

**Date Created:** 25 June 2019

**Product:** Vulcan

**Title:** Stub Axle - Replacement

**Part Number:** 416-000-089

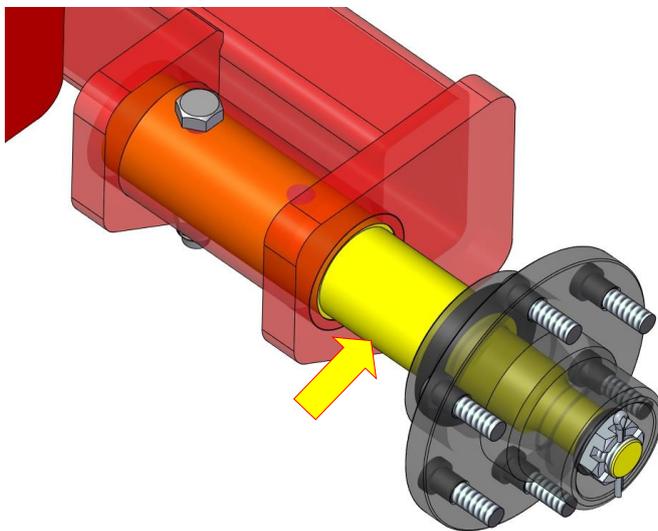


**SAFETY!** Before attempting to make any adjustments or carry out maintenance on the mower, review the hazard identification table (section 3a of your Operator Manual) and take all necessary precautions.



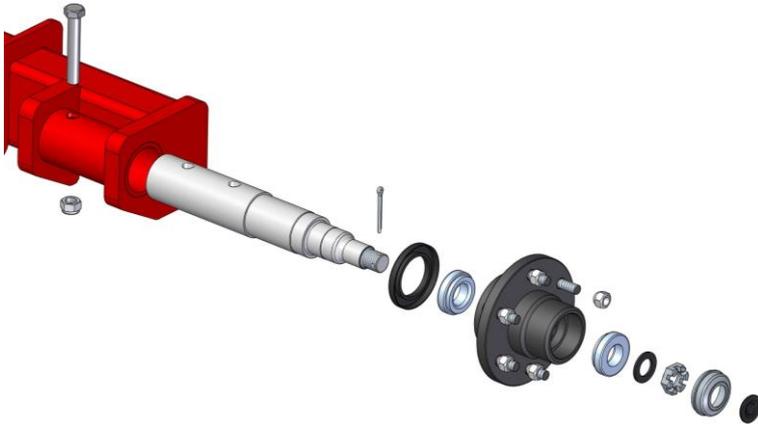
Transport Wheel Stub Axles may become damaged due to poor maintenance of the wheel bearings or if a Transport Wheel suffers a severe impact.

Trimax Vulcan mowers are equipped with replaceable trailer Stub Axles.



Stub Axle part number **416-000-089**

Right hand side Stub Axle shown in **yellow**.



A **Hub Service Kit** is available from Trimax.  
 Part number **416-000-093**.  
 This includes the two Bearings and the Rear Seal for the Hub.

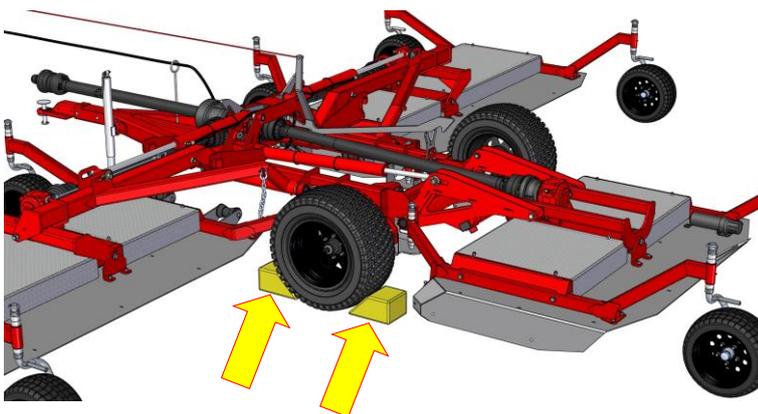
An **Axle Service Kit** is available from Trimax.  
 Part number **416-000-094**.  
 This includes Castle Nut, Washer and Split Pin.



**IMPORTANT:**  
 If the Stub Axle has been damaged due to severe impact, then the chassis must be inspected.

Check that the Stub Axle Mount Tube is not damaged or out of round.

