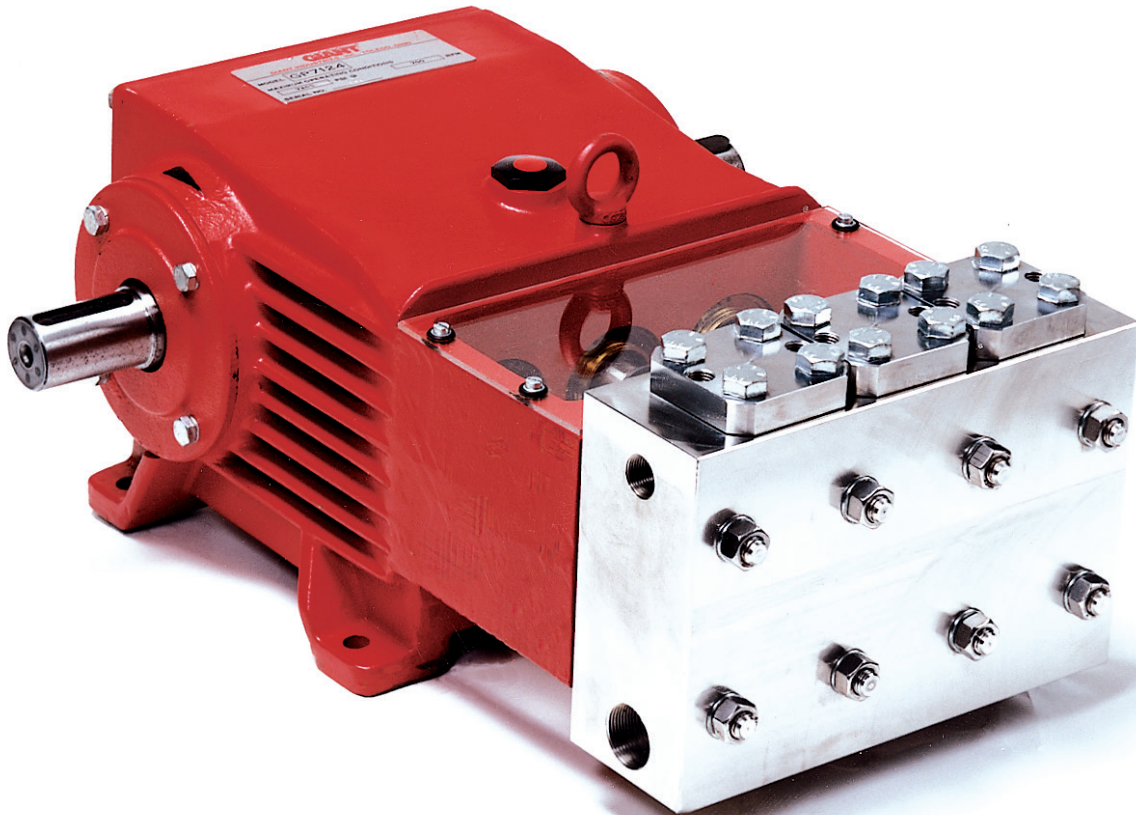


# Model GP7132 & GP7136

Triplex Ceramic  
Plunger Pump  
Operating Instructions/  
Repair and Service  
Manual



**GIANT**  
Performance Under Pressure

#### Contents:

Installation Instructions:	page 2
GP7132 Pump Specifications:	page 3
Exploded View:	page 4
Parts List/Kits	page 5
GP7136 Pump Specifications:	page 6
Repair and Service:	pages 7-9
Torque Specs:	page 9
Trouble Shooting Chart:	page 10
Recommended Spare	
Parts List:	page 10
Dimensions:	page 11
Warranty Information:	back page

Update 11/21

# INSTALLATION INSTRUCTIONS

Figures given for maximum pressure and max. speed (rpm) apply to interval operation.

When the pump is used in continual operation and/or with water warmer than 40°C (100°F), these values must be reduced by 10%.

Required NPSH refers to water: Specific weight 1kg/dm<sup>3</sup>, viscosity 1°E at max. permissible revolutions.

## Operation and Maintenance

Check oil level prior to starting and ensure trouble-free water supply.

**Important!** If there is a **danger of frost**, the water in the pump and in the pump fittings (particularly the unloader valve) must be emptied. The second discharge port can also be used and the pump run "dry" for 1-2 minutes for this purpose.

**Oil amount:** 1.6 gallons (6.0 litres). Only use **ISO VG 220 industrial gear oil** (e.g. Aral Degol BG220) or **automobile gear oil SAE 90 GL4**. We recommend ISO VG 68 (SAE80) gear oil for low ambient temperatures (+41 °F [+5°C] and less).

Initial change after 50 operating hours and then every 1000 operating hours, or after 1 year if used less.

**Important!** When operating in damp places or with high temperature fluctuations. Oil must be changed immediately, should condensate (frothy oil) occur in the gear box.

**Important!** If the pump is mounted on a vehicle (possibility of unlevelness) and/or if the pump speed is between 300 rpm and 500 rpm, the oil quantity is 1.9 gallons (7.0 L). To check, put the oil dipstick in the bore situated beside the eye bolt.

## Safety Rules

Pump operation without safety valve as well as any excess in temperature or speed limits automatically voids the warranty. The safety valve must be regulated in accordance with the guidelines for liquid spraying units so that the admissible operating pressure can not be exceeded by more than 10%.

When the pump is in operation, the open shaft end must be covered up by shaft protector (21), the driven shaft side and coupling by a contact-protector and the plunger room by cover (30).

