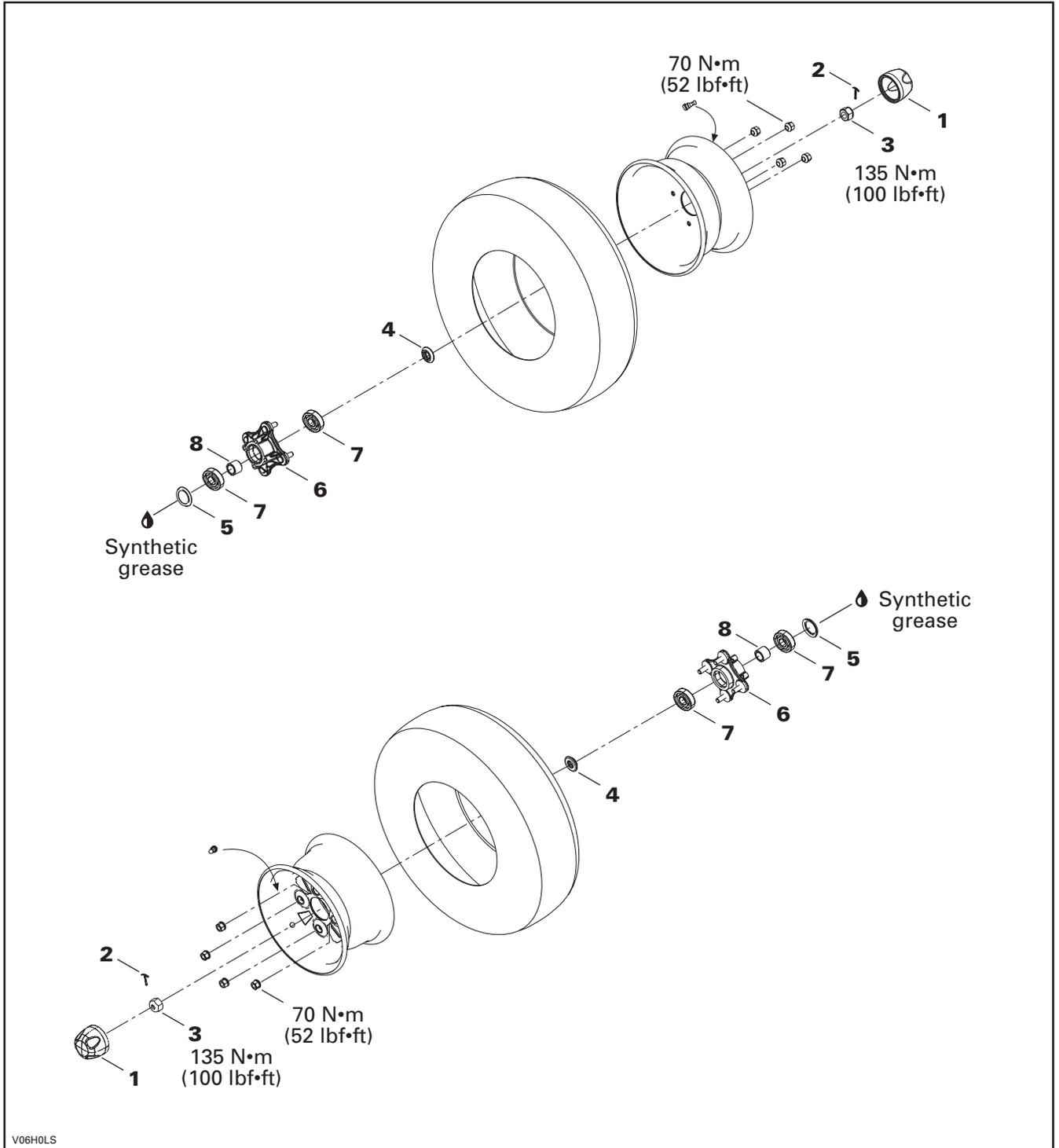


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FRONT DRIVE



Section 06 DRIVE TRAIN

Subsection 02 (FRONT DRIVE)

GENERAL

During assembly/installation, use torque values and service products as in the exploded view. Clean threads before applying threadlocker. Refer to SELF-LOCKING FASTENERS and LOCTITE APPLICATION at the beginning of this manual for complete procedure.

⚠ WARNING

Torque wrench tightening specifications must strictly be adhered to.

Locking devices (ex.: locking tabs, elastic stop nuts, self-locking fasteners, cotter pin, etc.) must be installed or replaced with new ones where specified. If the efficiency of a locking device is impaired, it must be renewed.

CAUTION: During installation, make sure every part is free from old grease and dirt. This allows for a clean re-assembly and will avoid premature wear caused by dirt contamination.

After each job, ride the vehicle for a few minutes and make sure the job is successful; i.e. wheels are not loose, front brakes operate correctly, etc.

FRONT WHEEL HUB

Removal

Apply front brakes.

Remove hub rubber cap **no. 1**.

Remove and discard cotter pin **no. 2**.

Loosen front drive nut **no. 3**.

