CHAPTER 6
CLUTCHING

6

SERVICE TOOLS AND SUPPLIES

TOOL DESCRIPTION	PART NUMBER
Clutch Puller	**2870506**
Clutch Holding Wrench	**9314177**
Clutch Holding Fixture	**2871358**
Spider Nut Socket	**2870338**
Drive Clutch Spider Removal and Install Tool	**2870341**
Driven Clutch Puller	**2870913**
Roller Pin Tool	**2870910**
Clutch Bushing Replacement Tool Kit	**2871226**
Piston Pin Puller	**2870386**
Clutch Compression Tool	**8700220**
Clutch Bushing Replacement Tool Kit	**2871025**
Clutch Alignment Tool	**PA-47346**

SPECIAL SUPPLIES	PART NUMBER
Loctite t 680	**2870584**
RTV Silicone Sealer	**2870661**
Loctite Gasket Remover	**2870601**

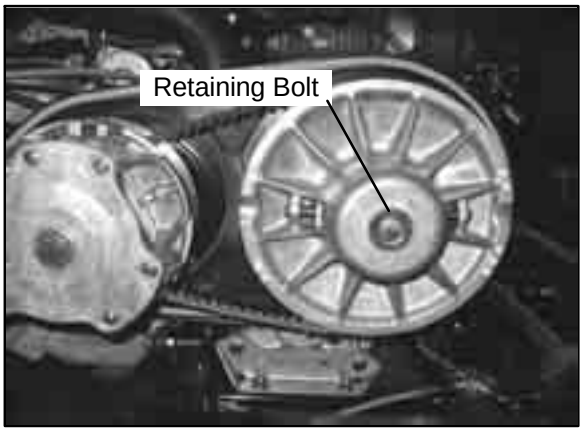
PVT SYSTEM FASTENER TORQUES

ITEM	TORQUE VALUE ft.lbs. (Nm)
Drive Clutch Retaining Bolt	40 ft. lbs. (54 Nm)
Driven Clutch Retaining Bolt	17 ft. lbs. (23 Nm)
PVT Inner Cover Bolts	12 ft. lbs. (16 Nm)
PVT Outer Cover Bolts	45-50 in.lbs (5-5.6 Nm)
Drive Clutch Spider	200 ft. lbs. (271 Nm)
Drive Clutch Spider Lock Nut (Plastic)	15 ft. lbs. (20.3 Nm)
Drive Clutch Cover Plate	90 in. lbs. (10 Nm)

PVT DISASSEMBLY

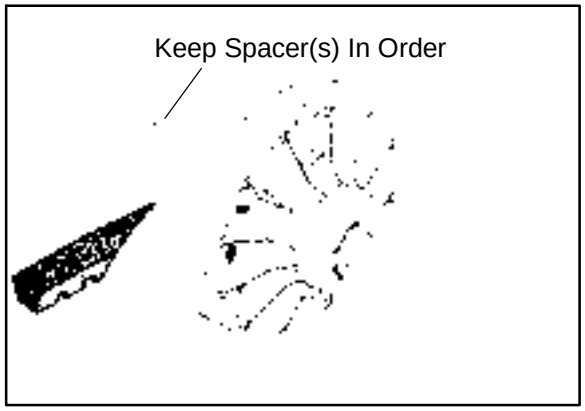
NOTE: Some fasteners and procedures will vary. Refer to the appropriate parts manual for proper fasteners and fastener placement. (See Page 6.5).

1. Remove seat.
2. Remove the LH storage box to gain access to PVT outer cover. (See Chapter 5)
3. Remove PVT air outlet duct hose.
4. Remove outer cover screws. Refer to Page 6.5.
5. Mark the drive belt direction of rotation and remove drive belt. See Page 6.13 for drive belt removal.
6. Remove driven clutch retaining bolt and driven clutch. Use the Driven Clutch Puller (**PN 2870913**) if necessary.



Driven Clutch Puller (PN 2870913)

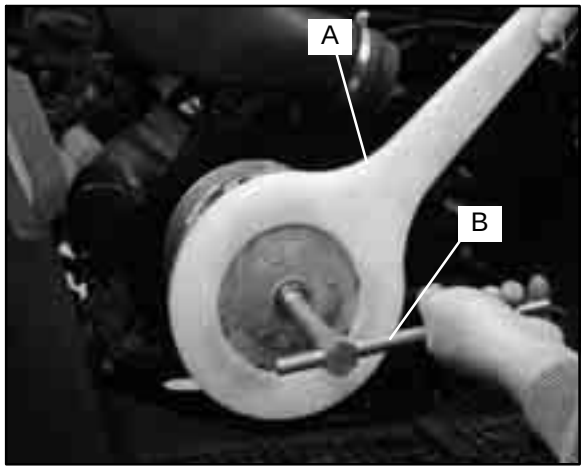
7. Remove driven clutch offset spacers from the transmission input shaft.



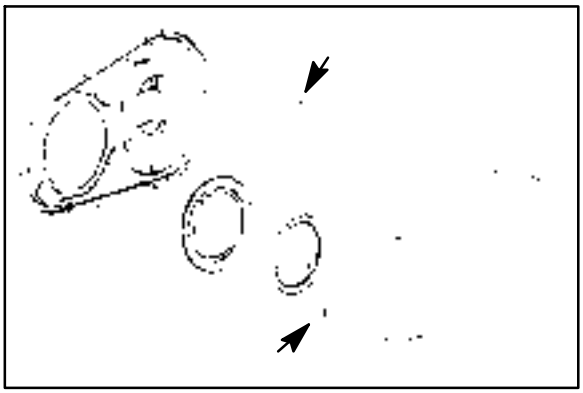
8. Install the Drive Clutch Holder (**PN 9314177**) (A).
9. Remove drive clutch retaining bolt and remove drive clutch using the Drive Clutch Puller (**PN 2870506**) (B).

Drive Clutch Puller (PN 2870506)

Drive Clutch Holder (PN 9314177)

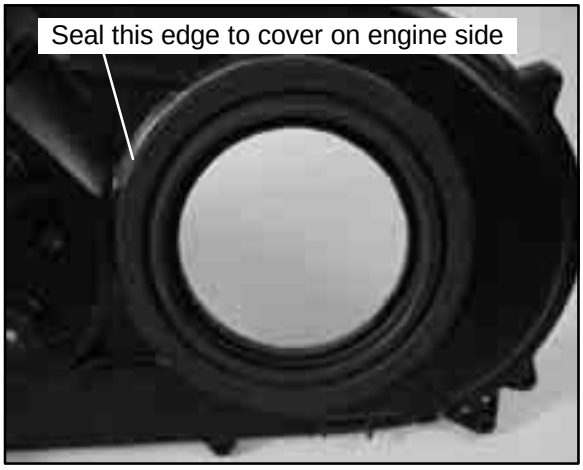


10. Remove screws and retainer plate.

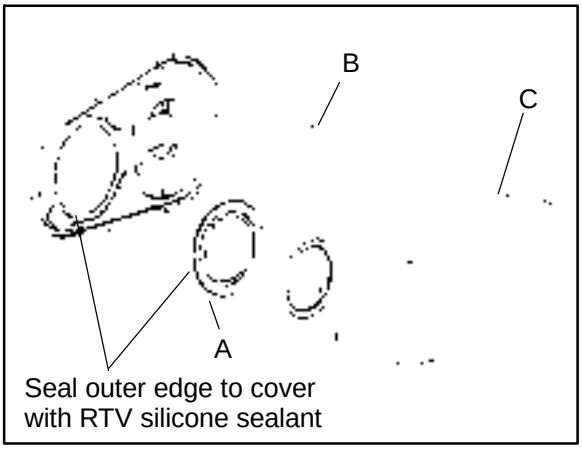


11. Remove inner cover retaining bolts at rear of cover.
12. Remove cover along with foam seal on back of cover or shaft.

PVT ASSEMBLY

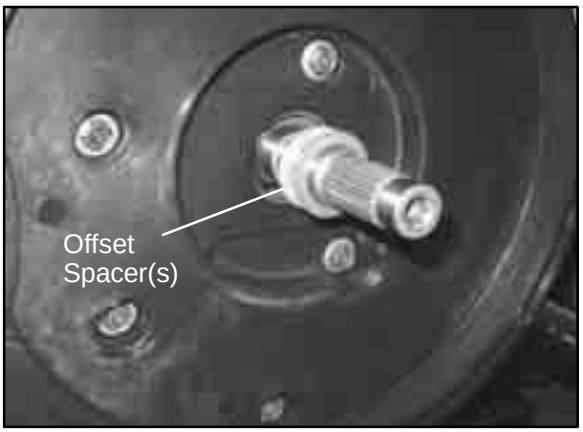


1. Inspect PVT inner cover-to engine seal. Replace if cracked or damaged.
2. Apply RTV silicone sealant to outside edge of inner cover-to-engine seal, to ensure a water tight fit between the seal and the cover. Surfaces must be clean to ensure adhesion of silicone sealant.
3. Reinstall cover and tighten rear cover bolts just enough to hold it in place.



