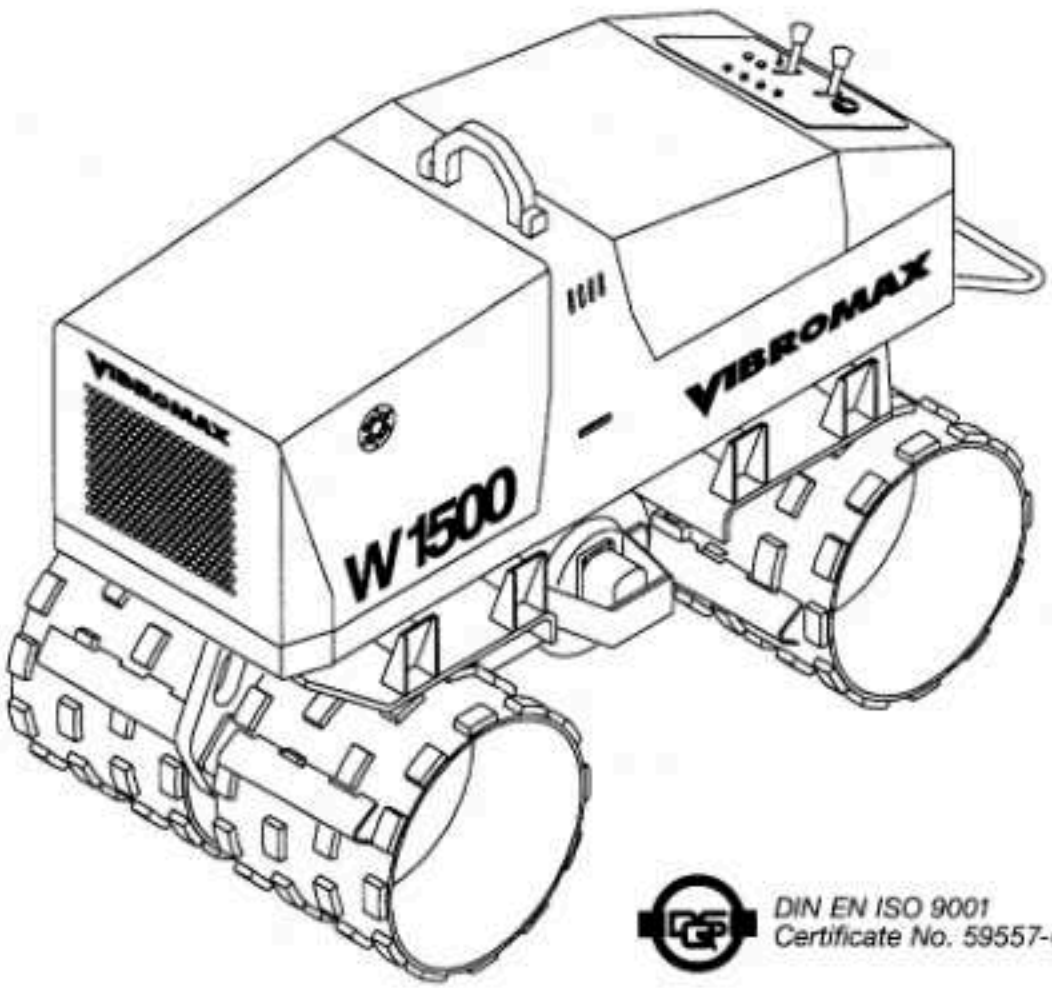
VIBROMAX

W1500 TRENCH ROLLER

SERVICE MANUAL SM35002

starting at S/N JKC4200800

October 2003



DIN EN ISO 9001
Certificate No. 59557-01

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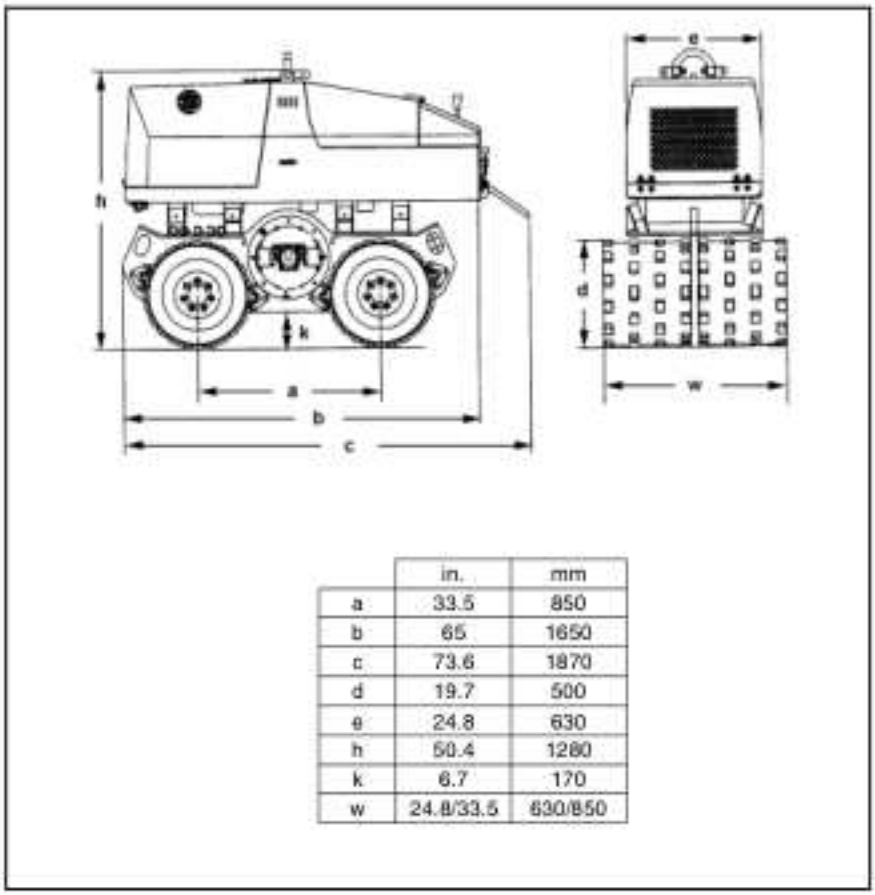
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MACHINE SPECIFICATIONS



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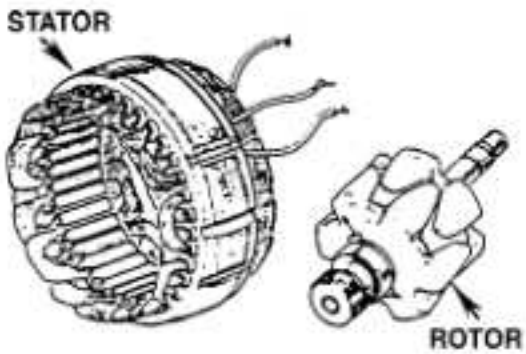
Apply a load of approximately 1/2 of the cold crank amperage rating for 15 seconds. Measure the voltage just before removing the load.

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

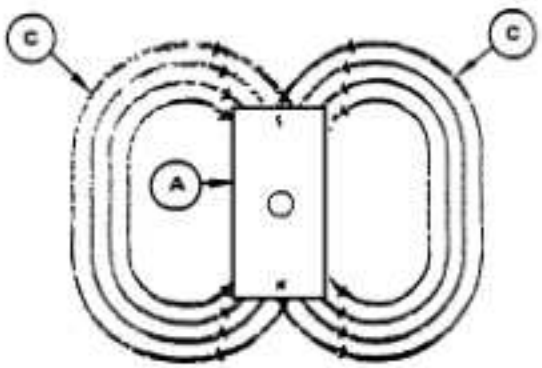
Temp C	21	16	10	4	-1
Temp F	70	60	50	40	30
Min-voltage	9.6	9.5	9.4	9.3	9.1

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.

