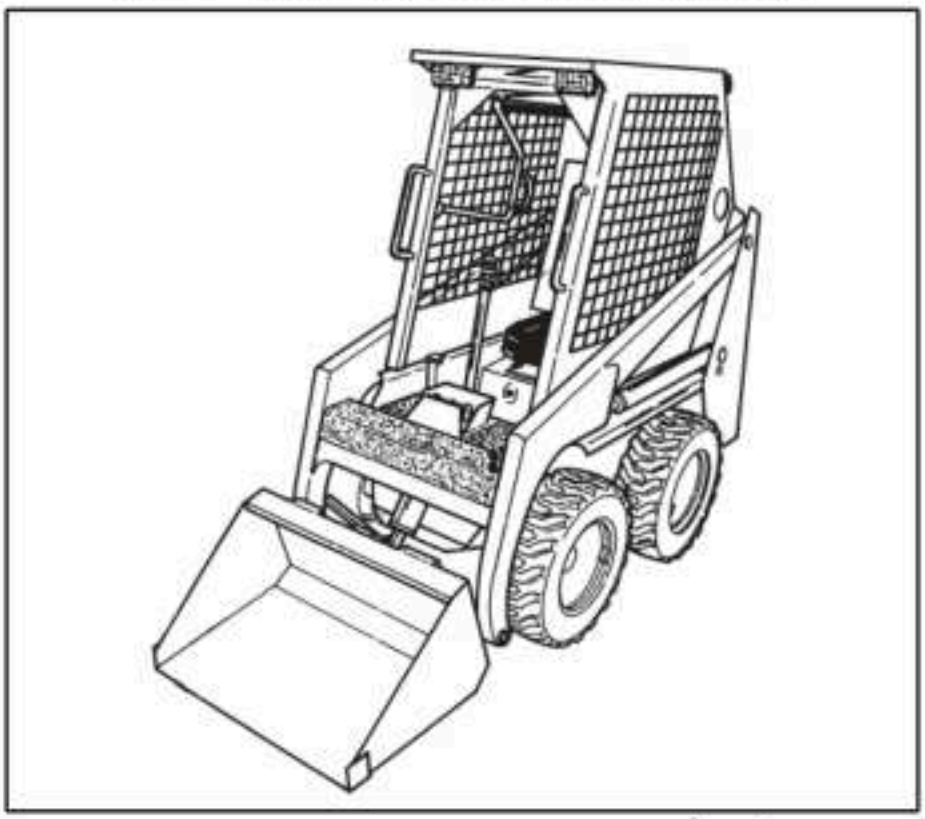
450
453

Service Manual

(450–S/N 561711001 & Above)
(453–S/N 561811001 & Above)



EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)

MELROE
INGERSOLL-RAND
6724259(1–96)
Printed in U.S.A.

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450/453–5
Revision Number
October 8 1998
Date

SERVICE MANUAL REVISION

ROUTE TO ATTENTION

PARTS MANAGER	☐
SERVICE MANAGER	☒
SALES MANAGER	☐

AFFECTING:

Product BOBCAT LOADER

Model 450, 453

Manual No. 6724259 (1–96)

NOTICE **Insert This Sheet With The Above Listed Manual For Future Reference.**

The following pages are a revision to the above Service Manual.

Take out existing pages and put in the new pages as listed below:

TAKE OUT	PUT IN
	ALPHABETICAL INDEX
Maintenance Safety Page	Maintenance Safety Page
v thru vi	v thru vi
Section 1	Section 1
DO NOT REMOVE the Hydraulic Schematics in Section 2	
2–1 thru 2–4	2–1 thru 2–4
2–11 thru 2–12	2–11 thru 2–12
2–15 thru 2–22	2–15 thru 2–22
2–29 thru 2–32	2–29 thru 2–32
2–35 thru 2–36	2–35 thru 2–38
3–1 thru 3–4	3–1 thru 3–4
3–7 thru 3–8	3–7 thru 3–8
3–15 thru 3–16	3–15 thru 3–16
3–23 thru 3–26	3–23 thru 3–26
3–34 thru 3–36	
7B–13 thru 7B–14	7B–13 thru 7B–14
8–17 thru 8–18	8–17 thru 8–18
9–1 thru 9–2	9–1 thru 9–2
9–13 thru 9–16	9–13 thru 9–22

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FUEL TANK

Removal and Installation

Put jackstands under the rear corners of the loader.

Raise the operator cab. (See Page 1–1.)

453: Remove the hose clamps (Item 1) **[A]** to remove the priming bulb.

