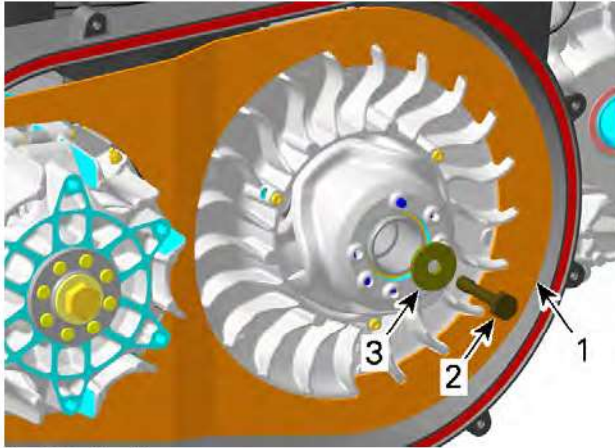


## Continuously Variable Transmission (CVT)

### Continuously Variable Transmission (CVT)



1. Clutch holder
2. Driven pulley screw (discard)
3. Collar washer

5. Remove the clutch holder.
6. Install the driven pulley adapter.

**Driven pulley adapter**  
(P/N 708200720)

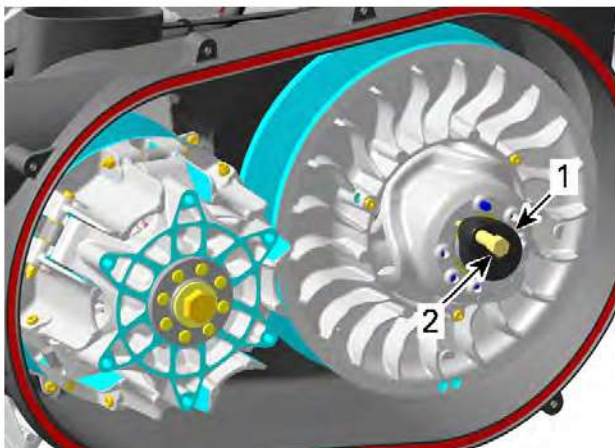


7. Screw in the driven pulley extractor in the center hole of the driven pulley adapter.

**Puller/locking tool**  
(P/N 529000088)



8. Tighten the puller/locking tool until driven pulley is free.
9. Remove tools from the driven pulley.



1. Driven pulley adapter
2. Puller/locking tool

### Disassembling the Driven Pulley Removing the Cam and Spring

#### ⚠ WARNING

Cam is under high clutch spring preload. Never attempt to remove the cam without the recommended tools.

1. Secure the spring compressor tool rod in a vice.

**Pulley spring compressor tool**  
(P/N 529036012)

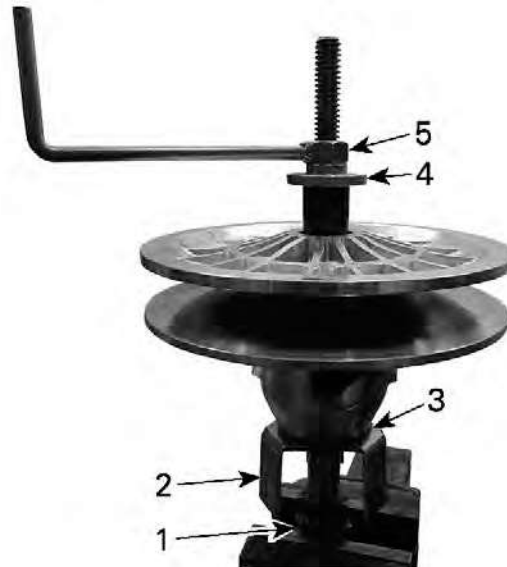


2. Install the support cup, the driven pulley spacer, the driven pulley (with the cam towards the vice), the support guide and the handle.

