VIBROMAX

W1500 TRENCH ROLLER

SERVICE MANUAL SM35001

April 2003



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Certificate No. 59557-01

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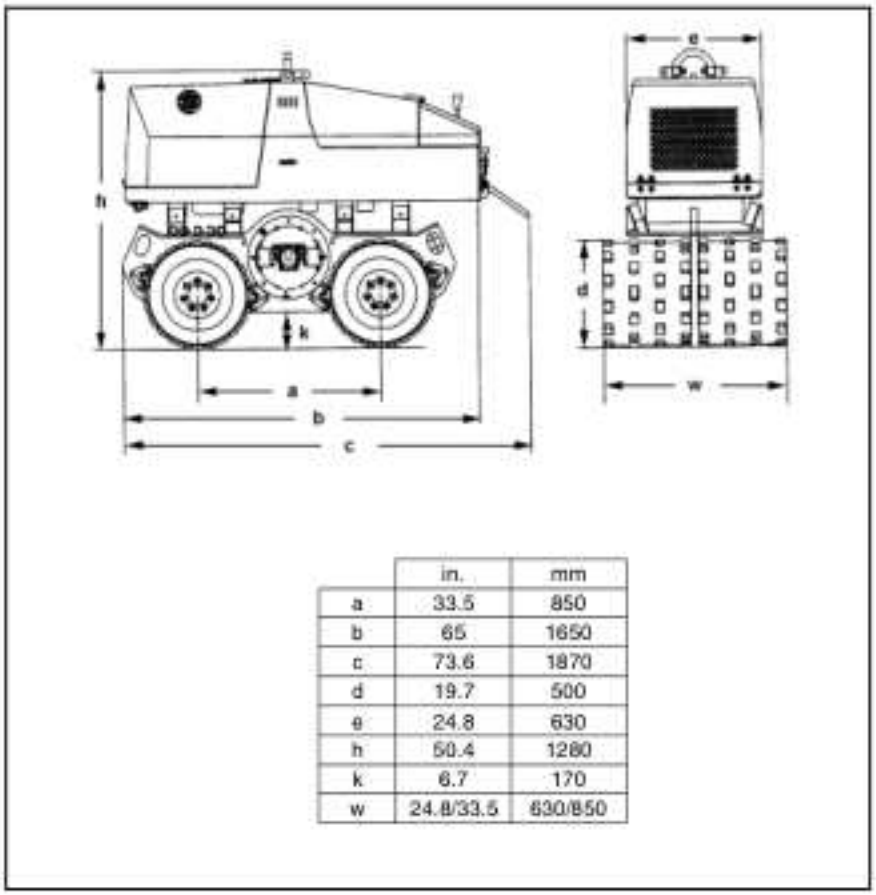
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CHASSIS

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MACHINE SPECIFICATIONS



	in.	mm
a	33.5	850
b	65	1650
c	73.6	1870
d	19.7	500
e	24.8	630
h	50.4	1280
k	6.7	170
w	24.8/33.5	630/850

FLUID CAPACITY

MACHINE PART	CAPACITY USA (metric)	SPECIFICATIONS
Fuel tank	5.8 gal (22 l)	see diesel fuel
Engine crankcase	4.2 qts(4 l)	engine oil API classification API-CD MIL-L-2104C multigrade engine oil (see oil chart) single grade engine oil (see oil chart)
Hydraulic system	18.5 gal (70 l)	cold weather HLP 46 DIN 51524 hot weather HLP 68 DIN 51524 Mobil DTE 25,26 Shell Tellus OL 46,68 Amoco Rykon HD 46,68 Texaco Rando HD 46,68
Vibration system	0.53 qts (0.5 l)	15W-40
Battery	as required	Distilled water
Engine coolant	1.32 gal (5 l)	50% ethylene glycol and 50% water SAE J814c

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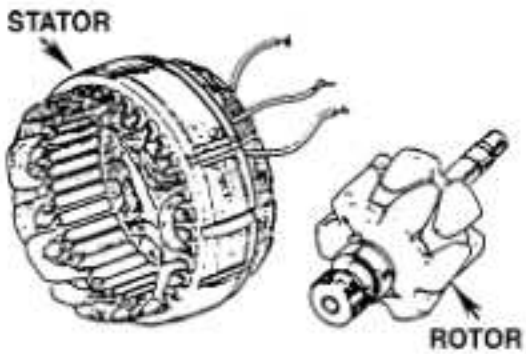
Apply a load of approximately 1/2 of the cold crank amperage rating for 15 seconds. Measure the voltage just before removing the load.

