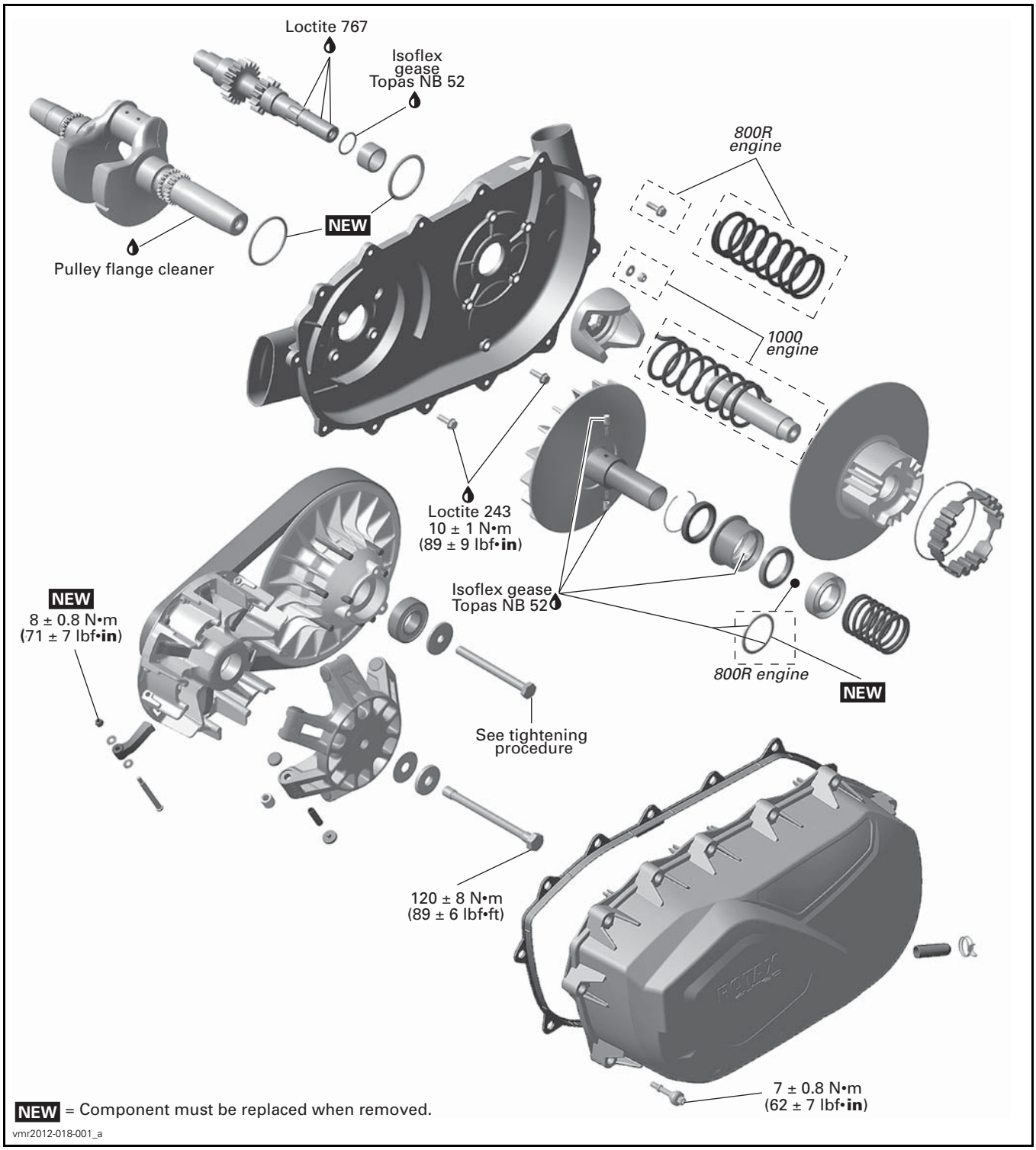
CONTINUOUSLY VARIABLE TRANSMISSION (CVT)

SERVICE TOOLS

Description	Part Number	Page
CLUTCH PULLER	529 035 746	6
DRIVE PULLEY HOLDER (CVT)	529 006 400	7
DRIVEN CLUTCH HOLDER	529 035 771	14, 21
PULLER/LOCKING TOOL	529 036 098	5, 20, 22

SERVICE PRODUCTS

Description	Part Number	Page
ISOFLEX GREASE TOPAS NB 52	293 550 021	13
LOCTITE 767 (ANTISEIZE LUBRICANT)	293 800 070	19
PULLEY FLANGE CLEANER	413 711 809	9, 16


Loctite 767
Isoflex
gease
Topas NB 52
800R
engine
NEW
Pulley flange cleaner
1000
engine
Loctite 243
10 ± 1 N•m
(89 ± 9 lbf•in)
NEW
8 ± 0.8 N•m
(71 ± 7 lbf•in)
Isoflex gease
Topas NB 52
800R engine
NEW
See tightening
procedure
120 ± 8 N•m
(89 ± 6 lbf•ft)
7 ± 0.8 N•m
(62 ± 7 lbf•in)
NEW = Component must be replaced when removed.
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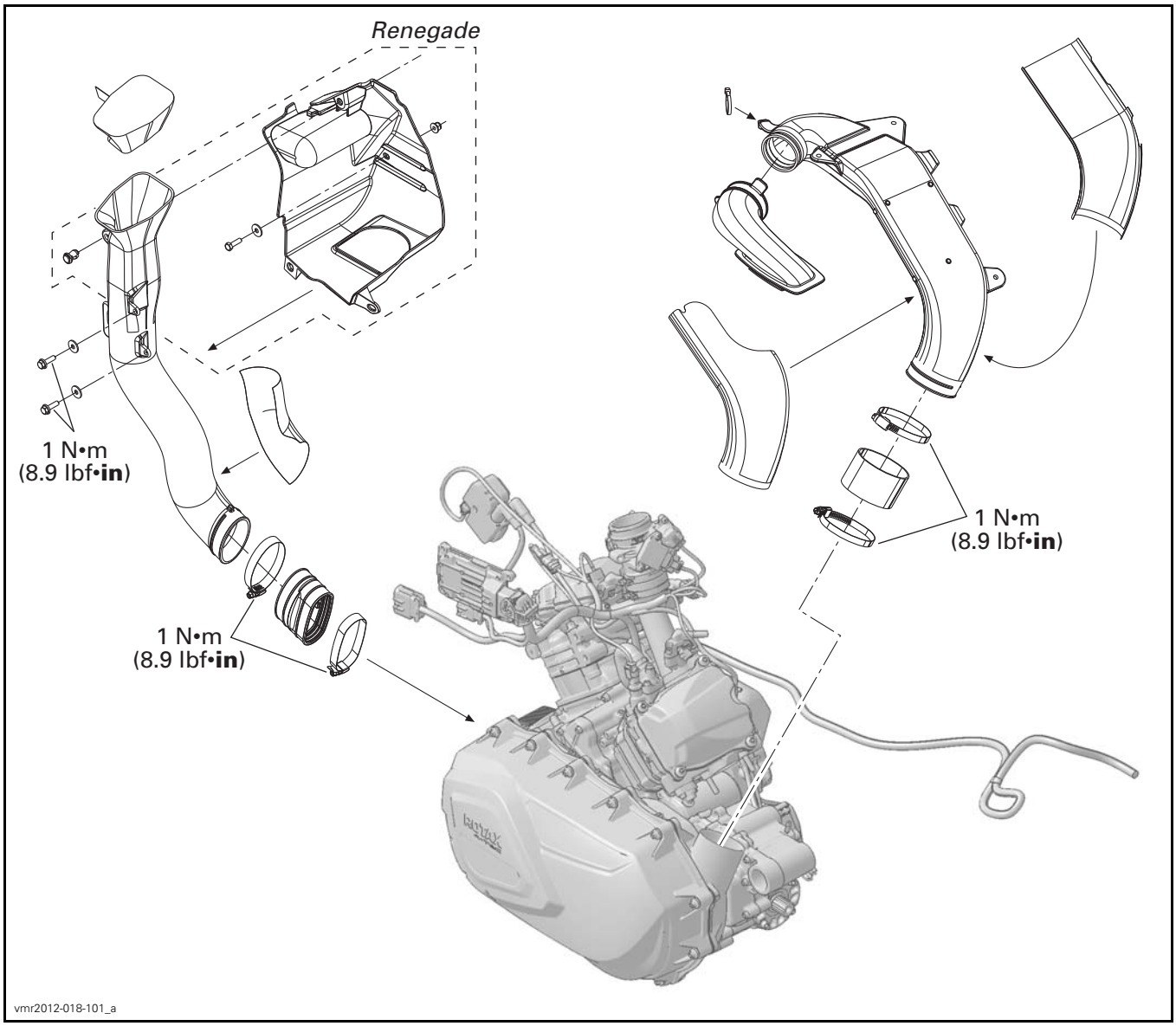
Renegade
1 N•m
(8.9 lbf•**in**)
1 N•m
(8.9 lbf•**in**)
1 N•m
(8.9 lbf•**in**)
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GENERAL

NOTE: For a better understanding, the following illustrations are taken with engine out of vehicle. To perform the following instructions, it is not necessary to remove engine.

During assembly/installation, use the torque values and service products as in the exploded views.

Clean threads before applying a threadlocker. Refer to *SELF-LOCKING FASTENERS* and *LOCTITE APPLICATION* at the beginning of this manual for complete procedure.

⚠ WARNING

Torque wrench tightening specifications must be strictly adhered to.
Locking devices must be replaced when removed (e.g.: locking tabs, elastic stop nuts, cotter pin, etc.).

⚠ WARNING

Never touch CVT while engine is running. Never drive vehicle when CVT cover is removed.

⚠ WARNING

Any drive pulley repairs must be performed by an authorized Can-Am dealer. Subcomponent installation and assembly tolerances require strict adherence to procedures detailed.

NOTICE Never use any type of impact wrench for drive pulley removal and installation.

⚠ WARNING

The clutch assembly is a precisely balanced unit. Never replace parts with used parts from another clutch assembly.

NOTICE These pulleys have metric threads. Do not use a puller with SAE threads. Always tighten puller by hand to ensure that the drive pulley has the same type of threads (metric vs SAE) prior to tightening fully.

PROCEDURES

CVT COVER

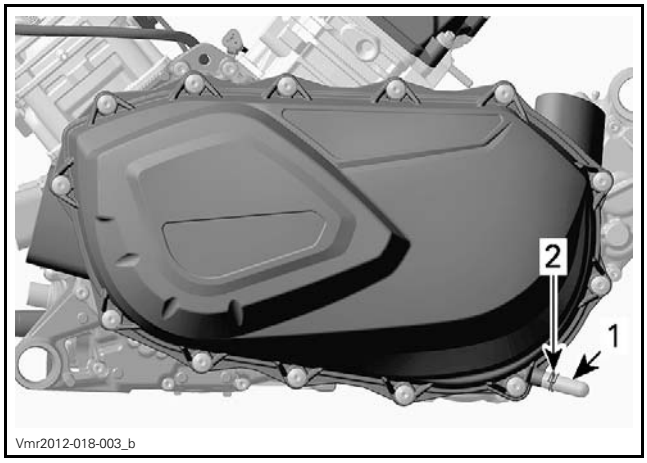
CVT Cover Access

Remove LH footrest panel, refer to *BODY* subsection.

CVT Cover Draining

If water is present in CVT cover, it can be drained as follows:

1. Remove drain reservoir from CVT cover.



1. Drain reservoir
2. Spring clip

2. Let water drain from CVT cover.
3. Reinstall drain reservoir.

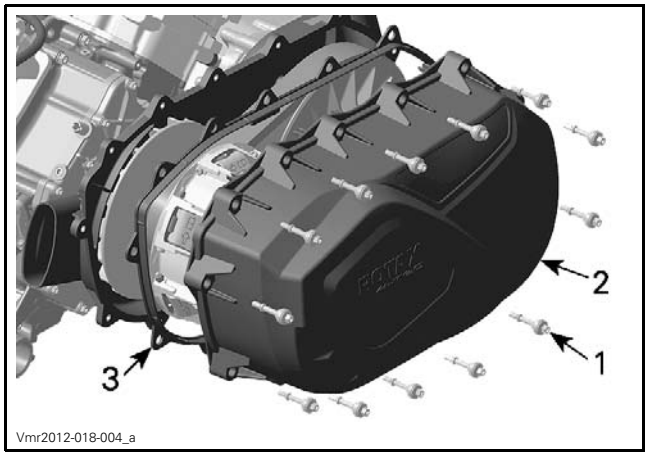
NOTICE If an appreciable amount of water or any debris entered the CVT cover, CVT must be cleaned and inspected.

CVT Cover Removal

Remove CVT cover screws.

NOTE: Do not use and impact tool to remove CVT cover screws. Remove the top center screw last. This screw allows to support the cover during removal.

Remove the CVT cover and its gasket.