Check that the chassis structure is not cracked or bent.



Park the mower on level ground.

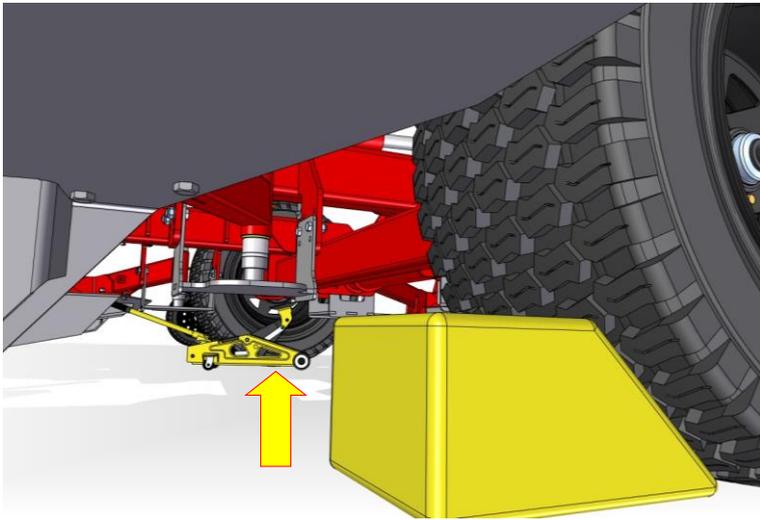
The mower decks can be in either the raised or lowered position.

Engage the tractor parking brake.

Place all controls in neutral, stop the engine and remove the ignition key.

Wait for all moving parts to stop before proceeding.

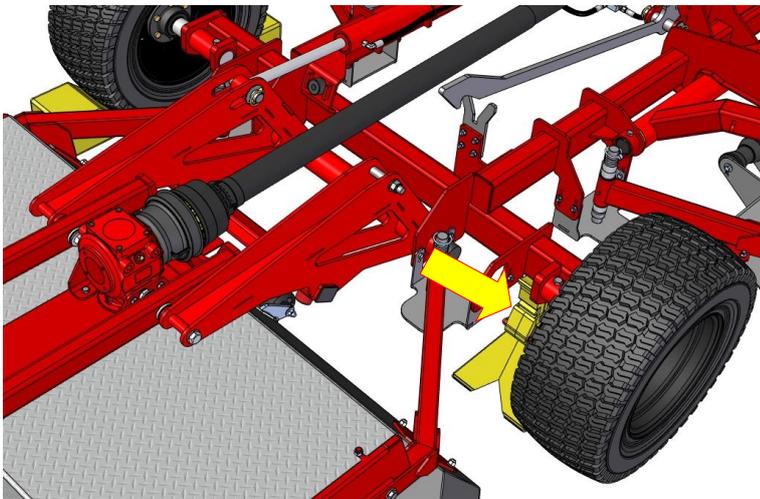
Chock the Wheel that is not being removed to prevent movement when jacking up the other side of the mower.



Use a suitable jack with a capacity of at least 1,500kg (1.5 ton).

Place the jack beneath the square steel tube that supports the axle and jack the chassis up to take part of the weight. Do not lift the Wheel clear of the ground at this stage.

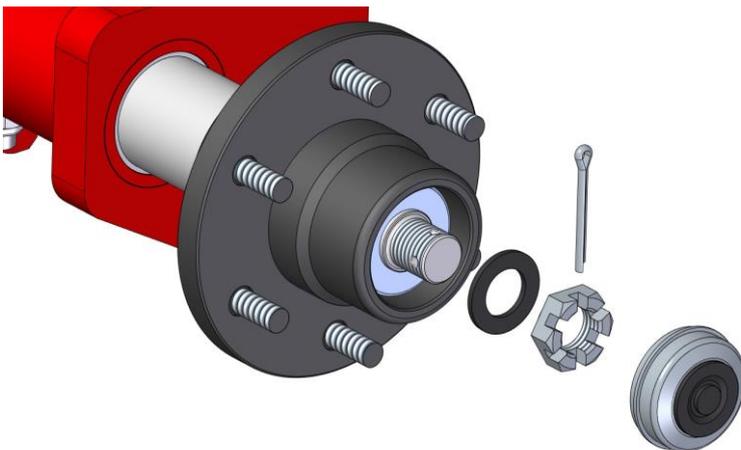
Use a Wheel brace (or a 21mm or 13/16" socket) to loosen the Wheel nuts. Turn them anti-clockwise about half a turn to loosen. Do not remove the nuts.



