



Release Date: August 13, 2021

Communication #: T-21-01

Model Year(s): 2020-2021

- Confidential and Proprietary -

SLI

# **VERSION: R01 (August 13, 2021)**

# **IMPORTANT STOP SALE SAFETY NOTICE!**

Stop selling affected vehicles immediately until the repair procedure has been completed on affected units at your dealership. Federal law prohibits the sale of products subject to a recall. Selling such products could subject the seller to substantial penalties.

### IMPORTANT

If you are working with a printed copy, please verify you have the most current version of this document.

# SUBJECT: REAR AXLE STUDS

# PURPOSE

Polaris has determined that some 2020-2021 Slingshot vehicles may have rear wheel studs that were not pressed into the axle fully during the supplier's assembly process. An improperly installed rear wheel stud could lead to loosening of the rear lug nuts, resulting in a loose or detached rear wheel during operation, increasing the risk of a crash.

This recall has been released to instruct dealers to complete the outlined inspection to identify any improper axle assemblies and replace if necessary.

# **AFFECTED MODELS**

MODEL YEAR	MODELS	AFFECTED RANGE
2020–2021	All Slingshot Models	Reference Unit Inquiry on the dealer website or the Service Communications list on the STOP site to look up affected units.

# **CUSTOMER NOTIFICATION**

Dealers are required to review their sales records and make arrangements with customers for Recall completion. In addition to consumer units, dealers are required to correct any affected units in their inventory. Polaris will be mailing a notification letter to consumers affected by this Recall.

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# WARRANTY CLAIM INFORMATION

REAR AXLE STUD INSPECTION				
Bulletin #	T-21-01-A			
Claim Type	SB (Service Bulletin)			
Labor Allowance	0.3 hours (18 minutes)			
Part Number / Description	0000541 (QTY 1) Bulletin Misc Labor			
Parts Availability	NA			
University of Polaris Video Training Required	Yes <sup>1</sup>			

<sup>1</sup>Polaris requires one person from a dealership to be certified before parts ordering may occur and one person from a dealership to be certified before warranty claims may be processed.

#### Claim Submission:

- US / Canada Dealers: On DEX, go to Service and Warranty > Warranty Claim and Extended Coverage > Start a New Warranty Claim. Select Service Bulletin> Enter the VIN / PIN and Retrieve Registration. Select T-21-01-A and Send Claim.
- International Dealers: On iDEX, go to Service and Warranty> Warranty Claims>Start a New Warranty Claim. Select Service Bulletin> Enter the VIN / PIN and Retrieve Registration. Select T-21-01-A and Send Claim

REAR AXLE REPLACEMENT				
Bulletin #	Т-21-01-В			
Claim Type	SB (Service Bulletin)			
Labor Allowance	2.0 hours (120 minutes)			
Part Number / Description	TBD			
Parts Availability	Limited quantities available starting the week of 8/16/2021 Part details will be updated once available. Dealers are encouraged to begin inspecting vehicles. It is expected that most will pass the inspection process.			
University of Polaris Video Training Required	Yes <sup>1</sup>			

<sup>1</sup>Polaris requires one person from a dealership to be certified before parts ordering may occur and two people from a dealership to be certified before warranty claims may be processed.

#### **Claim Submission:**

- US / Canada Dealers: On DEX, go to Service and Warranty > Warranty Claim and Extended Coverage > Start a New Warranty Claim. Select Service Bulletin> Enter the VIN / PIN and Retrieve Registration. Select T-21-01-B and Send Claim.
- International Dealers: On iDEX, go to Service and Warranty> Warranty Claims>Start a New Warranty Claim. Select Service Bulletin> Enter the VIN / PIN and Retrieve Registration. Select T-21-01-B and Send Claim

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# **INVENTORY / STOCK PART CLAIMS**

Dealers should review their service parts inventory for affected parts. Parts that **PASS** inspection can be used and should not be removed from circulation. Parts that **FAIL** inspection should be removed from circulation. Inspect the following parts before use:

#### • 1323825

#### IMPORTANT

Inspect the parts by following the inspection procedure outlined in the bulletin. Parts that **PASS** inspection can be used and should not be removed from circulation. If a part **FAILS** the inspection, proceed with removing the part from circulation.

