, 257, 266, 268, 269	4460753	125, 254, 267	4566188.....	236	4751500 ...	29, 41, 46, 50, 85, 95, 105, 113, 121, 125, 139, 141, 157
4460267 .	46, 83, 86, 252, 255, 256, 258, 266, 268, 269, 271, 276	4460754 ...	125, 253, 254, 267	4566243.....	126	4751600 ...	29, 45, 50, 77, 81, 85, 94, 98, 132, 137
4460268 ...	255, 256, 263, 268, 269, 276	4460761 ...	122, 252, 257, 258, 266, 270, 271	4566356.....	95	4751800	34, 85
4460268 ...	255, 256, 263, 268, 269, 276	4460805	257, 270	4566427.....	95	4760600	42
4460313	122	4460807	258, 271	4566432.....	175	4761000	135
4460320	86, 122, 255, 258, 263, 268, 271, 276	4460808	258, 271	4566435.....	186	4761400 ...	29, 41, 57, 97, 101, 109
4460321 ...	252, 255, 256, 257, 258, 263, 266, 268, 270, 271, 276	4460809 ...	256, 258, 269, 271	4566623.....	236	4761500	139
4460326 ...	255, 257, 263, 268, 271, 276	4460836	122, 255, 268	4567177.....	195	4761600 ...	29, 81, 97, 213
4460343 ...	252, 255, 266, 268	4460837	255, 268	4567679.....	33	4761800	97, 101, 109
4460367	252, 266			4567704.....	213, 217	4811400	261, 274
				4567845.....	46	4811700	136
				4567908.....	195	4812000	132
				4567946.....	240, 244	4844303	91
				4567963.....	227		
				4568114.....	41		
				4568136.....	165, 203		
				4640392.....	19		
				4640509....	161, 163, 165, 169		
				4640634....	176, 179, 181, 183, 186, 189, 191, 193		

