SERVICE & MAINTENANCE

Models

30e
35e
n35e
40e
n40e
45e

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TABLE OF CONTENTS

SUBJECT - SECTION, PARAGRAPH **PAGE NO.**

SECTION A - INTRODUCTION - MAINTENANCE SAFETY PRECAUTIONS

A General 2
B Hydraulic System Safety 2
C Maintenance 2

SECTION 1 - SPECIFICATIONS

1.1 CAPACITIES. 1-1
1.2 COMPONENT DATA. 1-1
1.3 PERFORMANCE DATA. 1-1
1.4 TORQUE SPECIFICATIONS. 1-3
1.5 LUBRICATION. 1-4
1.6 PRESSURE SETTINGS. 1-4
1.8 MAJOR COMPONENT WEIGHTS. 1-5
1.9 CRITICAL STABILITY WEIGHTS. 1-5
1.10 SERIAL NUMBER LOCATIONS. (See Figure 1-3) 1-6

SECTION 2 - PROCEDURES

2.1 GENERAL 2-1
2.2 SERVICING AND MAINTENANCE GUIDELINES. 2-1
2.3 LUBRICATION INFORMATION. 2-3
2.4 CYLINDERS - THEORY OF OPERATION. 2-4
2.5 VALVES - THEORY OF OPERATION. 2-4
2.6 MOTOR CONTROLLER. 2-5
2.7 WEAR PADS. 2-11
2.8 BOOM MAINTENANCE. 2-12
2.9 CYLINDER CHECKING PROCEDURES. 2-17
2.10 CYLINDER REPAIR. 2-22
2.11 CYLINDER REMOVAL AND INSTALLATION. 2-28
2.12 TILT INDICATOR SWITCH LEVELING PROCEDURE. (If Equipped.) 2-32
2.13 BOOM LIMIT SWITCHES. 2-32
2.14 POWER TRACK REMOVAL PROCEDURE (35/n35/40/n40/45 electric). 2-32
2.15 PRESSURE SETTING PROCEDURES. (In Sequence) (See Figure 2-29) 2-32
2.16 SWING BEARING. 2-38
2.17 DRIVE TORQUE HUB. (See Figure 2-34) 2-43
2.18 DRIVE BRAKE ASSEMBLY. (See Figure 2-35.) 2-45
2.19 MID AND LOWER LIFT CYLINDER BLEEDING PROCEDURE. (40/n40/45 electric) 2-48
2.20 BOOM SYNCHRONIZING PROCEDURE. (40/n40/45 electric) 2-48
2.21 FREE WHEELING PROCEDURE. 2-49
2.22 FOOTSWITCH ADJUSTMENT. 2-49
2.23 P/q controller. 2-49
2.24 AXLE DRAIN PLATES 2-50
2.25 PREVENTIVE MAINTENANCE AND INSPECTION SCHEDULE. 2-50

SECTION 3 - TROUBLESHOOTING

3.1 GENERAL 3-1
3.2 TROUBLESHOOTING INFORMATION. 3-1
3.3 HYDRAULIC CIRCUIT CHECKS. 3-1

MidWestTech | JLG 30e, 35e, 40e, 45e, n35e, n40e Boom Lift Service Manual | Publication... Order the manual at mid-west-tech.com >

