

## CDX Tasksheet Number: MHT2B009

### Student/Intern Information

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

### Vehicle, Customer, and Service Information

Vehicle used for this activity:

Year \_\_\_\_\_ Make \_\_\_\_\_ Model \_\_\_\_\_

Odometer \_\_\_\_\_ VIN \_\_\_\_\_

### Materials Required

- Vehicle with possible clutch concern
- Vehicle manufacturer's repair information
- Manufacturer-specific tools depending on the concern/procedure(s)

### Task-Specific Safety Considerations

- Activities may require test-driving the vehicle on the school grounds or on a hoist, both of which carry severe risks. Attempt this task only with full permission from your supervisor/instructor, and follow all the guidelines exactly.
- Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with federal, state, and local regulations.
- Always wear the correct protective eyewear and clothing and use the appropriate safety equipment, as well as fender covers, seat protectors, and floor mat protectors.
- Make sure you understand and observe all legislative and personal safety procedures when carrying out practical assignments. If you are unsure of what these are, ask your supervisor/instructor.
- While working on the vehicle, wheel chocks must be placed on both sides of one set of tires or as directed by your supervisor/instructor.
- Exhaust evacuation hoses must be placed over exhaust outlets while the engine is used in the confined shop space.

► **TASK** Inspect and/or replace the pilot bearing.

**MTST**  
II.B.9; P1

**Student Instructions:** Read through the entire procedure prior to starting. Prepare your workspace and any tools or parts that may be needed to complete the task. When directed by your supervisor/instructor, begin the procedure to complete the task and check the box as each step is finished.

Time off \_\_\_\_\_

Time on \_\_\_\_\_

Total time \_\_\_\_\_

Procedure:	Step Completed
(Note: This task is performed to maintain correct alignment of the transmission input shaft. To inspect or replace the pilot bearing/bushing, the transmission must be removed along with the clutch assembly.)	
1. Inspect the pilot bearing for a lack of lubrication; turn it by hand and feel it for roughness (there are two types of bearings: roller or ball).	<input type="checkbox"/>
a. Meets the manufacturer's specifications: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
b. If no, list your recommendations for rectification:	<input type="checkbox"/>
2. If it is a brass or bronze bushing, check for wear by inserting a clutch alignment tool or old transmission input shaft; look for play or wobble. If the clutch system is to be replaced, always replace the pilot bearing/bushing.	<input type="checkbox"/>
a. Meets the manufacturer's specifications: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
b. If no, list your recommendations for rectification:	<input type="checkbox"/>
3. To replace the bearing/bushing, insert a pilot-bearing puller and draw it out of its bore.	<input type="checkbox"/>
4. Inspect the bore for out of round by using a dial indicator or inside micrometer to make sure it is within specifications (this will ensure the bore will accept and maintain a tight fit of the new bearing/bushing).	<input type="checkbox"/>
a. Meets the manufacturer's specifications: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
b. If no, list your recommendations for rectification:	<input type="checkbox"/>
5. To install the new bearing/bushing, use the appropriate driver or installer to make sure it is seated correctly.	<input type="checkbox"/>

6. Return the vehicle to its beginning condition, and return any tools you used to their proper locations.	<input type="checkbox"/>
7. Discuss your findings with your supervisor/instructor.	<input type="checkbox"/>

Non-Task-Specific Evaluations	Step Completed
1. Tools and equipment were used as directed and returned in good working order.	<input type="checkbox"/>
2. Complied with all general and task-specific safety standards, including proper use of any personal protection equipment (PPE).	<input type="checkbox"/>
3. Completed the task in an appropriate time frame (recommendation: 1.5 or 2 times the flat rate).	<input type="checkbox"/>
4. Left the workspace clean and orderly.	<input type="checkbox"/>
5. Cared for customer property and returned it undamaged.	<input type="checkbox"/>

Student signature \_\_\_\_\_ Date \_\_\_\_\_

**Comments:**

Have your supervisor/instructor verify satisfactory completion of this procedure, any observations made, and any necessary action(s) recommended.

**Evaluation Instructions:** The scoring box below is intended to act as a guide for both student and supervisor/instructor. Each criterion listed will help students to understand what is expected of them and help supervisors/instructors to articulate the level of success at a particular task. The scoring is set up to allow a second attempt at each task (see the Test and Retest columns). Scoring is also designed only to award students points for task criteria that were completed correctly. Points are lost for failure to complete the employability requirements (see Non-Task-Specific Evaluation criteria). When all criteria are evaluated, tally the points for a total at the bottom of each column.

## Tasksheet Scoring

	Test		Retest	
Evaluation Items	Pass	Fail	Pass	Fail
Task-Specific Evaluation	(1 pt)	(0 pts)	(1 pt)	(0 pts)
Student detailed the 3 Cs on the submitted repair order.				
Student used the manufacturer's repair information.				
Student performed the diagnostic measurements properly and made appropriate conclusions.				
Student completed repairs as directed by the supervisor/instructor.				
Non-Task-Specific Evaluation	(0 pts)	(-1 pt)	(0 pts)	(-1 pt)
Student successfully completed at least three of the non-task-specific steps.				
Student successfully completed all five of the non-task-specific steps.				
<b>Total Score:</b> <total # of points /4 = %>				

### Supervisor/Instructor:

Supervisor/instructor signature \_\_\_\_\_ Date \_\_\_\_\_

### Comments:

Retest supervisor/instructor signature \_\_\_\_\_ Date \_\_\_\_\_

### Comments: