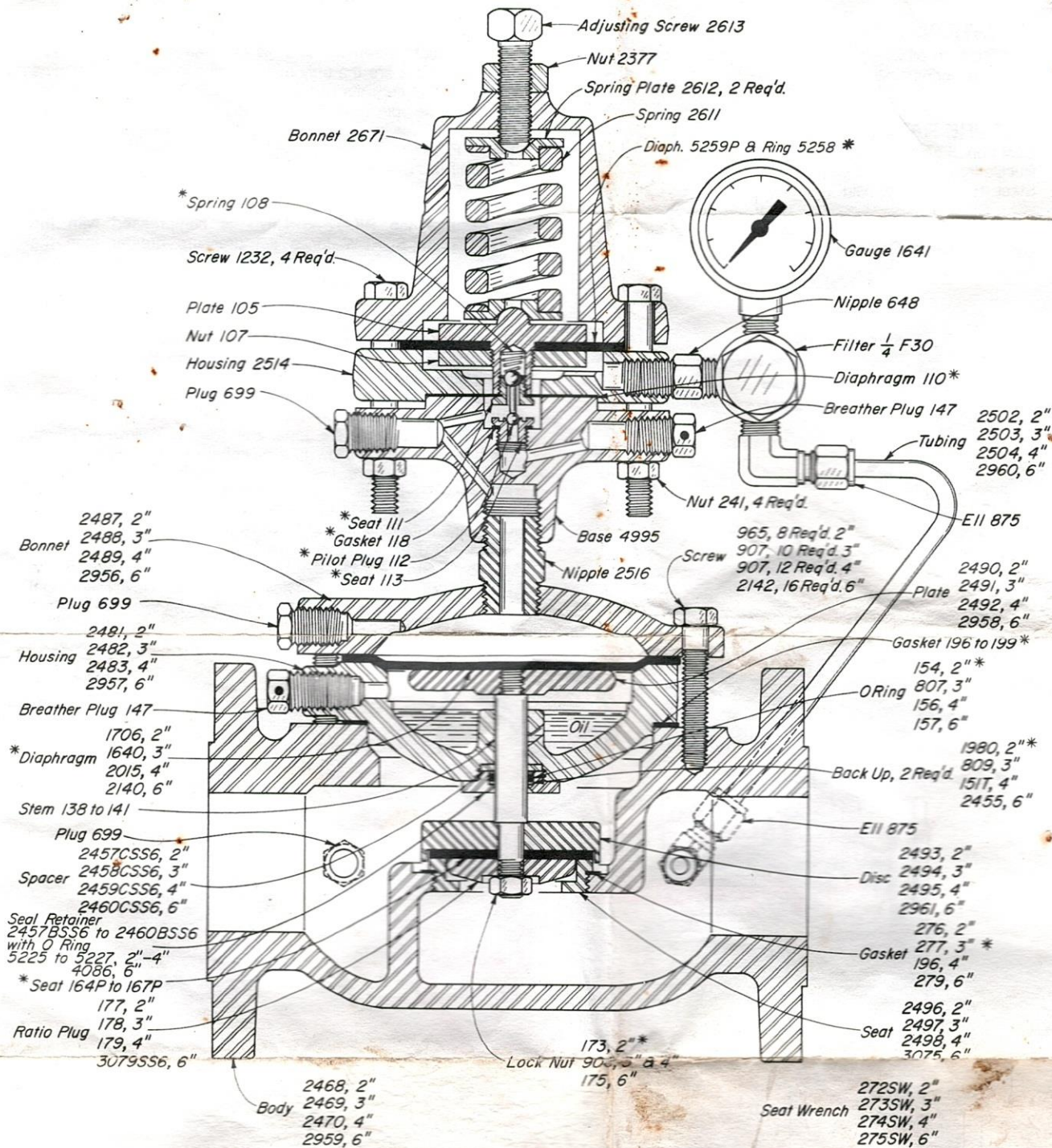


# PRESSURE REGULATORS

## GAS BACK PRESSURE STEEL



### THRU VALVES AVAILABLE:

CAT. NO.	SIZE TYPE	REG. NO	OPER. PRES.	MAX W.P.	KIT
AGB	2" FLGD.	227 FGT BP-S	285	285	RAE
AGC	3" FLGD.	327 FGT BP-S	285	285	RAF
AGD	4" FLGD.	427 FGT BP-S	285	285	RAG
AGE	6" FLGD.	627 FGT BP-S	285	285	RAH

### NOTES:

Dimensions, refer to Table of Contents.

\*These parts are recommended spare parts and are stocked as repair kits.

The numbers of a series assigned to a part indicate different line sizes. For example: Stem 138-2", 139-3", 140-4", 141-6".