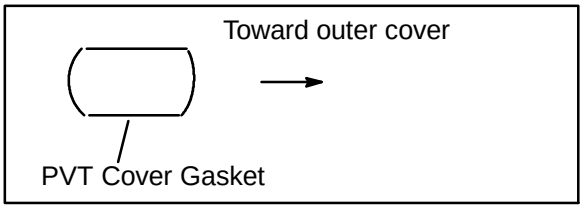
4. Fit lip of inner cover seal (A) to engine. Install seal retainer plate and tighten screws securely.
5. Torque rear inner cover bolts (B) to specification.

Inner Cover Bolt Torque (Rear):
12 ft. lbs. (16.6 Nm)
Outer Cover Bolt Torque:
45-50 in.lbs. (5-5.6 Nm)
Driven Clutch Retaining Bolt Torque:
17 ft. lbs. (23.5 Nm)
Drive Clutch Retaining Bolt Torque:
40 ft. lbs. (55 Nm)

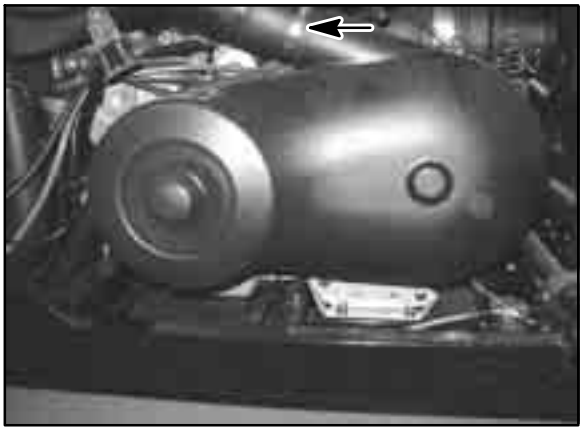


6. Install clutch offset spacer(s) on transmission input shaft.
7. Clean splines inside driven clutch and on the transmission input shaft.
8. Apply a light film of grease to the splines on the shaft.
9. Install the driven clutch, washer, lock washer, and retaining bolt. Torque to specification.
10. Clean end of taper on crankshaft and the taper bore inside drive clutch.
11. Install drive clutch and torque retaining bolt to specification.

12. Reinstall drive belt noting direction of rotation. If a new belt is installed, install so numbers can be easily read.

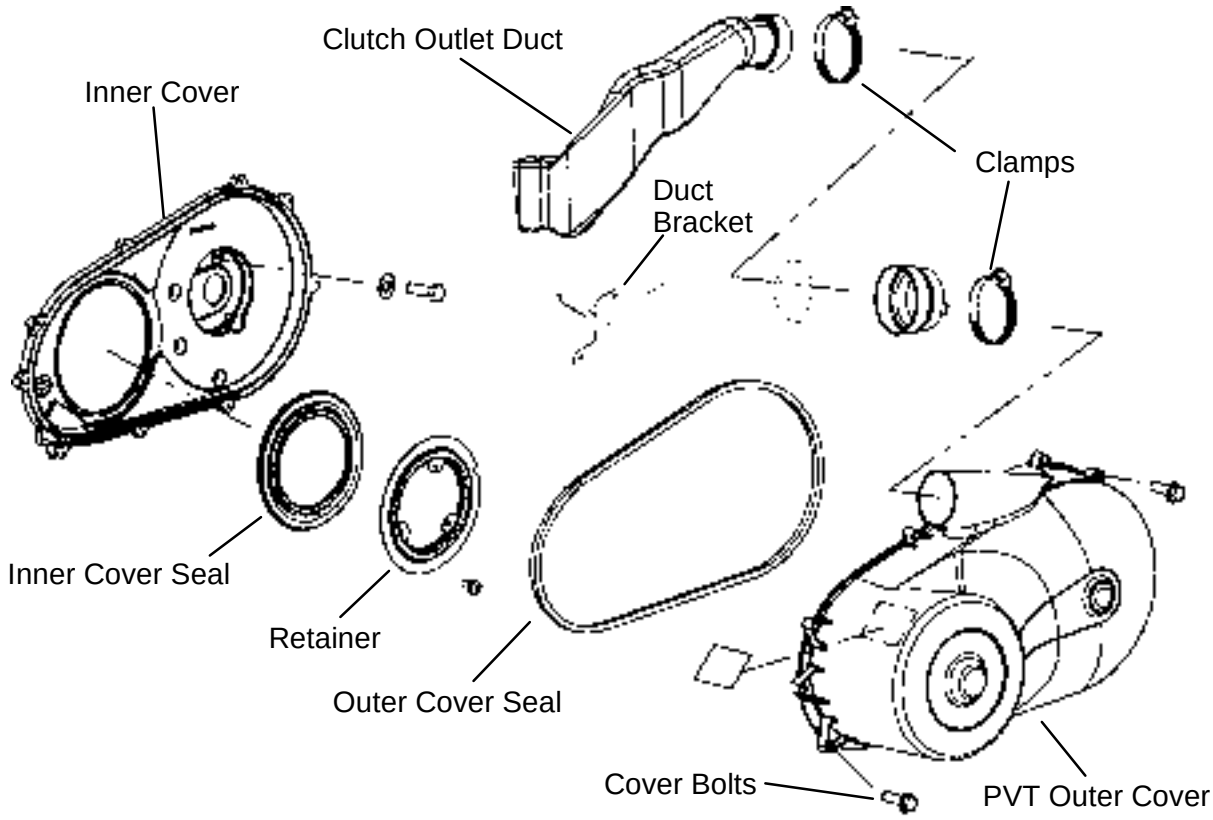


13. Replace PVT outer cover rubber gasket with the narrow side out (C).
14. Reinstall PVT outer cover and secure with screws Torque to 45-50 in. lbs. (5-5.6 Nm). Install the PVT cover outlet duct and tighten the clamps.