**Driven pulley spacer**  
(P/N 529036351)



3. Screw in the handle to remove all play.



#### TYPICAL

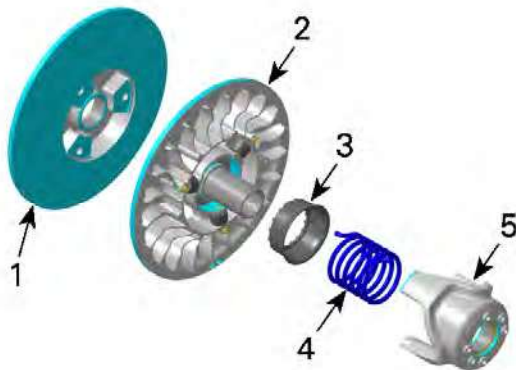
1. Pulley spring compressor tool
2. Support cup
3. Driven pulley spacer
4. Support guide
5. Handle

4. Remove and discard the cam retaining screws.



**TYPICAL - PULLEY SPRING COMPRESSOR TOOL IS STILL INSTALLED**

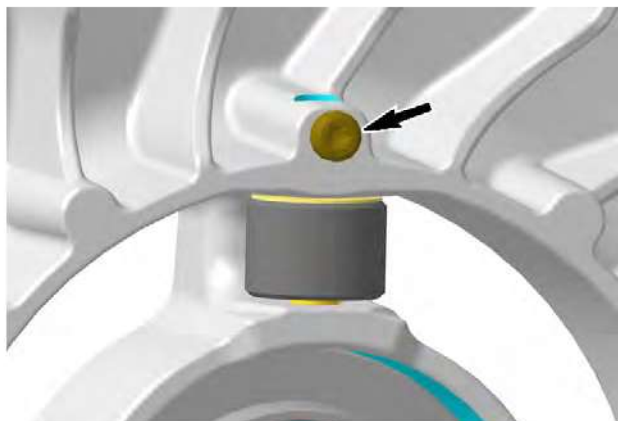
5. Remove the driven pulley assembly from the spring compressor tool.
6. Separate parts.



1. Fixed sheave
2. Sliding sheave
3. Spring support
4. Spring
5. Cam

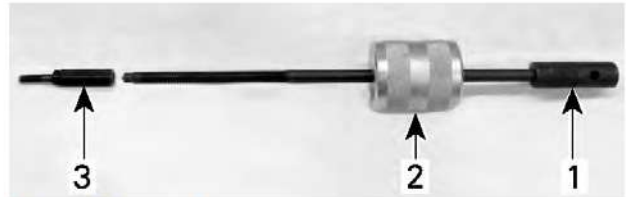
**Removing the Driven Pulley Roller**

1. Remove screw locking the bearing pin.

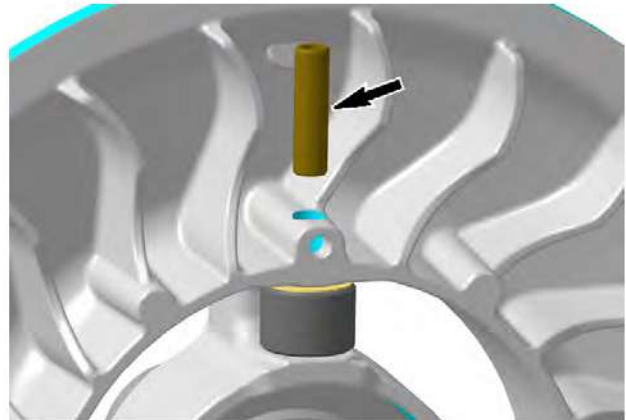


2. Remove bearing pin.

**Bearing pin extractor  
(P/N 529036458)**

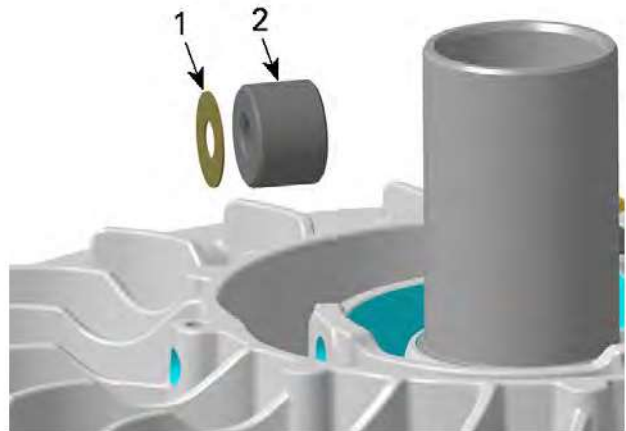


1. Stud-pulling head
2. Slide hammer
3. Bearing pin extractor



3. Remove:

- Thrust washer
- Roller.



