Genie Industries

Technical Publications

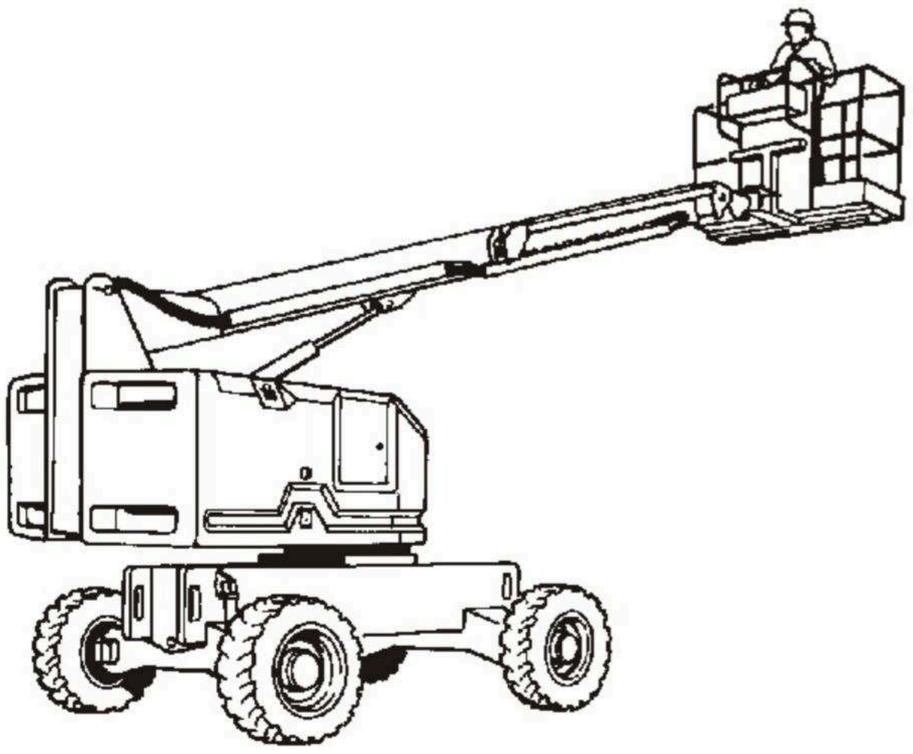
Genie®

A TEREX COMPANY

Genie® S-40

Service Manual

(from serial number 832 to 1789)



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Hydraulic Specifications

Hydraulic fluid	Dexron equivalent
Drive pump	
Type: bi-directional variable displacement piston pump	
Displacement - 2500 rpm	0 to 31.6 gallons per minute 0 to 119.6 liters per minute
Maximum drive pressure	3500 psi 241.3 bar
Charge pressure neutral position drive position	 290 psi 250 psi
	 20 bar 17 bar
Medium pressure filter	3 micron
Medium pressure filter bypass pressure	50 psi 3.4 bar
Drive manifold	
Brake relief pressure	250 psi 17.2 bar
Steer end drive motors	**4WD models**
4WD front motor flow regulators	2.5 to 8 gallons per minute 9.4 to 30.2 liters per minute
4WD rear motor flow regulators	5 to 15 gallons per minute 18.9 to 56.7 liters per minute
2WD rear motor flow regulators	8 to 22 gallons per minute 30.2 to 83.2 liters per minute
Front drive motors	**4WD models**
Displacement per revolution	1.52 cu in 25 cc
Non-steer end drive motors	
Displacement per revolution	2.13 cu in 35 cc

Function pump	
Type: pressure balanced gear	
Displacement - static	1.14 cu in 19 cc
Displacement - 2500 rpm	0 to 12.3 gallons per minute 0 to 46.6 liters per minute
Hydraulic tank circuit return line filter	10 micron with 25 psi (1.7 bar) bypass

Function manifold		
Function relief valve pressure		
S-60	2600 psi	179 bar
S-65	2900 psi	200 bar
Boom down relief valve pressure		2100 psi 145 bar
Boom extend		2500 psi 172 bar
Oscillate axle		950 psi 65 bar
Steer regulator		3.5 gallons per minute 13.2 liters per minute

Auxiliary pump	
Type: fixed displacement gear pump	
Displacement - static	0.152 cu in 2.5 cc
Displacement	1.4 gallons per minute 5.3 liters per minute
Auxiliary pump relief pressure	2500 psi 172 bar

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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 appropriate *Genie S-40 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.

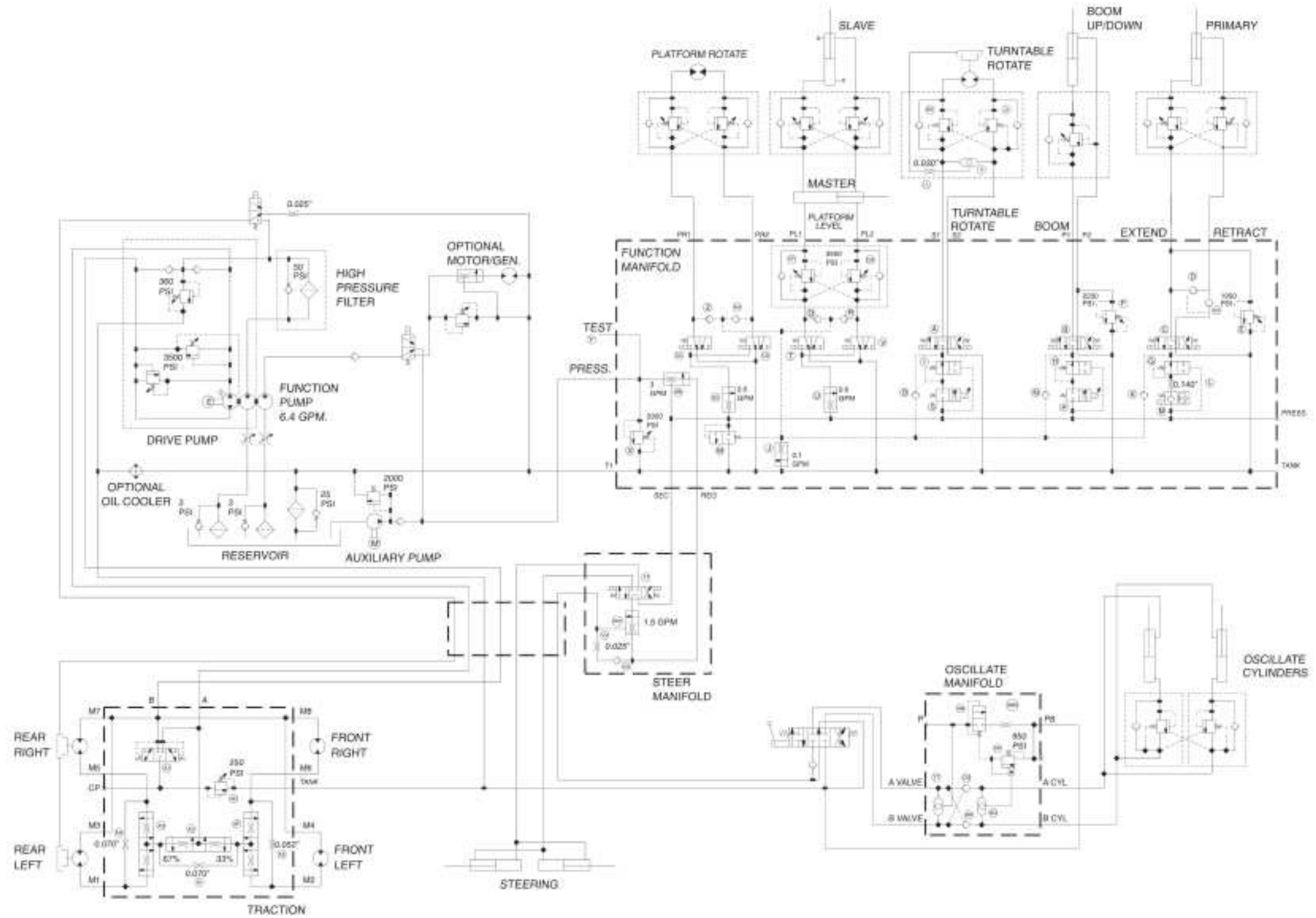
⚠WARNING Bodily injury hazard. Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.

