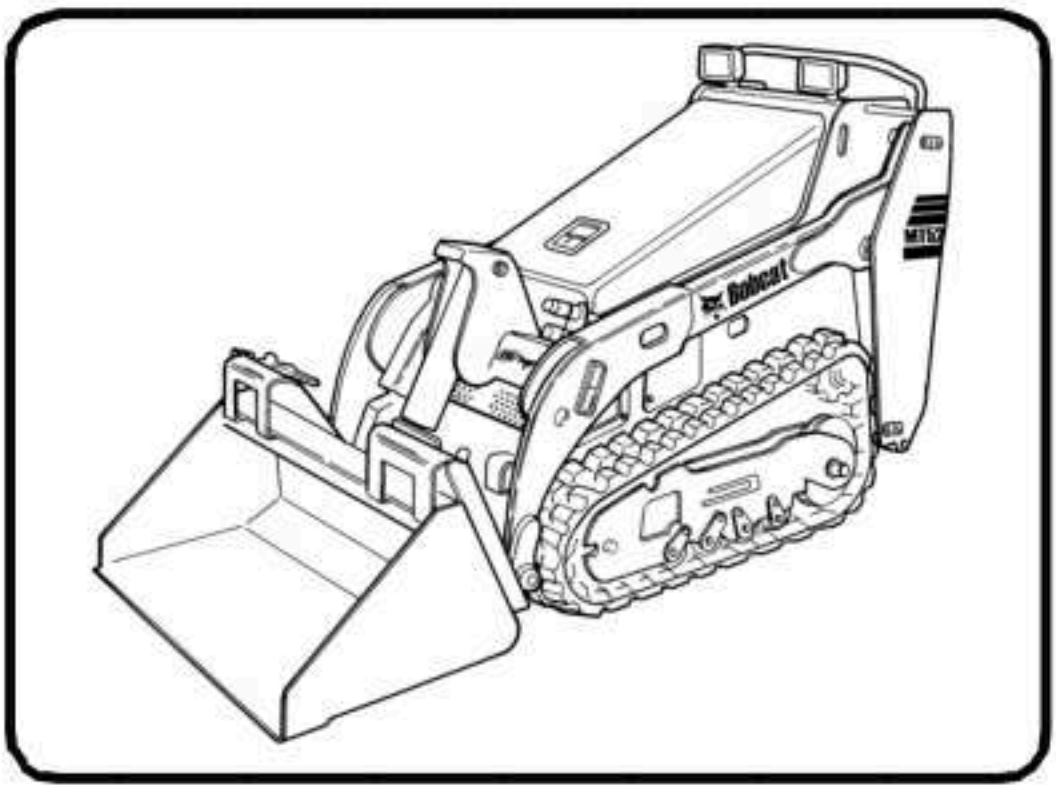
Bobcat®

Service Manual
MT52, MT55 Mini Track Loader

S/N A3WR11001 & Above
S/N A3WT11001 & Above
S/N A3WS11001 & Above
S/N A3WU11001 & Above



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6986859 (3-11)

Printed in U.S.A.

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CHARGE PRESSURE

Description

Charge pressure is a supply of oil to the hydrostatic pumps. Charge pressure is regulated by a charge relief valve located inside the filter housing.

Charge pressure is used to replenish hydrostatic fluid removed from the drive circuit, pump and motor "internal leakage" and from the hydrostatic motors shuttle (flushing) valve.

The charge pressure sender is located on the charge filter housing.

Testing

⚠ WARNING

AVOID INJURY OR DEATH

- **Movement of the attachment will occur if the tilt control is NOT in neutral when the engine is started.**
- **Always check that all levers are in neutral before starting the engine.**

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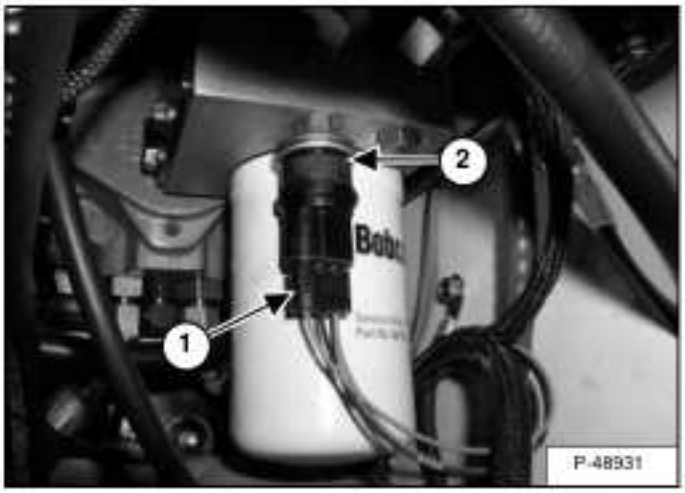
⚠ WARNING