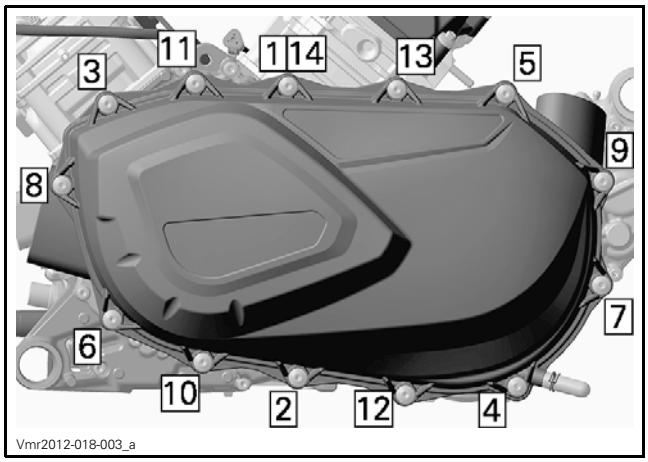
1. *CVT cover screw*
2. *CVT cover*
3. *Gasket*

CVT Cover Installation

Install the top center screw of first.

NOTE: Do not use and impact tool to install CVT cover screws.

Tighten the CVT cover screws as per following sequence.



CVT COVER TIGHTENING SEQUENCE

TIGHTENING TORQUE	
CVT Cover Screws	7 N•m ± 0.8 N•m (62 lbf•**in** ± 7 lbf•**in**)

DRIVE BELT

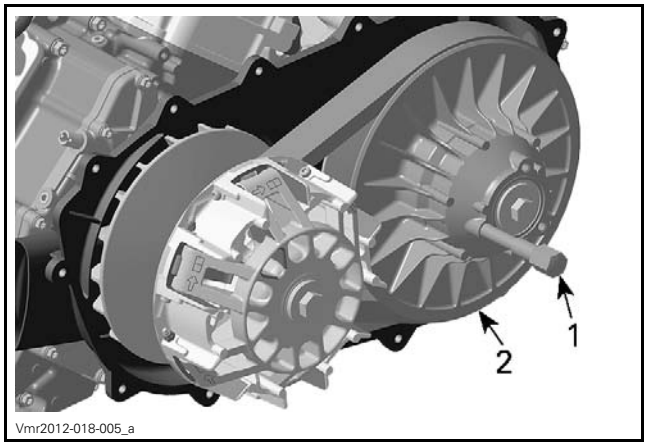
Drive Belt Removal

NOTICE **In case of a drive belt failure, the CVT, cover, drain reservoir and air outlet must be cleaned.**

1. Remove *CVT COVER*.
2. Open driven pulley.

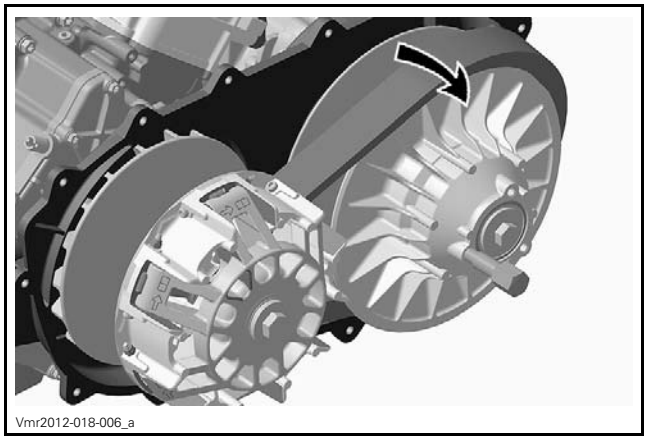
REQUIRED TOOL	
PULLER/LOCKING TOOL (P/N 529 036 098)	

3. Screw tool in the threaded hole of driven pulley and tighten to open the pulley.



1. *Puller/locking tool*
2. *Fixed sheave of driven pulley*

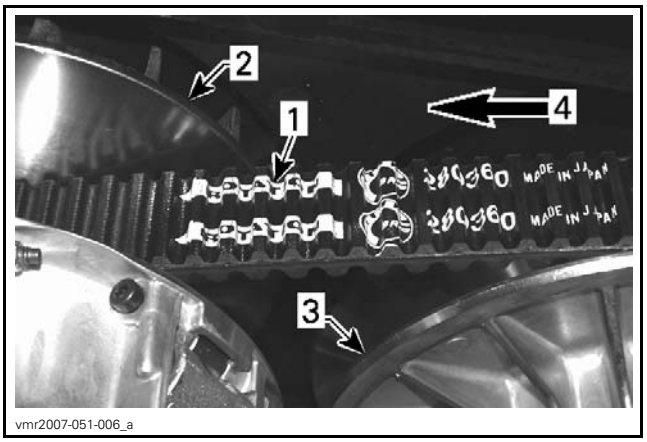
4. Slide the belt over the top edge of fixed sheave to remove it.



Drive Belt Installation

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

The maximum drive belt life span is obtained when the drive belt has the proper rotation direction. Install it so that the arrow printed on belt is pointing towards front of the vehicle, viewed from top.



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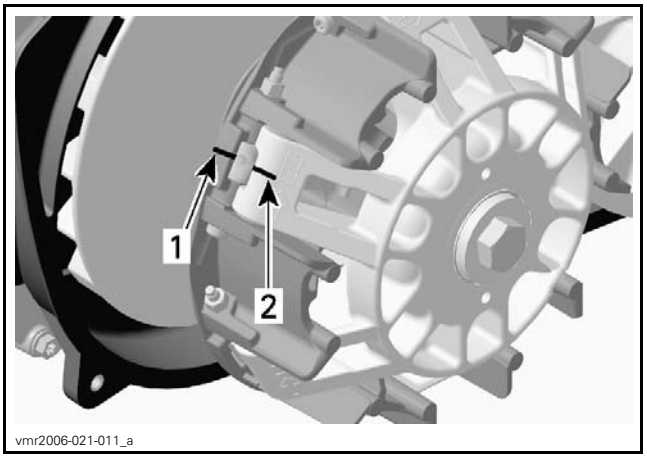
1. *Arrow printed on belt*
2. *Drive pulley (front)*
3. *Driven pulley (rear)*
4. *Rotation direction*

DRIVE PULLEY

Drive Pulley Removal

1. Remove *DRIVE BELT*, see procedure in this subsection.
2. Prior to removing the drive pulley, mark sliding sheave and governor cup to ensure correct indexation at reinstallation.



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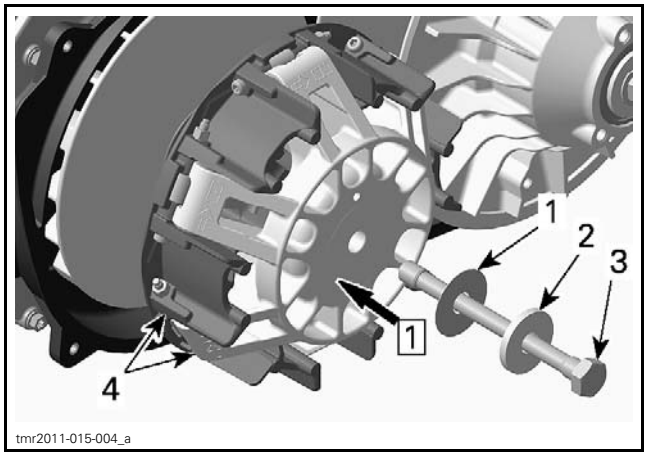
1. *Mark on drive pulley sliding sheave*
2. *Mark on governor cup*

3. Lock the drive pulley using one of the methods as described further in this subsection. Refer to *DRIVE PULLEY LOCKING PROCEDURE*.
4. Loosen the drive pulley screw.

NOTE: Do not unscrew the drive pulley screw completely. If governor cup is stuck, hit it using a soft hammer.

5. Apply axial pressure with your hand on the sliding sheave and governor cup.
6. Remove drive pulley screw with its conical spring washer and thrust washer.

⚠ CAUTION Sliding sheave of drive pulley is spring loaded.



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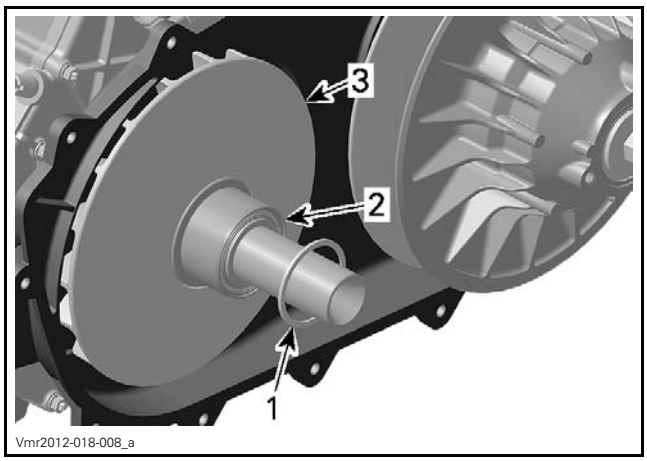
1. *Thrust washer*
2. *Conical spring washer*
3. *Drive pulley screw*
4. *Sliding sheave with governor cup*

Step 1: Push

7. Slowly release and remove sliding sheave.

800R Engine

8. Remove friction washer.



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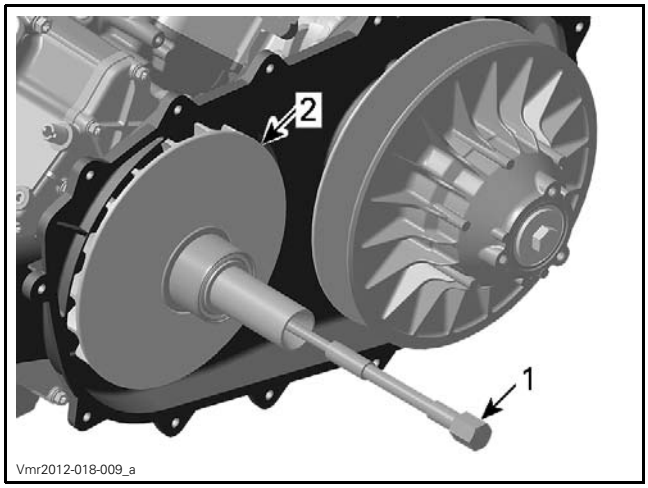
1. *Friction washer (800R Engine only)*
2. *One way clutch*
3. *Drive pulley fixed sheave*

All Engines

9. Screw clutch puller in fixed sheave to remove fixed pulley.

REQUIRED TOOL	
CLUTCH PULLER (P/N 529 035 746)	

NOTICE Make sure to use the specified tool. Using another tool will damage the crankshaft threads.



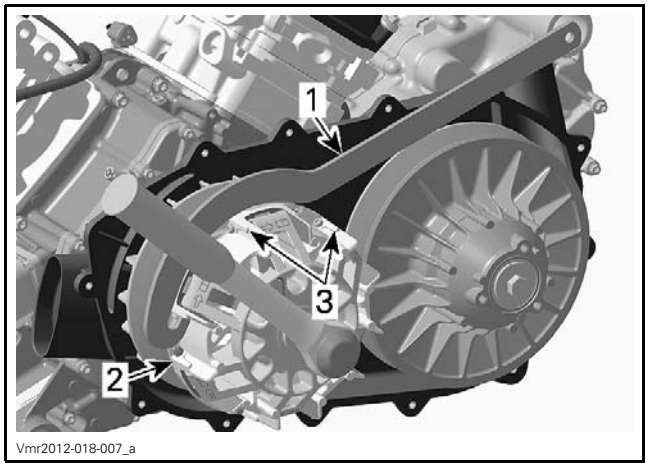
1. *Drive pulley puller*
2. *Fixed sheave*

Drive Pulley Locking Procedure

NOTE: As an alternate method to this procedure, the crankshaft may be locked. Refer to *BOTTOM END* subsection for details.

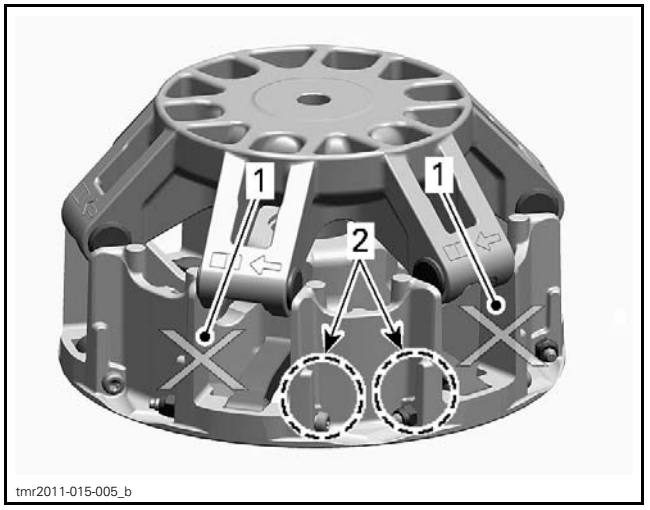
Hold drive pulley steady using the following tool.

REQUIRED TOOL	
DRIVE PULLEY HOLDER (CVT) (P/N 529 006 400)	



1. *Pulley holding tool*
2. *Drive pulley sliding sheave*
3. *Area to place holding tool hook*

NOTICE Do not engage the tool hook on the slider shoe guides.

