

# HALE PUMPS

Hale Fire Pump Company  
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## SERVICE BULLETIN #21

TO: All Major Pump Customers

SUBJECT: Notes on E.M. Governor

Gentlemen:

We have made several recent improvements to our "Engine Master" Governor and wanted to call them to your attention in this summary form, along with some helpful installation hints.

Enclosed are the Maintenance and Instruction Manuals on the governor and suggest they be reviewed to be sure your installations are completely conforming to our recommendations.

We have, for the past year, included a new porous plastic filter (fits over panel strainer) to keep fine dirt particles out of the governor. We suggest that you stock several of these replaceable filter elements in your Service Department as dirt has been a major source of service problems. This plastic filter may be added to an old panel strainer by grinding down the small stainless steel flange ring at one end (to enable the filter to slip over the Monel screen). (The filter elements are .35¢ net each).

When operating with water of a high mineral content it is possible for the capillary tube to become clogged with deposits. We suggest cleaning the tube with .012" wire from a steel wire brush (use of muriatic acid will help).

Always make certain the 5/16" nylon ball is in place. The loss of this ball will result in "violent hunting" of the governor. (The nylon balls are .10¢ net each; we suggest keeping a few of these on hand).

We have made several additional minor design modifications which have improved the operation of the governor--a stiffer stainless steel return spring, a steeper taper on the dampening needle, quad rings instead of "O" rings on the piston and piston rods, etc. We also have available a throttle locking nut to prevent the hand throttle from creeping. (These nuts are \$1.50 net each).

As has been mentioned before, the governor is not necessary at extremely low power settings, such as booster reel operation, very low operating pressure, or low pressure differentials (inlet pressure within 50 PSI of outlet pressure). An alternate way of setting the governor if excessive hunting is encountered is as follows:

1. Close all discharge valves
2. Advance throttle to desired pressure (plus Approximately 10 PSI).
3. Pause three (3) full seconds then pull out actuator to engage governor.
4. Open discharge valves for desired flow.

(IMPORTANT: When using this method, do not turn the throttle knob in after step 4.)

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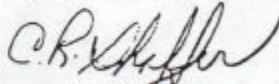
In a few cases (generally where pump power requirements are large compared to the power available from the engine), it has been necessary to install an extra air tank to hold the pressure rise within 30 PSI at the Underwriters 250 PSI test spot. It is therefore suggested that an extra air tank be kept on hand. (The air tanks are \$23.00 net each).

Generally speaking, we have found the performance of our governor has been more satisfactory on gasoline engines than on diesel engines. This is apparently due to the faster response of the lower inertia gasoline engine and its carburetor butterfly arrangement. The installation of the governor on the diesel engine is generally somewhat more expensive. It is therefore our opinion that you should recommend to your customer Hale's relief valve over the governor on all diesels.

In the event your customer insists on specifying the governor with a diesel, we are attaching a composite of helpful hints for installing our governor on specific diesel engines. As we obtain more information on other diesels we will pass it along to you. Additional information may be available from time to time by contacting either our Service or Engineering Departments.

If you have further questions, please let us know and we will try to give you a prompt answer.

Yours very truly,  
HALE FIRE PUMP COMPANY

  
C. R. Shaffer  
Service Manager

(See Attachments)