



## **WORKSHEET 3-1**

### ***Rear-Drive Transmission—Case Removal and Component Identification***

Vehicle:	Year/Prod. Date:	Engine	Transmission:
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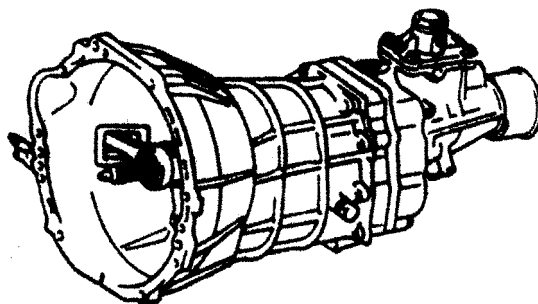
### **Worksheet Objectives**

With this worksheet, you will follow the disassembly of a rear-drive transmission using the required special tools, make measurements where appropriate, retrieve and apply the needed service information, retrieve and interpret service specification information from the repair manual.

### **Tools and Equipment**

- Vehicle Repair Manual
- Hand Tool Set
- Owner's Manual or Access to TIS

### **Section 1: Case Removal**



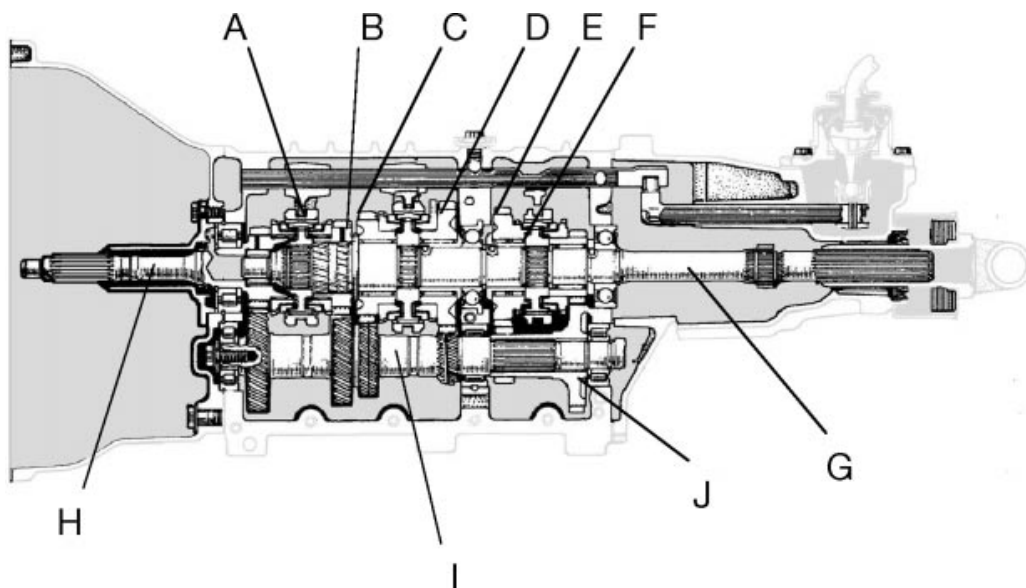
1. Remove speed sensor and back-up light switch to prevent damage.
2. Remove the front bearing retainer and the rear extension housing from the intermediate plate.
3. What part/s must be removed from the front bearings before the transmission case is separated from the intermediate plate?  
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4. What part/s should be removed before the extension housing can be separated from the intermediate housing?  
\_\_\_\_\_
5. Remove the clutch housing/transmission case from the intermediate plate.

## Section 2: Intermediate Plate and Gear Shaft Mounting

1. To prevent damage to the intermediate plate's sealing surface, use two clutch housing bolts, plate washers and nuts. Install the bolts into the holes of the intermediate plate, and clamp the bolts in a bench vice.
2. What precaution does the repair manual recommend regarding the bolt threaded end prior to clamping them.

## Section 3: Component Identification

Identify each lettered component in the space provided below the transmission illustration by placing the letter of the component in front of the component name.



\_\_\_\_\_ 1. Input shaft

\_\_\_\_\_ 2. Counter gear

\_\_\_\_\_ 3. Output shaft

\_\_\_\_\_ 4. 1st gear

\_\_\_\_\_ 5. 2nd gear

\_\_\_\_\_ 6. 3rd gear

\_\_\_\_\_ 7. 5th gear

\_\_\_\_\_ 8. Reverse gear

\_\_\_\_\_ 9. 5th/Reverse Synchronizer

\_\_\_\_\_ 10. 3rd/4th Synchronizer

#### Section 4: Powerflow

1. With the transmission in neutral; rotate the input shaft. What are the speed gears on the output shaft doing?

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2. How are the speed gears engaged to the output shaft?

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3. With the transmission in neutral; hold the input shaft and rotate the output shaft. What are the speed gears on the output shaft doing?

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4. How are the speed gears on the output shaft lubricated when the vehicle is being towed with the rear wheels on the ground? (Dingy tow)

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5. What does the owner's manual recommend about dingy towing a rear wheel drive vehicle with manual transmission?

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Trace the power flow from the input shaft through the transmissions to the output shaft. Be prepared to demonstrate powerflow to your instructor.

Instructor's Initials: \_\_\_\_\_

6. How is 4th gear power flow different than the power flow in other forward gears.

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7. Describe how the output shaft's direction of rotation changes from the input shaft's rotation in reverse gear.

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Instructor's Initials: \_\_\_\_\_



## Notes

# Rear-Drive Transmission— Case Removal & Component Identification

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Review this sheet as you are doing the Rear-Drive Transmission—Case Removal & Component Identification worksheet. Check each category after viewing the instructor's presentation and completing the worksheet. Ask the instructor if you have questions regarding the topics provided below. Additional space is provided under Topic for you to list any other concerns that you would like your instructor to address. The comments section is provided for your personal comments, information, questions, etc.

I have questions

I know I can

## Topic

## Comment

Locate the model specific disassembly procedure in the repair manual.			
Mount the intermediate plate to prevent damage to sealing surfaces.			
Identify all gears in the transmission.			
Identify all synchronizers in the transmission.			
Explain how speed gears are connected to the output shaft.			
Trace powerflow through all gears.			
Describe transmission lubrication when the vehicle is dingly towed.			
Can find the towing recommendation in the owner's manual.			



## Notes