Service and Maintenance Manual

Model 120HX

3120819

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1.11 BOOM TAPE

Standard Boom

Red Tape - 56-1/2 in. (143.5 cm).

White Tape - 91-5/8 in. (232.7 cm)

w/Boom Wipers

Red Tape - 54-1/2 in. (138.4 cm).

White Tape - 89-5/8 in. (227.6 cm).

1.12 CYLINDER SPECIFICATIONS

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

Table 1-8. Cylinder Specifications

DESCRIPTION	BORE	STROKE	ROD DIA.
Lift Cylinder	9.0 (22.9)	48.5 (123.2)	4.0 (10.2)
Master Cylinder	2.5 (6.4)	15.1 (38.4)	1.3 (3.2)
Slave Cylinder	3.5 (8.9)	7.3 (18.5)	1.8 (4.4)
Extend-A-Reach Cyl.	3.5 (8.9)	18.3 (46.5)	2.5 (6.4)
Telescope Cylinder	5.0 (12.7)	266.0 (675.6)	3.5 (8.9)
Frame Jack Cyl. (2)	5.0 (12.7)	17.6 (44.8)	3.0 (7.6)
Axle Extend Cyl. (2)	3.0 (7.6)	29.0 (73.7)	2.0 (5.1)
Steer Cylinder (2)	3.0 (7.6)	9.8 (24.9)	1.5 (3.8)

1.13 CRITICAL STABILITY WEIGHTS

Table 1-9. Critical Stability Weights

COMPONENT	WEIGHT
Counterweight	9,050 lb. (4,105 kg)
Foam-Filled Tires (each)	932 lb. (423 kg)
Deutz Engine	837 lb. (380 kg)
Platform	243 lb. (110 kg)

⚠ WARNING

DO NOT REPLACE ITEMS CRITICAL TO STABILITY, SUCH AS THE COUNTERWEIGHT OR FOAM-FILLED TIRES, WITH ITEMS OF DIFFERENT WEIGHT OR SPECIFICATION. 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. 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 (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 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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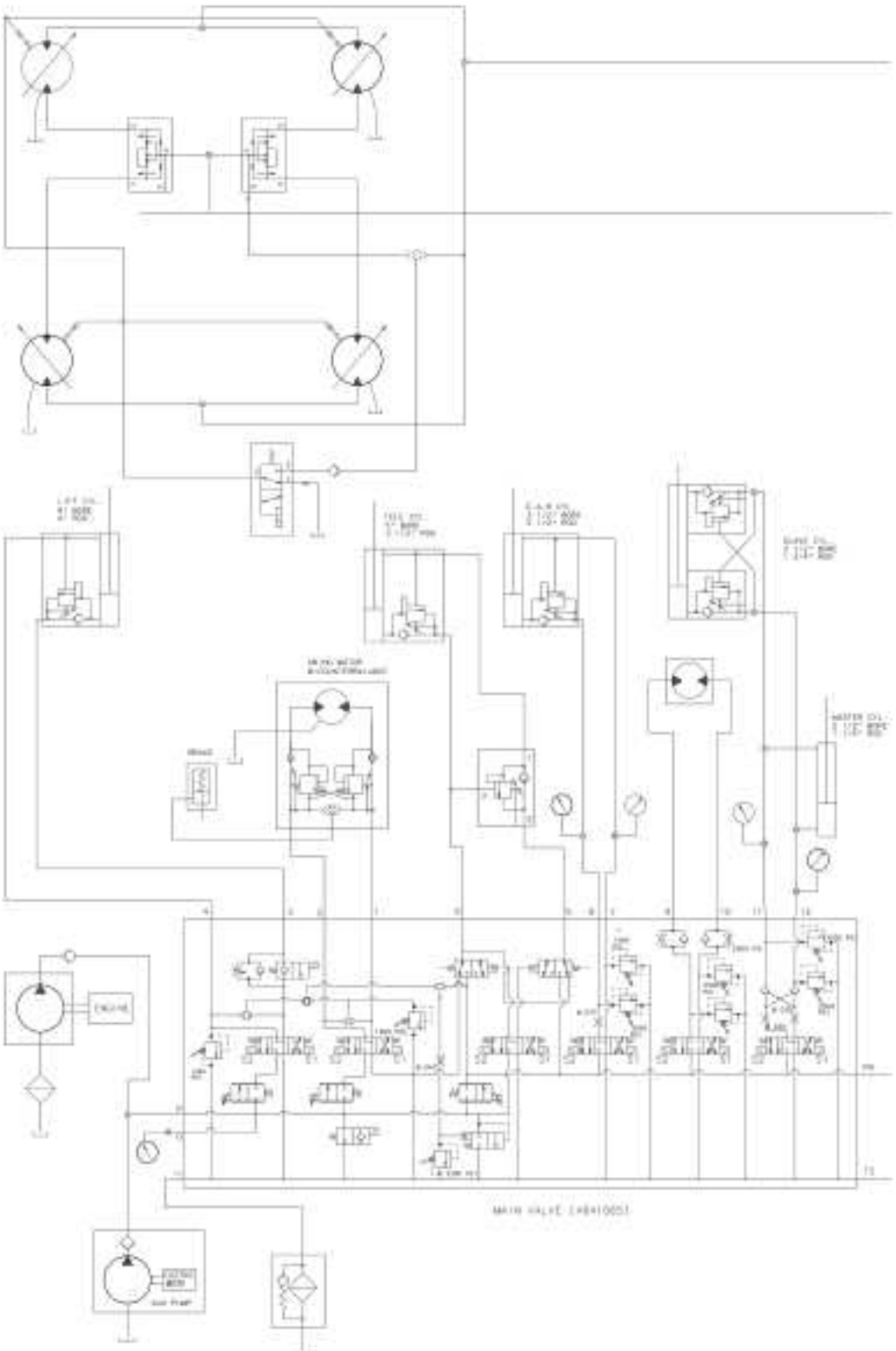


Figure 3-6. Hydraulic Schematic - (Sheet 1 of 2)

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