

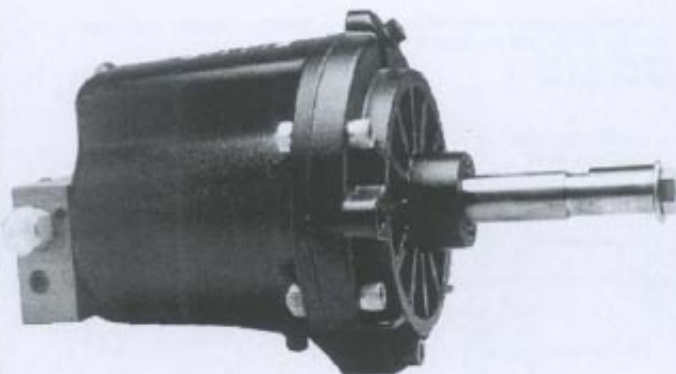


Hydraulic Steering

HELM PUMPS



B 1-2 Helm Pumps



B 3-4 Helm Pump



701 Helm Pump

Wagner Helm Pumps are high efficiency axial piston pumps with fixed, positive displacements from 1.95 cu.in/rev. to 9.89 cu.in/rev. They are matched to cylinder size to give the optimum number of wheel turns according to rudder torque.

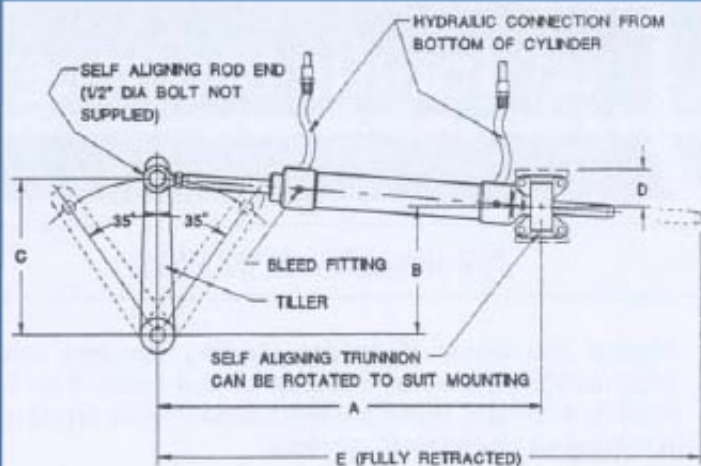
WHY WAGNER HELM PUMPS?

- **Dependable**
The pumps are a rugged all metal construction with a hard baked-on enamel finish. The brass shaft is supported by large bearings for greater strength and longer life. A replaceable external shaft seal is used.
- **Performance**
The pistons are ground and honed, then hand assembled for precise fit, resulting in smooth operation and producing the most efficient manual hydraulic helm pump available.
- **Corrosion resistant finish**
Housings are a marine grade aluminum with a hard baked-on enamel finish.
- **Multiple steering stations**
Each pump operates independently and has full rudder control. A lockvalve on each pump prevents the wheel not in use from "motoring" and eliminates the wheel effort required to maintain rudder position. For sailboats an optional helm control valve is available allowing the helmsmen to have rudder feel.
- **Simple installation**
Wagner helm pumps have a simple two bolt mounting and are designed to be located behind the dash panel. Some models are available with an optional front mount.
- **Non-pressurized system**
The system is filled simply by pouring the recommended oil into the helm pump filler port. External pressurization is not required.

DEPENDABILITY AND PERFORMANCE

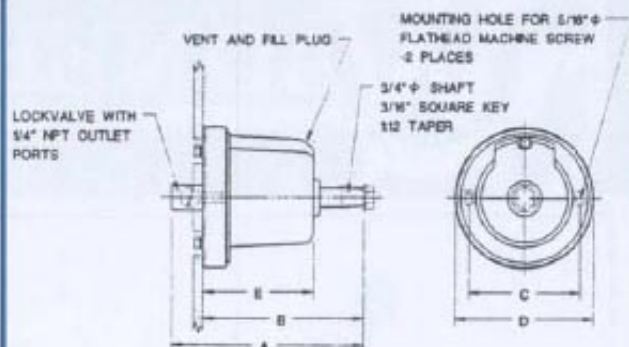
Over five decades of quality performance has made Wagner Hydraulic Steering equipment the standard for dependability and performance. Wagner products are designed and manufactured by Summer Equipment Ltd. of Vancouver, Canada, a company with over seven decades of experience in the marine field.