List of Figures

FIGURE NO.	TITLE	PAGE NO.
1-1.	Torque Chart	1-7
1-2.	Lubrication Chart - 30 electric. (Sheet 1 of 6)	1-8
1-3.	Lubrication Chart - 30 electric. (Sheet 2 of 6)	1-9
1-4.	Lubrication Chart - 35/n35 electric. (Sheet 3 of 6)	1-10
1-5.	Lubrication Chart - 35/n35 electric. (Sheet 4 of 6)	1-11
1-6.	Lubrication Chart - 40/n40/45 electric. (Sheet 5 of 6)	1-12
1-7.	Lubrication Chart - 40/n40/45 electric. (Sheet 6 of 6)	1-13
1-8.	Serial Number Locations - 30 electric. (Sheet 1 of 3)	1-14
1-9.	Serial Number Locations - 35/n35 electric. (Sheet 2 of 3)	1-15
1-10.	Serial Number Locations - 40/n40/45 electric. (Sheet 3 of 3)	1-16
2-1.	Sevcon Controller Troubleshooting Flow Charts. (Sheet 1 of 4)	2-7
2-1.	Sevcon Controller Troubleshooting Flow Charts. (Sheet 2 of 4)	2-8
2-1.	Sevcon Controller Troubleshooting Flow Charts. (Sheet 3 of 4)	2-9
2-1.	Sevcon Controller Troubleshooting Flow Charts. (Sheet 4 of 4)	2-10
2-2.	Location and Thickness of Wear Pads.	2-11
2-3.	Location of Components - Platform Support (Model 30).	2-12
2-4.	Location of Components - Removal of Base Boom. (Model 30)	2-12
2-5.	Location of Components - Platform Support. (Models 35/n35/40/n40/45)	2-13
2-6.	Location of Components - Slave Leveling Cylinder.	2-14
2-7.	Location of Components - Removal of Base Boom. (Models 35/n35/40/n40/45)	2-14
2-8.	Location of Components - Aft End of Fly Boom Wear Pad Adjustments.	2-15
2-9.	Location of Components - Removal of Telescope Cylinder.	2-15
2-10.	Location of Components - Front Base Boom Wear Pad Adjustments.	2-15
2-11.	Boom Prop Configurations - 30 electric. (Sheet 1 of 3)	2-19
2-12.	Removal of Cylinder Retainer.	2-22
2-13.	Removal of Set Screws.	2-22
2-14.	Removal of Seals and O-Rings.	2-23
2-15.	Removal of Piston Seals.	2-23
2-16.	Rod Seal Installation.	2-23
2-17.	Wiper Seal Installation.	2-24
2-18.	Poly-Pak Piston Seal Installation.	2-24
2-19.	"O"-Ring Installation.	2-24
2-20.	Piston Seal Kit Installation.	2-24
2-21.	Steer Cylinder Piston Installation.	2-24
2-22.	Installing Retainer Ring on Telescope Cylinder Barrel.	2-25
2-23.	Lift Cylinder Assembly.	2-26
2-24.	Upper Boom Lift Cylinder Removal.	2-28
2-25.	Mid Boom Lift Cylinder Removal.	2-29
2-26.	Lower Boom Lift Cylinder Removal.	2-30
2-27.	Upper Telescope Cylinder Removal.	2-31
2-28.	Tilt Switch.	2-32
2-29.	Pressure Setting Procedure - 30 electric. (Sheet 1 of 3)	2-35
2-30.	Swing Bearing Feeler Gauge Check.	2-38
2-31.	Swing Bearing Tolerance Boom Placement - 30/n30/n35 electric. (Sheet 1 of 2)	2-39
2-32.	Swing Bearing Tolerance Measuring Point.	2-40
2-33.	Swing Bearing Torquing Sequence	2-42
2-34.	Worm Gear Tolerance	2-42
2-35.	Worm Gear Shim Kit	2-42
2-36.	Drive Hub Assembly - 30/35/n35/40/n40/45.	2-44
2-37.	Drive Brake Assembly - 30/35/n35/40/n40/45.	2-47
2-38.	Port "P" Location.	2-48
2-39.	Synchronizing Valve.	2-48
2-40.	Upright Leveling.	2-48

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List of Figures (Continued)

FIGURE NO.	TITLE	PAGE NO
2-41.	Drive Brake Release	2-49
2-42.	Drive Axle Drain Plate	2-50
3-1.	Electrical Schematic 30 electric. (Sheet 1 of 4)	3-16
3-1.	Electrical Schematic 30 electric. (Sheet 2 of 4)	3-17
3-1.	Electrical Schematic 30 electric. (Sheet 3 of 4)	3-18
3-1.	Electrical Schematic 30 electric. (Sheet 4 of 4)	3-19
3-2.	Electrical Schematic 35/40/45 electric. (Sheet 1 of 4)	3-20
3-2.	Electrical Schematic. 35/40/45 electric. (Sheet 2 of 4)	3-21
3-2.	Electrical Schematic. 35/40/45 electric. (Sheet 3 of 4)	3-22
3-3.	Electrical Schematic. 35/40/45 electric. (Sheet 4 of 4)	3-23
3-4.	Hydraulic Diagram - 30 electric.	3-24
3-5.	Hydraulic Diagram - 35 electric.	3-25
3-6.	Hydraulic Diagram - 40/45 electric.	3-26

List of Tables

TABLE NO.	TITLE	PAGE NO.
1-1	Torque specifications	1-3
1-2	Hydraulic Oil	1-4
1-3	Lubrication Specifications	1-4
1-4	Cylinder Specifications.	1-5
2-1	Cylinder Piston Nut Torque Specifications	2-27
2-2	Holding Valve Torque Specifications.	2-27
2-3	PREVENTIVE MAINTENANCE AND INSPECTION SCHEDULE.	2-51
3-1	Platform Assembly - Troubleshooting.	3-2
3-2	Boom Assembly - Troubleshooting	3-4
3-3	Turntable Assembly - Troubleshooting.	3-9
3-4	Chassis Assembly - Troubleshooting	3-10
3-5	Hydraulic System - Troubleshooting.	3-13
3-6	Electrical System - Troubleshooting	3-15

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1.7 CYLINDER SPECIFICATIONS.

