

Genie®

Service Manual

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Rev B2

GS™-2046
GS™-2646
GS™-3246

MidWestTech | Terex Genie GS-2046, GS-2646, GS-3246 Scissor Lift Service Manual | Publication 72972

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Hydraulic Specifications

Hydraulic Oil Specifications	
Before serial number 52640	
Hydraulic oil type	Shell Donax TG (Dexron III)
After serial number 52639	
Hydraulic oil type	Chevron Rykon MV equivalent
Approximate SAE grade	5W-20
Viscosity index rating	200

Chevron Rykon MV oil is fully compatible and mixable with Shell Donax TG (Dexron III) oils.

Genie specifications require hydraulic oils which are designed to give maximum protection to hydraulic systems, have the ability to perform over a wide temperature range, and have a minimum viscosity index rating of 150. They should provide excellent antiwear, oxidation, corrosion inhibition, seal conditioning, and foam and aeration suppression properties.

Optional fluids	
Biodegradable	Petro Canada Premium ECO 46 Statoil Hydra Way Bio Pa 32 BP Biohyd SE-S
Fire resistant	UCON Hydrolube HP-5046 Quintolubric 822
Mineral based	Shell Tellus T32 Shell Tellus T46 Chevron Aviation A

NOTICE Genie specifications require additional equipment and special installation instructions for the approved optional fluids. Consult the Genie Industries Service Department before use.

Function pump	
Type:	gear
Displacement per revolution	0.244 cu in 4 cc
Flow rate @ 2500 psi / 172 bar	4 gallons per minute 15.1 L/min
Hydraulic tank return line filter	10 micron with 25 psi / 1.7 bar bypass

Function manifold, GS-2046 & GS-2646	
System relief valve pressure	3500 psi 241.3 bar
Steer relief valve pressure	1500 psi 103.4 bar
Lift relief valve pressure (after serial number 36044)	3000 to 3200 psi 207 to 221 bar

Function manifold, GS-3246	
System relief valve pressure	3500 psi 241.3 bar
Steer relief valve pressure	1500 psi 103.4 bar
Lift relief valve pressure (before serial number 36045)	2000 psi 137.9 bar
Lift relief valve pressure (after serial number 36044)	3000 to 3200 psi 207 to 221 bar

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REV A

Fault Code Chart
(after serial number 17407)

Fault Code	Problem	Possible Causes	Solution
01	Internal ECM error.	EPROM not programmed.	Replace ECM.
02 (See Chart 16)	ECM/Platform communication error.	Malfunctioning control cable OR malfunctioning platform controls.	Troubleshoot control cable OR troubleshoot platform controls.
03	Undefined platform DIP switch settings.	DIP switch settings incorrect.	Correct DIP switch settings.
12 (See Chart 4)	Chassis up/down toggle closed at start up.	Malfunctioning up/down switch.	Troubleshoot up/down switch.
18 (See Charts 10, 13 or 14)	Pothole guard failure.	Malfunctioning pothole switch OR obstruction in pothole guard linkage.	Troubleshoot pothole switch OR remove obstruction.
19 (See Chart 15)	Limit switch failure.	Malfunctioning limit switch OR wire disconnected from limit switch.	Troubleshoot limit switch OR inspect wire connection.
42 (See Chart 5 or Chart 8)	Platform left turn switch fault.	Malfunctioning steer left microswitch.	Troubleshoot steer left microswitch.
43 (See Chart 5 or Chart 9)	Platform right turn switch fault.	Malfunctioning steer right microswitch.	Troubleshoot steer right microswitch.
46 (See Chart 5)	Platform drive enable switch fault.	Malfunctioning drive enable switch.	Troubleshoot drive enable switch.
47	Platform joystick fault.	Joystick potentiometer not centered.	Verify potentiometer setting.
52 (See Chart 11)	Forward coil fault.	Malfunctioning coil OR wire disconnected from coil.	Troubleshoot coil OR inspect wire connection.
53 (See Chart 12)	Reverse coil fault.	Malfunctioning coil OR wire disconnected from coil.	Troubleshoot coil OR inspect wire connection.
54 (See Chart 6)	Up coil fault.	Malfunctioning coil OR wire disconnected from coil.	Troubleshoot coil OR inspect wire connection.
55 (See Chart 7)	Down coil fault.	Malfunctioning coil OR wire disconnected from coil.	Troubleshoot coil OR inspect wire connection.
56 (See Chart 9)	Right coil fault.	Malfunctioning coil OR wire disconnected from coil.	Troubleshoot coil OR inspect wire connection.
57 (See Chart 8)	Left coil fault.	Malfunctioning coil OR wire disconnected from coil.	Troubleshoot coil OR inspect wire connection.
58 (See Chart 10 or Chart 10A)	Brake coil fault.	Malfunctioning coil OR wire disconnected from coil.	Troubleshoot coil OR inspect wire connection.
59 (See Chart 17)	Series/parallel coil fault.	DIP switch settings are incorrect.	Troubleshoot and correct DIP switch settings.
68	Low battery voltage.	Batteries discharged.	Charge batteries.
88	ECM has been erased.	Static strap may be missing from the machine.	Replace static strap.

