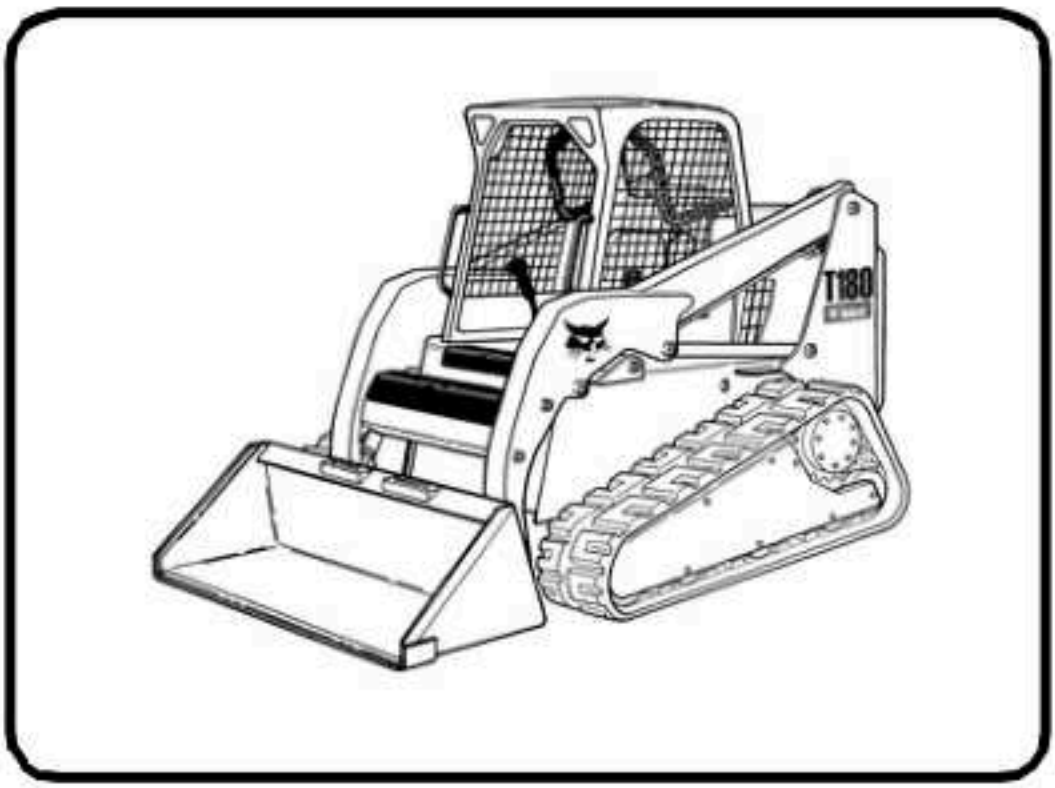
Bobcat®

Service Manual
T180 Compact Track Loader

S/N A3LL11001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)

6987051 (8-08)

Printed in U.S.A.

© Bobcat Company 2008

MidWestTech | Bobcat T180 Compact Track Skid Loader Service Manual | Publication 698... Order the manual at mid-west-tech.com >

ALPHABETICAL INDEX

ACCESS PANEL (INSIDE) 50-01
ACCESS PANEL (INSIDE) (SJC) 50-01
AIR CLEANER 70-01
AIR CLEANER SERVICE 10-01
AIR CONDITIONING SYSTEM FLOW 80-01
ALTERNATOR 60-01

BACK-UP ALARM SYSTEM 60-01
BATTERY 60-01
BLOWER FAN 80-01
BOBCAT INTERLOCK CONTROL SYSTEM (BICS) 60-01
BOBCAT CONTROLLER (ACS) 60-01
BOBCAT CONTROLLER (GATEWAY AND AUXILIARY) 60-01
BOBCAT CONTROLLER (SJC) (DRIVE) 60-01
BOB-TACH (HAND LEVER) 10-01, 50-01
BOB-TACH (POWER) 10-01, 50-01
BOB-TACH (POWER) BLOCK 20-01
BRAKE 40-01
BUCKET POSITION VALVE 20-01