Hydraulic fluid escaping under pressure can have sufficient force to enter a person's body by penetrating the skin. This can cause serious injury and possible death if proper medical treatment by a physician familiar with this injury is not received immediately.

W-2145-0290

Open the tail gate.

Figure 30-30-1



Disconnect the connector (Item 1) **[Figure 30-30-1]** from the charge pressure sender.

Remove the charge pressure sender (Item 2) **[Figure 30-30-1]** from the fitting

Install a gauge in charge pressure sender fitting.

Start the engine.

If the charge pressure does not read at least 586,1 kPa (5,9 bar) (85 psi), remove and inspect the valve poppet and spring assembly and replace if needed.

NOTE: The charge pressure sensor is electrically closed at 186,2 kPa (1,9 bar) (27 psi) and above, the sensor is electrically open at 172,4 kPa (1,7 bar) (25 psi) and below.

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LIFT ARMS

Removal And Installation

Remove the Bob-Tach. (See Removal And Installation on Page 50-10-1.)

Remove the tilt cylinder. (See Removal And Installation on Page 20-21-2.)

Figure 50-20-1

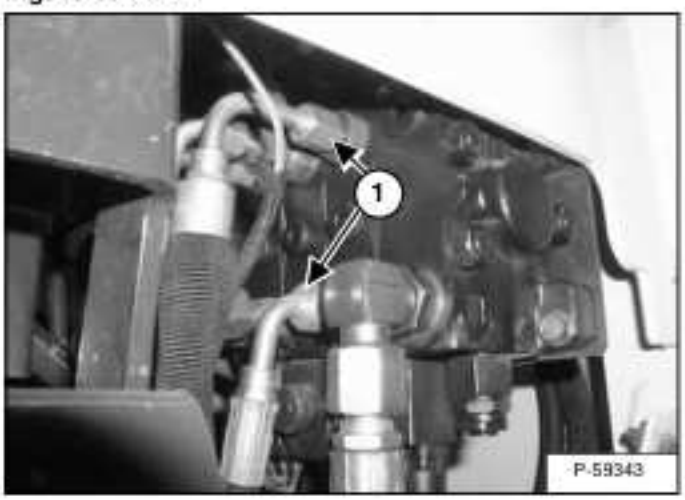


Raise the lift arms and install jackstands under the front of the lift arms **[Figure 50-20-1]**.

Remove the reverse stop panel. (See Removal And Installation on Page 50-80-1.)

Remove the tailgate striker. (See Striker Removal And Installation on Page 50-30-2.)

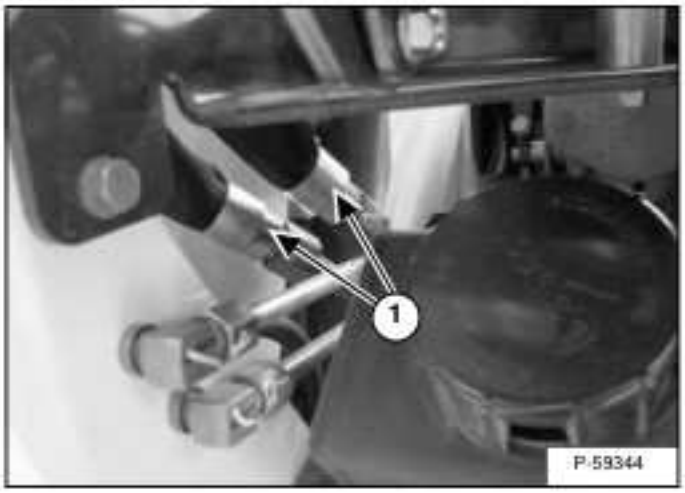
Figure 50-20-2



Disconnect and plug the tilt cylinder hoses (Item 1) **[Figure 50-20-2]**.

