

Lower Ball Joint Replacement

BACKGROUND

Previously, if a lower ball joint was worn, you had to replace the knuckle assembly. To reduce repair costs, replacement lower ball joints are now available.

PARTS INFORMATION

Ball Joint: P/N 51220-S5A-305, H/C 7839459

Lock Pin: P/N 90701-SX0-003, H/C 4635033

Spindle Nut: P/N 90305-692-010, H/C 1483627

TOOL INFORMATION

Ball Joint Bore Gauge – T/N 07AAJ-S5AA100

Base Installer Adapter (B) – T/N 07XAF-001030A

Base Remover Adapter (C) – T/N 07GAF-SD4031A

C-Frame Press – OTC P/N 7248

Pilot Adapter (G) – T/N 07XAF-001050A

Remover/Installer Adapter (A) – T/N 07XAF-001010A

Remover/Installer Adapter (H) – T/N 07XAF-001020A

Thread Protector (12 mm) – T/N 07AAF-SDAA100

WARRANTY CLAIM INFORMATION

In warranty: The normal warranty applies.

OP#	Description	FRT	Template ID
414106	Replace both ball joints	1.5	04-079A
416340	Check wheel alignment	0.6	
414107	Replace left ball joint	0.8	04-079B
416340	Check wheel alignment	0.6	
414108	Replace right ball joint	0.8	04-079C
416340	Check wheel alignment	0.6	

Failed Part: P/N 51210-S5A-J20
H/C 7233885

Defect Code: 00503

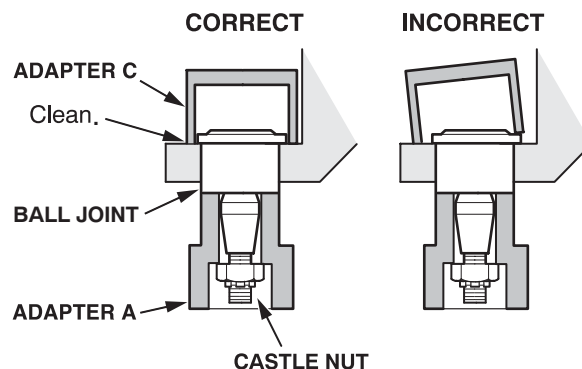
Symptom Code: 07302

Skill Level: Repair Technician

Out of warranty: Any repair performed after warranty expiration may be eligible for goodwill consideration by the District Parts and Service Manager or your Zone Office. You must request consideration, and get a decision, before starting work.

REPAIR PROCEDURE

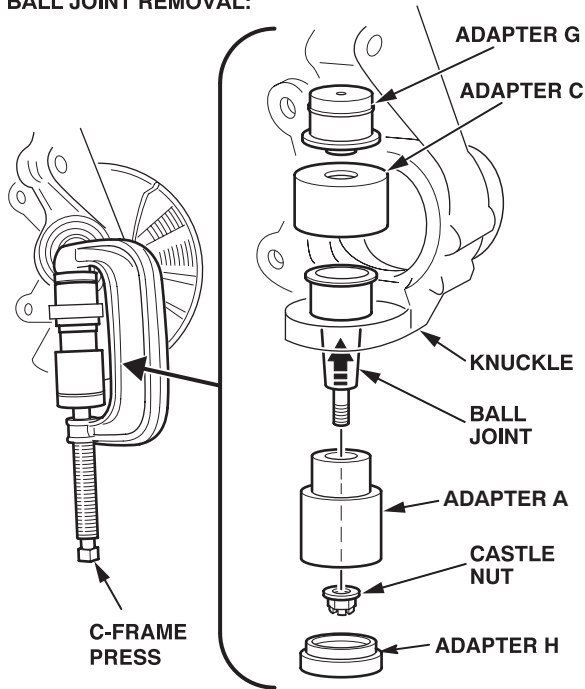
1. Raise the vehicle on a hoist.
2. Check for the letters "OS" on the top of the lower ball joint.
 - If "OS" is not stamped on the ball joint, go to step 3.
 - If "OS" is stamped on the ball joint, the ball joint has already be replaced, and the knuckle is not usable for another ball joint replacement. Replace the knuckle. Replacement knuckles include a new ball joint.
3. Remove the knuckle on the affected side:
 - Refer to page 18-12 of the 2001–05 Civic Service Manual.
 - Enter keyword **KNUCKLE**, and select **Front Knuckle/Hub/Wheel Bearing Replacement** for the appropriate vehicle from the list.
4. Remove the dust boot from the lower ball joint.
5. Clamp the knuckle in a bench vise.
6. Insert pilot adapter G into the C-frame press.
7. Install the remover/installer adapter A over the threaded end of the ball joint, and loosely install the castle nut to the ball joint to hold the adapter in place.