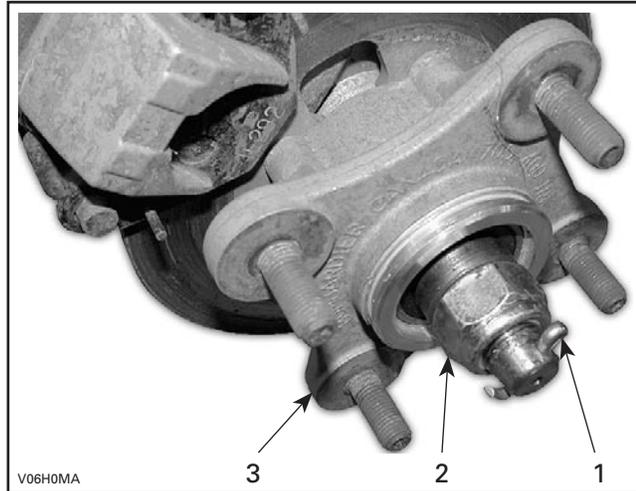
Lift front of vehicle and install jack stands under the frame to support the rear of vehicle off the ground.

Remove front wheels.

NOTE: Use the same procedure for both wheel hubs.

Unscrew front drive nut **no. 3**.

Remove bushing **no. 4**.



1. Cotter pin
2. Elastic nut
3. Front wheel hub

Release front brakes.

Unscrew and remove brake caliper.

Pull out wheel hub **no. 6**.

NOTE: The brake disk comes with the hub.

Inspection

Check wheel hub for cracks splines wear or other damage. Change if necessary.

Check wear ring and inner sleeve for damage, if so change them.

Check ball bearings **no. 7** for damage.

Outer ball bearing replacement

Place hub on a plane surface.

Offset inner sleeve **no. 8**. Using a hammer and a punch, eject defective bearing.

NOTE: Be careful not to damage hub, studs or brake disk while removing defective bearing.

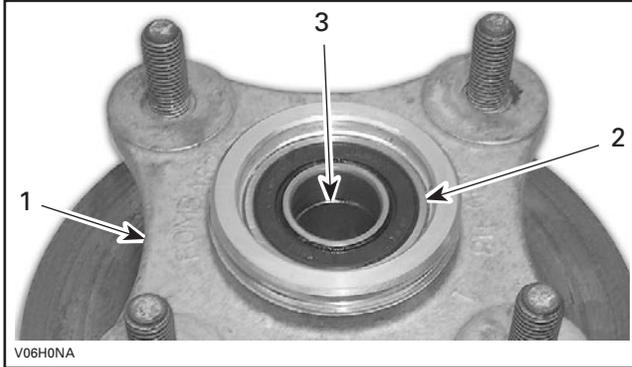
Place new bearing in a freezer for 10 minutes before installation.

To ease the assembly of the bearing, it is possible to heat the wheel hub at 212°F (100°C), 30 minutes in oven.

⚠ WARNING

Clean all grease, outside and inside, from housing before putting in oven.

Place hub in a press, make sure inner sleeve is in place, then carefully press new ball bearing in place.



- 1. Hub
- 2. Ball bearing
- 3. Inner sleeve

The wear ring **no. 5** must press into a dry bore. Use brake cleaner to make sure the bore is free of grease where the seal goes.

CAUTION: If the seal is pressed into a slippery bore, it will misalign or pop out when the vehicle will be running, which will lead to a bearing failure.

Inner ball bearing replacement

Remove and discard wear ring.

Offset inner sleeve **no. 8**. Using a hammer and a punch, eject defective bearing.

NOTE: Be careful not to damage hub, studs or brake disk while removing defective bearing.

Place new bearing in a freezer for 10 minutes before installation.

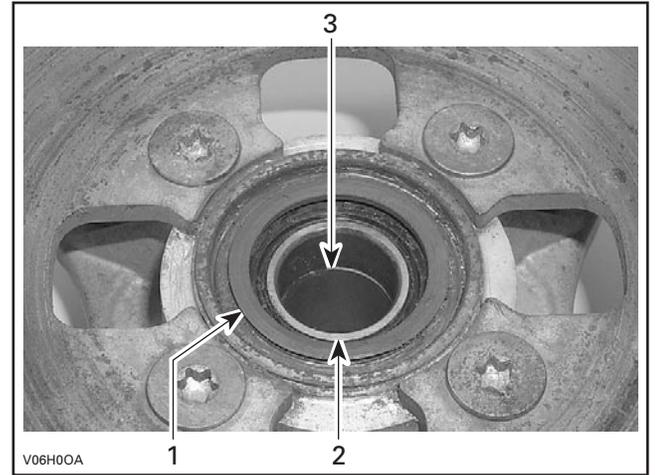
To ease the assembly of bearing, it is possible to heat the wheel hub at 212°F (100°C), 30 minutes in oven.

⚠ WARNING

Clean all grease, outside and inside, from housing before putting in oven.

Place hub in a press, make sure inner sleeve is in place, then carefully press new ball bearing in place.

Using the press, carefully install a new wear ring.