Wagner Hydraulic Steering Systems offer effortless control for all types of vessels.

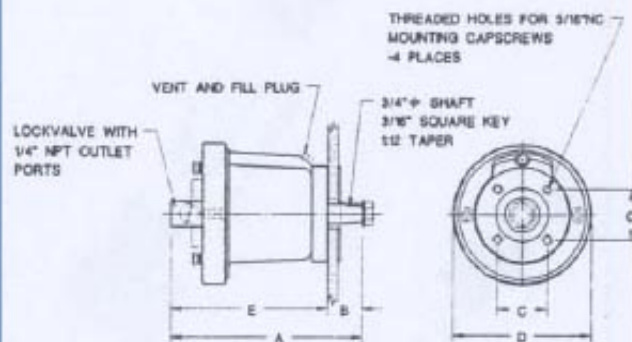


CYLINDER MODEL	BORE	TORQUE (ft-lbs) 2 X 35g	STROKE (Inches)	CYLINDER DISPLACEMENT (in ³)	WHEEL TURNS	DIMENSIONS				
						A	B	C	D	E
1-1/4 X 7	1-1/4"	384	7"	6.44	3-1/4	16-3/8"	5"	8-1/8"	1-5/16"	22-3/4"
1-1/4 X 9	1-1/4"	482	9"	8.28	4-1/4	19-3/8"	6-7/16"	7-7/16"	1-5/16"	27-3/4"
1-1/2 X 7	1-1/2"	610	7"	10.22	5-1/4	16-3/8"	5"	8-1/8"	1-5/16"	22-3/4"

- ① WHEEL TURNS BASED ON USING WAGNER MODEL 701 OR 702 HELM PUMPS.
 ② TORQUE RATINGS DEVELOPED IN THE HARDOVER POSITION AT 1000 PSI PRESSURE.



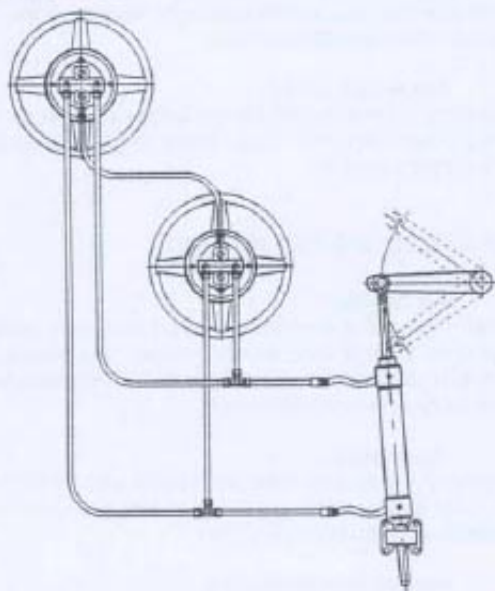
701 HELM PUMP



702 FACEMOUNT HELM PUMP

PUMP MODEL	DIMENSIONS					PUMP DISPLACEMENT (in ³ /REV)	WEIGHT (lbs)
	A	B	C	D	E		
701	7"	5-3/4"	4-3/8"	5-5/8"	4-3/8"	195	9.5
702	9"	2-3/4"	2.30"	6-5/8"	8-1/4"	195	9.5

TWO STATION STEERING



TILT TUBE ADAPTOR KIT

The Tilt Tube Adaptor Kit allows Wagner 700 Series Cylinders to be mounted on certain brands and models of outboard motors and I/O (inboard/outboard) drives. The kit consists of a stainless steel rod and adaptor nut, and is designed to mount directly to the tilt tube of the motor or drive unit. A minimum of 24" clearance is required from the mounting point.



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