FORD PERFORMANCE

MUSTANG CHALLENGE

MUSTANG CUP

January 27, 2025

Technical Service Bulletin – 18

Mustang GT4 Halfshaft Boots

Purpose: For improved halfshaft boot durability and allow for serviceability of CV joints.

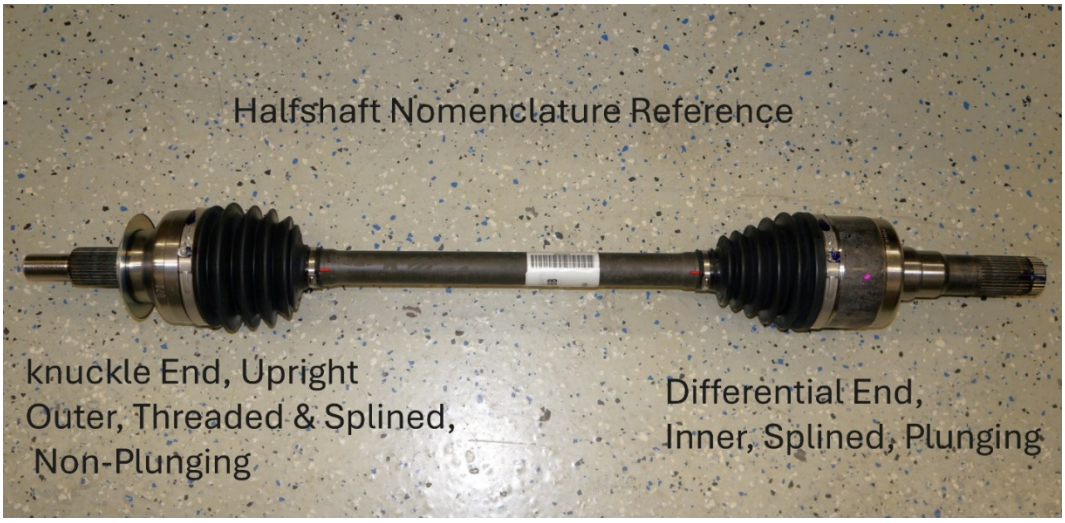
NOTE: This TSB describes servicing both the inboard and outboard boots. The 2025 Update kit only includes boots intended for both right hand and left hand differential joints. As of this issue, sufficient quantities of boots are not available to complete the change to the knuckle end outer boots.

New Parts

Description	QTY	Service Number	Engineering Number	Supplier
Boot RH Shaft	2	M-3A331-GT4B	JRMM-3A331-BA	Ford Performance Parts
Boot LH Shaft	2	M-3A331-GT4A	JRMM-3A331-AA	Ford Performance Parts
CV-2 Grease	1	Red-80401	NA	Hoerr Racing Products
Clamp	2	AS6239	NA	Band-It

CV joint Grease Requirement

Knuckle End CV Joints, Outer	50 cc
Differential End CV Joints, Inner	100cc



When servicing halfshafts, it is of the utmost importance to keep the CV joint assembly hardware with the CV joint it was removed from. Keep all the balls, cages, inner and outer races together. Do not mix the hardware with the other halfshaft CV joints.

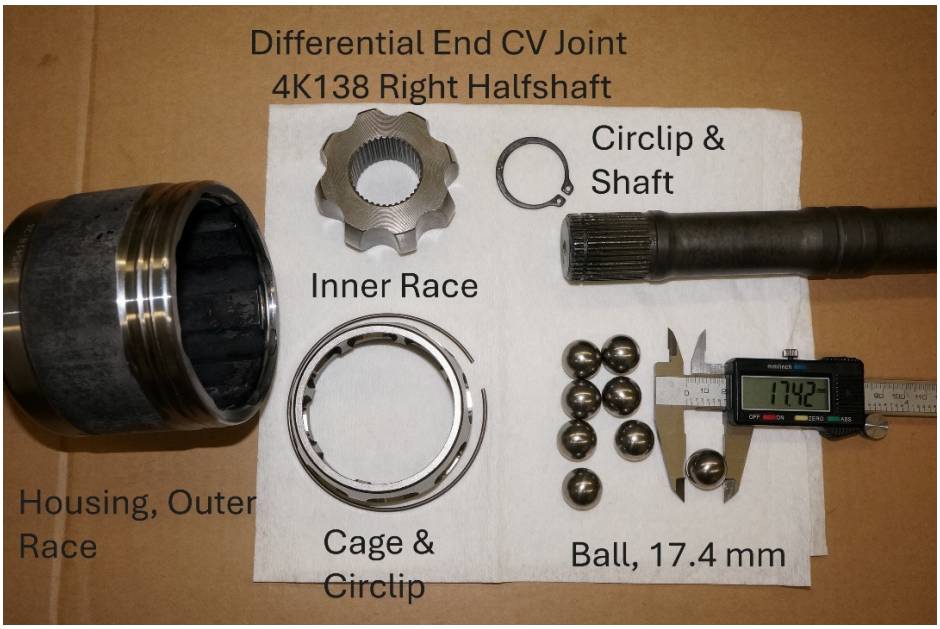
<u>Right Halfshaft, Ford base part number 4K138</u>

