

THE JOB PRO[®] by Mi-T-M[®]

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PARTS LIST FOR JP-2003-0MHB/VB

Engine Oil Grade:

Honda:

SAE 10 W-30

Vanguard:

Above 40°F=SAE30/Below 40°F=SAE10W-30

Engine Oil Capacity:

Honda:

20 oz.

Vanguard:

24 oz.

Pump Oil Grade:

Mi-T-M Pump Oil #AW-4085-0016

Pump Oil Capacity:

14 oz.

Nozzle Size:

3.5

This Parts Listing has been compiled for your benefit. You can be assured your Mi-T-M Cold Water Pressure Washer was constructed and designed with quality and performance in mind using over 25 years experience in the pressure washer business. Each component has been rigorously tested to insure the highest level of acceptance.

The contents of this Parts Listing are based on the latest product information available at the time of publication. Mi-T-M reserves the right to make changes in price, color, materials, equipment, specifications or models at any time without notice.

WARNING

THIS IS A PROFESSIONAL HIGH PRESSURE, COLD WATER PRESSURE WASHER. CAUTION SHOULD BE OBSERVED WHEN USING OR REPAIRING THIS UNIT! READ AND FOLLOW THE SAFETY WARNINGS LISTED BELOW BEFORE ATTEMPTING ANY REPAIRS ON THIS PRESSURE WASHER!

SAFETY WARNINGS

1. NEVER alter or modify the equipment. Be sure any accessory items and system components being used will withstand the pressure developed. Use only genuine Mi-T-M parts for repair of your pressure washer. Failure to do so can cause hazardous operating conditions and will VOID warranty.
2. NEVER make adjustments on machinery while the unit is connected to the engine without first removing the ignition cable from the spark plug. Turning over the machinery by hand during adjustment or cleaning might start the engine and machinery with it, causing serious injury to the operator.
3. Know how to stop and bleed pressures quickly. Be thoroughly familiar with controls.
4. Before servicing the unit, turn unit off, relieve the water pressure and allow the unit to cool down. Do not make repairs while the unit is running. Service in a clean, dry, flat area. Block the wheels to prevent the unit from moving. Be especially careful to properly dispose of any flammable materials.
5. After testing the machine, DO NOT leave the pressurized unit unattended. Shut off the unit and release trapped pressure before leaving.

