REGULATEURS EUROPA
Member of the
Heinzmann Group

TYPE 1800 2G

Hydraulic Servo Governor

The Regulateurs Europa 1800 series governor is designed specifically for medium and slow speed diesel engines.

This governor is a centrifugal flyweight design with a two-stage, high stiffness, backlash free, hydraulic servomechanism, providing the best possible control on engines that have a fuel pump control system with high stiction forces.

A booster unit can be supplied for application where minimal starting air consumption is required.

TYPE 1800 2G Hydraulic Servo Governor

FEATURES

- Proven design
- Special 2 stage servomechanism to give best possible control on pumps with large stiction forces
- One module with 2 different work outputs all within the same frame size
- Externally adjustable droop control
- Speed setting options by lever, dial, synchronising motor or pneumatic
- Self contained oil supply
- Droop adjustment
- Common base mounting
- Output shaft both sides.

TYPE 1800 2G

Hydraulic Servo Governor

SPECIFICATION

Variable Speed Applications
Normal operating speed range -
200 to 1200 r/min.

Constant Speed Applications
Governor drive speed range at rated engine speed - 900 - 1200 r/min

Output Shaft Movement
40° (Maximum) with 24° or greater to be used from No Load to Full Load.

Oil Supply
Self contained 0.94 imp gall (4.25 litres)

Oil Cooler
60ft lbf Work output.
Required only when operating in an ambient temperature in excess of 40°C.
80 ft lbf Work output.
Supplied as standard.

Weight
(Basic Governor - speed setting model)
114 lb. (52 kg)

Power to Drive Governor
(at 1000 r/min. Governor Drive Speed)
60 ft lbf Work output - 0.50 hp (0.37 kW)
Input Torque 2.62 ibf ft (3.54 Nm.)
80 ft lbf Work output - 0.75 hp (0.56kW)
Input Torque 3.5 lbf ft (4.74 Nm.)

Output Shaft Dimensions
$^{7}/_{8}$ in. nominal diameter, 48 SAE Serrations, Standard both sides of governor

Drive Shaft Dimensions
1 $^{1}/_{8}$ in. nominal diameter, 48 SAE serrations, standard.
Alternative $^{5}/_{8}$ in. nominal diameter with $^{3}/_{16}$ in. x $^{3}/_{16}$ in. key.

Base Dimensions
7 $^{3}/_{4}$ in. square with four fixing holes 14.0 mm diameter at 6 $^{3}/_{4}$ in. centres.

Rotation
Either clockwise or counter clockwise.

Speed Droop
Adjustable by External Dial from 0-100 rev./min for 60% of the shaft travel.

Stabilisation
Hydraulic system having non-linear characteristic giving high temporary droop at the set point for stability.

The degree of damping introduced by the stabilisation system is adjustable (after the removal of a cover) to suit the application and incorporates a unique reset cut off feature.

Speed Setting Options
Lever - (normally supplied by engine builder) On projecting speed setting shaft, 1/2 in. nominal diameter 36 SAE serrations.
Dial - Multi-turn knob giving fine and coarse indication.
Synchronising Motor - 24,110 and 220/240 volts ac/dc.
Nominal rate of change of speed 0.25% per second.
Pneumatic - Standard Pressure Ranges
3-15lbf/in^2 (0.21 - 1.03 bar)
5-45 lbf/in^2 (0.34 - 3.10 bar)
5-90 lbf/in^2 (0.34 - 6.20 bar)
10-60 lbf/in^2 (0.69 - 4.14 bar)
Speed Indication - Up to three microswitches to give indication of selected speeds.

Shutdown Options
Manual - By pushbutton
Electric Solenoid - Energise to run or to stop operating voltages 24,110 and 200 volts d.c.
Pneumatic - Pressurised to run or to stop Standard pressure range 50-150 lbf/in2 (3.4-10.3 bar).
Low Oil Pressure - Responds to low oil pressure of prime mover. Two adjustable ranges 25-50 lbf/in2 (1.75-3.4 bar) & 40.5-81.2 lbf/in2 (2.75-5.5 bar).

Fuel Limitation Options
Manual - External dial adjustable over the full range of governor output.
Boost Pressure -
Standard Pressure Ranges
0-20 lbf/in (0-1.38 bar)
0-30 lbf/in (0-2.07 bar)
0-45 lbf/in (0-3.10 bar)
Set Speed - Limitation of governor output via internal linkage acting from the speed setting mechanism.
Actual Speed - By reduction of set speed for marine propulsion prime movers with fixed pitch propellers or suction dredger pump drive.

Load Control Options
Hydraulic - A spool valve controls an oil flow to and from the governor dependent upon the deviation from a predetermined speed/governor position characteristic may be adjusted by the supply pressure regulator within the governor self contained system or from an external source.

NOTE: The load control and fuel limit characteristics may be controlled by more than one variable, e.g. speed setting and boost pressure. The mechanism is so arranged that the engine will be controlled in a stable manner even if turbocharger failure occirs.

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