

**△WARNING:** All involved customers must be notified, all involved units must be corrected as per instruction herein.

Campaign no.: 2017-0013, 2018-0013, 2019-0025

January 22, Subject: Engine Output Shaft Can Break and/or

2025 Sprocket Wear - Potential Loss of Drive Power

No. **2019-13** 

#### **IMPORTANT**

#### What should you do?

- Do not sell or deliver any involved vehicle that you have in stock as federal law requires you to complete
  the recall service on these vehicles before retail delivery.
- Unregistered vehicles cannot be sold until the campaign is performed.
- Contact all of your customers who purchased an affected vehicle and inform them about this Safety Recall notice.

MODEL YEAR	MODEL	ADMISSIBLE UNITS
Certain 2017 to 2019	Spyder RT and Spyder F3	Go to BOSSWeb/Warranty/Campaign Monitoring to know the quantity of units in your inventory impacted by this campaign.

#### **IMPORTANT**

– When a vehicle comes in for service, always type the VIN in Knowledge Center to check for pending campaigns or alerts.



– When performing any work on a vehicle, it is good practice to connect it to BUDS2 to ensure that all needed updates are done.



#### **PROBLEM**

The output shaft installed on affected vehicles may be exposed to stress concentration that could cause fatigue failure and break. Furthermore, the front sprocket may be defective and may be subject to premature wear. These conditions may result in a loss of drive power while driving. This can increase the risk of a crash.

#### SOLUTION

Replace the front sprocket and the front sprocket screw for all vehicles.

If required, according to mileage threshold, replace also the output shaft.

**NOTE**: BRP included in this combined bulletin the vehicles with an open campaign from Safety Bulletins 2019-10 (front sprocket wear) and 2019-12 (output shaft) and for the countries with a warranty system managed by *Warranty On Demand*.

#### REQUIRED PARTS

Order the parts through the regular channel.

Parts will be released progressively, starting at the end of January 2025, upon availability, to ensure an even distribution across the network.

**NOTE**: Your order will be processed despite the message generated by selective release "Contact your PA&A analyst" on BOSSWeb.

DESCRIPTION	PART NUMBER	QTY
Output shaft Replacement Kit	219800615	1
Front Sprocket Kit (includes washer)	219800553	1
Front Sprocket Screw	250001017	1

**NOTE:** The service products required to perform the output shaft replacement will be supplied through dealer inventory but compensated for the value of 5 quarts of coolant as well as an oil change kit with the campaign claim. This compensation will appear as *Oil Coolant Compensation* in your credit note.

All dealers in Canada or USA with two or more affected units will receive the new engine lifting tool auto-shipped.

For all other dealers or regions, order the tool through regular channel. Tools will be subject to selective release.

#### **CORRECTIVE ACTION**

#### **Verifying Vehicle Mileage**

Verify vehicle mileage to confirm if the output shaft needs to be replaced or not.

Please note that a picture of the odometer reading will be required for claiming procedure.

MODEL / YEAR	MILEAGE	REPLACE OUTPUT SHAFT	REPLACE FRONT SPROCKET
F3, RT MY17	Less than 21748 miles (35000 km)	Yes	Yes
F3, RT MY17	21748 miles (35000 km) or Above	No	Yes
F3, RT MY18, MY19	Less than 37282 miles (60000 km)	Yes	Yes
F3, RT MY18, MY19	37282 miles (60000 km) or Above	No	Yes

If the mileage is equal or above the threshold, output shaft replacement is not required. Attach odometer picture to your claim. Proceed with **Sprocket Replacement.** 



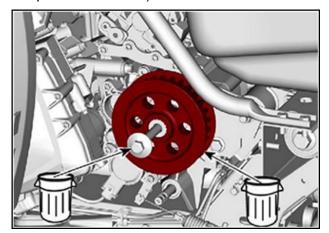
TYPICAL - RT MY18 SHOWN

**NOTE**: Multifunction gauge display will vary according to vehicle year and model.

If the mileage is below the threshold, output shaft replacement is required. Proceed with *Output Shaft and Sprocket Replacement*. You will need to connect the vehicle to BUDS during the procedure. Take a vehicle BUDS reading and attach the BUDS file to your claim.

**Sprocket Replacement** 

- Remove body panels as required to access the front sprocket. Refer to <u>BODY</u> Service Manual subsection.
- Remove the drive belt tension.
   Refer to <u>DRIVE BELT AND REAR WHEEL</u> Service Manual subsection.
- Remove and discard front sprocket and sprocket screw. Refer to <u>TST 143615</u> (SPYDER Front Sprocket Removal) for additional information.