Jack the Wheel clear of the ground. Always make use of a suitable stand beneath the axle to ensure the chassis cannot fall unintentionally.

Lower the jack slightly so that the weight is taken on the stand.

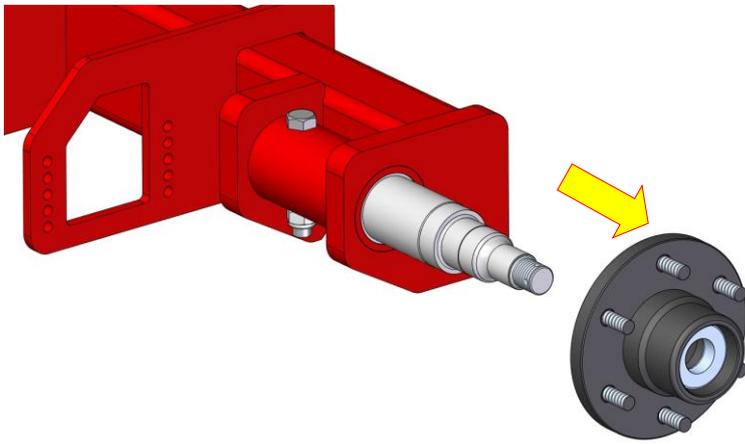
Remove the Wheel Nuts and the Wheel.



Remove the Hub Cap.

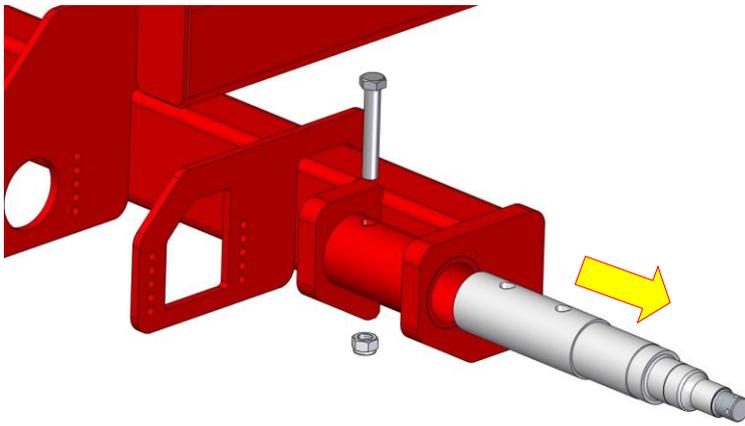
Remove the Split Pin and undo the Castle Nut.

Remove the 1" Flat Washer.

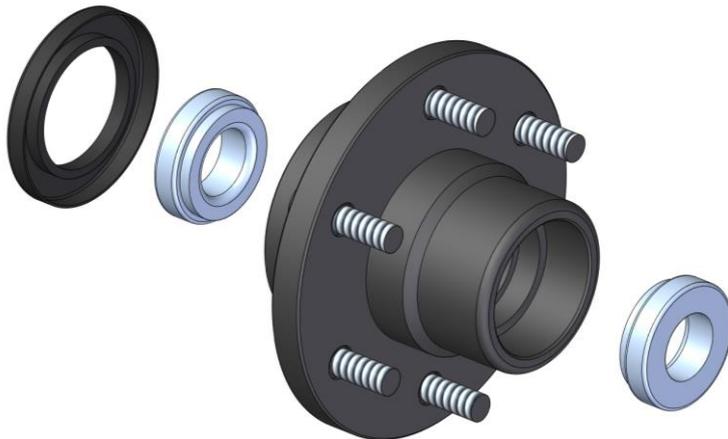


Remove the Hub from the Stub Axle. Hit the Hub flange from behind with a soft mallet if required.

If excessive bearing wear has occurred due to poor maintenance, then it may be necessary to use a Wheel Puller to dislodge the Hub from the Stub Axle.



Unbolt the Stub Axle and remove.

