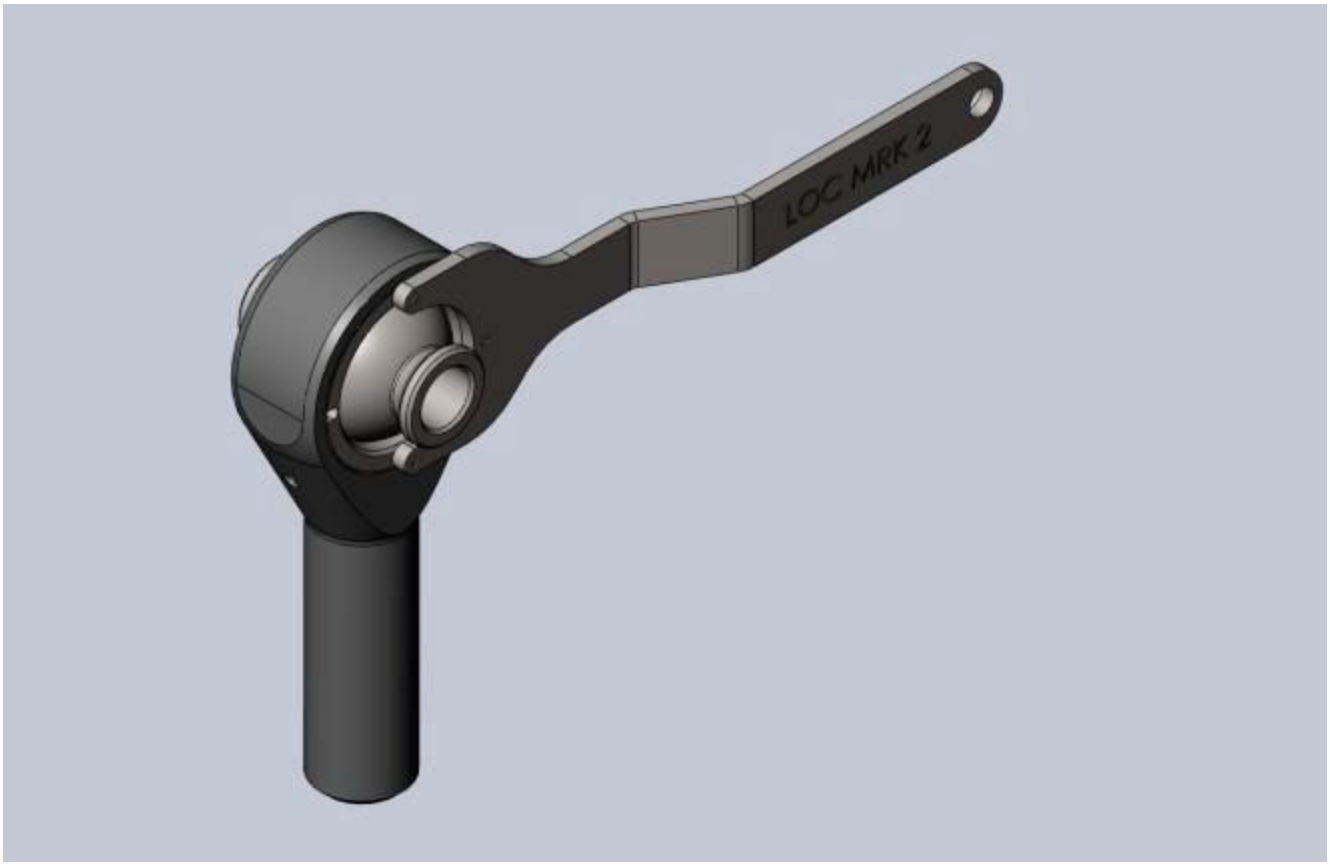
INSTALLATION INSTRUCTIONS

BJ-671-01 Ballistic Joint 2.0

Ballistic Fabrication produces products for custom vehicles. Many products require general welding and fabrication skills. Welding should only be done by a competent welder. Ballistic Fabrication is not liable for improper installation. Check with local laws if your vehicle is driven on the street as some Ballistic Products may not be street legal in all states.