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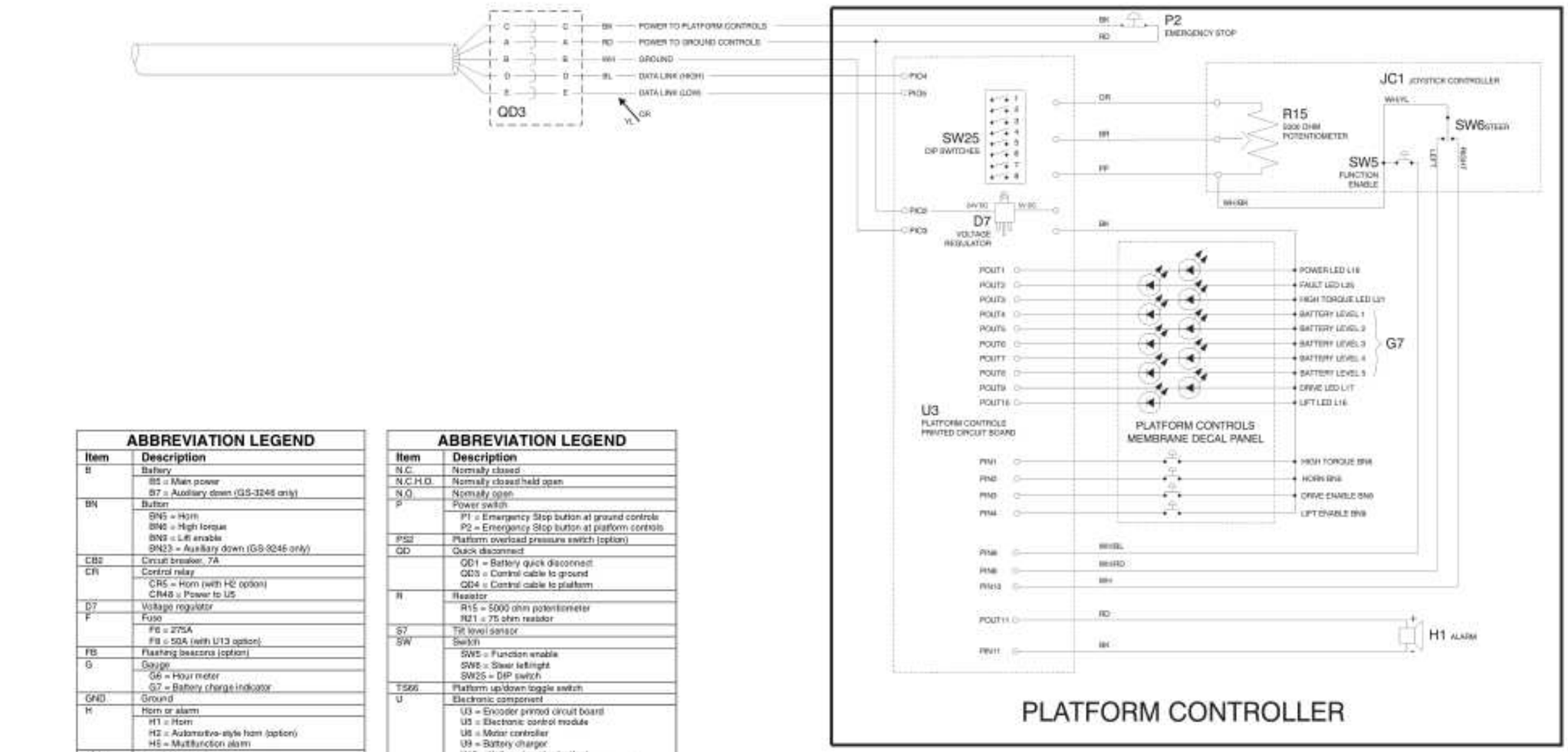
Hydraulic Schematic
GS-3246
(from serial number 22447 to 27181)



