Part number 23960

GM HD 3° Offset Ball Joint

Q1: **There is a warning flag on the ball joint which states this ball joint should not be installed on trucks that are running tires larger than 33" unless a tall knuckle lift was installed. Will the kit work for me and why or why not?**

A1: The short answer is yes: If you are at factory ride height or have a tall knuckle lift. No: If you are running 33's on a lifted truck using stock knuckles. Larger tires and the offset wheels that often accompany them put more stress on the factory ball joints and upper control arm. While our ball joint is much stronger than the factory joint, the OEM arm is still there, and with the offset of our ball joint in some orientations, the stresses are beyond what the arm was intended to handle. The taller knuckle of some lift systems greatly reduces the stress levels, so that the arm is back to operating in the factory design parameters

Q2: **How much change will this ball joint provide?**

A2: The offset in our Heavy Duty ball joint will provide up to 3° of caster or camber change through relocation of the ball stud pivot point. This change can be all camber, all caster, or a lesser combination of both. The instruction sheet shows the approximate amounts of change for each of 12 installation positions, assuming OEM suspension components. Trucks with tall knuckle lifts will experience slightly less overall change (2-2.5°, depending on lift height.)

Q3: **Why won't the factory cams get my alignment back in spec after lifting or leveling my truck?**

A3: Most aftermarket lift kits that use a taller knuckle don't account for the loss of caster that is induced when the distance between upper and lower ball joints is increased. The adjustment range of the factory eccentric cams on the upper control arms is often insufficient to get camber and caster set properly once the suspension geometry is changed. The same can be true of torsion lifts and leveling kits, except that the camber change in this case is due to the unequal arm lengths, while the loss of caster is due to the relative angle of the arms in side view.

Q4: **Is this ball joint as good as the OEM ball joint?**

A4: It's Better in the following ways: It will allow more articulation than the factory joint. It has a larger ball and internal bearing surface than the OEM joint, providing increased durability. It also lifts the upper control arm slightly

compared to the OEM ball joint, which allows more droop travel from the front suspension before the upper control arm bottoms on the frame stops.

Q5: **I have a control arm that is a replacement part but it is not an original equipment (OE) factory part. Will your bushings , ball joints or strut mounts fit properly?**

A5: The short answer is, most likely. Although not common there can be some problems.

Specialty Products Company designs its parts to work with the components that originally came with the vehicle. In some circumstances suspension components may have been replaced with non-OE components. This may cause a problem. Although these parts will work fine in the original configuration, the sub-components of these parts may not be exactly the same size as the original. This can lead to a problem when installing Specialty Products parts such as offset bushings or ball joints.

For example, most problems will occur when a particular arm is sold by the manufacturer as an assembly and the bushings are not replaceable. Then this part was replaced for some reason or another with an aftermarket replacement part. Now there is an alignment problem and the technician goes to install a replacement offset bushing and it does not fit properly. In this instance it will be necessary to purchase an OE arm and then install the alignment part.

Q6: **How do I know if I have an OE part or an aftermarket part?**

A6: Unfortunately many times it is difficult to tell, there may be a part number stamped or cast into the part to help identify it. This may take quite a bit of research. A technician familiar with aftermarket parts may be able to tell by looking.