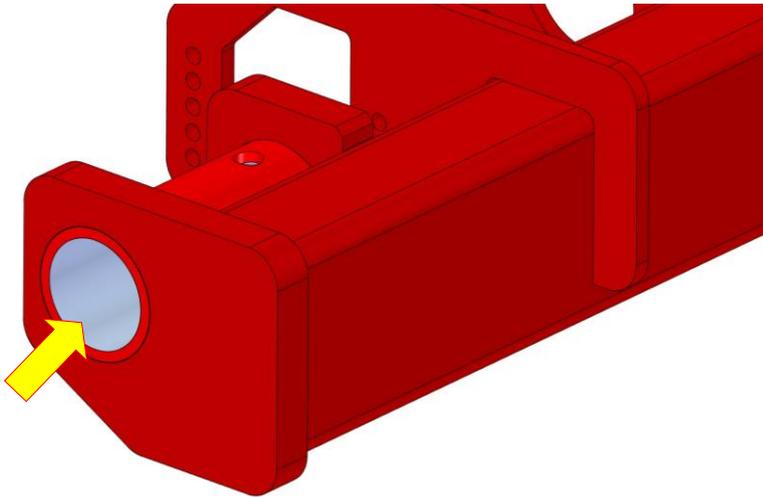


Inspect the Hub for damage and replace if necessary.

Replace Bearings, Seals and other parts if necessary.

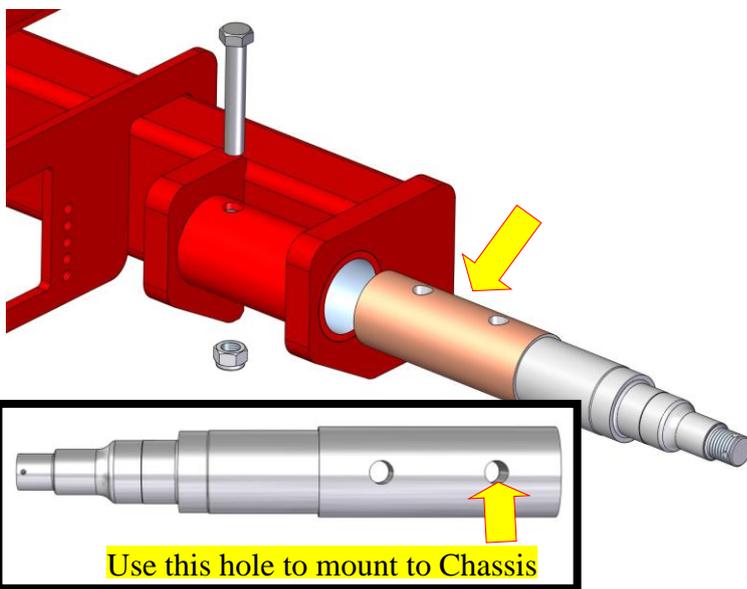
Clean out old grease if it has become degraded and/or dirty.

Refer to the Vulcan Parts Manual for ordering.



Inspect the inside of the Stub Axle Mount Tube.

Ensure it is smooth and clean.



Coat the new replacement Stub Axle with anti-seize compound where it inserts into the mounting tube.

Insert the Stub Axle into the Stub Axle Mount Tube.

Align the first hole in the Stub Axle with the hole in the Stub Axle Mount Tube to give the widest track to the chassis.

Install the M16 bolt and fully tighten the M16 nyloc nut.



Collect bearings / Seals / Hub Caps

Ensure that bearings are clean.

Apply grease to the bearings and half fill Hub Caps with grease if needed.



Install the Inner Bearing as shown.



Position Inner Seal in place as shown.



Gently tap the Inner Seal down flush with Hub using a suitably sized drift.



Turn the Hub over and partially fill the interior with grease if needed.

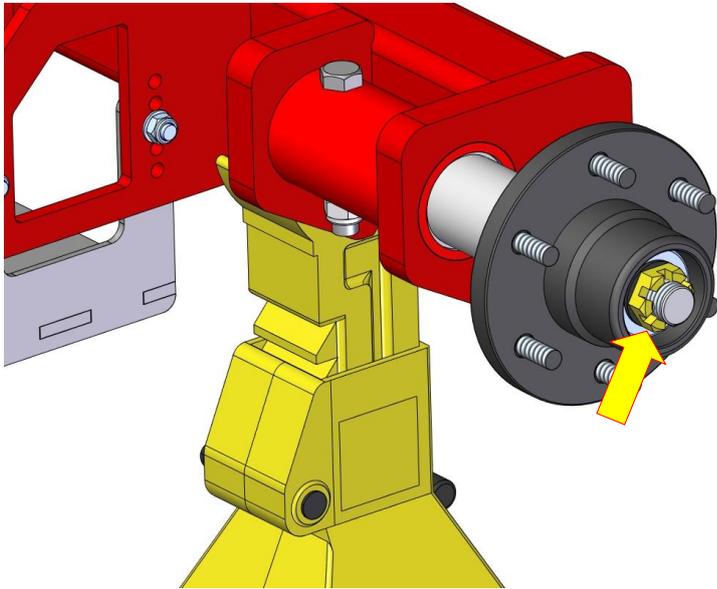


Install the fully greased Outer Bearing as shown.