CAB DOOR 50-01
CALIBRATION 60-01
CAMSHAFT AND TIMING GEARS 70-01
CASE DRAIN FILTER 30-01
CHARGE PRESSURE 30-01
COMPRESSOR 80-01
CONDENSER 80-01
CONTROL HANDLE/LEVER 50-01
CONTROL HANDLE/LEVER (ACS) 50-01
CONTROL HANDLE/LEVER (SJC) 50-01
CONTROL PANEL 50-01
CONTROL PANEL (SJC) 50-01
CONTROL PANEL SETUP 60-01
CONTROL PEDALS AND LINKAGE 50-01
CONTROL PEDALS (ACS) 50-01
CONTROL SYSTEM (ACS) 60-01
CONVERSIONS SPEC-01
CRANKSHAFT AND PISTONS 70-01
CYLINDER (LIFT) 20-01
CYLINDER (BOB-TACH) 20-01
CYLINDER (TILT) 20-01
CYLINDER HEAD 70-01

DIAGNOSTICS SERVICE CODES 60-01
DRIVE BELT 30-01

ELECTRICAL/HYD. CONTROLS 60-01
ELECTRICAL/HYD. CONTROLS REFERENCE (SJC) 60-01
ELECTRICAL SYSTEM INFORMATION 60-01
ENGINE COOLING SYSTEM 10-01
ENGINE LUBRICATION SYSTEM 10-01
ENGINE COOLING SYSTEM 70-01
ENGINE INFORMATION 70-01
ENGINE SPEED CONTROL 70-01
ENGINE SPEED CONTROL (SJC) 70-01
EVAPORATOR 80-01
EVAPORATOR/HEATER UNIT 80-01
EXHAUST GAS RECIRCULATION (EGR) SYSTEM 70-01
EXPANSION VALVE 80-01

FLYWHEEL AND HOUSING 70-01
FLYWHEEL RPM SENSOR 60-01
FRONT AUXILIARY HYDRAULIC COUPLER BLOCK 20-01
FUEL SYSTEM 10-01, 70-01
FUEL TANK 50-01

HEATER COIL 80-01
HEATER VALVE 80-01
HIGH FLOW VALVE 20-01
HYDRAULIC CONNECTION SPECS SPEC-01
HYDRAULIC CONTROL VALVE (ACS) OR (SJC) 20-01
HYDRAULIC CONTROL VALVE (STANDARD) 20-01
HYDRAULIC/HYDROSTATIC FILTERS 20-01
HYDRAULIC FLUID RESERVOIR 20-01
HYDRAULIC/HYDROSTATIC FLUID SPECIFICATIONS SPEC-01
HYDRAULIC/HYDROSTATIC SYSTEM 10-01
HYDRAULIC PUMP (STANDARD) 20-01
HYDRAULIC PUMP (STANDARD) (HIGH FLOW) 20-01
HYDRAULIC PUMP (SJC) 20-01
HYDRAULIC PUMP (SJC) (HIGH FLOW) 20-01
HYDRAULIC SYSTEM INFORMATION 20-01
HYDROSTATIC MOTOR 30-01
HYDROSTATIC PUMP 30-01
HYDROSTATIC PUMP (SJC) 30-01
HYDROSTATIC SYSTEM INFORMATION 30-01

INSTRUMENT PANELS 60-01

LIFT ARMS 50-01
LIFT ARM BYPASS CONTROL VALVE 20-01
LIFT ARM SUPPORT DEVICE 10-01
LIFTING AND BLOCKING THE LOADER 10-01
LIGHTS 60-01
T180 LOADER SPECIFICATIONS SPEC-01
LOADER STORAGE AND RETURN TO SERVICE 10-01
LUBRICATING THE LOADER 10-01
LUBRICATION SYSTEM 70-01

MidWestTech | Bobcat T180 Compact Track Skid Loader Service Manual | Publication 698... Order the manual at mid-west-tech.com >

MAIN RELIEF VALVE 20-01
MAINTENANCE CLOCK 60-01
MUFFLER 70-01

OIL COOLER 20-01
OPERATOR CAB 10-01, 50-01
OPERATOR SEAT (SUSPENSION) 50-01

PASSWORD SETUP (IF EQUIPPED WITH KEYLESS START) 60-01
PIVOT PINS 10-01

REAR AUXILIARY DIVERTER VALVE 20-01
REAR DOOR 50-01
REAR GRILL 50-01
RECEIVER/DRIER 80-01
REGULAR MAINTENANCE 80-01
REMOTE STARTTOOL KIT-MEL1563 10-01
REMOTE START TOOL (SERVICE TOOL) KIT-6689779 10-01

