SERVICE & MAINTENANCE

Models

M45A
M45AJ
E45A
E45AJ

3120765
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SECTION 1. SPECIFICATIONS

1.1 CAPACITIES

Hydraulic Oil Tank

5 gallons (19 liters)

Generator Fuel Tank

4 gallons (15.1 liters)

Drive Axle

Torque Hubs - 19 oz. (0.5 liters)

1.2 COMPONENT DATA

Battery Charger

Input, 110 VAC,60 HZ

Output, 48 VDC (25 Amps)

Batteries (8)

6 Volt, 370 AmpHour (20 hour rate)

Drive System

Drive Motor - 48 VDC, 12.5 H.P. @ 3200 rpm. continuous, rotation - reversible

Drive Brake- spring-applied, hydraulically released

Tires - IN240/55-17.5 pneumatic or foam filled

Tire Pressure - 90 psi (6.2 Bar)

Hydraulic Pump/Electric Motor Assembly

Motor - 48 VDC, 2.14 H.P. @ 2700 rpm.

Pump - 0.098 in.[3]/rev. (1.6 cm[3]/rev.).

Pump Output - 2.96 gpm (11.2 lpm) @ 3200 psi (222 Bar).

Generator

Alternator Output - 58 volts @ 45 Amps

RPM's under max. load - 3100

Start Battery - 12 volts

Engine Oil - 10W30 (Refer to Engine Manual)

Dynamo - 12 volt, 15 amp DC

Dynamo Output Fuse - 20 amps DC

Control Fuse - 15 amps DC

1.3 PERFORMANCE DATA

Travel Speed

3.2 mph (5.2 kph)

Gradeability

30% (16.7 degrees)

Turning Radius (Inside)

2ft. 0 in. (0.61 m)

Turning Radius (Curb to Curb)

10 ft. 4 in. (3.15 m)

Tail Swing (Any Position)

0

Upper Boom Speed

Lift Up - 27 seconds

Lift Down - 26 seconds

Lower Boom Speed

Lift Up - 30 seconds

Lift Down - 24 seconds.

Swing Speed - 360 Degrees

90 seconds / rev.

Machine Weight

E45A - 12,600 lb. (5,720 kg)
M45A - 12,800 lb. (5,806 kg)
E45AJ - 14,750 lb. (6690 kg)
M45AJ - 14,750 lb. (6690 kg)

Max. Tire Load

M 45A, E45A - 6100 lbs. (2,767 kg)
M45AJ, E45AJ - 6900 lbs. (3,130 kg)

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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. 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.

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 four major groups, each covered separately within this section. These groups are as follows: elevation system, chassis assembly, hydraulic system and electrical system.

Each malfunction within an 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 the 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 which have more that 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 and electrical control power. This can be ascertained by overriding the bypass valve 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 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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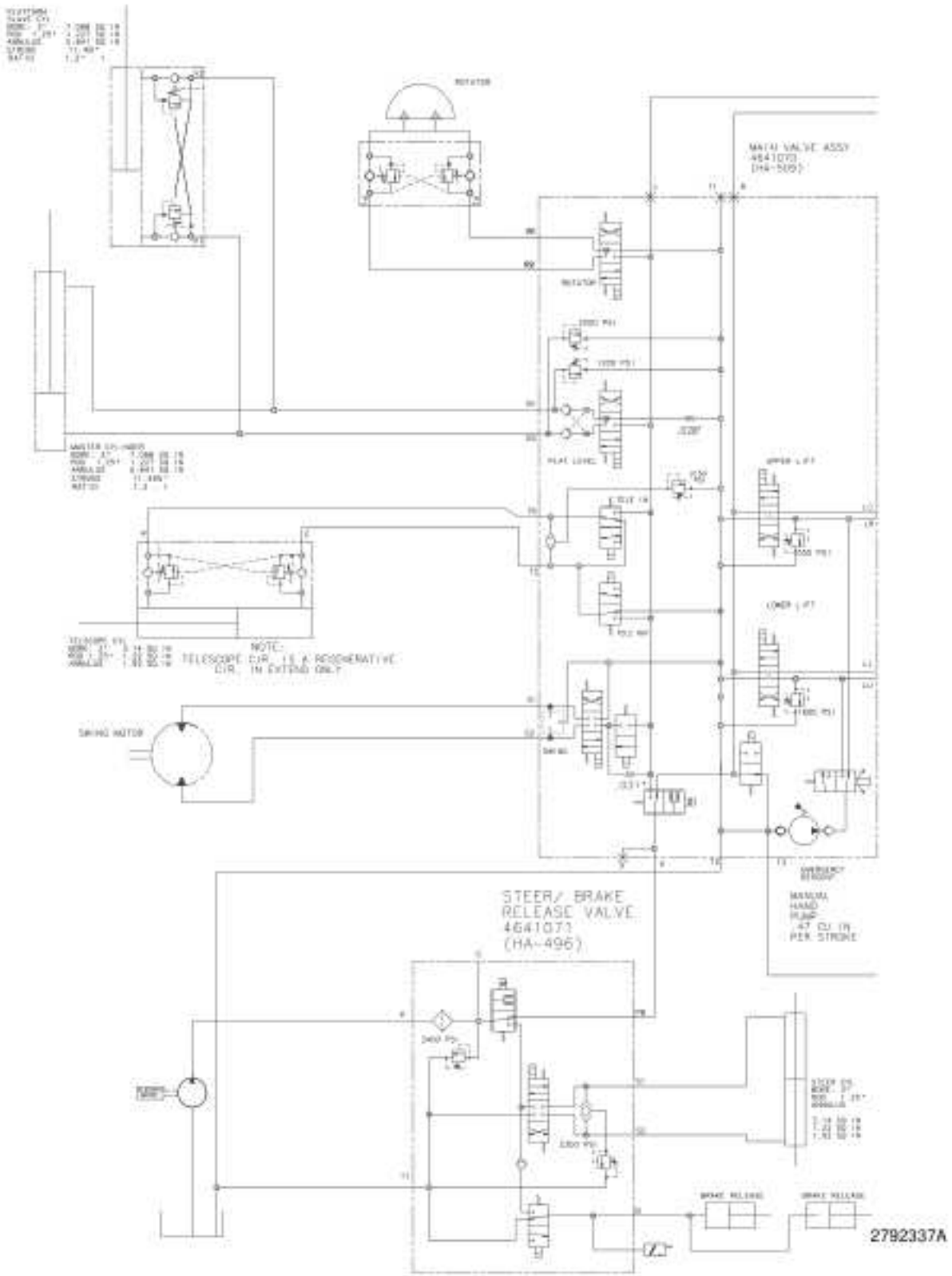


Figure 3-10. Hydraulic Schematic - M45AJ/E45AJ - Sheet 1 of 2

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