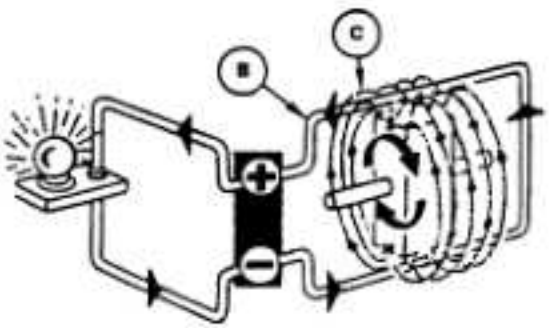


The rotor (A), when supplied with a small amount of current, will produce an electromagnetic field (C). The power to the rotor is



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

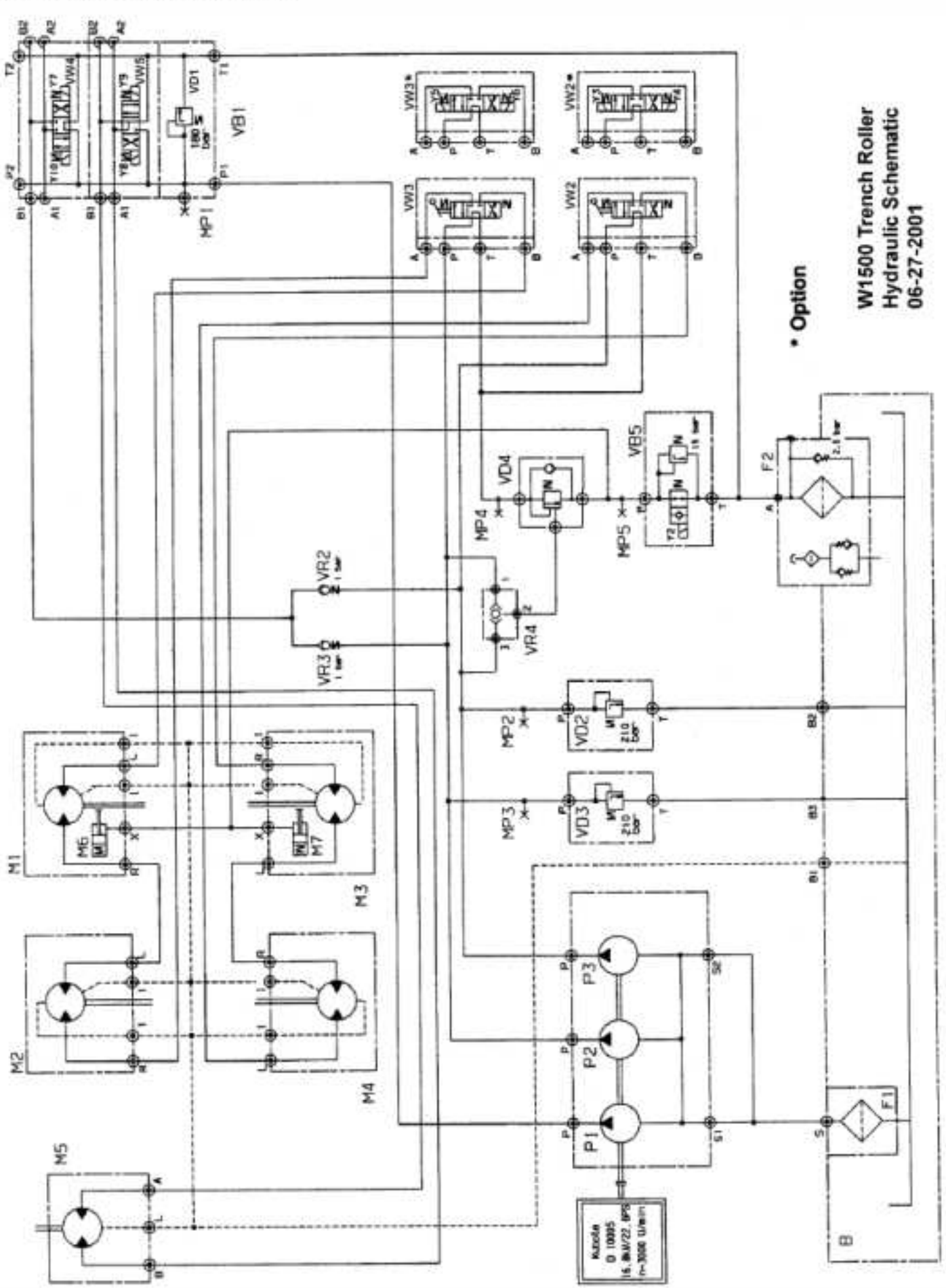
As the rotor is turned by the shaft, the magnetic field of the rotor (C) will pass through the windings of the stator (B) and produce an electrical current in the stator windings. The amount of current produced will vary depending on the speed of the rotor and the strength of the magnetic field.



