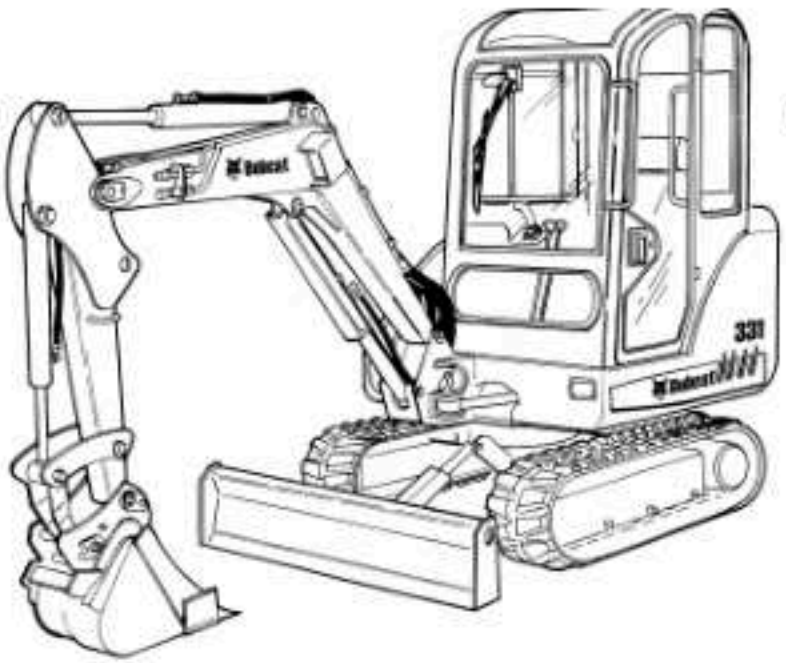
331
331E
334

Bobcat®

Service Manual

331 - S/N 234313000 & Above
331E - S/N 234412000 & Above
334 - S/N 234513000 & Above
(G Series)



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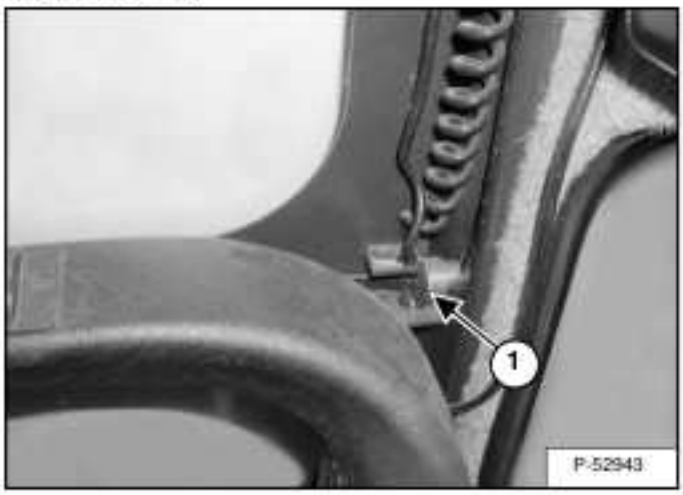
Troubleshooting The Travel Circuit

TROUBLESHOOTING THE TRAVEL CIRCUIT		
PROBLEM	**CAUSE**	**CORRECTION**
Travel system inoperable	Lever linkage incorrectly adjusted	Readjust
	Track tension too tight	Readjust
	Defective pump	Check, repair or replace
	Travel motor counter balance spool sticking	Repair or replace
	Travel motor internal leakage excessive	Repair or replace
	Travel motor defective	Repair or replace
	Travel motor gears defective	Repair or replace
	Swivel joint defective	Repair or replace
	Main relief valve pressure too low	Readjust or replace
Travel power	Track tension too tight	Readjust
	Main relief valve pressure too low	Readjust or replace
	Swivel joint leaking	Repair or replace
	Travel motor counterbalance spool sticking	Repair or replace
	Lever linkage incorrectly adjusted	Readjust
Speed too slow	Swivel joint internal leakage excessive	Repair or replace
	Control valve internal leakage excessive	Repair or replace
	Low pump pressure	Check, repair or replace
	Travel motor internal leakage excessive	Repair or replace
Travel motor seal leakage	Return line filter plugged	Inspect, clean or replace
Machine not running straight	Lever linkage incorrectly adjusted	Readjust
	Track tension not equal	Readjust
	Pump output not equal	Repair or replace
	Travel motor internal leakage not equal	Repair or replace
	Travel motor counterbalance spool sticking	Repair or replace
	Main relief valve pressure set too low	Repair or replace
	Swivel joint internal leakage excessive	Repair or replace
	Control valve internal leakage not equal	Repair or replace
Machine will not hold on slope or while digging	Travel motor counterbalance valve leakage excessive	Repair or replace
	Hose damage	Replace
Blade drops while machine is moving	Lever linkage unaligned	Readjust
	Cylinder internal leakage excessive	Repair or replace
	Control valve internal leakage excessive	Repair or replace
	Swivel joint internal leakage from travel motor pressure circuit into blade cylinder circuit	Repair or replace
High/low shift inoperative (2-speed)	Control valve defective	Replace
	Low pressure to 2-speed valve	Readjust

