

# INTRODUCTION

## Ford Super Duty F Series

**Hart-A-Gen**<sup>®</sup> hydraulic generator systems for Ford Super Duty trucks have been designed with the Fire Industry in mind. The systems are based upon over thirty years of proven field experience with the basic design concept. The 6 KW and 8 KW systems have the same overall dimensions and installation footprint. The **Hart-A-Gen**<sup>®</sup> systems used on Ford Super Duty F Series all use the **Hart-A-Gen**<sup>®</sup> **Intel-A-Gen**<sup>™</sup> electronic controller to maintain frequency at 60.0 Hz  $\pm$  0.3 Hz.

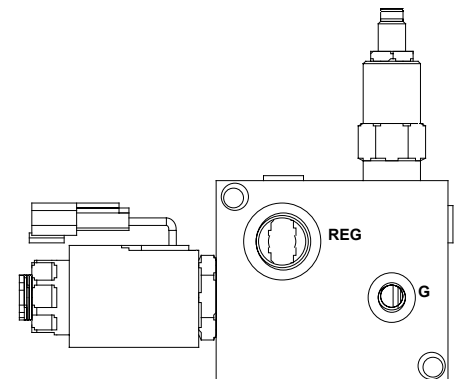
Ford systems use **Chelsea** or **Muncie PTOs** with **Chelsea** or **Muncie Pumps**. These PTOs and gear pumps were designed to operate unsophisticated devices such as snowplows. The **Hart-A-Gen**<sup>®</sup> **Intel-A-Gen**<sup>™</sup> allows these inexpensive gear pumps to perform better than expensive, sophisticated axial piston pumps. Thus they perform well on sophisticated systems such as hydraulically operated generators

The **Hart-A-Gen**<sup>®</sup> **Intel-A-Gen**<sup>™</sup> flow regulator maintains frequency at 60 Hz  $\pm$  0.3 Hz regardless of pump speed or changes in temperature and viscosity.



This flow regulator is standard equipment on **Hart-A-Gen**<sup>®</sup> **Super Duty Systems** (gear pumps) and is offered as an option on standard (axial-piston pump) systems. The controller (electronic card and proportional valve) are pre-set at **Hart-A-Gen**<sup>®</sup> and should not require any adjustments by the installer or end-user.

The **Hart-A-Gen**<sup>®</sup> **Intel-A-Gen**<sup>™</sup> flow regulator uses a proportional valve in conjunction with the **Electronic Generator Controller**. The valve has a spool mechanism similar to the spool mechanism of an axial piston pump. The difference being that the valve spool is moved back-and-forth by electrical pulses from the electronic controller rather than by the differential pressures and spring forces associated with an axial piston pump. The results are faster and more accurate flow regulation.



**Hart-A-Gen**<sup>®</sup> generator systems for Fords are designed to be operated at a site while the vehicle is stopped and the engine is turning at a fixed idle rpm.