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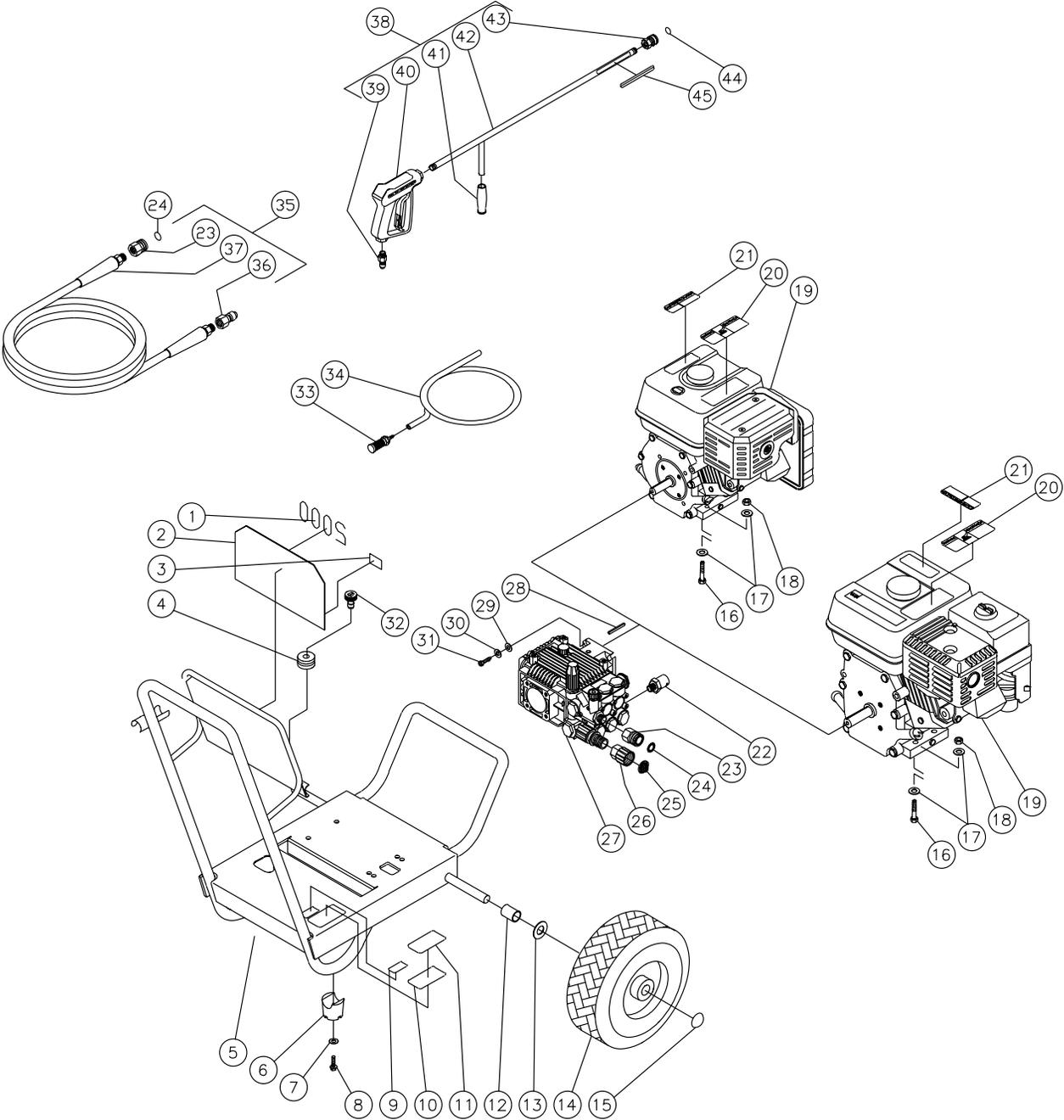
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SPECIFICATIONS

JP-2003-0MHB/VB

MODEL NUMBER	JP-2003-0MHB	JP-2003-0MVB
Operating Pressure (PSI/Bar):	2000/138	
High Pressure Nozzle:	3.5	
Water Volume (GPM/lpm):	2.7/10.2	
Engine:	Honda	Vanguard
Horsepower	5.5	6.0
Engine Type	4 Stroke, Overhead Valve, Single Cylinder	
Oil Type	SAE10W-30	Above 40 F=SAE30/ Below 40 F=SAE10W-30
Oil Capacity (oz./liters)	20/.6	24/.7
Low Oil Protection	Oil Alert	Oil Guard
Fuel Type	Unleaded Gasoline 86 Octane Minimum	
Fuel Capacity (gallon/ liters)	.95/3.6	1.05/3.97
Starting	Recoil	
Maximum No Load RPM	3600 (+/- 100) RPM	
Pump:	Direct Driven, Oil Bath, Triplex Piston	
Oil Type	Mi-T-M Pump Oil #AW-4085-0016	
Oil Capacity (oz./liters)	14/.41	
Plungers	Ceramic	
Manifold	Forged Brass	
Valves	Stainless Steel	
Unloader	Adjustable	
Heat Dump Valve	Relieves heated water during unloader bypass stage	
Detergent Injector	Adjustable low pressure down stream from pump	
Unit Net Weight (lbs/Kg)	83/38	92/42
Unit Shipping Weight (lbs/Kg)	110/50	119/54
Unit Net Dimension (in/cm)	30Lx21Wx26H/76Lx53.5Wx66H	
Unit Shipping Dimension (in/cm)	39.5Lx25.5Wx32.5H/100Lx65Wx83H	