 Using appropriate cleaner, thoroughly clean the shaft surface. Remove all traces of previous antiseize grease. Make sure to protect the transmission seal from any harmful product before application.

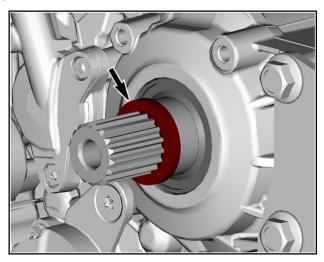
#### **SERVICE PRODUCT**

XPS Pulley Flange Cleaner



**NOTE:** Use a soft brush to clean each spline individually.

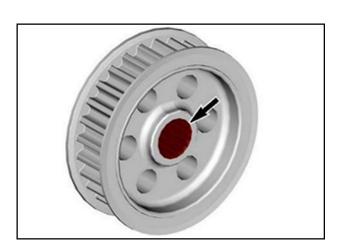
5. Install the new washer on the shaft.



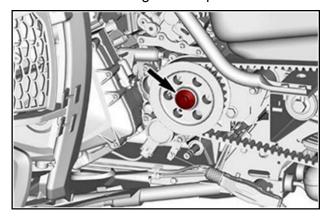
6. Apply retaining compounds sealant in the splines of the new sprocket on the chamfered side. Make sure that there is a uniform layer of sealant in every spline.

#### **SERVICE PRODUCT**

Loctite 609 Retaining Compounds or equivalent (603 available worldwide)



7. Install the new sprocket with the chamfered side first until it is in contact with the washer. Install the new screw. Tighten to specification.



#### **TIGHTENING TORQUE**

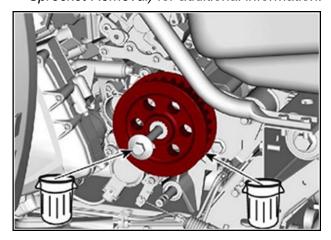
Front sprocket screw

150N•m ± 5N•m (111 lbf•ft ± 4 lbf•ft)

- 8. Adjust the drive belt alignment.
  Refer to <u>ADJUSTING THE DRIVE BELT</u>
  <u>ALIGNMENT</u> Service Manual subsection.
- Adjust the drive belt tension.
   Refer to <u>DRIVE BELT AND REAR</u> <u>WHEEL</u> Service Manual subsection.
- 10. Reinstall all previously removed parts.

# Output Shaft and Sprocket Replacement Removing the Gearbox

- Remove body panels as required to access the front sprocket. Refer to <u>BODY</u> Service Manual subsection.
- Remove the drive belt tension. Refer to ADJUSTING THE DRIVE BELT TENSION in <u>DRIVE BELT AND REAR</u> WHEEL Service Manual subsection.
- Remove and discard sprocket and sprocket screw. Refer to <u>TST 143615</u> (SPYDER Front Sprocket Removal) for additional information.



- 4. Drain coolant. Refer to <u>COOLING SYSTEM</u> Service Manual subsection.
- 5. Remove engine from vehicle. Refer to <u>ENGINE</u> <u>REMOVAL AND INSTALLATION</u> Service Manual subsection. However, if the engine lifting tool (*PN 529036300*) is not available at your dealership, use the new engine lifting tool as the previous tool is obsolete.

SERVICE TOOL		
Engine Lifting Tool	529036678	

- 6. Remove alternator. Refer to <u>ALTERNATOR</u> Service Manual subsection.
- 7. Remove clutch cover and clutch drum. Refer to <u>CLUTCH (SE6)</u> or <u>CLUTCH (SM6)</u> Service <u>Manual</u> subsection.
- 8. Remove the gearbox. Refer to <u>GEARBOX</u> Service Manual subsection.

#### **Opening the Gearbox**

- 1. Remove and carefully lay the components (order and orientation) when disassembling the gearbox to ensure ease of reinstallation.
- Replace the output shaft (Main shaft). Refer to Disassembling the Gearbox in GEARBOX subsection.
- 3. Remove Free pinion 33T (4th gear) from the removed output shaft and reinstall it on new output shaft.