#### NOTICE

#### To remove these service parts from circulation, file a Part Stock claim as directed below.

Use the following process for filing a Part Stock warranty claim for any of the parts listed above.

- 1. Start a new Part Stock warranty claim.
- 2. Select Product Line: SLI
- 3. Enter today's date into the Date Failed and Date Repair information fields
- 4. Enter T-21-01 into the CONCERN field.
- 5. Enter T-21-01 into the CAUSE field.
- 6. Enter Removed From Inventory into the CORRECTION field.
- 7. Enter the part number and quantity.
- 8. Enter warranty fail codes: 110/198/253
- 9. Validate the parts.
- 10. Save and submit the claim to Polaris.

# ACCESSORY LABOR

Polaris will cover labor for the removal and installation of accessories required to complete the bulletin work. Follow the steps below to obtain reimbursement.

#### For accessory removal and installation up to 30 minutes of labor:

Enter the actual labor time for the removal and installation into the Accessory R&R Min Field on the bulletin claim.

#### For accessory removal and installation over 30 minutes of labor:

- 1. Start a new Ask Polaris Case, Service & Warranty Question > Authorization: In Warranty or Polaris ESC or Authorization: Out of Warranty.
- 2. Enter your contact information and VIN / PIN, along with miles and hours into the applicable fields.
- Enter T-21-01 in the CONCERN and CAUSE fields. In the CORRECTION field, enter "ACCESSORY REMOVAL AND INSTALLATION".
- 4. Enter warranty fail codes 171/279/312.
- 5. Add part 0000541, quantity 1.
- 6. Attach photos of the vehicle and accessories sufficient to support the labor time requested.
- 7. Submit the case to Polaris.

# **BULLETIN CONTACT LIST & SCHEDULING TOOL**

A scheduling tool is available for dealers to keep a record of customers contacted and scheduled for this bulletin. This optional tool provides visibility for your dealership and will be helpful to track the status of scheduled service. For more information, log in to http://www.universityofpolaris.com.

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# **COVERAGE PERIOD**

Coverage will begin on August 13, 2021. This bulletin has no expiration date.

# UNIVERSITY OF POLARIS TRAINING REQUIREMENT

Each member of your service department team must complete the training on University of Polaris prior to completing **ANY** work, or submitting **ANY** warranty claim for this Bulletin. You must complete the entire course on University of Polaris in order to get credit.

www.universityofpolaris.com

# **REPAIR AUDIT INFORMATION**

#### IMPORTANT

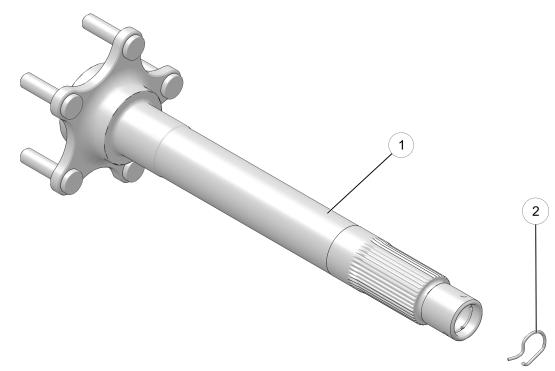
Several steps of this procedure require an audit by a service manager, owner, or lead technician that completed the bulletin training but did not complete the repair. Please note that there is NOT an associated Dealer Confirmation document that needs to be completed and retained by the dealer.

# **FEEDBACK FORM**

A feedback form has been created for the technician to provide Polaris with an overall satisfaction rating for the instructions, provide comments on your experience or upload pictures/video. The form is viewable on mobile devices by scanning the QR code or on a PC by clicking HERE.



