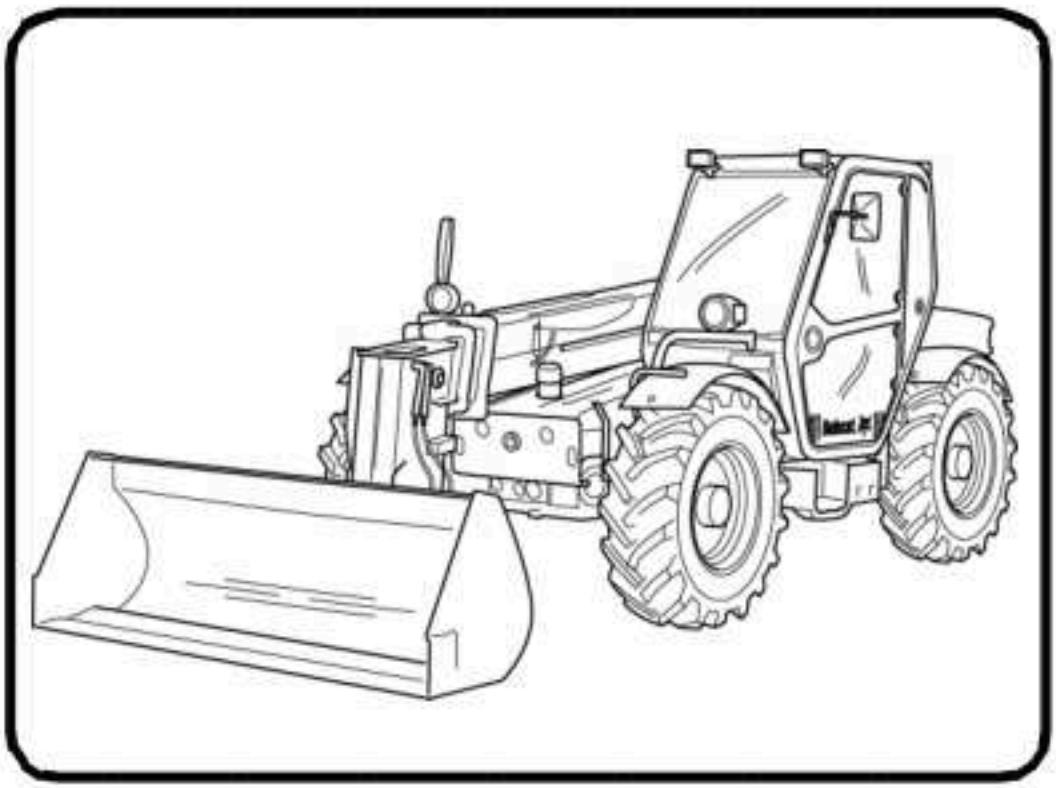
Bobcat®

Service Manual
V638 VersaHANDLER®

S/N A8HM11001 & Above (with Cab)
S/N A8HN11001 & Above (with Canopy)



6986763 (4-10)

Printed in U.S.A.

© Bobcat Company 2010

MidWestTech | Bobcat V638 VersaHANDLER Service Manual | Publication 6986763_4_10

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

CONTENTS

SAFETY & MAINTENANCE 10-01

HYDRAULIC SYSTEM 20-01

HYDROSTATIC SYSTEM 30-01

DRIVE SYSTEM 40-01

MAINFRAME 50-01

ELECTRICAL SYSTEM & ANALYSIS 60-01

ENGINE SERVICE 70-01

HEATING, VENTILATION AND AIR CONDITIONING (HVAC) 80-01

SPECIFICATIONS SPEC-01

ALPHABETICAL INDEX INDEX-01

MidWestTech | Bobcat V638 VersaHANDLER Service Manual | Publication 6986763_4_10 Order the manual at mid-west-tech.com >

FOREWORD 1-5

SAFETY INSTRUCTIONS 1-7

FIRE PREVENTION 1-8
- Maintenance 1-8
- Operation 1-8
- Electrical 1-8
- Hydraulic System 1-9
- Fueling 1-9
- Starting 1-9
- Spark Arrester Exhaust System 1-9
- Welding And Grinding 1-9
- Fire Extinguishers 1-9

SERIAL NUMBER LOCATION 1-10
- VersaHANDLER Serial Number 1-10
- Engine Serial Number 1-10
- Other Serial Numbers 1-10