- 1. Wear ring
- 2. Ball bearing
- 3. Inner sleeve

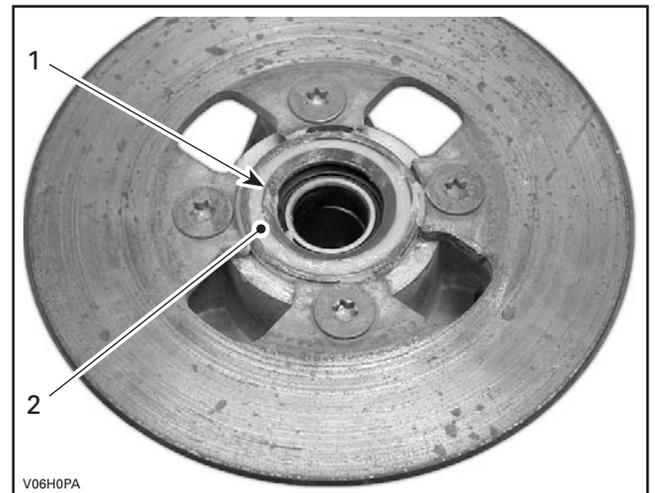
The wear ring **no. 5** must press into a dry bore. Use brake cleaner to make sure the bore is free of grease where the seal goes.

CAUTION: If the seal is pressed into a slippery bore, it will misalign or pop out when the vehicle will be running, which will lead to a bearing failure.

Installation

For installation, reverse the removal procedure. Pay attention to the following details.

Apply synthetic grease (P/N 293 550 019) in the gap between wear ring **no. 5** and inner ball bearing.



- 1. Wear ring
- 2. Synthetic grease

Section 06 DRIVE TRAIN

Subsection 02 (FRONT DRIVE)

Install wheel hub **no. 6**.

Put the bushing in place.

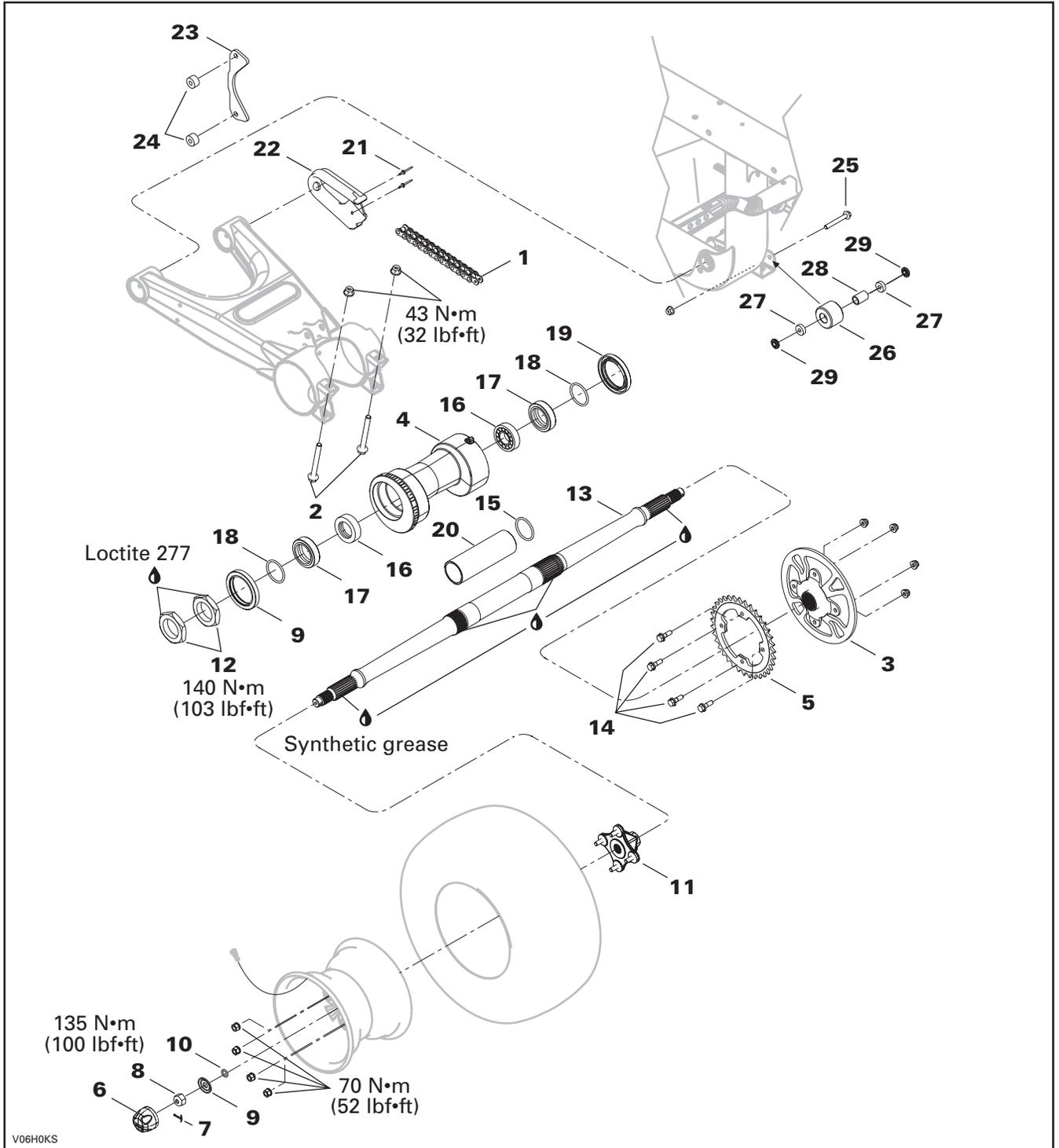
Put the wheel hub nut and tighten.