# **KIT CONTENTS**



### 2209611 - KIT-SERVICE, REAR AXLE

REFERENCE	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY
1	1	ASM - AXLE, REAR	1323825
2	1	CIRCLIP - AXLE NUT, REAR	5341279
-	1	INSTR, K-SERVICE, REAR AXLE	9940544
-	1	LOCTITE-680, 10ML	8560253

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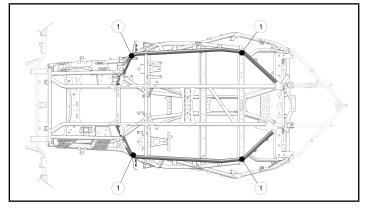
# **T-21-01-A REAR AXLE INSPECTION**

## **TOOLS REQUIRED**

- Vehicle Lift/Support Equipment
- Feeler Gauge .003" (0.076 mm)
- Paint Pen

## **REAR AXLE INSPECTION**

- 1. Park vehicle on a flat surface.
- 2. Park the vehicle over an automotive-style 2 post lift. An automotive-style, 2-post lift is recommended for lifting the vehicle due to the vehicle design. Always ensure the vehicle lift is rated at a capacity greater to the vehicle being lifted.
- 3. Shift vehicle to NEUTRAL.
- 4. Press START/STOP button to turn vehicle OFF.
- 5. Apply parking brake.
- 6. Remove key fob from proximity of vehicle.
- 7. For ease of access to the axle studs, raise the vehicle off the ground:
  - Place the lift pads directly on the frame. Place the front lift pads just forward of where the side panels attach to the bottom of the frame. Place the rear lift pads on the frame where the longitudinal frame members meet the farthest rear frame cross member. Ensure the all 4 lift pads are properly placed on the frame 1 before beginning to lift the vehicle. Lift the vehicle until the wheels are raised just off the ground. Firmly press on the vehicle to ensure the vehicle is stable and will not fall while lifted.



#### IMPORTANT

Make sure you lift the vehicle using the appropriate lift points.

## 

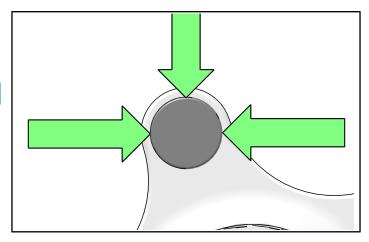
Serious injury may result if the vehicle tips or falls. Be sure the vehicle is secure before beginning this procedure. Always wear eye protection.

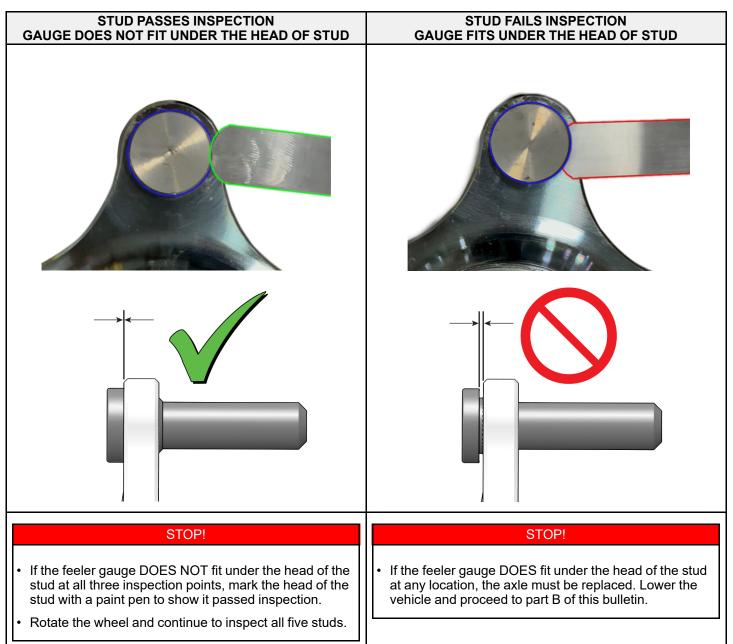
#### 8.