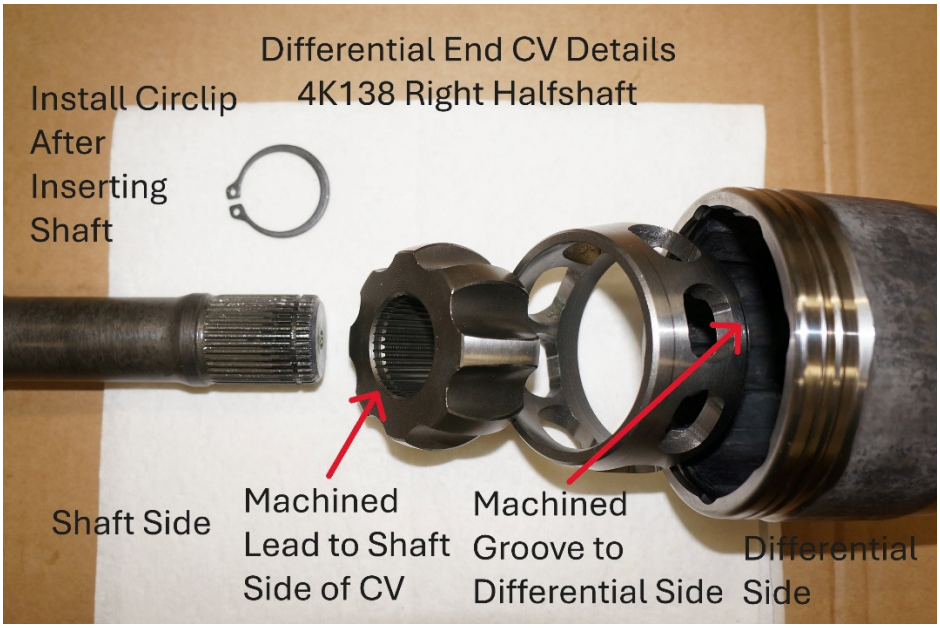
Halfshaft Boot

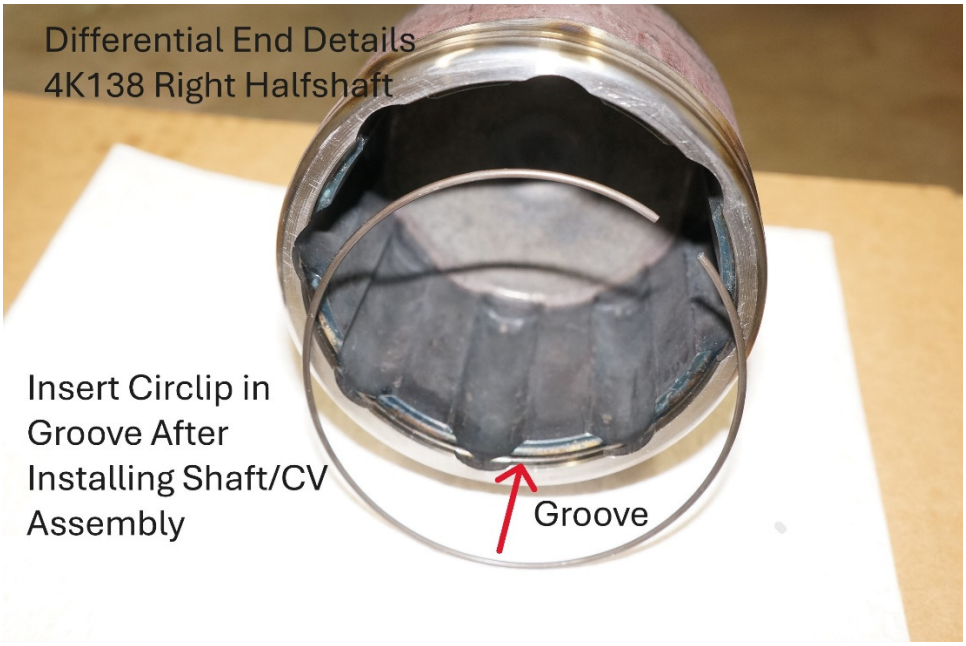
Halfshaft Components

Shaft

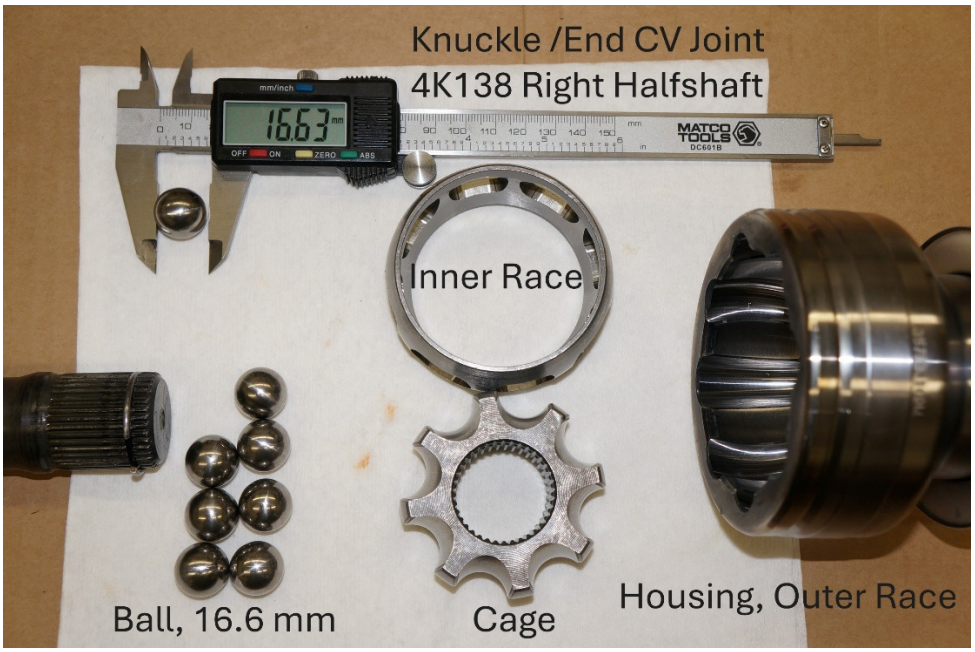
Differential CV Joint

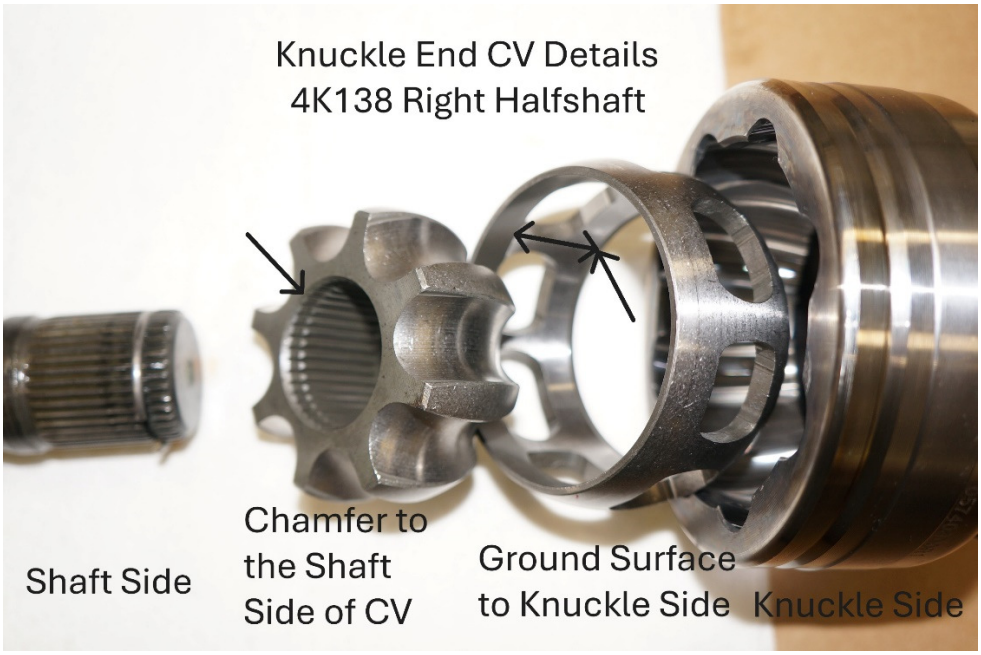



