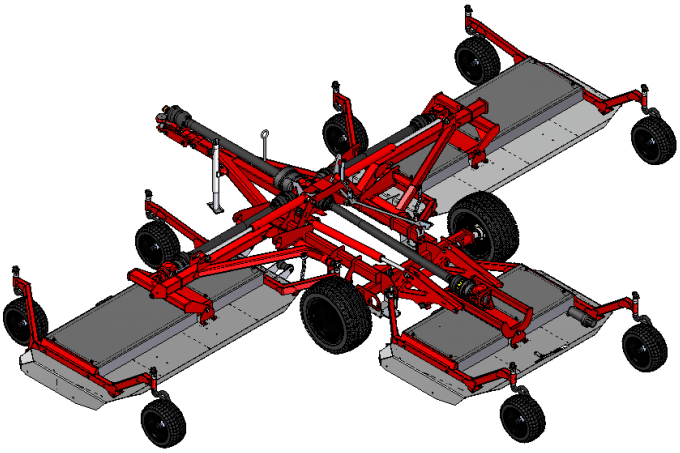
SPARE PARTS INSTRUCTIONS #80

Date Created: 14/08/2020 | **Product:** Vulcan

Title: Wheel Bearing Replacement 416-860-460

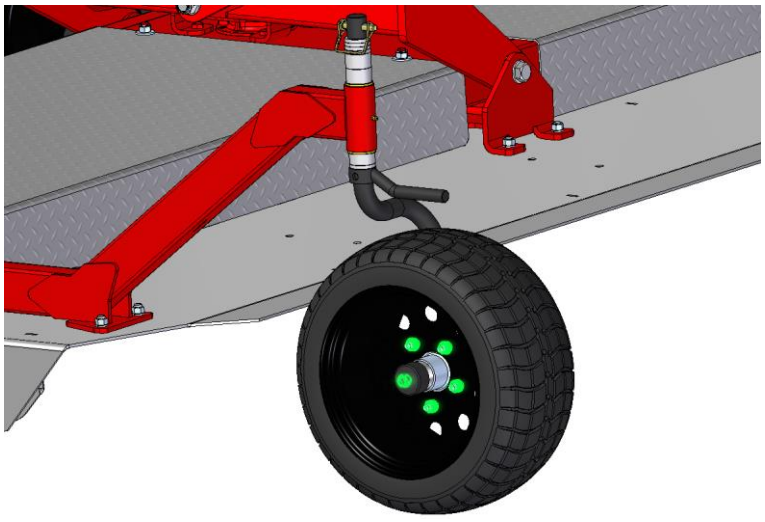
SAFETY! Before attempting to make any adjustments or carry out maintenance on the mower, review the hazard identification table (section 3a of your Operator Manual) and take all necessary precautions.

The following process shows how to replace the wheel bearing on a Vulcan Castor Stem.

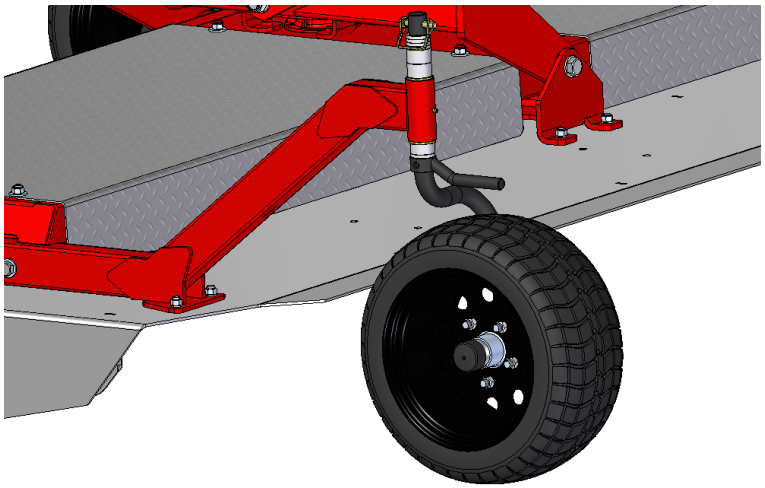


Position mower on flat even ground.

Note:
It is recommended to have wings down but is not essential.