NOTE: *All dimensions are given in inches (in.), with the metric equivalent, millimeters (mm) given in parentheses.*

Table 1-4. Cylinder Specifications.

e30			
DESCRIPTION	**BORE**	**STROKE**	**ROD DIA.**
Upper Lift Cylinder	3.00 (76.2)	14.62 (371.5)	1.50 (38.1)
Lower Lift Cylinder	3.00 (76.2)	14.62 (371.5)	1.50 (38.1)
Steer Cylinder (Double Rod)	2.00 (50.8)	3.00 (76.2) each direction	1.25 (31.8) each rod
e35/n35e			
DESCRIPTION	**BORE**	**STROKE**	**ROD DIA.**
Upper Lift Cylinder	3.00 (76.2)	24.4375 (620.7)	1.50 (38.1)
Lower Lift Cylinder	3.50 (88.9)	25.375 (644.5)	2.00 (50.8)
Telescope Cylinder	2.00 (50.8)	79 (2006.6)	1.25 (31.8)
Master Cylinder	2.00 (50.8)	9.375 (238.1)	1.00 (25.4)
Slave Cylinder	2.00 (50.8)	9.375 (238.1)	1.00 (25.4)
Rotator Cylinder	1.875 (47.6)	15.250 (387.3)	1.00 (25.4)
Steer Cylinder (Double Rod)	2.00 (50.8)	3.00 (76.2) each direction	1.25 (31.8) each rod
e40/n40e			
DESCRIPTION	**BORE**	**STROKE**	**ROD DIA.**
Upper Lift Cylinder	3.00 (76.2)	28.3125 (719.1)	1.50 (38.1)
Mid Lift Cylinder	3.00 (76.2)	21.25 (539.7)	1.50 (38.1)
Lower Lift Cylinder	3.50 (88.9)	23.1875 (589.0)	2.00 (50.8)
Telescope Cylinder	2.00 (50.8)	79 (2006.6)	1.25 (31.8)
Master Cylinder	2.00 (50.8)	9.375 (238.1)	1.00 (25.4)
Slave Cylinder	2.00 (50.8)	9.375 (238.1)	1.00 (25.4)
Rotator Cylinder	1.875 (47.6)	15.250 (387.3)	1.00 (25.4)
Steer Cylinder (Double Rod)	2.00 (50.8)	3.00 (76.2) each direction	1.25 (31.8) each rod
e45			
DESCRIPTION	**BORE**	**STROKE**	**ROD DIA.**
Upper Lift Cylinder	3.00 (76.2)	28.3125 (719.1)	1.50 (38.1)
Mid Lift Cylinder	3.00 (76.2)	21.25 (539.7)	1.50 (38.1)
Lower Lift Cylinder	3.50 (88.9)	23.1875 (589.0)	2.00 (50.8)
Telescope Cylinder	2.00 (50.8)	79 (2006.6)	1.25 (31.8)
Master Cylinder	2.00 (50.8)	9.375 (238.1)	1.00 (25.4)
Slave Cylinder	2.00 (50.8)	9.375 (238.1)	1.00 (25.4)
Rotator Cylinder	1.875 (47.6)	15.250 (387.3)	1.00 (25.4)
Steer Cylinder (Double Rod)	2.00 (50.8)	3.00 (76.2) each direction	1.25 (31.8) each rod

1.8 MAJOR COMPONENT WEIGHTS.

⚠ WARNING

SELECT LIFTING EQUIPMENT WITH CAPACITY CAPABLE OF SAFELY SUPPORTING WEIGHT.

1.9 CRITICAL STABILITY WEIGHTS.

⚠ WARNING

DO NOT REPLACE ITEMS CRITICAL TO STABILITY WITH ITEMS OF DIFFERENT WEIGHT OR SPECIFICATION (FOR EXAMPLE: BATTERIES, FILLED TIRES, PLATFORM) DO NOT MODIFY UNIT IN ANY WAY TO AFFECT STABILITY.