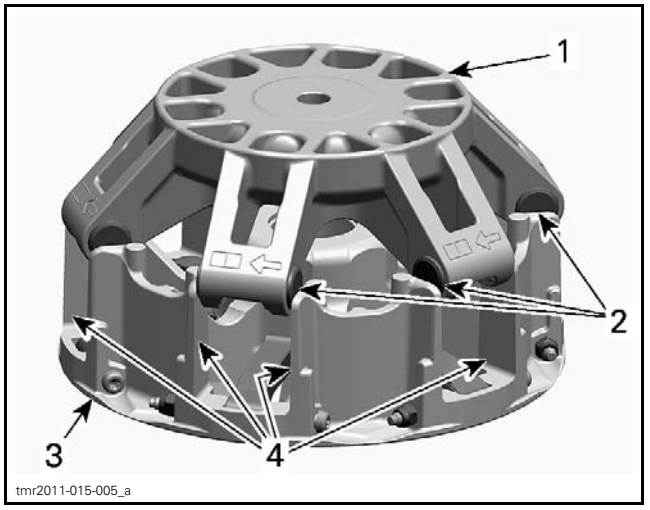


1. *Wrong tool hook positioning (slider shoe guides)*
2. *Correct tool hook positioning (outside slider shoe guides)*

Drive Pulley Disassembly

Governor Cup

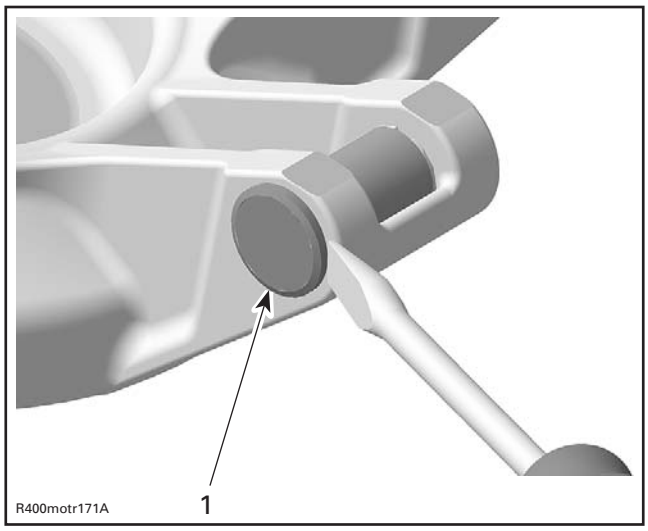
1. Carefully lift governor cup until slider shoes move to their highest position in the guides.



1. *Governor cup*
2. *Slider shoes*
3. *Sliding sheave*
4. *Guides*

NOTE: The following steps are not necessary except if roller must be removed. Refer to *INSPECTION* before proceeding.

2. Remove slider shoes from governor cup arm. Use a flat screwdriver if necessary.



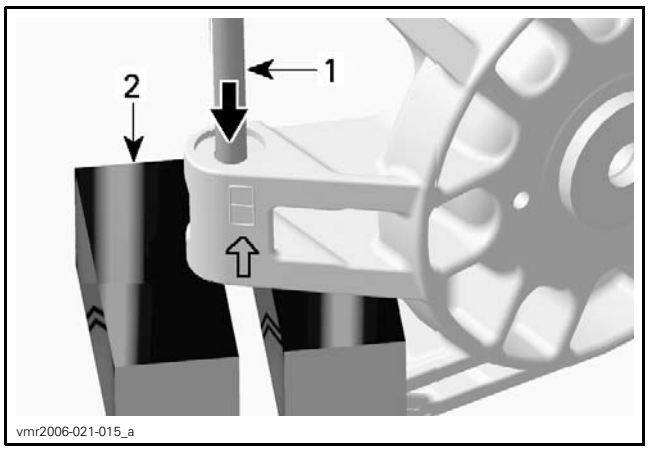
1. Slider shoe

3. Place the governor cup on a vice to push out the roller sleeve in the direction illustrated (against insertion arrow marked on governor cup arm). Use an appropriate punch (diameter of punch must be smaller than the diameter of the sleeve bore in the governor cup arm).

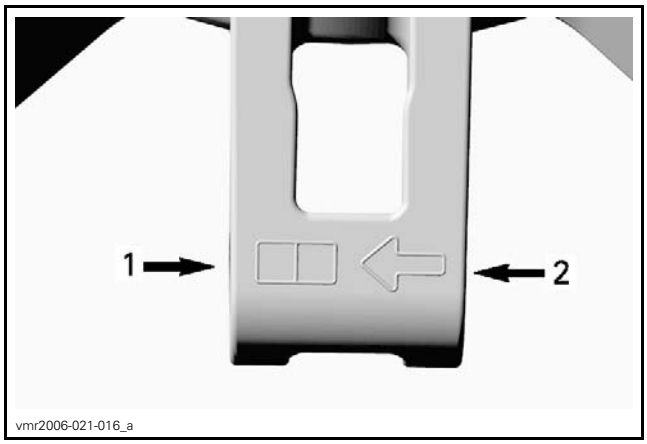
NOTICE Do not clamp the governor cup in the vice to push out roller sleeve. Governor cup will be damaged.

NOTE: Use protection plates to avoid marks and/or damages to the governor cup.

NOTICE Always replace all rollers as a set. Partly worn rollers may cause damage to the CVT system.

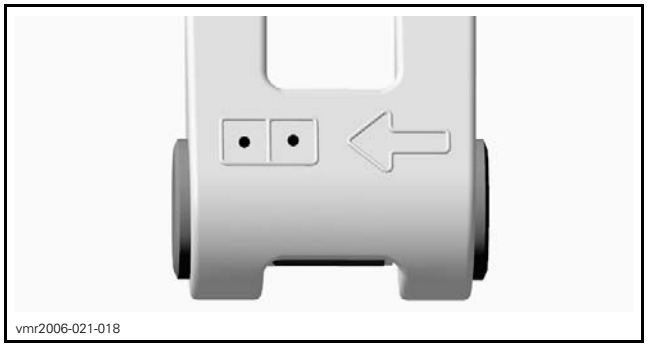


1. Punch
2. Vice



1. Removal direction
2. Assembly direction

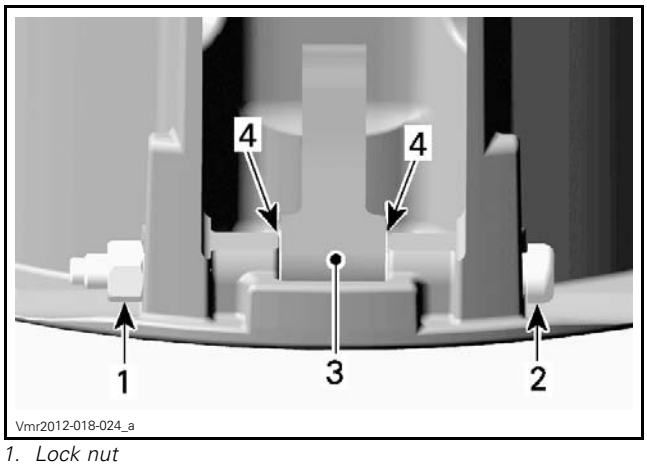
NOTE: Whenever removing a governor cup which already has two marked boxes, replace it by a new one.



Sliding Sheave

Unscrew lock nut and remove centrifugal lever pivot bolt. This drive pulley is equipped with 6 levers.

Remove centrifugal lever and both thrust washers.



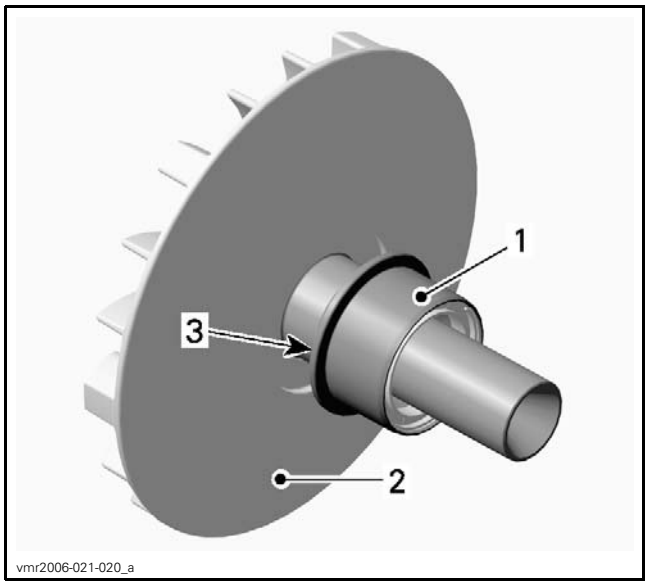
1. Lock nut
2. Centrifugal lever pivot bolt
3. Centrifugal lever
4. Thrust washers

Fixed Sheave

⚠ WARNING

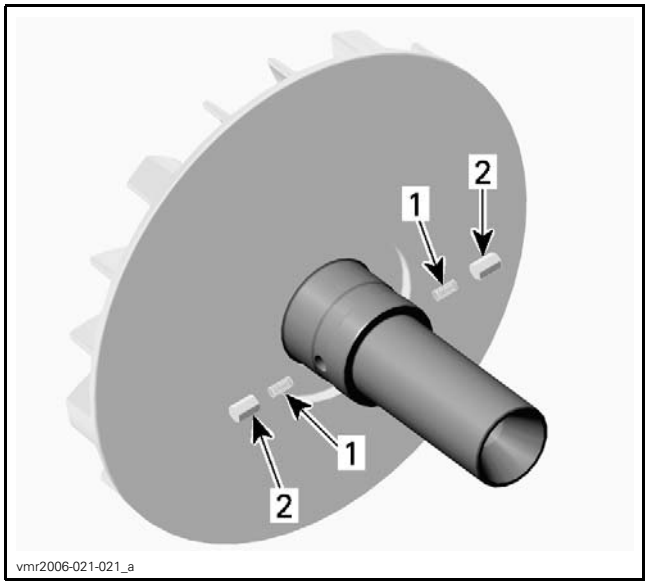
Always wear safety glasses to remove spring sleeves.

Pull and rotate one-way clutch slowly until the spring sleeves are visible.



1. *One-way clutch*
2. *Fixed sheave*
3. *Spring sleeve area*

Hold both spring sleeves with fingers and carefully remove them when the one-way clutch is disengaged.



1. *Springs*
2. *Spring sleeves*

Drive Pulley Cleaning

Clean pulley faces and shaft with fine steel wool and a dry cloth.

Using a paper towel with the recommended cleaning solvent, clean:
- Crankshaft tapered end
- Taper inside the fixed sheave of the drive pulley
- Crankshaft threads
- Drive pulley screw threads.

REQUIRED PRODUCT
PULLEY FLANGE CLEANER (P/N 413 711 809)

NOTICE **Avoid contact between cleaner and crankshaft seal as damage may occur.**

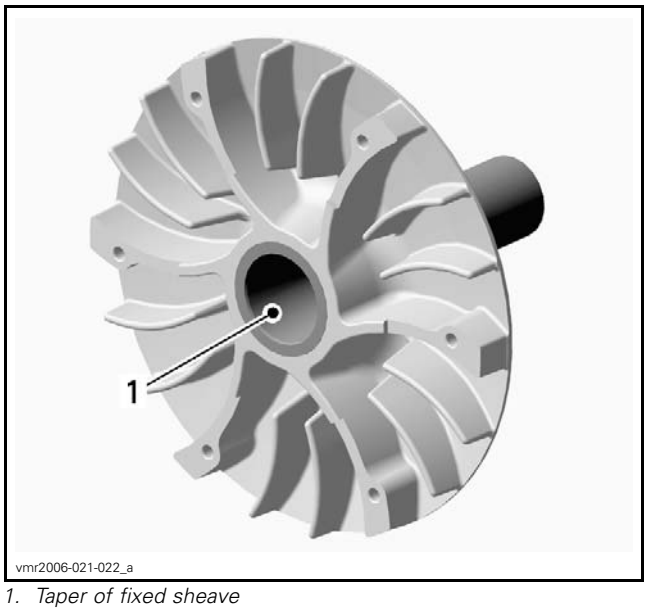
Remove all hardened oil deposits that have baked on the crankshaft and pulley tapered surfaces using coarse or medium steel wool, and/or sand paper no. 600.

NOTICE **Do not use any other type of abrasive.**

Reclean mounting surfaces with paper towel and PULLEY FLANGE CLEANER (P/N 413 711 809).

Wipe off the mounting surfaces with a clean, dry paper towel.

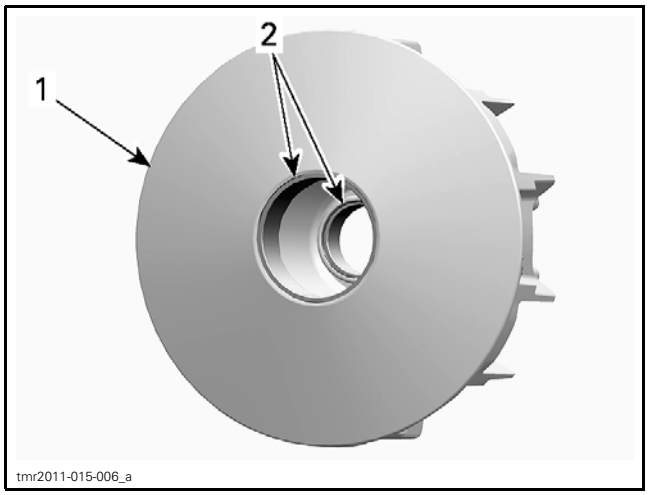
NOTICE **Mounting surfaces must be free of any oil, cleaner or towel residue.**



1. *Taper of fixed sheave*

Only use petrol base cleaner when cleaning sliding sheave bushings.