SEAT BAR 50-01
SEAT BAR SENSOR 60-01
SERVICE PC (LAPTOP COMPUTER) 60-01
SERVICE SCHEDULE 10-01
SPARK ARRESTOR MUFFLER 10-01
SPEED SENSOR (SJC) 60-01
STARTER 60-01
STEERING DRIFT COMPENSATION 60-01
STOPPING THE ENGINE AND LEAVING THE LOADER 10-01
SYSTEM CHARGING AND RECLAMATION 80-01

TEMPERATURE/PRESSURE 80-01
THERMOSTAT 80-01
TORQUE SPECIFICATIONS FOR BOLTS SPEC-01
TOWING THE LOADER 10-01
TRACK CARRIAGE COMPONENTS 40-01
TRACTION LOCK 60-01
TRANSPORTING THE LOADER ON A TRAILER 10-01
TROUBLESHOOTING 80-01
TURBOCHARGER 70-01

WINDOW (FRONT DOOR) 50-01
WINDOW (REAR) 50-01
WINDOW (SIDE) 50-01
WINDOW (TOP) 50-01

MidWestTech | Bobcat T180 Compact Track Skid Loader Service Manual | Publication 698... Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD II

SAFETY INSTRUCTIONS V

FIRE PREVENTION VII

SERIAL NUMBER LOCATION IX

DELIVERY REPORT X

LOADER IDENTIFICATION XI

SAFETY & MAINTENANCE 10-01

HYDRAULIC SYSTEM 20-01

HYDROSTATIC SYSTEM 30-01

DRIVE SYSTEM 40-01

MAIN FRAME 50-01

ELECTRICAL SYSTEM & ANALYSIS. 60-01

ENGINE SERVICE 70-01

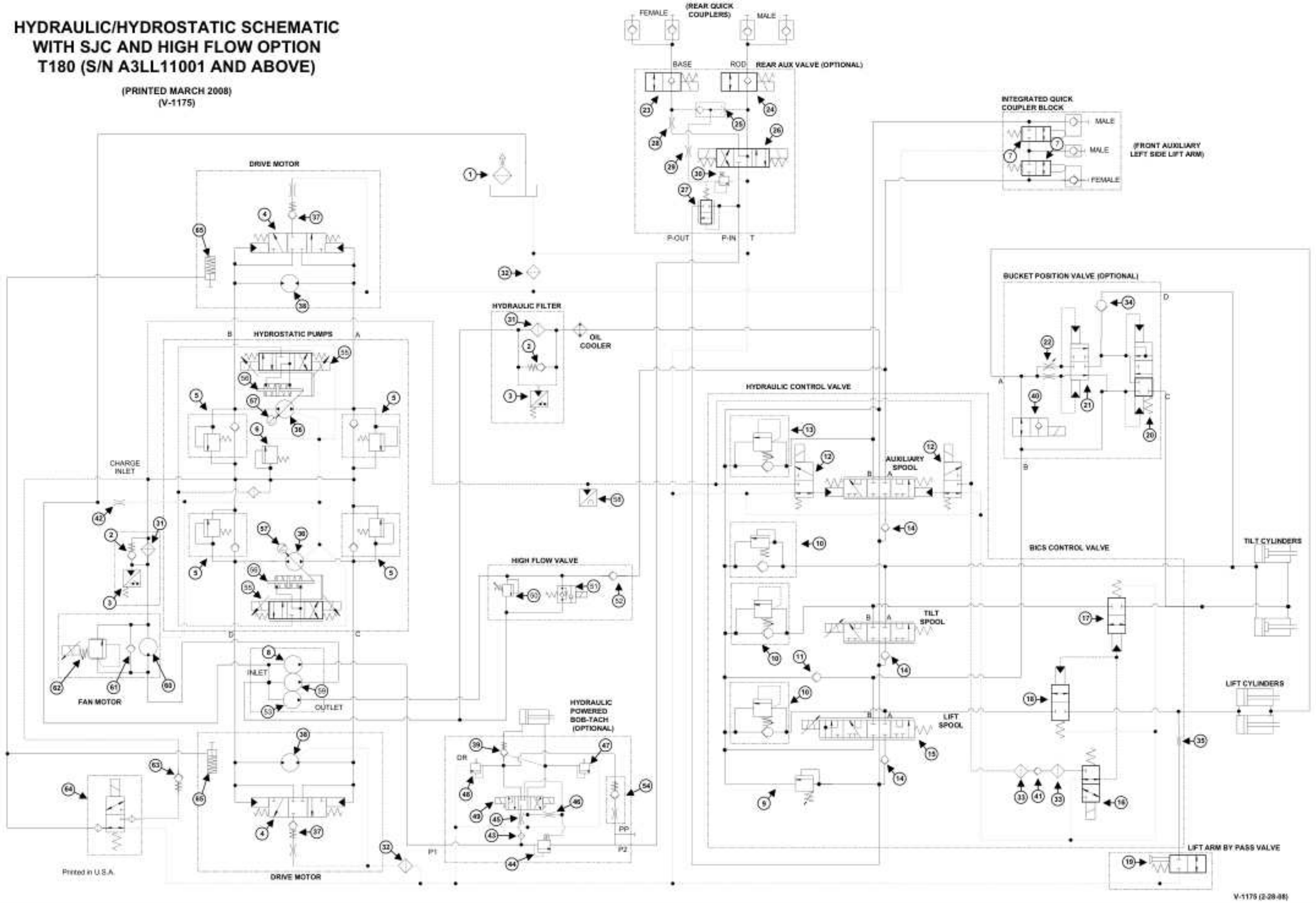
HEATING, VENTILATION, AIR CONDITIONING 80-01