Pressure in discharge line and in pump must be at zero before any maintenance to the pump takes place. Close up suction line. Disconnect fuses to ensure that the driving motor does not get switched on accidentally.

Make sure that all parts on the pressure side of the unit are vented and refilled, with pressure at zero, before starting the pump. In order to prevent air, or an air/water-mixture being absorbed and to prevent cavitation occurring, the pump-npshr, positive suction head and water temperature must be kept under control.

**Cavitation and/or compression of gases lead to uncontrollable pressure-kicks which can ruin pump and unit parts and also be dangerous to the operator or anyone standing nearby.**

Giant plunger pumps are suitable for pumping clean water and other non-aggressive or abrasive media with a specific weight similar to water.

**Before pumping other liquids - especially inflammable, explosive and toxic media - the pump manufacturer must under all circumstances be consulted with regard to the resistance of the pump material. It is the responsibility of the equipment manufacture and/or operator to ensure that all pertinent safety regulations are adhered to.**

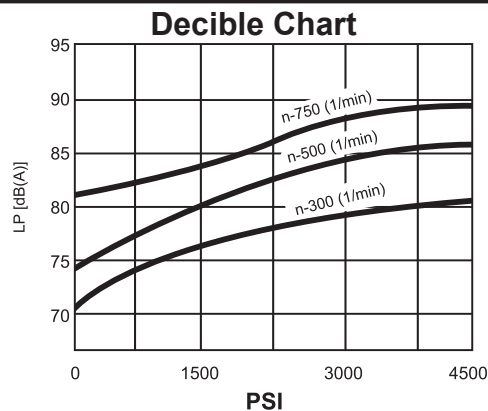
# GP7132 Pump Specifications

	<u>U.S.</u>	<u>Metric</u>
Maximum Volume**	23.4 GPM	88.5 L/min
Maximum Discharge Pressure**	4350 PSI	300 Bar
Power Consumption	70 HP	52.2 kW
Maximum Speed**		750 RPM
Inlet Pressure	-4.35 to 145 PSI	-0.3 to 10 Bar
Plunger Diameter	1.3"	32mm
Plunger Stroke	2.0"	52mm
Crankshaft Diameter	1.9"	48mm
Key Width	0.6"	14mm
Crankshaft Mounting		Either side
Shaft Rotation		Top of pulley towards manifold
Temperature of Pumped Fluids	140 °F	60 °C
Inlet Ports		(2) 1 1/4" NPT
Discharge Ports		(2) 3/4" NPT
Weight	434 lbs.	197 kg.
Crankcase Oil Capacity	1.6 gallons*	6.0 L*
Fluid End Material		Stainless Steel
Volumetric Efficiency @ 700 RPM		94%
Mechanical Efficiency @ 700 RPM		83%

\*If the pump is mounted on a vehicle with the possibility of unlevelness and/or the pump speed is between 300 and 500 RPM, the volume of oil should be 1.93 gallons (7.3 liters). To check, put the oil dipstick in the bore situated next to the eye bolt.

\*\*This figure is the maximum amount for this pump. For continuous duty and/or with water warmer than 140 °F (60 °C), these values should be reduced by 10%.

Consult the factory for special requirements that must be met if the pump is to operate beyond one or more of the limits specified above.



<b>GP7132 HORSEPOWER REQUIREMENTS</b>							
RPM	GPM	1000 PSI	1400 PSI	2000 PSI	2500 PSI	3000 PSI	4350 PSI
300	9.4	6.7	9.4	13.4	16.7	20.1	29.1
400	12.5	8.9	12.5	17.8	22.3	26.7	38.8
550	17.2	12.3	17.2	24.5	30.6	36.8	53.3
600	18.7	13.4	18.7	26.7	33.4	40.1	58.2
650	20.3	14.5	20.3	29.0	36.2	43.5	63.0
700	21.8	15.6	21.8	31.2	39.0	46.8	67.9
750	23.4	16.7	23.4	33.4	41.8	50.1	72.7