Install new cotter pin. Both ends of cotter pin must be folded.

Install both front wheels.

Put vehicle back on the ground.

REAR AXLE



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Section 06 DRIVE TRAIN

Subsection 03 (REAR AXLE)

GENERAL

During assembly/installation, use torque values and service products as in the exploded view. Clean threads before applying threadlocker. Refer to SELF-LOCKING FASTENERS and LOCTITE APPLICATION at the beginning of this manual for complete procedure.

⚠ WARNING

Torque wrench tightening specifications must strictly be adhered to.

Locking devices (ex.: locking tabs, elastic stop nuts, self-locking fasteners, cotter pin, etc.) must be installed or replaced with new ones where specified. If the efficiency of a locking device is impaired, it must be renewed.

CAUTION: During installation, make sure every part is free from old grease and dirt. This allows for a clean re-assembly and will avoid premature wear caused by dirt contamination.

After each job, ride the vehicle for a few minutes and make sure the job is successful; i.e. axle is not loose, chain is not rubbing on any part or making noise, rear brake operates correctly, etc.

DRIVE CHAIN

Adjust and lubricate drive chain **no. 1** before each use.

⚠ WARNING

Place ignition switch to OFF before check, adjust or lubricate drive chain.

CAUTION: Never operate this vehicle with the drive chain too loose or too tight as severe damage to the drive components can occur.

Inspection

This ATV is equipped with O-ring and permanently greased sealed bearings. Before operating the vehicle, always inspect the drive chain.

Check the free play of drive chain and adjust if necessary.

Check for damage or missing O-ring or rollers.

Lubrication and Cleaning

CAUTION: Never wash the chain with a high pressure washer or gasoline. Damage to the O-ring will result, causing premature wear and drive chain failure.

Clean the side surfaces of the chain with a dry cloth.

NOTE: Do not brush chain.

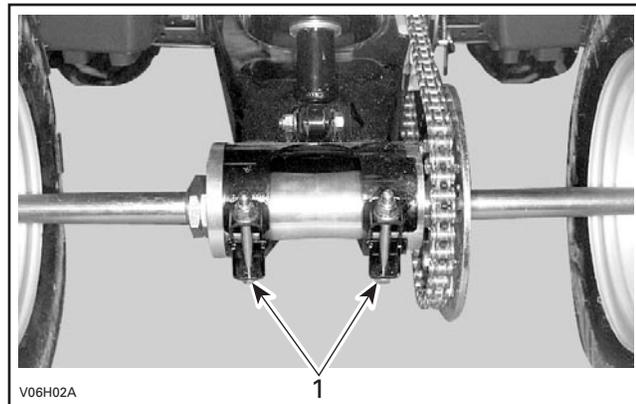
Lubricate only with an approved O-ring chain lubricant. Other commercial chain lubricants may contain solvent which could damage the O-rings.

Adjustment

NOTE: Never adjust drive chain **no. 1** with the driver seated on the vehicle. Remove all load on vehicle.

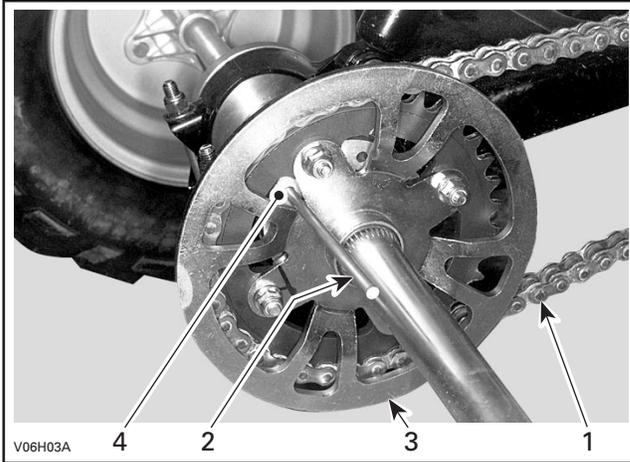
Select a level surface and set transmission to NEUTRAL.

Loosen chain tensioner lock bolts **no. 2**.



1. Chain tensioner lock bolts

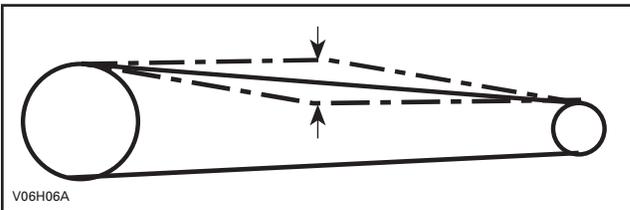
Insert adjuster lock through sprocket hub **no. 3** and into chain tensioner **no. 4**.