NOTE: Mark the tilt hoses (Item 1) [Figure 50-20-2] for ease of assembly.

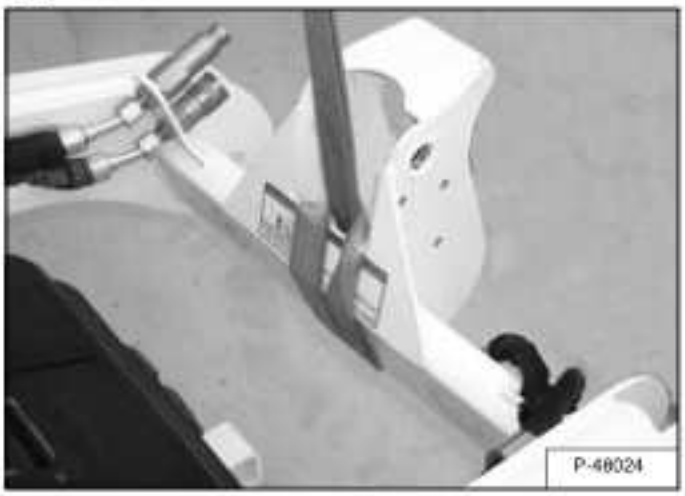
Figure 50-20-3



Disconnect and cap the auxiliary hoses (Item 1) **[Figure 50-20-3]** from the tubelines.

NOTE: Mark the auxiliary hoses (Item 1) [Figure 50-20-3] for ease of assembly.

Figure 50-20-4



Wrap the lifting strap around the lift arm as shown **[Figure 50-20-4]** and attach to a chain hoist.

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Specifications (Kubota D722-EB)

All dimensions are given in millimeters. Respective imperial dimensions are given in inches enclosed by parentheses.

Fuel Injector Nozzles

Opening Pressure	13,7 - 14,7 MPa (137 - 147 bar) (1992 - 2133 psi)
Fuel Tightness Nozzle Seat	12,7 MPa (127 bar) (1849 psi)

Fuel Injection Pump

Fuel Tightness of Pump Element	13,7 MPa 137 bar (1991 psi)
Fuel Tightness of Delivery Valve (factory spec)	10 Second Initial Pressure Drop From 13,7 - 12,7 MPa (137 - 127 bar) (1991 - 1849 psi)
Fuel Tightness of Delivery Valve (limit permitted)	5 Second Initial Pressure Drop From 13,7 - 12,7 MPa (137 - 127 bar) (1991 - 1849 psi)
Injection Timing @ 3600 rpm	20 - 22 degrees B.T.D.C.

Cylinder Head

Cylinder Head Distortion Limit	0,05 (0.002)
Thickness of Gasket Free	1,15 - 1,30 (0.0415 - 0.0512)
Thickness of Gasket Tightened	1,05 - 1,15 (0.0413 - 0.0453)
Top Clearance (Piston To Head)	0,50 - 0,70 (0.020 - 0.027)
Compression (At Operating Temperature)	2,8 - 3,2 MPa (28 - 32 bar) (413 - 469 psi)
Limit Permitted	2,3 MPa (23 bar) (327 psi)

Valves

Valve Seat Angle	45 degrees
Valve Seat Width	2,1 (0.08)
O.D. of Valve Stem	5,968 - 5,980 (0.2350 - 0.2354)
I.D. of Valve Guide	6,01 - 6,025 (0.2366 - 0.2372)
Clearance between Valve Stem And Guide	0,03 - 0,057 (0.0012 - 0.0022)
Limit Permitted	0,1 (0.0039)
Depth of Valve	-0,10 - 0,10 (-0.0039 - 0.0039)
Limit Permitted	0,30 (0.012)
Valve Clearance (Cold) (Intake And Exhaust)	0,145 - 0,185 (0.0057 - 0.0073)

Valve Springs

Free Length	31,3 - 31,8 (1.24 - 1.25)
Limit Permitted	28,4 (1.12)
Fitted Length	27 (1.063)
Load to Compress to Fitted Length	65 N (15 lb)
Limited Permitted	55 N (12 lb)
Limited Permitted for Spring Tilt	1,2 (0.047)