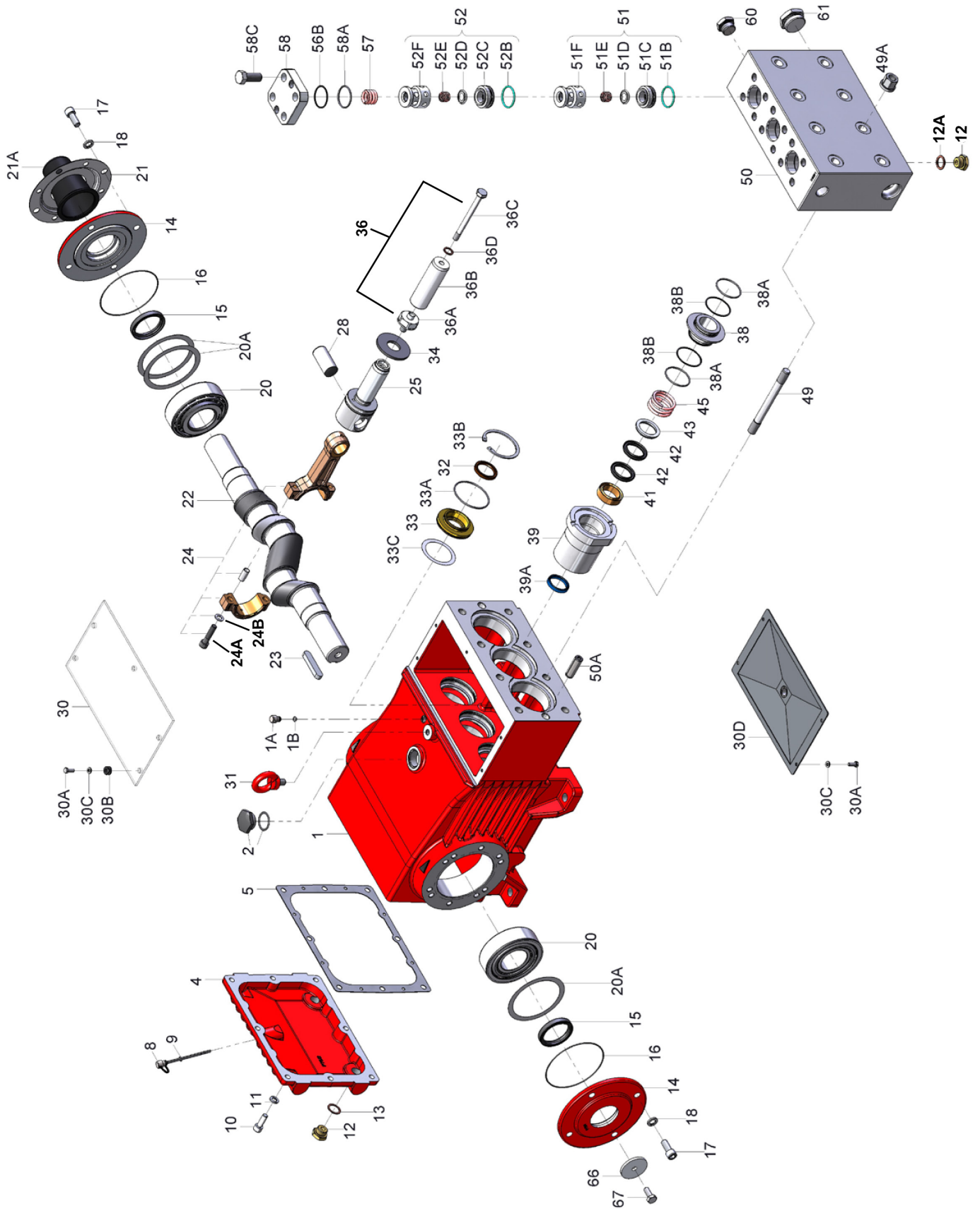
## HORSEPOWER RATINGS:

The rating shown are the power requirements for the pump. Gas engine power outputs must be approximately twice the pump power requirements shown above.

We recommend a 1.15 service factor be specified when selecting an electric motor as the power source. To compute specific pump horsepower requirements, use the following formula:

$$\frac{\text{GPM} \times \text{PSI}}{1450} = \text{hp}$$

# Exploded View - GP7132 and GP7136 Pumps



## GP7132 and GP7136 PARTS LIST

ITEM	PART	DESCRIPTION	QTY.	ITEM	PART	DESCRIPTION	QTY.
1	07600	Crankcase	1	38	06093	Seal Case	3
1A	05525	Head for Oil Dipstick	1	38A	13141	O-Ring, Seal Case	6
1B	01009	O-Ring	1	38B	13142	Support Ring	6
2	13000	Oil Filler Plug Assembly	1	39	06094	Seal Sleeve, GP7132	3
4	07601	Crankcase Cover	1	39	06794	Seal Sleeve, GP7136	3
5	05798	Seal for Cover	1	39A	13360	Grooved Ring, GP7132	3
8	07603	Oil Dip Stick	1	39A	13291	Grooved Ring, GP7136	3
9	01009	O-Ring, Dip Stick	1	41	06095	Pressure Ring, GP7132	3
10	22706	Hexagon Screw	8	41	06795	Pressure Ring, GP7136	3
11	06725	Spring Washer	8	42	06096	V-Sleeve, GP7132	6
12	07109	Drain Plug	5	42	06796	V-Sleeve, GP7136	6
13	06272	Gasket, Drain Plug	5	43	06097-0100	Sleeve Support Ring SS, GP7132	3
14	05644	Bearing Cover	2	43	06797	Sleeve Support Ring, GP7136	3
15	07608	Radial Shaft Seal	2	45	06098	Tension Spring	3
16	07184	O-Ring, Bearing Cover	2	49	13159	Stud Bolt	8
17	05642	Inner Hexagon Screw	8	49A	13160	Nut	8
18	05039	Spring Washer	8	50	06798	Valve Casing	1
20	07610	Taper Roller Bearing	2	51	04727	Inlet Valve Assembly	3
20A	07611	Fitting Disc (Shim)	1-5	51B	05193	O-Ring	3
21	05645	Holder for Shaft Protector	1	51C	04725	Inlet Valve Seat	3
21A	05646	Shaft Protector	1	51D	13130	Valve Plate	3
22	13405	Crankshaft	1	51E	07062-0100	Valve Spring	3
23	07614	Key	1	51F	13147	Spacer Pipe	3
24	13182	Connecting Rod Assembly	3	52	04728	Discharge Valve Assembly	3
24A	07616	Fitting Screw	6	52B	05193	O-Ring	3
24B	08041	Washer	6	52C	04726	Discharge Valve Seat	3
25	13183	Crosshead Assembly	3	52D	13130	Valve Plate	3
28	13184	Crosshead Pin	3	52E	07062-0100	Valve Spring	3
30	07619	Cover Plate	1	52F	13147	Spacer Pipe	3
30A	07225-0100	Hexagon Screw	8	57	06078	Compression Spring	3
30B	13136	Grommet	4	58	07699	Plug	3
30C	08280	Washer	8	58A	07700	O-Ring	3
30D	13154	Cover	1	58B	07693	Support Ring	3
31	07623	Eye Bolt	1	58C	07702	Hexagon Screw	12
32	07624	Radial Shaft Seal	3	60	04576	Plug, 3/4" NPT	1
33	07626	Seal Retainer	3	61	12251	Plug, 1-1/4" NPT	1
33A	07627	O-Ring, Seal Retainer	3	66	13362	Disc for Crankshaft	1
33B	07628	Circlip, Seal Retainer	3	67	13358	Hexagon Screw	1
33C	07249	Shim	3		04367	Manifold Assembly (50-61[w/o 51A], 3 x 51 A-B, 51D-F and 52C)	1
34	13137	Flinger	3		04340	Plunger Conversion Kit, GP7132 (36-45)	1
36	06091	Plunger Assembly (36A-36D) GP7132	3		04177	Plunger Conversion Kit, GP7136 (36-45)	1
36	06792	Plunger Assembly (36A-36D) GP7136	3		17212	Gear End Assembly (1-34, 49, 49A, 50A, 66 and 67)	1
36A	07667	Plunger Connection	3		07662	Valve Tool (not shown)	1
36B	06092	Plunger Pipe, GP7132	3				
36B	06793	Plunger Pipe, GP7136	3				
36C	07664	Tensioning Screw	3				
36D	07665	Copper Ring	3				

