763

763

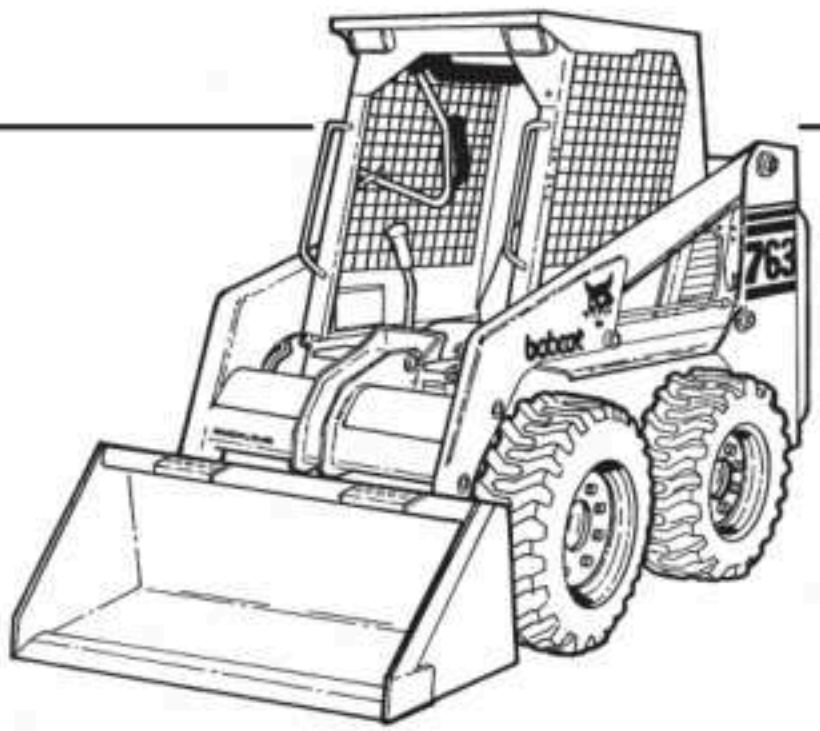
HIGH FLOW

Bobcat®

Service Manual

S/N 512212001 thru 512249999
S/N 512440001 thru 512449999
S/N 512612001 thru 512619999

EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)



6900091(5-11)

Printed in U.S.A.

© Bobcat Company 2011

MidWestTech | Bobcat 763, 763 High Flow Skid Steer Loader Service Manual | Publication... Order the manual at mid-west-tech.com >

ALPHABETICAL INDEX

ACTUATORS 10–1
ACTUATOR VOLTAGE TEST 10–1
A.H.C. COMPONENTS 10–1
A.H.C./PWM CONTROLLER 10–1
A.H.C. HANDLE 10–1
A.H.C. STEERING LEVER 10–1
AIR CLEANER 7–1
AIR CLEANER SERVICE 1–1
ALTERNATOR 6–1
ALTERNATOR BELT 1–1
AXLE SEAL 4–1
AXLE, SPROCKET AND BEARINGS 4–1

BATTERY 6–1
BICS™ SYSTEM CONTROLLER 8–1
BICS VALVE 2–1
BLOWER HOUSING/FAN GEARBOX 7–1
BOBCAT INTERLOCK CONTROL SYSTEM (BICS™) 8–1, 10–1
BOB–TACH 1–1, 5–1
BOSS® DIAGNOSTIC TOOL 8–1
BOSS® INSTRUMENT PANEL 8–1

CHAINCASE COVERS 4–1
CHAINCASE FLUID 4–1
CONTROL PANEL 3–1
CONTROL PEDALS 2–1
CRANKSHAFT AND BEARINGS 7–1
CRANKSHAFT GEAR 7–1
CYLINDER BORE 7–1
CYLINDER HEAD 7–1

DECIMAL & MILLIMETER EQUIVALENTS 9–1
DRIVE BELT 1–1
DRIVE BELT HOUSING 3–1
DRIVE CHAIN 4–1

ELECTRICAL/HYDRAULIC (CONTROL REF.) 8–1
ELECTRICAL SYSTEM INFORMATION 6–1
ENGINE 7–1
ENGINE COMPRESSION 7–1
ENGINE COOLING SYSTEM 1–1
ENGINE LUBRICATION SYSTEM 1–1
ENGINE MUFFLER 7–1
ENGINE SPECIFICATIONS 9–1
ENGINE SPEED CONTROL 7–1