1. Thrust washer
2. Roller

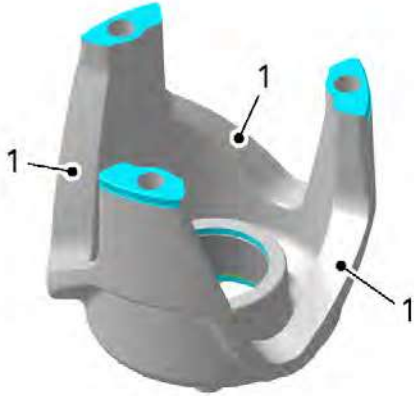
4. Proceed with removal of other roller.

**Inspecting the Driven Pulley  
Cam**

1. Verify all contact surfaces of cam for visible damages.

## Continuously Variable Transmission (CVT)

### Continuously Variable Transmission (CVT)



1. Contact surfaces

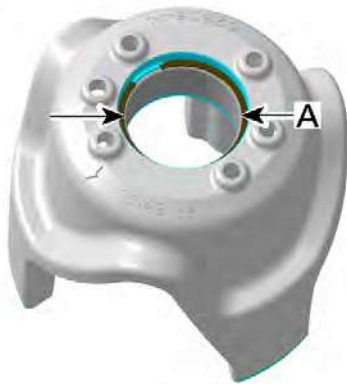
2. Ensure circlip properly locks the inner bushing. Replace part if necessary.



3. Measure the inner diameter of cam bushing.

#### Measuring Point

At least 5 mm (1/4 in) from bushing edge



A. Inner diameter of cam bushing

#### Cam Bushing Inner Diameter

New	41.278 to 41.363 mm (1.625 to 1.628 in)
Service limit	41.420 mm (1.631 in)

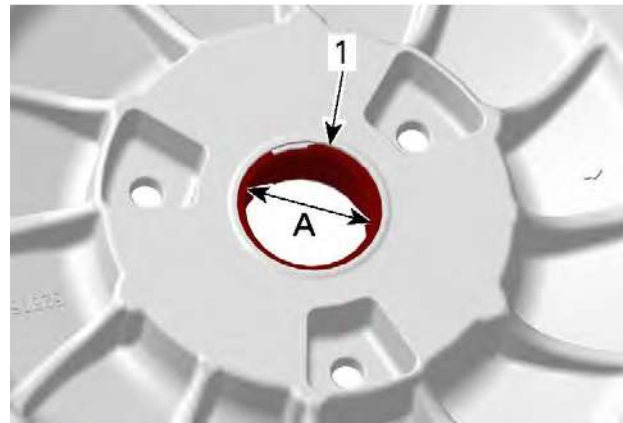
4. Replace the cam if the inner diameter of bushing is out of specification.

#### Sliding Sheave

1. Inspect pulley sheave for marks or scratches.
2. Ensure circlip properly locks the inner bushing. Replace part if necessary.
3. Measure the inner diameter of sliding sheave bushing.

#### Measuring Point

At least 5 mm (1/4 in) from bushing edge



1. Circlip

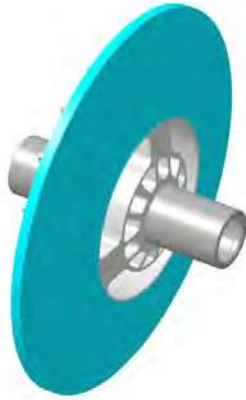
A. Inner diameter of sliding sheave bushing