## GP7132 and GP7136 PUMP REPAIR KITS

### Plunger Packing Kits

#### # 09519 (GP7132)

Item	Part #	Description	Qty.
38A	13141	O-Ring, Seal Case	6
38B	13142	Support Ring	6
39A	13360	Grooved Ring	3
42	06096	V-Sleeve	6

#### # 09544 (GP7136)

Item	Part #	Description	Qty.
38A	13141	O-Ring, Seal Case	6
38B	13142	Support Ring	6
39A	13291	Grooved Ring	3
42	06796	V-Sleeve	6

### Oil Seal Kit - # 09221

Item	Part #	Description	Qty.
32	07624	Radial Shaft Seal	3
33A	07627	O-Ring	3

### Valve Assembly Kit - #09520

Item	Part #	Description	Qty.
51B	05193	O-Ring	3
51C	04725	Inlet Valve Seat	3
51D	13130	Valve Plate	3
51E	07062-0100	Valve Spring	3
52B	05193	O-Ring	3
52C	04726	Discharge Valve Seat	3
52D	13130	Valve Plate	3
52E	07062-0100	Valve Spring	3
58A	07700	O-Ring	3
58B	07693	Support Ring	3

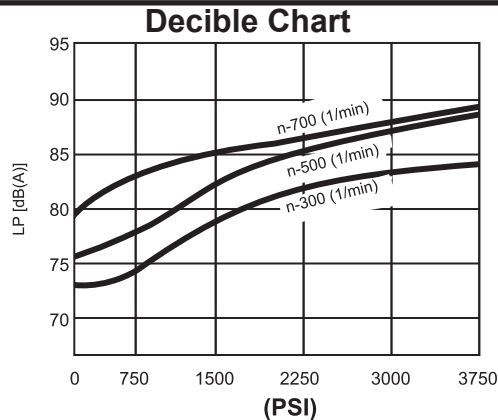
# GP7136 Pump Specifications

	<u>U.S.</u>	<u>Metric</u>
Maximum Volume** .....	28.3 GPM .....	107 L/min
Maximum Discharge Pressure** .....	3625 PSI .....	250 Bar
Power Consumption .....	70.8 HP .....	52.8 kW
Maximum Speed** .....		700 RPM
Inlet Pressure .....	-4.35 to 145 PSI .....	-0.3 to 10 Bar
Plunger Diameter .....	1.4" .....	36mm
Plunger Stroke .....	2.0" .....	52mm
Crankshaft Diameter .....	1.9" .....	48mm
Key Width .....	0.6" .....	14mm
Crankshaft Mounting .....		Either side
Shaft Rotation .....		Top of pulley towards manifold
Temperature of Pumped Fluids .....	140 °F .....	60 °C
Inlet Ports .....		(2) 1 1/4" NPT
Discharge Ports .....		(2) 3/4" NPT
Weight .....	374 lbs. ....	170 kg.
Crankcase Oil Capacity* .....	1.6 gallons .....	6.0 L.
Fluid End Material .....		Stainless Steel
Volumetric Efficiency @ 700 RPM .....		94%
Mechanical Efficiency @ 700 RPM .....		83%

\*If the pump is mounted on a vehicle with the possibility of unlevelness and/or the pump speed is between 300 and 500 RPM, the volume of oil should be 1.93 gallons (7.3 liters). To check, put the oil dipstick in the bore situated next to the eye bolt.

\*\*This figure is the maximum amount for this pump. For continuous duty and/or with water warmer than 140 °F (60 °C), these values should be reduced by 10%.

Consult the factory for special requirements that must be met if the pump is to operate beyond one or more of the limits specified above.



<b>GP7136 HORSEPOWER REQUIREMENTS</b>						
RPM	GPM	1000 PSI	1400 PSI	2000 PSI	2500 PSI	3625 PSI
300	11.3	8.1	11.3	16.1	20.2	29.3
400	15.0	10.7	15.0	21.4	26.8	38.8
550	20.8	14.9	20.8	29.7	37.1	53.9
600	22.6	16.1	22.6	32.3	40.4	58.5
650	25.0	17.9	25.0	35.7	44.6	64.7
700	26.4	18.9	26.4	37.7	47.1	68.4
750	28.3	20.2	28.3	40.4	50.5	73.3

## HORSEPOWER RATINGS:

The rating shown are the power requirements for the pump. Gas engine power outputs must be approximately twice the pump power requirements shown above.

