GROUP 1 OUTLINE

This micro computer based electro-hydraulic pump and engine mutual control system(mode selection system) optimizes engine and pump performance. 4 power modes(H, S, L, F) make it possible to use the engine more effectively corresponding to the work conditions from a heavy and great power requesting work to a light and precise work.

PUMP CONTROL BY ENGINE SPEED SENSING

To match the engine torque with the pump absorption torque, CPU controller varies EPPR(electro proportional pressure reducing)valve output pressure, which controls pump discharge amount whenever feedbacked engine speed drops under the reference rpm of each mode set.
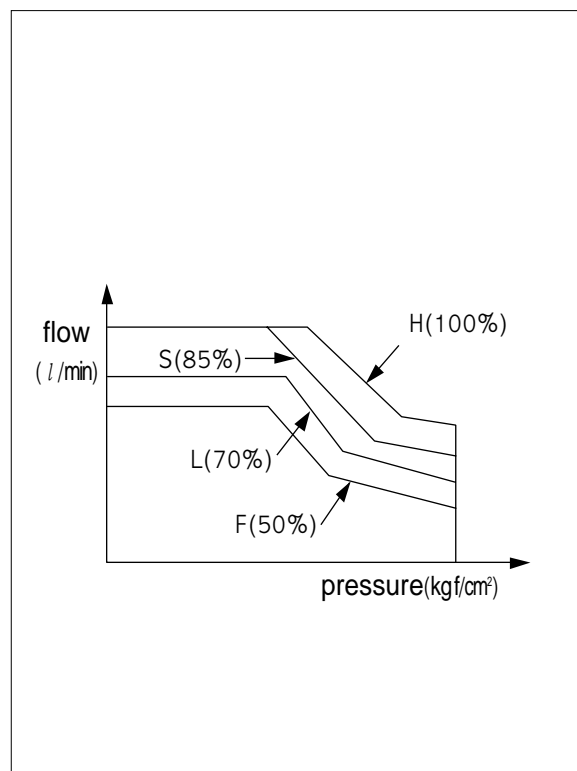
1. MAXIMUM POWER MODE : "H" MODE

When "H" mode is set, CPU controller moves the engine governor motor lever to the full position and it also sends out current into the EPPR valve to set the pump absorption torque high.

So, it is possible to maximize the work performance by using 100% of the engine power at this mode.

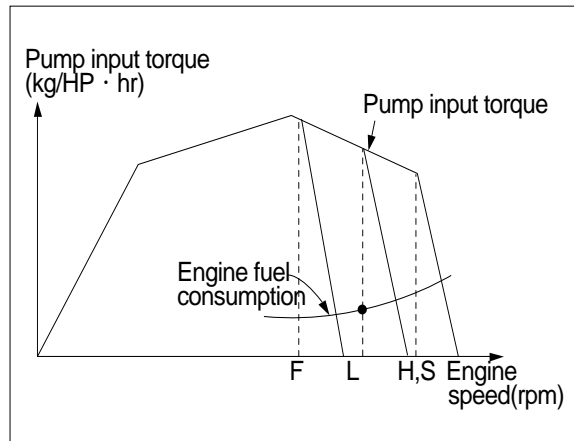## 2. GENERAL STANDARD MODE : "S' MODE

When "S" mode is set, CPU controller moves the engine governor motor lever to the full position.

And it also sends out more currents into the EPPR valve than those of "H" mode, which reduces the discharge amount. So, it is possible to work swift and soft controllability.

3. ENERGY(FUEL) SAVING AND FINISHING WORK : "L", "F" MODE

1) When "L" mode is set, CPU controller moves the engine governor motor lever to the partial position and it also sends out much more currents into the EPPR valve than those of "S" mode, which reduces the pump absorption power largely. So, at this mode it is useful for light work and for energy saving.

2) When "F" mode is set, CPU controller moves the engine governor motor lever to the partial position and it also sends out maximum currents into the EPPR valve to reduce the pump absorption power to the least amount. So, at this mode it is useful for light work, especially for finishing work.