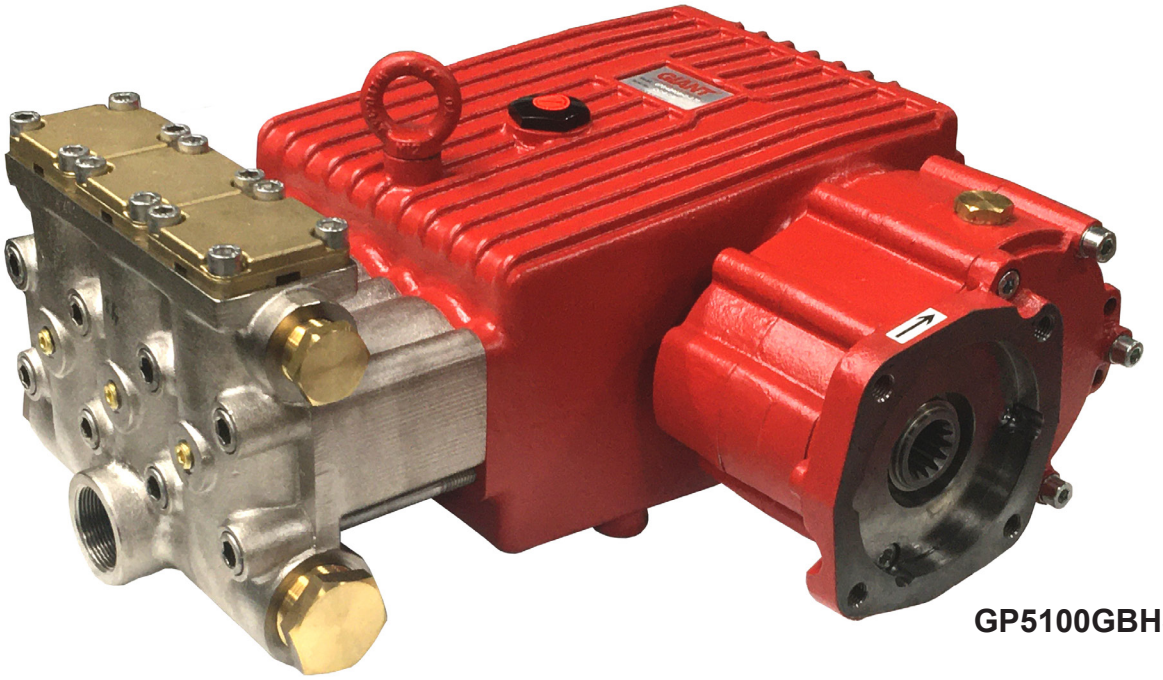
GIANT
Performance Under Pressure

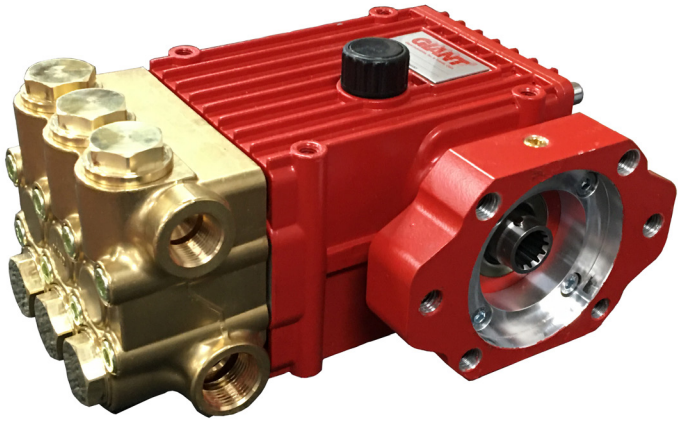
Technical Memo 202102

DATE: 03/29/21
RE: Hollow shaft hydraulic drive speed sensors

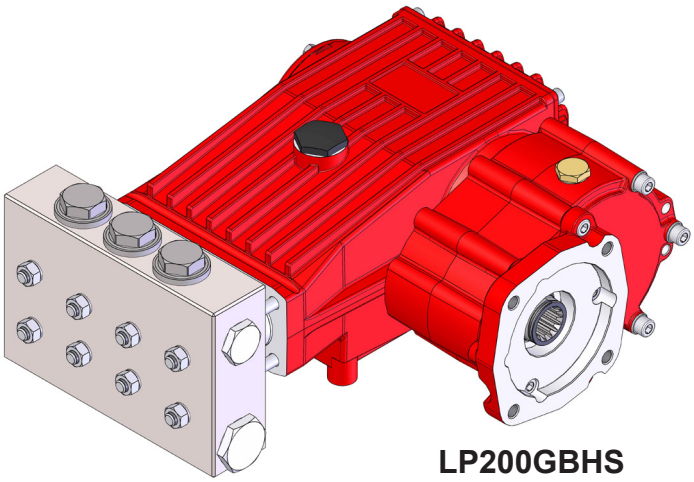
Introduction: Giant recently started to provide hollow shaft hydraulically driven pumps. The hydraulic motor is direct coupled to the flange mounted on the side of the pump. Because the flange and motor are connected directly, there is no access to the crankshaft. Therefore, it is difficult to monitor the speed (RPM) of the pump.