We recommend a 1.15 service factor be specified when selecting an electric motor as the power source.

To compute specific pump horsepower requirements, use the following formula:

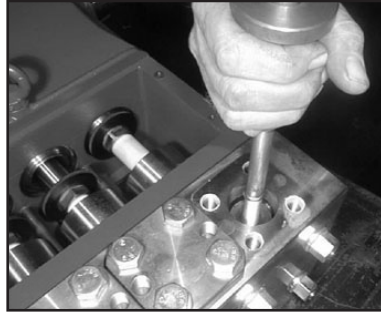
$$hp = \frac{GPM \times PSI}{1450}$$

## GP7132 AND GP7136 REPAIR INSTRUCTIONS

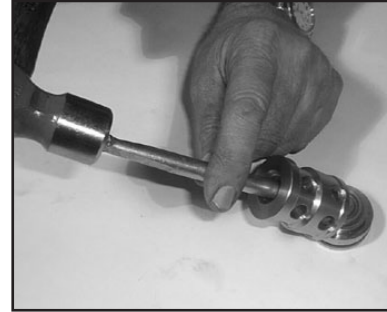
**NOTE:** Always take time to lubricate all metal and non-metal parts with a light film of oil before reassembling. This step will help ensure proper fit, at the same time protecting the pump non-metal parts (elastomers) from cutting and scoring.



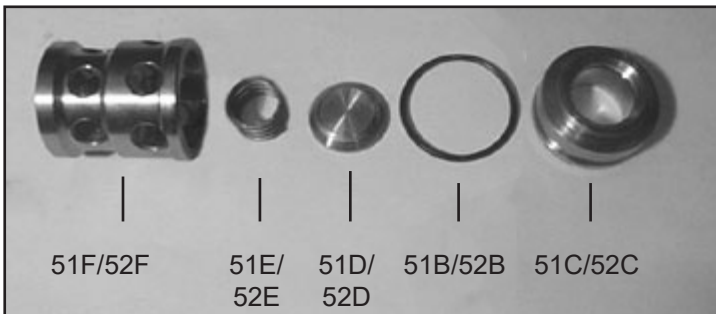
1. Loosen screws (58C), take plugs (58) out of valve casing with two screws.



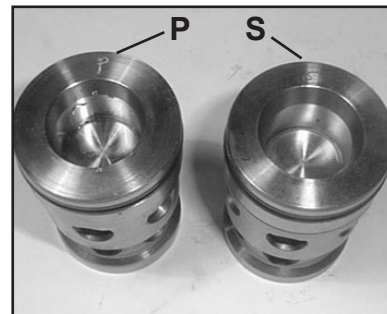
2. Take out tension spring (57) and complete valve (51) using either valve tool (part #07662) or stud bolt M16.



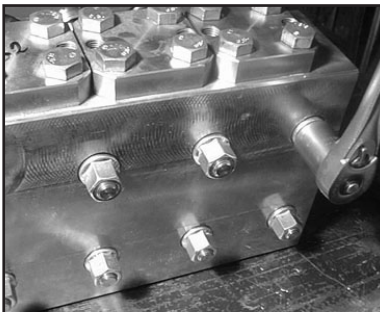
3. Valve seats (51C and 52C) are pressed out of spacer pipe (51F) by hitting the valve plate (51D/52D) with a bolt.



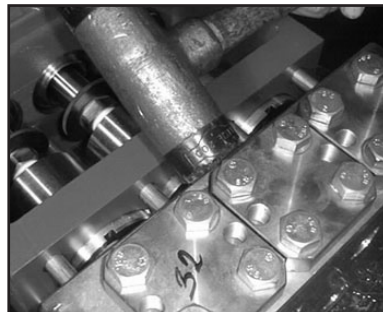
4. Check surfaces of valve plate (51D/52D), valve seat (51C/52C), O-rings (51B, 52B) and replace worn parts.



5. When reassembling: The suction valve seat (51C) is 1mm smaller in diameter than the discharge valve seat (52C). Suction valve seats are marked "S" and always have to be installed first. Discharge valve seats are marked "P" and are always to be installed on top of suction valve. Plugs (58) are to be tensioned down evenly with screws (58C) in a crosswise pattern at 155 ft-lbs. (210 Nm).

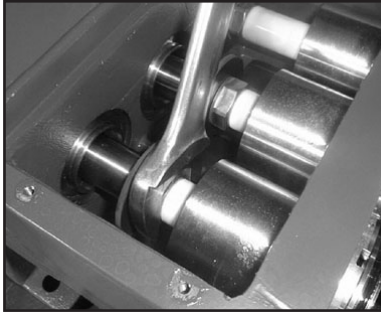


6. Loosen nuts (49A)

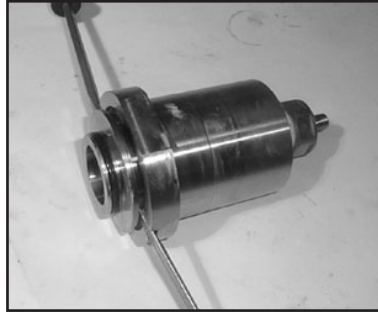


7. Remove pump head.

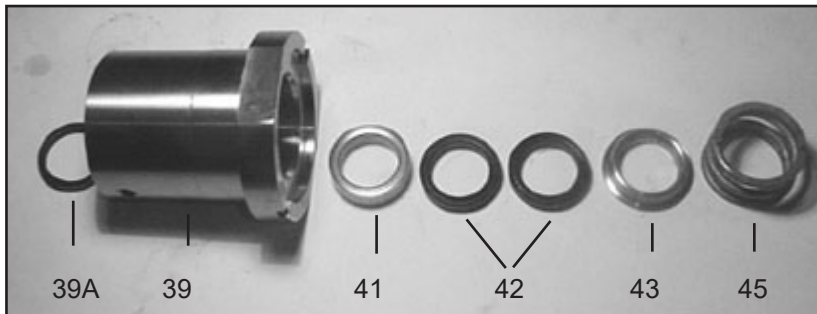
## GP7132 AND GP7136 REPAIR INSTRUCTIONS



