THE CANADIAN

Ques. 10: Explain how excess pressure head of E. T. governor operates.

Ans.: The excess pressure side of the governor controls the pump in release, running and holding positions, and when the brake valve is in either of the above positions main reservoir air from the H-6 brake valve will pass through a pipe leading to the chamber below the diaphragm of the excess pressure side of the governor; air from the feed valve pipe will enter the chamber around the regulating spring on top of the diaphragm. This spring is adjusted to a compression of about 20 pounds, therefore, there is the combined pressures of the feed valve pipe and the tension of the regulating spring acting on top of the diaphragm. As long as the pressure in the main reservoir and the chamber below the diaphragm is below the combined pressure above it the pin-valve will remain seated and the pump will continue to work. When the pressure in the chamber below the diaphragm and in the main reservoir exceeds the pressures acting on top of the diaphragm, the diaphragm will be raised and unseat the pin-valve and allow air to flow through the chamber on top of the governor piston, force it downward and seat the steam valve, thereby cutting off the flow of steam to the pump. When main reservoir pressure below the diaphragm becomes reduced, the combined pressures above the diaphragm will force it down and seat the pin-valve. This will allow the air pressure on top of the governor piston to escape through the vent port and the piston spring, and steam pressure under the steam valve will raise it and the governor piston, thereby allowing steam to

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