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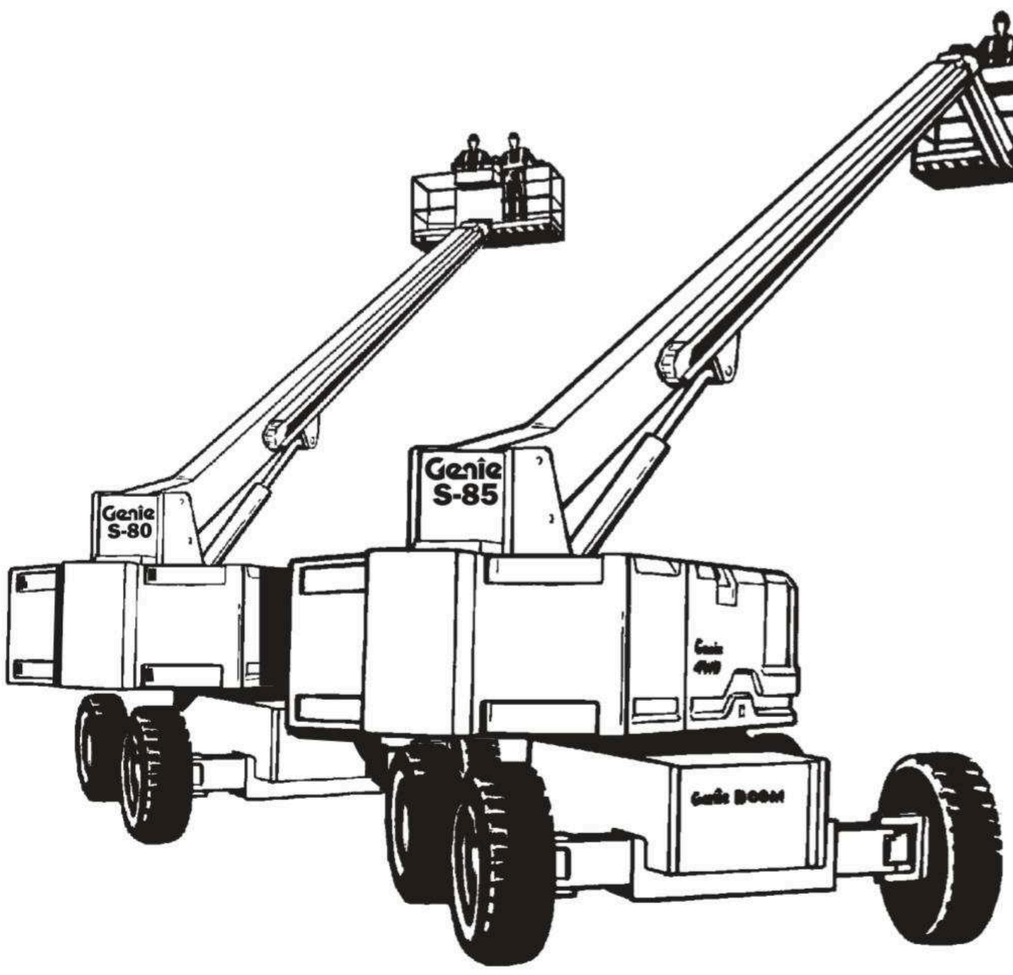
Genie®

A TEREX COMPANY

Genie® S-80

Genie® S-85

Service Manual



First Edition, First Printing
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Ford Engine LSG-423

Displacement	140 cu in 2.3 liters
Number of cylinders	4
Bore & stroke	3.780 x 3.126 inches 96 x 79.4 mm
Horsepower	63 @ 4000 rpm
Firing order	1 - 3 - 4 - 2
Low idle - carburetor	900 rpm
Low idle - electronic governor	1600 rpm
High idle	2500 rpm
Governor	electronic
Compression ratio	9.5:1
Compression pressure (approx.)	150 to 175 psi 10 to 12 bar
Pressure (psi) of lowest cylinder must be at least 75% of highest cylinder	
Valve clearances	0.040 to 0.050 inches 1.0 to 1.3 mm
Lubrication system	
Oil pressure (operating temp. @ 2500 rpm)	40 to 60 psi 2.75 to 4.1 bar
Oil capacity (including filter)	5 quarts 4.7 liters
Oil viscosity requirements	
Temperature below 60°F / 15.5°C	5W-30
-10°F to 90°F / -23°C to 32°C	10W-30
Temperature above -10°F / -23°C	10W-40 to 10W-50
Temperature above 25°F / -4°C	20W-40 or 20W-50
Use oils meeting API classification SG (labeled SG/CC or SG/CD) as they offer improved wear protection. (units ship with 10W-40 SG/CC)	

Starter motor	
Normal engine cranking speed	110 rpm
Current draw, normal load	150A
Current draw, maximum load	460A
Current draw, no load	70A
Maximum circuit voltage drop while starting (normal temperature)	0.5V DC
Brush length, new	0.50 in 12.7 mm
Brush length wear limit	0.25 in 6.35 mm
Brush spring tension	40 ounces 11 Newtons
Bolt torque through brush	55 to 75 inch-pounds 6 to 8.5 Nm
Brush mounting bolt torque	15 to 20 foot-pounds 20 to 27 Nm
Maximum commutator run-out	0.005 inches 0.127 mm
Battery	
Type	12V, Group 31
Quantity	1
Cold cranking ampere	1000A
Reserve capacity @ 25A rate	200 minutes
Fuel pump	
Static pressure	5 to 7 psi 0.34 to 0.48 bar
Minimum volume flow (in 25 seconds)	1 pint 473 cc

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Troubleshooting Flow Charts



Observe and Obey:

- ☑ Troubleshooting and repair procedures shall be completed by a person trained and qualified on the repair of this machine.
- ☑ Immediately tag and remove from service a damaged or malfunctioning machine.
- ☑ Repair any machine damage or malfunction before operating the machine.
- ☑ Unless otherwise specified, perform each repair procedure with the machine in the following configuration:
  - machine parked on a flat level surface
  - boom in stowed position
  - turntable rotated with the boom between the non-steering wheels
  - turntable secured with the turntable rotation lock pin
  - key switch in the OFF position with the key removed
  - wheels chocked

Before Troubleshooting:

- ☑ Read, understand and obey the safety rules and operating instructions printed in the *Genie S-80 & Genie S-85 Operator's Manual.*
- ☑ Be sure that all necessary tools and test equipment are available and ready for use.
- ☑ Read each appropiate flow chart thoroughly. Attempting shortcuts may produce hazardous conditions.
- ☑ Be aware of the following hazards and follow generally accepted safe workshop practices.

⚠DANGER Crushing hazard. When testing or replacing any hydraulic component, always support the structure and secure it from movement.

⚠DANGER Electrocution hazard. Contact with electrically charged circuits may result in death or serious injury. Remove all rings, watches and other jewelry.

⚠WARNING Bodily injury hazard. Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.

NOTICE Perform all troubleshooting on a firm level surface.

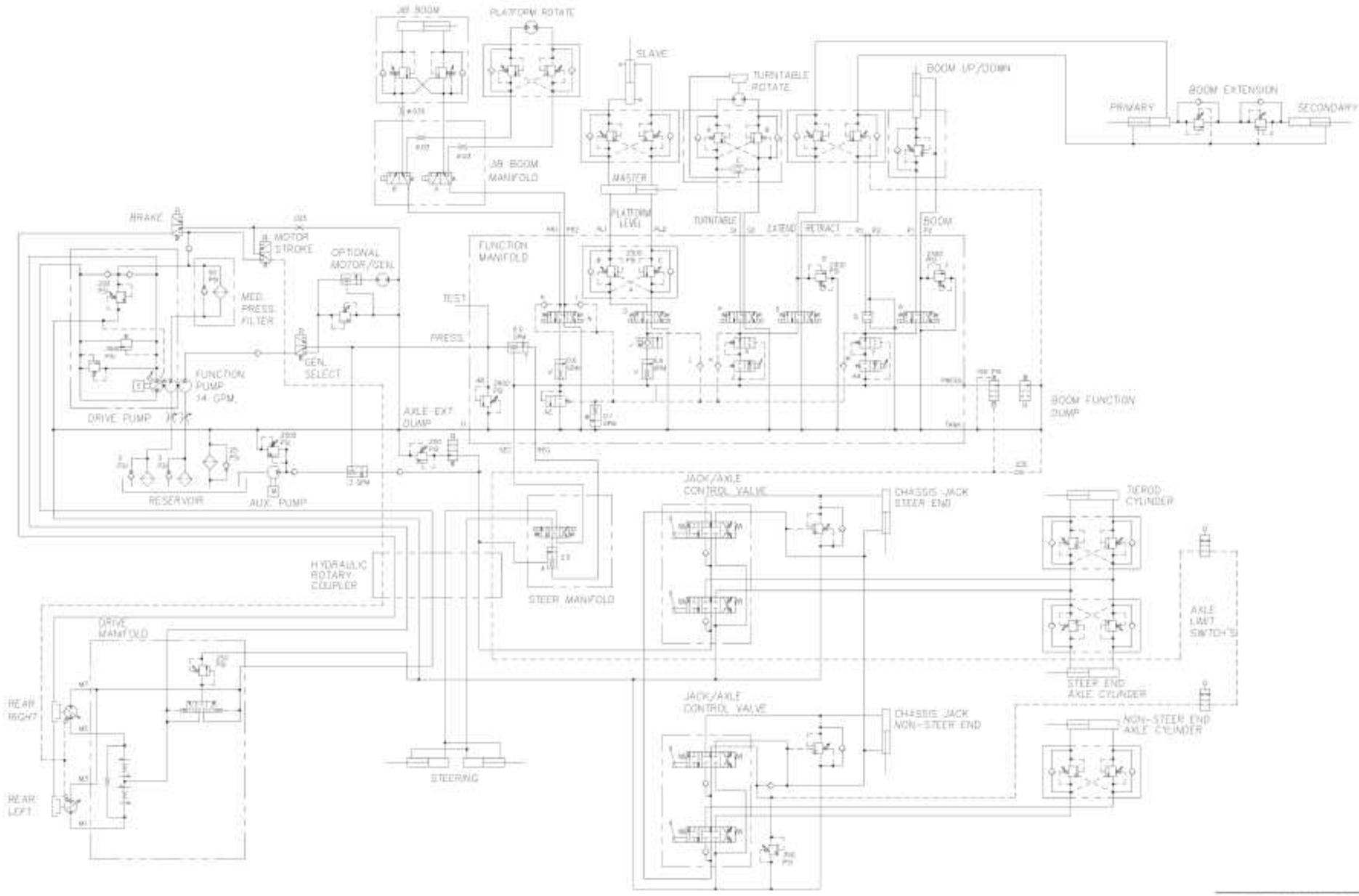
NOTICE Two persons will be required to safely perform some troubleshooting procedures.

