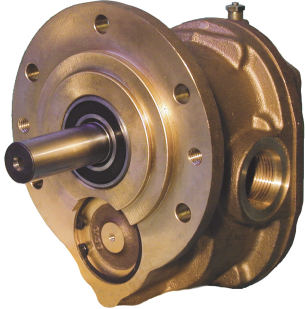


GEAR PUMPS

GEAR PUMPS SERIES CLUTCH 110-05



FEATURES

PUMP

- Bronze construction with Stainless Steel shafts
- Helical gears for quiet operation
- Self-lubricating carbon bearings
- O-ring seal for maximum leak protection
- Nitrile Lip Seal Standard (fluoroelastomer S15 optional)
- Integral Relief Valve option
- Three Hydraulic Sizes: N994 (10GPM), N970 (19GPM) & N990 (23GPM)

BRACKET

- High grade Aluminum Alloy Mounting pedestal
- External Ball bearing for heavy duty belt drive
- Double sealed/lubed for life

CLUTCH

- Bidirectional
- Electro-Magnetic DC actuated
- 2V standard with fail safe feature
- 24V and 32V available without fail safe
- Leaf spring release
- 2-Groove pulley for 1/2" (13mm) V-belts
- Zinc plated steel construction

USES

MARINE (BOAT ENGINE DRIVEN)

- Deck Washdown
- Diesel Fuel Transfer
- Oil Transfer
- Fire Fighting
- Auxiliary Steering-Barges/Tugs
- Buoy Cleaning

INDUSTRIAL (TRUCK ENGINE DRIVEN)

- Water Transfer-Aircraft
- Road Salt Spray

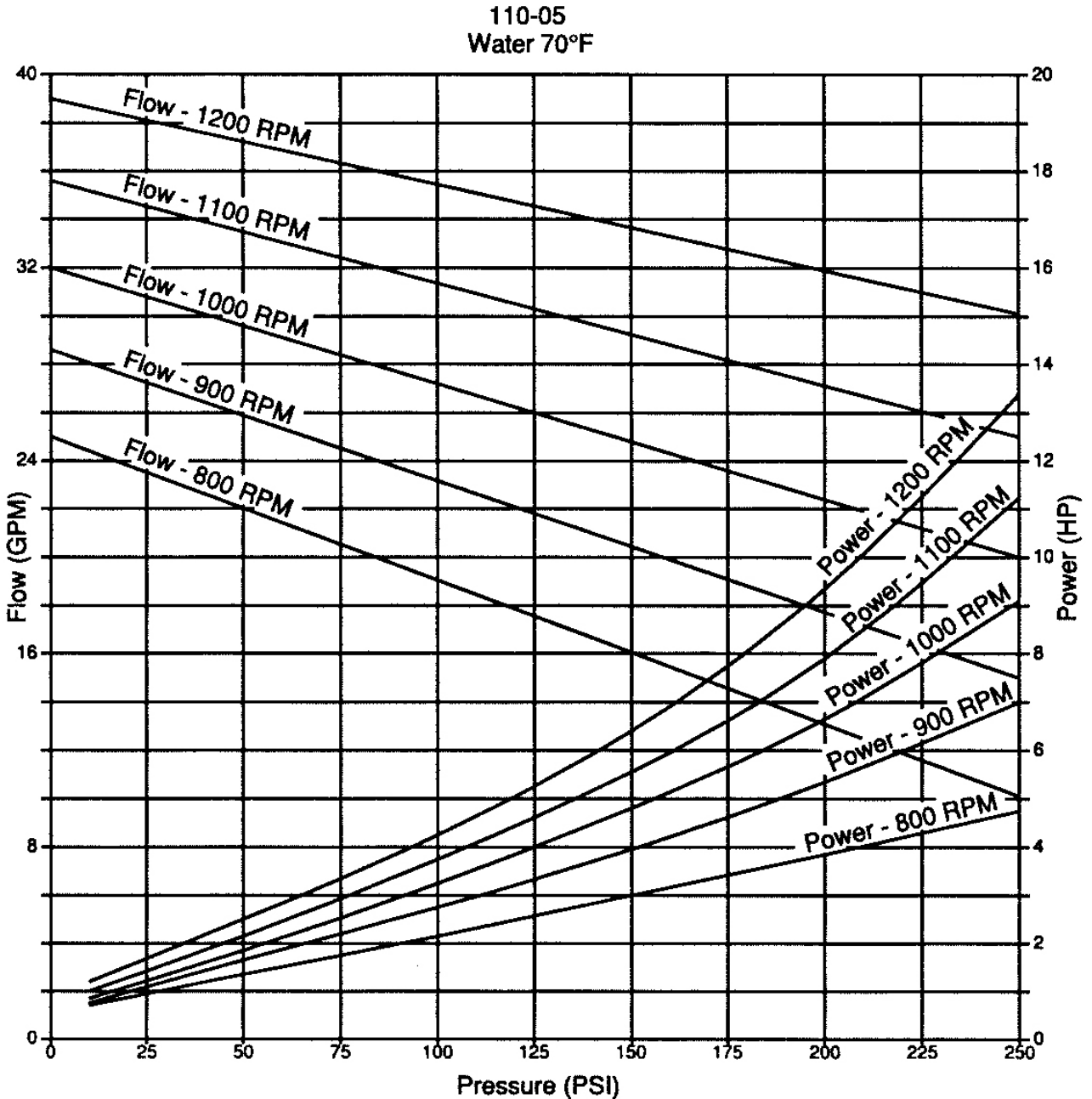
DRIVE

The relief valve is not intended to be a metering or flow control device. Its main purpose is to function as a discharge pressure relief when the spring tension is exceeded by the discharge pressure. Overheating can occur within 5-10 minutes if the discharge line is completely shut off for extended periods. Unless otherwise specified, the clutch driven pump is supplied by the factory for shaft rotation clockwise from shaft end. Reversing the rotation will reverse the "in" and "out" ports and also requires changing the relief valve location. The relief valve is always on the discharge side in this pump series. The factory pressure setting is 50 PSIG. To increase pressure, turn the relief valve adjusting screw in a clockwise direction.