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SECTION 3. TROUBLESHOOTING

3.1 GENERAL.

This section contains troubleshooting information to be used for locating and correcting most of the operating problems which may develop in the aerial platform. If a problem should develop which is not presented in this section or which is not corrected by listed corrective actions, technically qualified guidance should be obtained before proceeding with any maintenance.

3.2 TROUBLESHOOTING INFORMATION.

The troubleshooting procedures applicable to the aerial platform are listed and defined in Tables 3-1 through 3-6. As an aid to table use, the aerial platform is divided into six major groups, each covered separately within this section. These groups are as follows: platform assembly, boom assembly, turntable assembly, chassis assembly, hydraulic system and electrical system.

Each malfunction within and individual group or system is followed by a listing of probable causes which will enable determination of the applicable remedial action. The probable causes and the remedial action should, where possible, be checked in order listed in the tables.

It should be noted that there is no substitute for a thorough knowledge of the equipment and related systems.

It should be recognized that the majority of the problems arising in the machine will be centered in the hydraulic and electrical systems. For this reason, every effort has been made to ensure that all likely problems in these areas are given the fullest possible treatment. In the remaining machine groups only those problems which are symptomatic of greater problems of which have more than one probable cause and remedy are included. This means that problems for which the probable cause and remedy may be immediately obvious are not listed in this section.

The first rule for troubleshooting any circuit that is hydraulically operated and electrically controlled is to determine if the circuit is lacking hydraulic oil or electrical control power. This can be ascertained by overriding the bypass valve (mechanically or electrically) so that oil is available to the function valve, then overriding the function valve mechanically. If the function performs satisfactorily, the problem exists with the control circuit.

3.3 HYDRAULIC CIRCUIT CHECKS.

The first reference for improper function of a hydraulic system, where the cause is not immediately apparent, should be the Troubleshooting Chart. The best place to begin the problem analysis is at the power source (pump). Once it is determined that the pump is serviceable, then a systematic check of the circuit components, beginning with the control would follow. For aid in troubleshooting, refer to the Illustrated Parts Manual for hydraulic diagrams of the various circuits.

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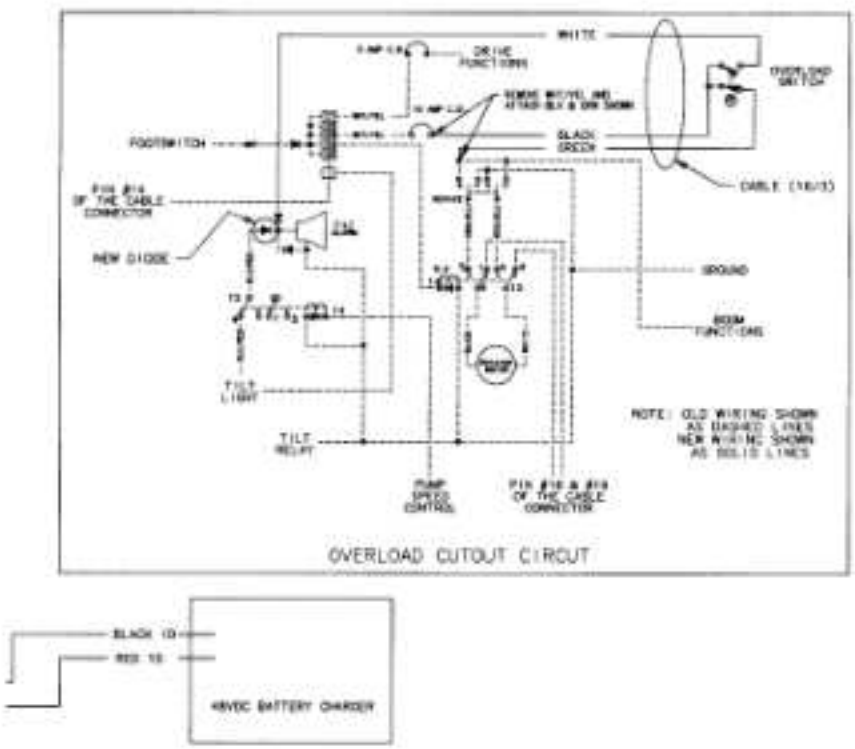


Figure 3-3. Electrical Schematic. 35/40/45 electric. (Sheet 4 of 4)

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