1. Drive chain
2. Adjuster lock
3. Sprocket hub
4. Chain tensioner

Adjust chain deflection by slowly moving the ATV forward so any slack that may have previously been on the lower part of the chain is now on top. The bottom part of the chain should be tight during adjustment.

The deflection should be between 20 and 30 mm (3/4 and 1-3/16 in).



Turn the axle forward to increase or backwards to decrease chain free play.

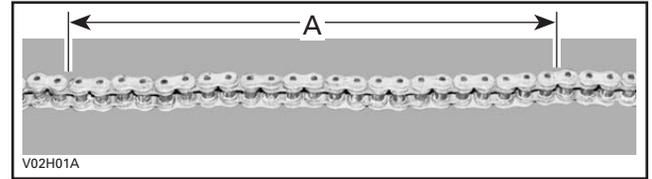
Tighten the chain tensioner lock bolts to 43 N•m (32 lbf•ft).

CAUTION: Never operate this vehicle with the drive chain too loose or too tight as severe damage to the drive components can occur.

When the adjustment is done, repeat the above procedure to check the deflection several times on different spots of the chain.

Replacement

With the chain installed on vehicle, measure the distance between a span of 13 links from pin center to pin center. Change drive chain if the distance exceeds the service limit.



A. 404 mm (15-29/32 in)

CAUTION: Replace chain **no. 1**, engine sprocket and rear sprocket **no. 5** together to prevent rapid chain and sprockets wear. Install a new tab washer each time the engine sprocket is removed.

REAR WHEEL HUB

Removal

Lift rear of vehicle and install jack stands under the frame to support the rear of vehicle off the ground.

Remove rear wheel.

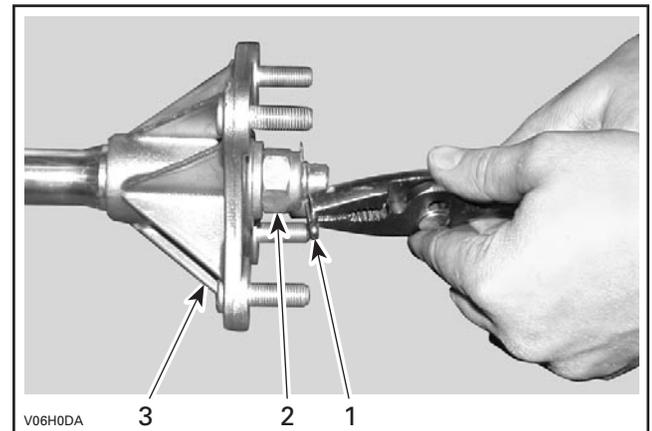
NOTE: Use the same procedure for both wheel hubs.

Apply rear brake.

Remove rubber cap **no. 6**.

Remove cotter pin **no. 7** and unscrew elastic nut **no. 8**. Discard the cotter pin.

Remove washer **no. 9** and the O-ring **no. 10**.



1. Cotter pin
2. Elastic nut
3. Rear wheel hub

Pull out wheel hub **no. 11**.

Inspection

Check wheel hub for cracks splines wear or other damage. Change if necessary.

Check O-ring for damage. If so, change it.

Section 06 DRIVE TRAIN

Subsection 03 (REAR AXLE)

Installation

For installation, reverse the removal procedure. Pay attention to the following details.

Apply synthetic grease (P/N 293 550 019) on splines.

Install wheel hub **no. 11**.

Put the O-ring in place.

Put on the wheel hub nut **no. 8** and tighten.

Release rear brake.

Install new cotter pin. Both ends of cotter pin must be folded.

Install rubber cap.

Install rear wheel.

Put vehicle back on the ground.

With no driver on vehicle, adjust chain tension.

Tighten the chain tensioner lock bolts.

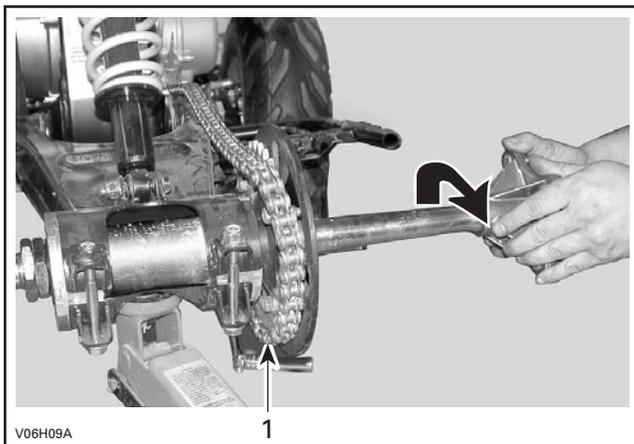
REAR SPROCKET AND HUB

Removal

Lift rear of vehicle and install jack stands under the frame to support the rear of vehicle off the ground.

