

**2019 Competition**  
**Heavy Equipment Technology (#49)**

**Drive-Train Systems** (4 of 6)  
**TASK**

Competitor number \_\_\_\_\_ Start time \_\_\_\_\_

Judge's name \_\_\_\_\_ Finish time \_\_\_\_\_

**Competition Overview**

**Time limit:** 2 hours

**Equipment:** Meritor drive axle

**Number of tasks:** 2

Task 1: Remove a drive-axle assembly from the axle housing.

**Value 50%**

Task 2: Install another drive-axle assembly into the axle housing.

**Value 50%**

**General Instructions:**

The judge has all the materials you will need.

If you are unsure about any procedure, you may ask your judge for clarification.  
Marks may be deducted if the judge decides you should know the procedure.

Before you start, you must go through the following Hazard Assessment with your judge so that you will be able to work safely.

## Hazard Assessment:

This Hazard Assessment is to discuss the following **4 hazards** and the counteractive measures you must take.

**Hazard 1:** Heavy objects may fall off of the bench onto your feet.



- Insure all objects on the workbench will not be accidentally knocked off.
- Keep your work area neat.

**Hazard 2:** Touching lubricating fluids may irritate skin.



- Latex gloves and wiping cloths are available.

**Hazard 3:** Sharp edges from the parts can cut skin.



- Keep hands clear of sharp edges.

**Hazard 4:** Lifting heavy components can injure your back.



- A portable lifting crane will be available to lift heavy items.
- The judge will be available to help lift items if necessary.



Ask  
Information

*If you do not quite understand or are unsure about the hazards, please ask your judge for assistance.*

*No marks will be deducted for asking about hazards.*

I have read this hazard assessment and the judge has explained it to me.

I understand the hazards and I will take precautions to avoid them.

**Competitor's name** \_\_\_\_\_

**Judge's name** \_\_\_\_\_

**Date** \_\_\_\_\_

**Evaluation:**

Number of marks possible: **18.0**

Skills evaluated					Total
	Task 1	Task 2			
a. Use of safety equipment & safe and clean workspace					
b. Use and interpretation of service manuals & schematic diagrams					
c. Logical order of repair					
d. Proper use of tools					
e. Precise adjustment of components					
f. Accurate measurements					
g. Superior Workmanship (Documentation)					
h. Identification of faults, codes, or components					



Ask  
Information

*If you cannot proceed with a task, ask your judge for assistance.*

**Task 1 of 2: Remove a drive-axle assembly from the axle housing.**

**Value 50 %**

Follow the manufacturer's procedures too safely, appropriately, and accurately:

1. Remove a drive-axle assembly from the axle housing.
2. In point form; briefly record your findings or components that were out of specifications.

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Ask  
Information

*If you cannot proceed with a task, ask your judge for assistance.*

**Task 2 of 2: Install another drive-axle assembly into the axle housing.**

**Value 50 %**

Follow the manufacturer's procedures too safely, appropriately, and accurately:

1. Install another drive-axle assembly into the axle housing.
2. In point form; briefly record your findings or components that were out of specifications.

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Ask  
Information

*If you cannot proceed with a task, ask your judge for assistance.*

## Congratulations!

You have completed the required tasks.

Once you have completed this topic you must clean up your workstation and return any tools/materials.

Use the space below for comments.

Return this competition form to your judge for evaluation.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.