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2WD Hydraulic Schematic

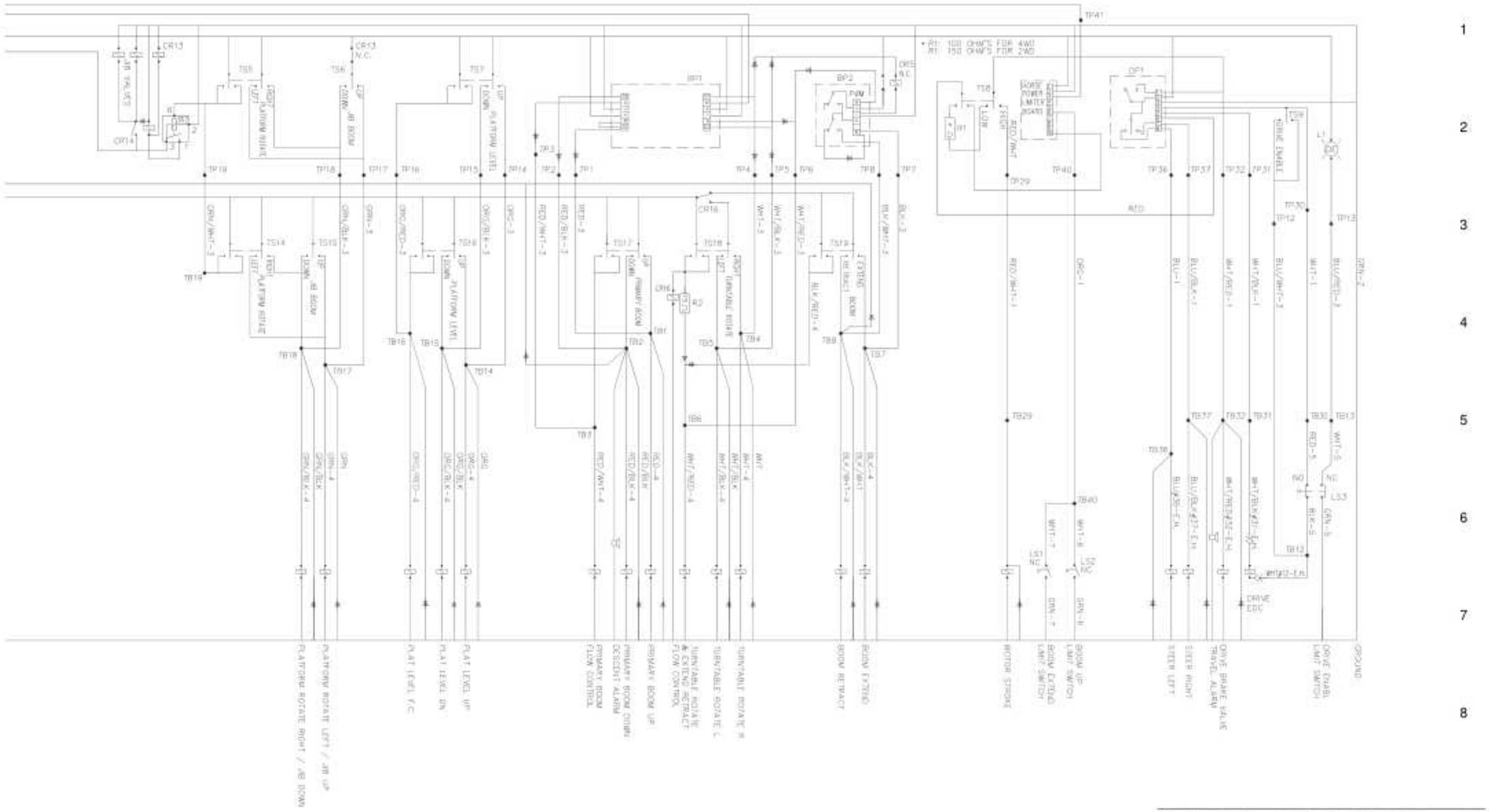
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Electrical Schematic - Diesel Models



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