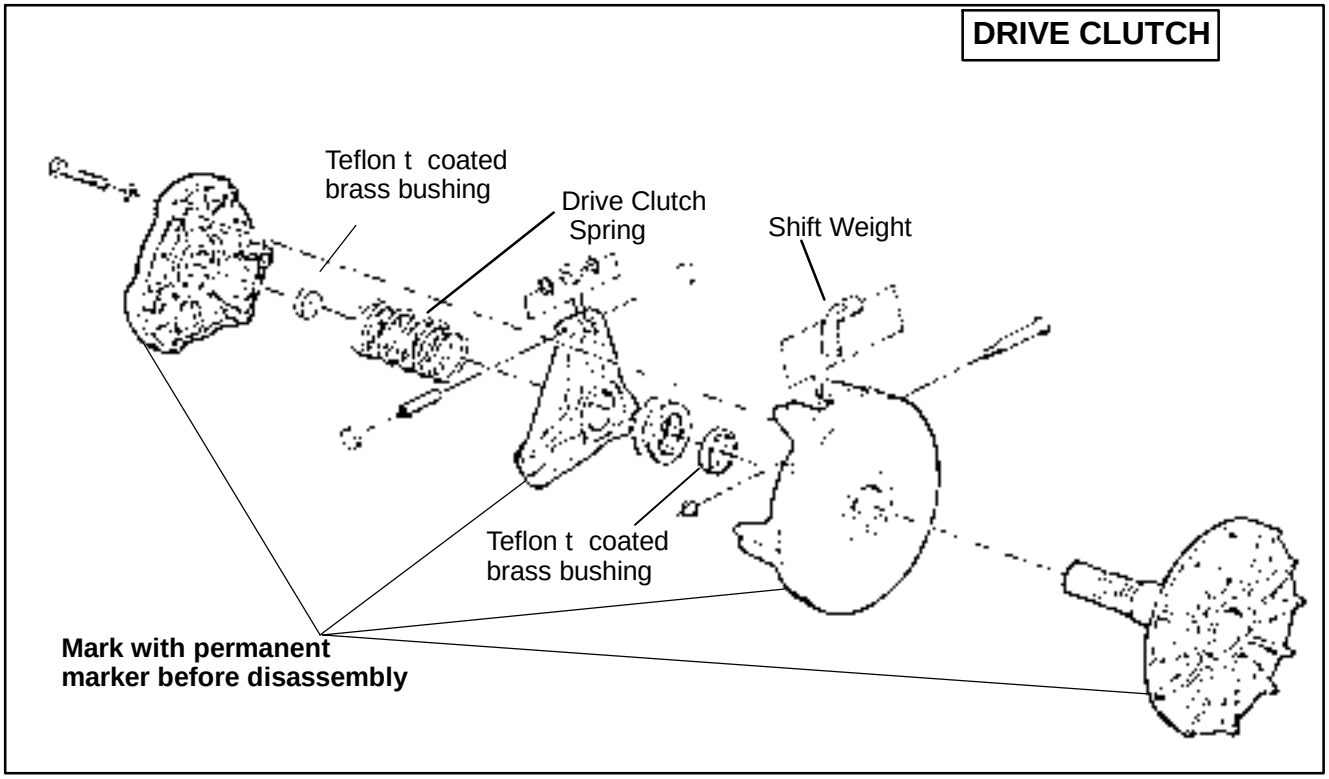


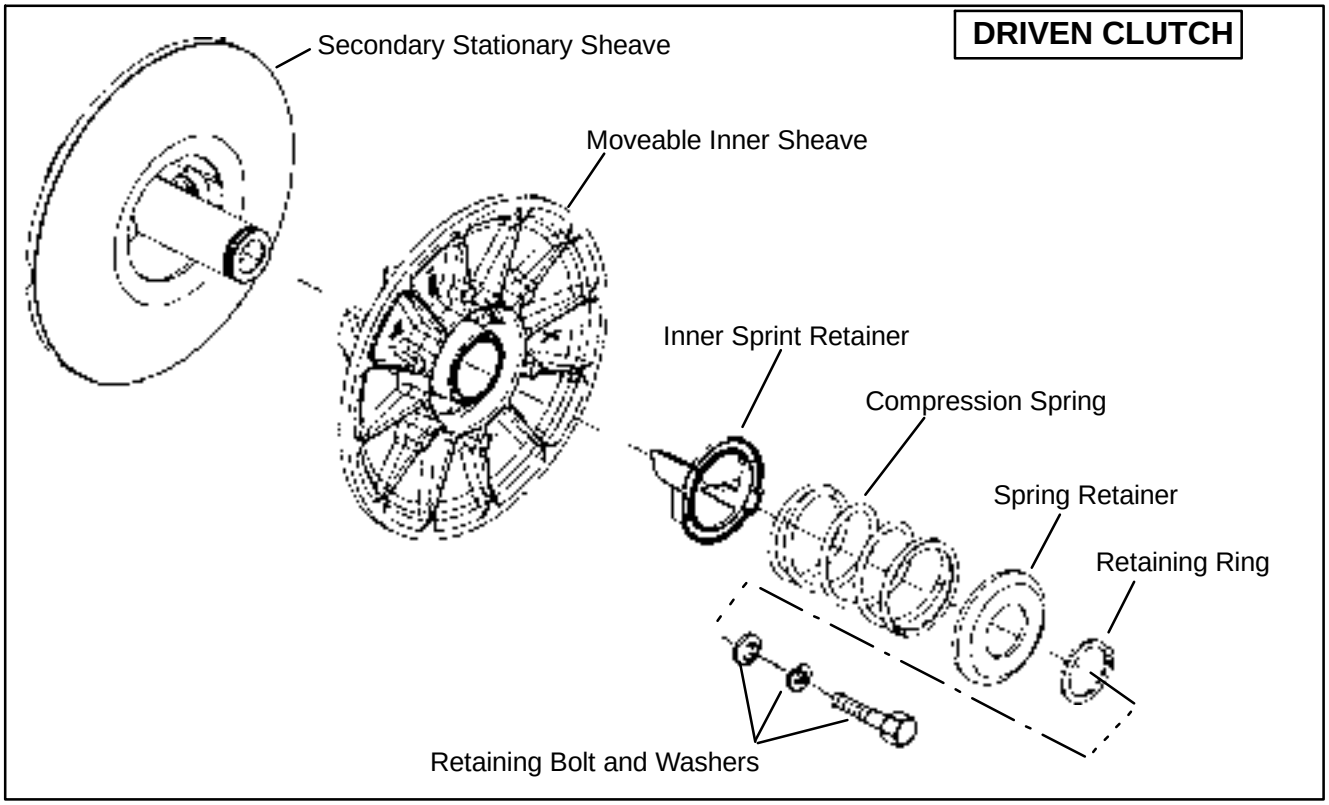
PVT SEALING, GUARD, AND DUCTING COMPONENTS

SEALING AND DUCTING COMPONENTS



DRIVE CLUTCH EXPLODED VIEW





DRIVE CLUTCH SPRING SPECIFICATIONS

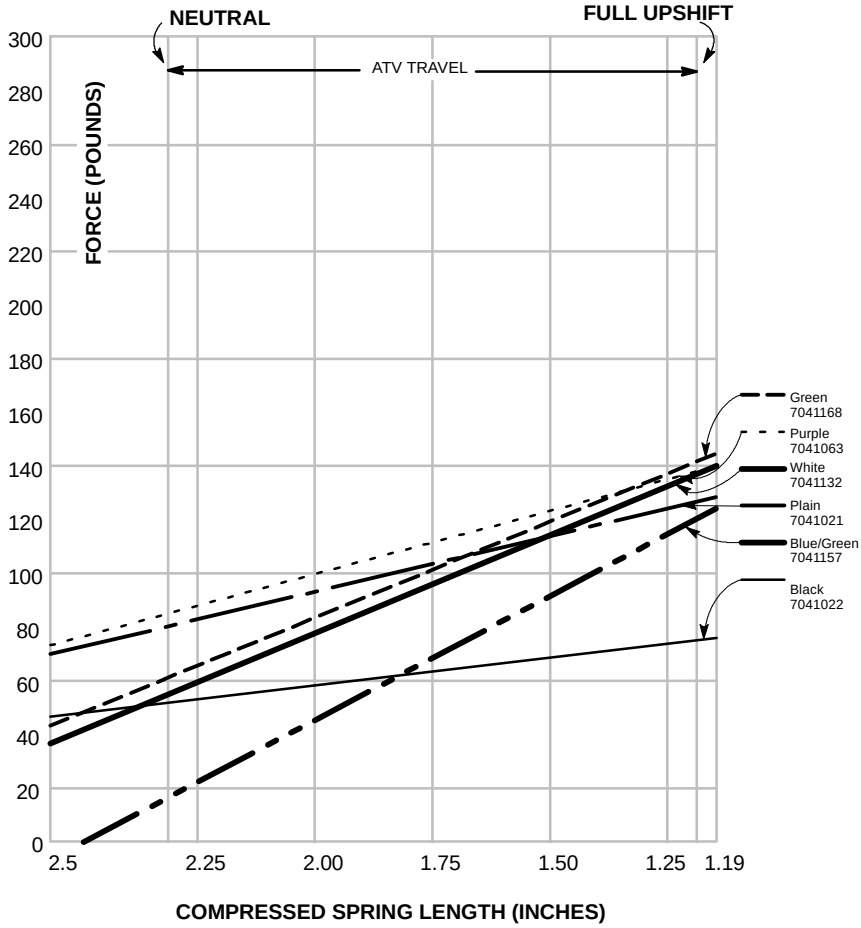
The drive clutch spring has two primary functions:

1. **To control clutch engagement RPM.** The springs which have a higher rate when the clutch is in neutral will increase clutch engagement RPM.
2. **To control the rate at which the drive belt moves upward in the drive clutch sheaves.** This is referred to as drive clutch upshift.

There are other components which control upshift, but the spring is one of the primary components in insuring optimum performance. It is very important that the spring is of the correct design and is in good condition.

CAUTION: Never shim a drive clutch spring to increase its compression rate. This may result in complete stacking of the coils and subsequent clutch cover failure.

The drive clutch spring is one of the most critical components of the PVT system. It is also one of the easiest to service. Due to the severe relaxation the spring is subject to during operation, it should always be inspected for tolerance limits during any clutch operation diagnosis or repair.



With the spring resting on a flat surface, measure its free length from the outer coil surfaces as shown. Refer to the spring specification chart for specific free length measurements and tolerances. Also check to see that spring coils are parallel to one another. Distortion of the spring indicates stress fatigue, requiring replacement.