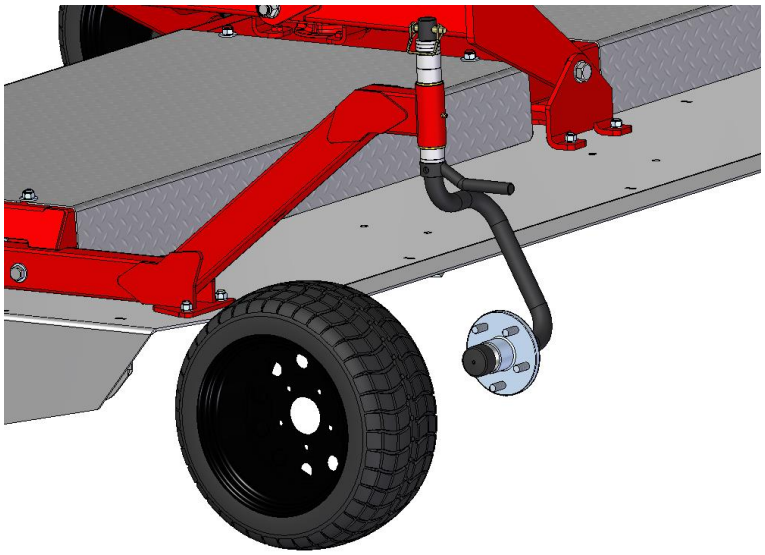


Loosen Wheel Nuts while the mower is on the ground.

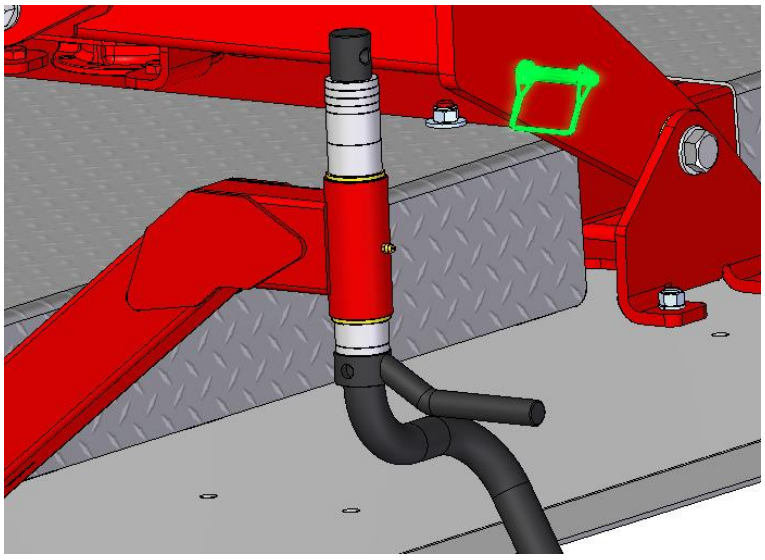


Raise the deck using the hydraulics.
Position a safety block under the mower deck.
Lower mower deck back down.

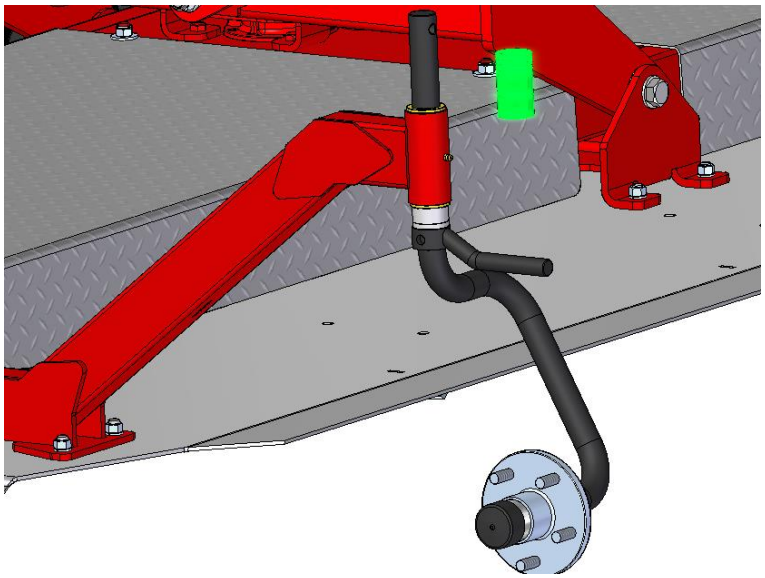
Note:
Positioning a block under the deck for safety is recommended.