From the passenger side of the vehicle, gain access to the axle stud by rotating the rear wheel so one of the studs is upward, in the opening above the swing arm. Using a .003" feeler gauge, insert into three sides between the head of the stud and axle as shown.

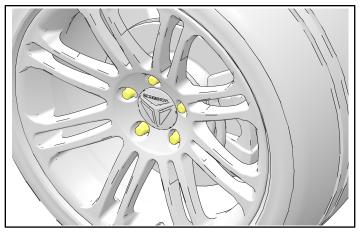
### NOTICE

The rear wheel and brake caliper do not need to be removed to perform this inspection.





9. If all five studs pass the feeler gauge inspection, lower the vehicle and torque the lug nuts to specification.



#### IMPORTANT

Re-inspect any stud that requires more than 45 degrees of rotation before reaching the specified torque; as this may indicate an improperly seated stud.

### TORQUE

Wheel Lug Nuts: 75 ft-lbs (102 N·m)

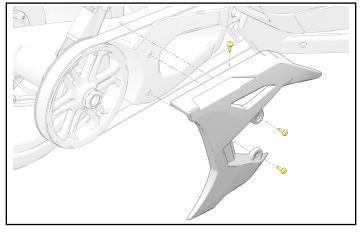
- 10. Test drive the vehicle.
- 11. Submit a Service Bulletin Warranty Claim for T-21-01-A.

# T-21-01-B REAR AXLE REPLACEMENT TOOLS REQUIRED

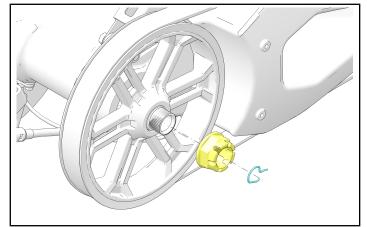
- · Safety Glasses
- Pliers, Needle Nose
- Socket Set, Metric
  Socket Size 15, 17, 45 mm
- Socket Set, Torx<sup>®</sup> Bit - Socket Size T40
- Special Service Tool:
  Wheel Sprocket Puller Seat 5264214 OR PU-53131
- Torque Wrench
- Vehicle Lift/Support Equipment

# **REAR AXLE REMOVAL**

- 1. Engage parking brake.
- 2. Remove three T-40 fasteners and Drive Belt Cover.



3. Remove Circlip and Axle Nut.



### NOTICE

Heat may need to be applied to aid in the release of Loctite®. If required, apply heat to the axle nuts threads.

### IMPORTANT

Use care not to damage any components while using heat to remove the axle nut.

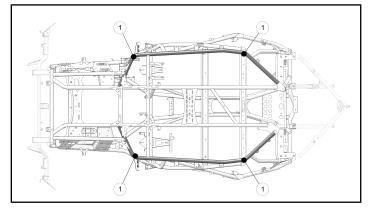
### IMPORTANT

Keep and clean the axle nut. DISCARD the circlip.

- 4. Release parking brake.
- 5. Raise vehicle off the ground:

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Place the lift pads directly on the frame. Place the front lift pads just forward of where the side panels attach to the bottom of the frame. Place the rear lift pads on the frame where the longitudinal frame members meet the farthest rear frame cross member. Ensure the all 4 lift pads are properly placed on the frame 1 before beginning to lift the vehicle. Lift the vehicle until the wheels are raised just off the ground. Firmly press on the vehicle to ensure the vehicle is stable and will not fall while lifted.



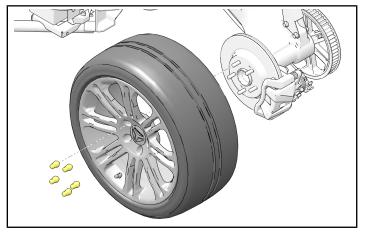
#### IMPORTANT

Make sure you lift the vehicle using the appropriate lift points.