Primary Clutch Springs

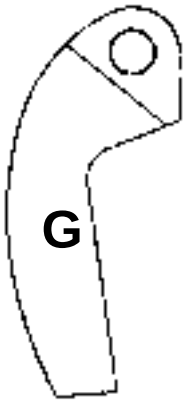
PART NUMBER	COLOR CODE	WIRE DIAMETER	FREE LENGTH ¦ .125I
7041021	Plain	.157I	4.38I
7041022	Black	.140I	4.25I
7041063	Purple	.168I	4.37I
7041132	White	.177I	2.92I
7041168	Green	.177I	3.05I
7041157	Blue/Green	.177I	2.53I
7042202	Blue/Gray	.187I	2.55I

Secondary Clutch Springs

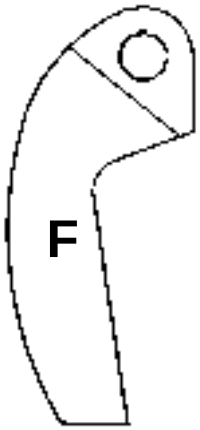
PART NUMBER	DESCRIPTION
7041198	Red
7041782	Black 5-coil
7041501	Gold 6-coil
7041499	Silver
7041296	Blue
7041646	Silver/Blue
7043167	Black/Almond

SHIFT WEIGHTS

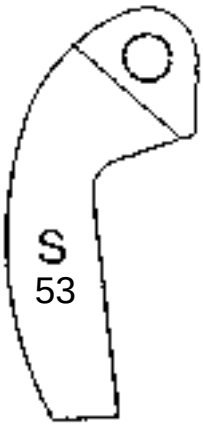
Shown below are the shift weights which have been designed for, or which may be used in the PVT system. These shift weights have many factors designed into them for controlling engagement RPM and shifting patterns. Shift weights should not be changed or altered without first having a thorough understanding of their positioning and the effects they may have on belt to sheave clearance, clutch balance and shifting pattern.



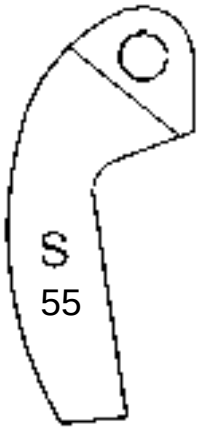
PN 5630514
48 gr



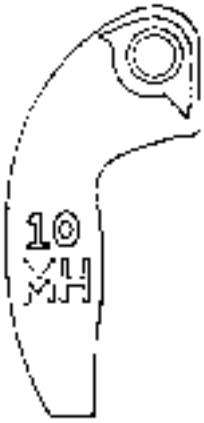
PN 5630515
45 gr



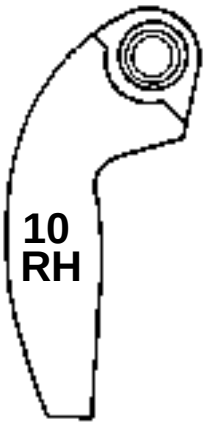
PN 5630095
53 gr



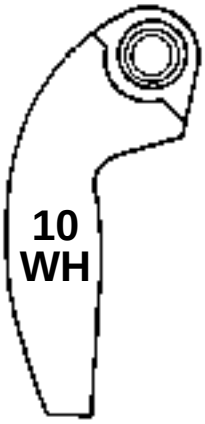
PN 5630509
55 gr



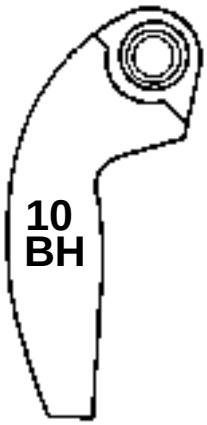
PN 5630513
50.5 gr



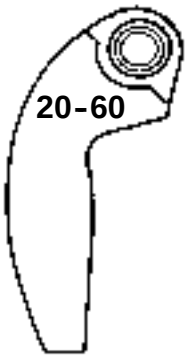
PN 5630709
44 gr



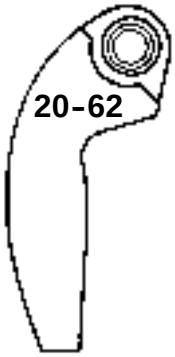
PN 5630710
46 gr



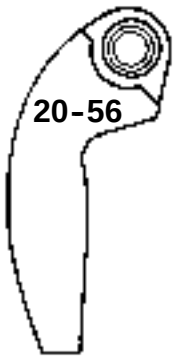
PN 5630711
47gr



PN 5631698
20-60 gr



PN 5631700
20-62 gr



PN 5631215
20-56 gr

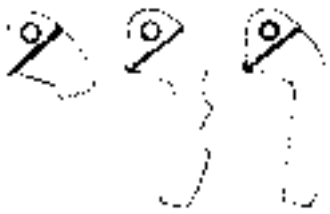
DRIVE CLUTCH INSPECTION

⚠ WARNING

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

All PVT system maintenance repairs must be performed only by an authorized Polaris service technician who has attended a Polaris sponsored service training seminar and understands the proper procedures as outlined in this manual. **Because of the critical nature and precision balance incorporated into the PVT system, it is absolutely essential that no attempt at disassembly or repair be made without factory authorized special tools and service procedures.**

1. Remove shift weight bolts and weights. Inspect as shown. The contact surface of the weight should be smooth and free of dents or gall marks. Inspect the weight pivot bore and pivot bolts for wear or galling. If weights or bolts are worn or broken, replace in sets of three with new bolts. **NOTE:** A damaged shift weight is usually caused by a damaged or stuck roller in the spider assembly. See “ROLLER, PIN AND THRUST WASHER INSPECTION”, Page 6.11.



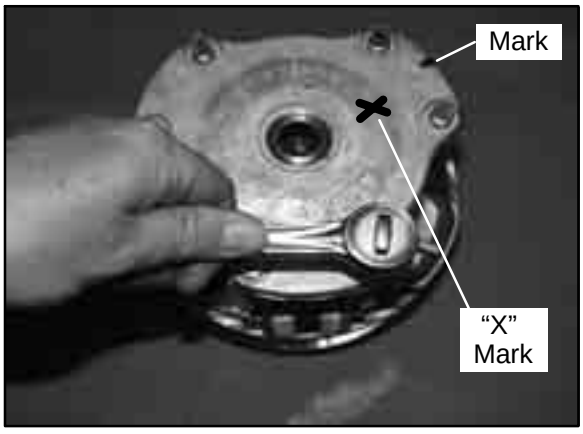
BUTTON TO TOWER CLEARANCE INSPECTION

1. Inspect for any clearance between spider button to tower. If clearance exists, replace all buttons and inspect surface of towers. See “SPIDER REMOVAL” Page 6.10.

Button to Tower Clearance:
000 - .001 I

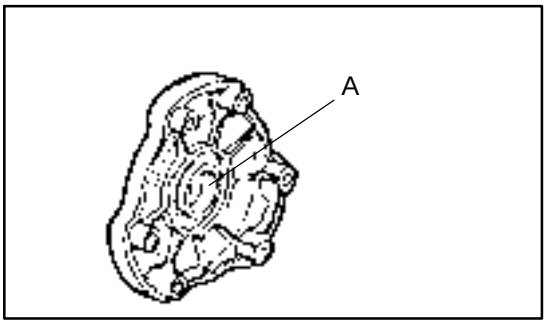
2. Inspect sheave surfaces. Replace the *entire service clutch* if worn, damaged or cracked.

DRIVE CLUTCH DISASSEMBLY



1. Using a permanent marker, mark the cover, spider, moveable and stationary sheaves, and steel post to the stationary sheave for reference. The X’s may not have been in alignment before disassembly.

2. Remove cover bolts evenly in a cross pattern, and remove cover plate.



Cover Bushing Inspection:

Replace the cover bushing if more brass than Teflon t is visible on the bushing. Refer to bushing replacement in this chapter.

3. Inspect cover bushing (A). The outer cover bushing is manufactured with a Teflon t coating. Bushing wear is determined by the amount of Teflon t remaining on the bushing.

4. Inspect area on shaft where bushing rides for wear, galling, nicks, or scratches. Replace clutch assembly if worn or damaged.
5. Remove and inspect spring. (See Page 6.8)

SPIDER REMOVAL

Clutch Holding Fixture:
(PN 2871358)

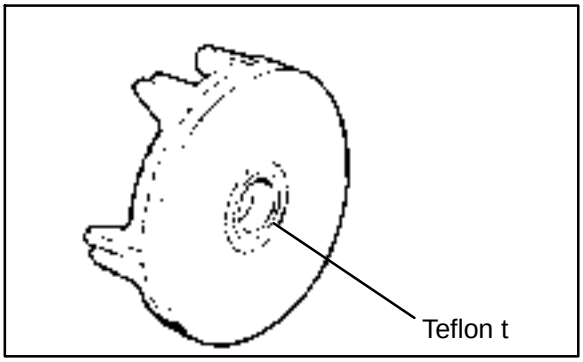
Spider Removal Tool:
(PN 2870341)

1. Install clutch in holding fixture and loosen the spider (counterclockwise) using spider removal tool.

NOTE: It is important that the same number and thickness of washers are reinstalled beneath the spider during assembly. Be sure to note the number and thickness of these washers.

