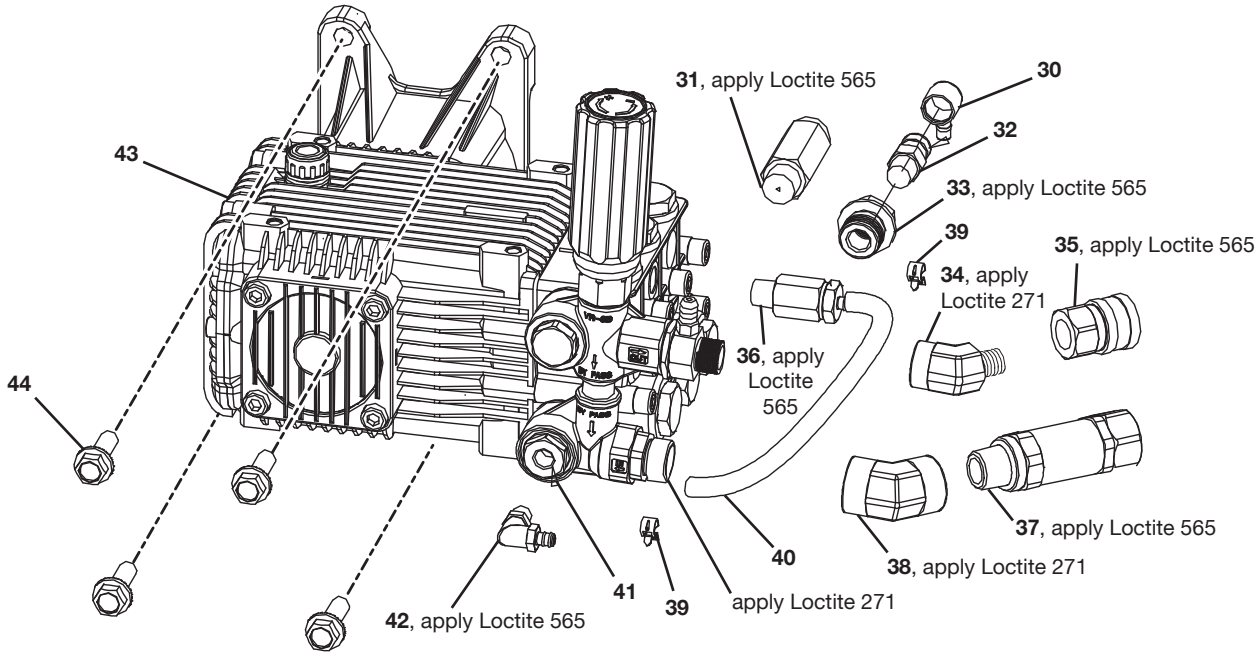
# SERVICE PARTS LIST

**BULLETIN NO. 54-20-0010**

| SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS | | REVISED BULLETIN | DATE |
|---|---|---|---|
| 13 HP DIRECT DRIVE PRESSURE WASHER | | | Sept. 2006 |
| **CATALOG NO. 4555-22** | **STARTING SERIAL NUMBER B06A** | WIRING INSTRUCTION | |