#### Driven Pulley Inner Half Bushing

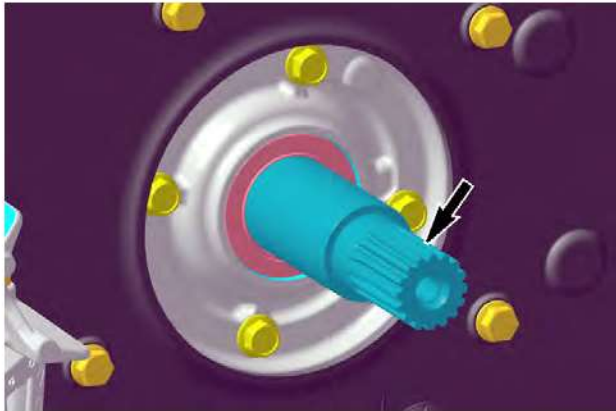
New	41.278 to 41.363 mm (1.625 to 1.628 in)
Service limit	41.420 mm (1.631 in)

4. Replace the sliding sheave if the inner diameter of bushing is out of specification.

**Fixed Sheave**

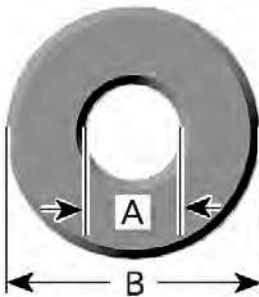


1. Replace fixed sheave and countershaft if one of the following problem is detected:
  - Marks or scratches on pulley sheave
  - Bent, twisted or otherwise damaged countershaft
  - Defective splines and threads at the end of countershaft.



**Driven Pulley Roller**

1. Check the rollers for flat spots, cracks or other visible damages. Replace if necessary (as a set).
2. Measure inner and outer diameter of rollers.



A. Inner diameter  
B. Outer diameter

Driven Pulley Roller		
Service limit	Inner diameter	8.5 mm (.335 in)
	Outer diameter	21.5 mm (.846 in)

3. Measure the roller thickness.



A. Thickness of roller

Driven Pulley Roller Thickness	
Service limit	14.75 mm (.581 in)

4. If a roller is out of specifications, replace all rollers at the same time.

**Cleaning the Driven Pulley**

1. Use cleaner and a clean rag to clean pulley sheaves.

**Clutch and pulley flange cleaner PRO S1**

**Cam and Spring**

1. During break-in period, teflon from bushing moves to cam or countershaft surface. A teflon over teflon running condition occurs, leading to low friction. So it is normal to see gray teflon deposit on cam or countershaft. Do not remove this deposit.
2. When a dust deposit has to be removed from the cam or the countershaft, use dry cloth to avoid removing transferred teflon.

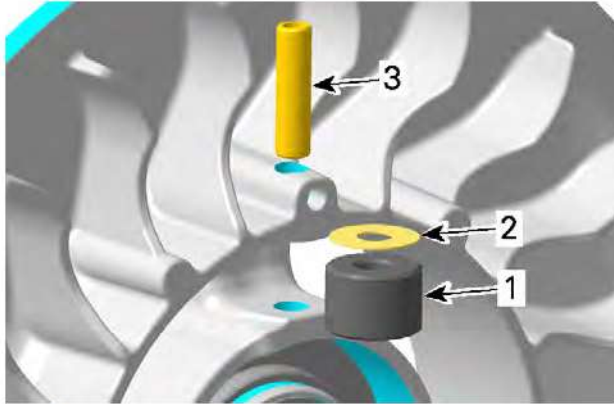
**Assembling the Driven Pulley**

**Installing the Driven Pulley Roller**

1. Using a hand wire brush, clean locking screw threads.
2. Insert the roller and the thrust washer.
3. Install spring pin.

## Continuously Variable Transmission (CVT)

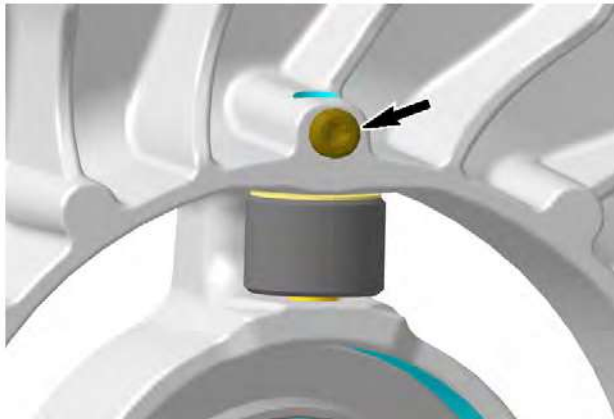
### Continuously Variable Transmission (CVT)



