

U.S.C.G. Merchant Marine Exam

UFIV-Assistant Engineer

Q693 General Subjects

(Sample Examination)

5. With regard to the number of passes through the tubes of shell-and-tube heat exchangers, what statement is true?
- (A) In two-pass and four-pass heat exchangers, the inlet and outlet tube-side fluid connections are at opposite ends.
 - (B) In single-pass and two-pass heat exchangers, the inlet and outlet tube-side fluid connections are at opposite ends.
 - (C) In single-pass and two-pass heat exchangers, the inlet and outlet tube-side fluid connections are at the same end.
 - (D) In two-pass and four-pass heat exchangers, the inlet and outlet tube-side fluid connections are at the same end.

If choice D is selected set score to 1.

6. In accordance with 33 CFR Subchapter O (Pollution), which type of Marine Sanitation Device (MSD) is used solely for the storage of sewage and flush water at ambient air pressure and temperature?
- (A) Type I
 - (B) Type II
 - (C) Type III
 - (D) Type IV

If choice C is selected set score to 1.

7. Which characteristic or condition will have the greatest effect on increasing a hydraulic oil's viscosity?
- (A) Vacuum
 - (B) Pressure
 - (C) Cloud point
 - (D) Pour point

If choice B is selected set score to 1.

8. The term, whole depth of the gear, shown in the illustration, is equal to _____. Illustration GS-0111
- (A) A + D
 - (B) B + D
 - (C) C + A
 - (D) C + D

If choice D is selected set score to 1.

- 9.** A thermal-magnetic circuit breaker for a 300 kW alternator is rated at 500 amperes at full continuous load. Which of the following conditions will trip the breaker?
- (A) Sustained current draw of 450 amperes for 2 hours.
 - (B) Sustained current draw of 500 amperes for 10 minutes.
 - (C) Momentary current draw of 1000 amperes for 3 seconds.
 - (D) Instantaneous current draw of 5,000 amperes.

If choice D is selected set score to 1.

- 10.** Which of the illustrated motors has an open, drip-proof (ODP) motor enclosure? Illustration EL-0001
- (A) A
 - (B) B
 - (C) C
 - (D) D

If choice C is selected set score to 1.

- 11.** With respect to shaft bearing load absorption capability in terms of direction, what is meant by an axial load?
- (A) An axial load is a load applied parallel to the axis of the shaft.
 - (B) An axial load is a load applied tangent to the circumference of the shaft.
 - (C) An axial load is a load applied perpendicular and parallel to the axis of the shaft.
 - (D) An axial load is a load applied perpendicular to the axis of the shaft.

If choice A is selected set score to 1.

- 12.** Which of the following illustrations represents the proper method of circuit grounding for a low level analog signal cable? Illustration EL-0124
- (A) A
 - (B) B
 - (C) C
 - (D) D

