325
328

Bobcat

Service Manual

325 - S/N 234111001 & Above
328 - S/N 234211001 & Above
(G Series)



6902745 (12-07)

Printed in U.S.A.

©Bobcat Company 2007

MidWestTech | Bobcat 325, 328 G Series Excavator Service Manual | Publication 6902745... Order the manual at mid-west-tech.com >

ALPHABETICAL INDEX

AIR CLEANER 10-01, 60-01
ALTERNATOR 50-01
ARM 40-01
ARM CYLINDER 20-01

BATTERY 50-01
BLADE 30-01
BLADE CONTROL 40-01
BLADE CYLINDER 20-01
BOOM 40-01
BOOM CYLINDER 20-01
BOOM SWING CYLINDER 20-01
BUCKET 40-01
BUCKET CYLINDER 20-01
BUILD UP VALVE 20-01

CAB 40-01
CASE DRAIN FILTER 20-01
CONVERSIONS SPEC-01
CONTROL PATTERN SELECTOR VALVE 20-01
COOLING SYSTEM 10-01
CROSS PORT RELIEF VALVES 20-01

DELUXE INSTRUMENT PANEL SETUP 50-01
DIAGNOSTICS SERVICE CODE 50-01
DIRECT TO TANK VALVE 20-01

ELECTRICAL SYSTEM INFORMATION 50-01
ENGINE 60-01
ENGINE ACCESSORY DRIVE BELT 10-01
ENGINE COMPONENTS AND TESTING 60-01
ENGINE FLYWHEEL 60-01
ENGINE LUBRICATION SYSTEM 10-01
ENGINE SPECIFICATIONS SPEC-01
ENGINE SPEED CONTROL 40-01

FLOOR MAT AND FLOOR PLATE 40-01
FUEL, COOLANT AND LUBRICANTS SPEC-01
FUEL LEVEL SENDER 50-01
FUEL SYSTEM 10-01
FUEL TANK 40-01
HEATER AIR FILTER (WITH CAB OPTION ONLY) 10-01
HEATER COIL 70-01
HEATER FAN 70-01
HEATER UNIT 70-01
HEATER VALVE 70-01
HORN 40-01
HYDRAULIC CONTROL VALVE 20-01
HYDRAULIC CONNECTION SPECS SPEC-01
HYDRAULIC FLUID SPECIFICATIONS SPEC-01
HYDRAULIC FILTER MOUNT 20-01
HYDRAULIC PUMP 20-01
HYDRAULIC PUMP START-UP 20-01
HYDRAULIC RESERVOIR 20-01
HYDRAULIC SYSTEM 10-01
HYDRAULIC SYSTEM INFORMATION 20-01

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

MAIN RELIEF VALVES 20-01
MANIFOLD ASSEMBLY/ACCUMULATOR 20-01
MUFFLER 60-01

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 CONTROL LEVER (JOYSTICK) 20-01
RIGHT CONSOLE 40-01
RIGHT PEDAL AND LINKAGE 40-01
RIGHT SIDE COVER 10-01, 40-01
ROPS CANOPY 40-01

Continued On Next Page

MidWestTech | Bobcat 325, 328 G Series Excavator Service Manual | Publication 6902745... Order the manual at mid-west-tech.com >

SEAT BELT 10-01
SERVICE SCHEDULE 10-01
SPARK ARRESTOR MUFFLER 10-01
SPECIFICATIONS SPEC-01
SUSPENSION SEAT AND SEAT MOUNT 40-01
STARTER 50-01
STANDARD SEAT AND SEAT MOUNT 40-01
SWING CIRCLE GEAR 30-01
SWING FRAME 40-01
SWING MOTOR 20-01
SWING MOTOR DRIVE CARRIER 20-01
SWIVEL JOINT 20-01

TAILGATE 10-01, 40-01
TORQUE SPECIFICATIONS SPEC-01
TRACK DAMAGE IDENTIFICATION 30-01
TRACK FRAME 30-01
TRACK IDLER 30-01
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

UPPERSTRUCTURE 40-01
UPPERSTRUCTURE SLEW LOCK 10-01, 40-01

X-CHANGE ® 40-01

MidWestTech | Bobcat 325, 328 G Series Excavator Service Manual | Publication 6902745... 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