Assembly Tools

- An open ended spanner wrench is available for service on the vehicle, see Figure 1.1.
  Figure 1.1 (Open End Spanner Wrench, TOOL-2804-2)



Specifications

- The 2.0" Ballistic Joint uses no snap rings to retain the races, instead the housing is machined from an oversized piece of billet steel which adds a much greater resistance to splitting.
- The opposite side uses a threaded spanner nut and set screw. Any play that might develop over time can be removed by adjusting the spanner nut.
- Designed to be a drop-in replacement for upper control arms on TJ / XJ jeeps using the 1/2" bore.
- The Ballistic Joint is fully rebuildable and is the strongest joint on the market of it's kind.
- Offers 33 degrees total misalignment with a 1/2" ball.
- See Figure 2.1 for dimensions.

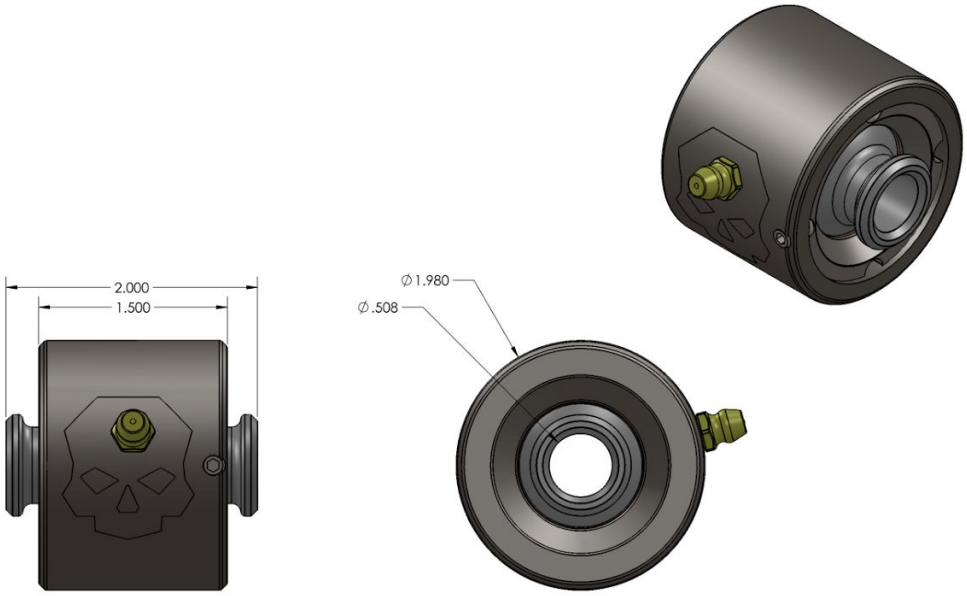


Figure 2.1

Welding Instructions

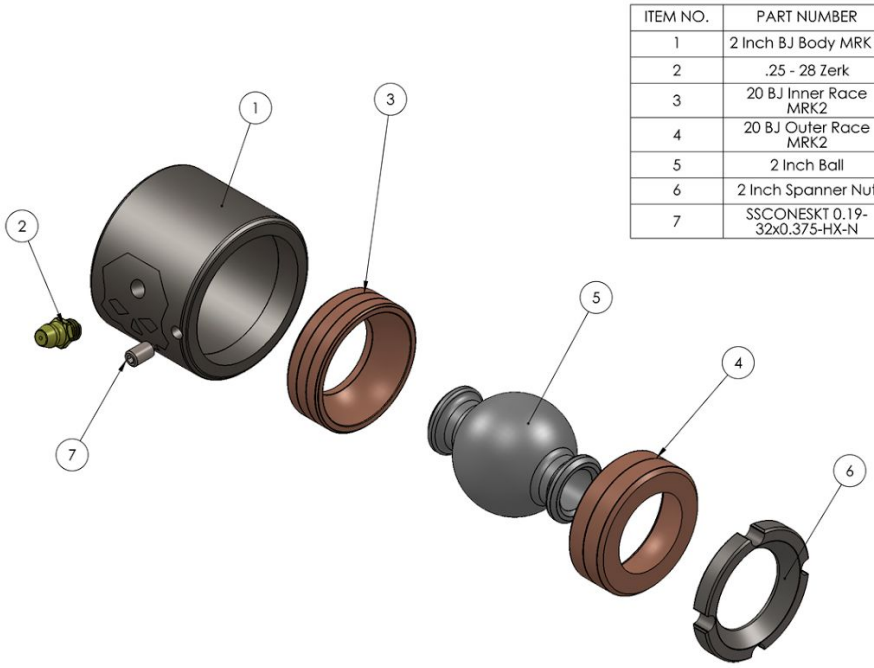
- The Ballistic Joint must be completely disassembled prior to welding and should be thoroughly cleaned to ensure no oils are present that will contaminate your weld.
- Use tubing with an outside diameter of no more than 1.5".
- Tubing must be of sufficient wall thickness for the project you are working on, no less than .125" is recommended.
- Notch tubing with a diameter of 2". Grinding may be necessary to ensure a very tight fit to the Ballistic Joint with no gaps. Gaps will weaken the weld joint and can lead to areas of excessive heat on the Ballistic Joint.
- The wall thickness of the Ballistic Joint body is just under 1/8" so distortion can occur if too much heat is applied during welding.
- Position the Ballistic Joint in a way that the set screw and grease zerk will be accessible once the completed link is installed on the vehicle.
- Weld with one continuous bead around the joint. This will ensure even heat is applied to the Ballistic Joint.