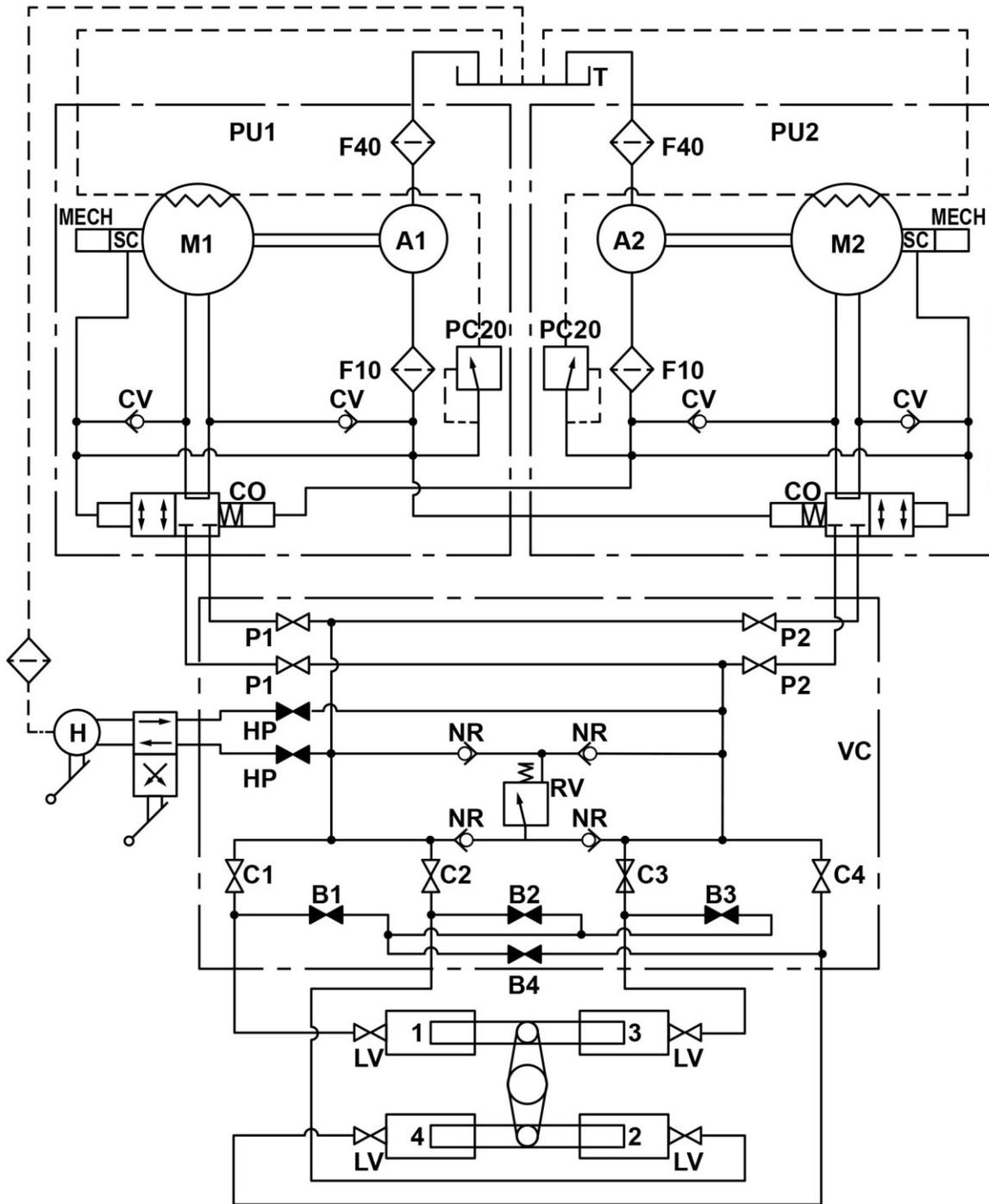
If choice A is selected set score to 1.

50. The amount of HCFC-123 in a storage cylinder is measured by what means?

- (A) volume
- (B) saturation pressure
- (C) saturation temperature
- (D) weight

If choice D is selected set score to 1.

