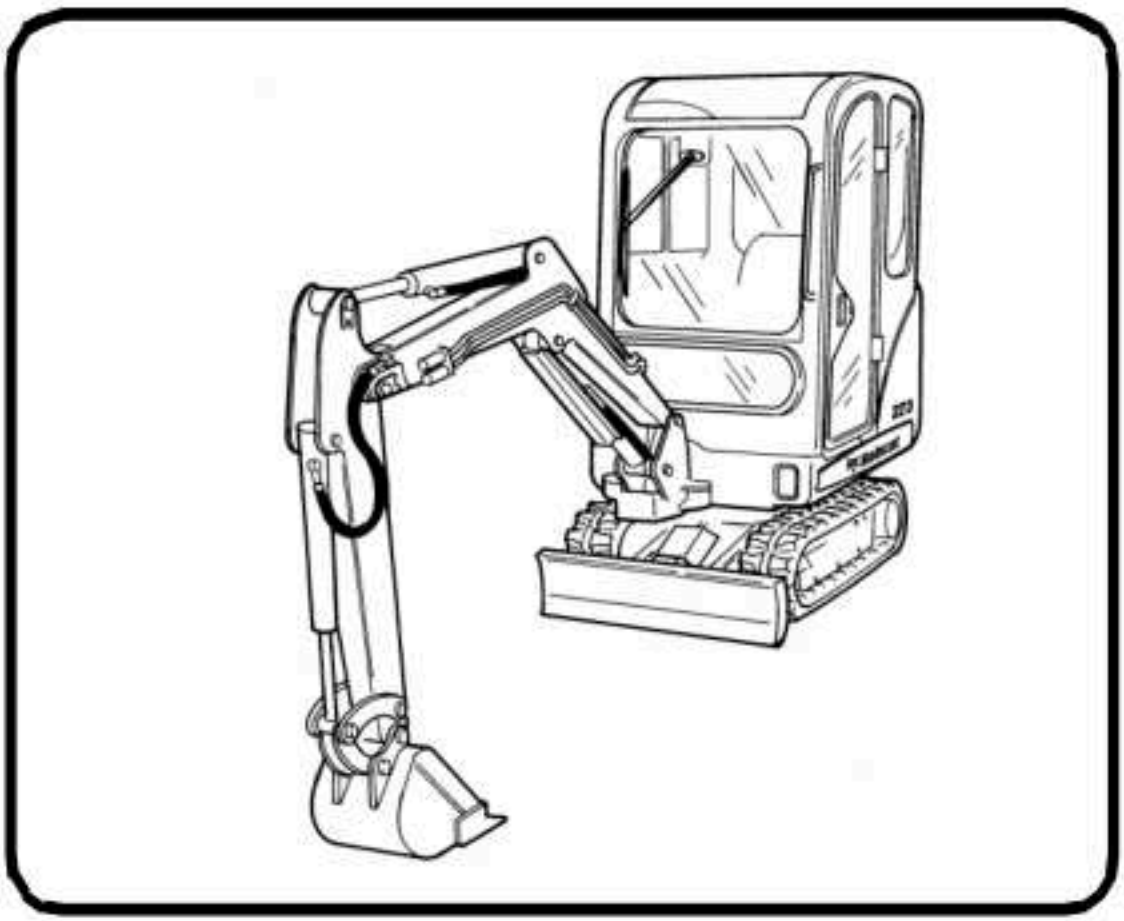
Bobcat®

Service Manual
323 Compact Excavator

S/N A9JZ11001 & Above



6986958 (2-08)

Printed in U.S.A.