NOTICE Do not use acetone to clean bushing.



1. Sliding sheave
2. Bushings

Drive Pulley Inspection

Bushings

For bushing inspection, refer to *SLIDING SHEAVE* in this subsection.

Governor Cup

Check governor cup for cracks or other visible damage. Replace if necessary.

Roller and Slider Shoe

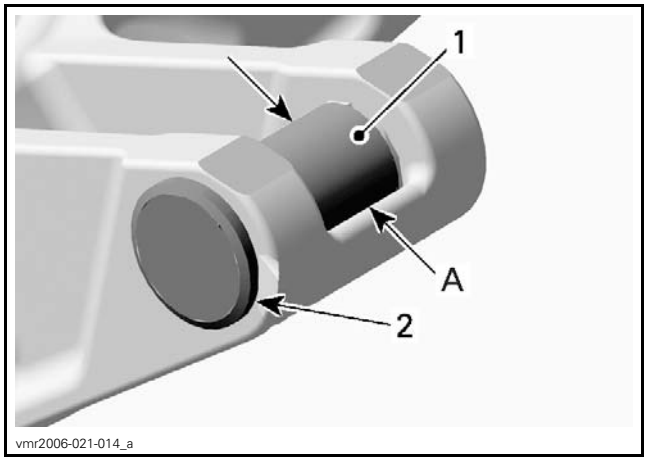
Check each roller for roundness of external diameter.

Check if rollers move freely.

NOTICE Whenever replacing rollers and slider shoes, always replace all rollers and slider shoes as a set.

Check slider shoes for visible wear and replace if damaged.

NOTE: If necessary, use a screwdriver to remove slider shoes.

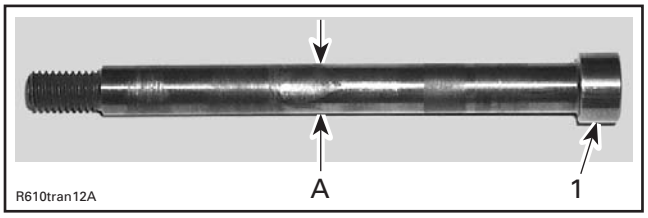


1. Roller
2. Slider shoe
A. Roller outer diameter

ROLLER OUTER DIAMETER	
NEW	13.70 mm to 13.80 mm (.539 in to .543 in)
SERVICE LIMIT	13.20 mm (.519 in)
ROLLER INNER DIAMETER	
NEW	8.05 to 8.15 mm (.317 to .321 in)
SERVICE LIMIT	9 mm (.354 in)

Centrifugal Lever Pivot Bolt

Measure diameter of centrifugal lever pivot bolt; replace if out of specification.

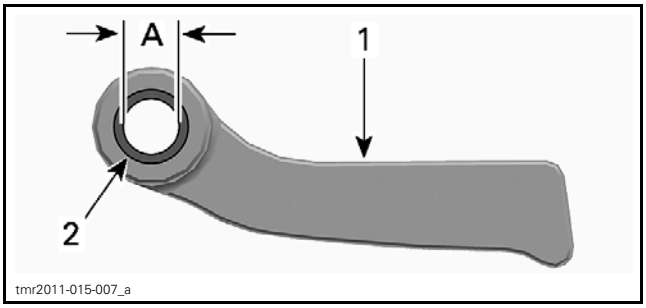


1. Centrifugal lever pivot bolt
A. Measure diameter here

CENTRIFUGAL LEVER PIVOT BOLT DIAMETER	
NOMINAL	6.078 mm to 6.100 mm (.239 in to .24 in)
SERVICE LIMIT	6.00 mm (.236 in)

Centrifugal Lever

Check bushing diameter in the centrifugal lever for wear. Replace centrifugal lever if necessary.

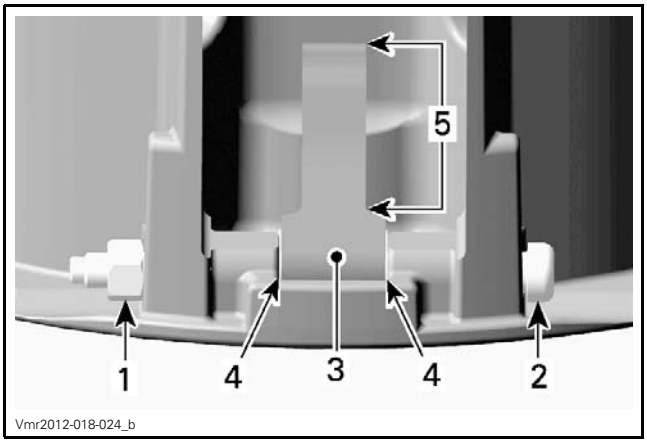


1. *Centrifugal lever*
2. *Bushing*

A. Bushing inner diameter

CENTRIFUGAL LEVER BORE DIAMETER	
NOMINAL	6.035 mm to 6.078 mm (.238 in to .239 in)
SERVICE LIMIT	6.200 mm (.244 in)

Inspect and replace as necessary the following items if their contact surfaces are heavy worn:
– Centrifugal lever
– Thrust washers
– Centrifugal lever pivot bolts
– Lock nuts.



1. *Lock nut*
2. *Centrifugal lever pivot bolt*
3. *Centrifugal lever*
4. *Thrust washers*
5. *Contact surface to the roller*

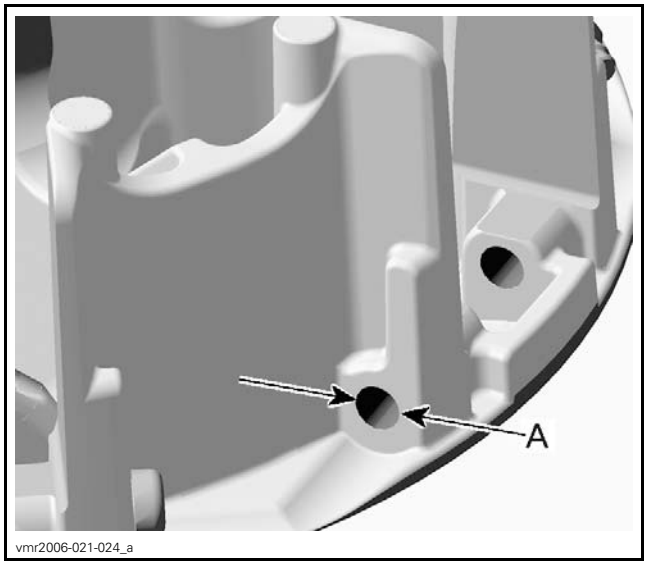
⚠ WARNING

Whenever replacing centrifugal levers, always replace all levers as a set. Otherwise, drive pulley unbalance will occur.

Sliding Sheave

Check sliding sheave for cracks and sliding contact surface for excessive wear. Replace sliding sheave if necessary.

Measure centrifugal lever pivot bolt bores. Replace sliding sheave if bores are out of specification or otherwise damaged.



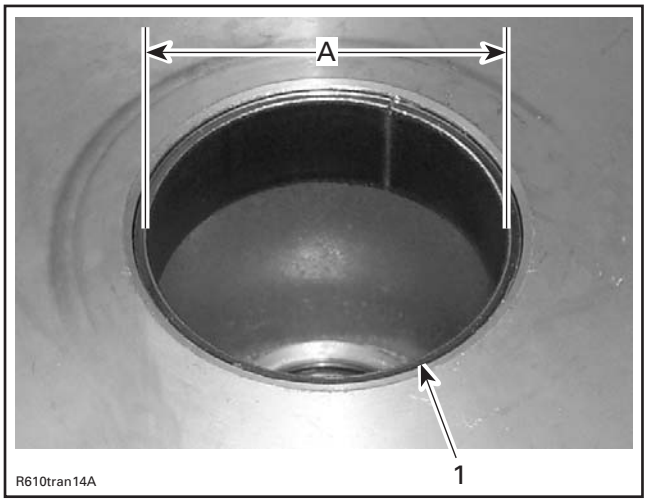
A. Centrifugal lever pivot bolt bore diameter

CENTRIFUGAL LEVER PIVOT BOLT BORE DIAMETER	
NOMINAL	6.113 mm to 6.171 mm (.241 in to .243 in)
SERVICE LIMIT	6.300 mm (.248 in)

Measure bushing diameters of sliding sheave.

REQUIRED TOOL
Dial Bore Gauge

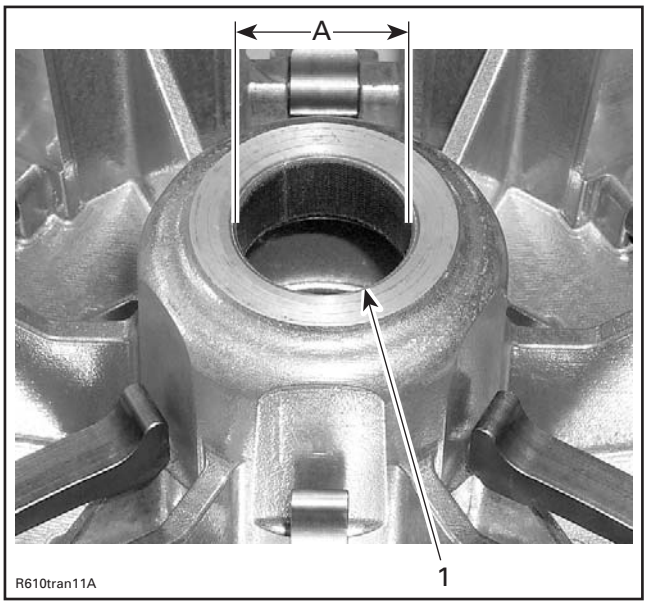
MEASURING POINT
At least 5 mm (1/4 in) from bushing edge



1. *Bushing on fixed sheave side*

A. Bore diameter of bushing

SLIDING SHEAVE LARGE BUSHING	
NOMINAL	55.000 mm to 55.040 mm (2.165 in to 2.167 in)
SERVICE LIMIT	55.200 mm (2.173 in)



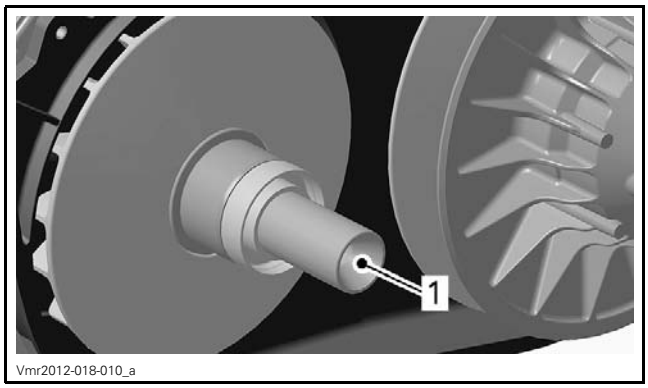
1. Bushing on governor cup side
A. Bore diameter of bushing

SLIDING SHEAVE SMALL BUSHING	
NOMINAL	32.000 mm to 32.040 mm (1.26 in to 1.261 in)
SERVICE LIMIT	32.200 mm (1.268 in)

Replace sliding sheave if one of the bushings is out of specification. Visually inspect coatings for wear.

Fixed Sheave

Check fixed sheave contact surface to the governor cup for scratches or other damages. If damaged, replace fixed sheave.



1. Visually check here

Check for any marks on fixed sheave plate. Replace if necessary.

Spring

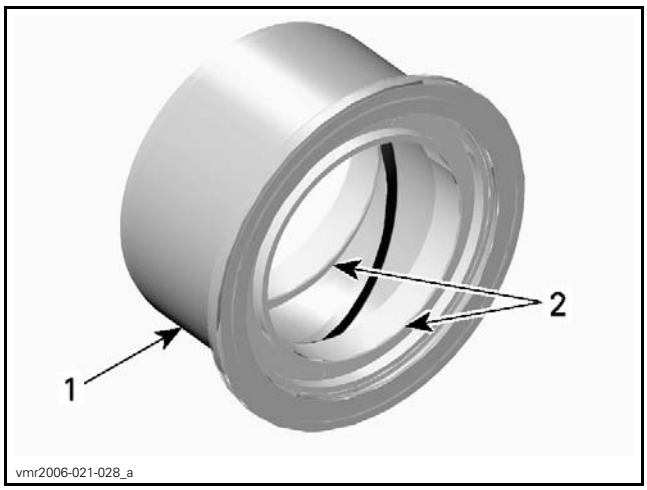
Measure spring free length and squareness. If spring is out of specification, replace by a new one.

CLUTCH SPRING FREE LENGTH	
SERVICE LIMIT	105 mm (4.134 in)
CLUTCH SPRING SQUARENESS	
SERVICE LIMIT	4 mm (.157 in)

One-Way Clutch

Check bearings for excessive play and smooth operation. Replace one-way clutch if necessary.

NOTICE Be careful not to damage the inside of one-way clutch during bearing removal.



1. One-way clutch
2. Bearings

Measure length of spring sleeves and check if edges on top of the spring sleeve are excessively worn. If out of specification, replace both spring sleeves at the same time.

SPRING SLEEVE LENGTH	
NOMINAL	9.2 mm to 9.4 mm (.362 in to .37 in)
SERVICE LIMIT	9 mm (.354 in)

Drive Pulley Assembly

For assembly, reverse the disassembly procedure. Pay attention to following details.

