



8FG Cooling Tubes

PB-1006

June 7, 2018

PRODUCT NAME: 8FG Dual Cooling Tubes

AFFECTED PART NUMBER: 8FG

Hale is standardizing the 8FG gearbox to include the secondary cooler. For customers that have historically ordered dual coolers the location has changed from being located in the bottom of the gearbox to being located in the upper portion of the gearbox housing for increased cooling capabilities.



FEATURES

- Generates NFPA 1901 rated flows from 1500 gpm (5678 lpm) to 3000 gpm (11,355 lpm) from draft
- Hard, fine grain bronze, mixed flow impeller design is hand ground and balanced for maximum performance
- For minimal maintenance the spring-loaded mechanical seal is self-adjusting and self-lubricating
- Heavy duty precision ground, deep groove bearings used for long-life
- Heat treated one piece stainless steel pump shaft has been designed for strength and to minimize pump deflection
- Bronze clearance ring is easily replaceable
- Options for 8FGF (Drive Unit Rear) and 8FGR (Drive Unit Front) for design flexibility
- Optional Drive Thru gearbox was constructed for marine application where the pump can be operated at the same time as the propulsion system

PRODUCT DETAIL

Please see the following plate drawings for detail:

PL765 – 8FGR haleproducts.com/8fgr

PL784 – 8FGF haleproducts.com/8fgf

LIST PRICE (US Dollars, FCA Free Carrier Our Dock, Ocala, FL USA Incoterms® 2010)

Configured Item. Pricing dependent on options chosen at the time of order configuration. Dual Cooling setup is offered at no additional charge.

AVAILABILITY

Immediately

SPECIFICATION

8FG Pump Assembly

1. The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis, and have the capacity of 1500, 1750, 2000, 2250, 2500, 2750, or 3000 gallons per minute (U.S. GPM), NFPA-1901 rated performance.
2. The entire pump shall be assembled and tested at the pump manufacturer's factory.



3. The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance.
4. The entire pump shall be hydrostatically tested to a pressure of 600 psi (41 bar). The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined by the latest NFPA Pamphlet No. 1901. Pump shall be free from objectionable pulsation and vibration.
5. The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 psi (2069 bar). All metal moving parts in contact with water shall be of high quality bronze or stainless steel. Pump utilizing castings made of lower tensile strength cast iron not acceptable.
6. Pump body shall be vertically split, on a single plane for easy removal of entire impeller assembly including clearance rings.
7. Pump shaft to be rigidly supported by two bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.
8. The pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined, hand-ground and individually balanced. The vanes of the impeller intake eye shall be hand ground and polished to a sharp edge, and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.
9. Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined hand ground and individually balanced. The vanes of the impeller intake eyes shall be hand ground and polished to a sharp edge and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.
10. Impeller clearance rings shall be bronze, easily renewable without replacing impeller or pump volute body.
11. The pump shaft shall be heat-treated, electric furnace, corrosion resistant stainless steel. Pump shaft must be sealed with double-lip oil seal to keep road dirt and water out of gearbox.

Gearbox – G Gearbox

1. Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs. ft. of drive through torque of the engine system. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.
2. The gearbox drive shafts shall be of heat-treated chrome nickel steel and at least 2-3/4 inches in diameter, on both the input and output drive shafts. They shall withstand the full torque of the engine.
3. All gears, both drive and pump, shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated and hardened, to give an extremely accurate gear for long life, smooth, quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. (No exceptions.)
4. The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.
5. If the gearbox is equipped with a power shift, the shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder, with stainless steel shaft. An in-cab control for rapid shift shall be provided that locks in road or pump.
6. For automatic transmissions, three green warning lights shall be provided to indicate to the operator(s) when the pump has completed the shift from Road to Pump position. Two green lights to be located in the truck driving compartment and one green light on pump operator's panel adjacent to the throttle control. For manual transmissions, one green warning light will be provided for the driving compartment. All lights to have appropriate identification/instruction plates.