© Bobcat Company 2008

MidWestTech | Bobcat 323 Compact Excavator Service Manual | Publication 6986958_2_08 Order the manual at mid-west-tech.com >

ALPHABETICAL INDEX

AIR CLEANER 60-01
AIRCLEANER SERVICE 10-01
ALTERNATOR 50-01
ALTERNATOR BELT 10-01
ARM 40-01
ARM CYLINDER 20-01

BATTERY 50-01
BLADE 30-01
BLADE CONTROL 40-01
BLADE CYLINDER 20-01
BLADE EXTENSION TRAY 40-01
BLADE/TRACK EXPANSION SOLENOID BLOCK. 20-01
BOOM 40-01
BOOM CYLINDER 20-01
BOOM SWING CYLINDER 20-01
BUCKET 40-01
BUCKET CYLINDER 20-01

CAB 40-01
CONTROL CONSOLE LOCKOUTS 10-01
CONTROL LINKAGE ASSEMBLY 40-01
CONTROL PATTERN SELECTOR VALVE 20-01
CONVERSIONS SPEC-01
CROSSPORT RELIEF VALVES 20-01

ELECTRICAL SYSTEM 50-01
ENGINE 60-01
ENGINE COMPONENTS AND TESTING 60-01
ENGINE COOLING SYSTEM 10-01
ENGINE FLYWHEEL 60-01
ENGINE LUBRICATION SYSTEM 10-01
ENGINE SPECIFICATIONS SPEC-01
ENGINE SPEED CONTROL 40-01

FLOORMAT AND FLOORPLATES 40-01
FUEL, COOLANT AND LUBRICANTS SPEC-01
FUEL LEVEL SENDER 50-01
FUEL SYSTEM 10-01
FUEL TANK 40-01

HEATER AIR FILTERS 10-01
HEATER 70-01
HORN 40-01
HYDRAULIC CONNECTION SPECIFICATIONS SPEC-01
HYDRAULIC CONTROL VALVE 20-01
HYDRAULIC FILTER MOUNT 20-01
HYDRAULIC FLUID SPECIFICATIONS SPEC-01
HYDRAULIC PUMP 20-01
HYDRAULIC PUMP STARTUP 20-01
HYDRAULIC RESERVOIR 20-01
HYDRAULIC SYSTEM 10-01
HYDRAULIC SYSTEM INFORMATION 20-01

LEFT CONSOLE 40-01
LEFT CONTROL LEVER (JOYSTICK) 20-01
LEFT PEDAL 40-01
LIFTING AND BLOCKING THE EXCAVATOR 10-01
LIFTING THE EXCAVATOR 10-01
LIGHTS 50-01
LUBRICATION OF THE HYD. EXCAVATOR 10-01

MAIN RELIEF VALVE 20-01
MANIFOLD ASSEMBLY/ACCUMULATOR 20-01
MICROSWITCH 50-01

OIL COOLER 20-01
OPERATOR CAB (ROPS/TOPS) 10-01

PORT RELIEF VALVES 20-01
PRESSURE REDUCING VALVE 20-01

RADIATOR 60-01
RECONDITIONING THE ENGINE 60-01
RIGHT CONSOLE 40-01
RIGHT CONTROL LEVER (JOYSTICK) 20-01
RIGHT PEDAL AND LINKAGE 40-01
ROPS CANOPY 40-01

SEAT AND SEAT MOUNT 40-01
SEAT BELT 10-01
SERVICE SCHEDULE 10-01
SPARK ARRESTOR MUFFLER ..... 10-01 & 60-01
SPECIFICATIONS SPEC-01
STARTER 50-01
SWING CIRCLE GEAR 30-01
SWING FRAME 40-01
SLEW LOCK 40-01
SWING MOTOR 20-01
SWIVEL JOINT 20-01

TAILGATE 40-01
TORQUE SPECIFICATIONS SPEC-01
TRACK DAMAGE IDENTIFICATION 30-01
TRACK FRAME 30-01
TRACK IDLER 30-01
TRACK FRAME EXPANSION CYLINDER 20-01
TRACK ROLLER 30-01
TRACKS 30-01
TRANSPORTING THE EXCAVATOR 10-01
TRAVEL CONTROLS 40-01
TRAVEL MOTOR ..... 10-01 & 20-01
TROUBLESHOOTING 60-01
TWO SPEED SWITCH 50-01
TWO-SPEED BOOST SWITCH 50-01

UPPERSTRUCTURE 40-01
UPPERSTRUCTURE SLEW LOCK 10-01

MidWestTech | Bobcat 323 Compact Excavator Service Manual | Publication 6986958_2_08 Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD III