DELIVERY REPORT 1-11

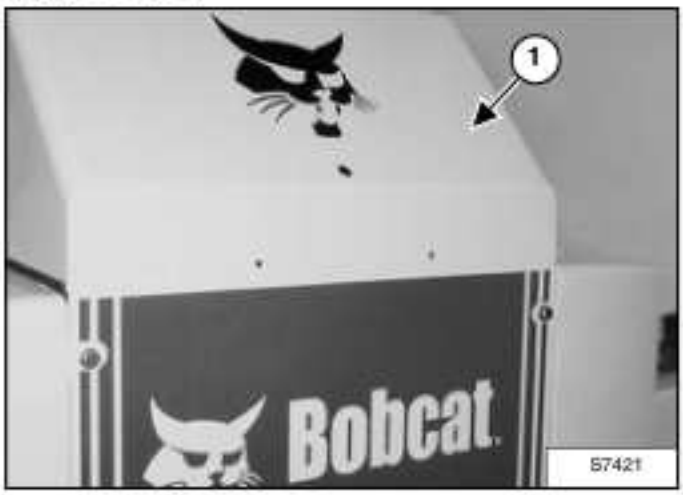
BOBCAT VERSAHANDLER IDENTIFICATION 1-12

MidWestTech | Bobcat V638 VersaHANDLER Service Manual | Publication 6986763_4_10 Order the manual at mid-west-tech.com >

REAR WEIGHTS

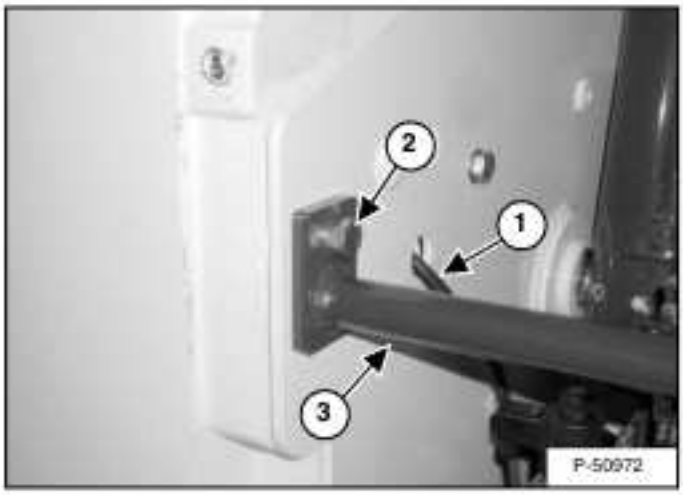
Removal And Installation

Figure 50-110-1



Remove the rear cover (Item 1) **[Figure 50-110-1]**.

Figure 50-110-2



Unplug the tail light connector (Item 1) **[Figure 50-110-2]** from the main harness.

Remove the cross bar mounting bolt (Item 2) (both sides) and remove the cross bar (Item 3) **[Figure 50-110-2]**.

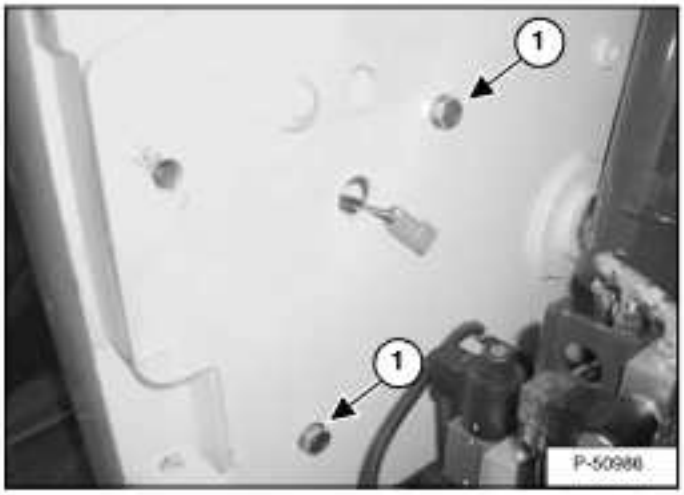
Installation: Tighten the bar to 188 - 210 ft.-lb. (255 - 285 N•m) torque.

Figure 50-110-3



Position a hoist as shown to lift and support the rear weight **[Figure 50-110-3]**.

Figure 50-110-4



Remove the two weight mounting bolts (Item 1) **[Figure 50-110-4]**.

Remove the weight.