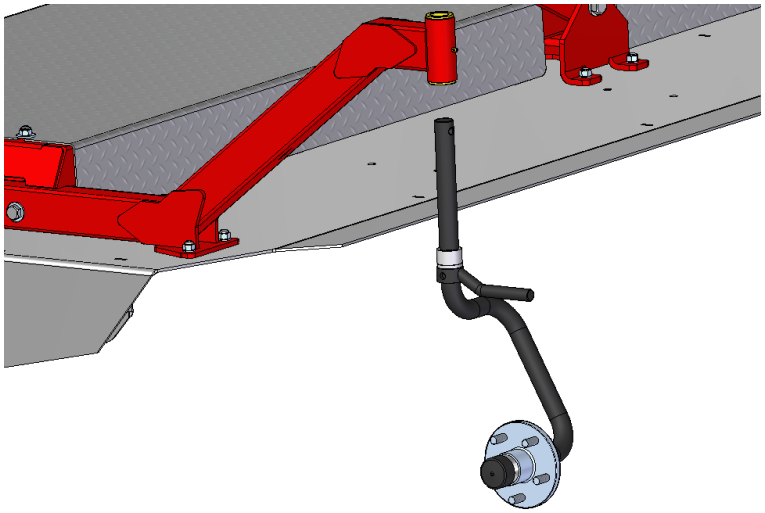
Fully remove all Nuts and the Wheel from the hub.



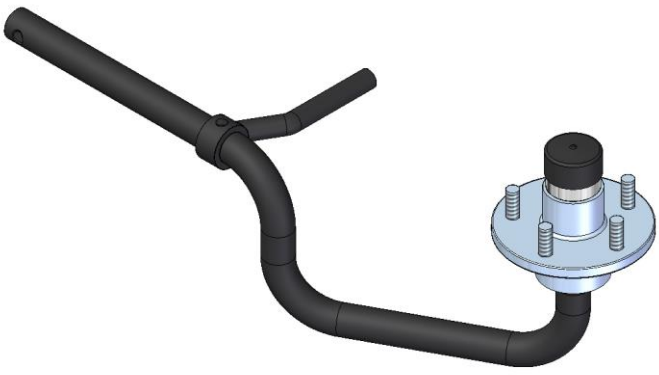
Remove the Shaft Locking Pin.



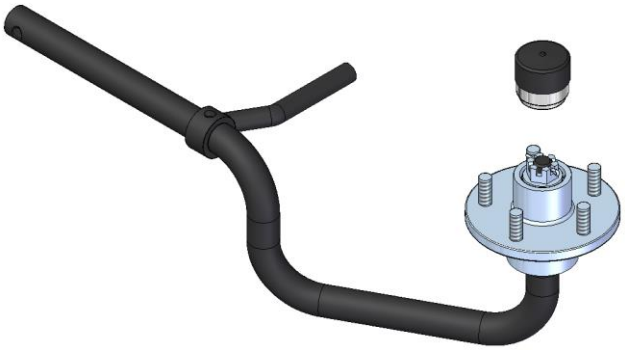
Remove upper Height Spacer Rings.



Remove the Castor Stem and hub by sliding down and out.

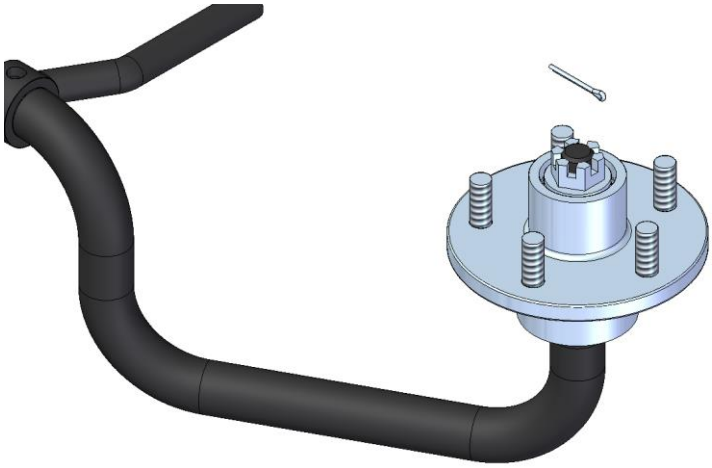


Move to a workbench.
Position the Castor Stem in a vice as shown.