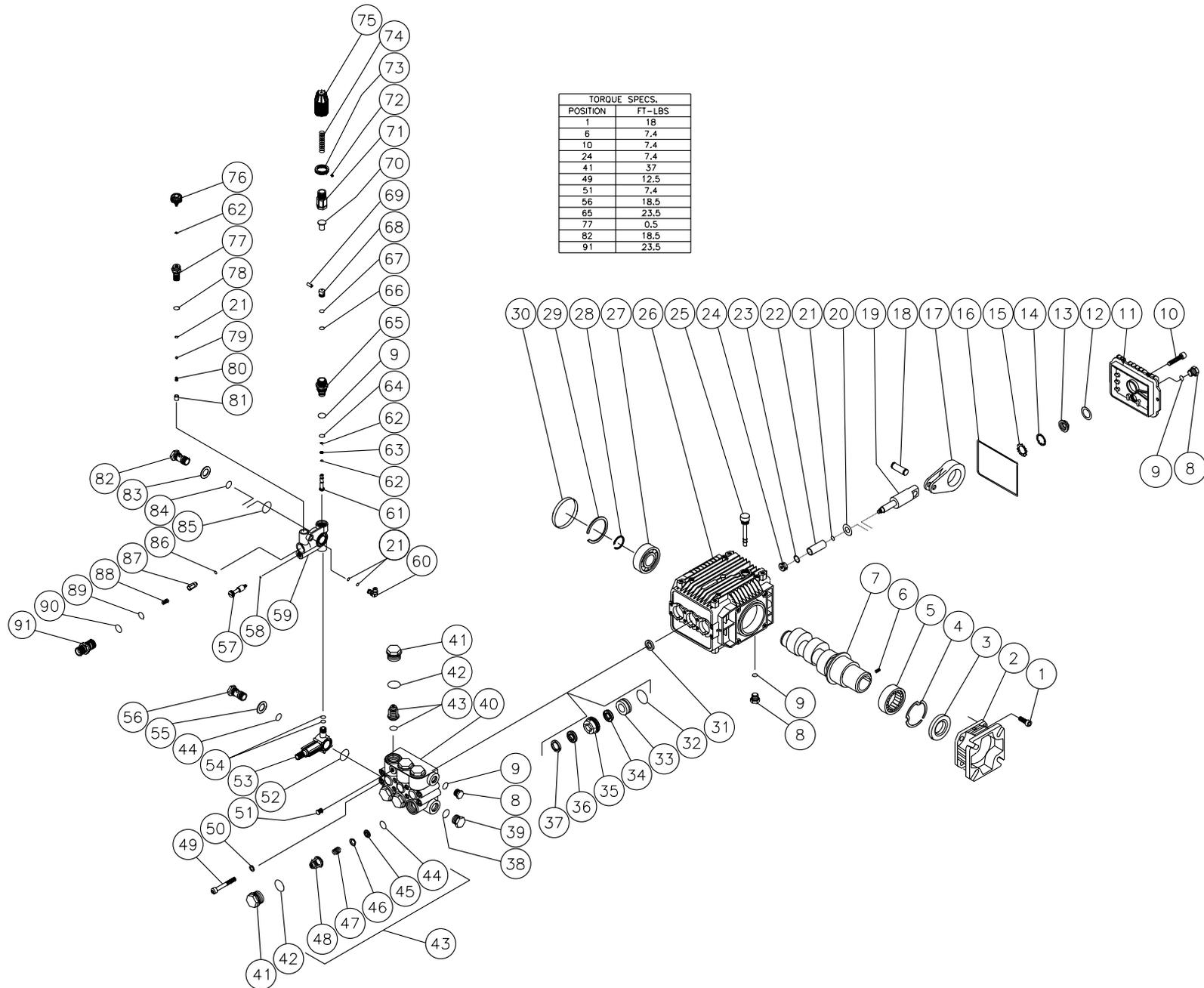
FRAME ASSEMBLY FOR JP-2003-0MHB/VB



JP-2003-0MHB/VB-121099-RD

FRAME ASSEMBLY FOR JP-2003-0MHB/VB							
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Decal-2000 Die Cut	34-0771	1	25	Filter	19-0001	1
2	Decal-Warning/Caution/Operating (E/S)	34-0778	1	26	Garden Hose Swivel	23-0001	1
3	Decal-American Flag	34-0521	1	27	Pump	3-0157	1
4	Grommet	33-0001	5	28	Key	43-0073	1
5	Frame	5-0123A01	1	29	Washer	28-0022	4
6	Isolator	14-0066	2	30	Lockwasher	29-0007	4
7	Washer	28-0021	2	31	Bolt	27-0092	4
8	Screw	27-3096	2	32	Nozzle- 0003.5	18-0257	1
9	Decal- Serial Number	N/A	1	-	Nozzle- 1503.5	18-0258	1
10	Decal- Data Plate	N/A	1	-	Nozzle- 2503.5	18-0259	1
11	Decal- Clear Laminate	N/A	1	-	Nozzle- 6540	18-0148	1
12	Axle Spacer	20-0313A01	2	33	Detergent Strainer	19-0050	1
13	Washer	28-0008	5	34	Detergent Hose *(Four Feet Required)	15-0021	1