GS-0067

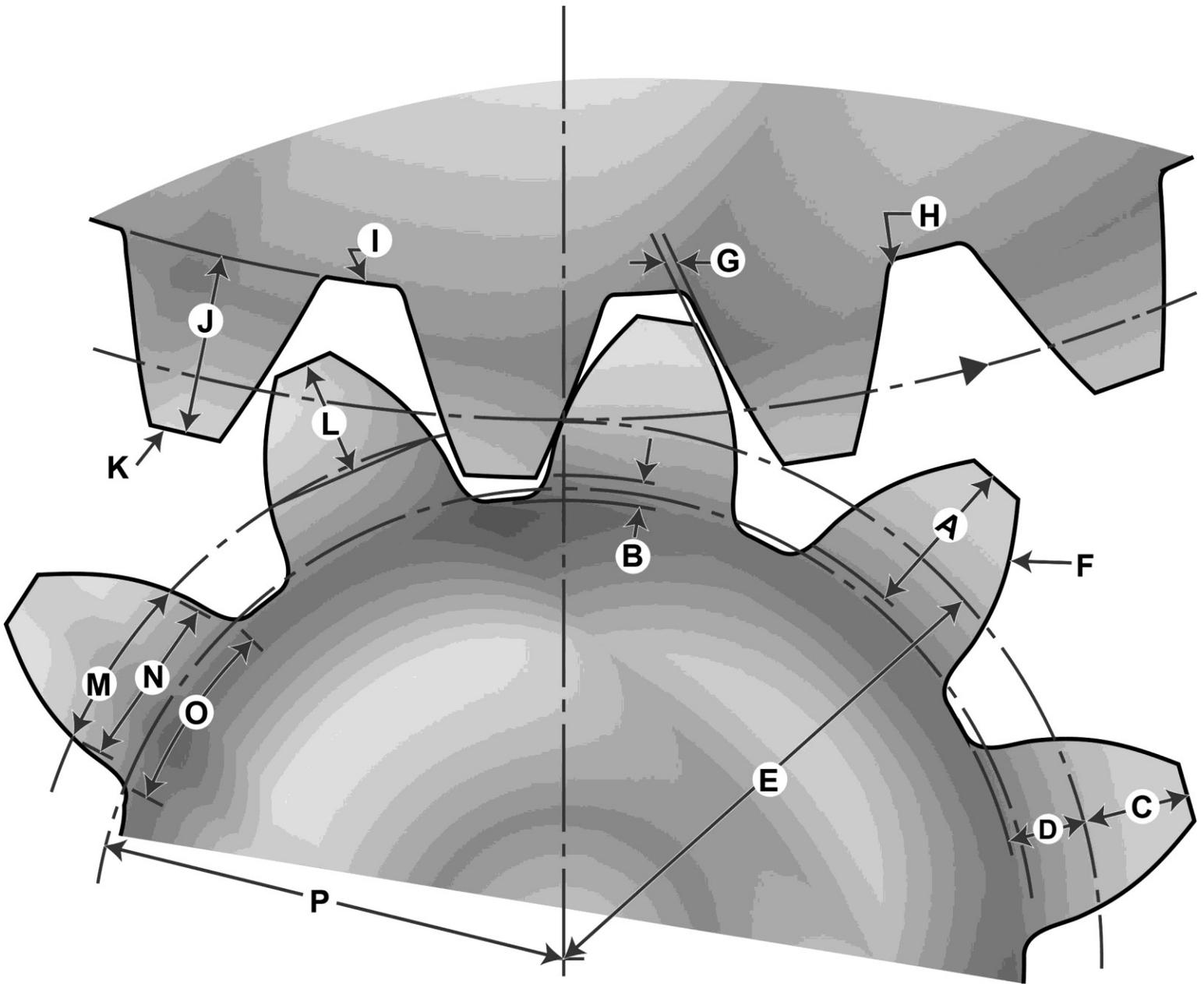


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GS-0111