## PRESSURE REGULATORS

### GAS BACK PRESSURE

#### APPLICATION:

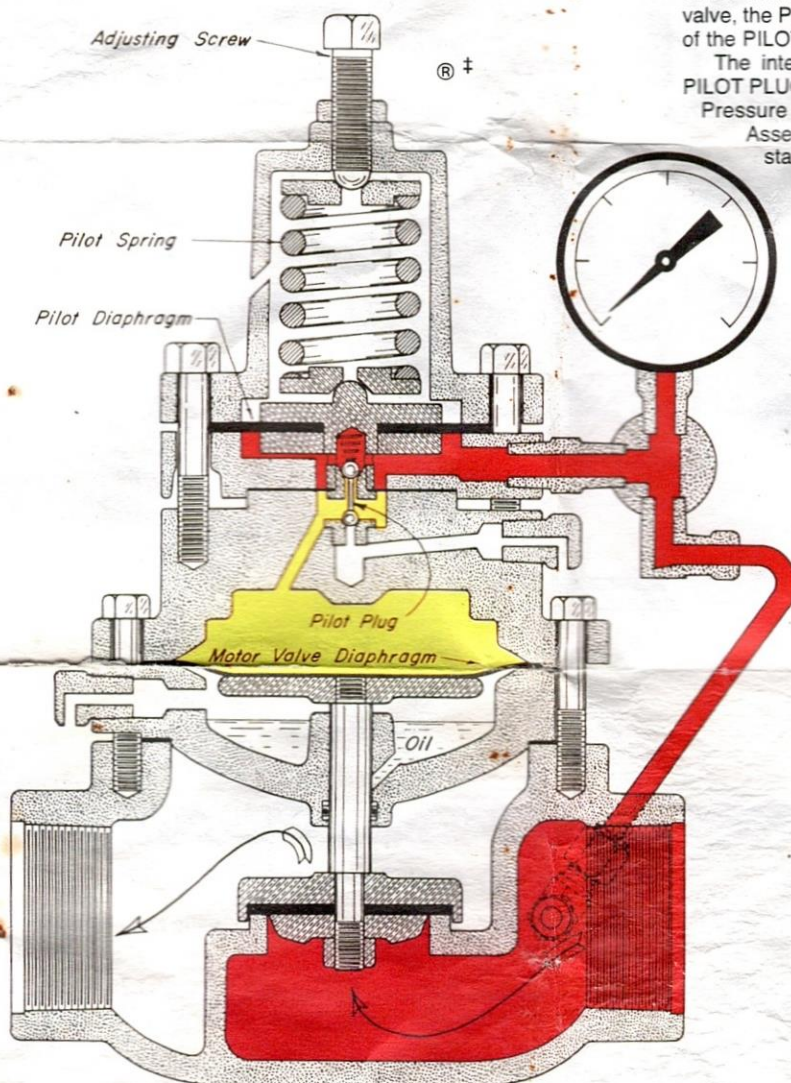
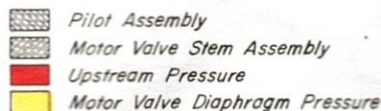
Vent lines on oil separators, flow treaters, compressor stations, gas gathering systems.

#### PRESSURE RANGE:

Cast Iron: 5 psig to 125 psig  
Ductile Iron: 10 psig to 280 psig  
Steel: 10 psig to 280 psig

#### CAPACITY:

Refer to Table of Contents.



#### OPERATION:

The Pilot Assembly and Motor Valve Stem Assembly (Crosshatched) are the only moving units in the regulator. The PILOT PLUG consists of two stainless balls rigidly connected together. The upper seat for the PILOT PLUG is the Motor Valve Diaphragm Pressure inlet (Red to Yellow). The lower seat for the PILOT PLUG is the pressure vent (Yellow to Atmosphere).

The PILOT SPRING in the bonnet loads the upper side of the Pilot Assembly and is opposed on the underside by Upstream Pressure (Red).

Assume the PILOT SPRING is compressed with the ADJUSTING SCREW for a set pressure greater than the Upstream Pressure (Red). The Pilot Assembly is forced downward by the PILOT SPRING. The lower seat for the PILOT PLUG (Yellow to Atmosphere) is closed and the upper seat for the PILOT PLUG (Red to Yellow) is open. This lets full Upstream Pressure (Red) load the motor valve. The area of the MOTOR VALVE DIAPHRAGM is twice the area of the motor valve seat, assuring a positive shut-off.

As the Upstream Pressure (Red) increases to the set pressure, the Pilot Assembly moves upward against the PILOT SPRING to first close the upper seat (Red to Yellow) and open the pressure vent (Yellow to Atmosphere). As the Motor Valve Diaphragm Pressure (Yellow) is decreased, the Upstream Pressure (Red) acting under the motor valve seat, opens the valve. With relief of Upstream Pressure (Red) through the motor valve, the Pilot Assembly assumes a position in which both seats of the PILOT PLUG are closed.

The intermittent bleed pilot, three-way valve action of the PILOT PLUG against its seat adjusts the Motor Valve Diaphragm Pressure (Yellow), repositioning the Motor Valve Stem Assembly to accommodate any rate of flow. The rapid but stable repositioning produces a true throttling action.