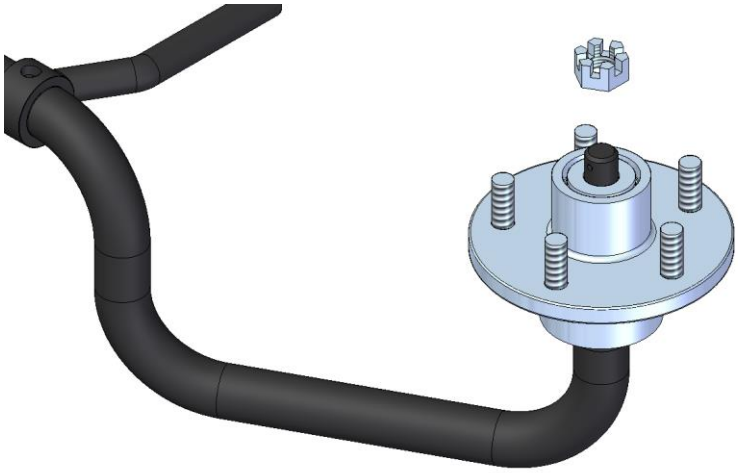


Remove the Bearing Buddy.

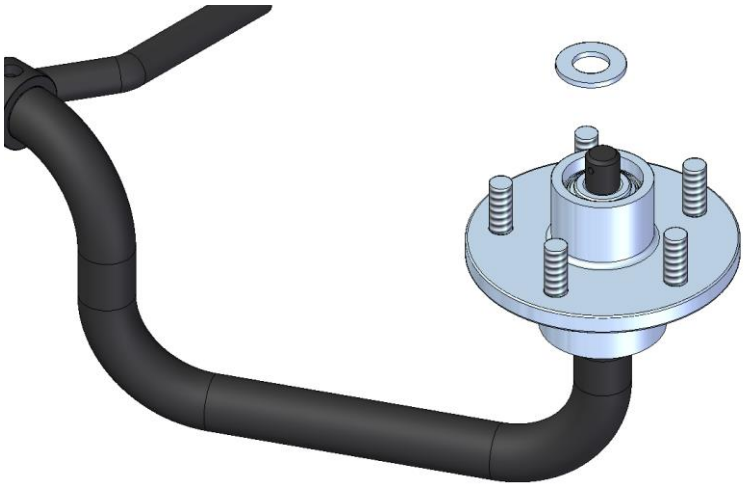
Note:
Some mowers may use a grease cap.



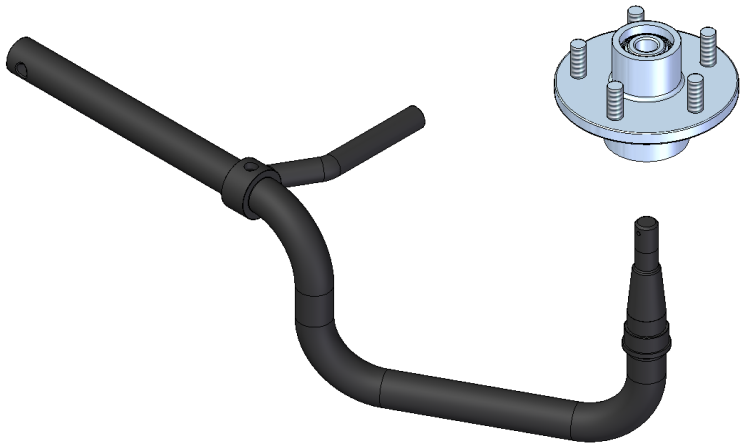
Remove the Split Pin.



Remove the Castle Nut.



Remove the Washer.



Slide off the full Hub Assembly.

When fully replacing the Hub and Bearings, skip the following steps around replacing the Bearing Race.

Complete Hub **(416-860-460)**

When only replacing the Bearings and reusing the old Hub, then the Bearing Race should be replaced at the same time.

Bearing Kit **(416-860-470)**

Remove the old Bearing Race in the Wheel Hub from both ends.

This can be done by knocking the Bearing Race out from the opposite end it is positioned.

It is recommended to use a bearing press or a local engineering shop to press the Bearing Race into the hub.

If you have access to this tooling use a drift as shown to locate the Bearing Race.

IMPORTANT:
Bearing Race must be sitting square to the Hub when pressed in place.

Repeat for the Bearing Race in the opposite end of the Hub.

If you have a bearing greasing tool, then use this to fully grease the Bearings before assembling the Hub.

If you do not have a bearing greasing tool you can still grease the bearings by hand.
Ensure too slowly massage the grease into each roller so the bearing is fully covered.
Once finished cover the bearing in extra grease.

Grease the Bearing Race in the Hub.

Place the **LARGE** Tapered Roller Bearing **(401-842-830)** in the race.

Apply another coat of grease to the **LARGE** Tapered Roller Bearing

Position the Seal Insert **(416-860-480)** Gently tap the Seal Insert into place.

