Figures for speed (rpm) and pressure apply to interval operation with cold water.
For continual operation, the speed of all pump models must be limited to 700 rpm and the max. operating pressure reduced by 10%.
Required NPSH refers to water: Specific weight 1kg/dm^3, viscosity 1°E at max. permissible revolutions.

Operation and Maintenance

Check oil level prior to starting and ensure trouble-free water supply. Oil: Use only 1.2 gallons (4.6 liters) of Industrial Gear Lube Oil (Giant p/n 01154) or ISO VG 220 (e.g. Aral Degol BG220) or SAE 90 GL4 gear oil.
Initial change after 50 operating hours and then every 500 operating hours.
Caution when operating in damp places or with high temperature fluctuations. Oil must be changed immediately, should condensate (frothy oil) occur in the gear box.
Keep NPSH under control.
Max. input pressure 145 PSI (10 bar), max. suction head -4.35 PSI (-0.3 bar).

⚠ 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 a shaft protector (21), the driven shaft side and coupling by a contact-protector.

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 accidently.
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 occuring, te 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-agressive 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 manufacturer and/or operator to ensure that all pertinent safety regulations are adhered to.