PART NOS. 15211, 15212, 15213, 15214, 15215, 15216, 15217 **Instruction Sheet**

BUILDER BALL JOINT SERIES

SPC Builder Ball Joints are designed primarily for use in light truck upper control arm applications. Design, fabrication, and installation of custom control arms should be performed by individuals with the necessary skills and experience to safely apply the use of these parts to a given application.

Plan Ahead - Read All Instructions BEFORE installing part.

1. Weld ball joint housing into your custom control arm application. Several examples are illustrated to the right. For rounds tubes of Ø1.25" or smaller, cope end of tube and weld. For larger round tubes, it may be necessary to form end of tube into an oval before coping and welding. (***See Figure 2***). It is important to weld housing in a way to minimize distortion.

   Note: Only weld onto the upper portion of the housing as shown in *Figure 1*.
2. Paint, powder coat, or otherwise finish control arm after welding to prevent corrosion, but do not coat interior surfaces of ball joint housing. Paint or powder coat on interior may prevent assembly of ball joint due to tight tolerances of components.
3. Install thinner O-ring onto threaded retainer cap and thicker O-ring onto cap.
4. Apply a small amount of grease* to inside of lower race and install into housing with chamfer side down.

   WARNING: Welding can cause distortion in housing. This race should drop in with relative ease. If it has to be pressed in, housing has been deformed and may cause ball joint to fail prematurely if deformation is severe.
5. Apply liberal coating of approved grease* to ball stud and install into housing. Next, install upper race and spring as shown in ***Figure 4.***
6. Torque threaded cap to 50 lb-ft [68 Nm] using **SPC PN 72120** spanner wrench and screw in supplied grease fitting.
7. Install boot and spiral retainer clip into outside housing groove.
8. Grease* ball joint via grease fitting. 5 to 10 pumps from a standard grease gun is sufficient.

   WARNING: FAILURE TO GREASE AND MAINTAIN THIS BALL JOINT MAY RESULT IN PREMATURE FAILURE.

Maintenance:

Lubrication Interval - SPC recommends adding 5 to 10 pumps of grease to ball joint at each oil change, or after operating vehicle in wet or dusty conditions.

9. Push in cap until seated.
10. Install new control arm to your vehicle and tighten castle nut to 45 lb-ft [61 Nm]; tighten further only as necessary to install cotter pin.

* *SPC recommends use of a NLGi #2, Grade LB chassis grease with 3%-5% Molybdenum Disulfide such as:*

- *Valvoline® Moly Fortified Multi-Purpose Grease, VV633*
- *Sta-Lube® Moly-Graph Multi-Purpose Grease, SL3330*
- *Mystik® JT-6 Hi-Temp Grease with Moly EP #2, No. 665005002080*

Figure 1

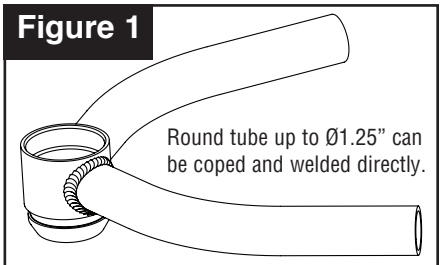
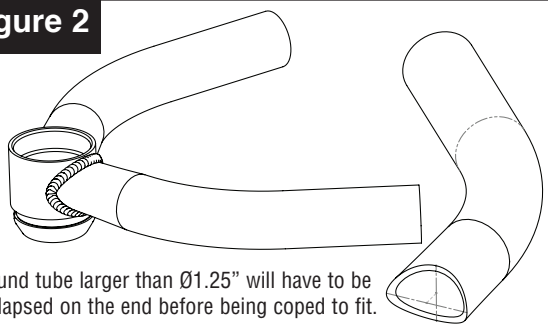


Figure 2



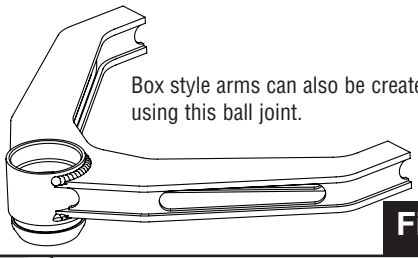


Figure 3

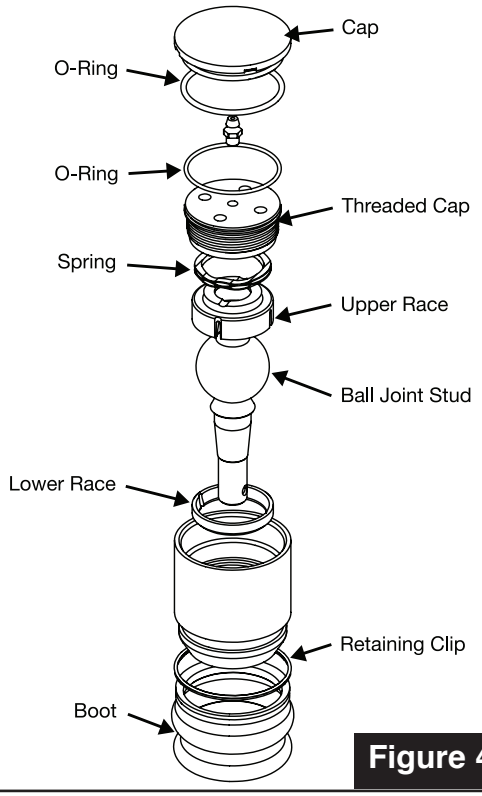


Figure 4

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