See inset.

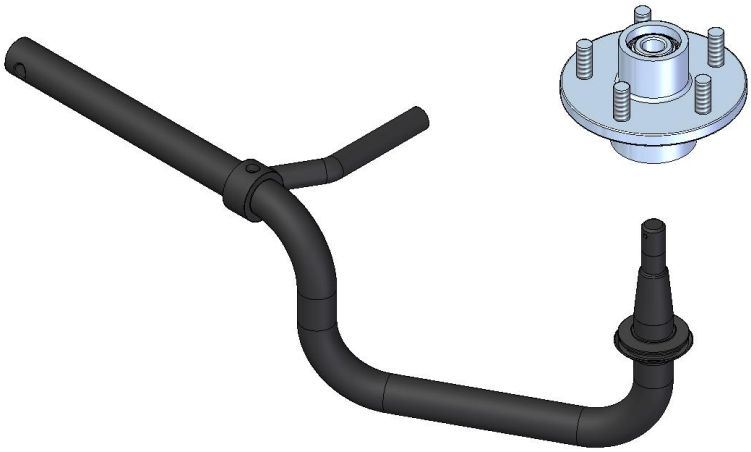
IMPORTANT:
Ensure the seal insert is fitted **SQUARELY**!

Turn the Hub over so that the Wheel studs face **UPWARDS.**

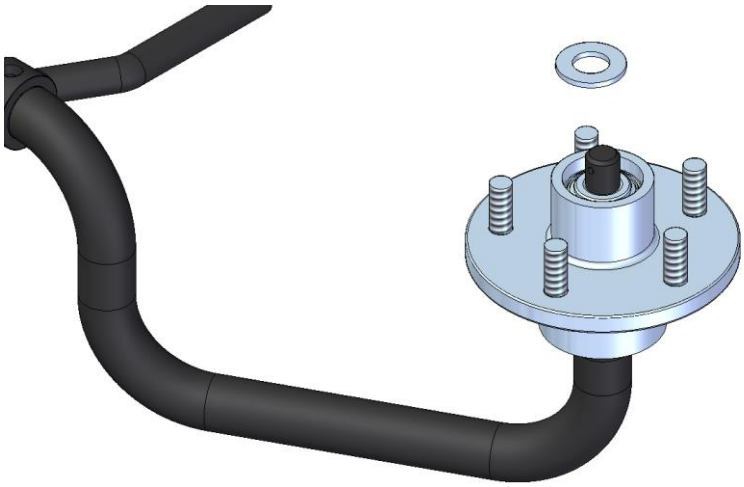
Using the same method as the Large Tapered Roller Bearing Grease the **SMALL** Tapered Roller Bearing **(401-842-820)** and Bearing race.

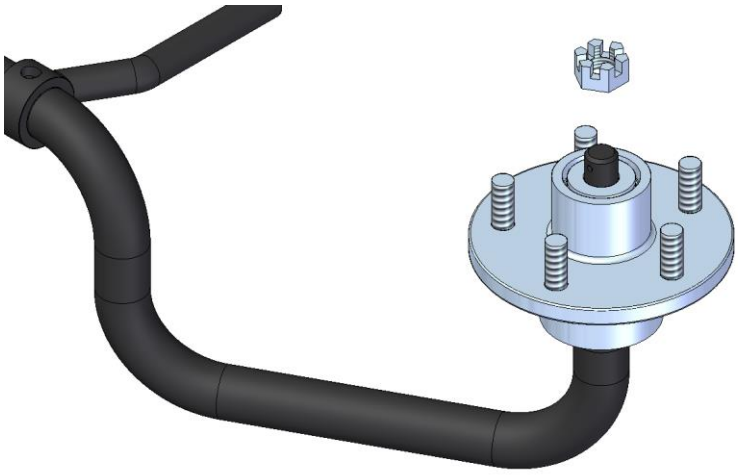
Fit the Washer from the kit **(416-860-480)** over the Axle.

Fit the Seal from the kit **(416-860-480)** over the Axle.