Differential End CV Details
4K138 Right Halfshaft
Install Circlip After Inserting Shaft
Shaft Side
Machined Lead to Shaft Side of CV
Machined Groove to Differential Side
Differential Side


Differential End Details
4K138 Right Halfshaft
Insert Circlip in Groove After Installing Shaft/CV Assembly
Groove

Knuckle CV Joint





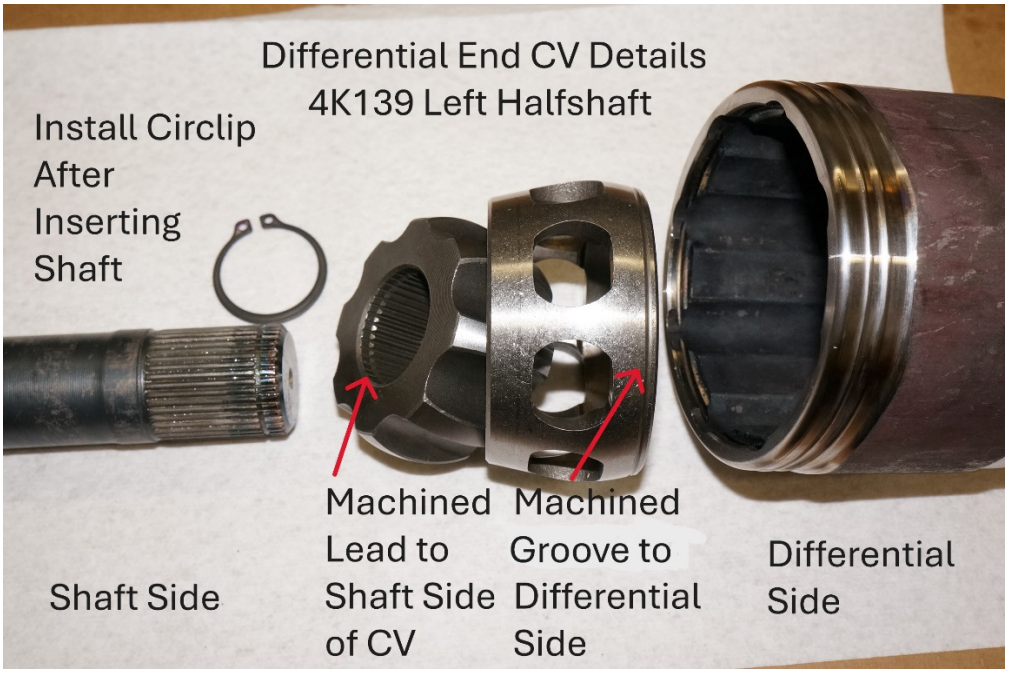
Left Halfshaft, Ford base part number 4K139