**00 — 0** **EXAMPLE:**
Component Parts (Small #)
Are Included When Ordering
The Assembly (Large #).

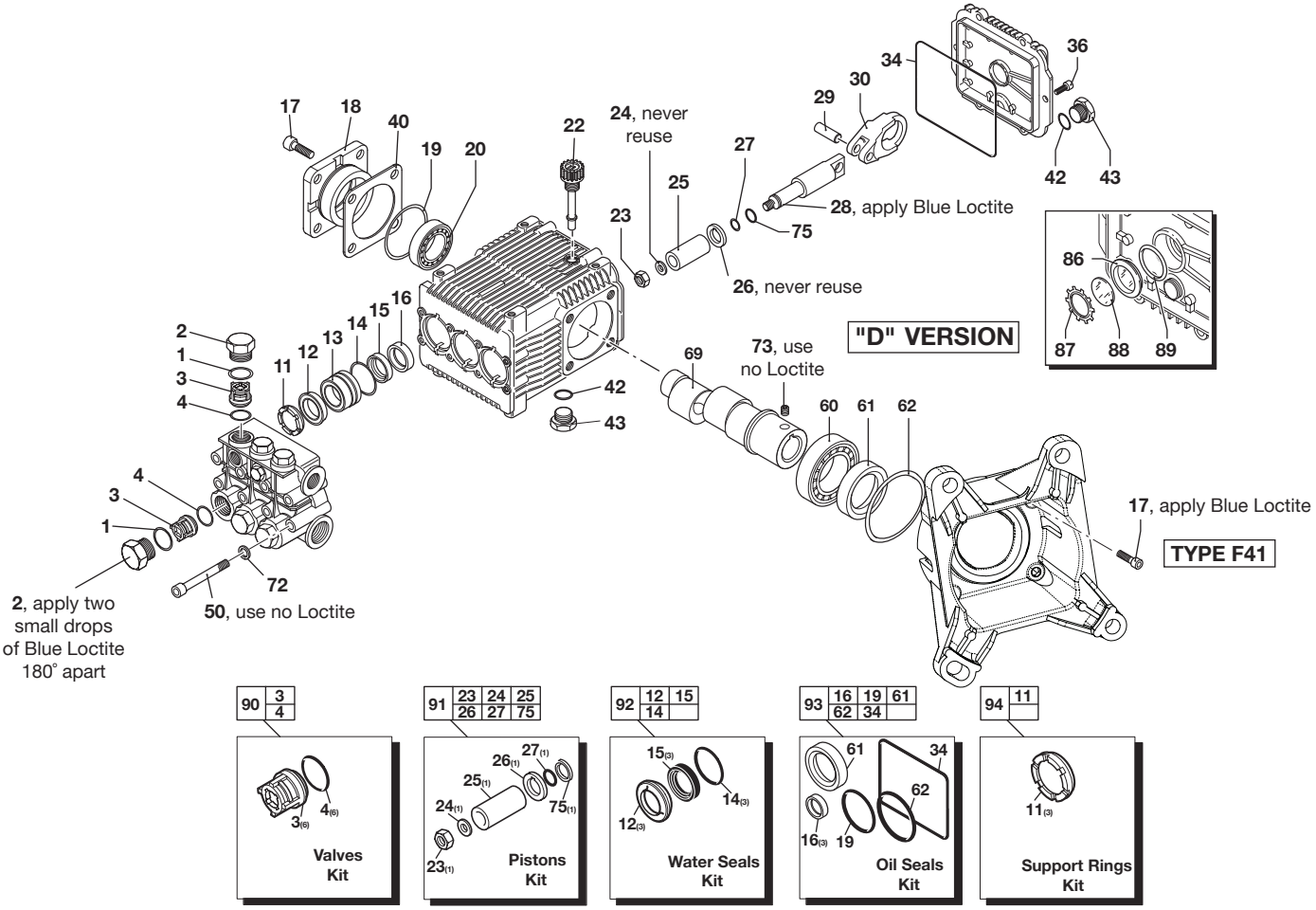



| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 30 | 42-68-0850 | Black Spout | 1 |
| 31 | 42-90-0510 | Pressure Relief Valve | 1 |
| 32 | 42-90-0500 | Thermal Relief Valve | 1 |
| 33 | 42-86-0350 | Reducer | 1 |
| 34 | 42-86-0200 | 45˚ Angle Pipe Outlet | 1 |
| 35 | 42-90-0550 | HP Outlet | 1 |
| 36 | 42-77-0300 | E-Z Start Valve | 1 |
| 37 | 42-90-0600 | Garden Hose Coupler/Filter | 1 |

| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 38 | 42-86-0300 | 45˚ Angle Pipe Inlet | 1 |
| 39 | * | Fuel Line Hose Clamp | 2 |
| 40 | 43-75-0105 | Low Pressure Return Hose | 1 |
| 41 | 42-32-0400 | Inlet Bolt | 1 |
| 42 | 43-24-0500 | 90˚ Elbow | 1 |
| 43 | 44-78-0075 | Pump (RKV4G36) (complete) | 1 |
| 44 | * | Bolt (3/8-16 x 1-1/4 in.) | 4 |