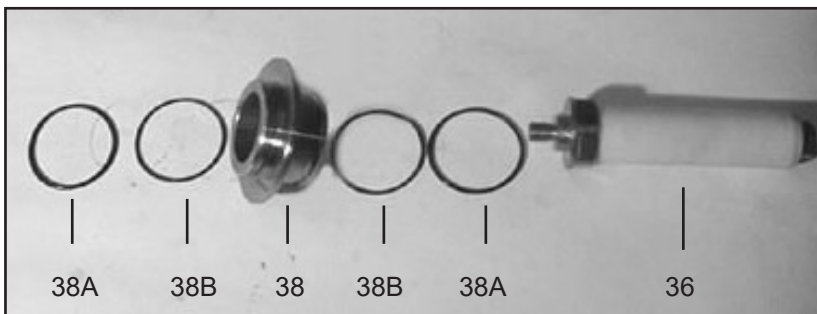
8. Separate plunger (36A) from crosshead (25) by means of one open-end wrench (M36).



9. Pull seal sleeves (39) out of their fittings in the crankcase. Take seal case (38) out of seal sleeve (39).



10. Take tension spring (45) and seal pack (41, 42, 43) out of seal sleeve. Take a thin screw driver and pry out the grooved ring (39A). **Note: This seal (39A) will not be reusable, so replace with a new part.** For the seal-pack (41-43), remove with either a socket wrench or use a screw driver to push against the rear lip of the pressure ring (41) or v-sleeves (42). You will need to remove seals evenly out of the seal sleeve (39). **Be careful not to score the sleeve or metal parts (41 & 43).**



11. Check plunger pipe (36B) and seals (39A, 42) for wear. When replacing plunger pipe (36B), tighten tensioning screw (36C) to 30 ft-lbs (40 NM). If o-rings (38A) or support rings (38B) are damaged, replace with new parts.



## GP7132 AND GP7136 REPAIR INSTRUCTIONS

**CAUTION:** Don't loosen the 3 plunger (36) before the valve casing has been removed otherwise the plunger (36) could hit against the spacer pipe (51F) when the pump is being turned. Seal life can be increased if the pretensioning allows for a little leakage. This assists lubrication and keeps the seals cool. It is therefore not necessary to replace seals before the leakage becomes too heavy and causes output and operating pressure to drop.

### MOUNTING VALVE CASING

**NOTE:** Replace worn parts; grease seals with silicone before installing.

12. Check O-rings (38A) and support rings (38B) on seal case (38). Clean surfaces of seal sleeves in gear box and sealing surfaces of valve casing. Reassemble seal sleeve (39) by placing plunger (36) in seal sleeve; place pressure ring (41), v-sleeves (42), sleeve support ring (43), and tension spring (45) over plunger (36). Place the seal case onto the seal sleeve and press into the crankcase, making sure that the weep hole on the seal sleeve is facing down. Tighten tensioning screw (36C) to 30 ft.-lbs. (40 Nm). Tighten plunger connection (36A) onto crosshead (25) with an open end wrench (M36) to 33 ft.-lbs. (45 Nm).
13. Push valve casing carefully onto O-rings of seal case and centering studs (50A). Tighten nuts (49A) to 103 ft.-lbs. (140 Nm).

### TO DISASSEMBLE GEAR

14. Take out plunger (36) and seal sleeves (39) as described above. Drain oil.
15. After removing the circlip ring (33B), lever out seal retainer (33) with a screw driver. Check seals (32,32A,33A) and surfaces of crosshead.
16. Remove crankcase cover (4). Loosen inner hexagon screws on the connecting rods (24) and push con rod halves as far into the crosshead guide as possible.

**IMPORTANT:** Connecting rods are marked for identification. Do not twist con rod halves. Con Rod is to be reinstalled in the same position on shaft journals.

17. Check surfaces of connecting rod and crankshaft (22). Take out bearing cover (14) to one side and push out crankshaft taking particular care that the connecting rod (24) doesn't bend.

**CAUTION:** Seal (32A) must always be installed so that the seal-lip on the inside diameter faces the oil. Reassemble in reverse order: Regulate axial bearing clearance - minimum 0.1mm, maximum 0.15mm-by means of fitting disc (20A). The crankshaft (22) should turn easily with little clearance. Tighten fitting screws (24A) to 30 ft.-lbs. (40 Nm).