MidWestTech | Bobcat V638 VersaHANDLER Service Manual | Publication 6986763_4_10 Order the manual at mid-west-tech.com >

ELECTRICAL SYSTEM INFORMATION (S/N A8HM12999 & BELOW, S/N A8HN12999 & BELOW)

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 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 earth 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 V638 VersaHANDLER Service Manual | Publication 6986763_4_10 Order the manual at mid-west-tech.com >

VERSAHANDLER SPECIFICATIONS (CONT'D)

Tires

	T35100(S)(L)	T35120(S)L
Standard Tires	DUNLOP 400/70 - 20 T37 150B (4 bar front/ rear)	TITAN 400/70x20 150B 166A2 LIFT RIGGER II (4 bar front/rear)
Optional Tires	TITAN 400/70x20 150B 166A2 LIFT RIGGER II (4 bar front/rear)	DUNLOP 400/70 - 20 T37 150B (4 bar front/rear)
	DUNLOP 400/80x24 153B T37 TL (4.25 bar front/rear)	DUNLOP 400/80x24 153B T37 TL (4.25 bar front/ rear)
	DUNLOP 405/70x20 MPT 152J 168A2 SP T9 (5.5 bar front/rear)	DUNLOP 405/70x20 MPT 152J 168A2 SP T9 (5.5 bar front/rear)
		BFGOODRICH 400/70x20 (4.1 bar front/rear)

Capacities

	T35100(S)(L)	T35120(S)L	Type
Fuel Tank	38.3 Gal. (145 L)	38.3 Gal. (145 L)	Diesel #2 or #1
Hyd./Hydros. System	33 Gal. (125 L)	33 Gal. (125 L)	EQUIVIS ZS 46
Eng. Cooling System	18 qt. (17 L)	18 qt. (17 L)	Antifreeze mixture (Ethylene Glycol)
Engine Oil Change w/Filter	9 qt. (8,5 L)	9 qt. (8,5 L)	See oil chart
Front Axle	11.1 qt. (10,5 L)	11.1 qt. (10,5 L)	100032-06A
Rear Axle	11qt. (10 L)	11 qt. (10 L)	100032-06A
Front Reduction Gearbox	0.85 qt. (0,8 L)	0.85 qt. (0,8 L)	100032-06A
Planetary Carrier	1.3 qt. (1,3 L)	1.3 qt. (1,3 L)	100032-06A

Hydraulic System

Hydraulic Pump	Engine driven, 25 GPM (95 L/min.)
Hydraulic Pressure	3843 PSI (265 bar)
Auxiliary Flow	@ High idle 0-21 GPM (0-80 L/min.)

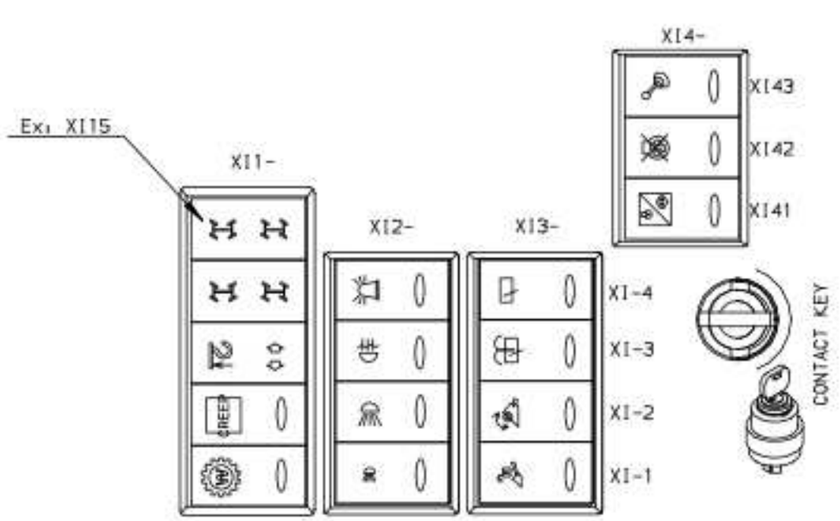
Electrical

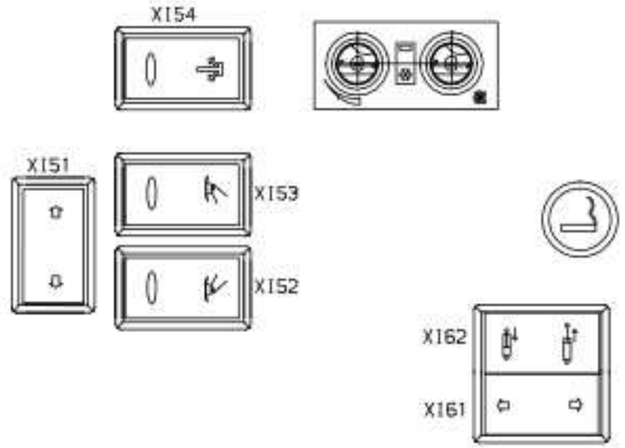
Alternator	14.2 Volt, 70 amp with internal regulator
Battery	12 V — 105 Ah — 700A