FAN GEARBOX 1–1, 7–1
FINAL DRIVE TRANSMISSION (CHAINCASE) 1–1
FIXED DRIVE BELT TENSIONER PULLEY 3–1
FLYWHEEL 7–1
FRONT LIGHTS 6–1
FUEL CAMSHAFT 7–1
FUEL INJECTION NOZZLES 7–1
FUEL INJECTION PUMP 7–1
FUEL SYSTEM 1–1
FUEL TANK 5–1

GLOW PLUGS 7–1

HANDLE CONTROL UNIT 10–1
HYDRAULIC CONTROL VALVE 2–1
HYDRAULIC CONTROL VALVE (AHC) 10–1
HYDRAULIC CYLINDER IDENTIFICATION 2–1
HYDRAULIC CYLINDERS 2–1
HYDRAULIC FILTER HOUSING 2–1
HYDRAULIC FLUID RESERVOIR 2–1
HYDRAULIC/HYDROSTATIC FLUID SPECIFICATIONS 9–1
HYDRAULIC/HYDROSTATIC SYSTEM 1–1
HYDRAULIC PUMP 2–1
HYDRAULIC SYSTEM INFORMATION 9–1
HYDROSTATIC DRIVE MOTOR 3–1
HYDROSTATIC DRIVE MOTOR 30 SERIES 3–1
HYDROSTATIC PUMP 3–1
HYDROSTATIC SYSTEM INFORMATION 3–1

IDLER GEAR AND CAMSHAFT 7–1

LIFT ARM SUPPORT DEVICE 1–1
LIFT ARMS 5–1
LIFT CYLINDER(S) 2–1
LIFT LOCK BY–PASS VALVE 2–1
LIFTING AND BLOCKING THE LOADER 1–1
LIFTING THE LOADER 1–1
LOADER SPECIFICATIONS – 763 9–1
LUBRICATING THE LOADER 1–1

MONITOR SERVICE CODES 8–1
MOTOR CARRIER 4–1

OIL COOLER 3–1
OIL PUMP 7–1
OPERATOR CAB 1–1, 5–1
OPERATOR CAB GAS CYLINDER 5–1
OPERATOR SEAT 5–1

PARKING BRAKE 4–1
PARKING BRAKE DISC 4–1
PEDAL INTERLOCK LINKAGE 2–1
PISTON AND CONNECTING ROD 7–1

RADIATOR 7–1
REAR DOOR 5–1
REAR GRILL 5–1
REAR LIGHTS 5–1
RELAY SWITCHES 6–1
REMOTE START SWITCH 1–1
ROCKER ARM AND SHAFT 7–1
RPM SENSOR 8–1

SEAT BAR (W/COMPRESSION SPRINGS) 5–1
SEAT BAR (W/GAS CYLINDER) 5–1
SEAT BAR RESTRAINT SYSTEM 1–1
SEAT BAR SENSOR 8–1
SEAT SENSOR 8–1
SELECT VALVE (763H) 2–1
SENDER AND SENSOR 8–1
SERVICE SCHEDULE 1–1
SPARK ARRESTOR MUFFLER 1–1
SPRING LOADED DRIVE BELT TENSIONER PULLEY 3–1
STANDARD INSTRUMENT PANEL 6–1
STANDARD TORQUE SPECIFICATIONS FOR BOLTS 9–1
STARTER (DELCO REMY) 6–1
STARTER (DENSO) 6–1
STEERING LINKAGE 3–1
SWITCH HANDLE 10–1
STOPPING THE BOBCAT LOADER 1–1

TILT LOCK VALVE 2–1
TILT CYLINDER 2–1
TIMING GEARS 7–1
TIMING GEARCASE COVER 7–1
TIRE MAINTENANCE 1–1
TORQUE SPECIFICATIONS FOR LOADER 9–1
TOWING THE LOADER 1–1
TRACTION LOCK 8–1
TRACTION LOCK GUIDES 4–1
TRANSPORTING THE LOADER 1–1
TROUBLESHOOTING 2–1, 3–1, 6–1, 7–1, 10–1
TROUBLESHOOTING THE BOSS® & L.C.D. DISPLAY 8–1