* Standard Hardware - Purchase Locally

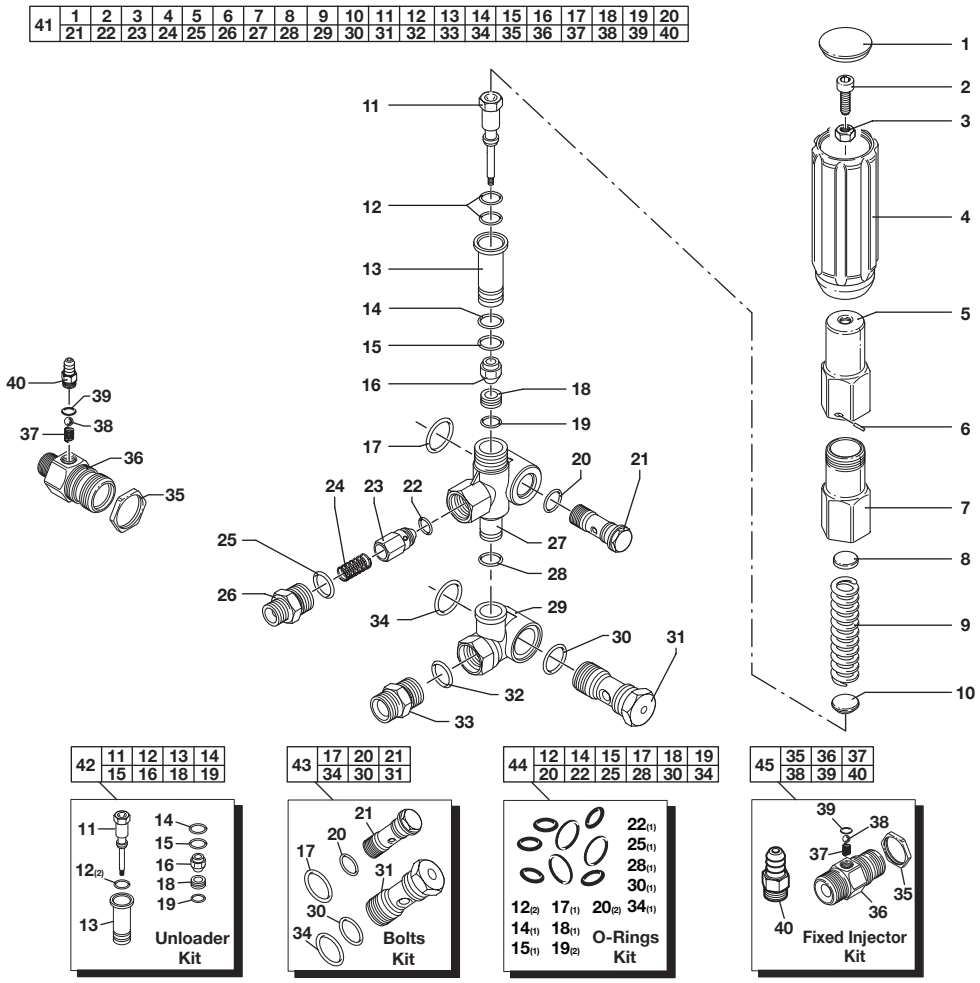
**MILWAUKEE ELECTRIC TOOL CORPORATION**
13135 W. Lisbon Road, Brookfield, WI 53005




| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 1 | 34-40-1700 | O-Ring | 6 |
| 2 | 42-52-0425 | Valve Cap, **478 (40s) | 6 |
| 3 | ---------- | Complete Valve | 6 |
| 4 | ---------- | O-Ring | 6 |
| 6 | 34-40-1710 | O-Ring | 2 |
| 11 | ---------- | Support Ring | 3 |
| 12 | ---------- | High Pressure Packing | 3 |
| 13 | 43-56-0950 | Piston Guide | 3 |
| 14 | ---------- | O-Ring | 3 |
| 15 | ---------- | Gasket | 3 |
| 16 | ---------- | Oil Seal | 3 |
| 17 | 06-14-0200 | Bolt (M8 x 16 mm), **217 (18) | 8 |
| 18 | 30-10-0200 | Closed Bearing Support | 1 |
| 19 | ---------- | O-Ring | 2 |
| 20 | 02-50-0200 | Bearing | 1 |
| 22 | 42-52-0430 | Vented Oil Cap | 1 |
| 23 | ---------- | Nut (M8), **106 (8.8) | 3 |
| 24 | ---------- | Washer | 3 |
| 25 | ---------- | Ceramic Piston | 3 |
| 26 | ---------- | Slinger | 3 |
| 27 | ---------- | O-Ring | 3 |
| 28 | 44-62-0280 | Guiding Piston | 3 |
| 29 | 44-60-1820 | Piston Pin | 3 |
| 30 | 44-94-0470 | Con Rod | 3 |
| 34 | ---------- | O-Ring | 1 |

| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 36 | 06-14-0205 | Bolt (M6 x 14 mm), **89 (7.5) | 6 |
| 40 | 45-14-0300 | Shim (0.10 mm) | 1-3 |
| 40 | 45-14-0310 | Shim (0.20 mm) | 1-3 |
| 40 | 45-14-0315 | Shim (0.25 mm) | 1-3 |
| 40 | 45-14-0320 | Shim (0.5 mm) | 1-3 |
| 42 | 34-40-1735 | O-Ring | 3 |
| 43 | 44-68-0200 | Plug | 2 |
| 50 | 06-14-0210 | Head Bolt (M8 x 70 mm), **217 (18) | 8 |
| 60 | 02-50-0205 | Bearing | 1 |
| 61 | ---------- | Oil Seal | 1 |
| 62 | ---------- | O-Ring | 1 |
| 69 | 45-08-0340 | Hollow Shaft | 1 |
| 72 | 45-88-1905 | Washer | 8 |
| 73 | 06-83-0150 | Set Screw (M6 x 6 mm) | 1 |
| 75 | ---------- | Back-up Ring | 3 |
| 86 | 43-50-0100 | Oil Sight Glass | 1 |
| 87 | 34-60-0150 | Snap Ring | 1 |
| 88 | 43-06-0220 | Contrast Disc | 1 |
| 89 | 34-40-1745 | O-Ring | 1 |
| 90 | 45-80-0320 | Valves Kit | 1 |
| 91 | 44-62-0300 | Pistons Kit | 1 |
| 92 | 44-90-0490 | Water Seals Kit | 1 |
| 93 | 43-44-1190 | Oil Seals Kit | 1 |
| 94 | 44-90-0480 | Support Rings Kit | 1 |
| | 49-32-0150 | Pump Oil | 1 |

* Standard Hardware - Purchase Locally
** Torque Specifications - inch pounds (foot pounds)




| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 1 | 42-52-0435 | Cap | 1 |
| 2 | 06-14-0220 | Bolt (M8 x 22) | 1 |
| 3 | 06-55-0855 | Nut (M8) | 1 |
| 4 | 43-98-0790 | Pressure/Flow Adjustment Handle | 1 |
| 5 | 06-14-0225 | Bolt | 1 |
| 6 | 44-60-1825 | Pin | 1 |
| 7 | 43-56-0955 | Spring Guide | 1 |
| 8 | 43-06-0225 | Upper Plate | 1 |
| 9 | 40-50-0530 | Spring | 1 |
| 10 | 43-06-0230 | Lower Plate | 1 |
| 11 | ---------- | Piston | 1 |
| 12 | ---------- | O-Ring | 2 |
| 13 | ---------- | Piston Guide | 1 |
| 14 | ---------- | O-Ring | 1 |
| 15 | ---------- | O-Ring | 1 |
| 16 | ---------- | By-pass Jet | 1 |
| 17 | ---------- | O-Ring | 1 |
| 18 | ---------- | Seat | 1 |
| 19 | ---------- | O-Ring | 1 |
| 20 | ---------- | O-Ring | 1 |
| 21 | ---------- | Thread Bolt | 1 |
| 22 | ---------- | O-Ring | 1 |
| 23 | 45-80-0305 | Shutter Valve | 1 |
| 24 | 40-50-0535 | Spring | 1 |
| 25 | ---------- | O-Ring | 1 |
| 26 | 42-90-0350 | Adaptor (3/8 in.) | 1 |
| 27 | 42-56-0110 | Valve Housing | 1 |
| 28 | ---------- | O-Ring | 1 |
| 29 | 42-56-0100 | By-pass Housing (1/2 in. NPT) | 1 |
| 30 | ---------- | O-Ring | 1 |
| 31 | ---------- | Inlet Bolt (1/2 in. G with 1/8 in. FNPT Port) | 1 |
| 32 | 34-40-1840 | O-Ring | 1 |
| 33 | 43-33-0515 | Suction Fitting | 1 |
| 34 | ---------- | O-Ring | 1 |
| 35 | ---------- | Lock Nut | 1 |
| 36 | ---------- | Injector Body (3/8 in. G2.1) | 1 |
| 37 | ---------- | Spring | 1 |
| 38 | ---------- | Ball | 1 |
| 39 | ---------- | O-Ring | 1 |
| 40 | ---------- | Hose Barb | 1 |
| 41 | 43-64-0250 | Unloader Assembly | 1 |
| 42 | 44-62-0290 | Unloader Kit | 1 |
| 43 | 42-32-0370 | Bolts Kit | 1 |
| 44 | 34-40-1860 | O-Rings Kit | 1 |
| 45 | 42-90-0370 | Fixed Injector Kit | 1 |