14	Wheel	14-0017	2	35	Pressure Hose Assembly (Inc. 23, 36, 37)	851-0007	1
15	Hubcap	33-0018	2	36	Quick Connect Plug	17-0006	1
16	Bolt	27-0070	4	37	Pressure Hose	15-0003	1
17	Washer	28-0003	8	38	Gun & Wand Assembly (Inc. 39-43)	851-0095	1
18	Locknut	30-0157	4	39	Quick Connect Plug	17-0005	1
19	Engine- 5.5 H.P. Honda (JP-2003-0MHB)	1-0013	1	40	Gun	16-0001	1
-	Engine- 6.0 H.P. Vanguard (JP-2003-0MVB)	1-0069	1	41	Grip Handle	7-0002	1
20	Decal-Warning: Muffler Hot (E/S)	34-0598	1	42	Wand	16-0120A01	1
21	Decal-Caution: Allow to Cool (E/S)	34-0599	1	43	Quick Connect Socket	17-0001	1
22	Heat Dump Valve	22-0005	1	44	O-ring (Replacement)	25-0122	-
23	Quick Connect Socket	17-0004	2	45	Decal-Warning: Risk of Injection (English Only)	34-0572	1
24	O-ring (Replacement)	25-0123	-	*Must Order in One Foot Lengths			

PUMP ASSEMBLY (3-0157)