U.S. TO METRIC CONVERSION 9–1

VALVE, VALVE SEAT AND GUIDE 7–1

WATER PUMP 7–1

Revised Jan. 99

MidWestTech | Bobcat 763, 763 High Flow Skid Steer Loader Service Manual | Publication... Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD ii
SAFETY INSTRUCTIONS v
SERIAL NUMBER LOCATIONS vii
DELIVERY REPORT vii
BOBCAT LOADER IDENTIFICATION viii
PREVENTIVE MAINTENANCE 1–1
HYDRAULIC SYSTEM 2–1
HYDROSTATIC SYSTEM 3–1
DRIVE SYSTEM 4–1
MAIN FRAME 5–1
ELECTRICAL SYSTEM 6–1
ENGINE SERVICE 7–1
SYSTEMS ANALYSIS 8–1
SPECIFICATIONS 9–1
ADVANCED HAND CONTROL SYSTEM 10–1

CALIFORNIA
PROPOSITION 65 WARNING
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

MidWestTech | Bobcat 763, 763 High Flow Skid Steer Loader Service Manual | Publication... Order the manual at mid-west-tech.com >

TROUBLESHOOTING

Chart

The following troubleshooting chart is provided for assistance in locating and correcting problems. Many of the recommended procedures must be done by authorized Bobcat Service Personnel only.

⚠ WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manuals, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0199

PROBLEM	CAUSE
Battery will not take a charge.	1, 2, 3, 4, 5
Alternator will not charge.	1, 2, 5
Starter will not turn the engine.	2, 3, 4, 6, 7, 8, 9

KEY TO CORRECT THE CAUSE	
1.	Alternator belt is loose or damaged.
2.	Battery connections are dirty or loose.
3.	Battery is damaged.
4.	The ground connection is not making a good contact.
5.	The alternator is damaged.
6.	The engine is locked.
7.	The starter is damaged.
8.	The wiring or the solenoid is damaged.
9.	Check the fuses.

MidWestTech | Bobcat 763, 763 High Flow Skid Steer Loader Service Manual | Publication... Order the manual at mid-west-tech.com >

Torque For General Metric Bolts

Thread Size (Dia. x Pitch)	Material		
	Head Mark 4	Head Mark 7	Head Mark 10
M 5 x 0.8		3–4 ft.–lbs. (4–5 Nm)	
M 6 x 1.0		6–7 ft.–lbs. (8–9 Nm)	6–9 ft.–lbs. (8–12 Nm)
M 8 x 1.25	6–9 ft.–lbs. (8–12 Nm)	11–16 ft.–lbs. (15–22 Nm)	18–25 ft.–lbs. (24–34 Nm)
M 10 x 1.25	13–18 ft.–lbs. (18–24 Nm)	22–30 ft.–lbs. (30–41 Nm)	36–50 ft.–lbs. (49–68 Nm)
M 12 x 1.25	22–30 ft.–lbs. (30–41 Nm)	40–54 ft.–lbs. (54–73 Nm)	69–87 ft.–lbs. (94–118 Nm)
M 14 x 1.25	36–50 ft.–lbs. (49–68 Nm)	58–80 ft.–lbs. (79–108 Nm)	116–137 ft.–lbs. (157–186 Nm)

MidWestTech | Bobcat 763, 763 High Flow Skid Steer Loader Service Manual | Publication... Order the manual at mid-west-tech.com >

AHC/PWM CONTROLLER

Removal And Installation

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

Remove the four mounting bolts (Item 1) **[A]** from the controller.

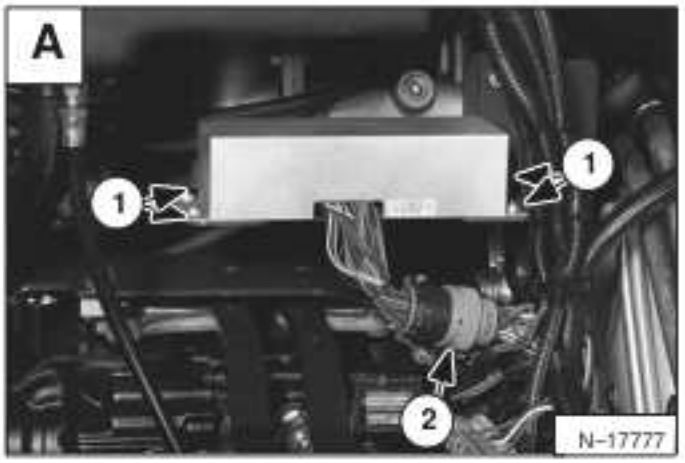
Disconnect the wiring harness connectors (Item 2) **[A]** from the controller.