One-Way Clutch

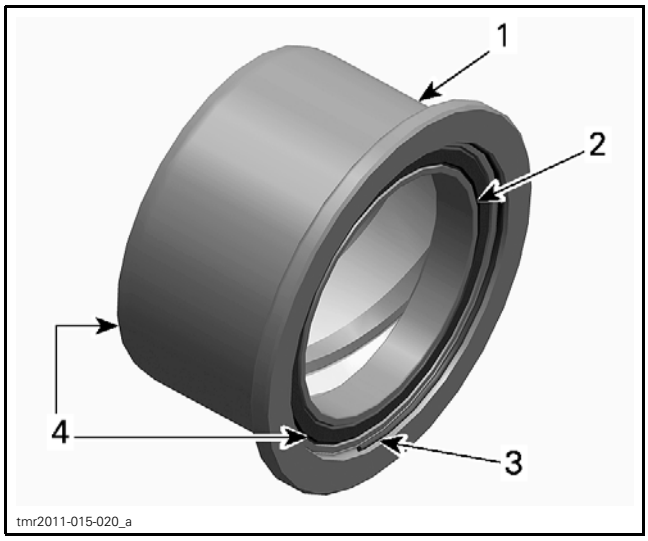
Clean parts.

Lubricate springs, spring sleeves and between one way clutch bearings using recommended product. Push grease inside bearings to ensure adequate lubrication.

REQUIRED PRODUCT
ISOFLEX GREASE TOPAS NB 52 (P/N 293 550 021)

1000 Engine

NOTE: Ball bearings have a seal on one side only. Install bearings with the seal towards the outside of the one-way clutch.



1. *One-way clutch*
2. *Bearing*
3. *Retaining ring*
4. *Seal*

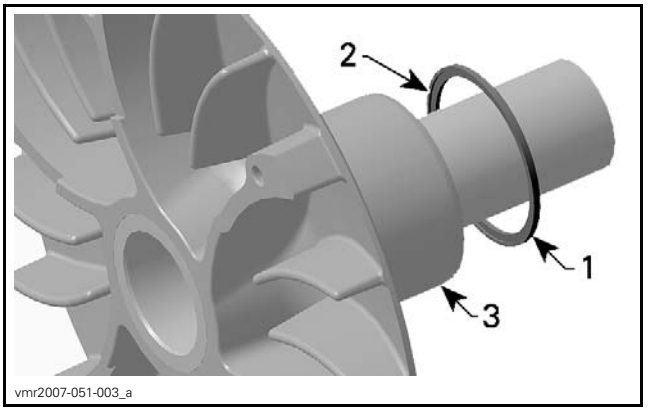
Friction Washer

800R Engine Only

NOTE: Apply recommended grease on both sides of friction washer.

REQUIRED PRODUCT
ISOFLEX GREASE TOPAS NB 52 (P/N 293 550 021)

NOTE: Friction washer must be assembled with collar towards one way clutch.



1. *Friction washer*
2. *Collar*
3. *One way clutch*

Sliding Sheave

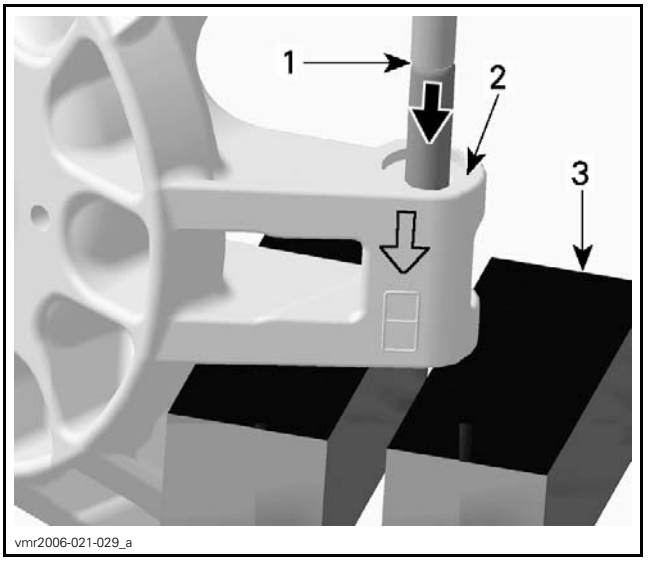
Install centrifugal levers with their thrust washers.

NOTICE Centrifugal levers must move easily after installation.

Governor Cup

Rebuild governor cup with new roller sleeves, rollers and slider shoes.

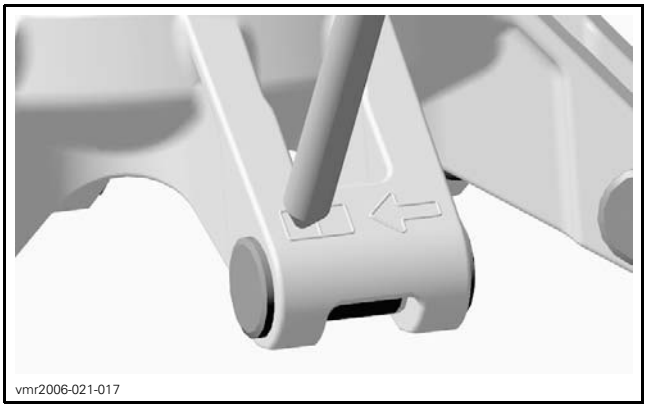
NOTICE Final position of roller sleeves must be flush with the sleeve bore in the governor cup arm (no protrusion).



1. *Top edge of roller sleeve*
2. *Mating surface of slider shoes*
3. *Vice*

Whenever replacing the roller sleeves, make a mark in the box on the governor arm using a punch.

NOTICE Do not tap too hard. Severe damage to the governor cup may appear.


vmr2006-021-017

NOTICE Rollers must move easily after installation.

Carefully press slider shoes in the governor cup arm so they **bottom out evenly** in the machined portion of the governor cup arm.

NOTICE Slider shoes must be pressed in evenly to ensure they are centered in the arm and slide properly in the guides.

Drive Pulley Installation

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

⚠ WARNING

Do not apply antiseize or any lubricant on crankshaft and drive pulley tapers.

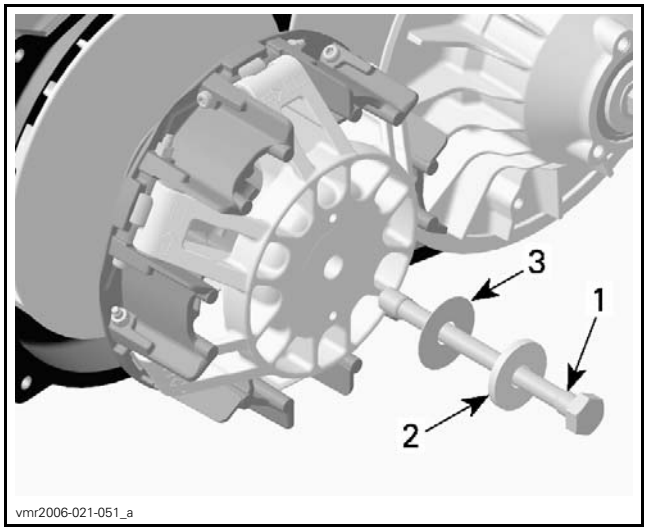
NOTICE Never use any type of impact wrench for drive pulley removal and installation.

Clean mounting surfaces as described in *DRIVE PULLEY CLEANING*.

Install drive pulley on crankshaft extension.

NOTICE Do not forget to install thrust washer and conical spring washer as per illustration that follows.

NOTE: Install conical spring washer with its concave side towards drive pulley.



vmr2006-021-051_a

1. *Drive pulley screw*
2. *Conical spring washer*
3. *Thrust washer*

⚠ WARNING

Never substitute conical spring washer and/or screw with aftermarket parts. Always use genuine BRP parts.

To tighten the drive pulley screw, lock the drive pulley. Refer to *DRIVE PULLEY LOCKING PROCEDURE* in this subsection.

Tighten drive pulley screw to specification.

TIGHTENING TORQUE	
Drive Pulley Screw	120 N•m ± 8 N•m (89 lbf•ft ± 6 lbf•ft)

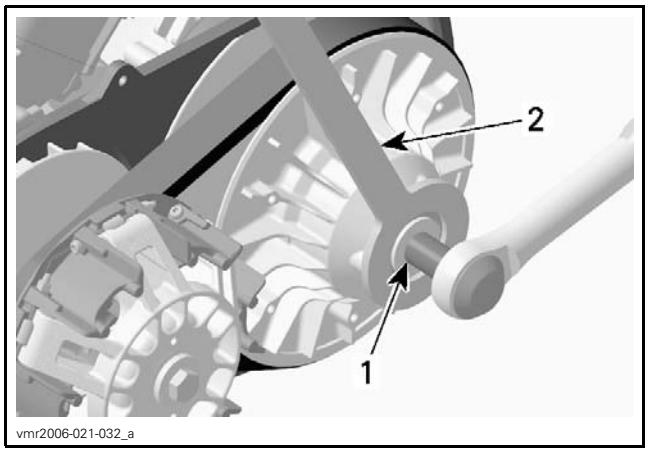
DRIVEN PULLEY

Driven Pulley Removal

1. Remove drive belt, refer to *DRIVE BELT REMOVAL* in this subsection.
2. Hold the driven pulley and loosen the driven pulley screw.

NOTE: Do not completely remove the driven pulley screw.

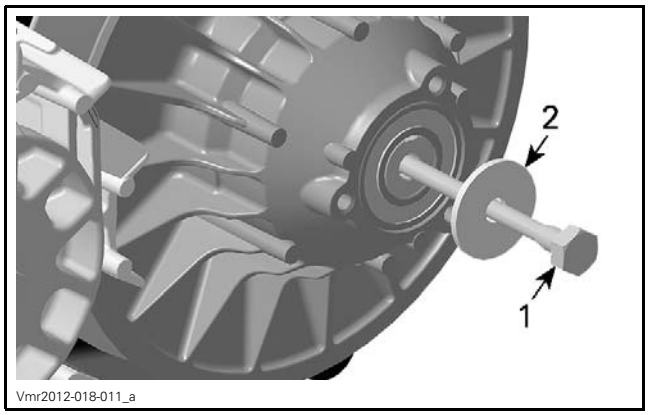
REQUIRED TOOL	
DRIVEN CLUTCH HOLDER (P/N 529 035 771)	



1. Driven pulley screw
2. Pulley holding tool

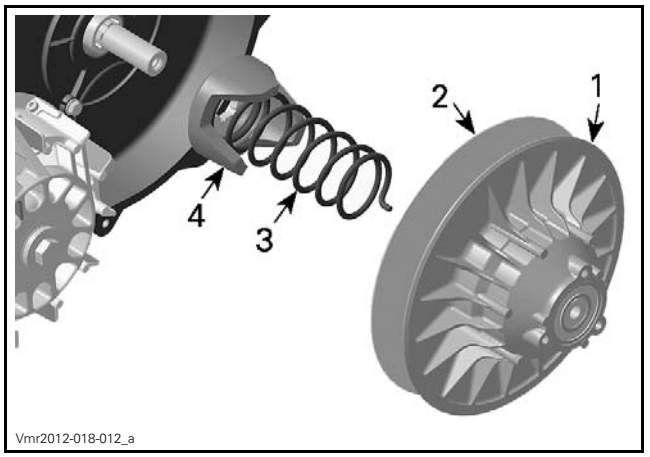
3. Apply axial pressure with your hand on driven pulley and maintain during screw removal.
4. Remove driven pulley screw and washer.

⚠ CAUTION Driven pulley is spring loaded. Hold driven pulley tight and slowly remove the driven pulley screw to release spring tension.



1. Driven pulley screw
2. Thrust washer

5. Remove the driven pulley with the spring and the cam.

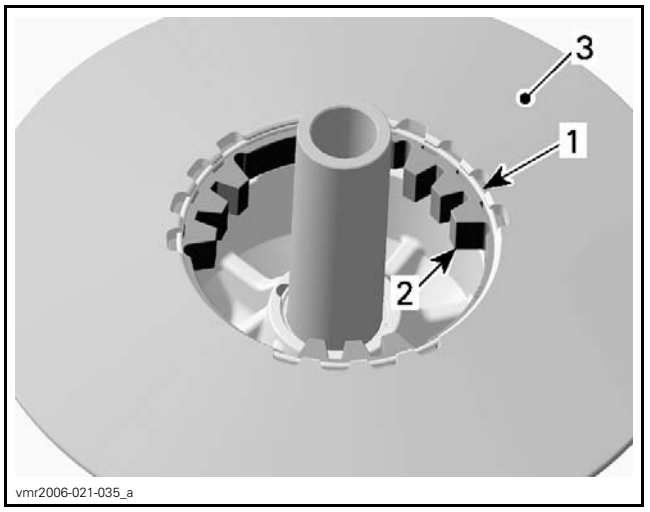


1. Fixed sheave of driven pulley
2. Sliding sheave of driven pulley
3. Spring
4. Cam

Driven Pulley Disassembly

Fixed Sheave

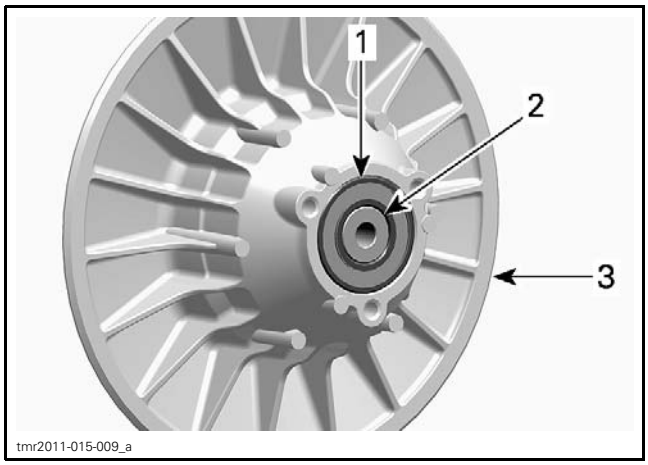
1. Remove retaining ring and lift torque gear.



