An Oshkosh Corporation Company

Service and Maintenance Manual

Model

150HAX

P/N - 3120679

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ANSI

An Oshkosh Corporation Company

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SECTION 1. SPECIFICATIONS

1.1 CAPACITIES

Table 1-1. Capacities

Fuel Tank	68 gallons (257 liters)
Hydraulic Oil Tank	Approx. 124 gallons (469 liters)
Hydraulic System	Approx. 150 gallons (568 liters)
Drive - 90 ounces (2.7 liters)	Drive - 90 ounces (2.7 liters)
Swing - 60 ounces (1.8 liters)	Swing - 60 ounces (1.8 liters)
Engine Crankcase	10.0 quarts (9.5 liters) w/o filter
Cooling System System Engine Radiator	 21.4 quarts (20.2 liters) 7.4 quarts (7.0 liters) 14.0 quarts (13.2 liters)
*Torque hubs should be one half full of lubricant.	

1.2 ENGINE DATA

Table 1-2. Engine Datas

Model	Cummins 4B3.9C
Low RPM	1800
High RPM	2500
Alternator	60 Amp. belt driven
Battery	85 Amphour, 550 CCA, 12 volts
Horsepower	76 @ 2500 RPM, no load

1.3 DRIVE/STEER SYSTEM

Table 1-3. Drive Steer System

Drive Hub	Gear Ratio - 93.7:1
Drive Brake	Automatic spring applied, hydraulically released. Release pressure 150 psi (10.3 Bar) initial, 170 psi (11.7 Bar) full.
Tires	Size - 445/65R22.5, foam-filled

1.4 PERFORMANCE DATA

Table 1-4. Performance Data

Maximum Drive Speed	2.7 mph (4.3 kph) @ Max RPM
Maximum Travel Grade (Gradeability)	31%
Turning Radius (Outside)	24 ft. 2 in. (7.4 meters) w/axles retracted 27 ft. 2 in. (8.3 meters) w/axles extended
Gross Machine Weight	57,000 lbs. (25,855 kg)
Length Stowed	39 ft. 5 in. (12.0 meters) w/main boom fully retracted and platform in normal position. 41 ft. 7 in. (12.7 meters) w/main boom telescoped out and platform tilted to stow at minimum height.
Machine Width	11 ft. 6 in. (3.5 meters) w/axles retracted 18 ft. 0 in. (5.5 meters) w/axles extended
Wheelbase	18 ft. 0 in. (5.5 meters)
Platform Capacity	500 lb. (230 kg) unrestricted 1000 lb. (450 kg) restricted

1.5 FUNCTION SPEEDS

Table 1-5. Function Speeds

Function	Speed - In Seconds
Lift Up	115-190
Lift Down	140-160
Tower Lift Up	89-103
Tower Telescope Out	125-160
Tower Telescope In	65-90
Tower Lift Down	61-83
Swing Right & Left	72-84
Telescope Out	46-50
Telescope In	46-50
Platform Rotate Left & Right	24-26
Jib Up	25-27
Jib Down	21-23
High Drive (200 ft.)	42-46 (3.0 mph)
Drive above Horizontal (50 ft.)	65-71 (0.5 mph)

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SECTION 6. SCHEMATICS

6.1 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.

6.2 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.