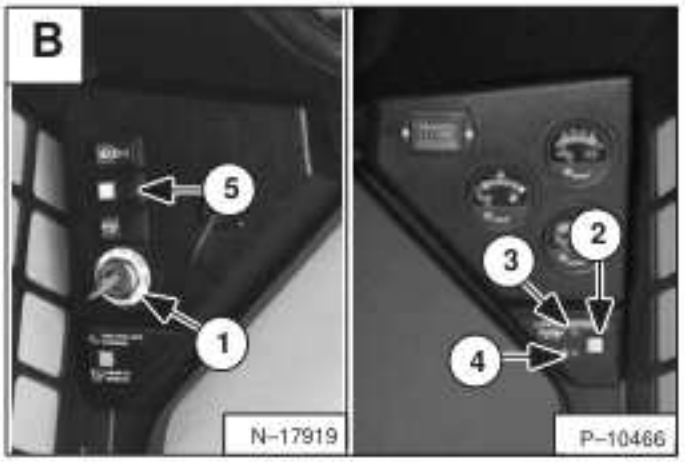
Remove the controller from the loader.

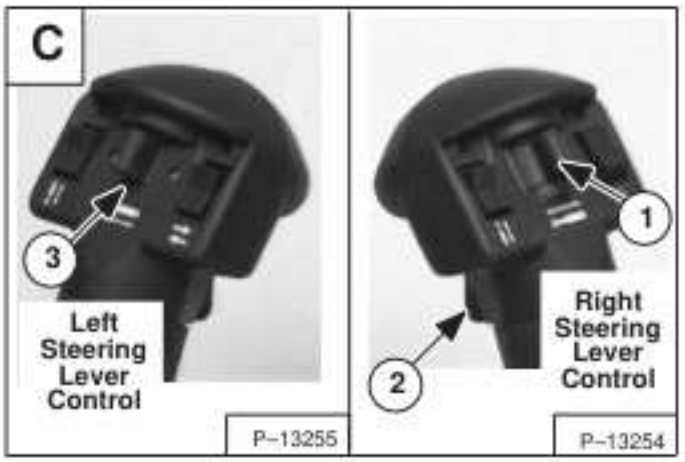
Test

- The wiring harness connectors must be connected to the controller **[A]**.
- Take voltage measurements by probing into wires near the controller shown in figure **[A]**. All connectors must remain plugged into their respectful harness.
- Turn the key to the ON position (Item 1) **[B]** with the engine OFF.
- Turn the switches ON to get their appropriate readings. (See chart listed below for switch locations.)
- Press the auxiliary hydraulic switch (Item 2) **[B]** twice. Both Green lights will be ON.
- For individual voltage readings see Page 10–16.

Key Switch	Item 1 **[B]**
Auxiliary Hydraulic Switch	Item 2 **[B]**
Momentary Light	Item 3 **[B]**
Detent Light	Item 4 **[B]**
High Flow Switch	Item 5 **[B]**
Proportional Flow Switch	Item 1 **[C]**
Detent Switch	Item 2 **[C]**
Rear Aux. Switch (Base & Rod)	Item 3 **[C]**







MidWestTech | Bobcat 763, 763 High Flow Skid Steer Loader Service Manual | Publication... Order the manual at mid-west-tech.com >

⚠ WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W–2003–0199

The following publications provide information on the safe use and maintenance of the loader and attachments:

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the machine is in safe operating condition.
- The Operation & Maintenance Manual delivered with the loader gives operating information as well as routine maintenance and service procedures. It is a part of the loader and must stay with the machine when it is sold. Replacement Operation & Maintenance Manuals can be ordered from your Bobcat loader dealer.
- The loader has machine signs (decals) which instruct on the safe operation and care. The signs and their locations are shown in the Operation & Maintenance Manual. Replacement signs are available from your Bobcat loader dealer.
- The loader has a plastic Operator's Handbook fastened to the operator cab. Its brief instructions are convenient to the operator. The Handbook is available from your dealer in an English edition or one of many other languages. See your Bobcat dealer for more information on translated versions.
- The EMI Safety Manual (available in Spanish) delivered with the loader gives general safety information.
- The Service Manual and Parts Manual are available from your dealer for use by mechanics to do shop–type service and repair work.
- The Skid–Steer Loader Operator Training Course is available through your local dealer. This course is intended to provide rules and practices for correct operation of the Bobcat loader. The course is available in English and Spanish version.
- The Service Safety Training Course is available from your Bobcat dealer. This course provides information for safe and correct service procedures for Bobcat Skid–Steer loaders.
- The Bobcat Skid–Steer Loader Safety Video is available from your Bobcat Dealer.

⚠WARNING

Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause injury or death.