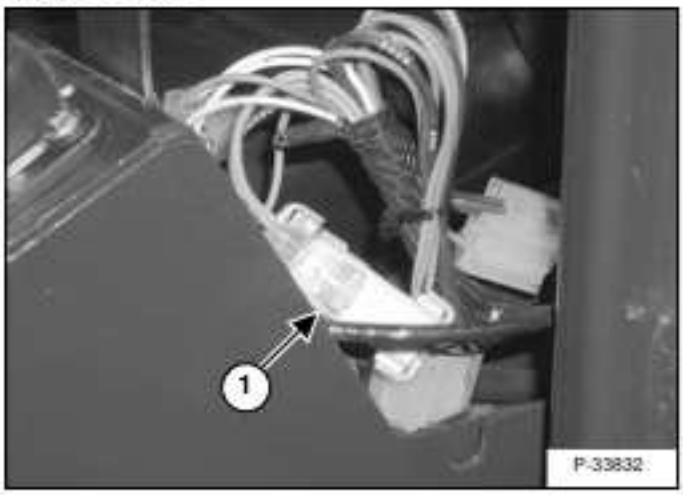
HEATER 70-01

SPECIFICATIONS SPEC-01

MidWestTech | Bobcat 325, 328 G Series Excavator Service Manual | Publication 6902745... Order the manual at mid-west-tech.com >

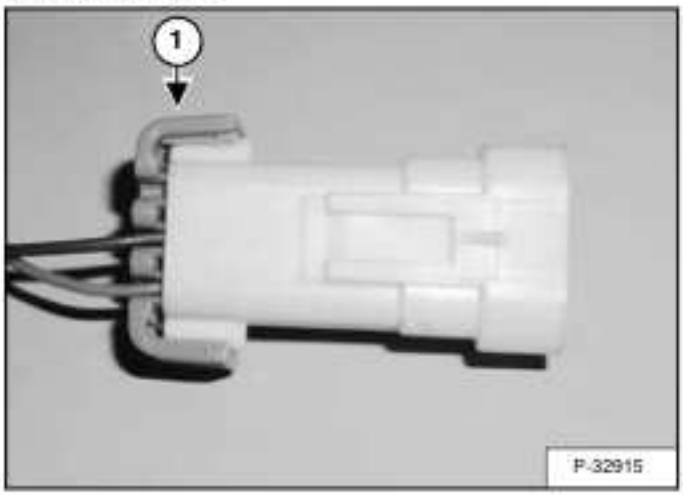
Handle Removal And Installation (Cont'd)

Figure 20-111-9



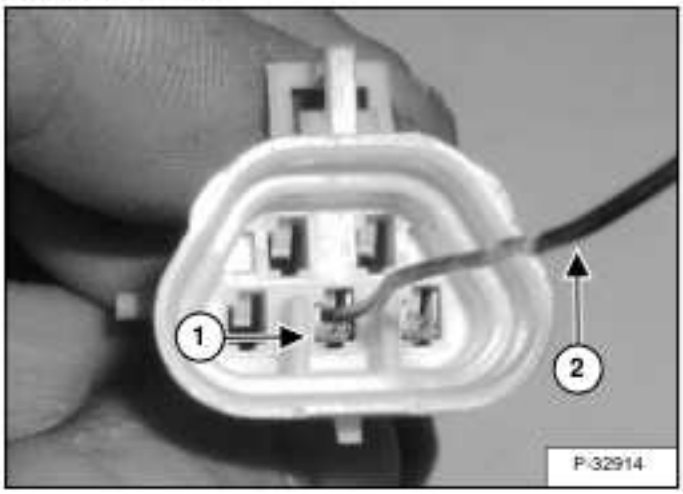
Disconnect the joystick wire connector (Item 1) **[Figure 20-111-9]** from the wire harness.

Figure 20-111-10



Remove the lock (Item 1) **[Figure 20-111-10]** from the joystick electrical connector.

Figure 20-111-11



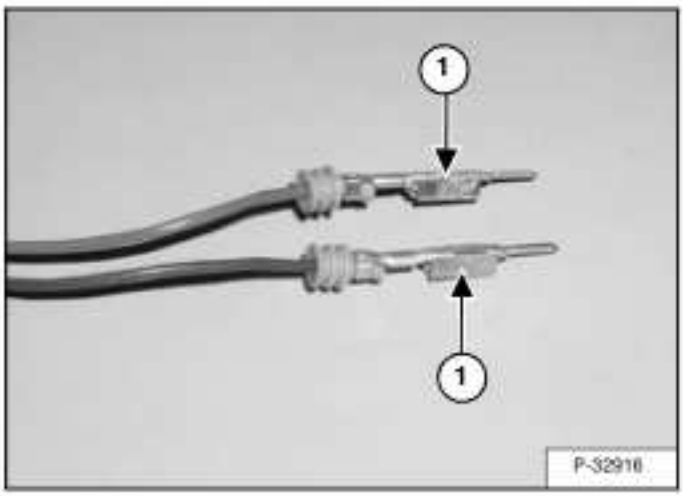
Using a small piece of wire, depress the wire terminal tabs (Item 1) **[Figure 20-111-11]**.