SPECIFICATIONS. SPEC-01

MidWestTech | Bobcat T180 Compact Track Skid Loader Service Manual | Publication 698... Order the manual at mid-west-tech.com >

HYDRAULIC/HYDROSTATIC SCHEMATIC WITH SJC AND HIGH FLOW OPTION T180 (S/N A3LL11001 AND ABOVE)

(PRINTED MARCH 2008)
(V-1175)



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

Specifications (Cont'd)

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

Valve Springs

Free Length (Intake and Exhaust)	1.40 - 1.41 (35,4 - 35,9)
Allowable Limit	1.37 (34,9)
Fitted Length (Intake and Exhaust)	1.17 (29,7)
Setting Load/ Setting Length (Intake and Exhaust)	13.7 lbs/1.17in (60,8 N/29,7mm)
Allowable Limit	10.3 lbs/1.17in (45,9 N/29,7mm)
Tilt Allowable Limit (Intake and Exhaust)	0.039 (1,0)

Valve Timing

Intake Valve (Open)	12 degrees B.T.D.C.
(Close)	44 degrees A.B.D.C.
Exhaust Valve (Open)	49 degrees B.B.D.C.
(Close)	17 degrees A.T.D.C.

Rocker Arms

O.D. of Rocker Arm Shaft	0.5501-0.5506 (13,973-13,984)
I.D. of Rocker Arm Bushings	0.5512-0.5519 (14,0-14,018)
Oil Clearance Between Rocker Arm & Bushing	0.0006-0.0018 (0,016-0,045)
Allowable Limit	0.0059 (0,15)

Camshaft

Journal O.D. 1	1.3754-1.3729 (34.934-34,950)
Bearing I.D. 1	1.3780-1.3789 (35,0-35,025)
Journal O.D. 2	1.6510-1.6515 (41,934-41,950)
Bearing I.D. 2	1.6536-1.6545 (42,000-42,025)
Oil Clearance	0.002-0.0035 (0,050-0,091)
Allowable Limit	0.0059 (0,15)
Alignment Allowable Limit	0.0004 (0,01)
Cam Lobe Height (Intake)	1.282 (32,56)
Allowable Limit (Intake)	1.264 (32,10)
Cam Lobe Height (Exhaust)	1.299 (33,00)
Allowable Limit (Exhaust)	1.280 (32,50)
Side Clearance Allowable Limit	0.0039 (0,10)