1. Roller
2. Thrust washer
3. Spring pin

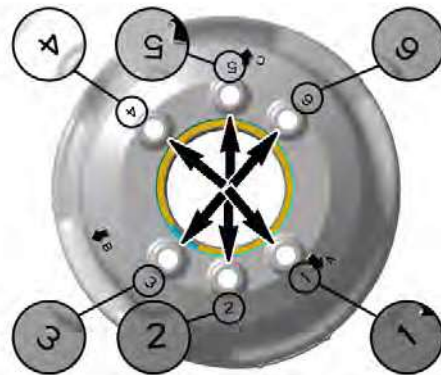
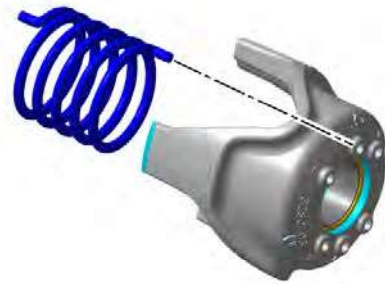
4. Tighten locking screw as specified.

Tightening Torque	
Locking screws	$3.5 \pm 0.4 \text{ N}\cdot\text{m}$ ( $31 \pm 4 \text{ lbf}\cdot\text{in}$ )



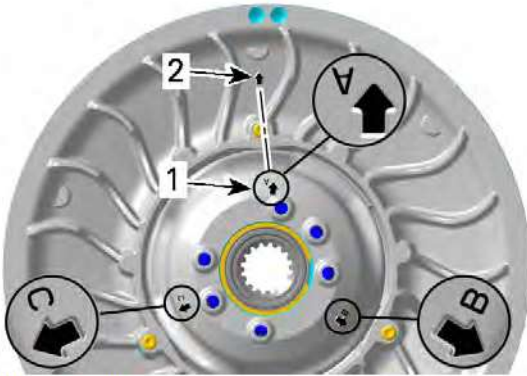
#### Assembling the Sheaves and Cam

1. Engage spring in the proper engagement bore in the cam.



Engagement Bore
Position 2

2. Install the cam with the spring on the spring compressor tool, over the support cup and the driven pulley spacer.
3. Install:
  - Spring support
  - Fixed sheave
  - Sliding sheave.
4. Complete with the support guide and the handle.
5. Before tightening the handle, align the proper arrow on cam and the sliding sheave with the one on the fixed sheave.



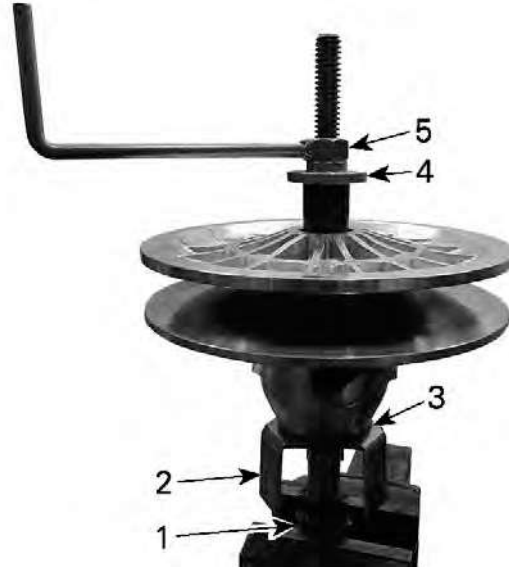
1. Arrow on cam
2. Arrow on fixed sheave



SLIDING SHEAVE BACKSIDE

<b>Arrow on Cam</b>
C

6. Tighten the handle until the cam is completely pressed against the sliding sheave.



1. Pulley spring compressor tool
2. Support cup
3. Driven pulley spacer
4. Support guide
5. Handle

7. From the back of the sliding sheave, install three (3) **NEW** cam screws.

<b>Tightening Torque</b>	
Cam screw	$61 \pm 6 \text{ N}\cdot\text{m}$ ( $45 \pm 4 \text{ lbf}\cdot\text{ft}$ )

8. Remove the driven pulley from the tool.

### **Installing the Driven Pulley**

The installation is the reverse of the removal procedure. However, pay attention to the following.