Carefully remove the individual wires from the back of the electrical connector.

Remove the control handle (joystick) assembly from the Excavator.

Installation: Use a small piece of wire and rebend the tab on each wire before installing it in the electrical connector.

Figure 20-111-12



Installation: The wires **[Figure 20-111-12]** must be installed in the proper locations in the wire connector, listed below.

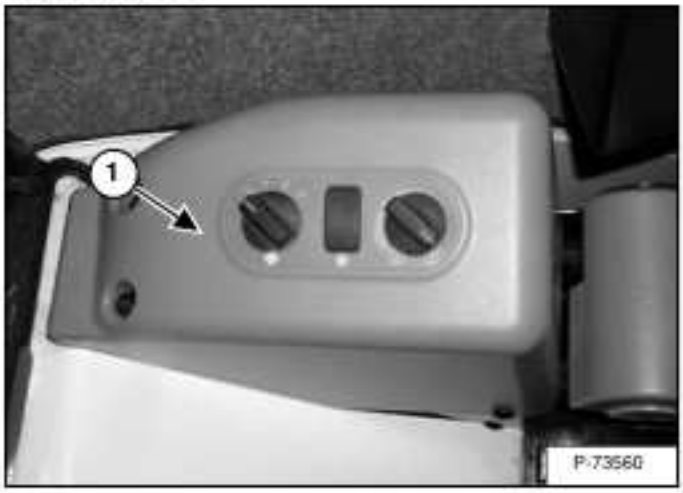
C Red
D Black

Check each wire to be certain the tab (Item 1) **[Figure 20-111-12]** locks into position.

MidWestTech | Bobcat 325, 328 G Series Excavator Service Manual | Publication 6902745... Order the manual at mid-west-tech.com >

Electrical System (Cont'd)

Figure 70-30-4



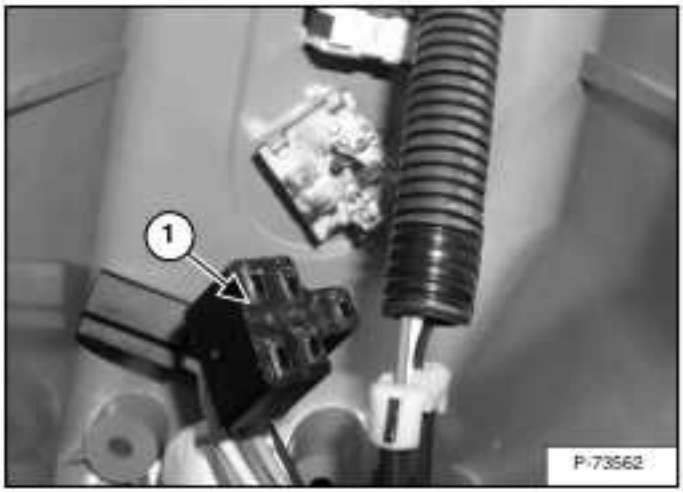
Remove the left rear console cover (Item 1) **[Figure 70-30-4]**. (See Console Switch Removal And Installation on Page 40-60-15.)

Figure 70-30-5



Position the console and wiring harness in the cab so the wiring harness can be checked **[Figure 70-30-5]**.

Figure 70-30-6



Disconnect the wiring harness (Item 1) **[Figure 70-30-6]** from the blower switch.

Check the harness for voltage. The voltage should be approximately 12 volts.

If there is no voltage at the wiring harness, check the harness for broken wires.

MidWestTech | Bobcat 325, 328 G Series Excavator Service Manual | Publication 6902745... Order the manual at mid-west-tech.com >

ENGINE SPECIFICATIONS

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

Fuel Injection Nozzles

Opening Pressure	2702 to 2916 PSI (187 to 201 bar)
Fuel Tightness Nozzle Seat	Dry Nozzle at 1850 PSI (127,6 bar)

Fuel Injection Pump

Fuel Tightness Plunger	10 sec: initial pressure 1849 PSI (127,5 bar)
Allowable Limit	5 seconds
Injection Timing	7.5 to 9 degrees B.T.D.C.
High Idle	2770 RPM
Low Idle	1195 to 1245 RPM