If your measurement is less than that shown on the table below, the battery needs replacing.

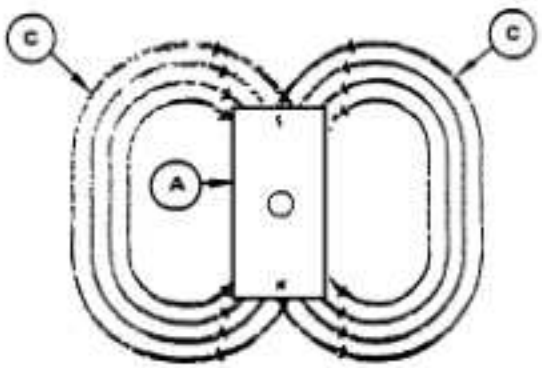
Temp C	21	16	10	4	-1
Temp F	70	60	50	40	30
Min-voltage	9.6	9.5	9.4	9.3	9.1

UNDERSTANDING ALTERNATORS

The purpose of the charging circuit is to maintain the battery in a fully charged condition. The alternator, which is used to perform this function, has two main parts; the rotor which is attached to the shaft, and the stator which is fixed in the housing. The stator normally has three windings.

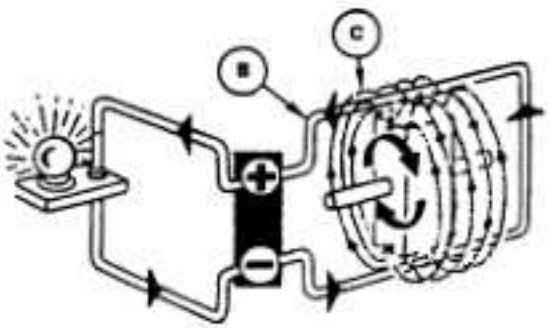


The rotor (A), when supplied with a small amount of current, will produce an electromagnetic field (C). The power to the rotor is



controlled through the ignition switch to prevent battery drain when the engine is not running.

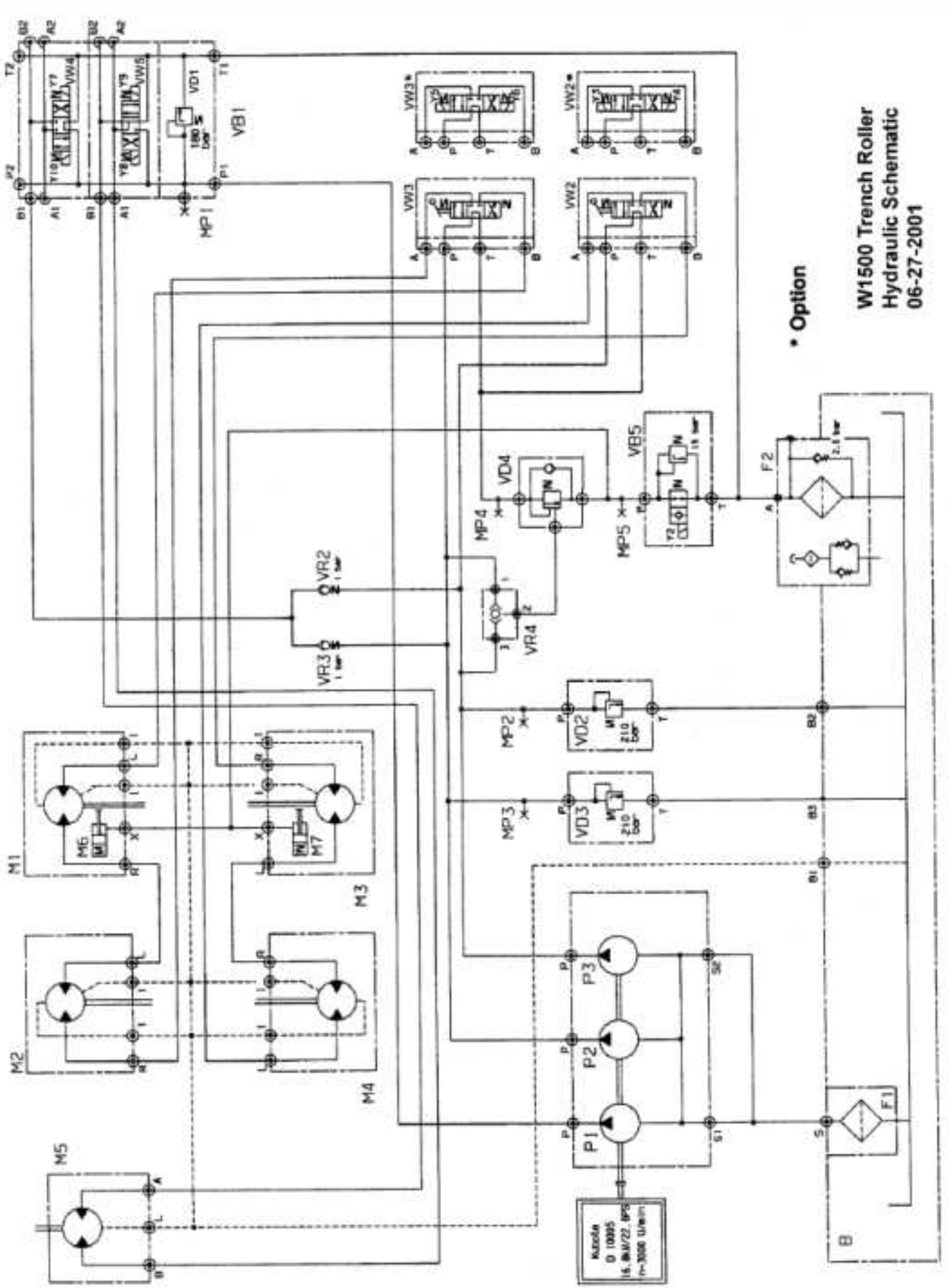
As the rotor is turned by the shaft, the magnetic field of the rotor (C) will pass through the windings of the stator (B) and produce an electrical current in the stator windings. The amount of current produced will vary depending on the speed of the rotor and the strength of the magnetic field.



