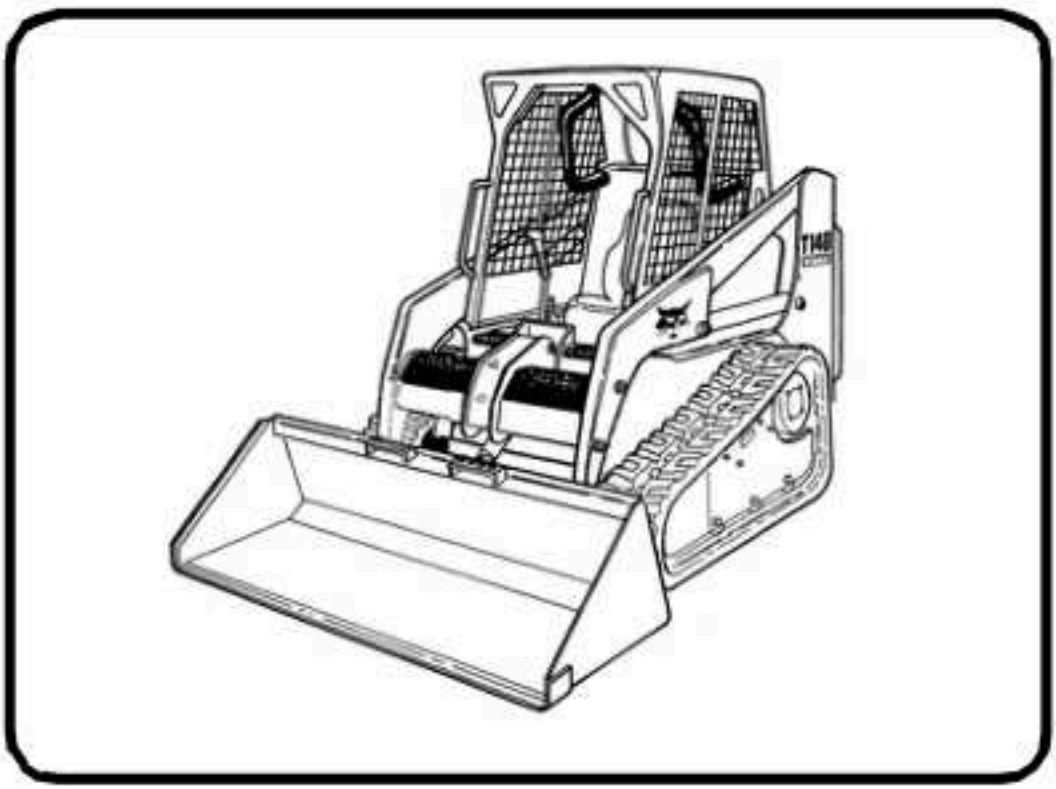
Bobcat®

Service Manual
T140 Compact Track Loader

S/N 529311001 & Above
S/N 531311001 & Above
S/N A8M511001 & Above



EQUIPPED WITH BOBCAT INTERLOCK CONTROL SYSTEM (BICS)

6904150 (1-08)

Printed in U.S.A.

© Bobcat Company 2008

MidWestTech | Bobcat T140 Compact Track Skid Steer Loader Service Manual | Publicatio... Order the manual at mid-west-tech.com >

ALPHABETICAL INDEX

ALTERNATOR 60-01
AIR CLEANER 70-01
AIR CLEANER SERVICE 10-01

BACK-UP ALARM SYSTEM 60-01
BATTERY 60-01
BOBCAT INTERLOCK CONTROL SYSTEM (BICS) 60-01
BOBCAT CONTROLLER (ACS) 60-01
BOBCAT CONTROLLER (MAIN) 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

CAMSHAFT AND TIMING GEARS 70-01
CASE DRAIN FILTER 30-01
CALIBRATION 60-01
CHARGE PRESSURE 30-01
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 LINKAGES 50-01
CONTROL PEDALS (ACS) 50-01
CONTROL SYSTEM (ACS) 60-01
CONVERSIONS SPEC-01
CRANKSHAFT AND PISTONS 70-01
CYLINDER (BOB-TACH) 20-01
CYLINDER (LIFT) 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/HYDRAULIC CONTROLS REFERENCE (SJC) 60-01
ELECTRICAL SYSTEM INFORMATION 60-01
ENGINE COOLING SYSTEM 10-01, 70-01
ENGINE INFORMATION 70-01
ENGINE LUBRICATION SYSTEM 10-01
ENGINE SPECIFICATIONS SPEC-01
ENGINE SPEED CONTROL 70-01
ENGINE SPEED CONTROL (SJC) 70-01