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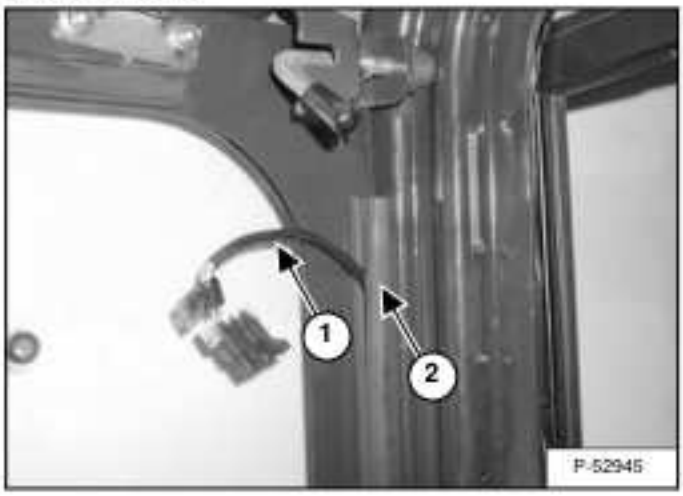
Front Window Removal And Installation (Cont'd)

Figure 40-30-24



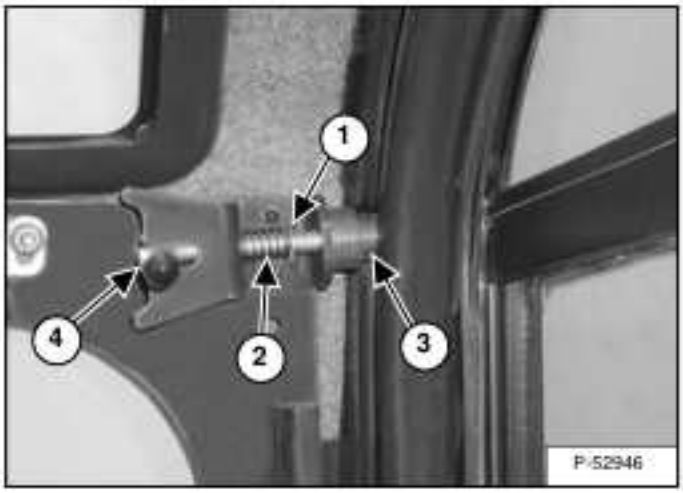
Remove the bolt (Item 1) **[Figure 40-30-24]** holding the wire harness clamp to the bottom of the front window.

Figure 40-30-25



Remove the wire harness (Item 1) from the channel (Item 2) **[Figure 40-30-25]**.

Figure 40-30-26



With the help of a second person supporting the front window, remove the retainer (Item 1), spring (Item 2), roller (Item 3), and handle (Item 4) **[Figure 40-30-26]** from both sides of the front window.

Figure 40-30-27



Tilt the front window (Item 1) **[Figure 40-30-27]**. Remove the front window from the cab frame.

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ENGINE SPECIFICATIONS

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

Fuel Injection Nozzles

Opening Pressure	2702 - 2916 PSI (186 - 201 bar)
Fuel Tightness Nozzle Seat	Dry Nozzle at 1850 PSI (127,5 bar)

Fuel Injection Pump

Fuel Tightness Plunger	10 sec: initial pressure 1850 PSI (127,5 bar)
Allowable Limit	5 seconds
Injection Timing	4.5 - 6.5 degrees B.T.D.C.

Cylinder Head

Cylinder Head Surface Distortion	0.002 (0,05) in 19.70 (500) Max.
Top Clearance (Piston to Head)	0.0236 - 0.0276 (0,60 - 0,70)
Compression	512 - 583 PSI (35 - 40 bar) @ 290 RPM
Allowable Limit	370 PSI (26 bar) @ 290 RPM
Allowable Difference Between Cylinders	10% or less

Valves

Valve Seat Width (Intake & Exhaust)	0.0835 (2,12)
O.D. of Valve Stems	0.3134 - 0.3140 (7,96 - 7,98)
I.D. of Valve Guides	0.3156 - 0.3161 (8,015 - 8,03)
Clearance Between Valve Stem & Guide	0.0016 - 0.0028 (0,04 - 0,07)
Allowable Limit	0.0039 (0,1)
Valve Clearance (Cold)	0.007 - 0.0087 (0,18 - 0,22)
Valve Recessing (Protrusion)	0.002 (0,05)
(Recess)	0.006 (0,15)
Allowable Limit (Recess)	0.0157 (0,4)
Valve Seat Angle (Int.)	60 degrees
Valve Seat Angle (Exh.)	45 degrees

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WIRING SCHEMATIC

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334 (S/N 234513113 AND ABOVE)
(PRINTED JULY 2007)
V-0634

CONTROL MODULE
CONNECTORS J1-J6

RIGHT HAND CONSOLE
HARNESS 6819761

LH CONSOLE
HARNESS
6817244

ENGINE HARNESS
6817272 331/331E/334

HYDRAULIC X CHASSIS
OPTION CONNECTOR

V-0634 (6-25-07)

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