Cylinder Head

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

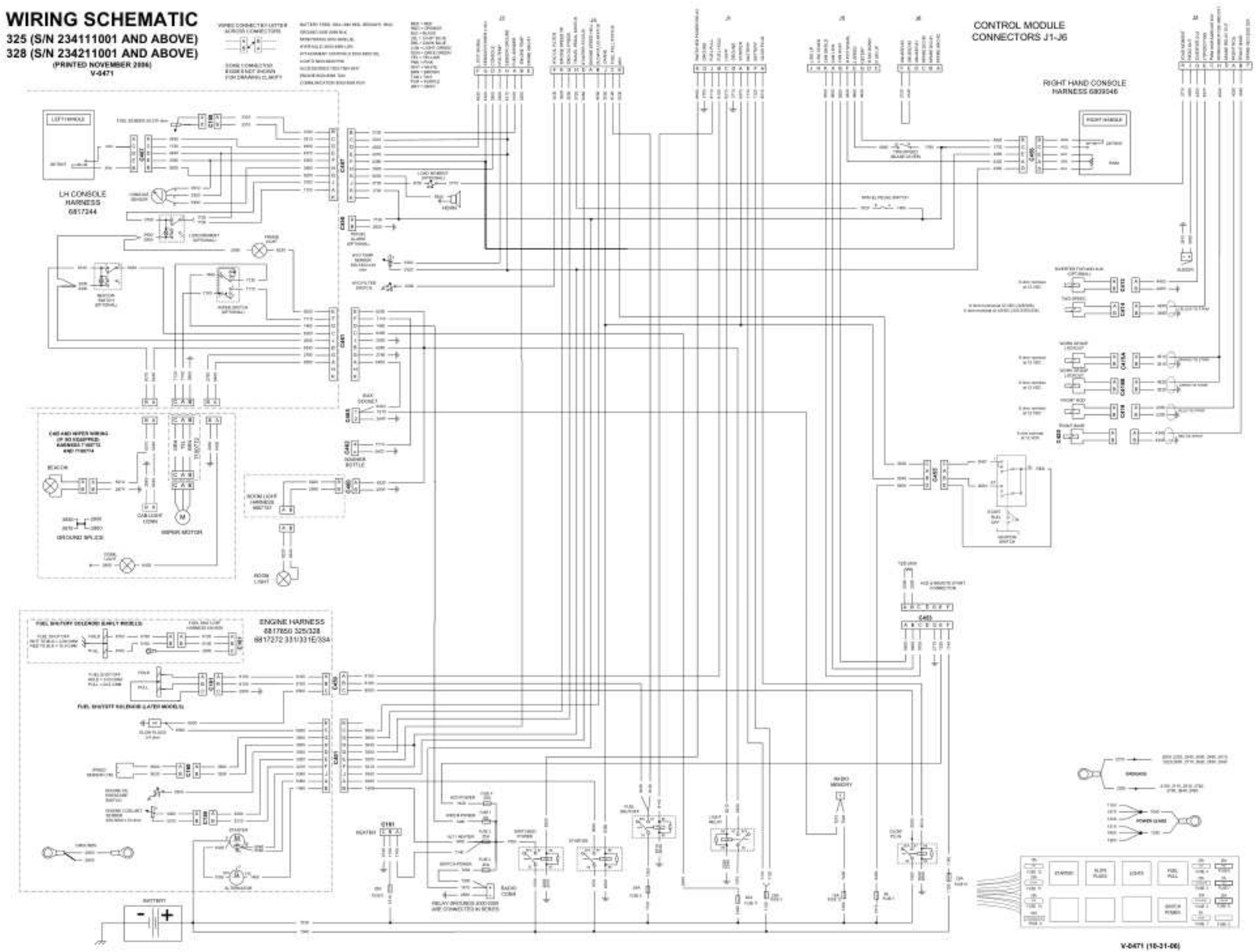
Valves

Valve Seat Width (Intake & Exhaust)	0.0835 (2,12)
O.D. of Valve Stems	0.3134 to 0.3140 (7,96 to 7,98)
I.D. of Valve Guides	0.3156 to 0.3161 (8,015 to 8,03)
Clearance Between Valve Stem & Guide	0.0016 to 0.0028 (0,04 to 0,07)
Allowable Limit	0.0039 (0,1)
Valve Clearance (Cold)	0.007 to 0.0087 (0,18 to 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

MidWestTech | Bobcat 325, 328 G Series Excavator Service Manual | Publication 6902745... Order the manual at mid-west-tech.com >

WIRING SCHEMATIC

325 (S/N 234111001 AND ABOVE)
328 (S/N 234211001 AND ABOVE)
(PRINTED NOVEMBER 2006)
V-0471



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