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 FAN 80-01
HEATING SYSTEM 80-01
HEATER UNIT 80-01
HEATER VALVE 80-01
HYDRAULIC CONNECTION SPECIFICATIONS SPEC-01
HYDRAULIC CONTROL VALVE (ACS) OR (SJC) 20-01
HYDRAULIC CONTROL VALVE (STANDARD) 20-01
HYDRAULIC FLUID RESERVOIR 20-01
HYDRAULIC/HYDROSTATIC FILTERS 20-01
HYDRAULIC / HYDROSTATIC FLUID SPECIFICATIONS SPEC-01
HYDRAULIC/HYDROSTATIC SYSTEM 10-01
HYDRAULIC PUMP (SJC) 20-01
HYDRAULIC PUMP (STANDARD) 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
T140 LOADER SPECIFICATIONS SPEC-01
LOADER STORAGE AND RETURN TO SERVICE 10-01
LUBRICATING THE LOADER 10-01
LUBRICATION SYSTEM 70-01

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 DEVERTER 20-01
REAR DOOR 50-01
REAR GRILL 50-01
REGULAR MAINTENANCE 80-01
REMOTE START TOOL KIT-MEL1563 10-01
REMOTE START TOOL (SERVICE TOOL) KIT-6689779 10-01

MidWestTech | Bobcat T140 Compact Track Skid Steer Loader Service Manual | Publicatio... Order the manual at mid-west-tech.com >

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 SENSORS (SJC) 60-01
STARTER 60-01
STEERING DRIFT COMPENSATION 60-01
STOPPING THE ENGINE AND LEAVING THE LOADER 10-01

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

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

MidWestTech | Bobcat T140 Compact Track Skid Steer Loader Service Manual | Publicatio... Order the manual at mid-west-tech.com >

CONTENTS

DELIVERY REPORT X

FOREWORD II

LOADER IDENTIFICATION XI

SAFETY INSTRUCTIONS V

SERIAL NUMBER LOCATIONS IX

SAFETY AND 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 SYSTEM 80-01

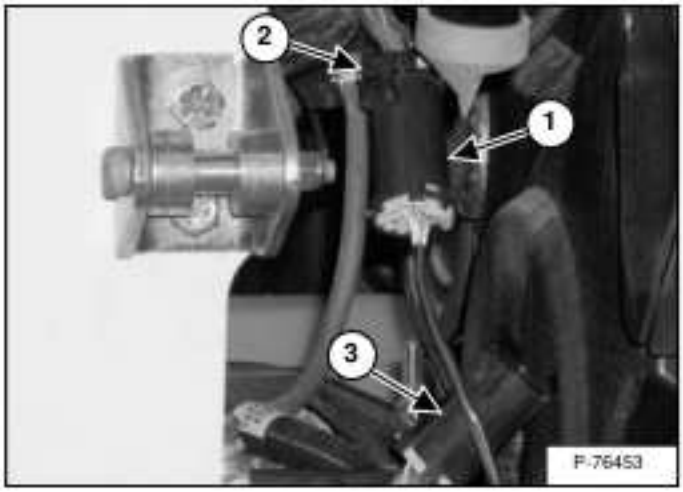
SPECIFICATIONS SPEC-01

MidWestTech | Bobcat T140 Compact Track Skid Steer Loader Service Manual | Publicatio... Order the manual at mid-west-tech.com >

REMOTE START TOOL (SERVICE TOOL) KIT - 6689779 (CONT'D)

Loader Service Tool Harness - 6689747 (Cont'd)

Figure 10-61-21



NOTE: The Remote Start Tool (Service Tool) connection harness has two connectors (Item 1) and (Item 3). The main connector (Item 1) [Figure 10-61-21] is always used for connection to the loader harness.

The second connector (Item 3) [Figure 10-61-21] is used for attachment ACD upgrades or attachment operational diagnostics only. This connector has a cap attached to it to prevent damage or corrosion when not in use.

Connect the Remote Start Tool (Service Tool) connector (Item 1) to the loader harness connector (Item 2) and the other Remote Start Tool (Service Tool) connector to the ACD harness connector (Item 3) **[Figure 10-61-21]**.