SECTION 10 - SPECIAL OPTIONS

4844304.....	91	4922294	147, 257, 271	70000323	47, 51, 292	7000281.....	25
4844427.....	91	4922303	252, 266	70000324	51	70002902.....	137
4844467.....	94	4922307	252, 266	70000325	51	70002903.....	137
4844541.....	91	4922319	46, 82, 258, 271	70000326	51, 77, 292	70002904.....	137
4844579.....	97	4922328	29, 256, 269	70000327	51	70002905.....	137
4844603.....	53	4922363	125, 253, 267	70000328	51, 77, 256, 269	70002906.....	149
4844917.....	139	4922364	125, 253	70000329	51, 292	70003171.....	29
4845288.....	131	4922366	254	70000330	51, 292	70003341.....	211
4845346.....	139	4922367	254, 268	70000340	118	70003483.....	137
4845582.....	157	4922443	263, 276	70000341	118	70003557.....	50
4845642.....	45	4922495	125, 253	70000381	63	70003618.....	51
4845846.....	33	4922496	125, 253, 267	70000382	51	70003711.....	21
4845925.....	105	4922534	263, 276	70000382	51	70003712.....	21
4845926.....	105, 113	4922552	125, 267	70000739	169, 205	70003713.....	21
4845927.....	105, 113	4922609	261, 274	70000740	169, 205	70003714.....	21
4846026.....	91	4922610	260, 261, 274	70000865	73	70003715.....	21
4846033.....	101	4922612	261, 274	70000901	47	70003716.....	21
4846073.....	113	4922613	127, 256, 269	70000967	50	70003717.....	21
4846091.....	95	4922614	127, 256, 269	70001121	50	70003718.....	21
4846106.....	33	4922615	127	70001144	50	70003719.....	21
4846107.....	33	4922916	121	70001366	25	70003720.....	21
4846180.....	109	4922917	122	70001367	25	70003721.....	21
4846209.....	91	4922926	122	70001368	25, 26	70003722.....	21
4846223.....	53	4923061	137	70001369	25	70003723.....	21
4846276.....	131	4923625	254, 268	70001370	25	70003724.....	21
4846278.....	105, 113	4933059	248, 254	70001371	25	70003725.....	22
4846307.....	91	4933060	248, 252, 266	70001372	25	70003819.....	173, 209
4846322.....	98, 106, 114	4933102	248	70001373	25	70003833.....	163
4846452.....	135	4933105	248, 252, 266	70001374	25	70003836.....	163
4846502.....	113	4933128	248, 254	70001375	25	70003843.....	209
4846608.....	99, 106, 115, 121	4933289	122, 248	70001376	25	70003844.....	209
4846698.....	86	4933388	248, 254, 267	70001377	25	70003845.....	173, 209
4846759.....	143	70000088	71	70001378	25	70003846.....	173
4846936.....	141	70000089	71	70001379	25	70003847.....	173
4846937.....	141	70000290	50	70001380	26	70003863.....	163
4860181.....	19	70000291	50	70001677	73	70003864.....	163
4860191.....	19	70000292	50	70001697	118	70004019.....	63
4891500.....	73	70000293	50	70001758	47	70004130.....	205
4891600.....	46, 50, 99, 106, 115, 121	70000294	50	70001876	61, 62	70004131.....	169
4891800.....	13, 121	70000295	50	70001961	29	70004141.....	169, 205
4892000.....	17, 65, 121	70000296	50	70001996	101, 109, 292	70004142.....	169, 205
4920385.....	46, 50	70000297	50	70001998	101, 109	70004143.....	169, 205
4921570.....	261	70000298	50	70002206	71	70004144.....	205
4921571.....	260	70000299	50	70002207	71	70004145.....	205
4921594.....	261	7000300	50	70002216	173, 209	70004146.....	169
4921595.....	260	7000301	50	70002217	173, 209	70004147.....	169
4922057.....	254	7000302	50	70002220	163	70004159.....	73
4922058.....	254	7000303	50	70002223	163	70004265.....	51
4922060.....	252, 266	7000304	50	70002244	51	70004637.....	181
4922071.....	252, 266	7000305	50	70002373	193	70004785.....	51
4922073.....	255, 268	7000306	50	70002408	17	70005143.....	193
4922074.....	252	7000307	50	70002412	179	7000625.....	132, 136
4922103.....	42	7000308	50	70002724	153	70006396.....	201
4922104.....	255, 268	7000309	50	70002725	153	70006397.....	201
4922117.....	255, 268	7000310	51	70002726	153	70006398.....	201
4922118.....	252, 266	7000311	50	70002728	153	70006399.....	201
4922157.....	252, 266	7000312	50	70002730	149	70006400.....	199, 201
4922160.....	252, 258, 266, 271	7000313	50, 292	70002731	149	70006401.....	199, 201
4922178.....	125, 253, 267	7000314	50	70002732	149	70006402.....	201
4922179.....	125, 253, 267	7000315	50	70002733	149	70006411.....	199
4922222.....	147, 256, 269	7000316	50	70002734	149	70006412.....	199
4922223.....	147, 256, 269	7000317	50	70002735	149	70006413.....	199, 229
4922263.....	256, 268	7000318	50, 292	70002736	153	70006414.....	199
4922267.....	255, 268	7000319	50, 292	70002737	154	70006415.....	199
		70000320	51	70002806	62	70006531.....	183
		70000321	51	70002807	58	70006532... 183, 189, 191	
		70000322	51, 292	70002808	58	70006533... 183, 189, 191	

