



## **WORKSHEET 3-4**

### **Rear-Drive Transmission—Reassembly**

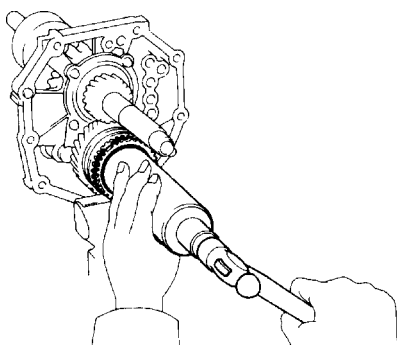
Vehicle:	Year/Prod. Date:	Engine	Transmission:
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### **Worksheet Objectives**

With this worksheet and the repair manual, you will follow the reassembly 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
- 5th Gear Puller Set SST (P/N 00002-00907-01)
- Bearing Replacer Set SST (P/N 09316-60011)
- Hand Tool Set
- Dial indicator and stand
- Micrometer, 0-1 in.
- Feeler Gauge set
- Magnet



### **Section 1: Reassemble Output Shaft**

1. Install 3rd gear and the 3-4 synchronizer (No. 2 hub and sleeve) on the output shaft.
2. What feature of the 3-4 synchronizer would face the front of the transmission?

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3. What is the 3rd gear thrust clearance measurement and maximum clearance specification?

Measurement: \_\_\_\_\_

Specification: \_\_\_\_\_

4. Install 2nd gear and 1-2 synchronizer assembly/reverse gear on the output shaft
5. What do you have to align when installing second gear and 1-2 synchronizer assembly/reverse gear?

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6. Install first gear and the output shaft center bearing on the output shaft.
7. Does the center bearing have to be installed in a particular direction?

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8. What is the 2nd gear thrust clearance measurement and maximum clearance specification?

Measurement: \_\_\_\_\_

Specification: \_\_\_\_\_

9. What is the 1st gear thrust clearance measurement and maximum clearance specification?

Measurement: \_\_\_\_\_

Specification: \_\_\_\_\_

10. R150 - Install the output shaft center bearing and 5th gear.

## **Section 2: Assemble countershaft and output shaft into the intermediate plate**

1. Install the input shaft over the pocket bearing of the output shaft and hold the countershaft against the output shaft and install them into the intermediate plate. (The countershaft can be installed after the output shaft is mounted by placing the rear bearing in the shaft after the countershaft is positioned in the intermediate plate)
2. Install snap rings.
3. Install the bearing retainer.
4. Rotate shafts and check for binding.
5. Install the 5th gear and 5th gear synchronizer assembly (no.5 hub and sleeve) onto the countershaft.
6. W59 - Install reverse gear, and 5th gear onto the output shaft.

### Section 3: Install shift assembly

1. Install the shift forks, shift shafts and interlock pins.
2. Install the detent balls and screw plugs.
3. Rotate shafts and check for binding.
4. What is used to seal the threads of the screw plugs?

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5. Engage each of the gears and ensure that only one gear can be engaged at one time.
  6. Using the shift shaft head, engage and disengage reverse gear.
  7. What part on shift fork shaft No. 3 (5th & reverse) causes the reverse shift fork to engage reverse gear?

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8. What part in the reverse shift fork causes it to disengage reverse gear?
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### Section 4: Install extension housing and clutch housing/transmission case

1. Check that 4th gear synchronizer ring is indexed to synchronizer keys as transmission case and front bearing retainer are installed.
2. Referring to the repair manual, how is the FIPG applied to the mating surfaces of the transmission case, front bearing retainer and extension housing and why?

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3. What is used to seal the threads of the front bearing retainer bolts?
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4. Install the Clutch Housing
5. Rotate shafts and check for binding.
6. Using gearshift lever, shift the transmission through each gear.

Instructor Initials \_\_\_\_\_



## Notes

# Rear-Drive Transmission—Reassembly

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

Review this sheet as you are doing the Rear-Drive Transmission—Reassembly 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

Describe the features that determine how a component is placed on the output shaft.			
Explain the importance of output shaft gear thrust clearance check.			
Explain the importance of shaft rotation when installed in the intermediate plate.			
Install the locking balls, detent pins shift forks and the shift shafts.			
Explain the application of FIPG sealants.			
Explain the importance of shifting through all the gears when the transmission case is assembled.			



## Notes