NOTICE Perform all troubleshooting on a firm level surface.

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

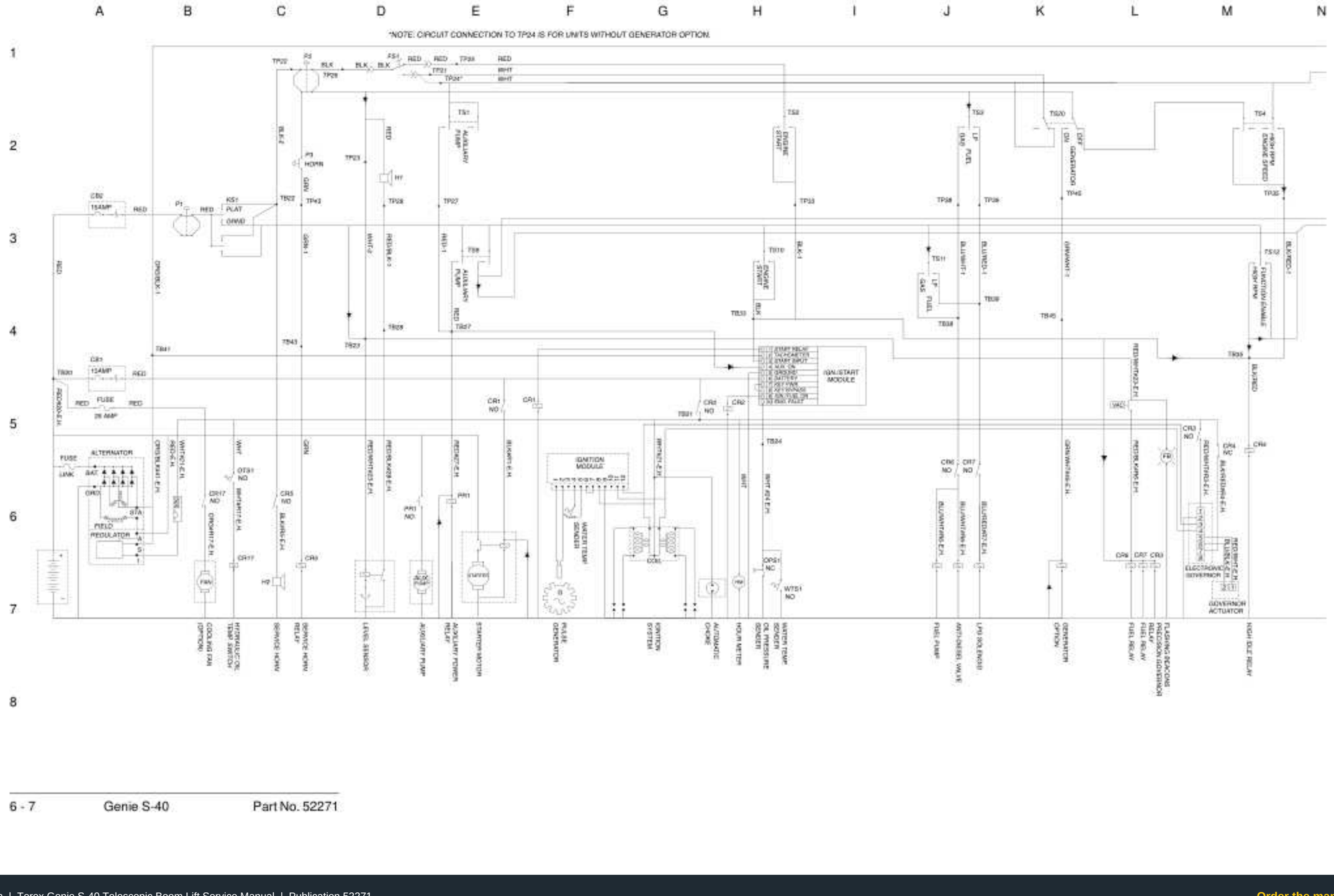
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4WD Hydraulic Schematic (after serial number 1423)
Oscillating Axle



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Electrical Schematic- Gasoline/LPG Models



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