Moveable Sheave Bushing Inspection

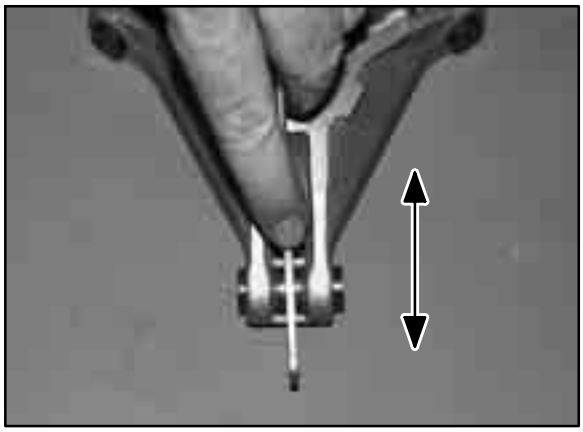
2. Inspect the Teflon t coating on the moveable sheave bushing.



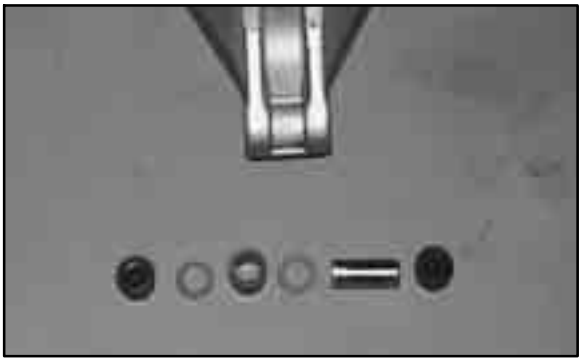
Moveable Sheave Bushing Inspection:

Replace the cover bushing if more brass than Teflon t is visible on the bushing. Refer to bushing replacement in this chapter.

ROLLER, PIN AND THRUST WASHER INSPECTION



1. Inspect all rollers, bushings and roller pins by pulling a flat metal rod across the roller. Turn roller with your finger. If you notice resistance, galling, or flat spots, replace rollers, pins and thrust washers in sets of three. Also inspect to see if roller and bushing are separating. Bushing must fit tightly in roller. Use the Roller Pin Tool (**PN 2870910**) to replace rollers and pins. Take care not to damage roller bushing or bearing surface of the new pin during installation.



2. Rubber backed buttons can be used in all ATV clutches *if the hollow roller pin is changed to the solid roller pin.* **NOTE:** The rubber side of the button is positioned toward the solid roller pin.

DRIVE CLUTCH ASSEMBLY

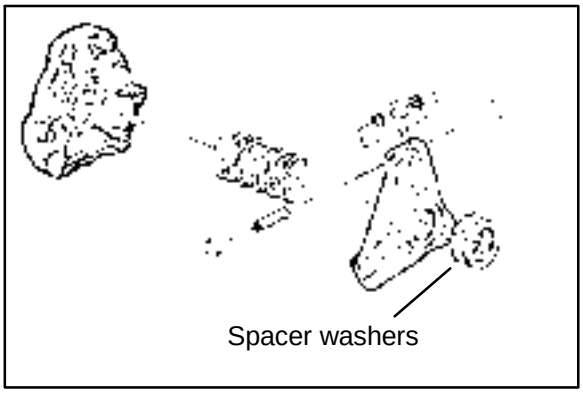
NOTE: It is important that the same number and thickness of washers are reinstalled beneath the spider during assembly. The Teflon t bushings are self-lubricating. **Do not apply oil or grease to the bushings**.

1. Reassemble drive clutch in the following sequence. Be sure the “X”, or the marks that were made earlier, are aligned during each phase of assembly)

   a)“X”, or the marks that were made earlier, on cover

   b) spider, making sure spacer washers are installed underneath spider and positioned properly in recess

   c) “X”, or the marks that were made earlier, under weight

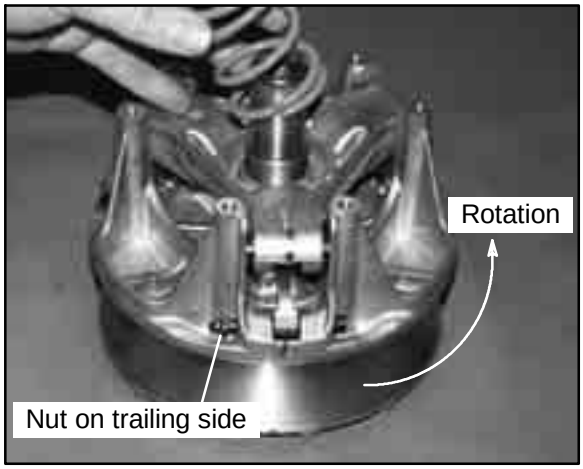


2. Install moveable sheave onto fixed sheave.
3. Install spider spacers. Use same quantity and thickness as were removed.
4. Compress spider buttons for each tower and install spider, making sure that “X”, or the marks that were made earlier, on spider aligns with “X”, or the marks that were made earlier, in moveable sheave.

5. Torque spider to specification using the holding fixture and spider tool. Torque with smooth motion to avoid damage to the stationary sheave. Refer to Page 6.2 for torque specification.

CAUTION:

Be sure the spider spacer washers are fully seated in the recessed area in the spider. Any misalignment will alter clutch balance. Inverting the clutch while initially tightening the spider will help position the washers.



6. Install shift weights using new lock nuts on the bolts.
7. Reinstall clutch spring.

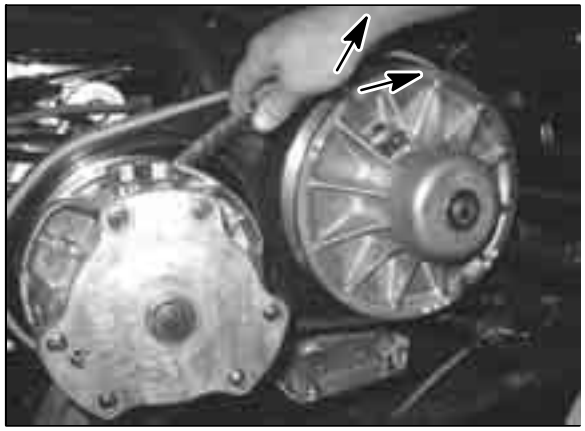
Spider Torque:
200 ft. lbs. (276 Nm)

Cover Screw Torque:
90 in. lbs. (10.4 Nm)

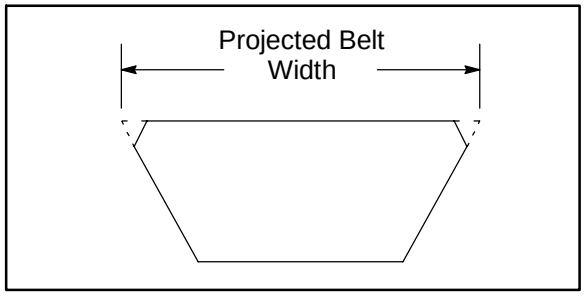
8. Reinstall cover, aligning “X” mark with other marks. Torque cover bolts evenly to specification.

DRIVE BELT REMOVAL/INSPECTION

1. Remove outer PVT cover as described in PVT Disassembly.
2. Mark drive belt direction of rotation so that it can be installed in the same direction. **NOTE:** Normally positioned so part numbers are easily read.



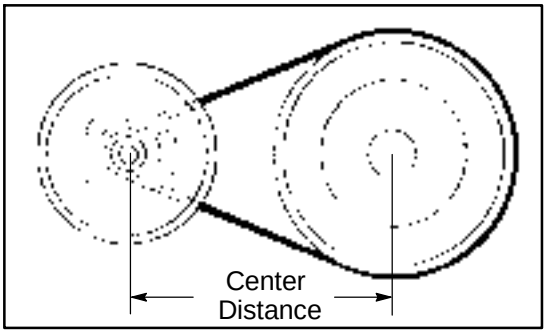
3. To remove drive belt, put transmission in gear, apply brake, pull upward and rearward on belt to open driven clutch sheaves, pull out and down on belt to slip over the driven clutch outer sheave.



Belt Width:

New 1.194–1.254“ (3.03–3.19 cm)
Wear Limit: 1.134 (2.88 cm)

4. Measure belt width and replace if worn severely. Generally, belt should be replaced if clutches can no longer be adjusted to provide proper belt deflection.
   - The top edges have been trimmed on some drive belts. It will be necessary to project the side profiles and measure from corner to corner.
   - Place a straight edge on each side of the drive belt.
   - Place another straight edge on top of belt.
   - Measure the distance where the side straight edges intersect the top, as shown in the illustration below.
5. Inspect belt for loose cords, missing cogs, cracks, abrasions, thin spots, or excessive wear. Replace if necessary.
6. Inspect belt for hour glassing (extreme circular wear in at least one spot and on both sides of the belt). Hour glassing occurs when the drive train does not move and the drive clutch engages the belt.