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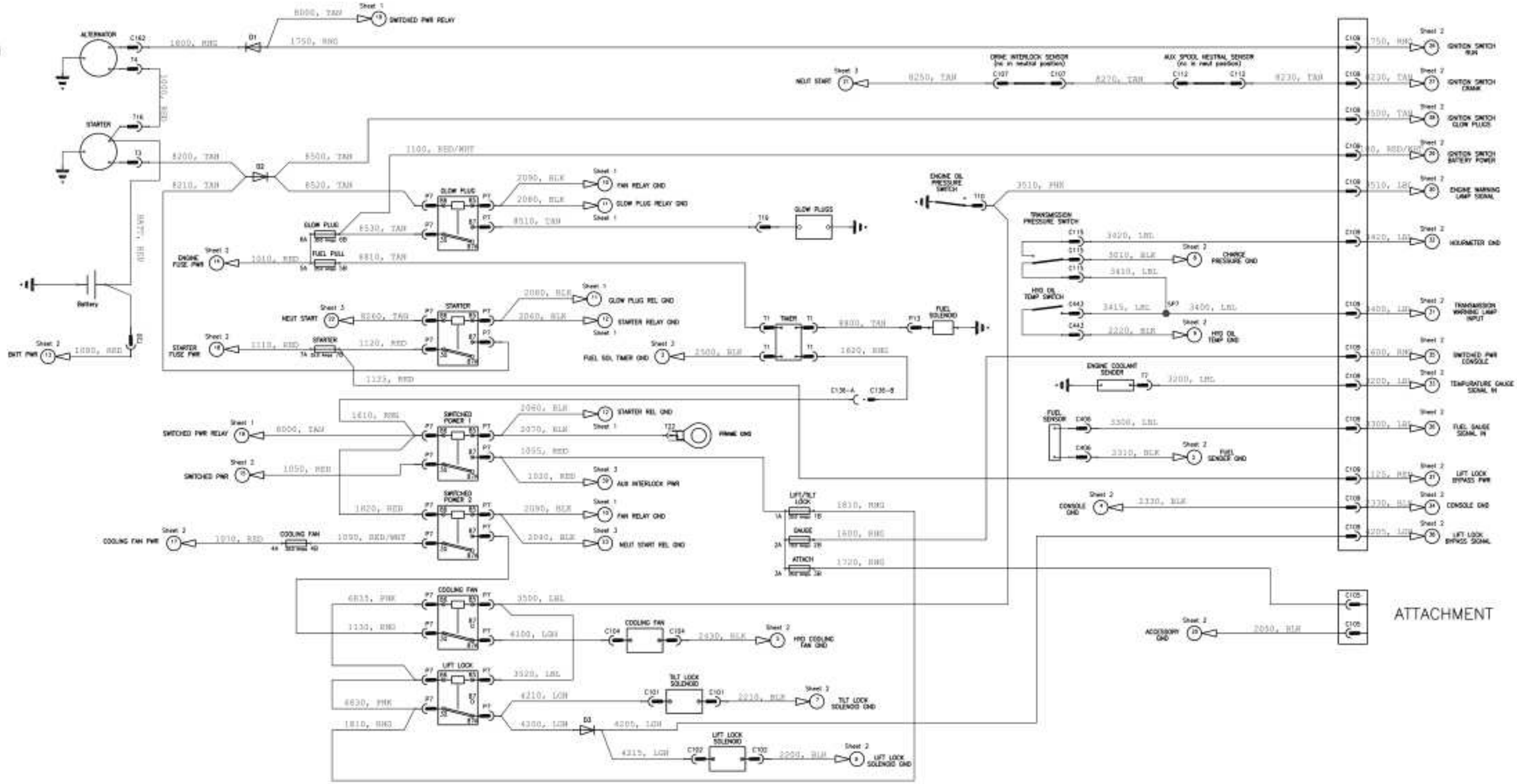
ELECTRICAL SCHEMATIC

MT52 (S/N A3WR11001 AND ABOVE)
MT52 (S/N A3WS11001 AND ABOVE)
MT55 (S/N A3WT11001 AND ABOVE)
MT55 (S/N A3WU11001 AND ABOVE

Sheet 1 of 3

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CONSOLE HARNESS CONNECTOR



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