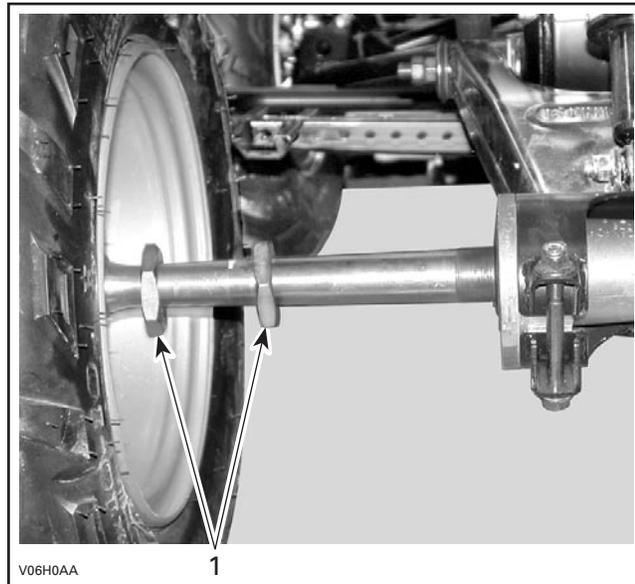
Remove RH rear wheel and wheel hub **no. 11**.

Remove drive chain **no. 1**.



1. Remove chain

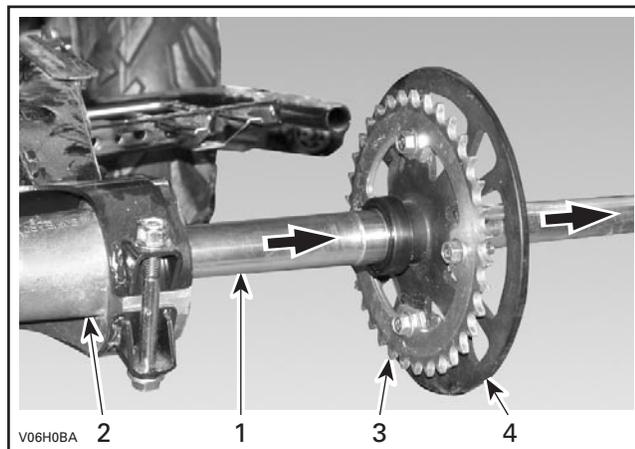
Unscrew locking nuts **no. 12** by using 51 mm (2 in) crowfoot (P/N 529 035 884) and 51 mm (2 in) open wrench (P/N 529 035 866).



1. Locking nuts

Remove LH rear wheel and wheel hub.

Pull out the rear axle **no. 13** with rear sprocket **no. 5** and rear sprocket hub **no. 3** from drive chain tensioner **no. 4**.



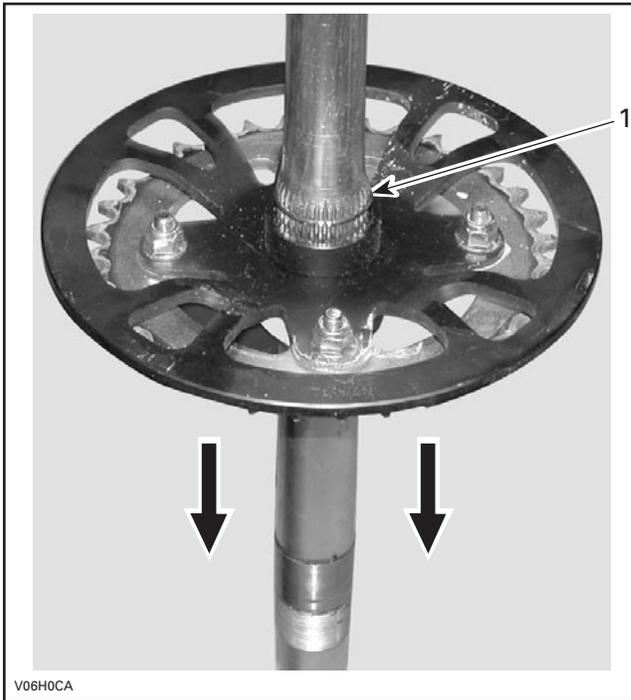
1. Rear axle
2. Chain tensioner
3. Rear sprocket
4. Rear sprocket hub

Rear Sprocket Removal

Unscrew the bolts **no. 14** and remove rear sprocket from rear sprocket hub **no. 3**.

Rear Sprocket Hub Removal

Push down the rear sprocket hub **no. 3** on rear axle to get access of retainer ring **no. 15**.