***RANGER* XP**

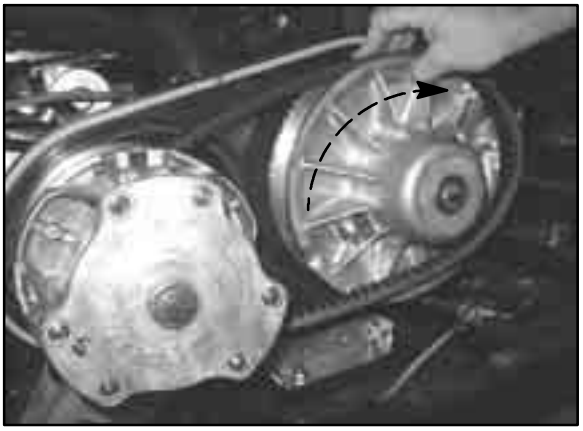
Clutch Center Distance -
10″ +.1 / -.05 (254 +2.5 / -1.3mm)
Belt Outside Length - 41.125″± 0.188
(104.46 cm ± .48 cm)

7. Measure belt length with a tape measure around the outer circumference of the belt. Belts which measure longer than nominal length may require driven shimming or engine adjustment for a longer center distance to obtain proper belt deflection. Belts which measure shorter than nominal length may require driven shimming or a shorter center distance. *Remember, proper belt deflection is the desired goal – not a specific center distance.*

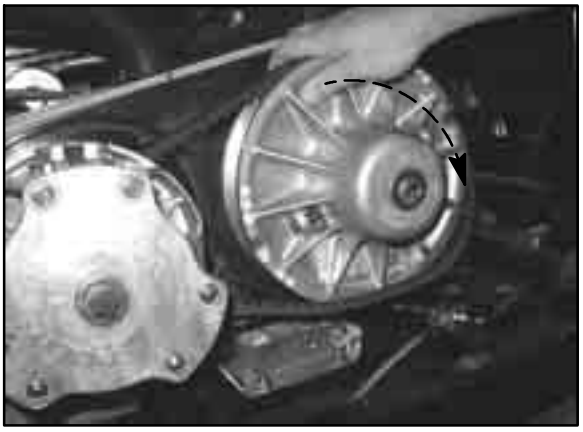
8. Replace belt if worn past the service limit. Belts with thin spots, burn marks, etc., should be replaced to eliminate noise, vibration, or erratic PVT operation. See Troubleshooting Chart at the end of this chapter for possible causes. **NOTE:** If a new belt is installed, check belt deflection.

DRIVE BELT INSTALLATION

1. Loop belt over drive and over top of driven sheave.



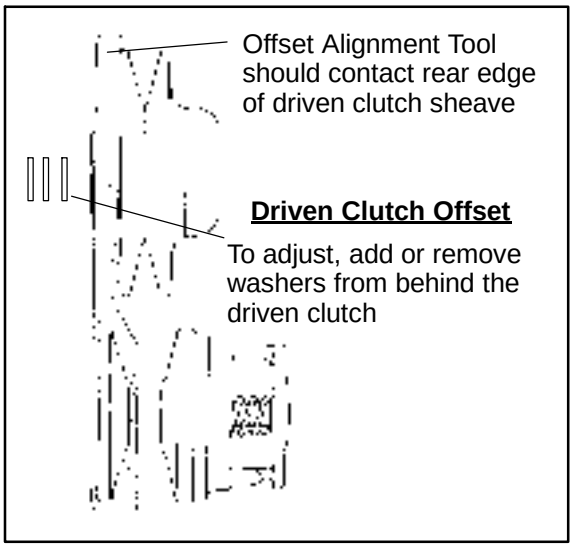
2. While pushing down on top of belt, turn the back or moveable driven sheave clockwise.



3. The belt then should be able to be pushed down into and between the sheaves.

NOTE: Be sure to position belt so part number is easily read.

CLUTCH ALIGNMENT



1. Remove belt and install the Clutch Offset Alignment Tool as shown above.

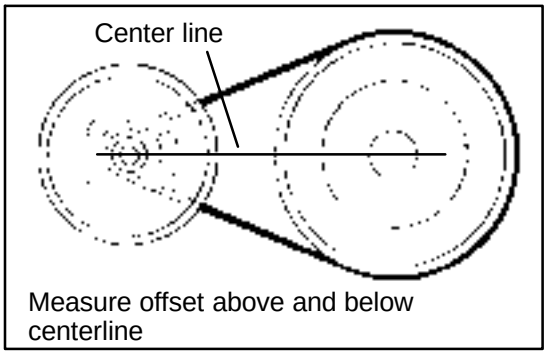
***RANGER* Clutch Alignment**

Tool PN: PA-47346

2. With tool touching rear of driven clutch inner sheave, the distance at point “A” should be 1/8″.

If the distance is greater than 1/8″ or less than 1/16″, clutch alignment must be adjusted as follows:

3. Remove drive and driven clutch. See PVT Disassembly, Pages 6.2.
4. Remove PVT inner cover.
5. Loosen all engine mounts. Move front of engine to the right or left slightly until alignment is correct.
6. Tighten engine mounts and verify alignment is correct.

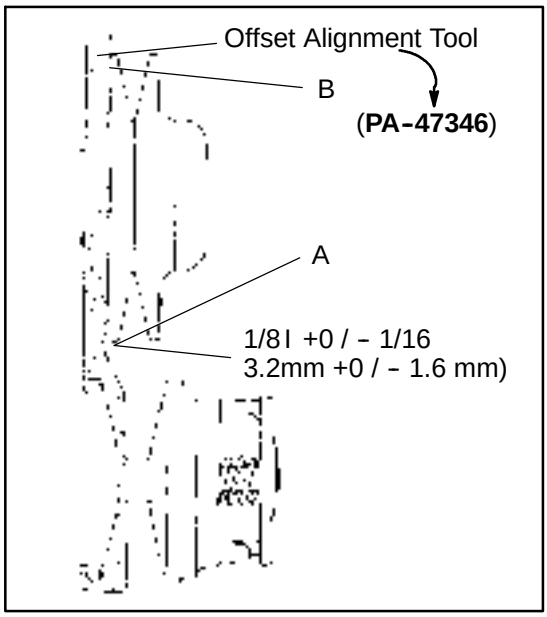


7. Measure belt deflection and measure offset both above and below sheave centerlines. Adjust if necessary.

NOTE: On some models, minor adjustments can be made by adding shims between the frame and front lower left engine mount to increase the distance at point “A”. If a shim is present, it can be removed to decrease the distance at point “A”.

Shim Kit (PN 2200126)

CLUTCH OFFSET (ALL MODELS)



Important: Inspect clutch alignment and center distance before adjusting offset.

1. Install offset alignment tool as shown.

Offset is correct when rear of tool contacts rear of inner sheave with driven clutch pushed completely inward on shaft and bolt torqued. Adjust offset by adding or removing spacer washers between back of driven clutch and spacer as shown.

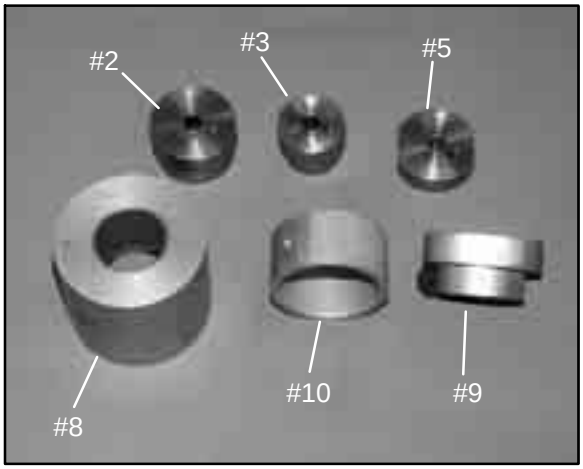
Spacer Washer (PN 7556401)

DRIVE CLUTCH BUSHING SERVICE (ALL MODELS)

***Clutch Bushing Replacement Tool Kit (PN 2871226)**

Stamp	Qty.	Part Description	Part #
#2	1	P-90 Drive/Driven Clutch Bushing Install Tool	**5020628**
#3	1	Drive Clutch Cover Bushing Removal/ Installation Tool (all clutches)	**5020629**
#5	1	P-90 Driven Clutch Cover Bushing Removal Tool	**5020631**
#8	1	Main Puller Adapter	**5020632**
#9	1	Adapter Reducer	**5010279**
#10	1	Number Two Puller Adapter	**5020633**

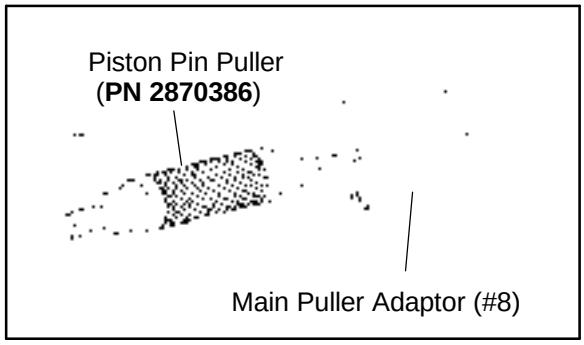
DRIVE CLUTCH MOVEABLE SHEAVE - BUSHING REMOVAL



1. Install handle end of the Piston Pin Puller (**PN 2870386**) securely into bench vise and lightly grease puller threads.