1. Retaining ring
2. Torque gear
3. Fixed sheave of driven pulley

NOTE: The following procedure is not necessary except if ball bearing or shaft must be removed. Refer to *INSPECTION* before proceeding.

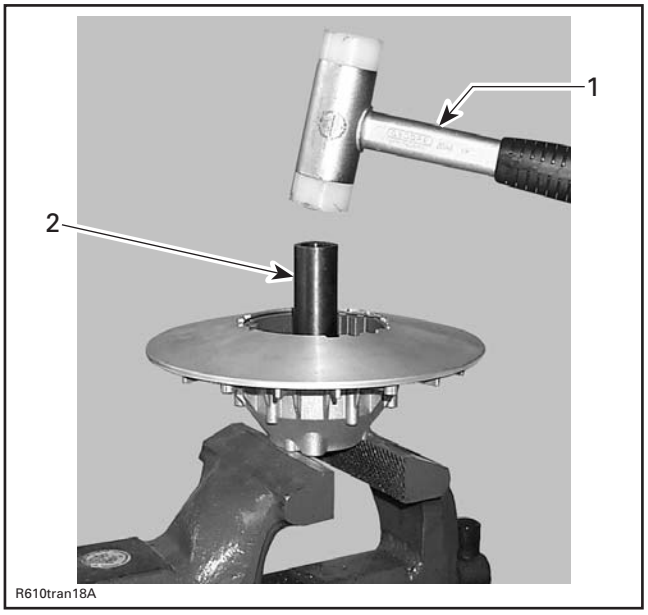
2. Heat ball bearing area up to 100°C (212°F) before removing ball bearing.



tmr2011-015-009_a

1. Ball bearing
2. Shaft
3. Fixed sheave of driven pulley

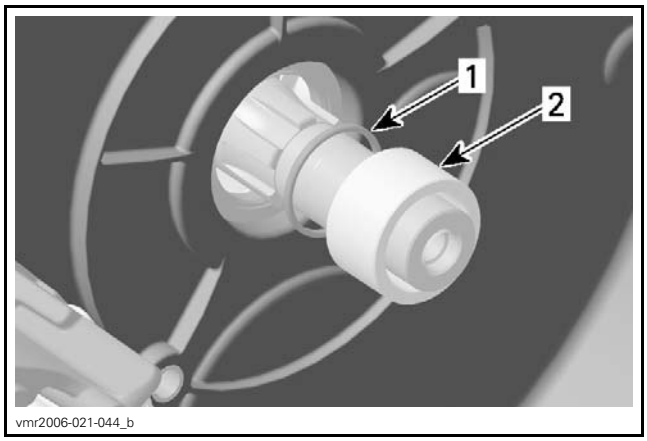
3. Use a soft hammer to push shaft and bearing out of fixed sheave.



R610tran18A

1. Soft hammer
2. Shaft

4. Remove shaft from ball bearing.
5. Remove distance sleeve and O-ring from countershaft.
6. Replace O-ring if brittle, hard or damaged.



vmr2006-021-044_b

1. O-ring
2. Distance sleeve

Driven Pulley Cleaning

When a dust deposit has to be removed from the cam or the shaft, use a dry cloth.

Clean pulley faces and shaft using fine steel wool and a dry cloth.

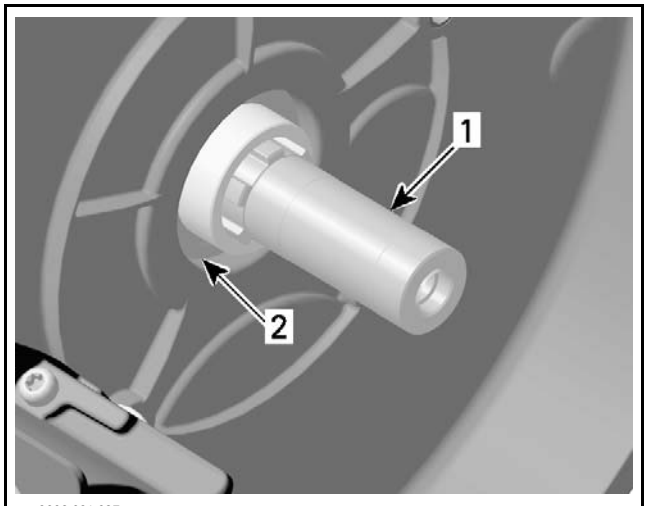
Clean driven pulley using the recommended product.

RECOMMENDED PRODUCT
PULLEY FLANGE CLEANER (P/N 413 711 809)

Clean the CVT air guide area from contamination.

Using a paper towel with PULLEY FLANGE CLEANER (P/N 413 711 809), clean countershaft end and shaft bore.

NOTICE **To avoid damage, make sure cleaner does not contact the countershaft oil seal.**



vmr2006-021-037_a

1. Countershaft support
2. Countershaft oil seal

Driven Pulley Inspection

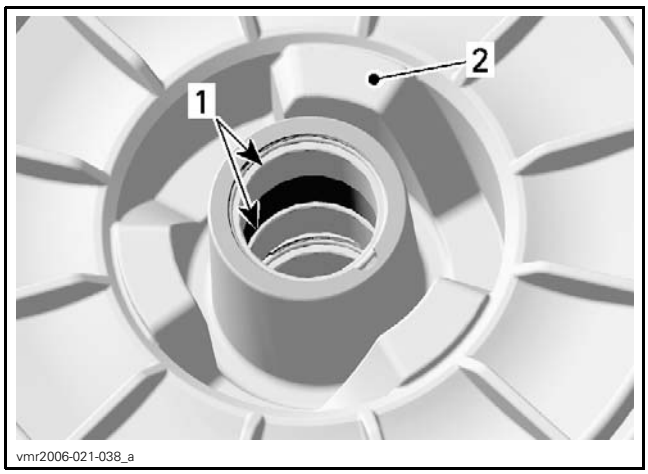
Sliding Sheave

Check sliding sheave for cracks and sliding contact surface for excessive wear. Replace sliding sheave if necessary.

Check bushings for cracks, scratches and for freedom of movement when assembled to sliding sheave.

Measure bushing inner diameter.

NOTE: This bushing cannot be replaced. Replace sliding sheave if bushings are out of specification. Visually inspect coatings.



1. Bushings
2. Backside of sliding sheave of driven pulley

REQUIRED TOOL
Dial Bore Gauge

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

BUSHING INNER DIAMETER	
NOMINAL	30.060 mm to 30.100 mm (1.183 in to 1.185 in)
SERVICE LIMIT	30.200 mm (1.189 in)

Fixed Sheave

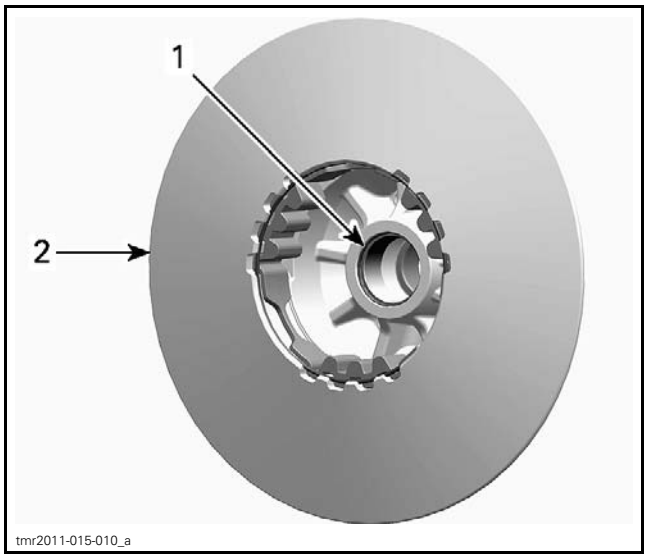
Check fixed sheave for cracks and excessive wear. Replace fixed sheave if necessary.

Check ball bearing for free play and smooth operation. Replace if necessary.

Check shaft for heavy wear or visible damage. Replace if necessary.

If the shaft is removed, measure bushing inner diameter.

NOTE: This bushing cannot be replaced. Replace fixed sheave if bushing is out of specification. Visually inspect coatings.



1. Bushing
2. Fixed sheave of driven pulley

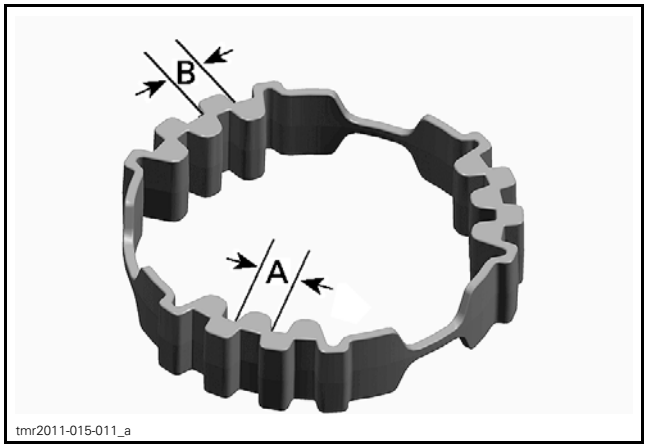
REQUIRED TOOL
Dial Bore Gauge

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

BUSHING INNER DIAMETER	
NOMINAL	30.060 mm to 30.100 mm (1.183 in to 1.185 in)
SERVICE LIMIT	30.200 mm (1.189 in)

Check torque gear for visible damage and cracks.

Measure for wear limit using a caliper.

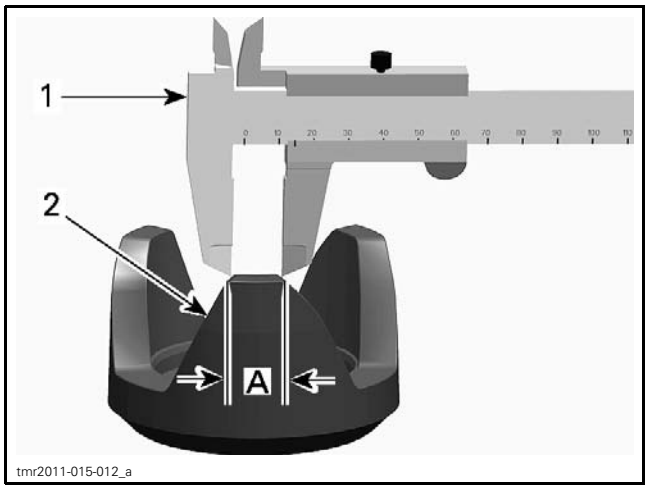


A. Measurement inside
B. Measurement outside

WEAR ON TEETH (BOTH SIDES)	
SERVICE LIMIT	7.500 mm (.295 in)

Cam

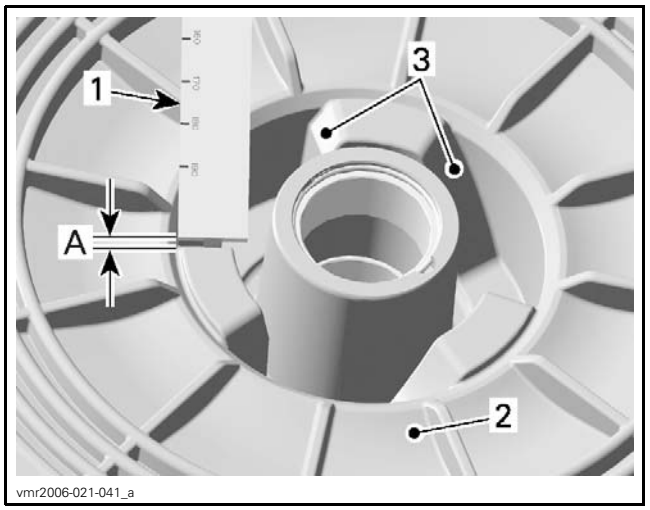
Check cam for visible damage and measure for wear using a caliper.



tmr2011-015-012_a

1. Caliper
2. Contact surface
A. Width to be measured due to wear on contact surface

WIDTH ON TOP SURFACE	
SERVICE LIMIT	9.00 mm (.354 in)



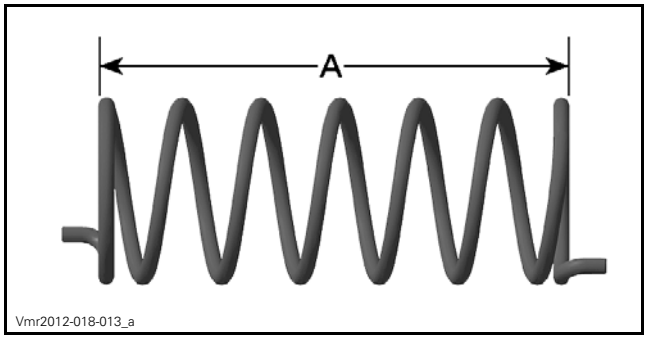
vmr2006-021-041_a

1. Caliper
2. Sliding sheave
3. Contact surface
A. Wear to be measured

WEAR ON CONTACT SURFACE	
SERVICE LIMIT	1.00 mm (.039 in)

Spring

1000 Engine



Vmr2012-018-013_a

CVT DRIVEN SPRING (1000 ENGINE)
A. Spring free length

All Engines:

Measure spring free length and squareness. If spring is out of specification, replace by a new.

