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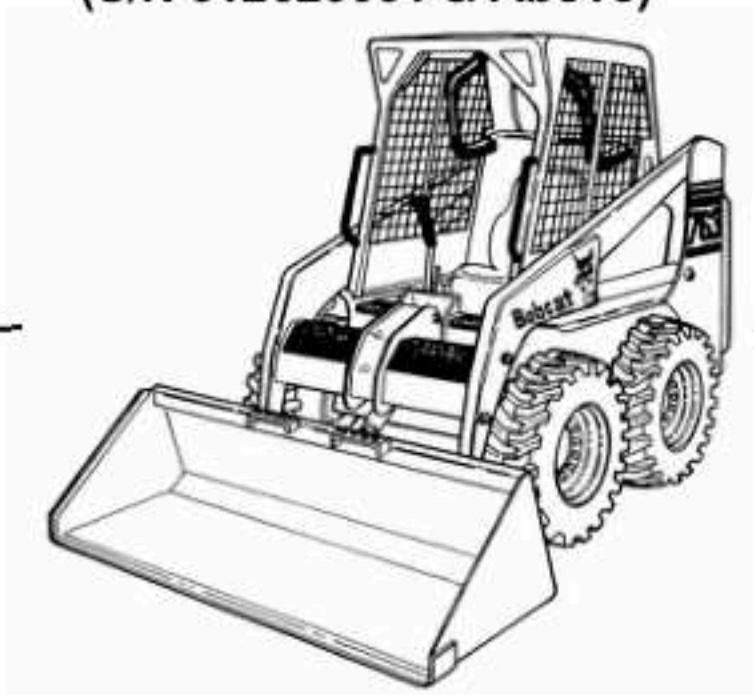
763 HIGH FLOW

Bobcat®

Service Manual

G Series

(S/N 512250001 & Above)
(S/N 512450001 & Above)
(S/N 512620001 & Above)



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

6900977 (2-06)

Ingersoll Rand
Compact Vehicle Technologies
Printed in U.S.A.

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HYDRAULIC CONTROL VALVE (ADVANCED CONTROL SYSTEM) (ACS)

Description

The Advanced Control System (ACS) includes the Advanced Hand Controls (AHC) and/or the Selectable Hand/Foot Control.

Removal And Installation (S/N 512262999 & Below)



WARNING

Never work on a machine with the lift arms up unless the lift arms are secured by an approved lift arm support device. Failure to use an approved lift arm support device can allow the lift arms or attachment to fall and cause injury or death.

W-2059-0598

Lift and block the loader. (See LIFTING AND BLOCKING THE LOADER on Page 10-10-1.)

Raise the lift arms and install an approved lift arm support device. (See Installing Lift Arm Support Device on Page 10-20-1.)

Stop the engine. Raise the seat bar.

Raise the operator cab. (See Raising The Operator Cab on Page 10-30-1.)

Clean the area around the control valve.

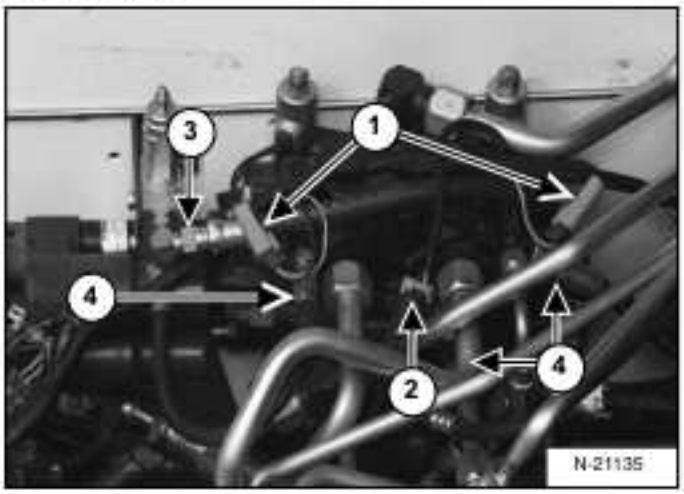
Drain the hydraulic reservoir. (See Fluid Removal on Page 20-80-1.)

Mark all tubelines for correct installation.

Cap and plug all hoses, tubelines, and fittings.