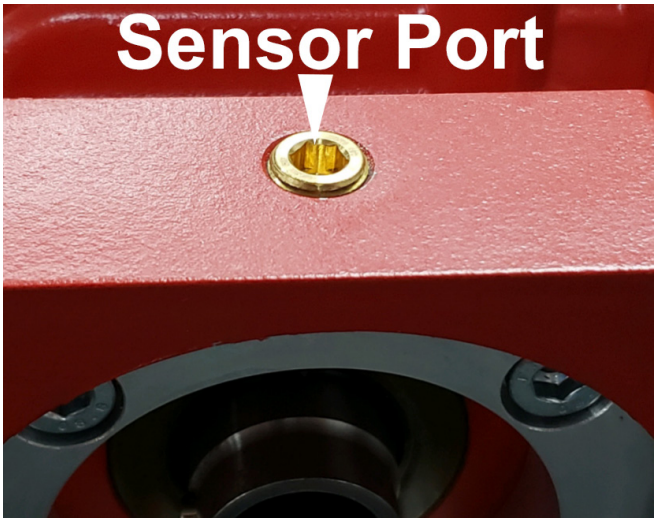
GP5100GBHS

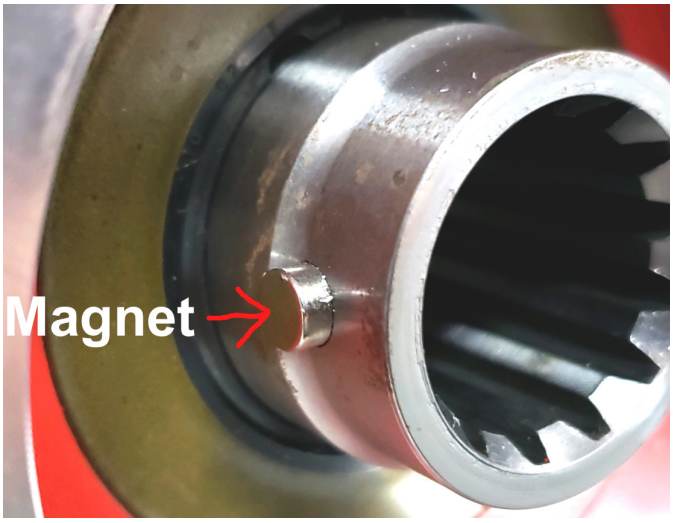


P400H



LP200GBHS

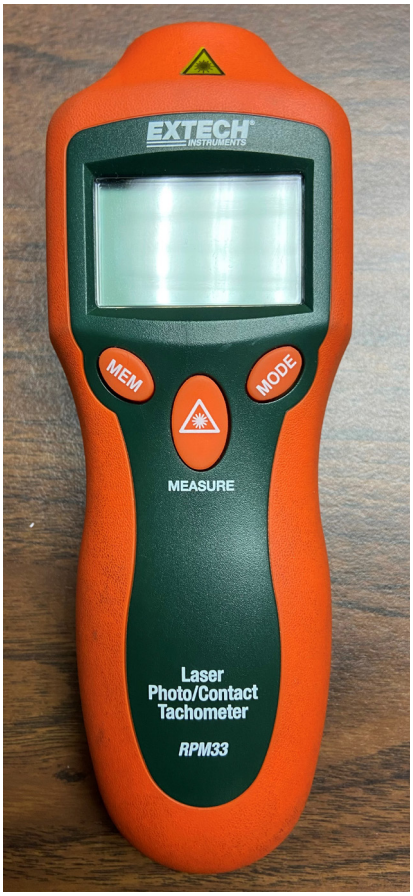




For applications where speed will be varied or where continuous speed monitoring is desired. The pump shaft has a small magnet mounted to it underneath the M12 x 1 threaded port on top of the pump flange. This threaded port is there for the end user/ system developer to install a speed sensor. This sensor will then need to be connected to the electrical system of the system to allow for continuous speed monitoring.

For applications where constant speed monitoring is not desired and the speed of the pump is just going to be checked during the initial build/set up of the system. A laser tachometer can be used to check the speed by using a piece of reflective tap on the magnet or a paint dot on the magnet. Point the laser tachometer through the M12 x 1 hole to read the speed of the shaft.

Speed Sensor



Laser Tachometer