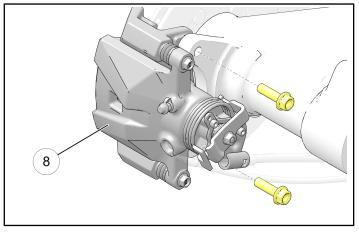
## 

Serious injury may result if the vehicle tips or falls. Be sure the vehicle is secure before beginning this procedure. Always wear eye protection.

6. Remove lug nuts and remove rear wheel.



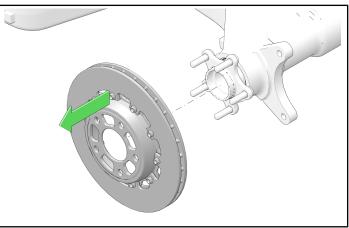
7. Remove two fasteners and brake caliper (8). Retain fasteners for installation.



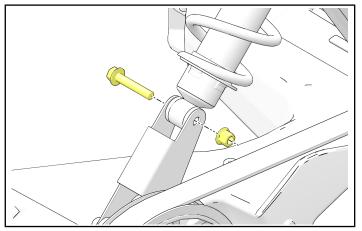
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When removing caliper, use care not to damage brake line. Support caliper to avoid kinking or bending brake line.

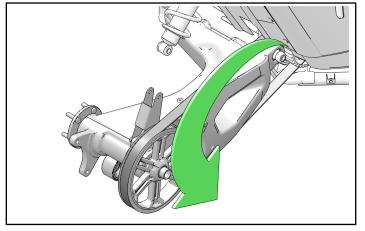
8. Remove brake disc from the axle.



9. Support swingarm and remove lower shock mount bolt.



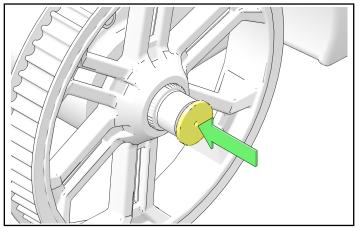
10. Allow swingarm to pivot downward and remove drive belt.



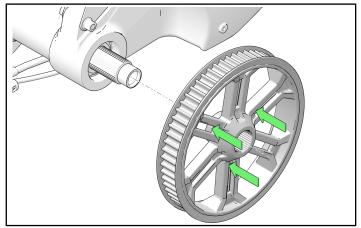
## 

Use caution when lowering swingarm not to damage brake line and hoses.

- 11. With the help of an assistant, pivot swingarm upward and loosely re-install lower shock mount bolt.
- 12. Install Wheel Sprocket Puller Seat 5264214 or PU-53131, into the open end of the axle.



13. Use a commercially available 3 jaw puller to remove the rear sprocket, pressing against the puller seat. Install the puller between the sprocket spokes as shown.



#### NOTICE

Heat may need to be applied to aid in the release of Loctite®. If required, apply heat to the inner splines of the rear sprocket.

### **A**CAUTION

Use care not to damage any components while using heat to remove the sprocket from the axle.

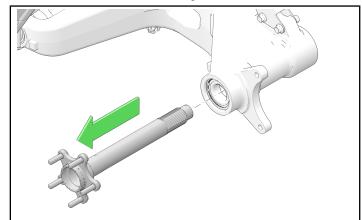
## 

Do not use puller on outer flange of the sprocket. Pulling on the outer flange will damage the sprocket.

## 

Allow components to cool or wear protective gloves when removing.

14. Remove axle from the swingarm and DISCARD.



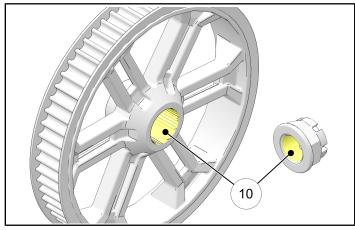
### NOTICE

If required, use a soft faced hammer to drive the axle out of the swingarm.