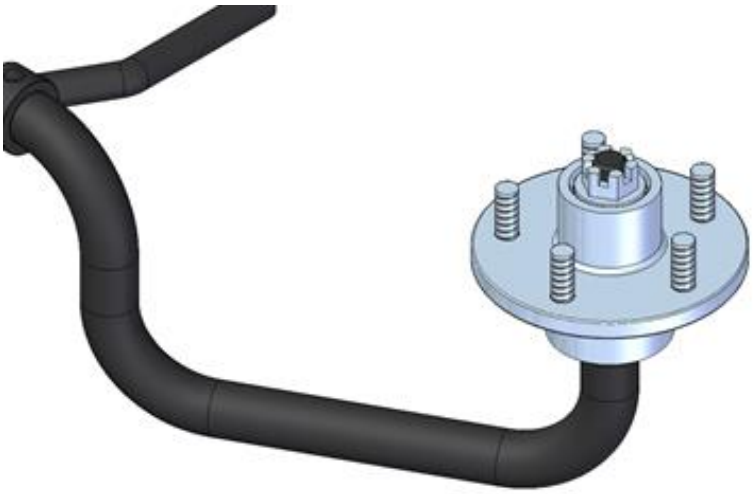


Offer up the Hub Assembly **(416-860-460)** to the Axle.
Slide onto the Axle as far as possible by hand.





Fit the Washer **(308-200-064)** over the Axle thread.



Fit the Castle Nut **(416-842-200)** onto the Axle thread.

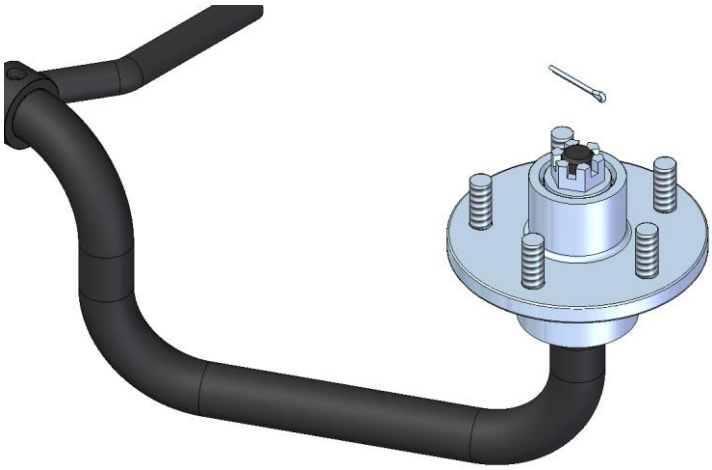
Torque the Castle Nut to **68Nm WHILE ROTATING THE HUB**.

IMPORTANT:
Do not use an impact gun for this step or bearing/hub damage may occur.

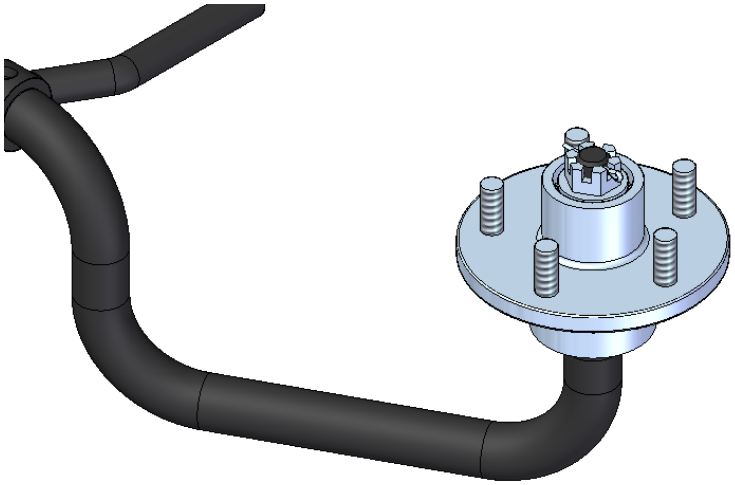
Back the Castle Nut off one full turn. Re-torque the Castle Nut back up to **14Nm WHILE ROTATING THE HUB**.

IMPORTANT:
Back the Castle Nut off 1/6 to 1/4 of a turn until the hole for the split pin is aligned.

Ensure the hub turns freely without sideways play.

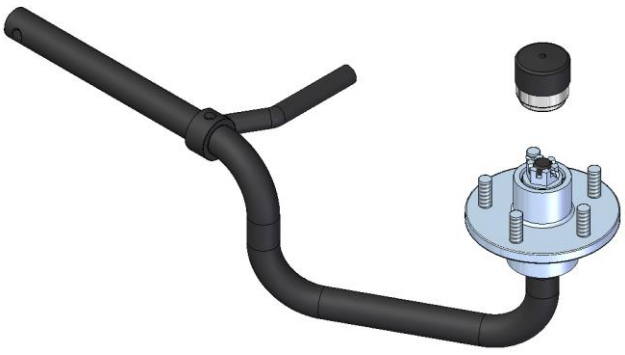


Insert the Split Pin **(201-447-000)** through the Castle Nut and the hole in the end of the Axle Stub.