LIQUIDS AND TEMPERATURE

These pumps are suitable for all liquids that are compatible with bronze. Most common liquids are water, oil, and mild chemicals in the pH range of 4 to 11. Viscous liquids require reduced shaft speeds of 1150 RPM or lower. Consult factory. Liquids containing solids, abrasives, powders or paint pigments are definitely not recommended for gear pumps. If abrasives are unavoidable, use a very low shaft speed. The recommended liquid temperature range is 32o to 140oF for longest pump life. If more extreme temperature conditions exist, our factory should be consulted. Freezing of water-filled pumps can cause damage and must be avoided. Oils at low temperatures are very viscous requiring a lower speed or extra power. Fluoroelastomer lip seals are available.

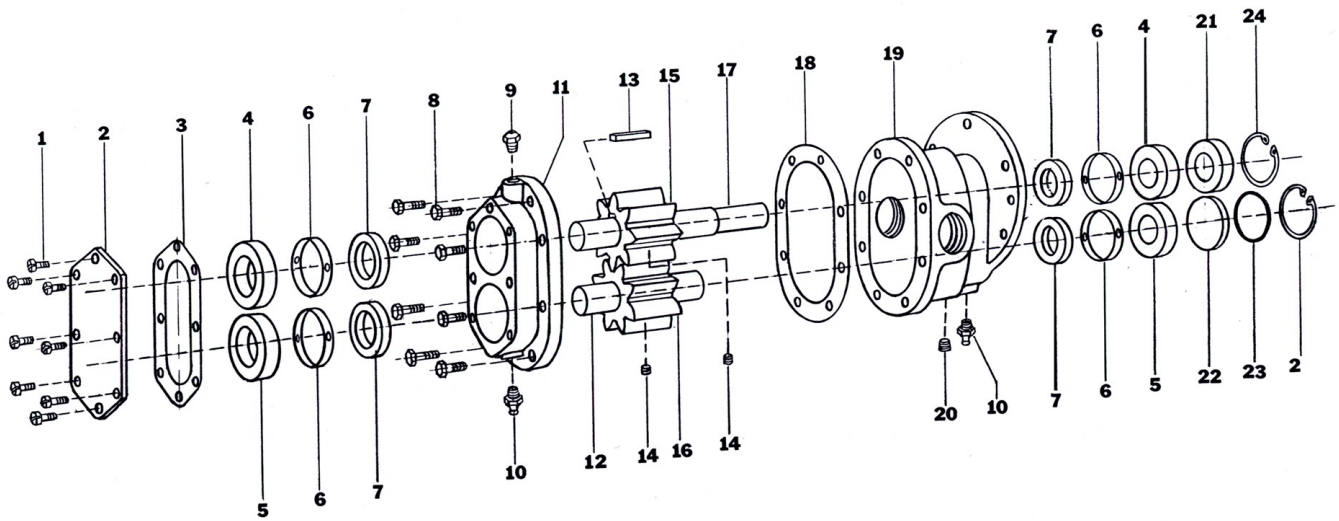
PERFORMANCE



SUCTION LIFT

As a general rule, the suction lift should be kept at an absolute minimum by placing the pump as close to the liquid as possible. A gear pump in new condition can lift 20 feet of water in the suction line. A foot valve (preferably with a built-in strainer) is recommended at the beginning of the suction line. For a first start-up, the pump should be primed to avoid dry running. Minimum size of the suction pipe is the size of the pump inlet port. For longer suction lines (over 3 feet), or for viscous liquids, the pipe size should be at least one size or two sizes larger than the pump inlet port.

EXPLODED VIEW AND PARTS LIST



	1	2	3	4	5	6	7	8	9	10	11	12
	Screw, FilHd	End Plate	Gasket, End Plate	Ball Brg, Open	Roller Brg	Spacer	Lip Seal	Screw, HexHd	Relief Fitting	Grease Fitting	Cover	Idle Shaft
Pump No.	Qty. 8.00	Qty. 1.00	Qty. 1.00	Qty. 2.00	Qty. 2.00	Qty. 4.00	Qty. 4.00	Qty. 8.00	Qty. 1.00	Qty. 2.00	Qty. 1.00	Qty. 1.00
110-05	5385	6509	6517	6503	6689	6955	6915	5670	6669	5390	6506	6512

	13	14	15	16	17	18	19	20	21	22	23	24	Repair Kit
	Key	Set Screw	Drive Gear	Idle Gear	Drive Shaft	Gasket Pump	Body	Pipe Plug	Ball Brg, Sealed	Brg Cover	O-Ring	Ret. Ring	
Pump No.	Qty. 1.00	Qty. 2.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 1.00	Qty. 2.00	
110-05	6518	6193	6800	6510	6511	6516	6501	6052	6504	6673	6672	6513	12252

Repair Kits contain items 3, 5, 7, 12, 13, 14, 15, 16, 17, 18, 23 & 24.

DIMENSIONS

