INSTALLATION INSTRUCTIONS

The stated figures are for maximum pressure and maximum speed (RPM) and apply for interval operation with cold water.

Required NPSH refers to water (specific weight 1kg/dm^3, viscosity 1°E) at maximum permissible pump revolutions.

Fluid medium: Clean water filter with 50µm.

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: Use only 3.3 Gallons (12.5 liters) of ISO VG 220 GL4 (e.g. Aral Degol BG220) or SAE 90 GL4 gear oil (Giant p/n 01154). Initial change after 50 operating hours and then every 1000 operating hours after one year at the latest.

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.

NPSH values must be observed.

Cooling the Gear Oil

Important! The water input pressure must not exceed 2 bar when using the integrated system for cooling the gear oil (standard version).

If a separate cooling circuit (maximum 29 PSI [2 bar]) is installed, it is then possible to have an input pressure of up to maximum 145 PSI (10 bar) on the suction side.

Make sure that suction pulsation is sufficiently dampened - water column resonance must be avoided.

Important! The pumps can be run without gear oil cooling in continuous operation **up to** a power rating of **107 hp (80 kW)** or with major intermittent operation).

If operation power **exceeds 107 hp (80 kW)** or if continuous operation is the case, the pump must be run with the integrated oil cooling system. The maximum temperature of the water being pumped and which is also fed through the cooling system must not exceed 86 °F (30°C). The amount which is fed into the cooling system depends on the pump speed and is approximately 1.85 GPM (7.0 L/min) at 580 RPM. The cooling water is sucked in by one of the pumping chambers and pumped away.