Bend the Legs of the Split Pin around the Nut.

Note:
The Short Leg of the Split pin may require trimming with Snips to clear the Washer and Bearing.

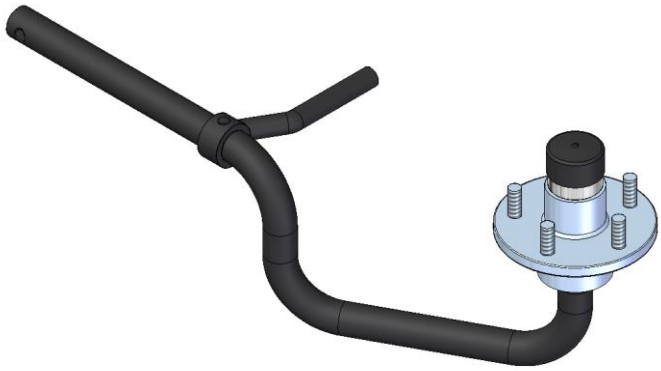


Fit the Bearing Buddy **(416-000-098).**

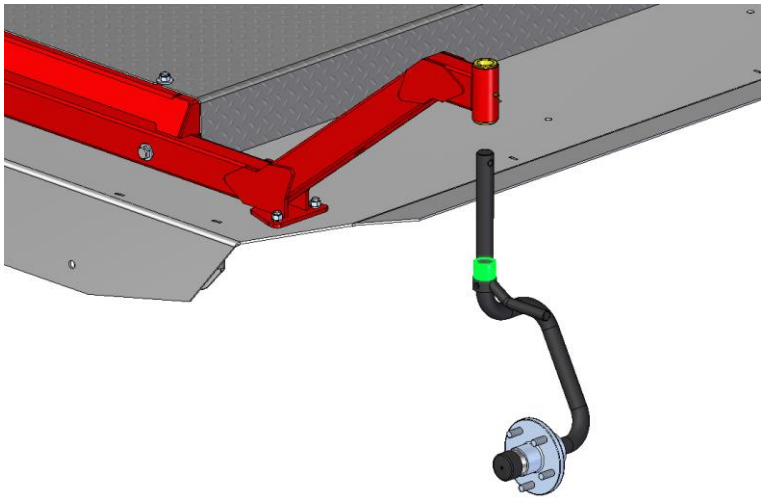
Gently drive home until fully seated in the Hub.

IMPORTANT:
Fill the Bearing Buddy completely with grease before fitting.

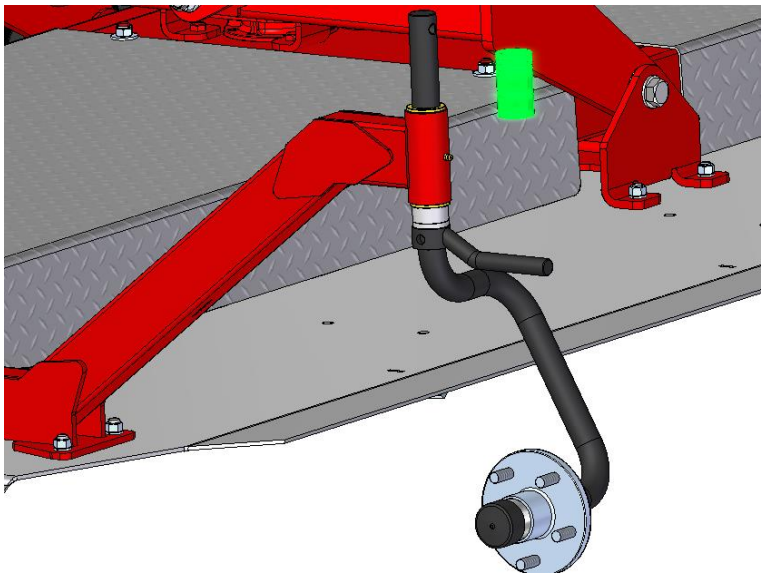
Some mowers may use a grease cap.