Offer up the Hub assembly to the Stub Axle.

Take care not to damage the Inner Seal.



Offer up the Hub assembly to the Stub Axle.

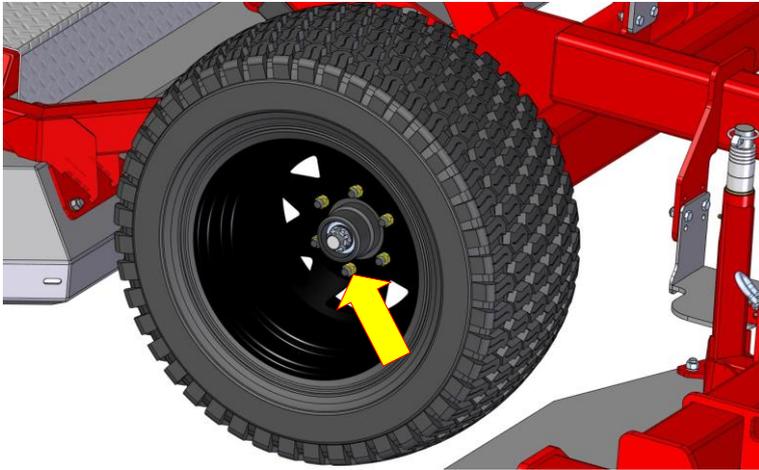
Install the 1" washer and castle nut and **fully tighten to position the bearings on the axle stub.**

Take care to ensure the rear seal is seated properly.



**IMPORTANT:**

Back the castle nut off by undoing it one full turn.



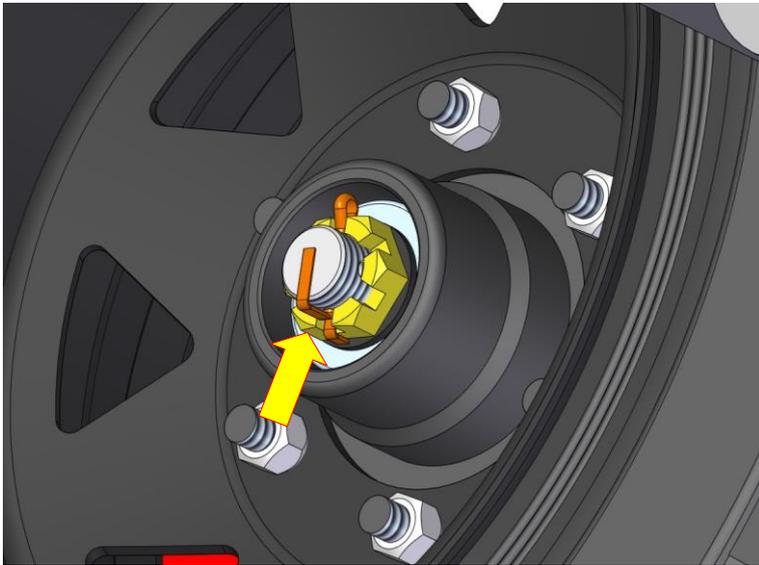
Offer up the Wheel to the Hub and hand tighten the Wheel Nuts.



Adjust the Castle Nut so that there is no play in the Bearings, but also so that the Wheel can still rotate freely.

If the Wheel does not turn easily the bearings may be adjusted too tightly.

Once adjusted align the Castle Nut and Split Pin hole. Insert the Split Pin as shown.



Bend the Split Pin so the **LONG** leg is **UP** and **OVER** the Stub Axle.

Bend the Split Pin so the **SHORT** Leg is **DOWN** over Castle Nut.



**Note:**

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



Install the previously greased Hub Cap.



Take the mower weight on the jack.

Remove stand.

Lower and remove the jack returning the mower to the ground.

Torque the Wheel nuts to 110Nm (80 lb-ft) in a crossways pattern then check each nut for tightness again.

This process is now complete.