SPRING FREE LENGTH	
SERVICE LIMIT	125 mm (4.921 in)
CLUTCH SPRING SQUARENESS	
SERVICE LIMIT	3.8 mm (.15 in)

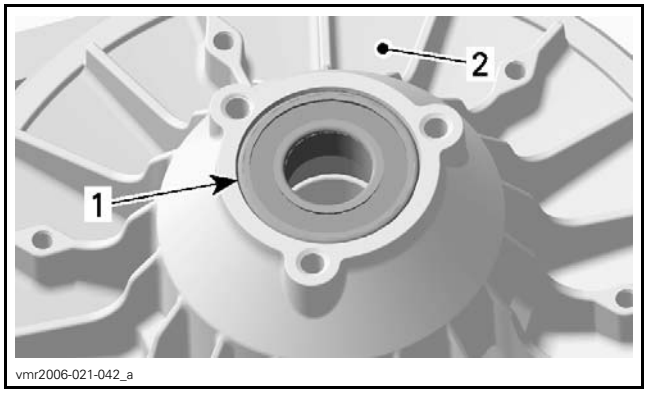
Driven Pulley Assembly

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

Heat ball bearing area up to 100°C (212°F) before ball bearing installation.

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

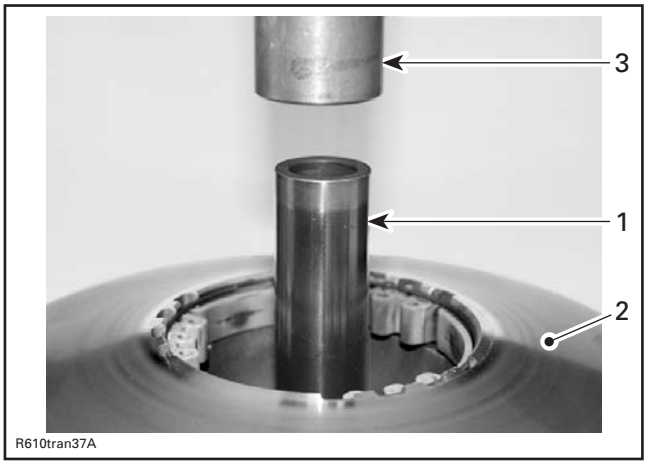
Install ball bearing with the writing on top and press it in using only the outer race.



vmr2006-021-042_a

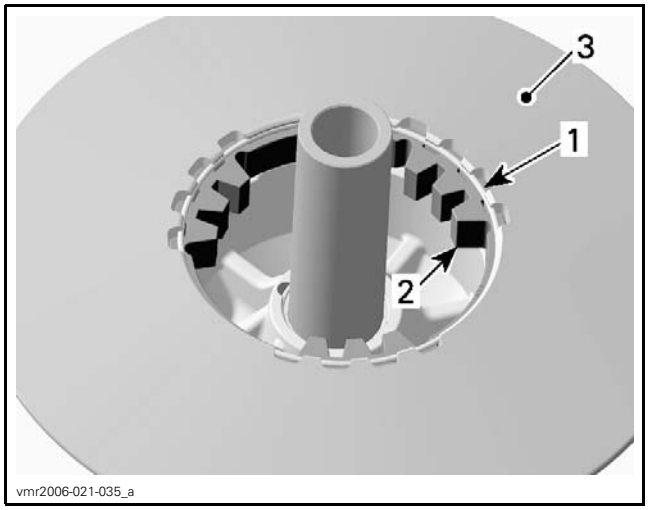
1. Ball bearing
2. Fixed sheave of driven pulley

NOTICE Do not use a hammer, bearing must be pressed in only.



1. Shaft
2. Fixed sheave
3. Press machine

Install torque gear then secure it with the retaining ring.



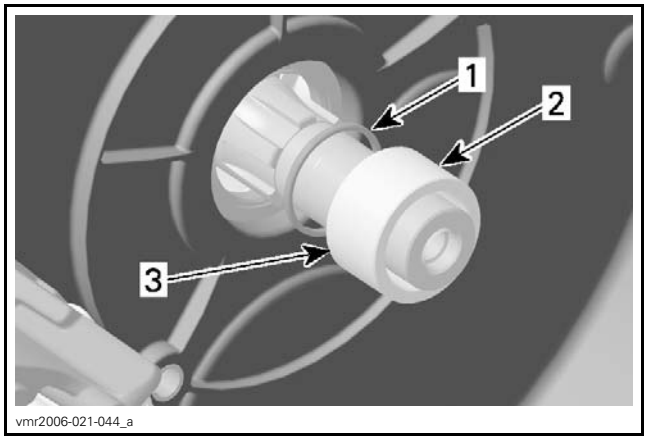
1. Retaining ring
2. Torque gear
3. Fixed sheave of driven pulley

Driven Pulley Installation

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

Place O-ring on countershaft splines and move it and the distance sleeve into position.

NOTICE **Chamfer on inside diameter of the distance sleeve must face gearbox side.**



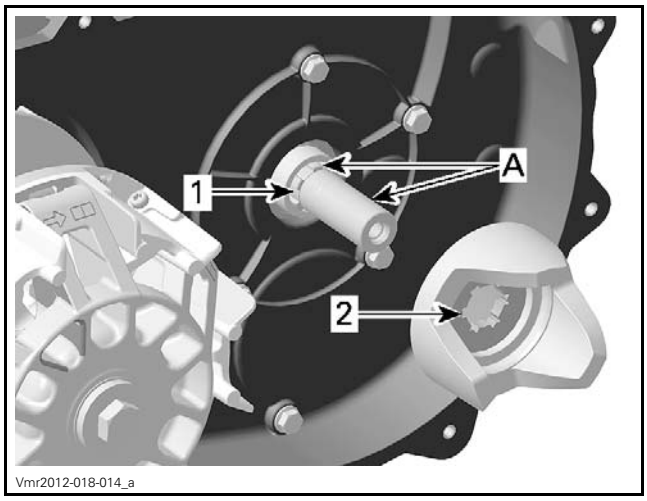
1. O-ring
2. Distance sleeve
3. Chamfered area of distance sleeve

800R Engine

Install cam on countershaft.

NOTICE **Cam splines must engage on countershaft splines.**

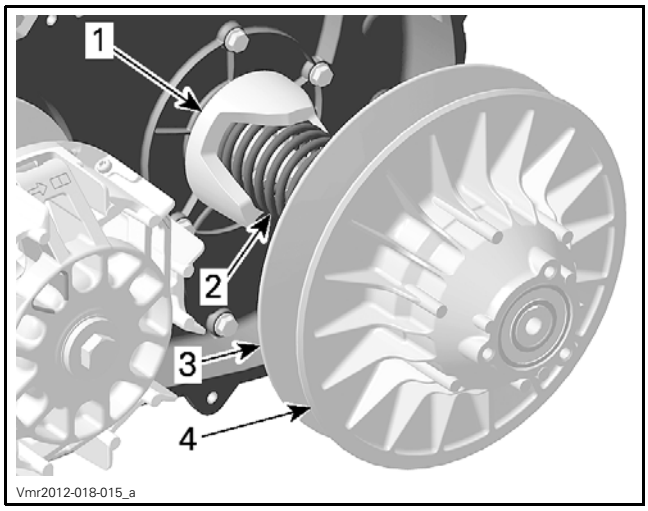
REQUIRED PRODUCT	
Countershaft splines and countershaft end	LOCTITE 767 (ANTISEIZE LUBRICANT) (P/N 293 800 070)



800R ENGINE
1. Countershaft splines
2. Cam splines
A. Loctite 767 here

Insert sliding sheave in fixed sheave.

Place spring behind sliding sheave then align driven pulley with cam.



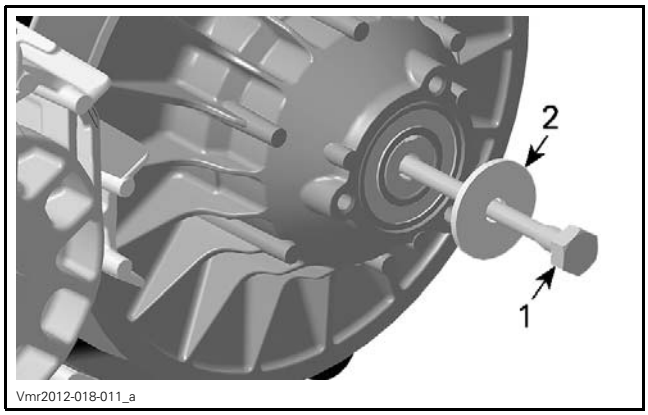
800R ENGINE
1. *Cam*
2. *Spring*
3. *Sliding sheave*
4. *Fixed sheave*

With your hand, push the driven pulley onto the shaft to compress the spring.

NOTICE **A cam not correctly engaged will cause damage to the driven pulley and cam.**

As you hold the pulley compressed, install the driven pulley screw and thrust washer.

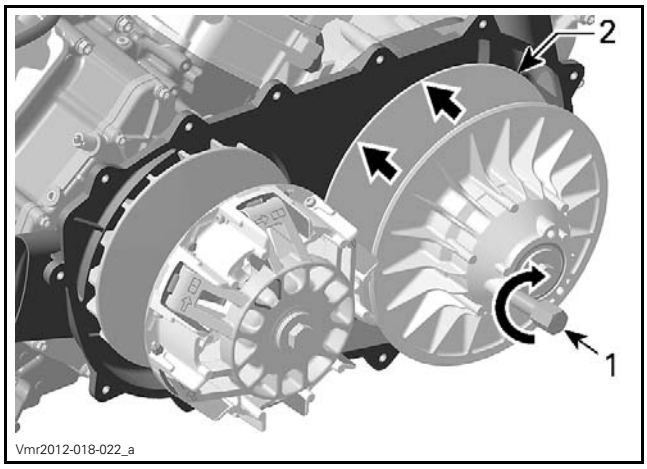
NOTE: Tighten the screw with your hand sufficiently for the cam to remain engaged.



1. *Driven pulley screw*
2. *Thrust washer*

Install drive belt. Refer to *DRIVE BELT* in this subsection.

REQUIRED TOOL	
PULLER/LOCKING TOOL (P/N 529 036 098)	



1. *Puller/locking tool*
2. *Sliding sheave*

NOTE: If driven pulley sheaves cannot be opened when the service tool is screwed in, the cam is not correctly engaged in the sliding sheave.

Tighten driven pulley screw to specification.

TIGHTENING SEQUENCE (DRIVEN PULLEY SCREW)	
Step 1	20 N•m ± 1 N•m (15 lbf•ft ± 1 lbf•ft)
Step 2	180° ± 5°

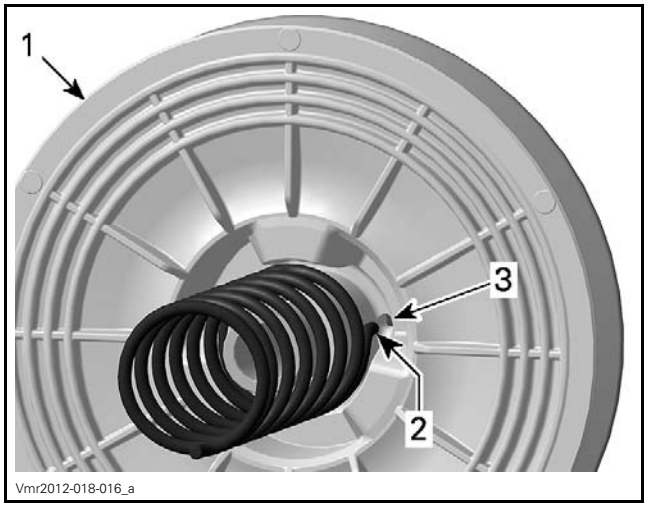
Check driven pulley end play.

SPECIFICATION	
Driven pulley end play	0 mm (0 in)

1000 Engine

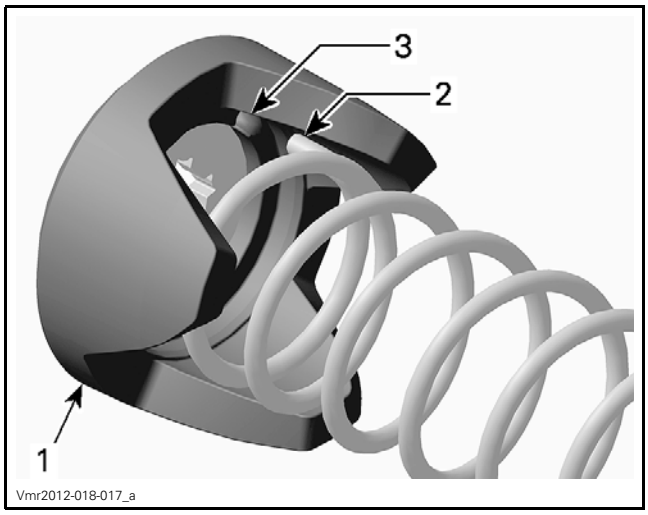
Insert the sliding sheave in the fixed sheave.