SAFETY INSTRUCTIONS V

SERIAL NUMBER LOCATIONS IX

DELIVERY REPORT X

BOBCAT EXCAVATOR IDENTIFICATION XI

SAFETY AND MAINTENANCE 10-01

HYDRAULIC SYSTEM 20-01

UNDERCARRIAGE 30-01

UPPERSTRUCTURE & SWING SECTION 40-01

ELECTRICAL SYSTEM AND ANALYSIS 50-01

ENGINE SERVICE 60-01

HEATER 70-01

SPECIFICATIONS SPEC-01

MidWestTech | Bobcat 323 Compact Excavator Service Manual | Publication 6986958_2_08

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

Troubleshooting The Hydraulic Circuit

TROUBLESHOOTING THE HYDRAULIC CIRCUIT		
PROBLEM	**CAUSE**	**CORRECTION**
No hydraulic operation at one or more circuits.	Hydraulic oil level low.	Refill with correct oil.
	Hydraulic pump drive coupling damaged.	Replace.
	Hydraulic pump defective.	Check, repair or replace.
	Main relief valve defective.	Readjust or replace.
Hydraulic power insufficient to one or more circuits.	Main relief valve pressure setting incorrect.	Readjust or replace.
Hydraulic speed too slow.	Hydraulic oil level or viscosity incorrect.	Refill or replace.
	Engine RPM reduced.	Readjust or replace.
	Control valve linkage defective.	Check, repair or replace
	Hydraulic pump volume low.	Check, repair or replace.
Oil temperature too high.	Oil cooler or radiator fins plugged.	Clean oil cooler external surface.
	Hydraulic oil level low.	Refill or replace.
	Non recommended hydraulic oil	Replace.
	Relief valve excessively activated.	Use proper operating procedures.
	One or more relief valves not set correctly.	Test, readjust or replace.
	Extreme operating conditions. High ambient temperature (IE: enclosed structure).	
	Alternator belt loose.	Tighten alternator belt.

MidWestTech | Bobcat 323 Compact Excavator Service Manual | Publication 6986958_2_08 Order the manual at mid-west-tech.com >

ELECTRICAL SYSTEM

Troubleshooting Chart

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

⚠ WARNING

AVOID INJURY OR DEATH

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's 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-2003-0807

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

KEY TO CORRECT THE CAUSE
1. Engine accessory drive 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 323 Compact Excavator Service Manual | Publication 6986958_2_08 Order the manual at mid-west-tech.com >

Hydraulic Cycle Times

Bucket Curl	1.9 seconds
Bucket Dump	1.2 seconds
Arm Retract	2.5 seconds
Arm Extend	1.6 seconds
Boom Raise	3.9 seconds
Boom Lower	2.8 seconds
Boom Swing Left	3.9 seconds
Boom Swing Right	3.5 seconds
Blade Raise	2.6 seconds
Blade Lower	2.6 seconds
Undercarriage - Expand	4.6 seconds
Undercarriage - Retract	3.6 seconds
Slew	10.2 RPM

Electrical System

Starting Aid	Glow Plugs
Alternator	12 - volts, 40 amps, open, negative ground
Battery	12 volts - 530 CCA @ 0° F (-18° C)
Starter	12 volts; gear reduction 1.9 Hp (1.4 kw)
Instrumentation	Fuel gauge, audible alarm, visual warning for engine functions and hourmeter

Drive System

Drive Motor	Each track is independently driven by an axial piston motor
Type of Reduction	Two-stage planetary gear reduction

Slew System

Slew Motor	Orbit Motor
Slew Circle	Single row shear type ball bearing with internal gear
Slew Speed	10.2 RPM

Undercarriage

Crawler Track Design	Sealed track rollers with boxed section track, Roller frame, Grease type track adjuster with shock absorbing recoil spring
Width of crawler	38.6 in. (980 mm) retracted 53.5 (1360 mm) expanded