The output of the stator will be an AC sine wave and must be rectified to obtain a DC output. The rectification of the stator output is accomplished by a pair of diodes for each stator winding. The DC output is then controlled by the regulator/brush assembly on the alternator. The actual battery charging output of the alternator flows out of the B+ terminal to the positive terminal of the starter solenoid.

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HYDRAULIC SCHEMATIC



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WIRE CHART 5731/82105

INSTRUMENT PANEL HARNESS

No.	Color	From	To
1	red	key switch S1 terminal 30	plug X1 port 4
2	red	key switch S1 terminal 15	fuse F1/A
3	black	key switch S1 terminal 50	plug X1 port 3
4	black/blue	key switch S1 terminal 50	engine preheat control D1 port 5
5	black/blue	key switch S1 terminal 17	preheat indicator light H1/+
6	black/blue	preheat indicator light H1/-	engine preheat control D1 port 6
7	black/blue	key switch S1 terminal 17	engine preheat control D1 port 4
8	black/blue	key switch S1 terminal 17	key switch S1 terminal 19
9	black/blue	key switch S1 terminal 19	plug X1 port 1
11	black/red	relay K1/87	engine preheat control D1 port 4
12	black/red	fuse F1/1	plug X1 port 6
13	black/red	fuse F1/1	relay K1/86
14	black/red	fuse F1/1	alternator indicator H2/+
15	black/red	alternator indicator H2/+	oil pressure indicator H3/+
16	black/red	alternator indicator H2/-	plug X1 port 5
18	green	oil pressure indicator H3/-	plug X1 port 8
19	black/red	oil pressure indicator H3/+	temperature indicator H4/+
20	black/red	radio remote switch S5 terminal 1	relay K6/86
21	black/red	relay K1/30	plug X1 port 7
22	green	oil pressure indicator H3/-	diode V2
23	red/white	temperature indicator H4/-	plug X1 port 9
24	red/white	temperature indicator H4/-	diode V1
25	green/red	relay K1/85	diode V2
26	green/red	relay K1/85	diode V1
27	black/red	fuse F2/2	plug X5
28	black/red	temperature indicator H4/+	hourmeter P1/+
29	brown	relay K2/85	hourmeter P1/-
30	brown	engine preheat control D1 port 3	plug X1 port 2
31	black/red	fuse F1/1	plug X1 port 10
32	black/red	radio remote switch S5 terminal 2	relay K1/87a
33	back/red	radio remote switch S5 terminal 3	plug X2 port 5
34	black/red	fuse F2/2	radio remote switch S5 terminal 5
35	black/red	radio remote switch S5 terminal 4	high speed travel switch S6/+
36	black/red	high speed travel switch S6/+	plug X2 port 8
37	black/red	radio remote switch S5 terminal 6	plug X2 port 4
38	blue/yellow	high speed travel switch S6/S1	plug X2 port 1

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