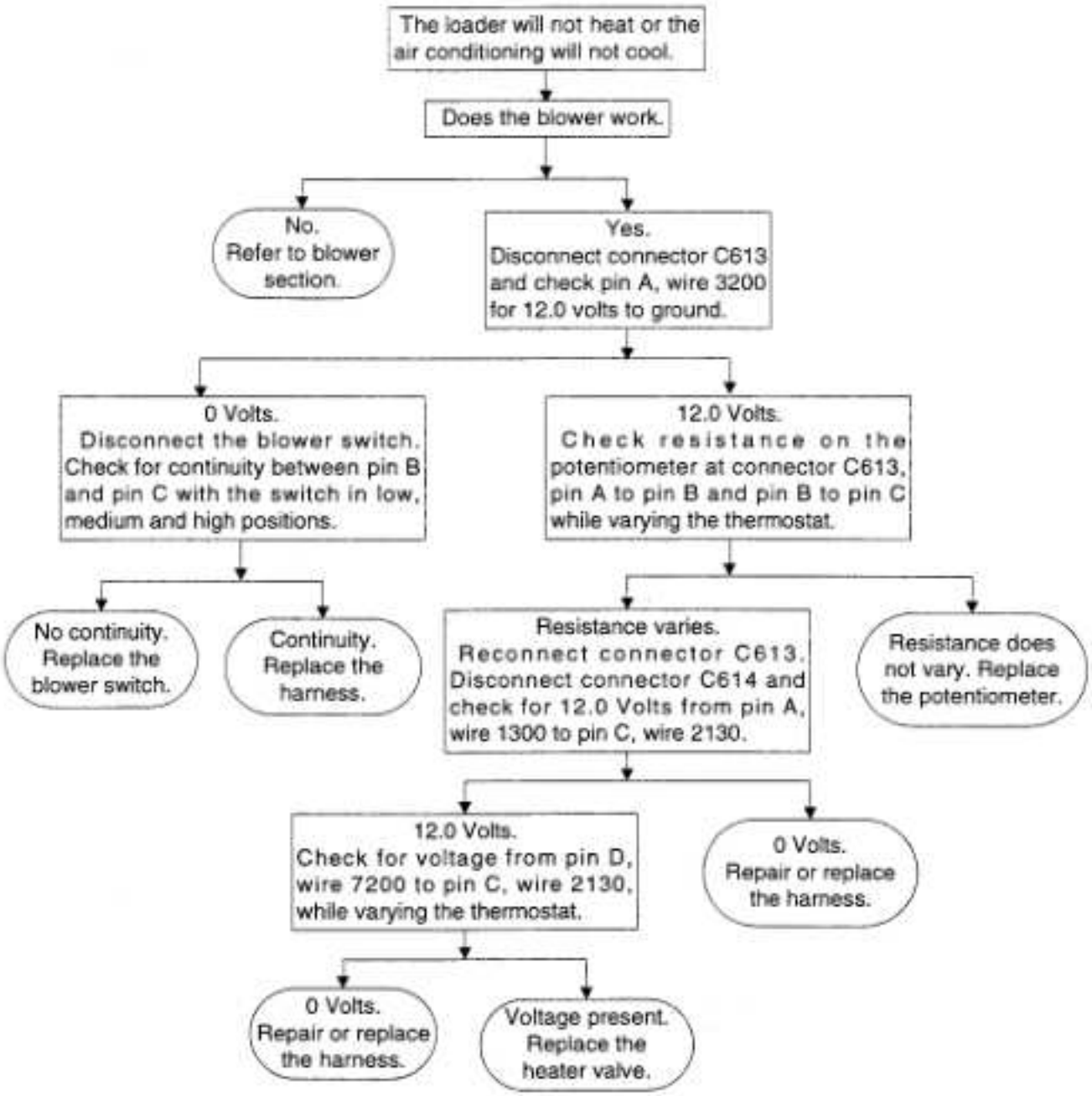
Tappet

Oil Clearance Between Tappet & Guide	0.0079-0.0019 (0,020-0,050)
Allowable Limit	0.003 (0,07)
Tappet O.D.	0.3924-0.3929 (9,965-9,980)
Tappet Guide I.D.	0.39370-0.39429 (10,000-10,015)

MidWestTech | Bobcat T180 Compact Track Skid Loader Service Manual | Publication 698... Order the manual at mid-west-tech.com >

Troubleshooting Tree (Cont'd)

Heater Valve



B-21493

MidWestTech | Bobcat T180 Compact Track Skid Loader Service Manual | Publication 698... Order the manual at mid-west-tech.com >