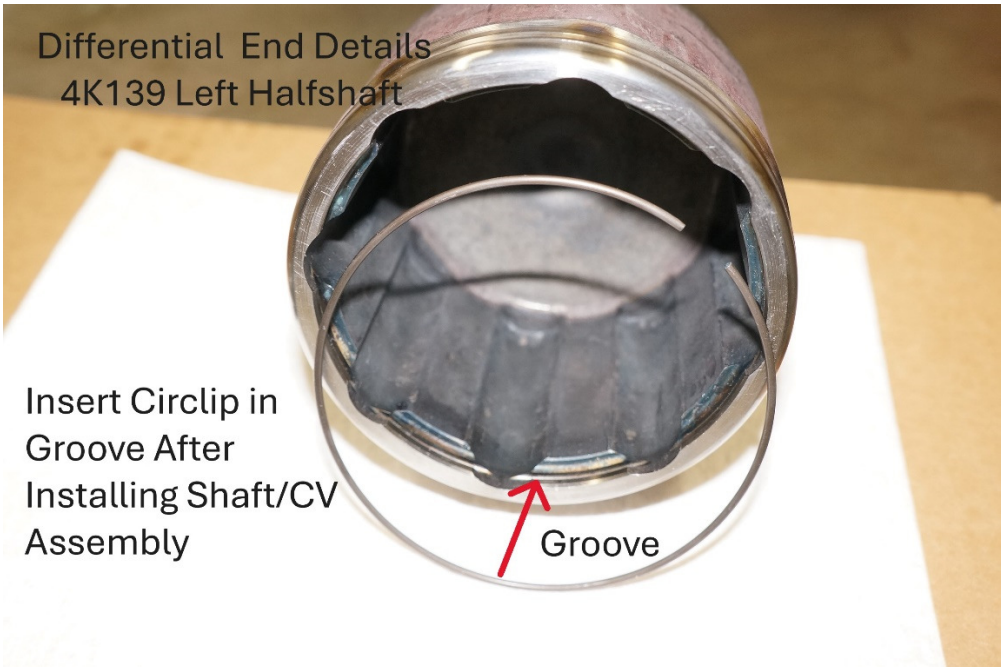
Halfshaft Boot

Halfshaft Components

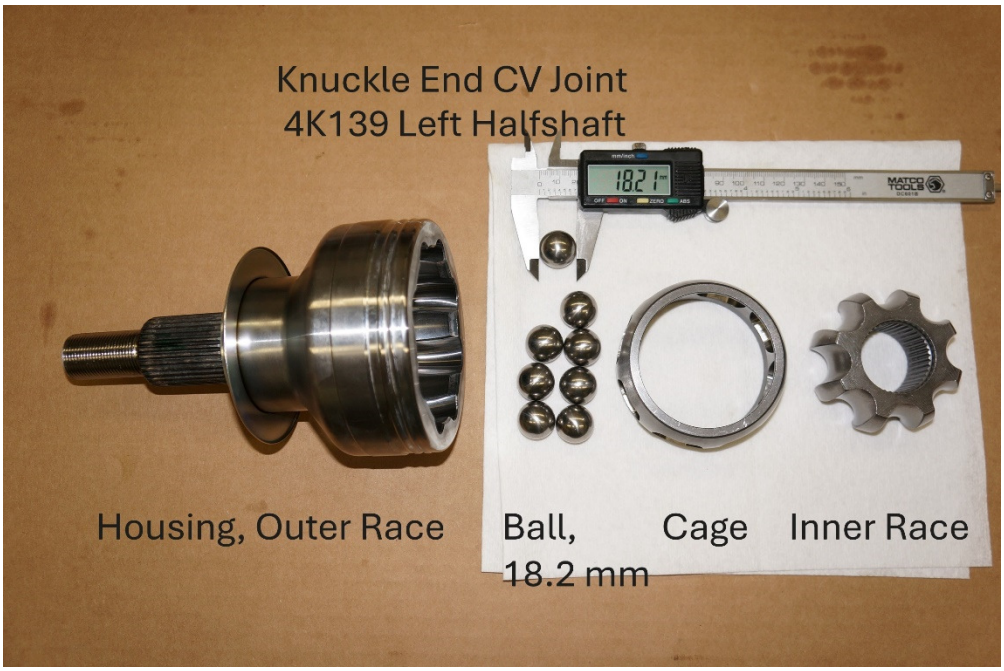
Shaft

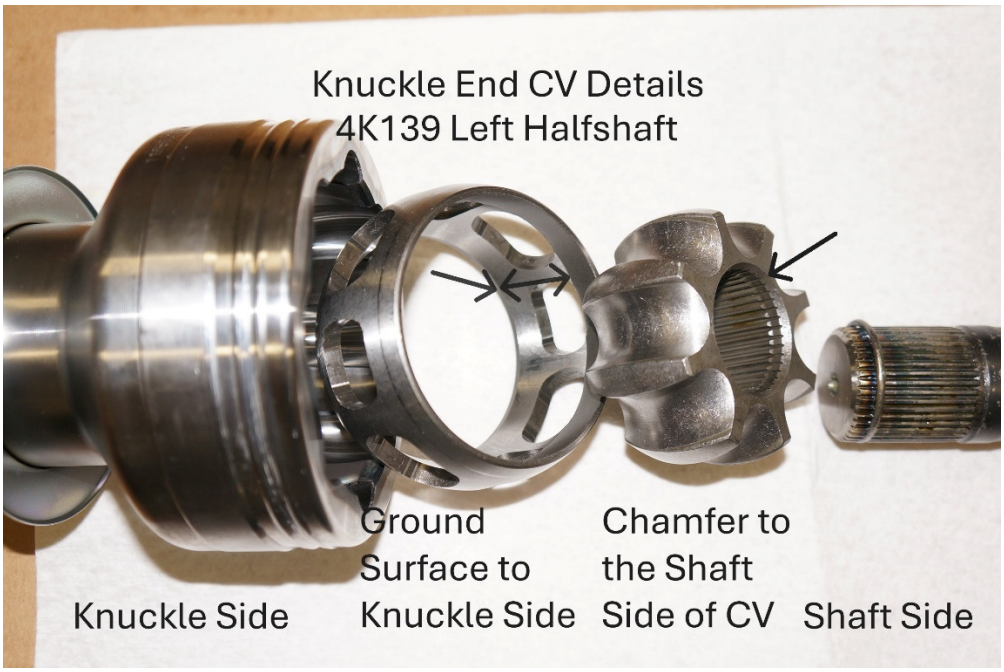
Differential CV Joint





Knuckle CV Joint





Halfshaft Disassembly

-Remove the CV joint boot clamps, two large and two small. They will not be reused.

-Remove the two CV joint boots. They will not be reused.

-Remove the large diameter circlip just inside the differential end CV joint.

-Slide the shaft and cage assembly out of the outer race. Be careful, the balls may fall out of the assembly.

-Remove the balls and cage from the assembly.

-Remove the circlip (Snap Ring) from the end of the shaft.

-Using a soft mallet, tap the inner race off the shaft.

-Put the shaft into a vise with soft jaws, tap on the knuckle end CV joint assembly with a soft mallet to remove.

-Remove the balls by rotating the inner race and cage back and forth.

-Remove cage and inner race from outer race.

Wash all components and check for damage. If any damage is found, scrap the halfshaft.

Halfshaft Assembly

-Slide boots onto shaft with large openings to the ends of the shaft.

-Grease the knuckle end CV joint with 25cc of CV-2 grease.

-Install the cage and inner race into the knuckle end CV joint. Use the knuckle end CV joint details photo for the direction of components.

-Install balls into cage of inner and outer race assembly.

-Clamp knuckle end CV joint into a vise with soft jaws. Insert shaft into CV joint using a soft mallet until fully seated.

-Apply 25cc of CV-2 grease.

-Install the Band-It clamp with the Band-It tool to the boot over the outer race. Use Band-It tool #TL3800.

-Install the differential end CV joint inner race on the shaft. Use the differential end CV joint details photo for the direction of components.

-Install the Circlip (Snap Ring) on shaft.

-Grease the differential end CV joint components with 50cc of CV-2 grease.

-Install the differential end CV joint cage and balls.

-Insert the assembly into the outer race and install the large circlip.

-Apply 50cc of CV-2 grease.

-Install the Band-It clamp with the Band-It tool to the boot over the outer race.

CV joint assemblies are dependent on using the correct balls in the correct locations and for all the components to be installed in the correct orientation. Please use the detail photos above to insure you have all components installed properly.