Remove the control panel. (See Removal and Installation on Page 50-100-1.)

Figure 20-41-1



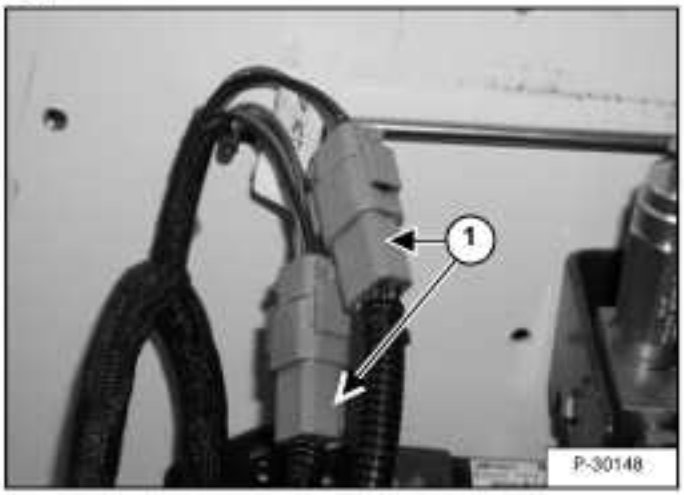
Disconnect the wire harness connectors (Item 1) **[Figure 20-41-1]** from the auxiliary solenoids connectors.

Disconnect the wire harness connector (Item 2) **[Figure 20-41-1]** from the BICS™ valve solenoid connector.

Disconnect the hose (Item 3) **[Figure 20-41-1]** from the lift arm by-pass control valve.

Disconnect the drain hoses (Item 4) **[Figure 20-41-1]** from the main control valve.

Figure 20-41-2

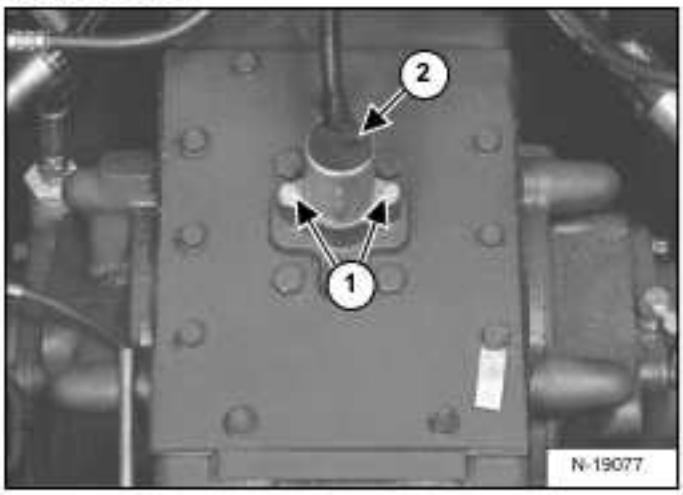


Disconnect the wire harness connector (Item 1) **[Figure 20-41-2]** from the control valve actuators.

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Solenoid Removal And Installation (Cont'd)

Figure 60-110-2

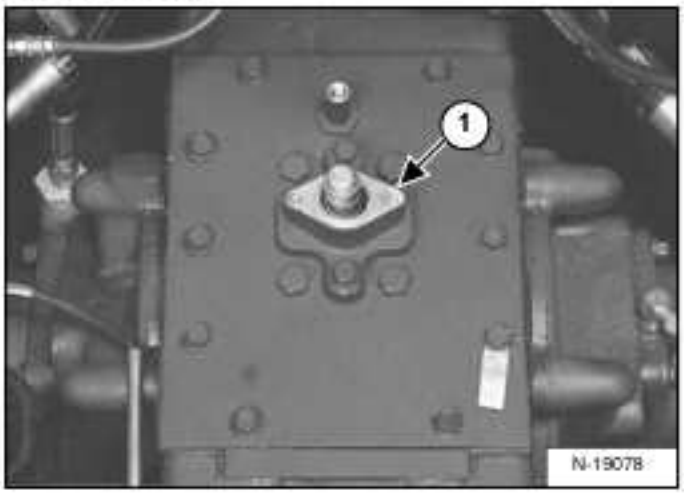


Remove the two mounting bolts (Item 1) **[Figure 60-110-2]** from the electric solenoid mounting bracket.