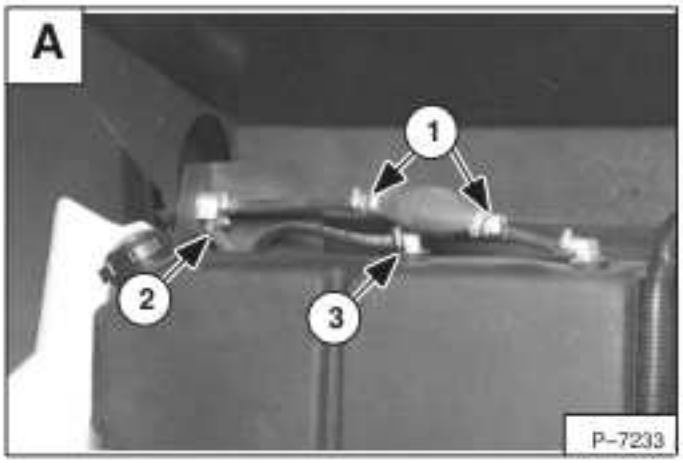
450: Remove the hose clamps (Item 1) **[B]** to remove the in–line fuel filter.

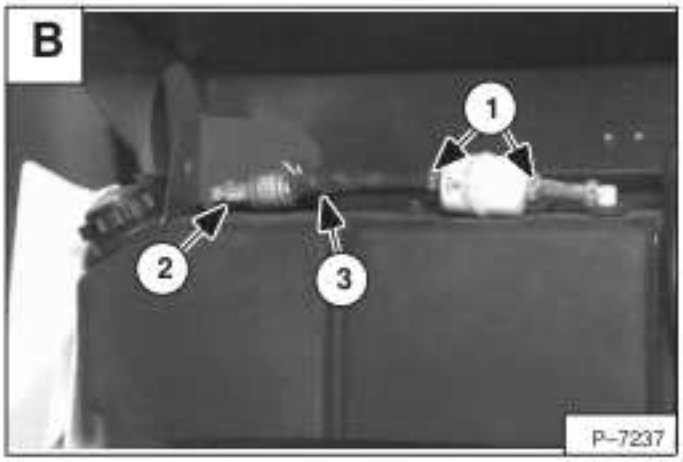
453: Remove the hose clamps (Items 2 & 3) **[A]** to remove the fuel supply and return lines.

450: Remove the hose clamp (Item 2) **[B]** and remove the fuel supply line.

Disconnect the electrical connector (Item 3) **[B]** from the electrical fuel shut off.

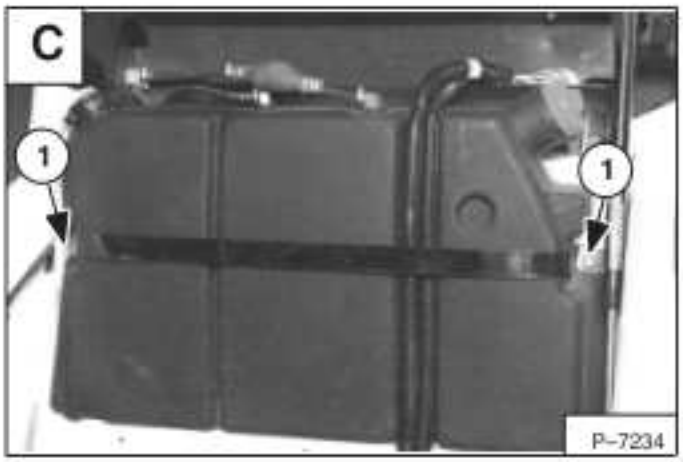
Disconnect the electrical harness (see Page 5–8) from the operator cab.





Remove the two bolts (Item 1) **[C]** from the fuel tank mounting strap.

Remove the fuel tank from the loader.



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Troubleshooting Guide (Cont'd)

The following troubleshooting guide is provided for assistance in locating and correcting BICS system problems. It is recommended that these procedures be done by authorized Bobcat Service Personnel only.

⚠ WARNING

Check for correct function after adjustments, repairs or service. Failure to make correct repairs or adjustments can cause injury or death.

W-2004-1285

SEAT BAR SENSOR

PROBLEM	SOLUTION #
Indicator light does not come ON when seat bar is lowered.	1, 2, 3, 4, 5, 6

SOLUTION SUGGESTIONS	
1.	Check controller power indicator light. It must be ON.
2.	Check sensor wire connection.
3.	Use the BICS sensor tester MEL1428 to check sensor and controller.
4.	Check for loose hardware.
5.	Check keyed bushing to make sure magnet collar rotates with seat bar.
6.	Check magnet collar magnets for contamination such as metal particles.

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TORQUE SPECIFICATIONS FOR BOLTS

Torque For General SAE Bolts

The following table shows standard torque specifications for bolts with zinc phosphate coating. Bolts purchased from Melroe that have zinc phosphate coating are specified by the letter "H" following the part number.