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REV B

Electrical Schematic
(from serial number 33722 to 40925)



ABBREVIATION LEGEND

Item	Description
B	Battery B5 = Main power B7 = Auxiliary down (GS-3246 only)
BN	Button BN5 = Horn BN6 = High torque BN9 = Lift enable BN23 = Auxiliary down (GS-3246 only)
CB2	Circuit breaker, 7A
CR	Control relay CR5 = Horn (with H2 option) CR48 = Power to U5
D7	Voltage regulator
F	Fuse F6 = 275A F8 = 50A (with U13 option)
FB	Flashing beacons (option)
G	Gauge G6 = Hour meter G7 = Battery charge indicator
GND	Ground
H	Horn or alarm H1 = Horn H2 = Automotive-style horn (option) H5 = Multifunction alarm
JC1	Joystick controller
KS1	Key switch
L	LED or light L16 = Lift L17 = Drive L18 = Power L21 = High Torque L25 = Fault
LS	Limit switch LS2 = Platform up (GS-3246 only) LS6 = Platform down LS7 = Pothole LS8 = Pothole
M5	Hydraulic power unit

ABBREVIATION LEGEND

Item	Description
N.C.	Normally closed
N.C.H.O.	Normally closed/held open
N.O.	Normally open
P	Power switch P1 = Emergency Stop button at ground controls P2 = Emergency Stop button at platform controls
PS2	Platform overload pressure switch (option)
QD	Quick disconnect QD1 = Battery quick disconnect QD3 = Control cable to ground QD4 = Control cable to platform
R	Resistor R15 = 5000 ohm potentiometer R21 = 75 ohm resistor
S7	Tilt level sensor
SW	Switch SW5 = Function enable SW6 = Steer left/right SW25 = DIP switch
TS66	Platform up/down toggle switch
U	Electronic component U3 = Encoder printed circuit board U5 = Electronic control module U6 = Motor controller U9 = Battery charger U13 = Voltage inverter (option) U27 = 0.034 ohm inductor, noise suppression
Y	Valve coil Y1 = Parallel Y1A = High speed bypass (option) Y2 = Brake release Y3 = Steer right Y4 = Steer left Y5 = Drive reverse Y6 = Drive forward Y7 = Platform down Y8 = Platform up Y9 = Platform down (GS-3246 only) Y10 = Auxiliary down (GS-3246 only) Y11 = Auxiliary down (GS-3246 only)

WIRE COLOR LEGEND

Color	Description	Color	Description
BL	Blue	RD	Red
BK	Black	WH	White
BN	Brown	YL	Yellow
GN	Green	WH/BL	White/Blue
GY	Gray	WH/BK	White/Black
OR	Orange	WH/RD	White/Red
PP	Purple	WH/YL	White/Yellow

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