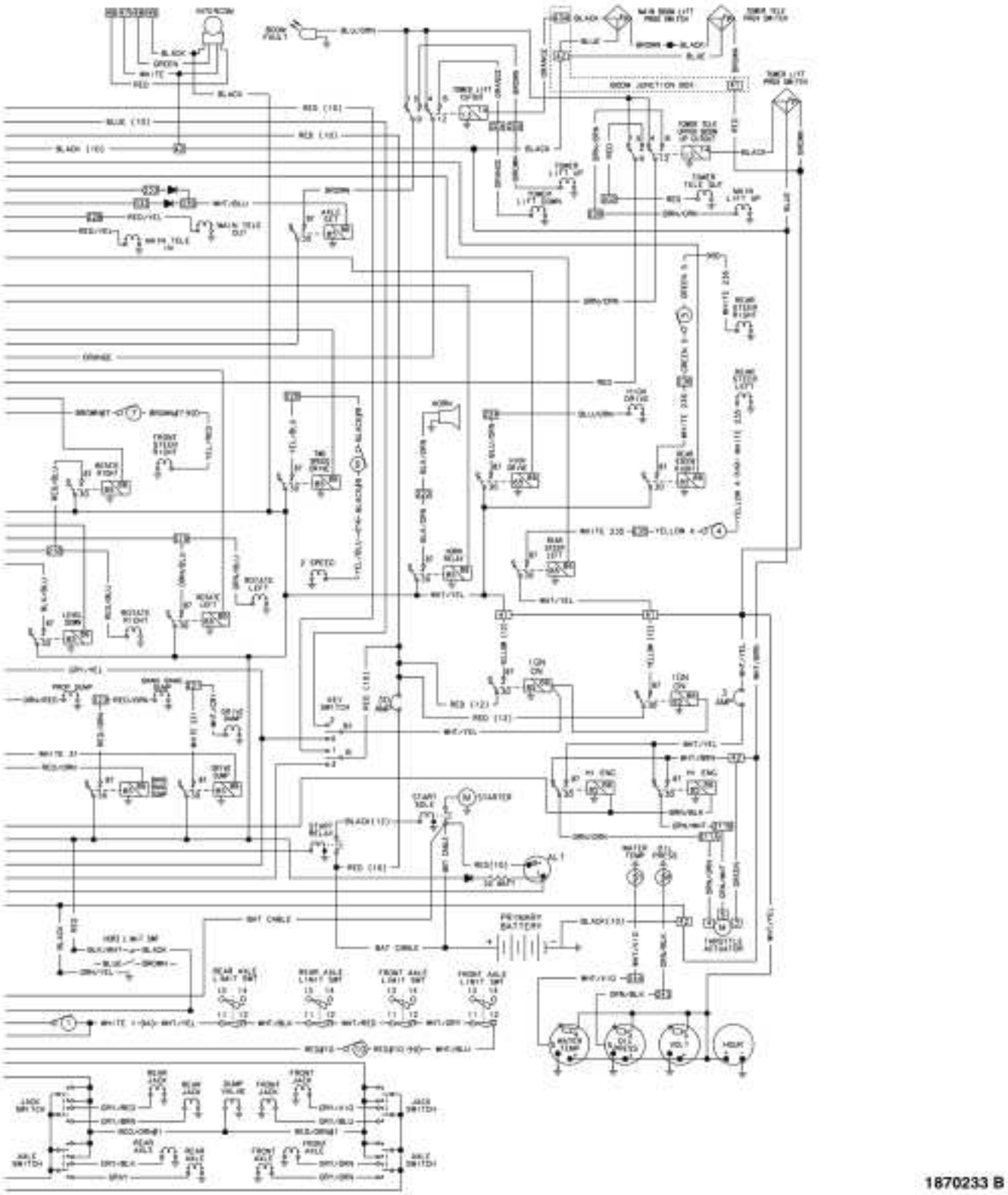
It should be recognized that the majority of the problems arising in the machine will be centered in the hydraulic and electrical systems. For this reason, every effort has been made to ensure that all likely problems in these areas are given the fullest possible treatment. In the remaining machine groups, 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 (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.

6.3 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 6-4. Electrical Schematic - Sheet 4 of 5

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6. Extending Axles



Lube Point(s) - N/A
Capacity - A/R
Lube - MPG
Interval - Every 3 months or 150 hrs of operation
Comments - Apply by brush

7. Swing Bearing Gear



Lube Point(s) - N/A
Capacity - A/R
Lube - MPG
Interval - Every 3 months or 150 hrs of operation
Comments - Apply by brush

8. Lower Master Cylinder Barrel End



Lube Point(s) - 1 Grease Fitting
Capacity - A/R
Lube - MPG
Interval - Every 3 months or 150 hrs of operation
Comments - Remote Fitting on Left Rear of Turntable

9. Tower Boom Lift Cylinder Barrel End



Lube Point(s) - 1 Grease Fitting
Capacity - A/R
Lube - MPG
Interval - Every 3 months or 150 hrs of operation
Comments - Remote Fitting on Left Rear of Turntable

10. Swing Bearing



Lube Point(s) - 2 Grease Fitting
Capacity - A/R
Lube - MPG
Interval - Every 3 months or 150 hrs of operation
Comments - Remote Fitting on Left Rear of Turntable

11. Lower Master Cylinder Rod End

Lube Point(s) - 1 Grease Fitting
Capacity - A/R
Lube - MPG
Interval - Every 3 months or 150 hrs of operation
Comments -

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