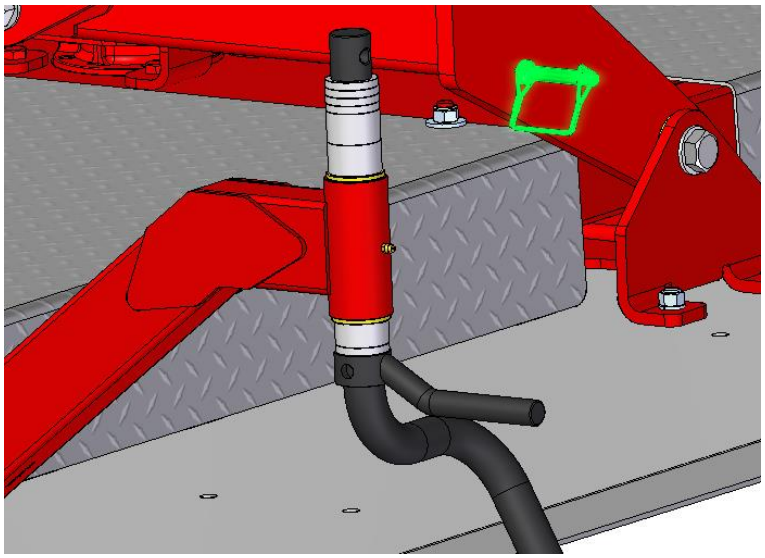
Remove the Castor Stem from the vice and return to the mower.



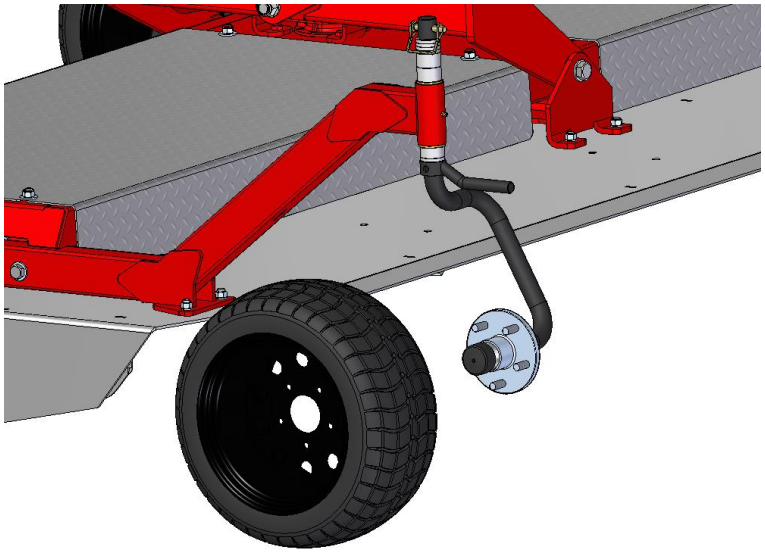
Position lower Height Spacing Rings as required.
Slide the Castor Stem up into the Castor Arm bushes.



Position upper Height Spacing Rings as required.



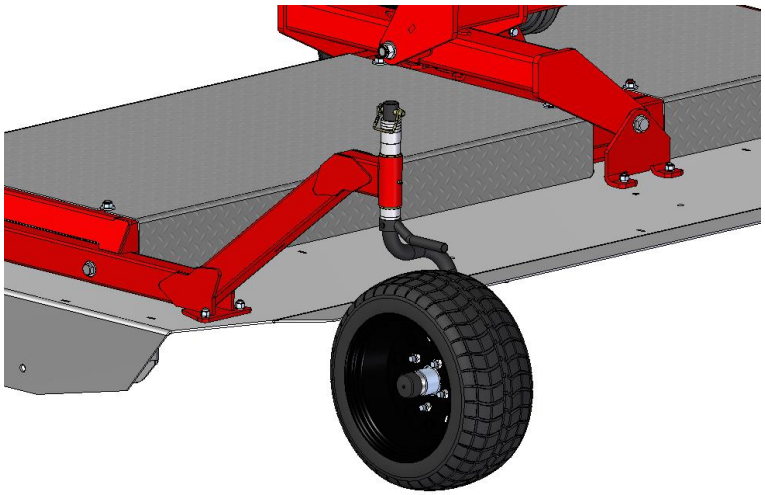
Secure in place with a Shaft Locking Pin.



Fit the Wheel to the wheel hub.

Nip up the Wheel Nuts to secure using the pattern shown.
The Tapered ends of the Wheel Nuts face the Wheels.

Note:
The Wheel Nuts will be torqued once the Chassis is lowered to the ground.



Raise the deck using the hydraulics.
Remove the safety block from under the mower deck.
Lower mower deck to the ground.

Torque **ALL** Wheel Nuts to **110Nm** using the pattern shown.

This process is now complete.