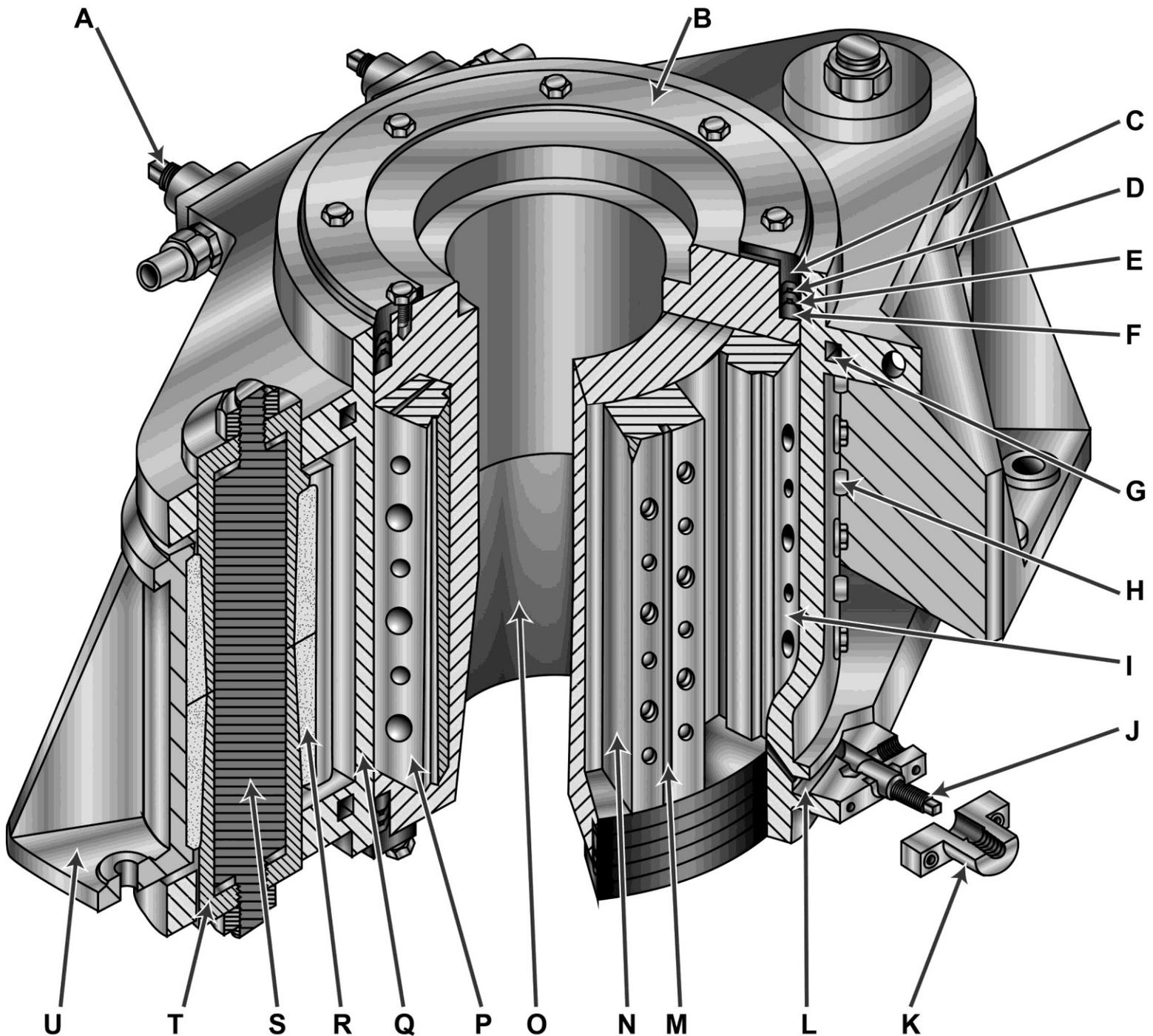


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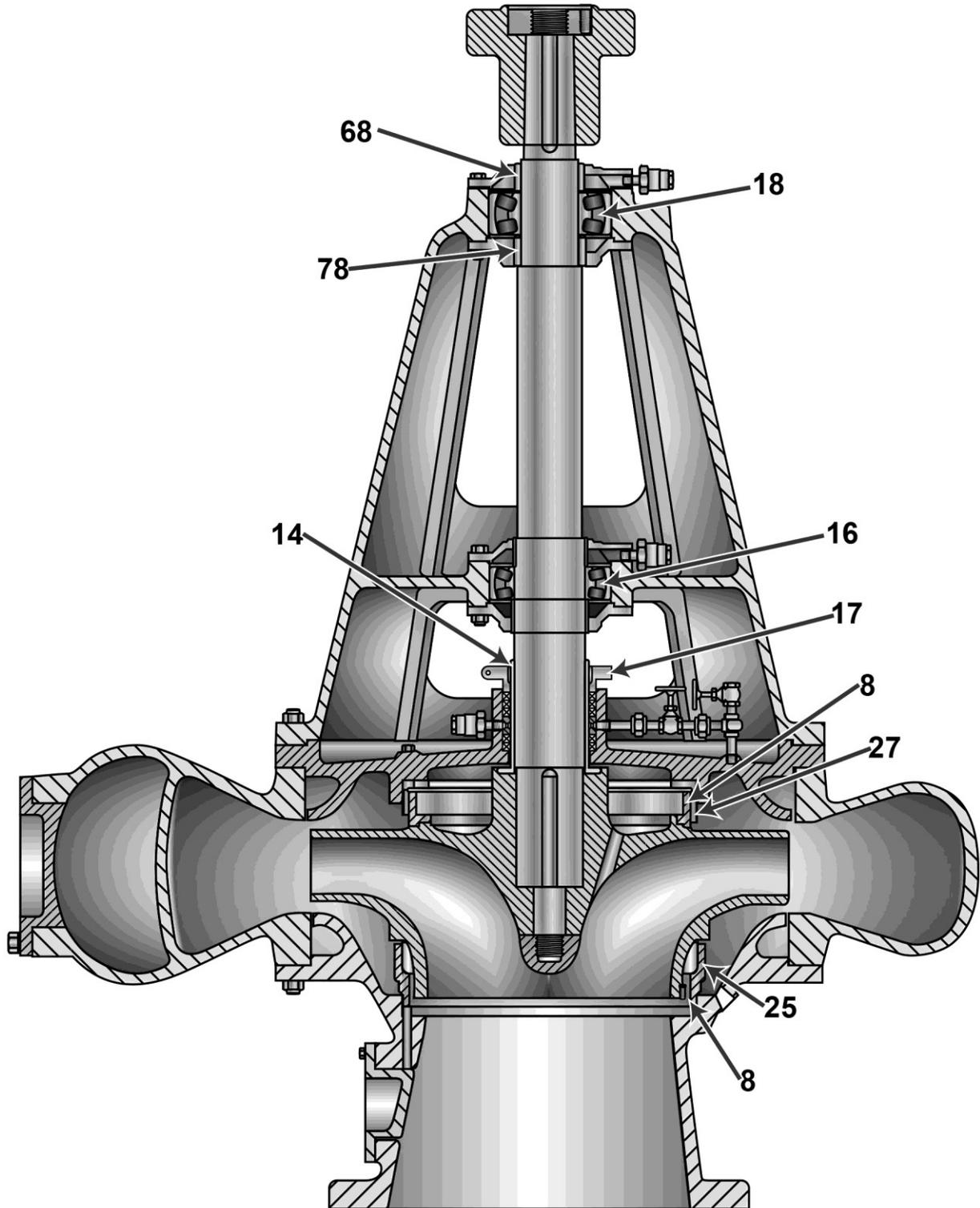