**CAUTION:** Connecting rod (24) must have some sidewise movement at the stroke journals.

### GP7132 and GP7136 TORQUE SPECIFICATIONS

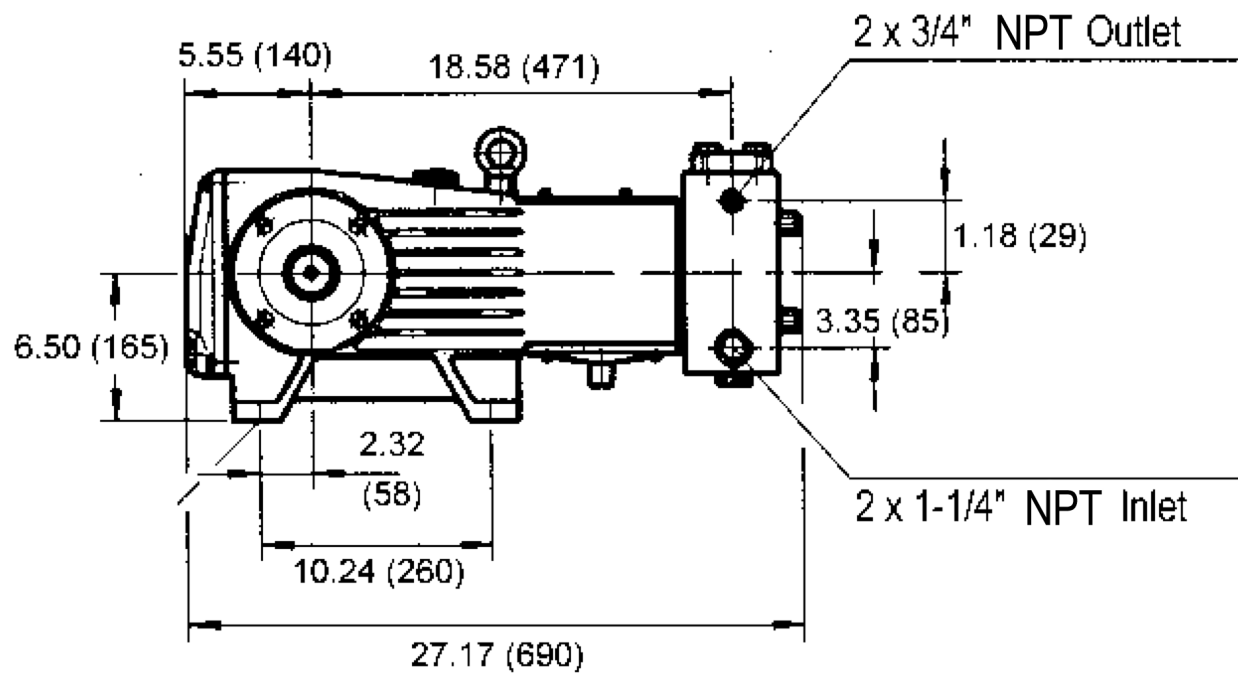
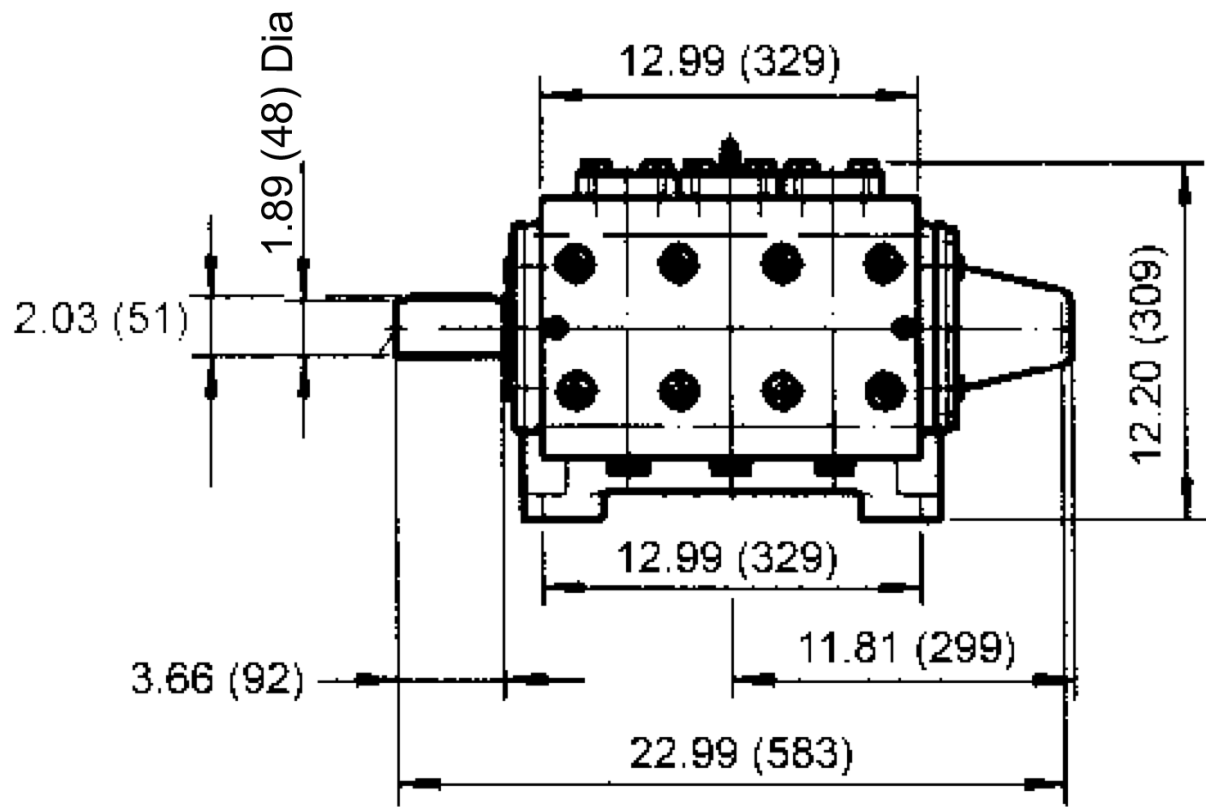
Position	Item #	Description	Lubrication Information	Torque Amount
1	07600	Crankcase	Molycote Cu-Paste	
10	22706	Inner Hexagon Screw		33 ft.-lbs. (45 Nm)
12	07109	Drain Plug		59 ft.-lbs. (80 Nm)
24A	07616	Fitting Screw		30 ft.-lbs. (40 Nm)
30A	07225-0100	Hexagon Screw		89 in.-lbs (10 Nm)
32	07624	Radial Shaft Seal	Loctite 403	
36A	07667	Plunger Base		33 ft.-lbs. (40 Nm)
36C	12055	Tensioning Screw	Loctite 243	30 ft.-lbs. (45 Nm)
49	13159	Stud Bolt	Loctite 270	
49A	13160	Hexagon Nut		103 ft.-lbs. (140 Nm)
58C	07702	Hexagon Screw	Pro Pack 550	155 ft.-lbs. (210 Nm)