TORQUE SPECS.	
POSITION	FT-LBS
1	18
6	7.4
10	7.4
24	7.4
41	37
49	12.5
51	7.4
56	18.5
65	23.5
77	0.5
82	18.5
91	23.5

3-0157-011999-RD

PUMP ASSEMBLY (3-0157)											
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Bolt	27-8432	4	34	Low Pressure Seal (See 70-0181)	N/A Sep.	3	67	Back-up Ring (See 70-0164)	N/A Sep.	1
2	Flange	46-0715	1	35	Packing Retainer	46-0728	3	68	Poppet	8-0415	1
3	Oil Seal	26-0192	1	36	V-Packing (See 70-0181)	N/A Sep.	3	69	Pin	43-0087	1
4	Retaining Ring	46-0667	1	37	Support Ring (See 70-0182)	N/A Sep.	3	70	Spring Button	8-0416	1
5	Needle Bearing	48-0059	1	38	O-ring	25-0372	1	71	Guide Spring	8-0417	1
6	Set Screw	27-8886	1	39	Plug	39-0088	1	72	Set Screw	27-8876	1
7	Crankshaft	46-0716	1	40	Manifold	46-0730	1	73	Locknut	30-6015	1
8	Plug	39-0086	3	41	Valve Cap	39-0087	6	74	Spring	49-0119	1
9	O-ring	25-0325	4	42	O-ring	25-0160	6	75	Unloader Knob	7-0137	1
10	Bolt	27-8888	6	43	Single Valve Assembly (Inc. 43-47) (See 70-0161)	N/A Sep.	6	76	Adjustable Detergent Knob	7-0138	1
11	Crankcase Cover	46-0719	1	44	O-ring	25-0386	7	77	Injector Body	8-0418	1
12	O-ring	25-0370	1	45	Valve Seat (See 70-0161)	N/A Sep.	6	78	O-ring (See 70-0165)	N/A Sep.	1
13	Oil Sight Glass	46-0670	1	46	Valve Plate (See 70-0161)	N/A Sep.	6	79	Ball (See 70-0165)	N/A Sep.	1
14	Reflector	46-0824	1	47	Valve Spring (See 70-0161)	N/A Sep.	6	80	Spring (See 70-0165)	N/A Sep.	1
15	Retainer	46-0671	1	48	Valve Cage (See 70-0161)	N/A Sep.	6	81	Valve Cage (See 70-0165)	N/A Sep.	1
16	O-ring	25-0398	1	49	Bolt	27-8875	8	82	Outlet Adapter	8-0419	1
17	Connecting Rod	46-0720	3	50	Lockwasher	29-0153	8	83	Washer	28-1024	1
18	Piston Pin	46-0721	3	51	Plug	39-0097	1	84	O-ring (See 70-0164)	N/A Sep.	1
19	Plunger Rod	46-0722	3	52	O-ring	25-0400	1	85	O-ring (See 70-0164)	N/A Sep.	1
20	Slinger Washer	28-1022	3	53	Inlet By-Pass Adapter	51-0018	1	86	O-ring (See 70-0164)	N/A Sep.	1
21	O-ring	25-0371	6	54	O-ring (See 70-0164)	N/A Sep.	2	87	Check Valve	8-0458	1
22	Ceramic Piston	46-0723	3	55	Washer	28-1023	1	88	Spring	49-0124	1
23	Washer	26-0187	3	56	Adapter	8-0410	1	89	O-ring (See 70-0164)	N/A Sep.	1
24	Nut	30-6016	3	57	Plug	39-0089	1	90	O-ring (See 70-0164)	N/A Sep.	1
25	Oil Dipstick	39-0090	1	58	O-ring (See 70-0164)	N/A Sep.	1	91	Injector Adapter	8-0420	1
26	Crankcase	46-0724	1	59	Unloader Body	8-0412	1		High Pressure Seal Kit (Inc. 3 each 31, 33, 35)	70-0181	
27	Bearing	48-0063	1	60	Detergent Injector	8-0411	1		Support Ring Kit (Includes 3 each 36)	70-0182	
28	Retaining Ring	46-0732	1	61	Piston	8-0413	1		Valve Kit (Includes 6 each 43-47)	70-0161	
29	Retaining Ring	46-0676	1	62	O-ring	25-0253	3		Unloader Repair Kit (Inc. 18, 29, 43, 51, 53, 57, 61-63, 65, 66, 77-79, 83-89)	70-0164	
30	Bearing Cap	46-0725	1	63	Back-up Ring	25-0408	1		Injector Repair Kit (Inc. 18, 77-80)	70-0165	
31	Oil Seal	26-0193	3	64	O-ring (See 70-0164)	N/A Sep.	1		Unloader and Injector Kit (Inc. 9, 21, 44, 52-91)	8-0455	
32	O-ring	25-0399	3	65	Piston Guide	8-0414	1				
33	Retainer	46-0726	3	66	O-ring (See 70-0164)	N/A Sep.	1				

PUMP SERVICE GUIDE

Use the parts list on the previous page to reorder parts needed to service your pump.

Fig. A



Fig. B

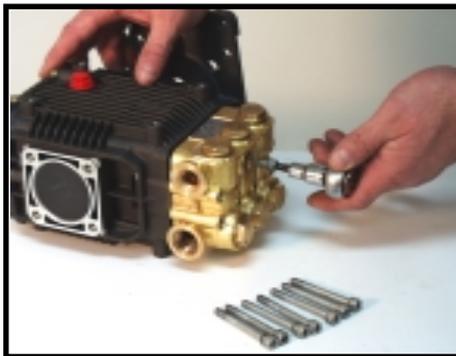


Fig. C



REPLACING THE VALVE ASSEMBLY:

1. In order to maintain optimum pump performance, replace all the valves at one time. The valve assemblies can be replaced without disrupting plumbing.
2. Remove the valve cap from the manifold.
3. Inspect the o-ring on the valve cap for deterioration. Replace if necessary.
4. Remove the valve assembly from the valve cavity (Fig. A).
5. Remove the o-ring inside the bottom of the valve cavity. Check for signs of severe deterioration of the o-ring. This could reflect excessive wear in the valve cavity of the manifold which is a *normal* occurrence in pumps with an extended life (over 1000 hours). Check the manifold and replace if necessary. (Note: *Normal* wear in the manifold is not covered under warranty.)
6. Install the new o-ring into the bottom of the valve cavity, then place the new valve assembly into the valve cavity.
7. Reinstall the valve cap and torque to 37 Ft-lbs (444 in-lbs).