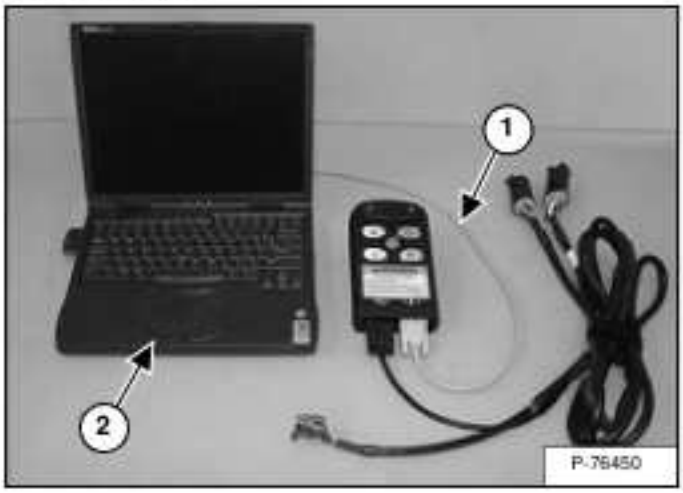
NOTE: The right instrument panel (Key Switch or Keyless) must be in the off position or the Remote Start Tool (Service Tool) will not operate.



P-76454

Computer Service Tool Harness - 6689746

Figure 10-61-22



The computer service tool harness (Item 1) **[Figure 10-61-22]** is required to connect remote start tool (service tool) to the Service PC (Item 2) **[Figure 10-61-22]**.

MidWestTech | Bobcat T140 Compact Track Skid Steer Loader Service Manual | Publicatio... Order the manual at mid-west-tech.com >

HYDROSTATIC SYSTEM INFORMATION

Troubleshooting

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

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

W-2004-1285

PROBLEM	CAUSE
No drive on one side, in one direction.	1, 2
No drive on one side in both directions.	2, 3, 4
The loader does not move in a straight line.	2, 3, 4, 5, 9
The hydrostatic system is overheating.	6,7,8

KEY TO CORRECT THE CAUSE
1. The hydrostatic pump replenishing valves not seating.
2. The steering linkage needs adjustment.
3. The hydrostatic pump has damage.
4. The hydrostatic motor has damage.
5. Track tension is to tight, on one side.
6. The hydrostatic fluid is not at the correct level.
7. The oil cooler has a restriction.
8. The loader is not being operated at the correct RPM.
9. The hydrostatic pump is ot properly calibrated, and/or incorrect steering drift compensation setting.

MidWestTech | Bobcat T140 Compact Track Skid Steer Loader Service Manual | Publicatio... Order the manual at mid-west-tech.com >

(T140) LOADER SPECIFICATIONS (CONT'D)

Hydraulic System

Pump Type		Engine driven, Gear type
Pump Capacity		16.9 GPM (64 L/min.) @ 2930 Engine RPM @ 91% Efficiency
System Relief at Quick Couplers		2650 - 2750 PSI (182,7 - 189,6 bar)
Filter		Full flow replaceable, 3 micron synthetic media element
Hydraulic Cylinders		Double acting; Tilt cylinder has cushioning feature on dump & rollback
Bore Diameter:	Lift Cylinder (2)	2.00 in. (50,8 mm)
	Tilt Cylinder (1)	3.50 in. (88,9 mm)
Rod Diameter:	Lift Cylinder (2)	1.25 in. (31,8 mm)
	Tilt Cylinder (1)	1.50 in. (38,1 mm)
Stroke:	Lift Cylinder (2)	26.57 in. (674,9 mm)
	Tilt Cylinder (1)	14.50 in. (368,3 mm)
Control Valve		3-spool, open center type with spring detent for lift float and electrically controlled auxiliary spool.
Fluid Lines		SAE standard tubelines, hoses and fittings.
Fluid Type		BOBCAT FLUID, Hydraulic/Hydrostatic 6903117 - (Two - 2.5 Gal.) 6903118 - (5 Gal.) 6903119 - (55 Gal.)
Hydraulic Function Time:		
Raise Lift Arms		2.6 Seconds
Lower Lift Arms		1.8 Seconds
Bucket Dump		2.2 Seconds
Bucket Rollback		1.8 Seconds

