# Service and Maintenance Manual

# Model
# 40H
# 40H+6

**3120240**
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## ANSI

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# SECTION 1. SPECIFICATIONS

## 1.1 CAPACITIES.

Fuel Tank - 37 Gallons (140.2 L)

Hydraulic Oil Tank - 37 U.S. Gallons (104.2 L).

Hydraulic System (Including Tank) - 70 U.S. Gallons (264.95 L).

Torque Hub Drive - 2.5 Pints (1.18 L).

Torque Hub Swing - 2.0 Pints (1.18 L).

***NOTE:*** *Torque Hubs should be one - half full of lubricant. (EPGL-90)*

Engine Crankcase (Ford LSG423) w/Filter 5 quarts (4.73 L).

Engine Crankcase (Ford LRG423) w/Filter 5 quarts (4.73 L).

Engine Crankcase (Deutz F3L912) w/Filter 9.5 quarts (8.99 L).

Engine Crankcase (Deutz F3L1011) w/Filter 6.34 quarts (6 0 L).

Engine Crankcase (Deutz F2L511) w/Filter 3.5 quarts

Engine Crankcase (Wisconsin VG4D) w/Filter 5.0 quarts (4.73 L).

***NOTE:*** *Tolerance on all engine rpm settings is plus or minus 10%.*

## 1.2 COMPONENT DATA.

### Engine - Ford LSG423/Lrg423.

Oil capacity - 5 quarts (4.73 L) w/Filter, 4 quarts (3.79 L) w/o Filter.

Cooling System - 16 quarts (15.14 L).

Low RPM - 1000, no load.

Mid RPM - 1800, no load.

High RPM - 3000, no load.

Alternator - 40 Amp, belt drive.

Battery - 1000 cold cranking Amps, 210 minutes reserve capacity,12 VDC.

Fuel Consumption Low RPM - 2.03 GPH (7.68 LPH).

Fuel Consumption High RPM - 2.73 GPH (10.33 LPH).

Horsepower - 63 @ 2800 RPM, no load.

### Engine -Ford LRG-425 D.I.S.

Oil Capacity.

4.50 Quarts (4.25 1) w/Filter.

3.50 Quarts (3.31 1) w/o Filter.

Idle RPM - 1000.

Low RPM - 1800.

High RPM - 2800.

Alternator - 95 Amp, Belt Drive.

Battery - 1000 Cold Cranking Amps, 210 minute reserve Capacity, 12 VDC.

Fuel Consumption.

Low RPM - 3.45 GPH (13.06 lph).

High RPM - 4.60 GPH (17.41 lph).

Horsepower - 74 @ 3000 RPM, full load.

Cooling System - 16 Quarts (15.14 l.).

### Engine - Deutz F3L912.

Oil capacity - 9.5 quarts (8.99L) w/Filter, 8.5 quarts (8.04 L) w/o Filter.

Low RPM 1800.

High RPM 2400.

Alternator - 85 Amp, belt drive.

Battery - 1000 cold cranking Amps, 210 minutes reserve capacity, 12VDC.

Fuel Consumption Low RPM - 2.03 GPH (7.68 LPH).

Fuel Consumption High RPM - 2.73 GPH (10.33 LPH).

Horsepower - 47 @ 2800 RPM, no load.

### Engine - Deutz F3L1011.

Oil Capacity - 6.34 quarts (6.0 L) w/Filter, 5.8 quarts (5.5 L) w/0 Filter.

Low RPM 2000.

High RPM 3000.

Alternator - 60 Amp, belt drive.



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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.

Troubleshooting and maintenance information pertaining to the prime mover (engine) that are not contained in this manual are contained in the applicable engine maintenance manual.