REMOVING THE MANIFOLD:

1. Remove the head bolts on the manifold (Fig. B).

CAUTION RISK OF DAMAGE

USE CAUTION NOT TO DAMAGE THE PLUNGERS WHEN REMOVING THE MANIFOLD HEAD FROM THE CRANKCASE.

2. Pull the manifold head from the crankcase (Fig. C). Rotate the crankshaft or tap the manifold head lightly with a rubber mallet to loosen if necessary.

NOTE: The V-packing assemblies may come off with the manifold head. If this happens, reinsert the V-packings in the order given in the "V-Packing Cross Section" illustration shown on the following page.

Fig. D



Fig. E



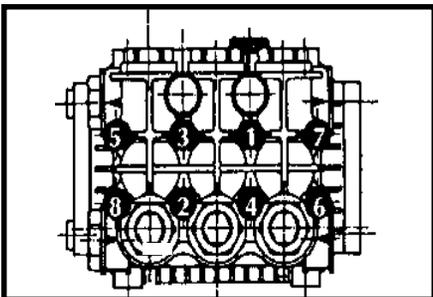
Fig. F



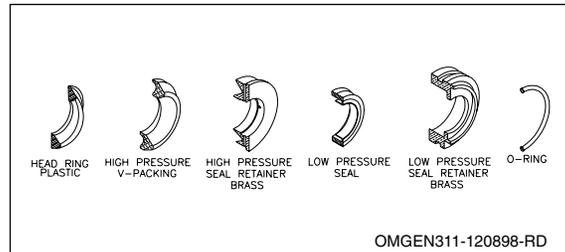
Fig. G



Fig. H



V-PACKING CROSS SECTION



REPLACING V-PACKINGS:

1. In order to maintain optimum pump performance, replace all the V-Packings at one time. The manifold must be removed from the crankcase before performing this procedure. Use of an extractor is highly recommended for V-packing removal.
 2. Insert the extractor through the center of the V-packing (Fig. D) and pull the V-Packing from the manifold (Fig. E).
 3. Install the V-Packings in the order shown in the drawing at left.
- NOTE: A film of grease on the o-rings ensure easier installation.*
4. Move on to replace plungers if necessary. If plungers do not need replacing, reinstall the manifold head as described in "Reinstalling the Manifold" (Fig. F).