# PUMP SYSTEM MALFUNCTION

<u>MALFUNCTION</u>	<u>CAUSE</u>	<u>REMEDY</u>
The Pressure and/ or the Delivery Drops	Worn packing seals Broken valve spring Belt slippage Worn or Damaged nozzle Fouled discharge valve Fouled inlet strainer Worn or Damaged hose Worn or Plugged relief valve on pump Cavitation pump for restrictions Unloader	Replace packing seals Replace spring Tighten or Replace belt Replace nozzle Clean valve assembly Clean strainer Repair/Replace hose Clean, Reset, and Replace worn parts Check suction lines on inlet of  Check for proper operation
Water in crankcase	High humidity Worn seals	Reduce oil change interval Replace seals
Noisy Operation	Worn bearings  Cavitation	Replace bearings, Refill crankcase oil with recommended lubricant Check inlet lines for restrictions and/or proper sizing
Rough/Pulsating Operation with Pressure Drop	Worn packing Inlet restriction  Accumulator pressure Unloader Cavitation	Replace packing Check system for stoppage, air leaks, correctly sized inlet plumbing to pump Recharge/Replace accumulator Check for proper operation Check inlet lines for restrictions and/or proper size
Pump Pressure as Drop at gun Rated, Pressure	Restricted discharge plumbing	Re-size discharge plumbing to flow rate of pump
Excessive Leakage	Worn plungers Worn packing/seals Excessive vacuum Cracked plungers Inlet pressure too high	Replace plungers Adjust or Replace packing seals Reduce suction vacuum Replace plungers Reduce inlet pressure
High Crankcase Temperature	Wrong Grade of oil Improper amount of oil in crankcase	Giant oil is recommended Adjust oil level to proper amount

<b>Preventative Maintenance Check-List &amp; Recommended Spare Parts List</b>						
<b>Check</b>	<b>Daily</b>	<b>Weekly</b>	<b>50hrs</b>	<b>Every 500 hrs</b>	<b>Every 1500 hrs</b>	<b>Every 3000 hrs</b>
Oil Level/Quality	X					
Oil Leaks	X					
Water Leaks	X					
Belts, Pulley		X				
Plumbing		X				
<b>Recommended Spare Parts</b>						
Oil Change (1 Gal) p/n 1154			X	X		
Plunger Packing Kits (1 kit/ pump) (See page 5 for kit list)					X	
Valve Assembly Kit (1 kit/ pump) (See page 5 for kit list)						X
Oil Seal Kit (1 kit/pump) (See page 5 for kit list)					X	

**GP7132 and GP7136 Dimensions - Inches (mm)**



## GIANT INDUSTRIES LIMITED WARRANTY

Giant Industries, Inc. pumps and accessories are warranted by the manufacturer to be free from defects in workmanship and material as follows:

1. Five (5) years from the date of shipment for all pumps used in portable pressure washers with NON-SALINE, clean water applications.
2. Two (2) years from the date of shipment for Giant pumps used in car wash applications.
3. One (1) year from the date of shipment for all other Giant industrial and consumer pumps.
4. Six (6) months from the date of shipment for all rebuilt pumps
5. Ninety (90) days from the date of shipment for all Giant accessories.

This warranty is limited to repair or replacement of pumps and accessories of which the manufacturer's evaluation shows were defective at the time of shipment by the manufacturer. The following items are NOT covered or will void the warranty:

1. Defects caused by negligence or fault of the buyer or third party.
2. Normal wear and tear to standard wear parts.
3. Use of repair parts other than those manufactured or authorized by Giant.
4. Improper use of the product as a component part.
5. Changes or modifications made by the customer or third party.
6. The operation of pumps and or accessories exceeding the specifications set forth in the Operations Manuals provided by Giant Industries, Inc.

Liability under this warranty is on all non-wear parts and limited to the replacement or repair of those products returned freight prepaid to Giant Industries which are deemed to be defective due to workmanship or failure of material. A Returned Goods Authorization (R.G.A.) number and completed warranty evaluation form is required prior to the return to Giant Industries of all products under warranty consideration. Call (419)-531-4600 or fax (419)-531-6836 to obtain an R.G.A. number.

Repair or replacement of defective products as provided is the sole and exclusive remedy provided hereunder and the MANUFACTURER SHALL NOT BE LIABLE FOR FURTHER LOSS, DAMAGES, OR EXPENSES, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGES DIRECTLY OR INDIRECTLY ARISING FROM THE SALE OR USE OF THIS PRODUCT.

THE LIMITED WARRANTY SET FORTH HEREIN IS IN LIEU OF ALL OTHER WARRANTIES OR REPRESENTATION, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ALL SUCH WARRANTIES ARE HEREBY DISCLAIMED AND EXCLUDED BY THE MANUFACTURER.



**WARNING:** This product might contain a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm.  
For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)