W–2044–1285

IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

I–2019–0284

Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.

SIO5–0299

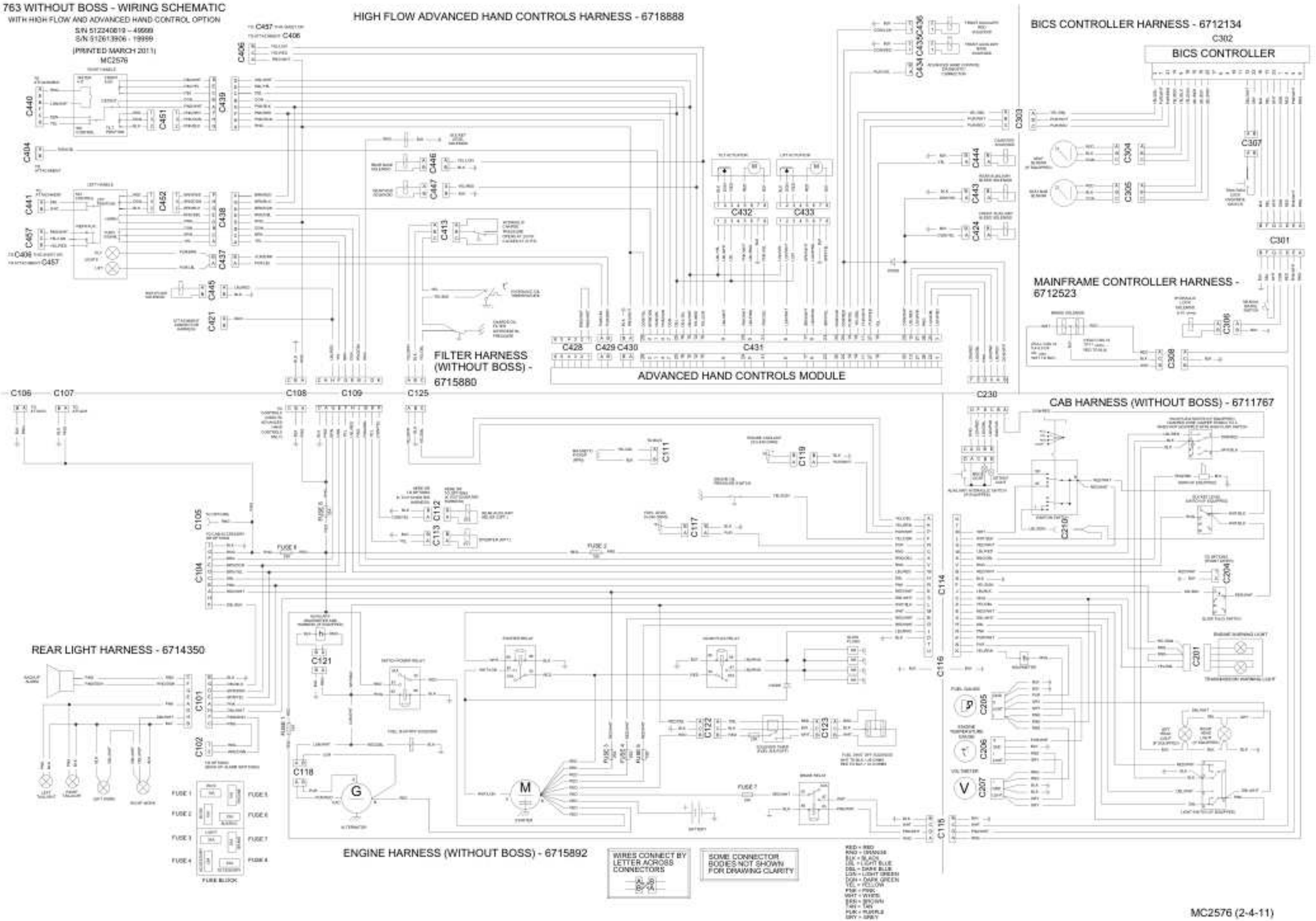
MidWestTech | Bobcat 763, 763 High Flow Skid Steer Loader Service Manual | Publication... Order the manual at mid-west-tech.com >

763 WITHOUT BOSS - WIRING SCHEMATIC

WITH HIGH FLOW AND ADVANCED HAND CONTROL OPTION

S/N 512340610 – 49999
S/N 512613906 - 19999

(PRINTED MARCH 2011)
MC2576



MC2576 (2-4-11)

Order the manual at mid-west-tech.com >