Piston Pin Puller (PN 2870386)

2. Remove nut from puller rod and set aside.



3. Install the Main Puller Adapter (#8) (**PN 5020632**) onto the Piston Pin Puller (**PN 2870386**).

4. Insert the Number Two Adapter (#10) (**PN 5020633**) into the bushing from belt side as shown. With towers pointing toward vise, slide sheave and bushing onto puller rod.
5. Install the nut removed in Step 2 onto end of puller rod and hand tighten. Turn puller barrel to increase tension on sheave if needed. Nut is left hand thread

6. Turn sheave and puller barrel together counterclockwise on puller rod until bushing is removed.
7. Remove nut from puller rod and set aside.
8. Pull bushing removal tool and adapter from puller rod. Remove bushing from tool and discard.

DRIVE CLUTCH MOVEABLE SHEAVE - BUSHING INSTALLATION

1. Place the Main Puller Adapter (#8) (**PN 5020632**) onto the puller.
2. Apply Loctite t 680 (**PN 2870584**) to the back side of new bushing. Push bushing into center of sheave on tower side by hand.

Bushing (PN 3576504)

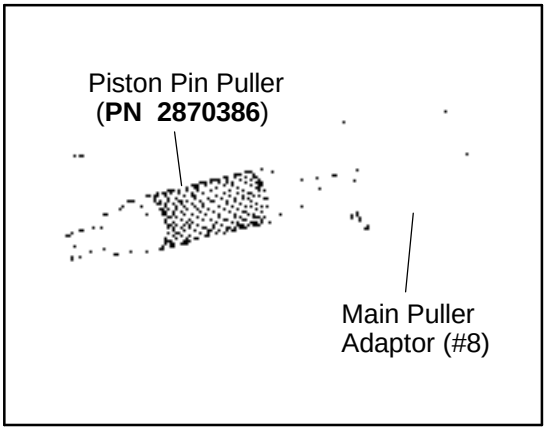
Loctite t 680 (PN 2870584)

3. Insert the Clutch Bushing Installation Tool (#2) (**PN 5020628**) into center of sheave and with towers pointing away from vise, slide sheave onto puller rod.
4. Install nut on puller rod and hand tighten. Turn barrel to apply additional tension if needed.

5. Turn sheave and barrel together counterclockwise until bushing is seated.

6. Remove nut from puller rod and set aside.
7. Remove sheave from puller.
8. Remove installation tool.

DRIVE CLUTCH COVER - BUSHING REMOVAL



1. Install the Main Puller Adapter (#8) (**PN 5020632**) onto the Piston Pin Puller (**PN 2870386**).

2. From outside of clutch cover, insert the Drive Cover Bushing Remover (#3) (**PN 5020629**) into cover bushing.

3. With inside of cover toward vise, slide cover onto puller.
4. Install nut onto puller rod and hand tighten. Turn puller barrel to increase tension as needed.

5. Turn clutch cover counterclockwise on puller rod until bushing is removed.
6. Remove nut from puller rod and set aside.
7. Remove bushing and bushing removal tool from puller. Discard bushing.

DRIVE CLUTCH COVER - BUSHING INSTALLATION

1. Apply Loctite t 680 (**PN 2870584**) to the back side of new bushing. Working from inside of cover, insert bushing and bushing installation tool into center of clutch cover.

Bushing (PN 3576510)
Loctite t 680 (PN 2870584)

2. With the Main Puller Adapter (#8) (**PN 5020632**) on the puller, insert cover onto puller rod, placing outside of cover toward vise.
3. Install nut on rod and hand tighten. Turn puller barrel to apply more tension if needed.
4. Turn clutch cover and barrel together counterclockwise on puller rod until bushing is seated.
5. Remove nut from puller rod and take installation tool and clutch cover off rod.

DRIVEN CLUTCH DISASSEMBLY/INSPECTION

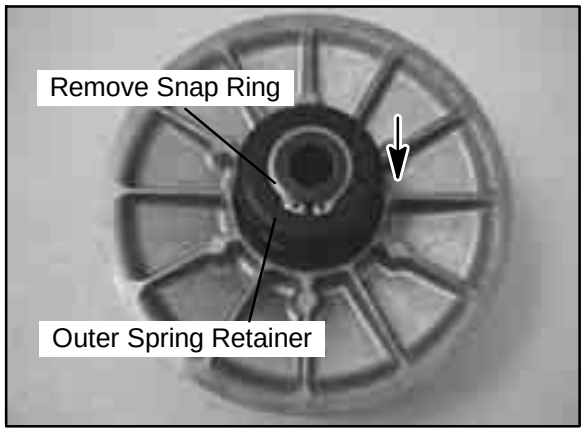
CAUTION:

Wear eye protection when removing snap ring to prevent serious personal injury.

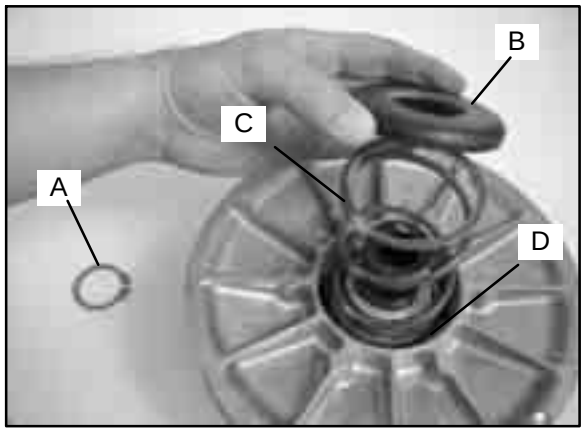
CAUTION:

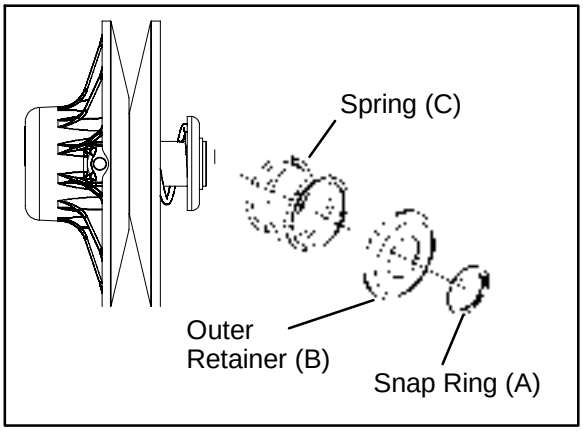
The snap ring is pressure loaded by the compression ring, use caution when removing the snap ring.

1. Apply and hold downward pressure on the outer spring retainer. Carefully remove the snap ring. Remember the outer spring retainer contains strong spring pressure.

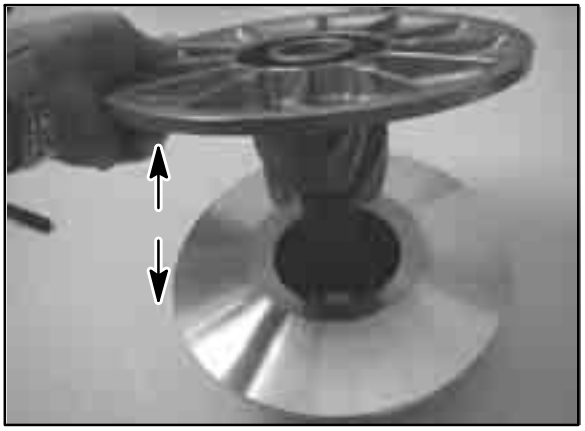


2. With the snap ring (A) removed and spring pressure relieved, remove the outer retainer (B), spring (C), and inner retainer (D).



