

due to researching OE housing failure and clearance issues. TRAKMOTIVE's aftermarket design is set to exceed OE design without causing issues with the fit and function.

⑥ **Rotation torque of outer C.V. joint**

According to industrial standard, the outer C.V. rotation torque must be within a scope from 1-10Nm. When manufacturing tolerances reach to the limit, the rotation torque of different C.V. joints will be 1Nm or 10Nm in the same or different batches, which results in a difference that can be felt by the touch, but doesn't affect installation or function.

⑦ **Induction hardening point**

Some black points will remain on the surface of C.V. axle due to induction hardening. This affects the appearance only. In order to guarantee the life-span of the C.V. axle, induction hardening is necessary. OE and aftermarket will have the same fit and function without compromising strength or durability.

⑧ **Volume of grease for inner and outer C.V. Joint**

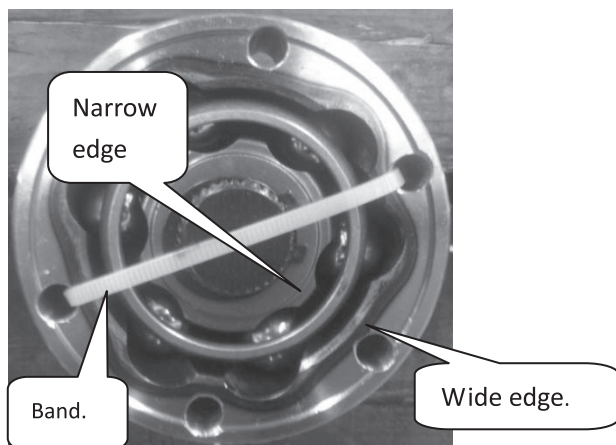
Aftermarket design may contain a different volume of grease than OE in the inner and outer C.V. joint. There isn't much space inside the outer C.V. joint, so the volume of grease is the same or relatively less. On the contrary, the space of the inside inner joint is large enough to slide in and out, so the volume of grease is the same or relatively more. However the volume of grease in each joint passes the experiment for braking, which doesn't affect installation or function.

⑨ **Max swing angle of inner and outer C.V. joint**

Because of the difference between inner and outer C.V. axle joint design philosophy and operating condition. The outer joint provides large degree when vehicle turns. The larger the degree; the smaller the turning radius. More than 45 degrees is preferred. When the wheels go up and down, the inner joint can slide in and out which changes the length which will compensate for the difference. A 22 degree is necessary when the wheels go up and down. This is a normal fit and function of OE and aftermarket.

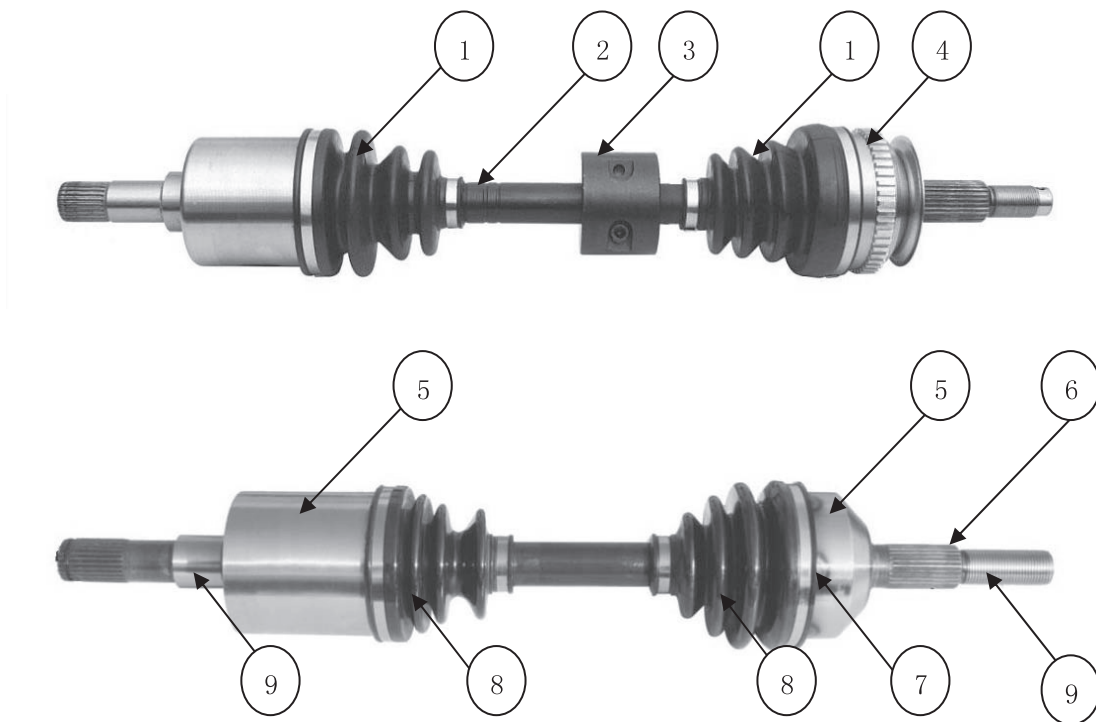
⑩ **Installation of VL joint**

After cutting off the zip tie (band), VL C.V. joint would fall apart easily. If it happens, then the joint can be reassembled making sure all parts are in the right position as the picture below.



⑩

Instructions for appearances differences of C.V. axle



① C.V. boot

The aftermarket design of the C.V. boot may be different from OE such as the number of bellows and/or shape. Aftermarket C.V. boots have to meet the requirements for age, low and high temperature resistance then adjust to resolve OE issues. This is due to researching OE boots and improving where OE fails.

② Center shaft

TRAKMOTIVE's aftermarket design of the center shaft may be different from OE. All TRAKMOTIVE axles have solid bars for better strength and durability than OE hollow shaft design. The aftermarket design will not affect installation or function.

③ Damper

The damper is removed and compared to OE because the natural frequency of the axle is found to be much greater than its vibrating frequency at the speed range from 0-5000r/min after testing. Some of TRAKMOTIVE's axles are designed with no damper due that the shaft is machined balanced to prevent road noise and/or vibration. Some OE designed axles have a damper when aftermarket does not have a damper but this will not interfere with fit or function.

④ ABS ring

All TRAKMOTIVE axles are ABS consolidated which means all axles that require an ABS ring has one. An ABS axle can be installed in a Non-ABS application with no issues. With this aftermarket consolidation it cuts down on amount of inventory in stock and maximizes the axle application coverage.

⑤ Shape and diameter of inner and outer C.V. housing

TRAKMOTIVE's aftermarket design may be different than OE, such as shape and/or diameter of inner and outer housing. The housing is redesigned on the condition that there is enough metal strength after calculating the engine displacement and torque output of the different vehicle. This is