

# Machinist's Mate (MM) "A" School Test 3 Practice (Sample)

## Study Guide



**Everything you need from our exam experts!**

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# Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

**Remember:** successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

# How to Use This Guide

**This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:**

## **1. Start with a Diagnostic Review**

**Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.**

## **2. Study in Short, Focused Sessions**

**Break your study time into manageable blocks (e.g. 30 - 45 minutes). Review a handful of questions, reflect on the explanations.**

## **3. Learn from the Explanations**

**After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.**

## **4. Track Your Progress**

**Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.**

## **5. Simulate the Real Exam**

**Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.**

## **6. Repeat and Review**

**Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.**

**There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!**

## Questions

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- 1. Where are the contents of the Fresh Water Drain Collecting Tanks discharged if transfer pumps are used?**
  - A. The Condensate-Discharge System**
  - B. Fresh Water Drain Tank**
  - C. Main Condenser**
  - D. Boiler Feedwater System**
  
- 2. In condensers operating under vacuum, what is removed by air ejectors or vacuum pumps?**
  - A. Noncondensable gases**
  - B. Condensate**
  - C. Steam**
  - D. Water**
  
- 3. Which statement best describes the relationship between the make-up valve and the unloading valve?**
  - A. They are identical in function**
  - B. They have the same basic configuration and operation**
  - C. They are independent and unrelated**
  - D. They regulate opposite flow directions**
  
- 4. Where can the Restore Casualty checklist be found?**
  - A. Master Casualty Response Procedure (MCRP)**
  - B. Master Casualty Recovery Plan**
  - C. Casualty Response Guide**
  - D. Emergency Response Manual**
  
- 5. Excess gland-sealing steam is unloaded to the LP turbine through which line?**
  - A. Gland seal unloading line**
  - B. Main steam line**
  - C. Bleed line**
  - D. Condensate line**

- 6. Which component is a spring-loaded, diaphragm-operated valve and actuator that requires steam pressure to close?**
- A. Make-up valve**
  - B. Unloading valve**
  - C. Bypass valve**
  - D. Gland seal regulating station**
- 7. What is the temperature and pressure of main steam from the boiler superheater?**
- A. 600 psi and 900°F**
  - B. 450 psi and 800°F**
  - C. 700 psi and 1000°F**
  - D. 500 psi and 850°F**
- 8. Which component has the same basic configuration and operation as the make-up valve?**
- A. Unloading valve**
  - B. Main Gate Valve**
  - C. Check Valve**
  - D. Globe Valve**
- 9. The term DFT is the acronym for which component?**
- A. Deaerating Feed Tank (DFT)**
  - B. Distilled Feed Tank**
  - C. Dirty Feed Tank**
  - D. Dry Fuel Tank**
- 10. The component that houses the level controls for feedwater makeup and the drum valves is the**
- A. Deaerating Feed Tank (DFT)**
  - B. Main Condenser**
  - C. Distilling Plant**
  - D. Swash Plate Assembly**

## Answers

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1. A
2. A
3. B
4. A
5. A
6. A
7. A
8. A
9. A
10. A

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## **Explanations**

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**1. Where are the contents of the Fresh Water Drain Collecting Tanks discharged if transfer pumps are used?**

**A. The Condensate-Discharge System**

**B. Fresh Water Drain Tank**

**C. Main Condenser**

**D. Boiler Feedwater System**

Fresh Water Drain Collecting Tanks hold condensate drain water until it can be processed. When transfer pumps are used, they move that liquid into the condensate-discharge system. That system is the designated path for this drain water and condensate, routing it onward for reuse in the plant's condensate/boiler feedwater loop or discharging as required by operating conditions. The other destinations aren't the discharge path for this drain contents—the fresh water drain tank is the holder, the main condenser is where condensate is collected and condensed, and the boiler feedwater system is the reuse path, not the discharge route for these drains.

**2. In condensers operating under vacuum, what is removed by air ejectors or vacuum pumps?**

**A. Noncondensable gases**

**B. Condensate**

**C. Steam**

**D. Water**

In a vacuum condenser, the goal is to keep the pressure as low as possible so steam will condense efficiently. Noncondensable gases—like air or other gases that do not condense at the condenser's operating temperature—fill the system and form a gas layer at the heat transfer surface. That gas layer raises the effective resistance to heat transfer and makes it harder to maintain the vacuum, reducing condensation efficiency. Air ejectors or vacuum pumps are used to remove these noncondensable gases from the condenser. By continuously pulling them out, the vacuum is maintained and heat transfer remains effective, allowing steam to condense more readily. The condensate and water are the liquid byproducts of the condensation process and are handled separately (drained from the hotwell or condensate return system). The ejector's job is specifically to remove the noncondensable gases, not the condensate.

**3. Which statement best describes the relationship between the make-up valve and the unloading valve?**

- A. They are identical in function
- B. They have the same basic configuration and operation**
- C. They are independent and unrelated
- D. They regulate opposite flow directions

Both valves use the same basic way of controlling pressure in a hydraulic system. They are spring-loaded, pressure-sensing devices with a valve element that shifts to open or close a flow path as the system pressure changes. The makeup valve responds to low pressure by opening to admit fluid and bring the system back up to the set pressure, while the unloading valve responds to high pressure by opening a path to bypass or release flow, keeping the pressure from rising further. Because they rely on the same arrangement—a control port, a spring, and a movable valve element—they share the same configuration and how they operate, even though their jobs in the system differ. The other statements miss that shared design aspect or imply separation of function in ways that aren't accurate.