	THREAD SIZE	SAE GRADE 5	SAE GRADE 8
INCH. LBS. (Nm)	.250	80–90 (9–10)	110–120 (13–14)
	.3125	180–200 (21–23)	215–240 (24–27)
FOOT LBS. (Nm)	.375	25–28 (34–38)	35–40 (48–54)
	.4375	40–45 (54–61)	60–65 (82–88)
	.500	65–70 (88–95)	90–100 (125–135)
	.5625	90–100 (125–135)	125–140 (170–190)
	.625	125–140 (170–190)	175–190 (240–260)
	.750	220–245 (300–330)	300–330 (410–450)
	.875	330–360 (450–490)	475–525 (645–710)
	1.000	475–525 (645–710)	725–800 (985–1085)
	1.125	650–720 (880–975)	1050–1175 (1425–1600)
	1.250	900–1000 (1200–1360)	1475–1625 (2000–2200)
	1.375	1200–1350 (1630–1830)	2000–2200 (2720–2980)
	1.500	1500–1650 (2040–2240)	2600–2850 (3530–3870)
	1.625	2000–2800 (2720–2980)	3450–3800 (4680–5150)
	1.750	2500–2750 (3390–3730)	4300–4800 (5830–6500)
	1.875	3150–3500 (4270–4750)	5500–6100 (7450–8300)
	2.000	3800–4200 (5150–5700)	6500–7200 (8800–9800)

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WIRE LEGEND

NO.'s	COLOR	GAUGE
10	Black	12
10P	Black	16
12CA	Orange	16
12F	Orange	16
12FA	Orange	16
12FB	Orange	16
12H	Orange	16
12T	Orange	16
19D	Red/White	16
19G	Red/White	16
19L	Red/White	14
19LA	Red/White	16
19LB	Red/White	16
19P	Red/White	14
19S	Red/White	14
21R	White	16
23BL	White/Black	16
28	Lt. Blue/Black	16
30	Black	16
30T	Black	16
31P	Yellow/Green	16
32PT	Yellow/Dk. Blue	16
35H	Yellow/Brown	16
36T	Purple/White	16
40	Black	16
40A	Black	16
40B	Black	16
40D	Black	16
40F	Black	16
40FA	Black	16
40FB	Black	16
40FC	Black	16
40FD	Black	16
40FL	Black	16
40FR	Black	16
40H	Black	16
40L	Black	16
40LA	Black	16
40R	Black	16
41	Pink	16
41A	Pink	16
41B	Pink	16
41C	Pink	16
42F	Dk. Blue	16
42FA	Dk. Blue	16
42FL	Dk. Blue	16
42FR	Dk. Blue	16
42R	Dk. Blue/White	16
42RF	Brown	16
46B	Brown/Red	16
46D	Brown	16
46H	Brown	16
46L	Brown/Yellow	16
46LA	Brown/Yellow	16

WIRE LEGEND (Cont'd)

NO.'s	COLOR	GAUGE
46LB	Brown	16
46LF	Brown/Yellow or Yellow	16
46R	Brown/Green	16
46RA	Brown/Green	16
46RB	Brown/Green	16
46RF	Brown/Green or Green	16
46T	Brown	16
49T	Gray	16
49V	Gray	16
59E	Orange	16
60H	Black	16
64	Orange/Blue	16

PARTS LEGEND

1. Cab Harness 6707498 Rev. D
2. Dome Light With Switch (> European Standard)
3. Left Front Turn Indicator (> Euro. Opt.)
4. Headlight Harness (453 Opt. and Euro. Std.) 6578528 Rev. B
5. Left Headlight (453 Opt. and Euro. Std.)
6. Flasher (> Euro. Opt.)
7. Right Headlight (453 Opt. and Euro. Std.)
8. Horn Alarm (453 Opt. and Euro. Std.)
9. Right Front Turn Indicator (> Euro. Opt.)
10. Rear Floodlight Lamp (453 Opt. and Euro. Std.)
11. Rear Tail Lamp (453 Opt. and Euro. Std.)
12. Glow Plug Switch
13. Bucket Level Switch (Opt.)
14. Rotating Beacon Switch (Opt.)
15. Hazard Switch (> Euro. Opt.)
16. Accessory Power Plug
17. Ignition Switch
18. Keyless Ignition Module (Opt.)
19. Headlight Switch (453 Opt.)
20. Headlight Switch (> Euro. Std.)
21. Transmission and Engine Warning Indicator Lights
22. Light Connectors
23. Hourmeter
24. Volt Gauge
25. Coolant Temperature Gauge

PARTS LEGEND (Cont'd)

26. Amber Strobe Light or Rotating Beacon Light Harness (Opt.) 6708318
27. Amber Strobe Light or Rotating Beacon Light (Opt.)
28. 4-Way Flasher Harness (> Euro. Opt.) 6709530
29. Amber Strobe Light or Rotating Beacon Light Connector
30. For Future Use
31. Left Front Turn Lamp (> Euro. Opt.)
32. Left Clearance (Worklight) Lamp (> Euro. Opt.)
33. Right Front Turn Lamp (> Euro. Opt.)
34. Right Clearance (Worklight) Lamp (> Euro. Opt.)
35. Euro. Headlight Harness (> Euro. Opt.) 6707672
36. Left Euro. Headlight (> Euro. Opt.)
37. Right Euro. Headlight (> Euro. Opt.)
38. Diode

> NOT AVAILABLE DOMESTICALLY

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