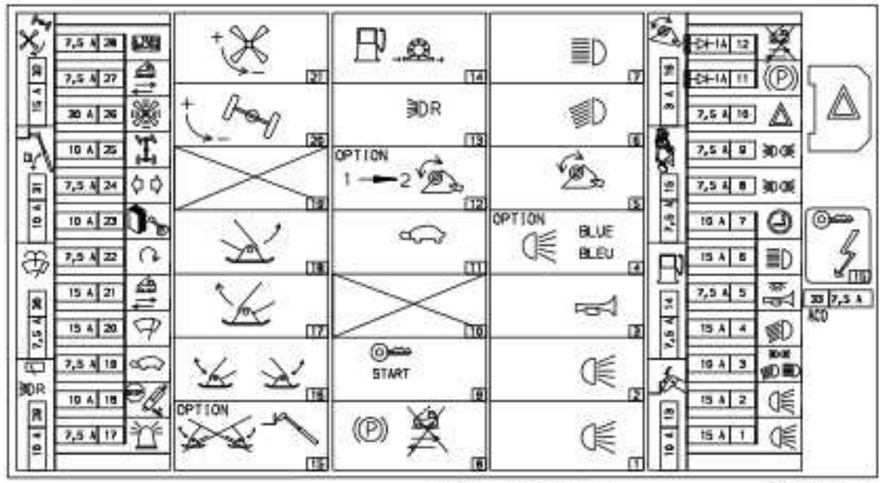
Instrument Panel

Full compliment of instrumentation for engine, hydraulic and machine functions.

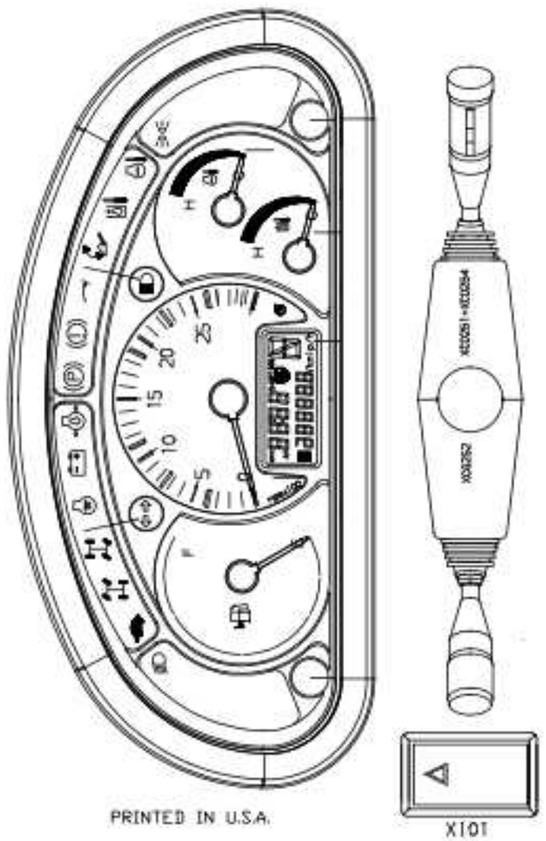
MidWestTech | Bobcat V638 VersaHANDLER Service Manual | Publication 6986763_4_10 Order the manual at mid-west-tech.com >