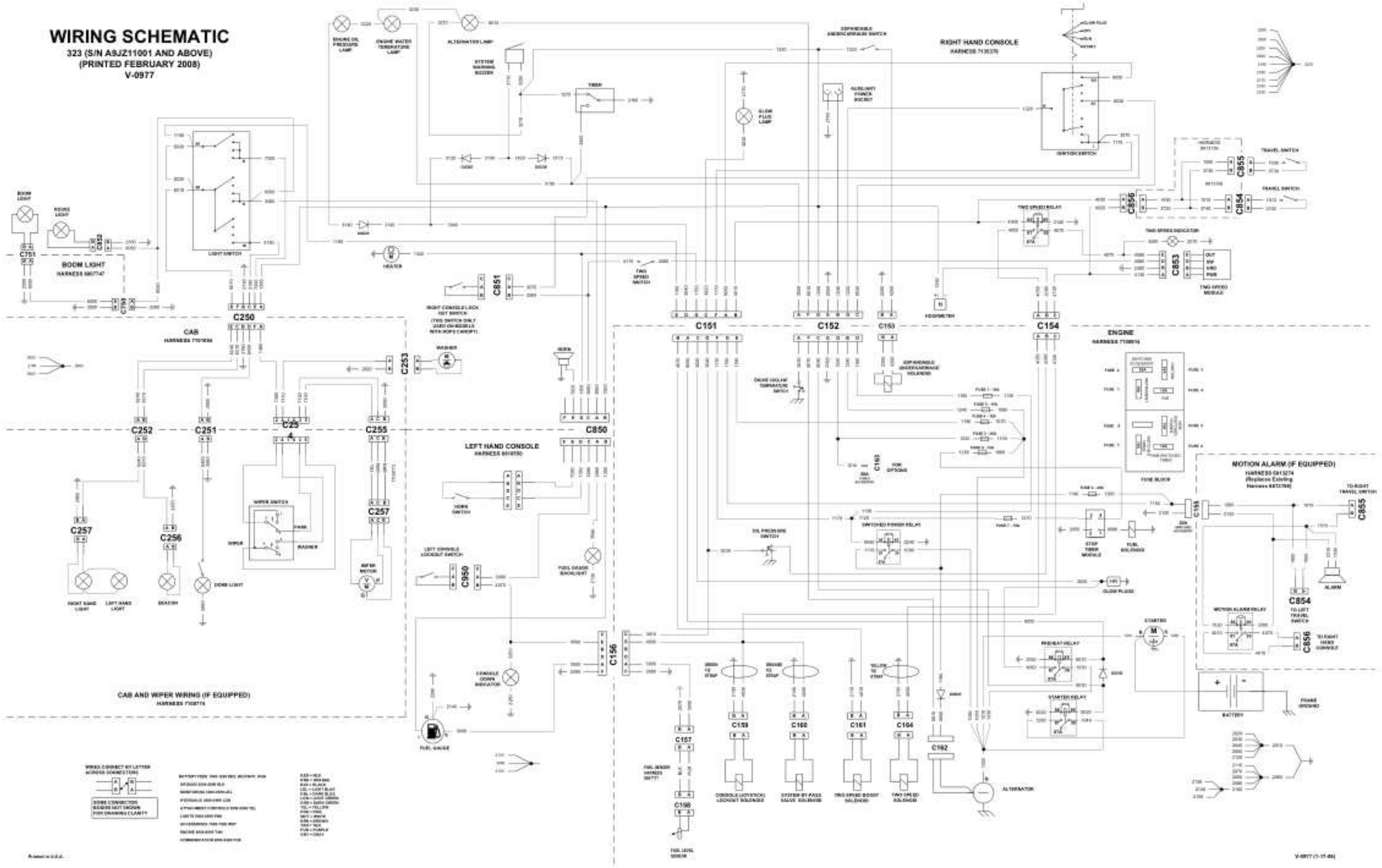
Ground Pressure

With Rubber Track	4.39 PSI (0.303 bar)
With Steel Track	4.53 PSI (0.312 bar)

MidWestTech | Bobcat 323 Compact Excavator Service Manual | Publication 6986958_2_08 Order the manual at mid-west-tech.com >

WIRING SCHEMATIC

323 (S/N ASJZ11001 AND ABOVE)
(PRINTED FEBRUARY 2008)
V-0977



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