
Q601 - General Subjects

1. Consider the following training objective for a training session designed for training your crew how to pump bilges: "Using the engine room bilge system of the M/V Underway where a bilge pocket requires pumping out and the automated bilge pumping controls have been disabled, by the end of the training session the participants will be able to pump an engine room bilge pocket dry manually to the bilge water holding tank in conformance with the vessel's engine room bilge pumping procedure checklist. There shall be no violations of the domestic and international pollution prevention regulations." What role does the phrase "where a bilge pocket requires pumping out" serve in the objective statement?

- It states one of the standards of performance to be achieved.
- It specifies the single outcome to be achieved.
- **It specifies a performance input condition.**
- It states a performance by using action words.

Note:
The phrase 'where a bilge pocket requires pumping out' establishes the scenario under which the task is performed, defining a performance input condition rather than a standard, outcome, or action.

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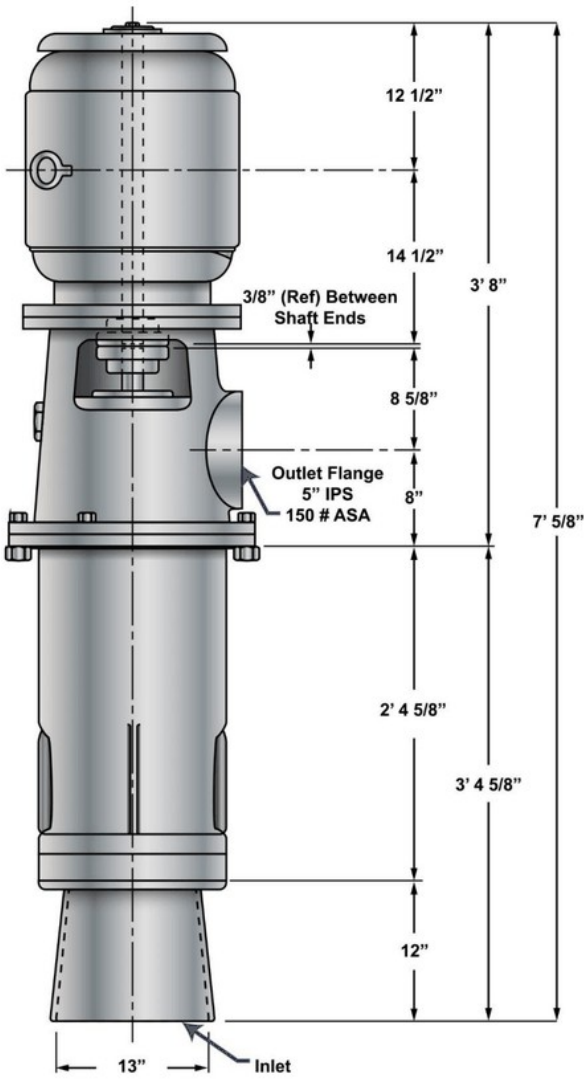
2. What is the distance between the center of the discharge outlet and the top of the motor illustrated

GS-0011



MOTOR CHARACTERISTICS

Motor (A. C.)	Electro Dynamic
Rating H. P.	25
Speed R. P. M. (SYN.)	1200
Frame	365 VY
Type	TN
Volts	440
Cycles	60
Phase	3

PUMP CHARACTERISTICS

Capacity G. P. M.	400
Speed R. P. M.	1150
Suction Lift "HG	10
B, H, P. @ 1200 SSU-75° F	24.9
Oil viscosity Range, SSU	74-7000
Viscosity Normal SSU @ 140° F	155
Discharge Normal PSIG	55
Fluid Handled, Lube Oil	2190 TEP.
Navy Specification	MIL-L-17331
Oil Temperature Range ° F	40-180

Illustration scale: 1" = 1'

- 34 5/8 inches
- 35 inches
- 35 5/8 inches
- **36 inches**

Note:
The correct answer is 36 inches. This distance is determined by summing the labeled vertical segments on the illustration, representing the total vertical distance from the discharge outlet centerline to the top of the motor.