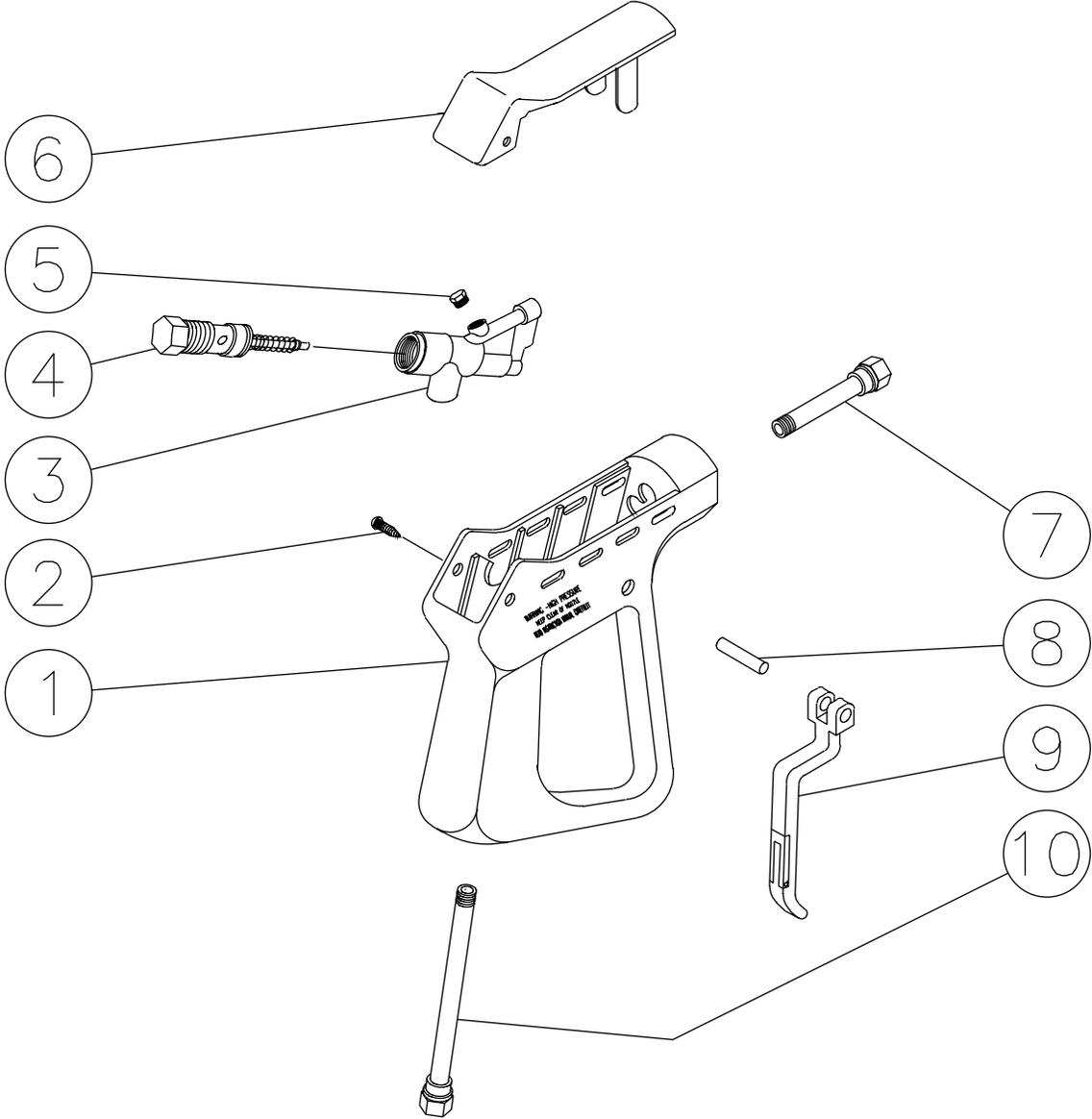
REPLACING PLUNGERS:

1. Remove piston nut and washer from the piston rod.
 2. Examine the plungers for cracks and wear. Replace if necessary.
 3. Remove the plunger (Fig. G). If the slinger washer comes off with the plunger, replace it before installing the new plunger.
 4. Install the replacement parts over the piston guide in the order given:
 - Anti-extrusion ring, O-ring, Plunger, Washer.
- NOTE: A film of grease on the o-ring ensures easier installation.*
5. Apply thread sealant to the piston guide threads.
 6. Install the piston nut and torque to 7.4 Ft-lbs (89 in-lbs).

REINSTALLING THE MANIFOLD:

1. Apply a coat of grease to each plunger and reinstall the manifold head, taking care not to damage the plungers.
2. Install and tighten the head bolts as shown in the sequence at left (Fig. H). Use your fingers first, then at half the torque specified for your pump. Perform a final torque to 12.5 Ft-lbs (150 in-lbs).

GUN ASSEMBLY (16-0001)



16-0001-110399-RD

16-0001-110399-RD

GUN ASSEMBLY (16-0001)			
REF. #	DESCRIPTION	PART #	QTY.
1	Plastic Housing	16-0008	1
2	Screw	27-3230	2
3	Brass Housing	16-0012	1
4	Gun Repair Kit	70-0055	1
5	Brass Plug	39-0024	1
6	Plastic Cover	16-0009	1
7	Pipe Assembly	16-0013	1
8	Trigger Pin	16-0063	1
9	Trigger/Safety Lock-off	16-0010	1
10	Pipe Assembly- Inlet	16-0016	1
	Complete Gun Assembly	16-0001	1