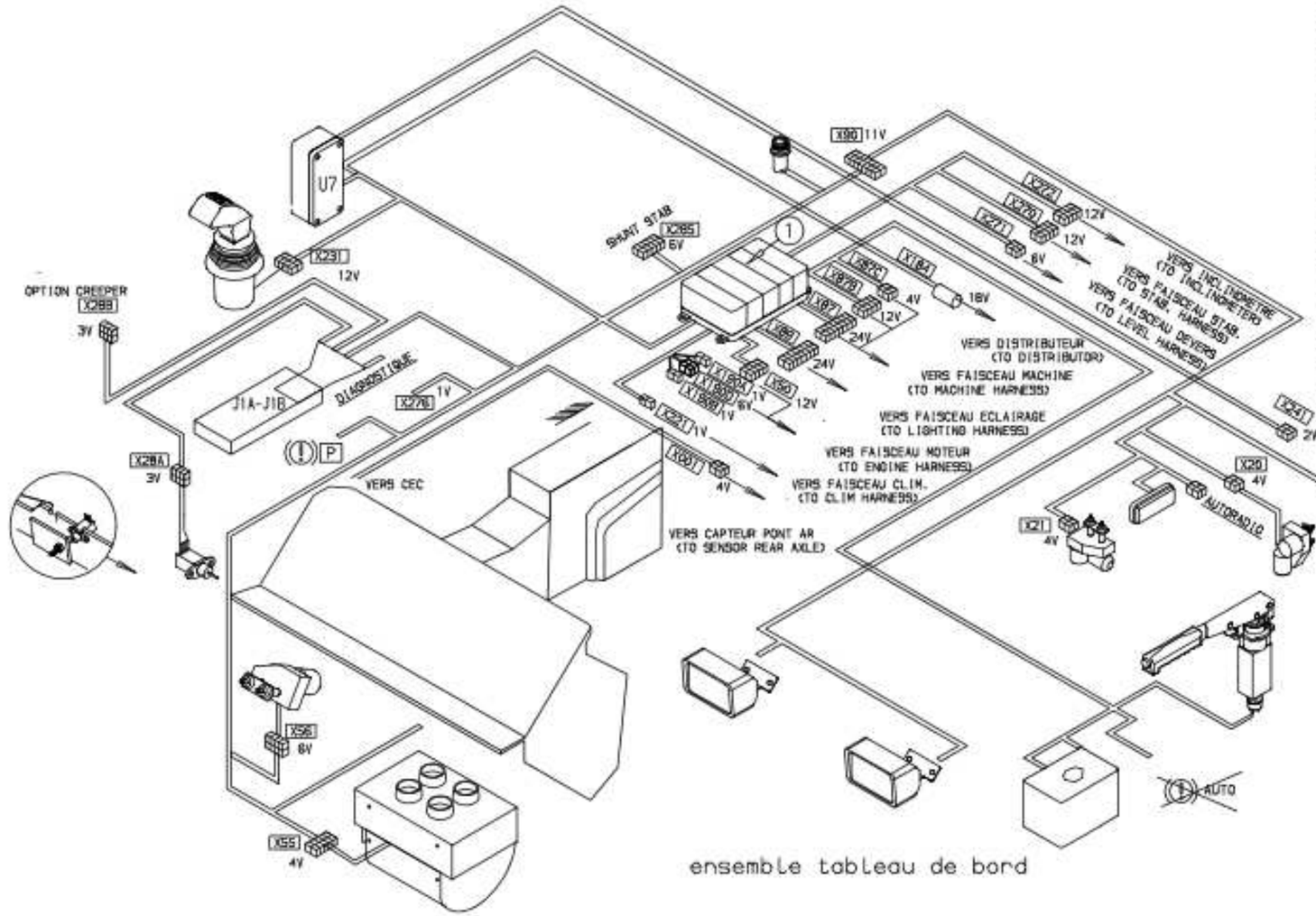






N°	VOLTS	CONNECTIONS	LOCALISATION
X001	4V	CEC/CAPTEUR PONT AR	SOUS LA CABINE
X20	4V	11/ESSUIE GL. AR	CAB. TOIT
X21	4V	11/ESSUIE GL. TOIT	CAB. TOIT
X28A	3V	1/14	CAB. AXE PEDALE
X28B	3V	1/OPT CREEPER	TAB DE BORD
X50	12V	1/6	SOUS LA CABINE
X55	4V	1/CHAUFFAGE	CAB. AVANT PUPITRE
X56	6V	1/ESSUIE GL. AV	CAB. AVANT PUPITRE
X87	24V	1/5	SOUS LA CABINE
X87B	12V	1/5	SOUS LA CABINE
X87C	4V	1/5	SOUS LA CABINE
X89	24V	1/4	SOUS LA CABINE
X90	11V	1/11	CAB. COTE BOITE FUSIBLE
X184	18V	7B/62	SOUS LA CABINE
X185A	1V	1/6	SOUS LA CABINE
X185B	1V	1/6	SOUS LA CABINE
X185D	6V	1/6	SOUS LA CABINE
X231	1V	1/91	COTE BOITE FUSIBLE
X231	12V	7B/JOYSTICK	COTE BOITE FUSIBLE
U7	5V	1/70	CAB.CENTRE D.
X241	2V	1/..	tions borne only convey us)
X270	12V	1/93	SOUS LA CABINE
X271	6V	1/93	SOUS LA CABINE
X272	12V	1/INCLINOMETER	SOUS LA CABINE
X276	1V	1/..OPT LIBRE (NOT USED)	COTE BOITE FUSIBLE
X285	6V	1/SHUNT STAB.	COTE BOITE FUSIBLE
J1A-J1B	24V-26V	1/CONTROLEUR	CAB.CENTRE D.





ELECTRICAL SCHEMATIC
V638 S/N A8HM13001 AND ABOVE
V638 S/N A8HN13001 AND ABOVE
SHEET 1 OF 12
PRINTED APRIL 2010
6927971

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