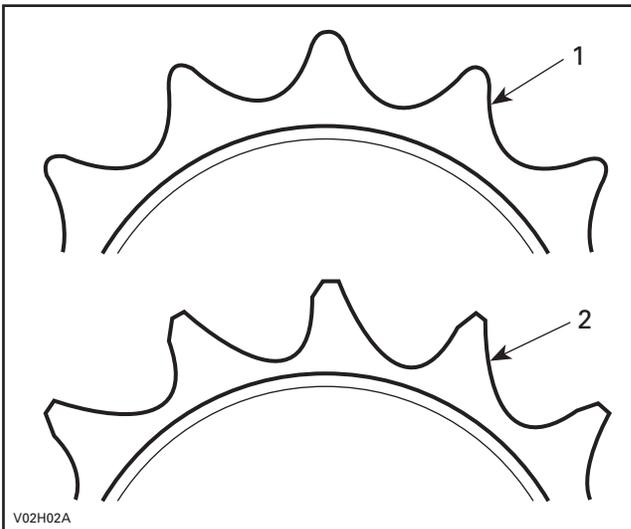


1. Retainer ring

Remove retainer ring **no. 15** and pull out the rear sprocket **no. 5** out with rear sprocket hub **no. 3**.

Inspection

Check the rear axle, sprocket and hub for distortion, excessive wear or other damages.



1. Good
2. Replace

CAUTION: Replace chain, engine sprocket and rear sprocket together to prevent rapid chain and sprockets wear. Install a new tab washer each time the engine sprocket is removed.

Installation

For installation, reverse the removal procedure.

REAR AXLE

Removal

Lift rear of vehicle and install jack stands under the frame to support the rear of vehicle out off the ground.

Remove rear wheels.

Remove the LH and RH wheel hubs **no. 11**.

Apply rear brake.

Remove locking nuts **no. 12**.

Unscrew the chain tensioner lock bolts **no. 2**.

Release rear brake.

Install adjuster lock and release drive chain tension.

Remove drive chain from rear sprocket.

Slide out the axle from the right side of the chain tensioner **no. 4**. If the vehicle was used with failed bearings, many parts around the bearing area may be damaged. It is possible that the axle will not slide out easily if the bearings are seized on it.

Inspection

Check axle for bending, torsion or other damage. Change if necessary.

Check axle for rust. Rust indicates a possible damage to axle. Change axle if necessary.

If bearings **no. 16** are seized on the axle, the axle must be replaced or its surface cleaned. Bearings must still have a slide fit on the axle, otherwise it will result in a faulty re-assembly and a failure may occur. Bearing races on the axle must be in good condition.

If the sprocket hub **no. 3** has been damaged, replace it also.

If wear sleeves **no. 17** are damaged replace them.

Installation

Insert the axle assembly into the swing arm from the right side.

Apply rear brake.

Apply Loctite 277 on locking nut threads then install them.

Using an open wrench (P/N 529 035 866) and a crow foot (P/N 529 035 884), torque each nut to 140 N•m (103 lbf•ft).

Section 06 DRIVE TRAIN

Subsection 03 (REAR AXLE)

Apply synthetic grease (P/N 293 550 019) on axle splines.

Install the rear wheel hubs. See the procedure above.

Release rear brake.

Install both rear wheels.

Put vehicle back on the ground.

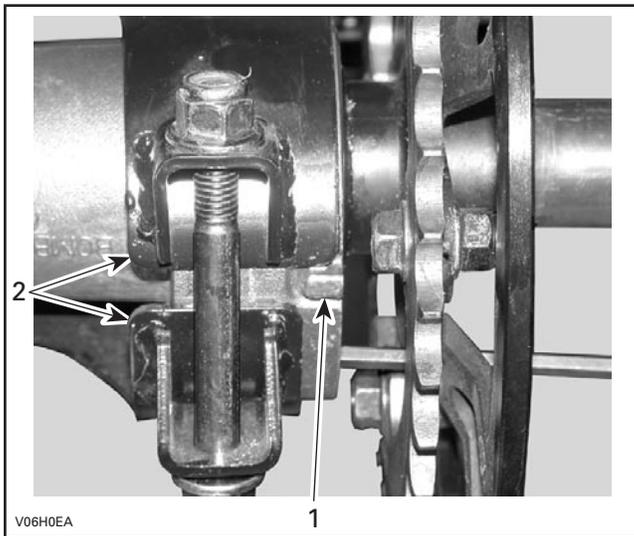
CHAIN TENSIONER

Removal

Remove the rear axle.

Slide out the chain tensioner **no. 4** from the left side of the swing arm.

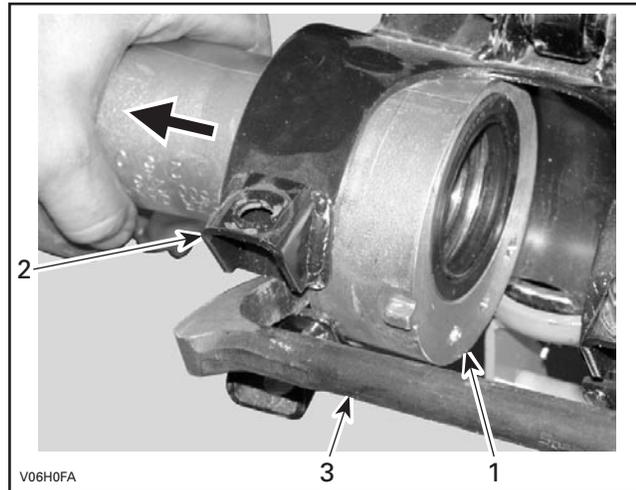
NOTE: To pull the chain tensioner out, align the protrusion with the swing arm groove.