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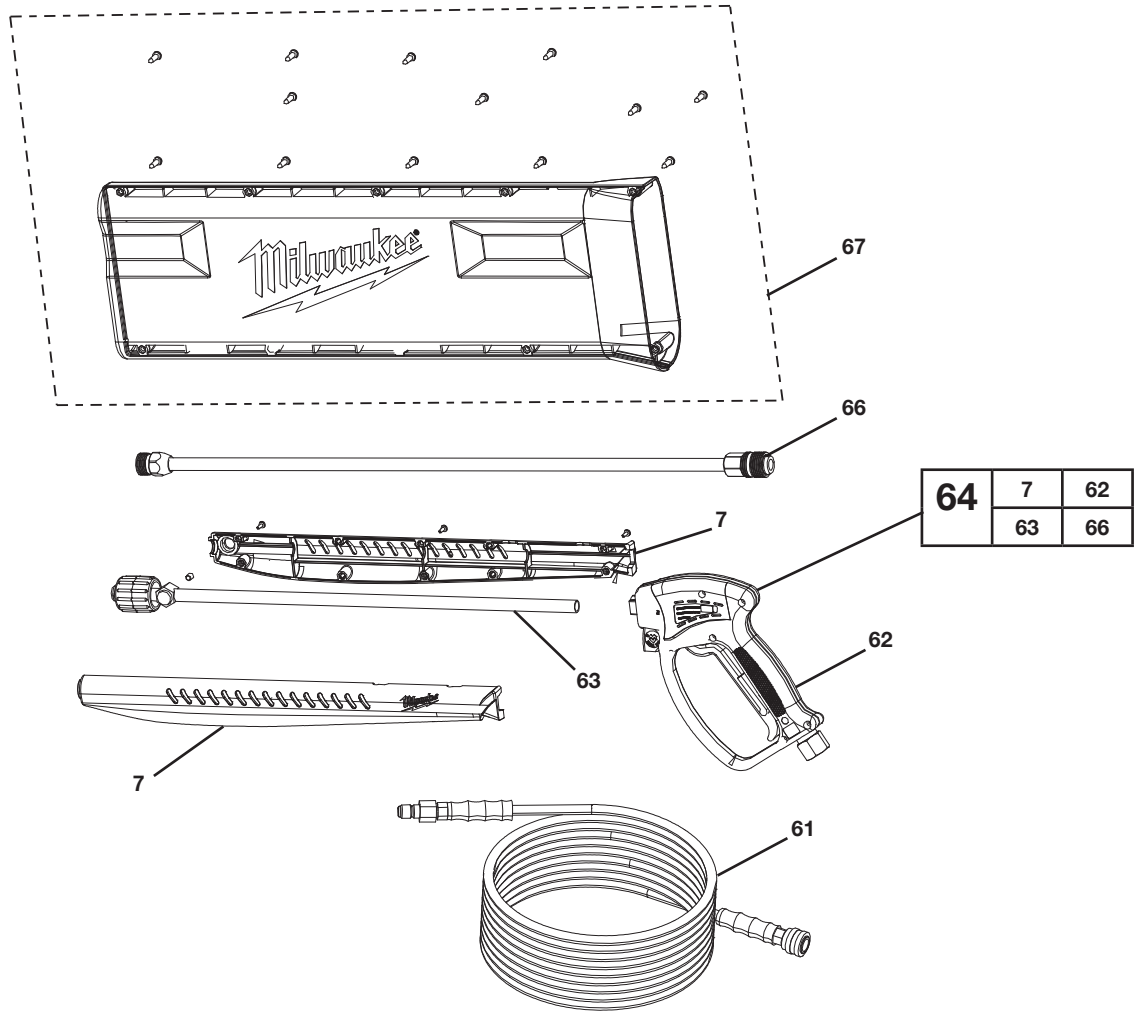


| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 7 | 14-46-0330 | Spray Wand Grips | 2 |
| 61 | 43-75-0100 | High-Pressure Hose (50 feet) | 1 |
| 62 | 43-62-1400 | Spray Wand | 1 |
| 63 | 45-76-0605 | Spray Wand Extension (upper) | 1 |
| 64 | 14-46-0320 | Spray Wand Assembly | 1 |
| 66 | 45-76-0600 | Spray Wand Extension (lower) | 1 |
| 67 | 44-66-1450 | Wand Storage Holster Assembly | 1 |