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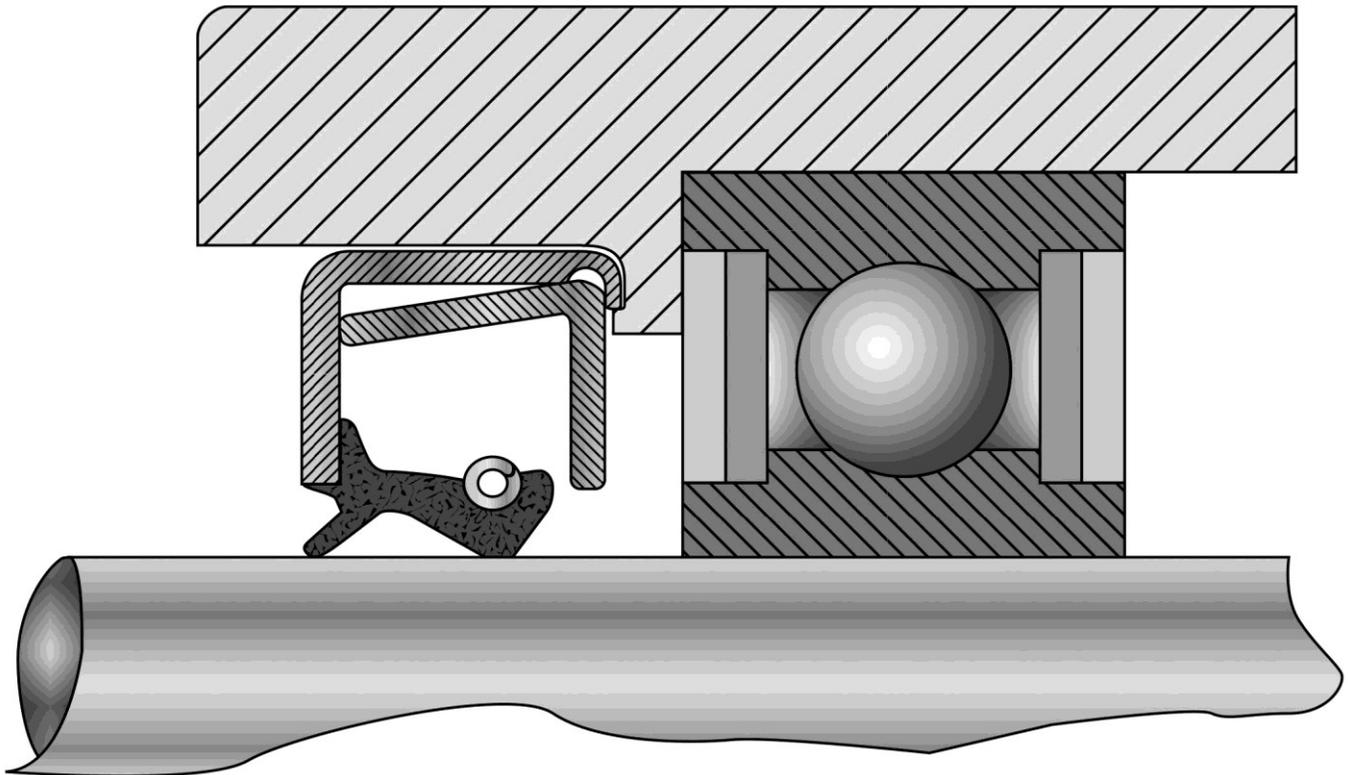