Place spring behind sliding sheave and engage spring end in the sliding sheave spring bore.



1000 ENGINE
1. *Sliding sheave*
2. *Spring end*
3. *Spring bore*

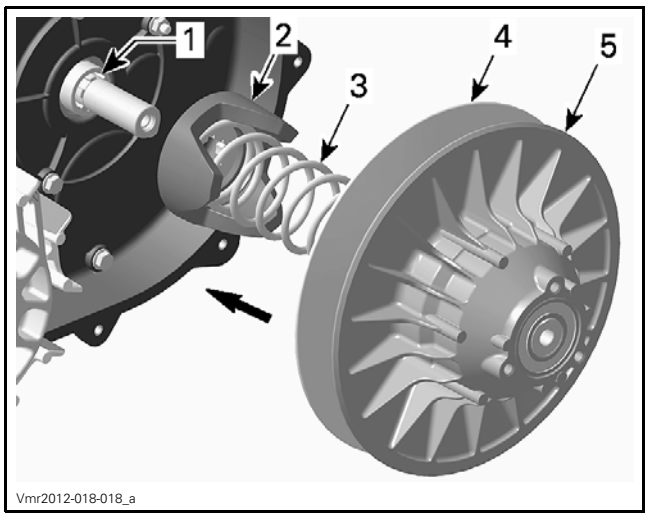
Place cam on the opposite end of the spring and engage the other spring end in the cam spring bore.



1000 ENGINE
1. *Cam*
2. *Spring end*
3. *Spring bore*

Install pre-assembled cam with spring and driven pulley on countershaft end.

NOTICE Cam must engage on countershaft splines.

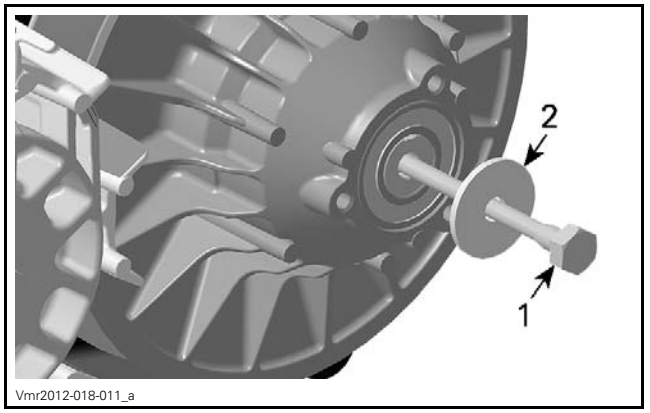


1000 ENGINE
1. *Countershaft splines*
2. *Cam*
3. *Spring*
4. *Sliding sheave*
5. *Fixed sheave*

With your hand, push the driven pulley onto the shaft to compress the spring.

As you hold the pulley in, install the driven pulley screw and thrust washer.

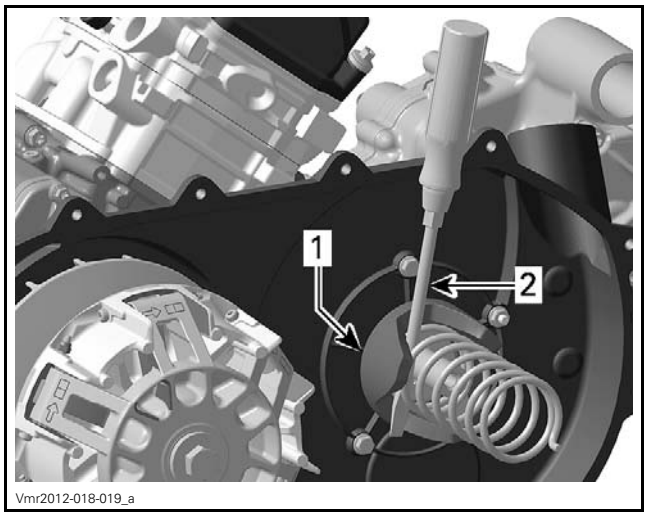
NOTE: Tighten the screw with your hand approximately 3 to 4 turns.



1. *Driven pulley screw*
2. *Thrust washer*

Insert a screwdriver of approximately 5 mm (.197 in) diameter in the cam.

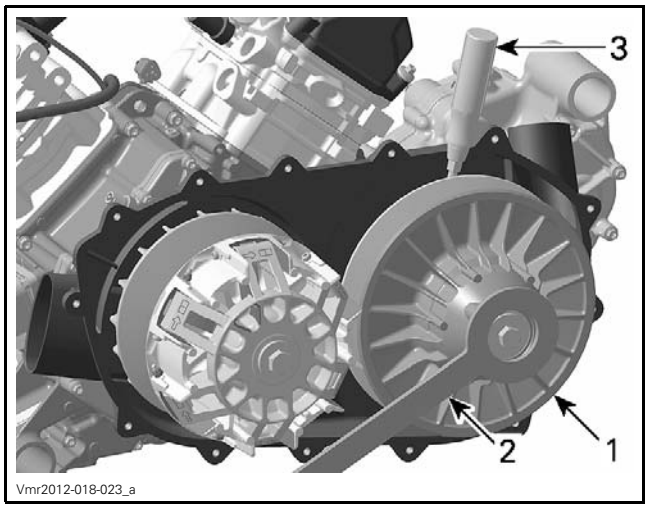
NOTE: For clarity of understanding, some parts not shown in the following illustration.



1000 ENGINE
1. *Cam*
2. *Screwdriver, diameter 5 mm (.197 in)*

Hold the driven pulley in a fix position.

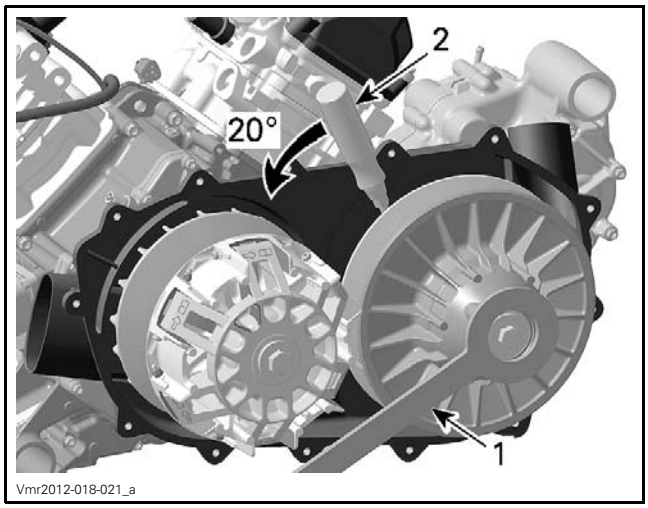
REQUIRED TOOL	
DRIVEN CLUTCH HOLDER (P/N 529 035 771)	



Vmr2012-018-023_a

1000 ENGINE
1. *Fixed sheave*
2. *Driven clutch holder*
3. *Screwdriver*

Turn the screwdriver approximately 20° counterclockwise until cam engages in the driven pulley sliding sheave and hold it in this position (spring preload).



Vmr2012-018-021_a

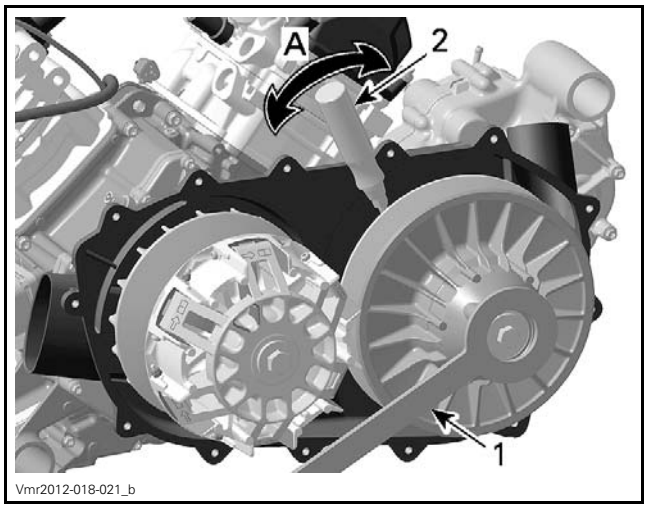
1000 ENGINE
1. *Driven clutch holder*
2. *Screwdriver*

Using a socket and extension, hand tighten the driven pulley screw.

NOTE: **Do not** apply specified torque at this time.

Move the screwdriver back and forth to check cam for free movement.

NOTICE **A cam not correctly engaged will cause damage to the driven pulley and cam.**



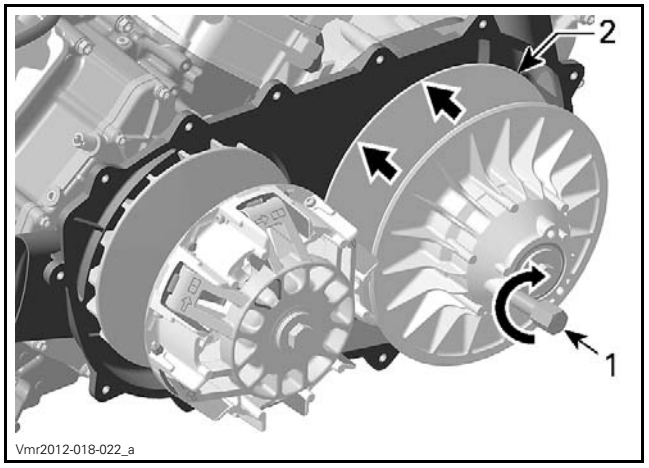
Vmr2012-018-021_b

1000 ENGINE
1. *Driven clutch holder*
2. *Screwdriver*

A. Cam freedom of movement

Install drive belt. Refer to *DRIVE BELT* in this subsection.

REQUIRED TOOL	
PULLER/LOCKING TOOL (P/N 529 036 098)	



Vmr2012-018-022_a

1. *Puller/locking tool*
2. *Sliding sheave*

NOTE: If driven pulley sheaves can to be opened when the service tool is screwed in, the cam is not correctly engaged in the sliding sheave.

Tighten driven pulley screw as specified.

TIGHTENING SEQUENCE (DRIVEN PULLEY SCREW)	
Step 1	20 N•m ± 1 N•m (15 lbf•ft ± 1 lbf•ft)
Step 2	180° ± 5°

Check driven pulley end play.

SPECIFICATION	
Driven pulley end play	0 mm (0 in)

CVT AIR GUIDE

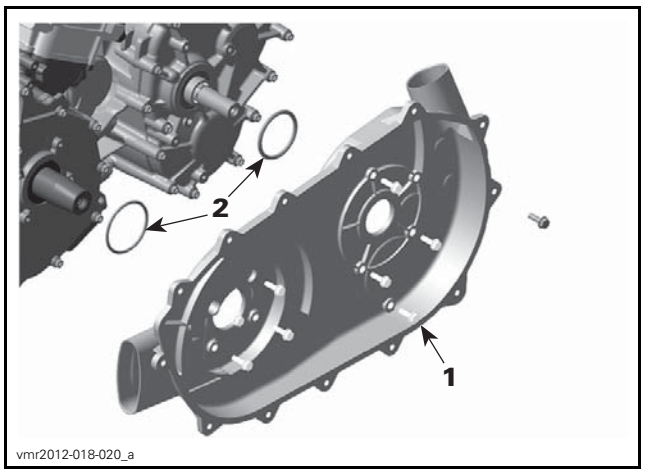
CVT Air Guide Removal

1. Remove the *DRIVE PULLEY* and the *DRIVEN PULLEY*.
2. Unscrew the clamps retaining the CVT air hoses.
3. Remove CVT air guide.

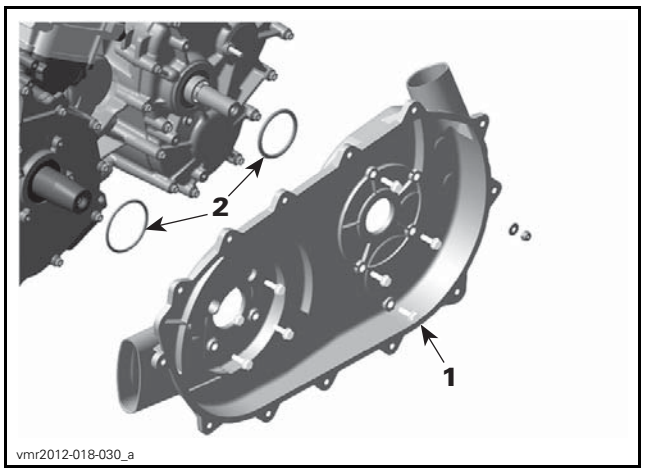
CVT Air Guide Inspection

Clean CVT air guide from contamination

Check O-rings. If brittle, hard or damaged, replace as necessary.



800R ENGINE
1. *CVT air guide*
2. *O-rings*



1000 ENGINE
1. *CVT air guide*
2. *O-rings*

CVT Air Guide Installation

For installation reverse the removal procedure.