## **WARNING**

Allow components to cool or wear protective gloves when removing.

15. Remove all Loctite® residue. Using degreaser and a wire brush, thoroughly clean the sprocket splines and the axle nut <sup>(10)</sup>.



#### IMPORTANT

Make sure the sprocket and axle nut are completely dry after cleaning.

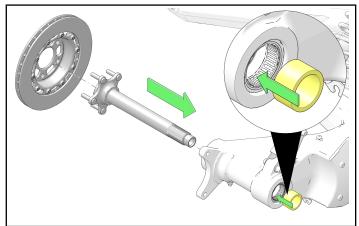
### IMPORTANT — AUDIT STEP

A secondary person is required to inspect the sprocket splines and axle nut to make sure they are free of Loctite® residue.

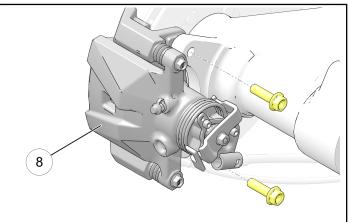
16. Inspect all components for damage.

## **REAR AXLE INSTALLATION**

1. If installed, remove rear axle needle bushing before installing rear axle. Install brake disc and *NEW* rear axle into swingarm. Inspect rear axle needle bushing to ensure it is not gouged or damaged. Install rear axle needle bushing.



2. Position Brake Caliper (18) onto rotor and re-install two original fasteners. Torque fasteners to specification.



#### TORQUE

Brake Caliper Fasteners: 60 ft-lbs (81 N·m)

#### IMPORTANT — AUDIT STEP

A secondary dealer representative must verify the brake caliper fasteners have been torqued using a torque wrench set to the correct specification.

3. Inspect axle splines and threads, sprocket splines, and axle nut threads to ensure they are clean and free of old Loctite®.

### IMPORTANT

Make sure the sprocket and axle nut are completely dry after cleaning.

- 4. Test fit the sprocket onto the axle. If the sprocket does not fit onto the axle, additional cleaning is required.
- 5. Apply a bead of Loctite® (provided in kit) around the leading edge of the rear axle and driven sprocket splines.



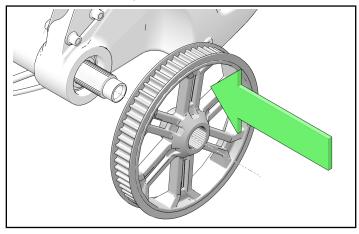
### IMPORTANT

It is critical that Loctite® 680 is applied around the leading edge of the rear axle and driven sprocket splines. After final assembly, Loctite® must be allowed to cure for at least 3 hours at room temperature (higher than 60° F).

## IMPORTANT — AUDIT STEP

A secondary dealer representative must verify the Loctite® is applied to the leading edge of the rear axle and driven sprocket splines.

6. Install the driven sprocket onto the rear axle.



#### IMPORTANT

Make sure the sprocket is installed using the orientation shown.

7. Engage parking brake.

8. Apply a bead of Loctite® around the leading edge of the rear axle and inside rear axle nut threads.



#### IMPORTANT

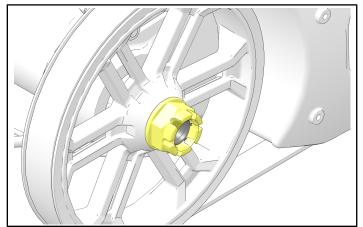
It is critical that Loctite® 680 is applied around the leading edge of the rear axle and inside rear axle nut threads. After final assembly, Loctite® must be allowed to cure for at least 3 hours at room temperature (higher than 60° F).

### IMPORTANT — AUDIT STEP

A secondary dealer representative must verify the Loctite® is applied to the leading edge of the rear axle and inside rear axle nut threads.

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9. Install the rear axle nut. Torque nut to specification.