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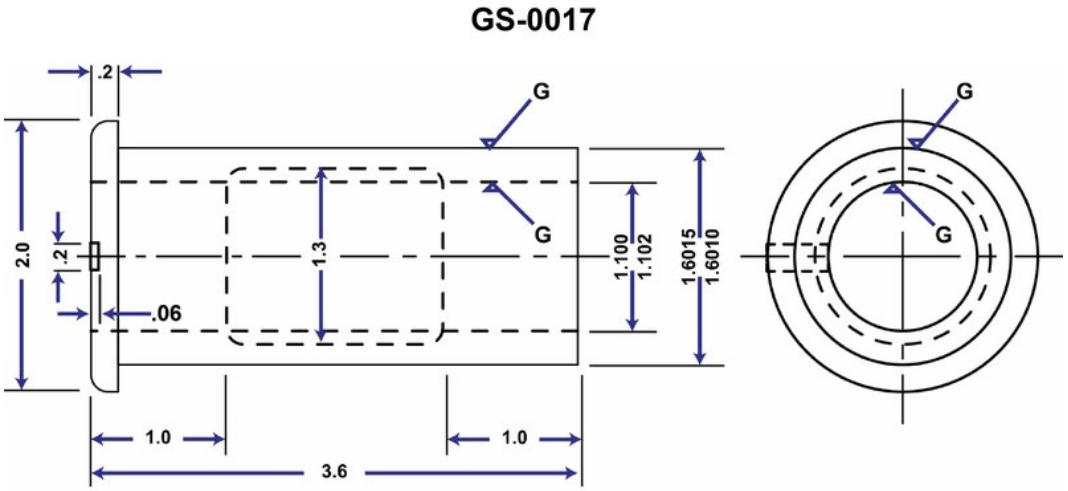
3. Which of the tolerances listed is allowed on the outside diameter of the bushing illustrated



- **0.0005 inch**
- 0.002 inch
- 0.060 inch
- 1.6015 inches

Note:
The correct tolerance for the outside diameter is 0.0005 inch, calculated as the difference between the maximum (1.6015 inch) and minimum (1.6010 inch) limits specified in the drawing.

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4. A pneumatic pressure tank is installed in a sanitary system to _____.

- prevent the sanitary pump from losing suction
- provide a higher pressure in the system than the pump can deliver
- **reduce excessive cycling of the sanitary pump**
- increase water flow through the system

Note:
A pneumatic pressure tank reduces excessive cycling of the sanitary pump by storing pressurized water, allowing the pump to remain off during small demands and extending its lifespan.

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5. The process of grinding, shredding, or reducing the size of sewage particles is known as _____.

- detention
- **maceration**
- bulking
- chlorinating

Note:
Maceration is the process of grinding or shredding sewage particles to reduce their size, facilitating pumping, treatment, or discharge. This process, often performed by a macerator pump in marine sanitation devices, distinguishes it from detention (holding time), bulking (sludge characteristics), and chlorinating (disinfection).

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6. Coast Guard regulations concerning marine sanitation devices may be found in _____.

- **33 CFR Section 159**
- 33 CFR Section 153
- 33 CFR Section 155
- 33 CFR Section 156

Note:
Coast Guard regulations for marine sanitation devices are found in 33 CFR Section 159, which specifically addresses marine sanitation device standards; other sections cover oil and hazardous substance pollution or transfer operations.

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7. Marine sanitation devices installed on vessels must be certified by the _____.

- **U.S. Coast Guard**
- American Bureau of Shipping
- Society of Naval Architects and Marine Engineers
- Environmental Protection Agency

Note:
Marine sanitation devices on U.S. vessels require certification by the U.S. Coast Guard, as mandated by 33 CFR Part 159. The Coast Guard is the designated certifying authority; the EPA sets standards, while ABS and SNAME provide guidance but lack legal certification authority.

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8. In accordance with 33 CFR Subchapter O (Pollution), what is the definition of a "Type I Marine Sanitation Device"?

- A device that produces a fecal coliform bacteria count not greater than 200 per 100 milliliters and suspended solids not greater than 150 milligrams per liter.
- A device that produces a fecal coliform bacteria count not greater than 200 per 100 milliliters and no visible floating solids.
- **A device that produces a fecal coliform bacteria count not greater than 1,000 per 100 milliliters and no visible floating solids.**
- A device that is designed to prevent the overboard discharge of treated or untreated sewage or any waste derived from sewage.

Note:
A Type I Marine Sanitation Device, according to 33 CFR, produces an effluent with a fecal coliform bacteria count not exceeding 1,000 per 100 milliliters and no visible floating solids.

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9. When preparing/writing shipyard items for your vessel's upcoming dry-docking period, what would you consider as an item regarding CuNi saltwater cooling systems/piping?

- **Identify in your item all steel waster piece pipe spools in the CuNi systems and require them to be removed and replaced.**
- This item should be of no concern since you have not experienced system piping degradation/leaks.
- Remove certain designated CuNi piping sections for inspection.
- Replace all bonding pieces/wires between all CuNi system flanges.

Note:
Steel waster pieces in CuNi saltwater systems create galvanic corrosion and should be identified and replaced during dry-dock to ensure system reliability.

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10. A hydraulic fluid flow control circuit, used to control linear actuator speed during retraction, with the pump operating at above maximum pressure, is known as a _____.

- **metered-out circuit**
- bleed-off circuit
- metered-in circuit
- bleed-in circuit

Note:
A metered-out circuit controls actuator retraction speed by restricting fluid flow from the cylinder, a standard method when the pump operates at or above relief pressure, particularly with overrunning loads.