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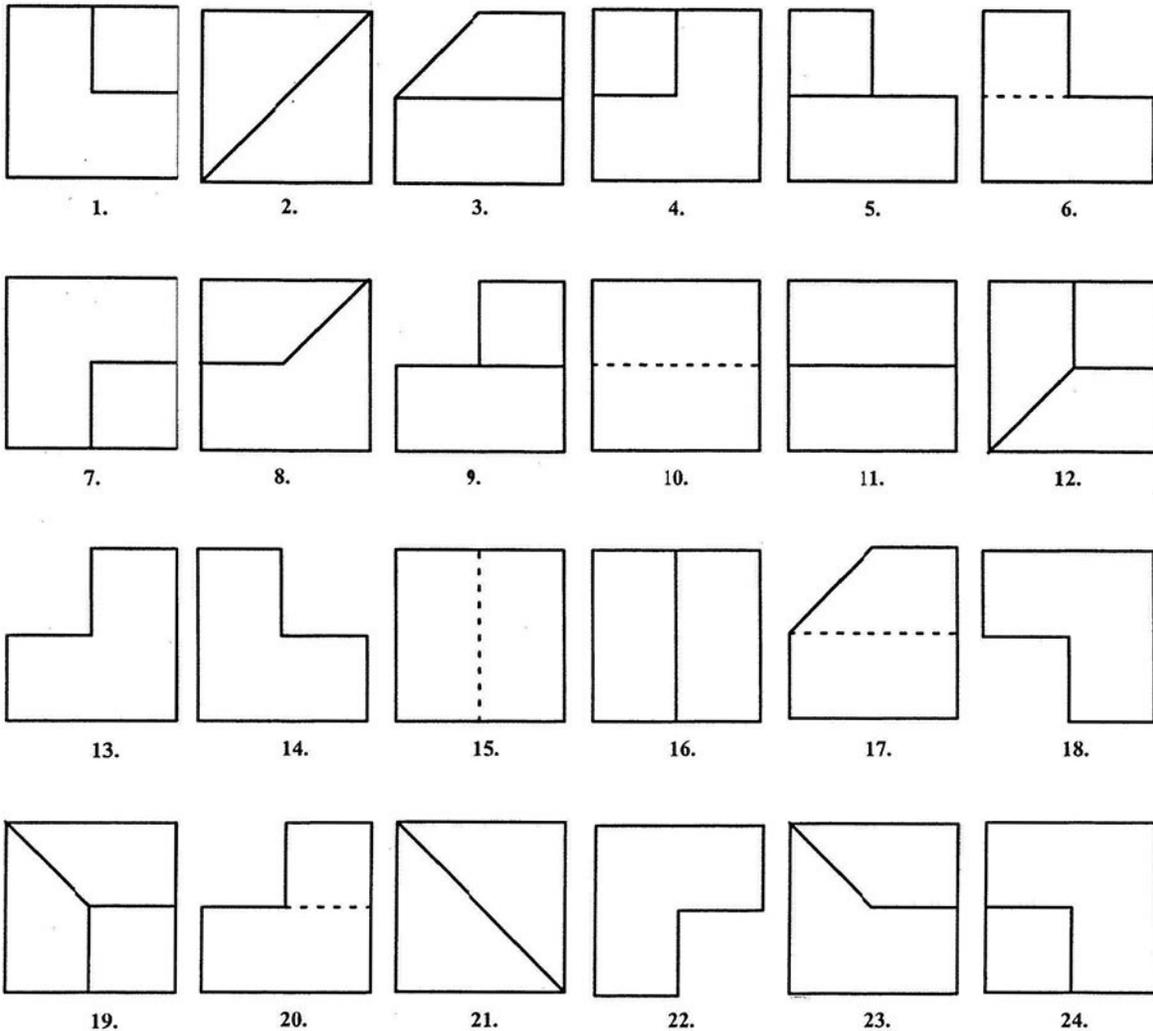


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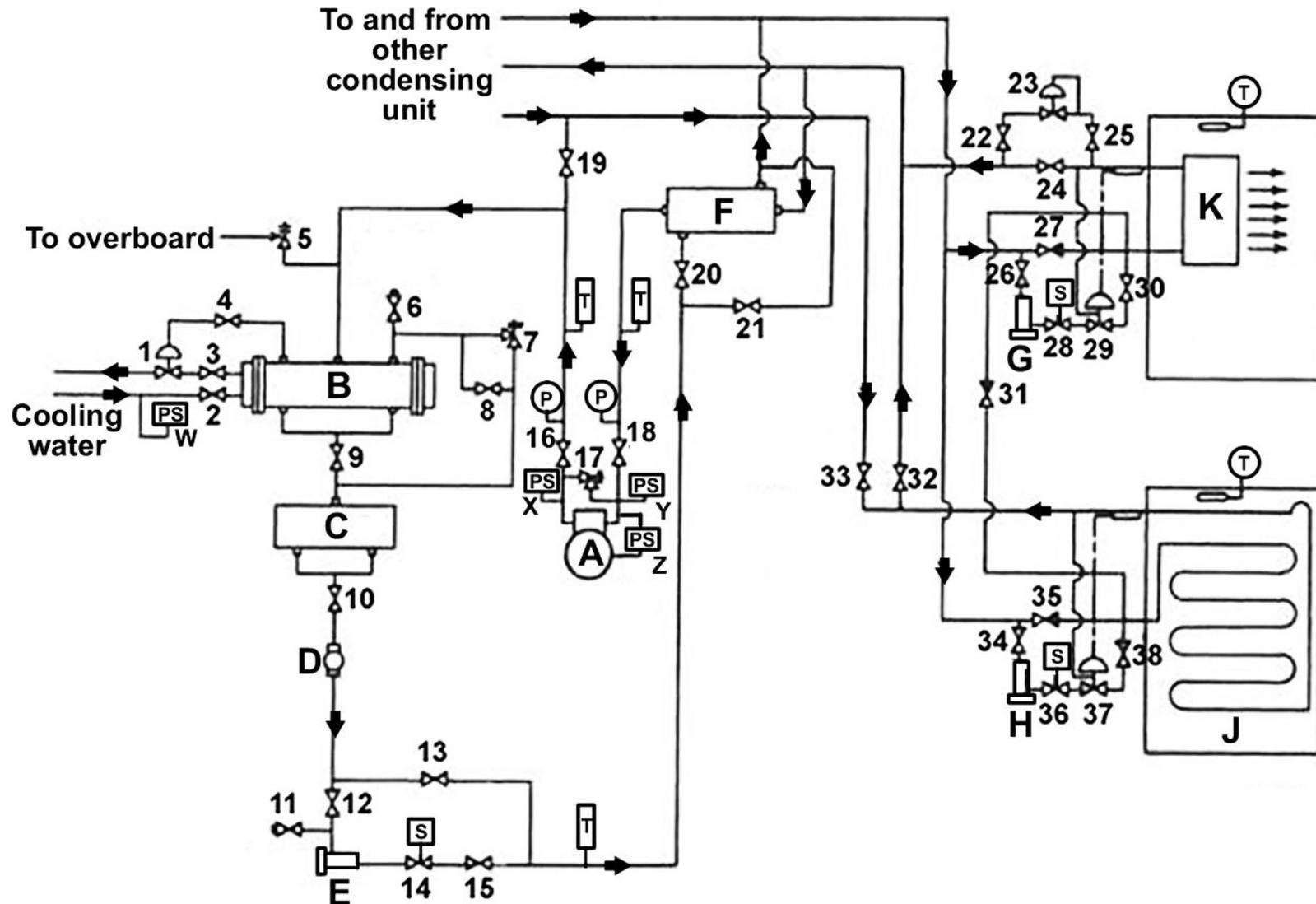
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GS-0165