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 5731/82121

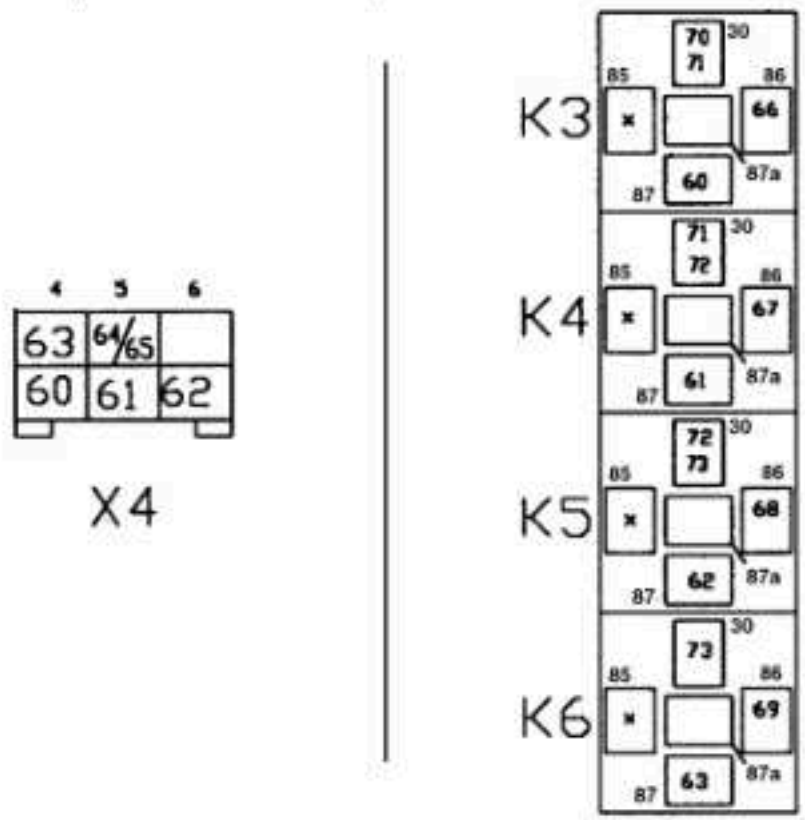
INSTRUMENT PANEL HARNESS (without remote)

No.	Color	From	To
1	red	key switch S1 terminal 30	plug X1 port 4
2	red	key switch S1 terminal 15	fuse F1/1
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 F1/2	plug X1 port 6
13	black/red	fuse F1/2	relay K1/86
14	black/red	fuse F1/2	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	relay K1/87a	relay K1/86
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
28	black/red	temperature indicator H4/+	hourmeter P1/+
29	brown	hourmeter P1/-	ground
30	brown	engine preheat control D1 port 3	plug X1 port 2
31	black/red	fuse F1/2	plug X1 port 10
35	black/red	fuse F2/2	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
39	black/red	high speed travel switch S6/S	vibration switch S7 port 2
40	gray/red	vibration switch S7 port 1	plug X2 port 2
41	gray/white	vibration switch S7 port 3	plug X2 port 3
46	blue/yellow	plug X2 port 1	plug X2A port 1

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WIRE HARNESS 5731/82175

JOYSTICK HARNESS (machine with remote)



No.	Color	From	To
60	blue/yellow	relay K3/87	plug X4 port 1
61	blue/yellow	relay K4/87	plug X4 port 2
62	blue/yellow	relay K5/87	plug X4 port 3
63	blue/yellow	relay K6/87	plug X4 port 4
64	black/red	joystick switch S8/1	plug X4 port 5
65	black/red	joystick switch S10/1	plug X4 port 5
66	blue/yellow	joystick switch S8/3	relay K3/86
67	blue/yellow	joystick switch S9/3	relay K4/86
68	blue/yellow	joystick switch S10/3	relay K5/86
69	blue/yellow	joystick switch S11/3	relay K6/86
70	black/red	joystick switch S9/1	relay K3/30
71	black/red	relay K3/30	relay K4/30
72	black/red	relay K4/30	relay K5/30
73	black/red	relay K5/30	relay K6/30
74	black/red	joystick switch S8/1	joystick switch S9/1
75	black/red	joystick switch S10/1	joystick switch S11/1

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