Electrical

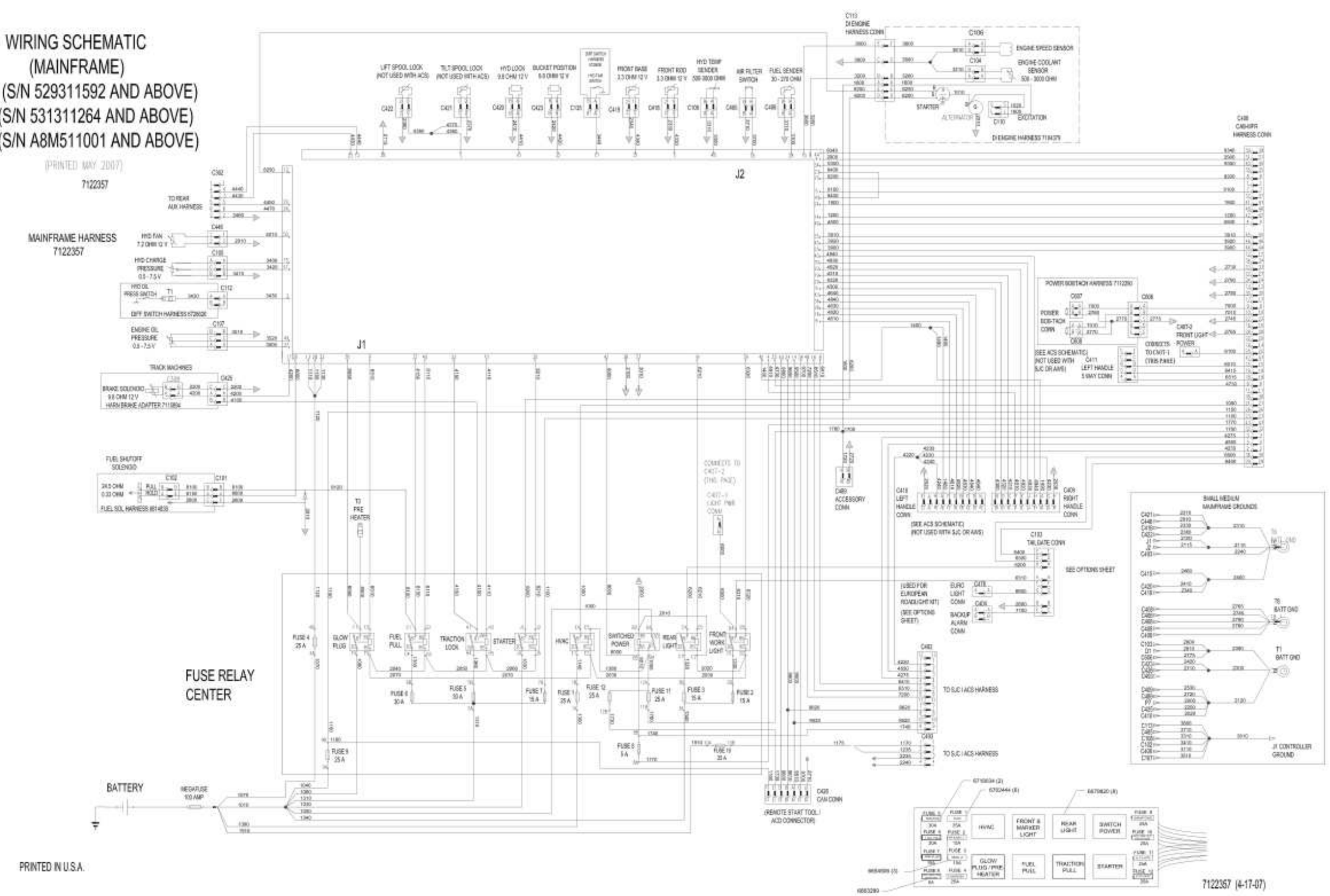
Alternator	Belt driven, 90 amp., ventilated
Battery	12 volts, 600 cold cranking amps. @ 0°F. (-18°C); 115 minute reserve capacity @ 25 amps.
Starter	12 volts; Gear Reduction Type; 4.02 HP (3,0 kW)
Instrumentation	**Standard Instrumentation:** *Gauges:* Hourmeter, Fuel, Engine Temperature. *Warning Lights:* Engine Coolant Temperature, Engine Oil Pressure, Hydraulic Oil Temperature & Charge Pressure, Hydraulic Filter, Engine Air Filter, Seat Belt, Fuel Level, General Warning, System Voltage. *Indicators:* Attachment Control Device (ACD), Advanced Hand Controls (AHC) or Advanced Control System (ACS), BICS Functions, Engine Preheat, Headlights, Bucket Positioning, Attachment Auxiliary Hydraulics modes. **Optional Deluxe Instrumentation:** - Same gauges and warning lights as standard Instrumentation. - Additional bar-type gauges for: Engine Oil Pressure, System Voltage, Hydrostatic Charge Pressure and Hydraulic Oil Temperature. - Additional Features Include: Keyless Start with password capability, Digital Clock, Attachments, Attachments Information, Digital Tachometer, High Flow & Two-Speed Lockouts, Multi-Language Display, Help Screens, Diagnostic Capability & Engine / Hydraulic Systems Shutdown Function.

MidWestTech | Bobcat T140 Compact Track Skid Steer Loader Service Manual | Publicatio... Order the manual at mid-west-tech.com >

WIRING SCHEMATIC
(MAINFRAME)
T140 (S/N 529311592 AND ABOVE)
(S/N 531311264 AND ABOVE)
(S/N A8M511001 AND ABOVE)

(PRINTED MAY 2007)

7122357



PRINTED IN U.S.A.

7122357 (4-17-07)

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