NOTE: Welding MUST be done by a competent welder. Inferior welds on suspension parts can led to disastrous results.

- Once the weld has completely cooled the Ballistic Joint can be assembled and greased following the instructions below.

Assembly Procedure

- See Figure 3.1 for proper install order of parts.
- Press the inner Nylatron GS race into the body of the joint until it is firmly seated against the back inner face of the body. The inner race has two lines molded into it.
- Insert the bearing into the body of the joint until it is seated on the resting surface of the inner race ensuring the bore of the bearing is perpendicular to the flat faces of the body.
- Press the outer Nylatron GS race into the body of the joint until it is firmly seated against the bearing. The outer race has one line molded into it
- Thread the spanner nut into the body of the joint until it is seated against the outer race. The spanner wrench pin holes should be facing outward.
- Torque the spanner nut to 22 ft/lbs and turn the spanner nut to the next flat seat with the set screw notch, not to exceed 60° of rotation.
- Install the set screw until it is firmly seated against the spanner nut. Torque Spec: Not to exceed 150 in*lbs.
- Install the grease zerk into the body of the joint. Torque Spec: 100 in*lbs
- Using multi-purpose grease (MIL-G-23549 or equivalent), lubricate the bearing until grease seeps outside of the race surfaces. Remove any excess grease at this point. The rod end is now ready for use.



ITEM NO.	PART NUMBER	SW-Comments(Comments)	Exploded View/QTY.
1	2 Inch BJ Body MRK 3	BJP-671-23	1
2	.25 - 28 Zerk	BJP-671-27	1
3	20 BJ Inner Race MRK2	BJP-671-04A	1
4	20 BJ Outer Race MRK2	BJP-671-04B	1
5	2 Inch Ball	BJP-671-21	1
6	2 Inch Spanner Nut	BJP-671-26	1
7	SSCONESKT 0.19-32x0.375-HX-N	MAT-3000-08	1

Figure 3.1 - Assembly

Maintenance

- The joint needs to be lubricated with multi-purpose grease upon installation and every 2000 miles thereafter.
- Upon receiving the joint it should be properly assembled, but not lubricated, which will need to be done upon vehicle installation. Please revert to step 8 of the assembly instructions for the proper lubricant specification.
- The spanner nut should be re-tightened after the first 300-500 miles of travel or 10 hours of service and checked during the regular service intervals of the vehicle thereafter. The Nylatron races were designed with enough surface area so as to not prematurely wear under the rigors of off-road use as long as the specified maintenance tasks are performed. Not following the specified maintenance tasks will lead to premature wear and shorten the lifespan of the bearing and races.
- During the regular service intervals of the vehicle each joint should be checked for axial play between the bearing and races. If there is movement the spanner nut should be tightened sufficiently so as to remove this movement following the same torque sequence as outlined in the assembly instructions above. This can be done with the joint on the vehicle using the open ended spanner wrench. The Nylatron races have reached the end of their usable life when the spanner nut can no longer be tightened sufficiently to remove radial or axial play from the bearing. Rebuild kits are available under part number BJ-673-3.