GS-RA-12



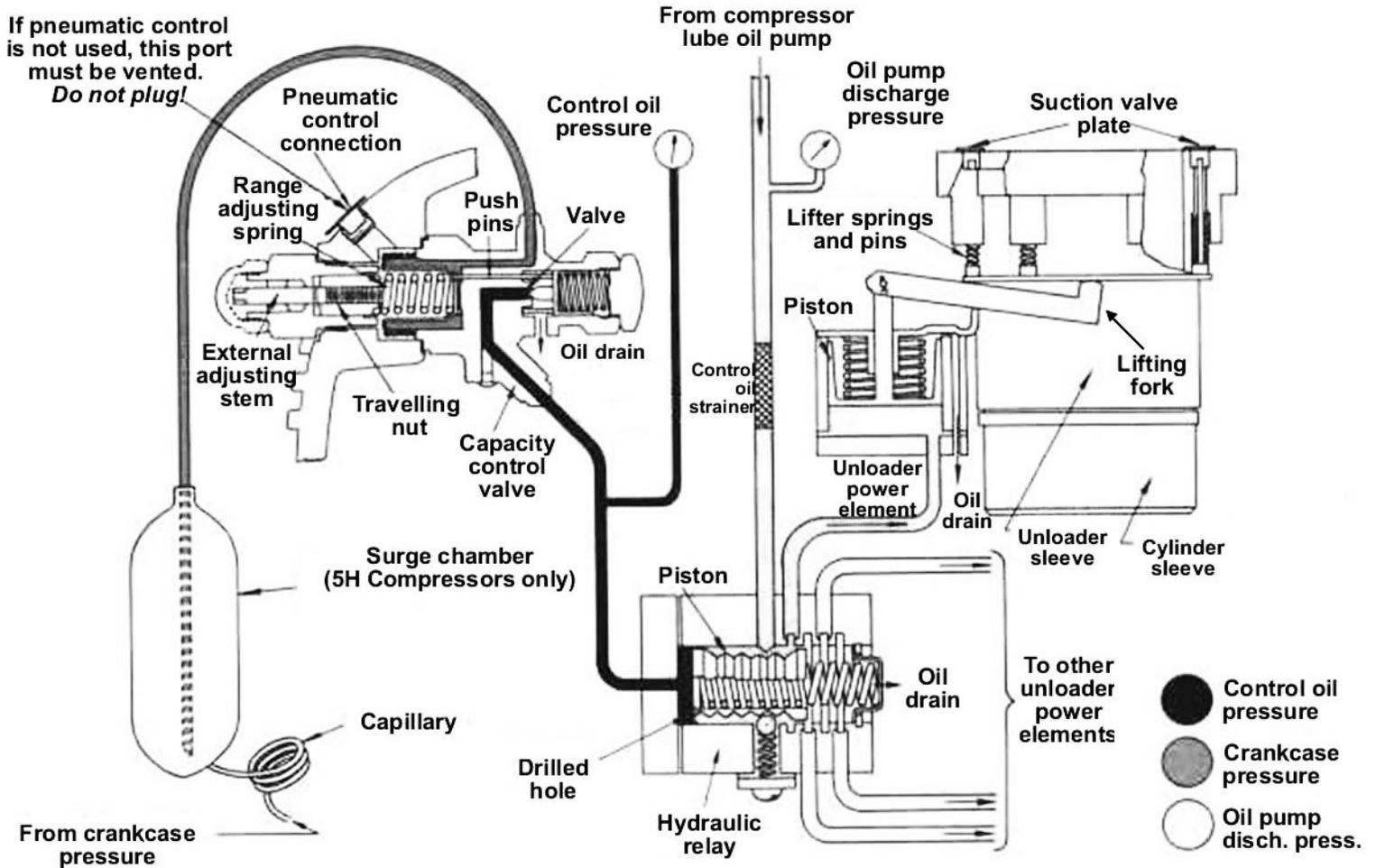
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GS-RA-13