Installation: Tighten the mounting bolts to 25-28 ft.-lbs. (34-38 Nm) torque.

Remove the electric solenoid (Item 2) **[Figure 60-110-2]** from the chaincase cover **[Figure 60-110-2]**.

Figure 60-110-3

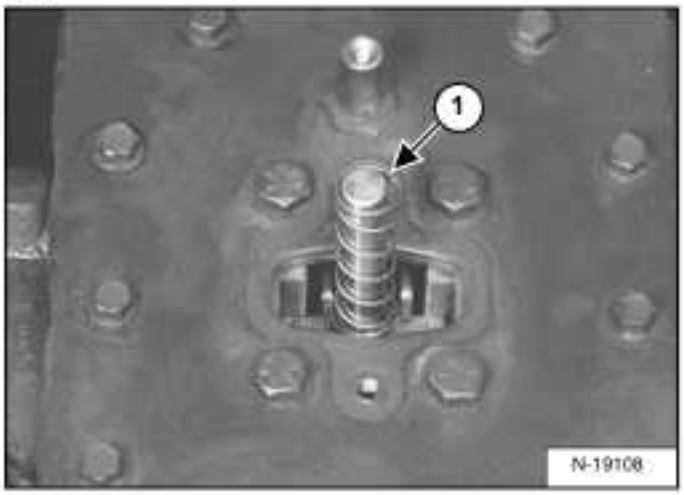


Remove the bracket (Item 1) **[Figure 60-110-3]** from the chaincase cover.

Installation: Tighten the mounting bolts to 25-28 ft.-lbs. (34-38 Nm) torque.

Be sure the solenoid mounting bracket is installed in the same position. The solenoid mounting surface has a slight angle which tips the top of the solenoid toward the rear of the loader when installed correctly. (See "Inspecting" on page 2.)

Figure 60-110-4



Remove the traction lock assembly (Item 1) **[Figure 60-110-4]** from the chaincase.

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

Valve Timing

Intake Valve (Open)	12 degrees B.T.D.C.
(Close)	36 degrees A.B.D.C.
Exhaust Valve (Open)	60 degrees B.B.D.C.
(Close)	12 degrees A.T.D.C.

Rocker Arms

O.D. of Rocker Arm Shaft	0.5501-0.5506 (13,973-13984)
I.D. of Rocker Arm Bushings	0.5512-0.5519 (14-14,018)
Clearance Between Rocker Arm & Bushing	0.0006-0.0015 (0,016-0,038)
Allowable Limit	0.006 (0,15)

Camshaft

Journal O.D.	1.5722-1.5728 (39.934-39,95)
Bearing I.D.	1.5748-1.5758 (40,0-40,025)
Oil Clearance	0.002-0.0036 (0,05-0,091)
Allowable Limit	0.006 (0,15)
Alignment Allowable Limit	0.0004 (0,01)
Cam Lobe Height	1.318 (33,47)
Allowable Limit	1.316 (33,42)
End Clearance	0.0028-0.0087 (0,07-0,22)
Allowable Limit	0.012 (0,3)

Tappet

Clearance Between Tappet & Guide	0.0008-0.0024 (0,02-0,061)
Tappet O.D.	0.9433-0.9441 (23,959-23,98)
Tappet Guide I.D.	0.9449-0.9457 (24,0-24,021)

Cylinders

Cylinder Bore I.D.	3.4252-3.4261 (87,00-87,022)
Allowable Limit	+0.0059 (+0,15)

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763 WIRING SCHEMATIC

WITH ADVANCED HAND CONTROL OPTION

S/N 512250001-57999
S/N 512450001-50999
S/N 512620001 AND ABOVE
(PRINTED SEPTEMBER 2002
V-0012

* NOTE: THESE ARE NOT FOUND ON ALL MACHINES.

TAILGATE/ WORK LIGHTS
HARNESS 6716418

ENGINE
HARNESS 6716571

MAIN FRAME
HARNESS 6719503 or 6727129

CAB
HARNESS 6715870

ADVANCED HAND CONTROL MODULE

700 SERIES

Printed in U.S.A.

V-0012 (9-26-02)

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