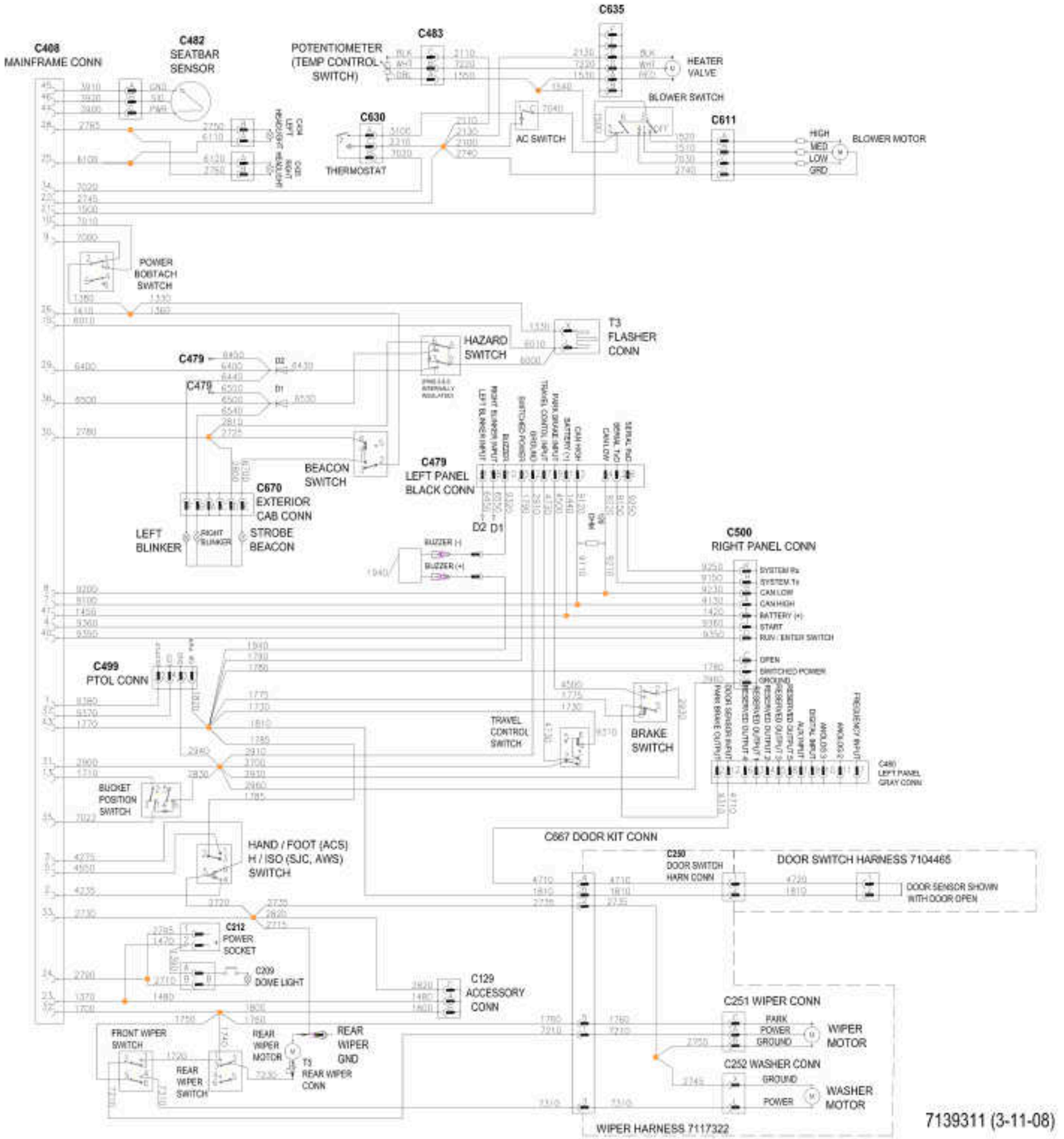
WIRING SCHEMATIC
(DELUXE CAB)
T180 (S/N A3LL11001 AND ABOVE)

(PRINTED MARCH 2008)

7139311

DLX CAB HARNESS
7139311

TO
MAINFRAME
HARNESS



Printed In U.S.A.

7139311 (3-11-08)

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