Capacity Control System



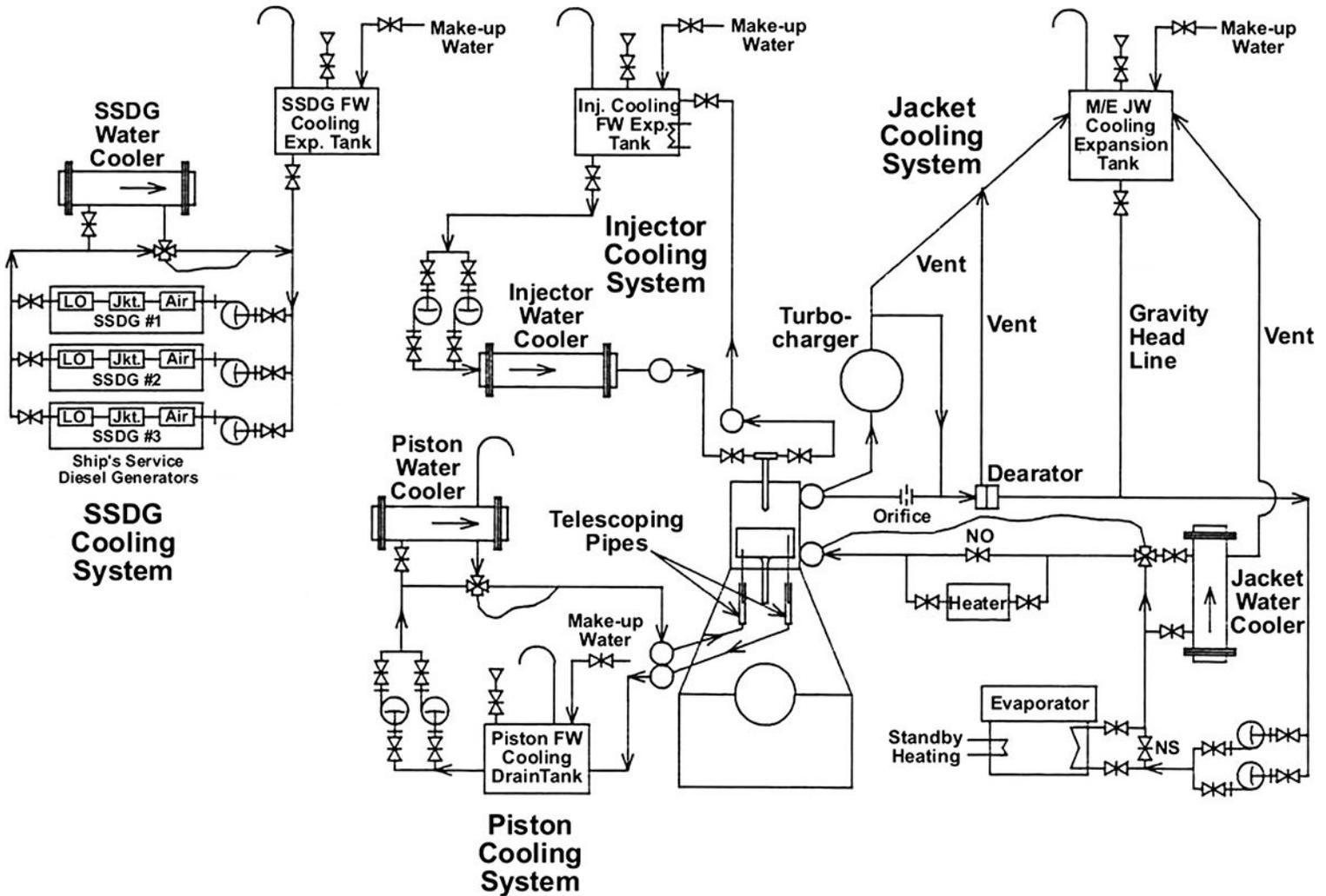
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MP-CW-06

Fresh Water Cooling Systems



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