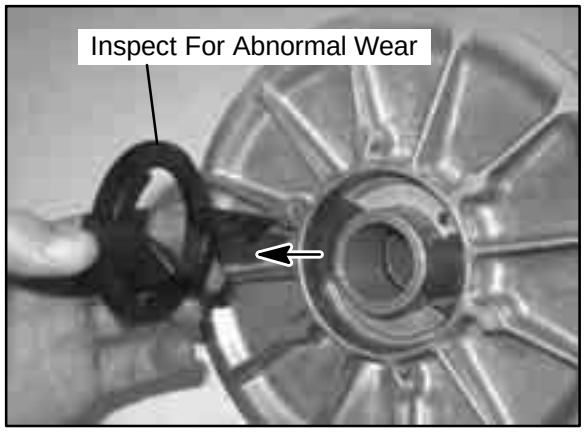


3. Separate the two clutch sheaves.



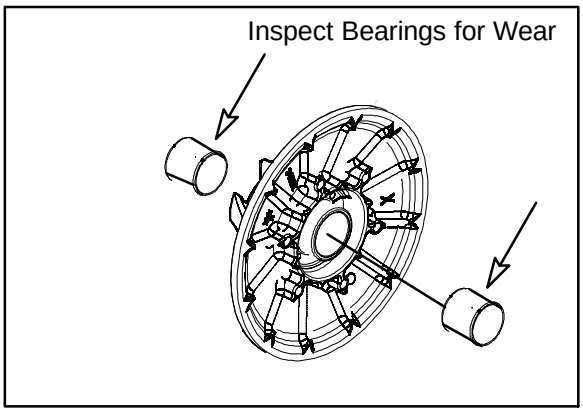
4. Inspect the helix and inner spring retainer on the moveable sheave.

5. Remove the inner spring retainer from the inner sheave. Inspect for wear and replace as needed.



6. Check the rollers in the stationary sheave for wear. If the rollers are worn a new driven clutch assembly maybe needed.

7. Inspect the bearing inside the moveable sheave.



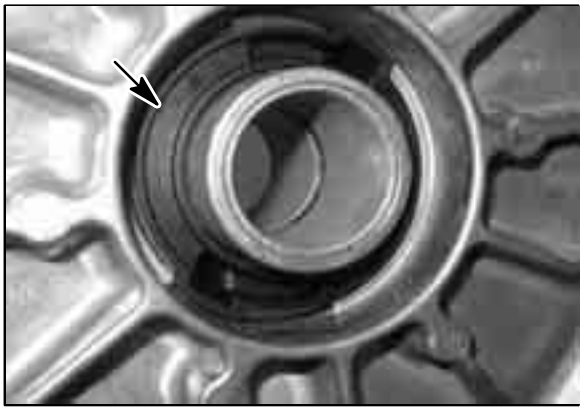
Moveable Sheave Bearing Inspection:

Replace the bearing if more brass than Teflon t is visible on the bearing. Refer to bearing replacement in this chapter.

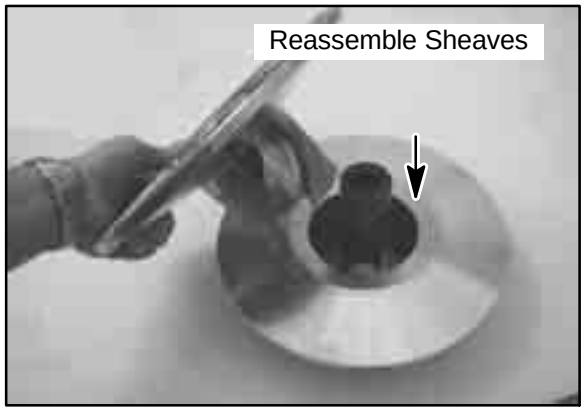
8. Inspect the Teflon t coating on the moveable sheave bushing.
9. Inspect driven clutch faces for wear or damage.
10. Clean and inspect splines on helix and transmission input shaft.
11. Lube splines with a light film of grease. **Do not lubricate the bearings!**

DRIVEN CLUTCH ASSEMBLY

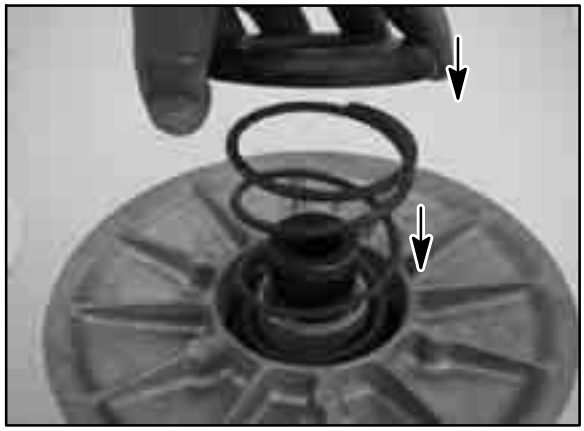
1. Install moveable inner spring retainer, if removed. Do not apply oil or grease to the bearings.



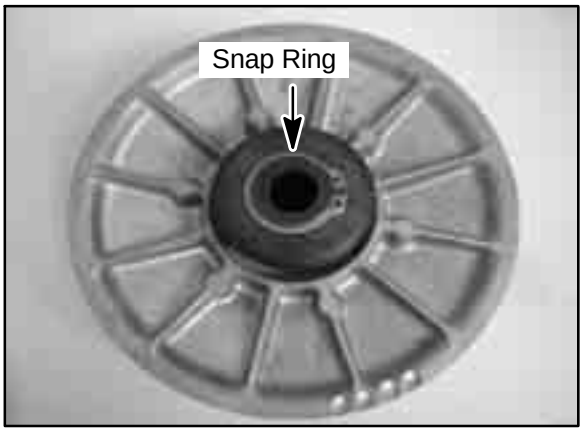
2. Align the **X** mark's on each of the sheaves during reassembly.



3. Install spring into inner retainer.
4. Install outer retainer onto top of spring.



5. Compress the outer retainer and install the snap ring.



TROUBLESHOOTING

Situation	Probable Cause	Remedy
Engine RPM below specified operating range, although engine is properly tuned.	-Wrong or broken drive clutch spring.	-Replace with recommended spring.
	-Drive clutch shift weight too heavy.	-Install correct shift weight kit to match engine application.
	-Driven clutch spring broken or installed in wrong helix location.	-Replace spring; refer to proper installation location.
Erratic engine operating RPM during acceleration or load variations.	-Drive clutch binding.	a. Disassemble drive clutch; inspect shift weights for wear and free operation. b. Clean and polish stationary shaft hub; reassemble clutch without spring to determine problem area.
	-Belt worn unevenly - thin/burnt spots	Replace belt
	-Driven clutch malfunction.	a. Replace ramp buttons. b. Inspect movable sheave for excessive bushing clearance/ replace.
	-Sheave face grooved.	-Replace the clutch.
Engine RPM above specified operating range.	-Incorrect drive clutch spring (too high spring rate).	-Install correct recommended spring.
	-Drive clutch shift weights incorrect for application (too light).	-Install correct recommended shift weights.
	-Drive clutch binding.	-Disassemble and clean clutch, inspecting shift weights and rollers. Reassemble without the spring and move sheaves through entire range to further determine probable cause.
	-Driven clutch binding.	-Disassemble, clean, and inspect driven clutch, noting worn sheave bushing and ramp buttons and helix spring location.
	-Converter sheaves greasy; belt slippage.	-Clean sheaves with denatured alcohol or brake cleaner, install new belt.
Harsh drive clutch engagement.	-Drive belt worn too narrow.	-Replace belt.
	-Excessive belt/sheave clearance with new belt.	-Perform belt/sheave clearance adjustment with shim washers beneath spider.
Drive belt turns over	-Wrong belt for application.	-Replace with correct belt.
	-Clutch alignment out of spec.	-Adjust alignment offset.
	-Engine mount broken or loose.	-Inspect/adjust or replace.
PVT cover overheating (melting)	-Plugged air intake or outlet	-Clear obstruction.
	-Belt slippage due to water, oil, grease, etc., rubbing on cover	-Inspect system. Clean , repair or replace as necessary. Seal PVT system ducts.
	-Clutches or weight being applied to cover while in operation	-Remove weight. Inform operator.
	-High vs. low range	-Instruct operator on guidelines for operation in proper driving range for different terrain as outlined in Owner's Safety and Maintenance Manual.
Water ingestion	-Cover seals or ducts leaking	-Find leak and repair as necessary.
	-Operator error	-Instruct operator on guidelines for operation in wet terrain as outlined in Owner's Safety and Maintenance Manual.

TROUBLESHOOTING

Situation	Probable Cause	Remedy
Belt slippage	-Belt worn out	-Replace belt.
	-Water ingestion	-Inspect and seal PVT system.
	-Belt contaminated with oil or grease	-Inspect and clean.
Belt burnt, thin spots	-Abuse (continued throttle application when vehicle is stationary, excess load)	-Caution operator to operate machine within guidelines.
	-Dragging brake	-Vehicle operated with park brake on. Inspect brake system.
	-Slow, easy clutch engagement	-Fast, effective use of throttle for efficient engagement.
PVT noise	-Belt worn or separated, thin spots, loose belt	-Replace belt.
	-Broken or worn clutch components, cover hitting clutches	-Inspect and repair as necessary.
Engagement erratic or stabby	-Thin spots on belt, worn belt	-Replace belt. Refer to belt burnt troubleshooting and instruct operator.
	-Drive clutch bushings stick	-Inspect and repair clutches.

NOTES

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