## 3.2 TROUBLESHOOTING INFORMATION.

The troubleshooting procedures are listed and defined in Table 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 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 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 also 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 and 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 control 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.Troubleshooting



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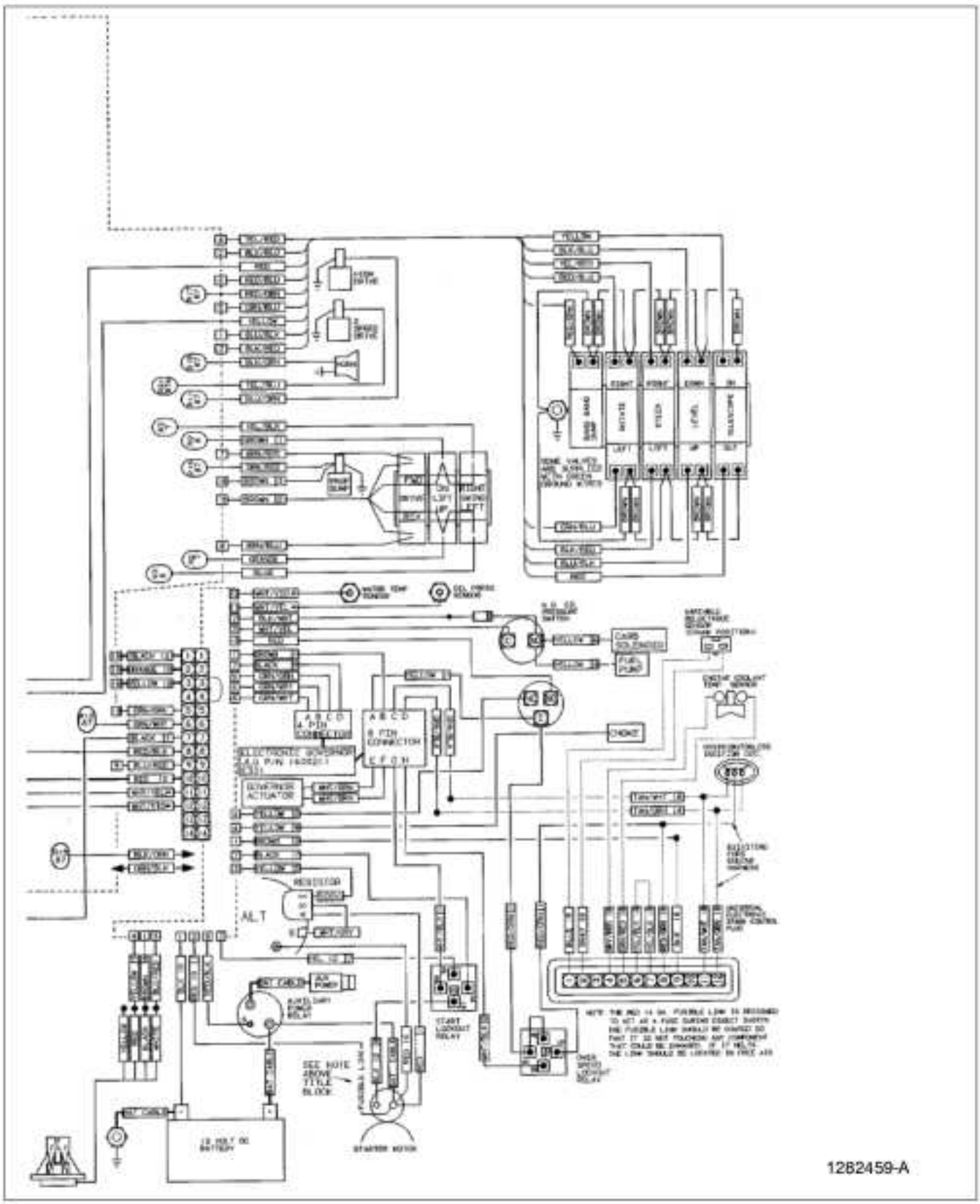



**Figure 3-16. Wiring Diagram - Standard (Ford Lrg425 Dis Engine W/ Standard Controls) (Sheet 2 Of 2).**



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