1. Chain tensioner protrusion
2. Swing arm groove

Dirt inside the swing arm may cause resistance during removal procedure. Use a soft tool to hammer out the chain tensioner if required.

Use pry bar to open the swing arm groove to push the chain tensioner out from the swing arm.



1. Chain tensioner
2. Swing arm
3. Pry bar

Inspection

Look at the chain tensioner for damage. The bore must be free of scratches in order to receive new bearings and seals.

Installation

Installation takes place in the reverse order of removal.

Carefully slide the chain tensioner over the axle and seat it against the sprocket hub; the 3 hole side of the chain tensioner goes toward the right side.

NOTE: Make sure it is fully seated.

Install all other parts.

Adjustment

Refer to DRIVE CHAIN at the beginning of this section for proper chain tension adjustment.

CHAIN TENSIONER BEARINGS

Inspection

The rear axle should turn smoothly and quietly inside chain tensioner. If not, change the bearings.

If bearings **no. 16** are seized on the axle, the axle must be replaced or its surface cleaned. Bearings must still have a slide fit on the axle, otherwise it will result in a faulty re-assembly and a failure may occur. Bearing races on the axle must be in good condition.

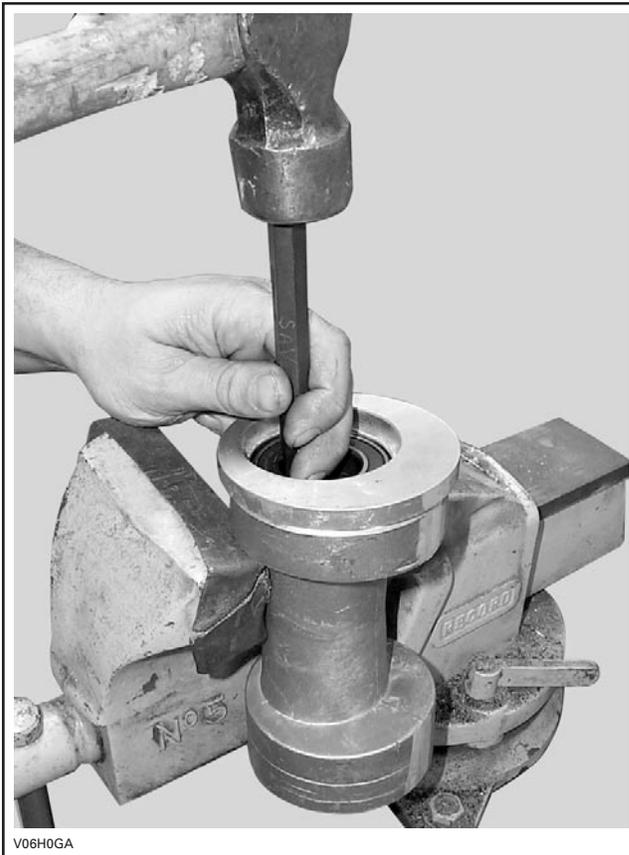
Removal

NOTE: Bearings and seals must be replaced if removed.

Remove O-ring **no. 18**.

Pry out drive axle seals **no. 19**. Be careful not to damage seal bore or chain tensioner.

Use a punch and drive bearings cup outward from opposite end of housing.



Installation

Place new bearings in a freezer for 10 minutes before installation.

If removed, clean sleeve **no. 20** from dirt and grease, then also place it in the freezer for 10 minutes.

To ease the assembly of bearings, it is possible to heat the chain tensioner at 212°F (100°C), 30 minutes in oven.

⚠ WARNING

Clean all grease, outside and inside, from housing before putting in oven.

Place spacer **no. 20** into chain tensioner bore.

Press the bearing into the chain tensioner.



The seal must press into a dry bore. Use brake cleaner to make sure the bore is free of grease where the seal goes.

CAUTION: If the seal is pressed into a slippery bore, it will misalign or pop out when the vehicle will be running, which will lead to bearing failure.

Press the seal **no. 19** in place. Properly installed, it is flush with the edge of the chain tensioner.

Install all other parts.

SLIDER-SHOE

Removal

Remove rear axle.

Remove swing arm. Refer to REAR SUSPENSION.

Drill rivets **no. 21** and remove slider-shoe **no. 22**.

Installation

Installation takes place in the reverse order of removal.

Section 06 DRIVE TRAIN

Subsection 03 (REAR AXLE)

CHAIN GUIDE

Removal

Remove RH footrest (refer to BODY).

Remove rear brake caliper and disc (refer to BRAKE).

Remove chain guide **no. 23** and spacers **no. 24**.

Installation

For installation, reverse the removal procedure.

CHAIN ROLLER

Removal

Unscrew bolt **no. 25** retaining the chain roller **no. 26**.

Remove the chain roller with ball bearings **no. 27**, bushing **no. 28** and spacer **no. 29**.

Inspection

Replace any broken, worn or defective part.

Installation

For installation, reverse the removal procedure.