### NOTICE

A secondary technician will need to press on the brake to help the axle from not spinning during the torque process.

### TORQUE

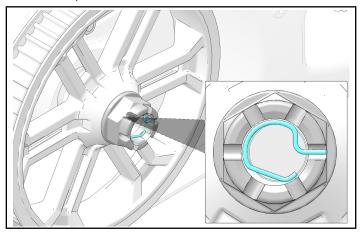
#### Rear Axle Nut:

Step 1: 150 ft-lbs (203 N·m) Step 2: Angle torque 60°

### IMPORTANT — AUDIT STEP

A secondary dealer representative must verify the axle nut has been torqued using a torque wrench set to the correct specification.

10. Locate the open hole in the axle and install NEW axle nut circlip as shown.



### IMPORTANT

Clip leg must be inserted into the available open hole from the inside of the axle bore. Push firmly into axle bore until clip snaps into position.

### IMPORTANT — AUDIT STEP

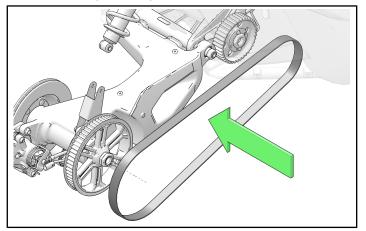
A secondary dealer representative must verify the axle nut circlip is installed properly.

11. Perform a push / pull test on the sprocket to make sure everything is installed and tightened properly.

#### IMPORTANT

During the push / pull test no movement should be found.

- If the axle and sprocket assembly has any movement the sprocket splines and nut were not cleaned properly and need to be cleaned again. Proceed back to step 15 of the REAR AXLE REMOVAL section.
- 12. Install drive belt around the drive sprocket splines. Remove lower shock mount fastener and allow swingarm to pivot downward. Install drive belt around the driven sprocket splines.



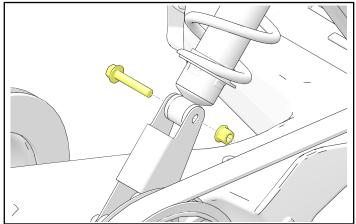
### IMPORTANT

The belt is directional and marked with a part number that can be read when facing the vehicle. Make sure the belt is installed properly.

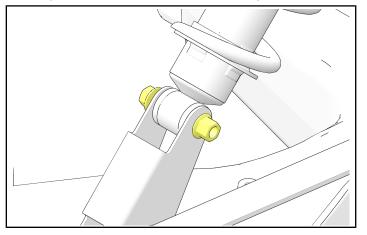
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Use caution when lowering swingarm not to damage brake line and hoses.

13. Raise swingarm into position and install lower shock mount fastener.

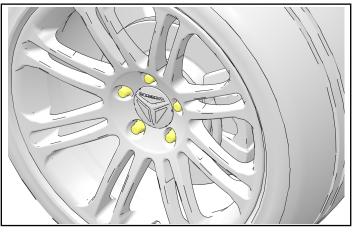


14. Torque lower shock mount fastener to specification.



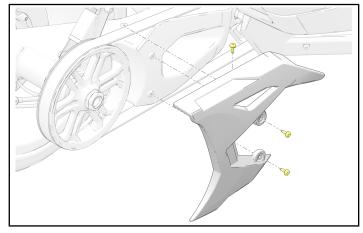
TORQUE Lower Shock Mount Fastener: 50 ft-Ibs (68 N·m)

15. Install wheel. Install wheel lug nuts and torque to specification.



TORQUE	
Wheel Lug Nuts: <b>75 ft-Ibs (102 N·m)</b>	

16. Install the Drive Belt Cover. Torque fasteners to specification.



TORQUE Belt Drive Cover Fasteners: 65 in-Ibs (7 N·m)

17. Lower the vehicle.



- 18. Test drive the vehicle after the Loctite® has cured for 3 hours.
- 19. Submit a Service Bulletin Warranty Claim for T-21-01-B.