**NOTICE**

**This assembly uses a stretch screw. Always install a NEW screw.**

1. Clean threads of gearbox countershaft and **NEW** driven pulley screw.

**XPS Brakes and Parts cleaner**

**NOTICE**

**Threads must be free of oil and grease. Lubricants in threads will create too high preload to tightened driven pulley screw.**

2. Install the driven pulley onto the countershaft. Make sure to align splines.
3. Install driven pulley screw with collar washer.

## Continuously Variable Transmission (CVT)

### Continuously Variable Transmission (CVT)

#### NOTICE

Make sure to position the large diameter of the thrust washer against the conical side of the spring washer.

4. Install the clutch holder.

Clutch holder  
(P/N 529036432)



5. Tighten driven pulley screw as specified.

#### Tightening Torque

Driven pulley screw	$70 \pm 5 \text{ N}\cdot\text{m}$ ( $52 \pm 4 \text{ lbf}\cdot\text{ft}$ )
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6. Remove the clutch holder.
7. Install drive belt. Refer to *Drive Belt*.

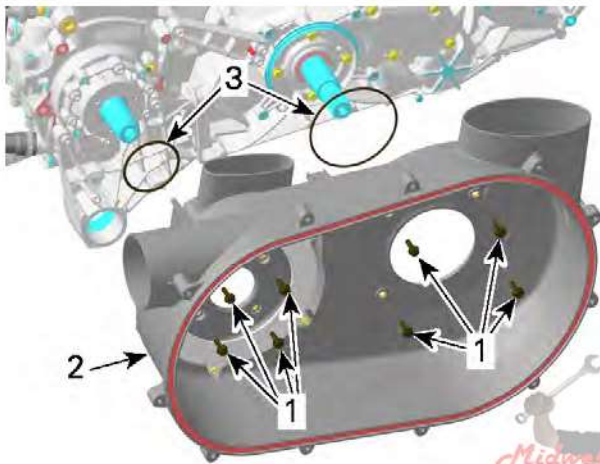
#### NOTICE

After the repair procedure is finished, allow vehicle to sit for 6 hours for threadlocker curing.

### CVT Air Guide

#### Removing the CVT Air Guide

1. Remove drive and driven pulleys.
2. Unscrew the clamps retaining the CVT air hoses.
3. Remove CVT air guide.
4. Remove and discard O-rings.



1. Retaining screws
2. CVT air guide
3. O-rings

5. If necessary remove belt temperature sensor (BTS).

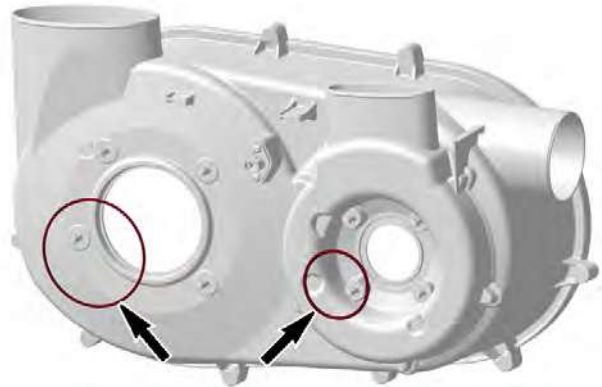
#### Inspecting the CVT Air Guide

1. Clean CVT air guide from contamination

#### Installing the CVT Air Guide

The installation is the reverse of the removal procedure. However, pay attention to the following.

1. If removed, install the BTS.
2. Install **NEW** O-rings.



3. Apply a drop of threadlocker on threads of the CVT air guide screws.

Loctite 243 (blue)

4. Tighten CVT air guide screws to specification.

#### Tightening Torque

CVT air guide screws	$9 \pm 1 \text{ N}\cdot\text{m}$ ( $80 \pm 9 \text{ lbf}\cdot\text{in}$ )
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