

# Automotive Technology 6<sup>th</sup> Edition

## Chapter 129 – Drive Shaft and CV Joint Service

### Lesson Plan



#### **CHAPTER SUMMARY:**

1. U-joint diagnosis, driveshaft and U-joint inspection, and U-joint replacement
  2. U-joint working angles, CV joint diagnosis, replacement shaft assemblies, and CV joint service
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#### **OBJECTIVES:**

1. Explain how to diagnose and inspect a U-joint.
  2. List the steps necessary to replace a U-joint.
  3. Explain how to perform a measurement of the working angles of a U-joint.
  4. Diagnose problems with CV joints and describe the service procedures for replacing CV joints.
  5. This chapter will help prepare for Suspension and Steering (A4) ASE certification test content area “C” (Related Suspension and Steering Service).
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**RESOURCES:** (All resources may be found at <http://www.jameshalderman.com>)

1. **Task Sheet ASE (A3-E-3.2) P-1, (A3-E-3.3) P-2, (A3-E-3.4) P-2, (A3-E-3.5) P-2:** U-Joint and CV Joint Service
  2. **Task Sheet ASE (A3-E-3.2) P-2, (A3-D-4) P-1:** Drive Axle Shaft Service
  3. **Task Sheet ASE (A3-E-3.1) P-1:** Drive Axle Shaft Wheel Studs
  4. Chapter PowerPoint
  5. Chapter Crossword Puzzle and Word Search
  6. Videos: See list at the end of the lesson plan.
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#### **ACTIVITIES:**

1. **Task Sheet ASE (A3-E-3.2) P-1, (A3-E-3.3) P-2, (A3-E-3.4) P-2, (A3-E-3.5) P-2:** Have students complete U-Joint and CV Joint Service Task Sheet.
  2. **Task Sheet ASE (A3-E-3.2) P-2, (A3-D-4) P-1:** Have students complete Drive Axle Shaft Service Task Sheet.
  3. **Task Sheet ASE (A3-E-3.1) P-1:** Have students complete Drive Axle Shaft Wheel Studs Task Sheet.
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#### **ASSIGNMENTS:**

1. Chapter crossword and word search puzzles.
  2. Complete end of chapter 10 question quiz.
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#### **CLASS DISCUSSION:**

1. Review and group discussion chapter [Frequently Asked Questions](#) and [Tech Tips](#) sections.
  2. Review and group discussion of the five (5) chapter [Review Questions](#).
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#### **NOTES AND EVALUATION:**

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**Videos:** (at <http://www.jameshalderman.com>)

How to replace a FWD axle shaft (time 14:26)  
How to replace CV boots (time 19:32)  
How to replace a CV joint (time 1:21)  
How to rebuild CV joint part 1 (time 9:17)  
How to rebuild CV joint part 2 (time 9:46)  
CV axle diagnosis (time 9:40)  
Driveshaft runout (time 1:24)  
Driveshaft angles (time 8:35)  
Driveshaft alignment (time 1:27)  
Drive shaft support bearing (time 17:33)  
Driveshaft balance (time 1:15)  
U-joint replacement (time 6:25)  
Driveshaft removal (time 3:21)  
Front driveshaft (time 1:25)  
Driveshaft R and R (time 11:06)  
Driveshaft R and R (time 0:59)  
Drive shaft and U-joints (time 10:18)  
Drive shaft and U-joints (time 3:02)  
U-joint replacement (time 2:52)  
U-joint replacement (time 1:17)  
U-joint replacement (time 4:42)  
U-joint replacement (time 3:27)  
Double cardan U-joint (time 0:45)  
Universal joint (time 5:51)  
Universal joint (time 4:41)  
Driveshaft (time 0:16)  
CV axle (time 8:37)  
Replace U joint (time 2:27)  
Axle boot inspection (time 0:55)  
Yordak CV joint (time 0:17)  
U Joint (time 5:06)  
CV Joint (time 0:37)  
Tripoid joint (time 1:38)