SECTION 10 - SPECIAL OPTIONS

70006535	183	7003974	149, 153	7016372.....	86	7019122.....	149
70006539	189, 191	7003976	149	7016623.....	295	7019123.....	149
70006542	189, 191	7003977	149	7016624.....	295	7019137.....	149
70006543	189, 191	7003980	154	7016654.....	296	7019141.....	149
70006561	223, 225, 229	7003982	154	7016676.....	73	7019142.....	149
70006563	221, 223	7003983	154	7016682.....	73	7019143.....	149
70006564	221, 223, 225, 229	7003986	153	7017007.....	26	7019144.....	149
70006565	221, 223, 225, 229	7003989	154	7017009.....	25	7019145.....	149
70006566	221	7003992	149, 153	7017022.....	25	7019147.....	149
70006567	223	7003993	149, 153	7017120.....	117	7019149.....	149
70006587	179	7003994	153	7017121.....	117	7019150.....	149
70006588	179	7004035	71	7017122.....	118	7019151.....	153
70006589	179	7004036	71	7017123.....	118	7019154.....	153
70006590	179	7004043	71	7017126.....	117	7019157.....	153
70006591	179	7004044	71	7017127.....	118	7019158.....	153
70006592	179	7004045	71	7017130.....	117	7019159.....	153
70006593	179	7004047	71	7017131.....	117	7019160.....	153
70006594	193	7004049	71	7017132.....	118	7019161.....	153
70006595	193	7004275	296	7017134.....	118	7019162.....	153
70006596	193	7004276	296	7017135.....	117	7019164.....	154
70006597	193	70050801	179	7017153.....	117	7019165.....	154
70006598	193	7006139	101, 109	7017165.....	118	7019167.....	154
70006599	193	7006151	101, 109	7017167.....	117	7019168.....	153
70006600	193	7006152	101, 109	7017168.....	117	7019170.....	149
70006601	179	7007640	25	7017169.....	117	7019174.....	149
70006602	181	7007900	17	7017172.....	118	7019191.....	153
70006603	181	7007913	17	7017173.....	117	7019194.....	154
70006604	181	7007933	17	7017178.....	118	7019195.....	149
70006605	181	7007977	17	7017179.....	118	7019196.....	154
70006606	181	7010542	31	7017192.....	118	7019197.....	149
70006607	181	7010543	31, 62	7017196.....	117	7019698.....	97, 292
70006608	181	7011112 ...	166, 169, 171, 173	7017246.....	211	7019699.....	97
70006609	181	7011323	118	7017247.....	211	7020035.....	14
70006971	221, 223, 225, 229	7011376 ...	176, 179, 181, 183, 186, 189, 191, 193	7017248.....	211	7020036.....	14
70006972	225	7011577	37	7017249.....	211	7020037.....	14
70006973	225	7011590	257	7017250.....	211	7020038.....	14
70006974	229	7011593	37, 290	7017251.....	211	7020039.....	14
70006975	229	7011594	37	7017252.....	211	7020040.....	14
70006976	221, 223	7011621	37, 257	7017402.....	31, 58, 61	7020041.....	14
70010724	65	7011716	17	7017410.....	61	7020054.....	14
7001630	211	7011757	17	7017418.....	62	7020055.....	14
70022564	179, 181, 193	7012518	31, 61, 62	7017421.....	62	7020099.....	145
70023094	169, 205	7012518	31, 61, 62	7017433.....	31, 61	7020100.....	145
70023369	181	7012540	63	7017450.....	31	7020126.....	69
70023915	199, 201, 221, 223	7012597	73	7017452.....	58, 61	7020127.....	69
70024262	169	7012654	73	7017466.....	58	7020128.....	69
70027244	181	7012655	73	7017479.....	61	7020129.....	69
7002821	263, 276, 296	7012903	61	7017488.....	31	7020130.....	69
7002822	296	7012914	62	7017496.....	63	7020131.....	69
7002823	263, 276, 296	7012941	31	7018122.....	47	7020137.....	14
7002826	296	7012947	62	7018123.....	47	7020138.....	17
7002828	263, 276, 296	7012949	62	7018124.....	47	7020140.....	14
7003928	149	7012953	58, 61	7018125.....	47	7020150.....	17
7003933	153	7012959	58	7018126.....	47	7020155.....	77, 256
7003935	153	7012961	62	7018127.....	47	7020156.....	77
7003940	153	7012967	31	7018142.....	47	7020157.....	47
7003941	153	7012972	31	7018525.....	37, 292	7020158.....	47
7003946	153	7012975	63	7018537.....	37	7020159.....	47
7003952	149	7012975	63	7018563.....	37, 292	7020160.....	47
7003953	149	7012981	58	7018564.....	37, 292	7020161.....	47
7003956	149	7012995	61	7018571.....	37	7020162.....	47
7003972	154	7012998	31, 58, 61, 62	7018577.....	37	7020163.....	47
7003973	154	7014676	292	7019103.....	153	7020164.....	47
		7016177	33	7019110.....	153	7020165.....	47
		7016314	77	7019111.....	149, 153	7020166.....	47
		7016319	86	7019112.....	153	7020167.....	47
		7016356	132, 137, 295	7019115.....	153	7020175.....	82, 146