**4. Where can the Restore Casualty checklist be found?**

- A. Master Casualty Response Procedure (MCRP)**
- B. Master Casualty Recovery Plan
- C. Casualty Response Guide
- D. Emergency Response Manual

The Restore Casualty checklist lives in the Master Casualty Response Procedure. This document is the authoritative, standardized reference for casualty control and restoration, so it includes the Restore Casualty checklist as part of the procedures you follow to bring systems back online after a casualty. The other documents listed don't serve as the official home for this specific checklist—they either refer to broader recovery plans or general guides, not the standardized casualty response framework used for quick, organized restoration.

**5. Excess gland-sealing steam is unloaded to the LP turbine through which line?**

- A. Gland seal unloading line**
- B. Main steam line
- C. Bleed line
- D. Condensate line

Gland seal systems use a controlled flow of steam to keep the turbine shaft packing sealed and prevent oil leakage. Any steam that isn't needed for sealing must be removed from the gland area to prevent overpressure and waste. That excess is carried away by the gland seal unloading line and directed into the low-pressure (LP) turbine section, where it can still be utilized or vented appropriately. The other lines serve different roles: the main steam line feeds the turbine, the bleed line taps steam for other components, and the condensate line returns condensed steam. But for removing excess gland sealing steam, the dedicated gland seal unloading line is used.

**6. Which component is a spring-loaded, diaphragm-operated valve and actuator that requires steam pressure to close?**

- A. Make-up valve**
- B. Unloading valve**
- C. Bypass valve**
- D. Gland seal regulating station**

This type of valve is designed to admit makeup water to the boiler and is controlled by a diaphragm actuator that is driven by steam pressure. The spring provides the opening force, so without steam pressure the valve tends to stay open to allow makeup water flow. When steam pressure is applied to the actuator, it presses on the diaphragm and closes the valve, stopping makeup water. This arrangement lets the system automatically regulate makeup based on steam control signals: as soon as enough water is present (steam pressure applied), the valve closes; when makeup is needed, steam pressure is reduced and the valve opens to let water in. Other components don't fit this specific actuator arrangement—unloading valves, bypass valves, and gland seal regulating stations serve different purposes and aren't spring-loaded diaphragm valves that rely on steam pressure to close.

**7. What is the temperature and pressure of main steam from the boiler superheater?**

- A. 600 psi and 900°F**
- B. 450 psi and 800°F**
- C. 700 psi and 1000°F**
- D. 500 psi and 850°F**

Main steam from the boiler superheater is dry, superheated steam at high pressure, designed to drive the turbine efficiently. The superheater raises the steam temperature above its saturation point at the boiler pressure, keeping moisture content very low. In typical naval boiler practice used in MM A School material, a common main-steam condition after the superheater is around 600 psi with about 900°F. This pairing ensures the steam has enough energy (high temperature) while staying at a pressure suitable for the turbine system. The other options mix pressures or temperatures that would either be too low to be considered main, not sufficiently superheated for efficient turbine operation, or outside the usual design range, making them less appropriate for main steam.

**8. Which component has the same basic configuration and operation as the make-up valve?**

- A. Unloading valve**
- B. Main Gate Valve**
- C. Check Valve**
- D. Globe Valve**

Make-up and unloading valves share a simple, spring-loaded, poppet-style arrangement with a seat. They're normally closed and open to admit fluid when the system needs makeup, then reseal to maintain pressure. That basic setup—a valve that opens under a pressure differential to add fluid to keep the system at the right level—is why the unloading valve is the best match for the make-up valve. The other valves serve different roles and have different configurations. A main gate valve uses a sliding gate to block or allow flow and isn't meant for automatic makeup. A check valve is designed to permit flow in one direction only and prevent backflow. A globe valve provides throttling control with a plug moving toward a seat, mainly for regulating flow, not for makeup.

**9. The term DFT is the acronym for which component?**

- A. Deaerating Feed Tank (DFT)**
- B. Distilled Feed Tank**
- C. Dirty Feed Tank**
- D. Dry Fuel Tank**

Deaerating Feed Tank is what DFT stands for. This tank is part of the boiler feed system and its job is to remove dissolved gases from the feedwater, especially oxygen, which helps prevent corrosion in the boiler and its piping. It also acts as a small reservoir to provide a steady supply of feedwater to the boiler, often after going through heating stages to improve efficiency. The other terms don't describe this component: a distilled feed tank would imply distillation of water, a dirty feed tank suggests contaminated water, and a dry fuel tank is part of the fuel system, not the feedwater system. So this is the correct designation.

**10. The component that houses the level controls for feedwater makeup and the drum valves is the**

- A. Deaerating Feed Tank (DFT)**
- B. Main Condenser**
- C. Distilling Plant**
- D. Swash Plate Assembly**

The Deaerating Feed Tank does this. It serves as the central point where condensate and makeup water are managed before entering the boiler. The tank is equipped with level controls that regulate how much makeup water is added and control the valves that route feedwater into the boiler or drum. Keeping the tank level in a proper range ensures a steady, deaerated feedwater supply to the boiler and stable drum pressure/level control. The other components have different primary roles: the main condenser handles exhaust steam condensation, the distilling plant produces potable water, and the swash plate assembly is part of a different subsystem.

## Next Steps

**Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.**

**As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.**

**If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at [hello@examzify.com](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://mmaschool3.examzify.com>**

**We wish you the very best on your exam journey. You've got this!**

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