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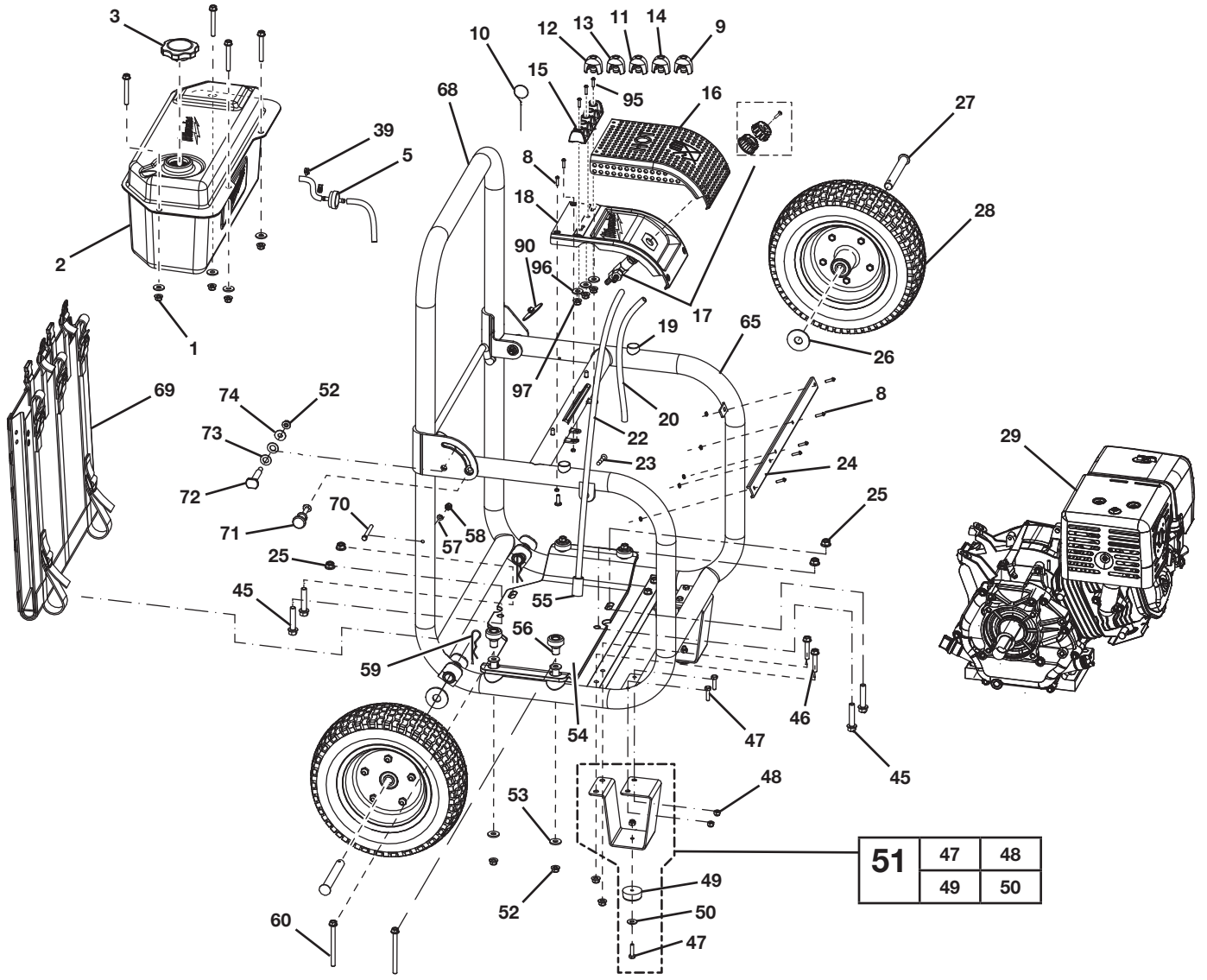


| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 1 | 43-86-0200 | Fuel Tank Isolater | 4 |
| 2 | 45-66-0200 | Fuel Tank | 1 |
| 3 | 42-52-0500 | Fuel Cap | 1 |
| 8 | * | Bolt (M5 x 16 mm, Pan hd.) | 9 |
| 9 | 43-98-2000 | Nozzle, Red (0˚) | 1 |
| 10 | 45-70-0200 | Nozzle Cleaning Tool | 1 |
| 11 | 43-98-2040 | Nozzle, Green (25˚) | 1 |
| 12 | 43-98-2080 | Nozzle, Black (Soap) | 1 |
| 13 | 43-98-2060 | Nozzle, White (40˚) | 1 |
| 14 | 43-98-2020 | Nozzle, Yellow (15˚) | 1 |
| 15 | 43-72-2000 | Nozzle Holder | 1 |
| 16 | 43-54-0750 | Muffler Cover | 1 |
| 17 | 14-46-0325 | Detergent Metering Valve Assembly | 1 |
| 18 | 44-66-1445 | Panel, Top | 1 |
| 19 | 42-38-0400 | Bumper | 2 |
| 20 | 45-76-0615 | Detergent Hose | 1 |
| 21 | * | Hex Nut (M5) | 9 |
| 22 | 45-76-0610 | Injection Hose | 1 |
| 23 | * | Bolt (1/4-20 x 3/4 in.) | 2 |
| 24 | 42-36-0150 | Front Frame Plate | 1 |
| 25 | * | Lock Nut (M10) | 4 |
| 26 | * | Flat Washer (5/8 in.) | 2 |
| 27 | 42-12-0350 | Axle | 2 |
| 28 | 45-94-0500 | Wheel Assembly | 2 |
| 29 | *** | Engine (Honda GX390) | 1 |
| 39 | * | Fuel Line Hose Clamp | 2 |
| 45 | * | Bolt (M10 x 48 mm, Hex hd.) | 4 |
| 46 | * | Bolt (M8 x 40 mm, Hex hd.) | 4 |

| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|---|---|---|---|
| 47 | * | Bolt (1/4-20, 1-1/4 Hex hd.) | 6 |
| 48 | * | Lock Nut (1/4 in.) | 6 |
| 49 | ---------- | Wear Pad | 2 |
| 50 | * | Washer (D19 x d7.9 x T1.8) | 2 |
| 51 | 14-46-0335 | Frame Support Kit | 1 |
| 52 | * | Lock Nut (M8) | 10 |
| 53 | * | Flat Washer (5/16 in.) | 8 |
| 54 | 44-66-1440 | Engine Plate | 1 |
| 55 | 43-31-0450 | Injection Hose Filter | 1 |
| 56 | 43-86-0210 | Engine Plate Isolator Kit | 1 |
| 57 | * | Washer (D12 x d6 x T1) | 1 |
| 58 | * | Lock Nut (M6) | 1 |
| 59 | * | Hitch Pin | 2 |
| 60 | * | Bolt (M8 x 90 mm, Hex hd.) | 4 |
| 65 | 43-40-0650 | Lower Frame Assembly | 1 |
| 68 | 43-40-0645 | Moving Handle | 1 |
| 69 | 42-16-0200 | Hose Storage Bag | 1 |
| 70 | * | Bolt (M6, Hex hd.) | 1 |
| 71 | 44-60-2150 | Release Pin | 1 |
| 72 | 44-60-2100 | Connection Pin | 2 |
| 73 | * | Nylon Washer (D22 x d12 x T1.5) | 4 |
| 74 | * | Nylon Washer (D22 x d9 x T2) | 2 |
| 90 | 31-86-0350 | Handle Frame Isolator | 2 |
| 95 | * | Screw (M5 x 16, Pan hd.) | 1 |
| 96 | * | Washer (D12 x d6 x T4) | 1 |
| 97 | * | Lock Nut (M5) | 1 |
| | *** | Engine Oil (10W30, 32 oz.) | 1 |
| | 10-15-1120 | Label Kit (not shown) | |

* Standard Hardware - Purchase Locally

*** Parts Available at Your Local Honda Gasoline Engine Dealer

## Service Notes

(Refer to page 2.)

73
Make sure pump is firmly seated onto crankshaft of engine before tightening set screw (73) against motor keyway.

61
When replacing seal (61), remove spring before pressing seal into motor mount plate. Once new seal has been firmly seated, reinstall seal spring. (Lube outside of seal prior to pressing into motor mount plate.)

13, 28, 30, 69
Before removing con rods (30), guiding pistons (28), and piston guides (13) from pump cylinder / hollow shaft (69), take a felt tip marker and label each group of parts to assure parts are reassembled in the same order as removed.
**NOTE:** The parts should be marked as follows:
The con rod, guiding piston, and piston guide closest to the intake side of the pump head should be labeled with the letter "D". The center group of parts should be labeled with the letter "M". The third group of parts should be labeled with the letter "N".
[ D = Drive Side Piston, M = Middle Piston, N = Non Drive Side Piston ]

50
Tighten head bolts (50) in the sequence / pattern shown in Figure A.

24, 26
Always replace washer (24) and slinger (26) when servicing, never reuse. Clean surface area of guiding piston of any previously used locking agent or debris.

1, 14, 19
Lubricate O-rings (1, 14, 19) lightly using white lithium grease.

Pump Oil Change Schedule
•First change oil after 50 hours of use.
•Then change oil every 500 hours.
•This oil is specially formulated to provide correct lubrication properties for our pumps. **NO** other oil is factory approved for these pumps.
•Pump oil METCo. Pt. # 49-32-0150

