

VACUUM BREAKER

The vacuum breaker shown in the accompanying illustration is used to break the vacuum in the condenser whenever the overspeed trip mechanism operates, to shut down the turbine. It is actuated by oil pressure and is connected to the overspeed trip mechanism as shown in the Control and Oil System Diagram.

The principal parts are: a rubber faced valve "7", the operating piston "12" and the compression spring "10". High pressure oil is supplied to the upper side of the operating piston and, during normal operation, holds the valve firmly on its seat. If, however, the overspeed trip mechanism operates, the high pressure oil chamber is connected to drain and the spring "10" lifts the valve "7" from its seat, thus breaking the vacuum in the condenser. Openings are provided through which water can be admitted to seal the valve when it is on its seat. The chamber beneath the operating piston is connected to drain to take care of any oil leakage past the piston.

The cover "13" acts as a stop in the opening direction. In disassembling, the nuts on the two long studs "14" should be loosened together, thus removing the spring load until the valve "7" strikes the oil baffle "9". Then the remainder of the spring load can be removed by removing the piston nut. Further disassembling is obvious.

The following list has been compiled to facilitate ordering spare or renewal parts by item number and name together with the serial number of the turbine.

<u>Item No.</u>	<u>Name</u>
1	Vacuum Breaker Support
2	Vacuum Breaker Valve Stem
3	Vacuum Breaker Valve Stem Sleeve
4	Vacuum Breaker Valve Ring Retainer
5	Vacuum Breaker Valve Seat
6	Vacuum Breaker Valve Ring
7	Vacuum Breaker Valve
8	Vacuum Breaker Cylinder
9	Vacuum Breaker Oil Baffle (Lower)
10	Vacuum Breaker Spring
11	Vacuum Breaker Oil Baffle (Upper)
12	Vacuum Breaker Operating Piston
13	Vacuum Breaker Cylinder Cover
14	Vacuum Breaker Cylinder Cover Stud

Vacuum Breaker

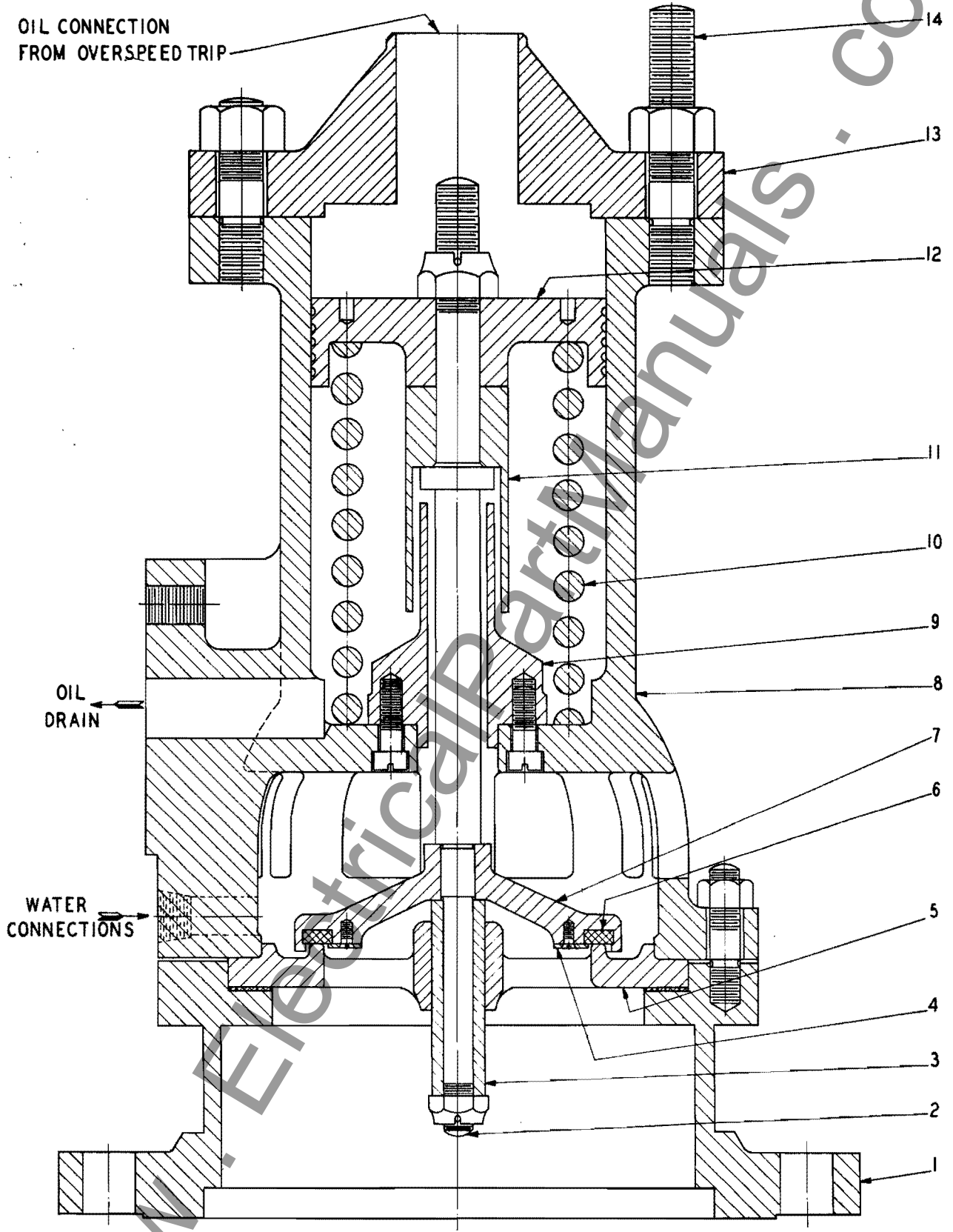


Figure 1