SECTION 10 - SPECIAL OPTIONS

7020176.....	82, 146	7021333.....	22	7022394.....	61	7024832.....	31
7020197.....	47	7021335.....	21	7022808.....	149	7024844.....	163, 173
7020198.....	47	7021336.....	21	7022812.....	153	7024891.....	58
7020199.....	47	7021337.....	21	7022813.....	149	7024931.....	21
7020200.....	47	7021338.....	22	7022815.....	149	7024981.....	22
7020201.....	47	7021339.....	21	7022903.....	37	7024983.....	21
7020202.....	47	7021340.....	21	7022905.....	37	7024985.....	21
7020203.....	47	7021341.....	21	7022908.....	37	7024986.....	22
7020204.....	47	7021342.....	21	7022909.....	37, 257	7026042.....	73
7020206.....	47	7021344.....	21	7022925.....	37	7026043.....	73
7020215.....	47	7021361.....	29	7023216.....	14	7026068.....	163
7020217.....	47	7021367.....	29	7023217.....	14	7026082.....	173, 209
7020644.....	37, 257	7021369.....	29	7023274.....	47	7026084.....	173, 209
7020648.....	37	7021377.....	29	7023318.....	71	7026088.....	163
7020649.....	37	7021603.....	61	7023337.....	256, 269	7026090.....	163
7020650.....	37	7021604.....	61	7023338.....	256, 269	7026091.....	163
7020651.....	37	7021606.....	62	7023349.....	47	7026092.....	163
7020653.....	37, 292	7021607.....	62	7023350.....	47	7026669.....	47
7020654.....	38, 292	7021609.....	31, 58, 61, 290	7023484.....	73	7026670.....	47
7020663.....	37	7021610.....	61, 290	7023485.....	47	7027350.....	73
7020685.....	37	7021611.....	31, 61	7023486.....	77, 256	7027351.....	73
7020690.....	37	7021616.....	31, 290	7023489.....	47	7027352.....	73
7020691.....	37	7021618.....	31, 61, 290	7023803.....	21	7027353.....	73
7020693.....	37, 257	7021619.....	31	7024047.....	22	7027354.....	73
7020697.....	37	7021624.....	63	7024049.....	21	7027356.....	73
7020699.....	37	7021653.....	58, 62	7024051.....	21	7027358.....	73
7021318.....	29	7021659.....	31	7024053.....	21	7027359.....	73
7021319.....	29	7022000.....	42	7024054.....	22	7027360.....	73
7021320.....	29, 290	7022001.....	42	7024379.....	71	7027361.....	73
7021323.....	21	7022002.....	42	7024380.....	71	7027363.....	73
7021324.....	21	7022003.....	42, 257, 270	7024381.....	71	7027900.....	117
7021325.....	21	7022004.....	42, 257, 270	7024389.....	71	7027901.....	117
7021326.....	21	7022005.....	42, 257, 271	7024390.....	71	90206369.....	73
7021327.....	21	7022011.....	42	7024453.....	71		
7021328.....	21	7022012.....	42	7024738.....	25		
7021329.....	22	7022391.....	31	7024741.....	25		



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