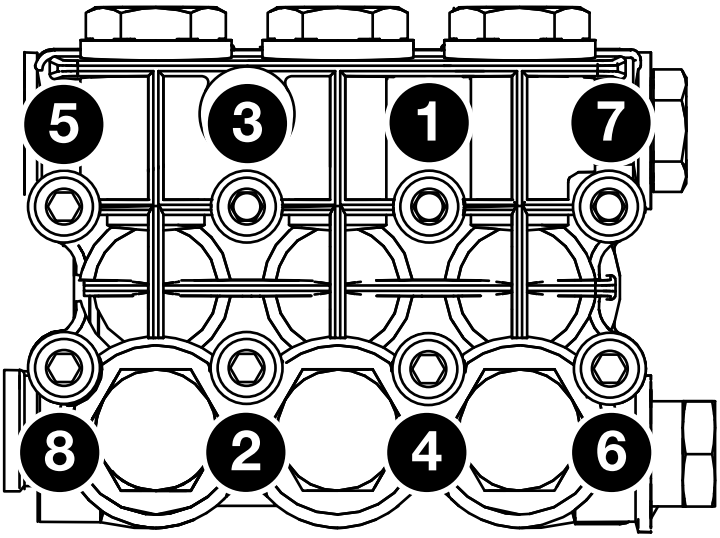


**Figure A.** Pump head bolt torque tightening sequence.

## Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| Oil Leak Between Crankcase and Pumping Section | Worn crankcase piston rod seals | Replace crankcase piston rod seals. |
| | O-rings on plunger retainer worn | Replace o-rings. |
| Frequent or Premature Failure Of the Packing | Scored, damaged or worn plunger | Replace plungers. |
| | Overpressure to inlet manifold | Reduce inlet pressure. |
| | Abrasive material in the fluid being pumped | Install proper filtration on pump inlet plumbing. |
| | Excessive pressure and/or temperature of fluid being pumped | Check pressures and fluid inlet temperature; be sure they are within specified range. |
| | Over pressure of pumps | Reduce pressure. |
| | Reduce pressure | Do not run pump without water. |
| Pump Runs but Produces no Flow | Pump is not primed | Flood suction then restart pump. |
| Pump Fails to Prime | Air is trapped inside pump | Disconnect discharge hose from pump. Flood suction hose, restart pump and run pump until all air has been evacuated. |
| Pump Loses Prime, Chattering Noise, Pressure Thread Fluctuates | Air leak in suction hose or inlet fittings | Remove suction line and inspect it for a loose liner or debris lodged in hose. Avoid all unnecessary bends. Do not kink hose. |
| | Clogged suction strainer | Clean strainer. |
| Low Pressure at Nozzle | Unloader valve is bypassing | Make sure unloader is adjusted properly and bypass seat is not leaking. |
| | Incorrect or worn nozzle | Make sure nozzle is matched to the flow and pressure of the pump. If the nozzle is worn, replace. |
| | Restricted intake | Refer to above priming information. |
| Pump is Noisy | Pump sucking air | Check suction manifold. |
| Over Pressure When Gun is Closed | Leaking in unloader valve and incorrect setting | Control the valve and set new pressure level. |

## Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| Low Pressure | Worn nozzle | Replace with nozzle of proper size. |
| | Air leak in inlet plumbing | Disassemble, reseal and reassemble. |
| | Relief valve stuck, partially plugged or improperly adjusted valve seat worn | Clean and adjust relief valve; check for worn or dirty valve seats. Kit available. |
| | Inlet suction strainer clogged or improperly sized | Clean. Use adequate size. Check more frequently. |
| | Worn Packing. Abrasives in pumped in cavitation. Inadequate water | Install proper filter. Suction at inlet manifold must be limited to lifting less than 20 feet of water or 8.5 psi vacuum. |
| | Fouled or dirty inlet or discharge valves | Clean inlet and discharge valve assemblies. |
| | Worn inlet, discharge valve blocked or dirty | Replace worn valves, valve seats and/or discharge hose. |
| | Leak in the discharge line | Repair leak. |
| Pump Runs Extremely Rough, Pressure Very Low | Restricted inlet or air entering the inlet plumbing; Proper size inlet plumbing | Check for air tight seal. |
| | Inlet restrictions and/or air leaks; Stuck inlet or discharge valve; Replace worn cup or cups | Clean out foreign material. Replace worn valves. |
| Water Leakage From Under Manifold. Slight Leakage | Worn packing | Install new packing. |
| Oil Leaking in the Area of Crankshaft | Worn crankshaft seal or improperly installed oil seal o-ring | Remove oil seal retainer and replace damaged o-ring and/or seals. |
| | Bad bearing | Replace bearing. |
| Water in Crankcase | Humid air condensing into water inside the crankcase | Change oil intervals. |
| | Worn packing and/or piston rod sleeve, o-rings on plunger retainer worn. Replace packing | Replace o-rings. |
| Oil Leaking from Underside of Crankcase | Worn crankcase piston rod seals | Replace seals. |
| Oil Leaking at the Rear Portion of the Crankcase | Worn crankcase piston rod seals | Replace seals. |
| Loud Knocking Noise in Pump | Broken or worn bearing | Replace bearing. |