8. Clean the area around the ball joint, then position the base remover adapter C.

9. Position the remover/installer adapter H and the C-frame press.

BALL JOINT REMOVAL:

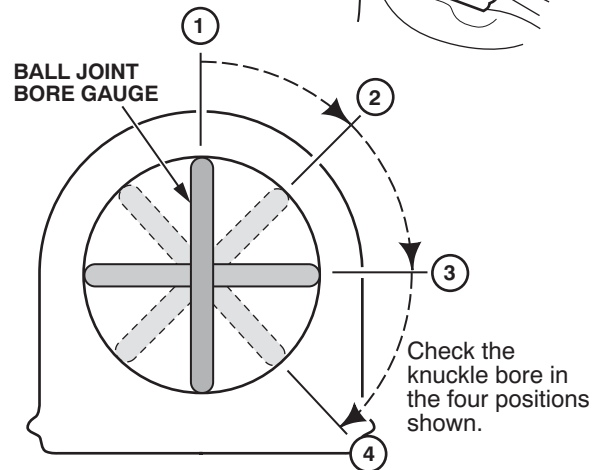
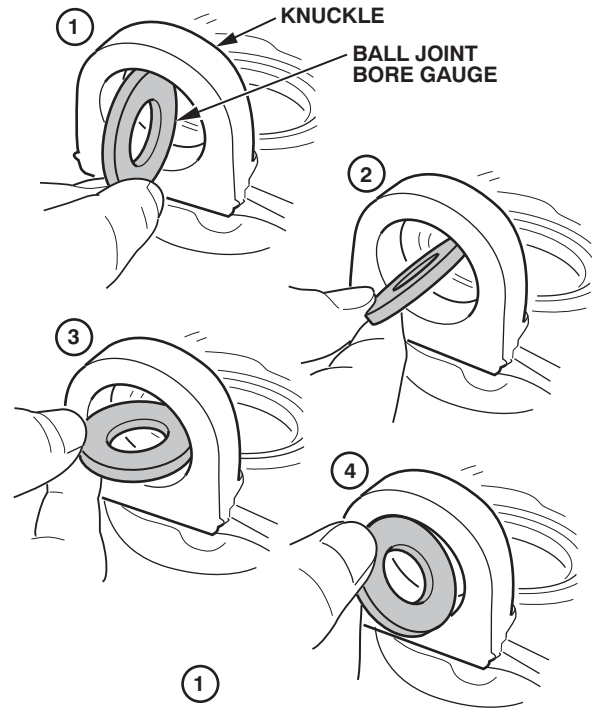


10. Tighten the C-frame press to press the ball joint out of the knuckle.

11. Clean the knuckle bore with brake cleaner.

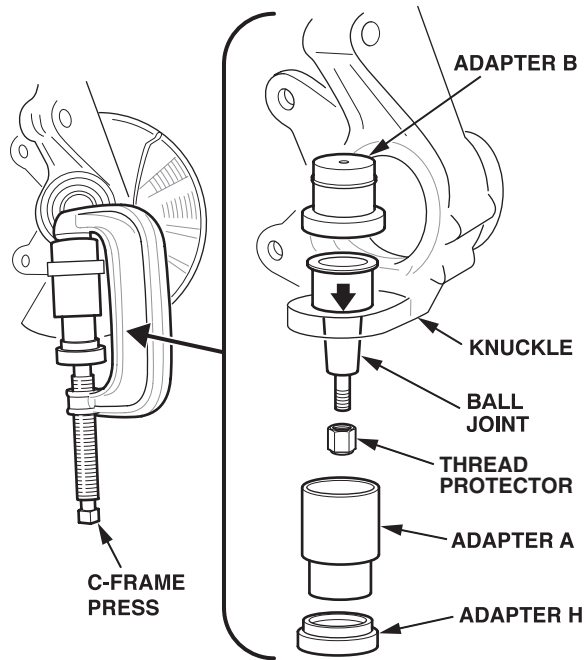
12. Insert the ball joint bore gauge into the knuckle bore in the four positions shown:

- If the bore gauge does not fit through the bore at any point, go to step 13.
- If the bore gauge fits through the knuckle at any point, the knuckle is not usable for ball joint replacement. Replace the knuckle. Replacement knuckles include a new ball joint.



13. Install the new ball joint into the knuckle.
14. Install the thread protector onto the ball joint.
15. Insert the base installer adapter B into the C-frame press.
16. Position adapter A over the ball joint, and position adapter H and the C-frame press.

BALL JOINT INSTALLATION:



17. Tighten the C-frame press to press the ball joint into the knuckle.
18. Install the knuckle in the reverse order of removal, and note these items:
 - Be careful not to damage the ball joint boot when installing the knuckle.
 - Tighten all mounting hardware to the specified torque values.
 - Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the ball joint pin hole. Do not align the nut by loosening it.
 - Install a new lock pin in the castle nut after torquing.
 - Use a new spindle nut.
 - Before installing the new spindle nut, apply a small amount of engine oil to the seating surface of the nut. After tightening, use a drift to stake the spindle nut shoulder against the driveshaft.
 - Before installing the wheel, clean the mating surface of the brake disc and the inside of the wheel.
19. Check the wheel alignment.