**NOTE**: Refer to the following Video Link for additional visual instructions.

#### **VIDEO**

<u>SPYDER Output Shaft Replacement Help Video –</u> TST 143633

#### Cleaning

- 1. Clean gear housing halves sealing surfaces.
- 2. Clean cylinder block mating surfaces.

#### NOTICE

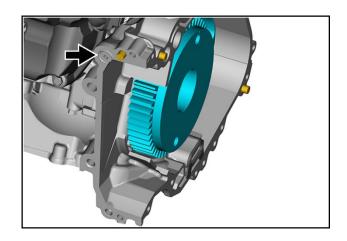
Carefully clean mating surfaces using a brass brush and Loctite chisel (gasket remover) or an equivalent to avoid damaging the surfaces. Brush in one direction first, then perpendicular to this initial pass.

- 3. Clean screw head supporting surfaces.
- 4. Clean gearbox case with XPS Brakes and Parts Cleaner or an equivalent and dry with compressed air.

#### **SERVICE PRODUCT**

XPS Brakes and Parts Cleaner

**NOTE**: Make sure that the hole (oil orifice) on the cylinder block does not get clogged before reinstalling the gearbox.



- 5. Clean alternator flange mating surfaces.
- Clean out and lubricate alternator shaft cavity. Refer to <u>ALTERNATOR</u> Service Manual subsection.

ALTERNATOR SHAFT BORE		
Service product	COPASLIP	
-	(P/N 420297430)	

ALTERNATOR INPUT SHAFT SPLINE AND O-RING		
Service product	XPS 5W-40 Synthetic Oil	

If the XPS oil is not available, use an equivalent synthetic 5W40 4-stroke SAE motorcycle engine oil compatible with wet clutches meeting or exceeding both following lubricant industry specifications:

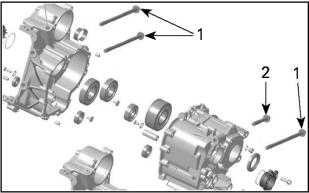
- JASO MA2
- API service classification SN
- 7. Reinstall Gearbox.

However, pay attention to the following:

Clean previously removed screws using a steel brush then reuse. For the longer ones, apply sealant Loctite 5910 under the screw head surface all around.

# SERVICE PRODUCT

Loctite 5910 Sealing Compound



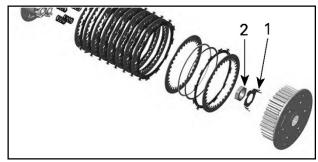
1. Clean, apply Loctite 5910 under head and reuse.

2. Clean and reuse.



TYPICAL – APPLY LOCTITE 5910 UNDER SCREW HEAD

8. Reinstall Clutch. Refer to <u>CLUTCH (SE6)</u> or <u>CLUTCH (SM6)</u> Service Manual subsection. However, install tab washer and clutch hub retaining nut included in the kit. Apply threadlocker on threads and tighten clutch hub retaining nut to **new** specification.



- 1. Tab washer included in kit
- 2. Clutch hub retaining nut included in kit

SERVICE PRODUCT	
Loctite 648 (green)	

#### **TIGHTENING TORQUE**

Clutch hub retaining nut

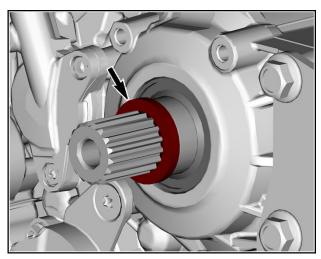
190 N•m ± 10 N•m (140 lbf•ft ± 7 lbf•ft)

#### 9. Reinstall:

- Alternator
- Engine

#### **Installing the New Sprocket**

1. Install the new washer on the shaft.



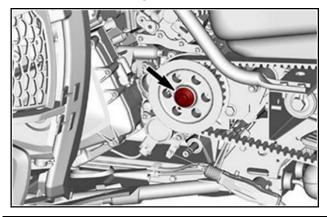
2. Apply retaining compounds sealant in the splines of the new sprocket on the chamfered side. Make sure that there is a uniform layer of sealant in every spline.

#### **SERVICE PRODUCT**

Loctite 609 Retaining Compounds or equivalent (603 available worldwide)



3. Install the new sprocket with the chamfered side first until it is in contact with the washer. Install the new screw. Tighten to specification.



# TIGHTENING TORQUE 150N•m ± 5N•m (111 lbf•ft ± 4 lbf•ft)

- 4. Adjust the drive belt alignment.
  Refer to <u>ADJUSTING THE DRIVE BELT</u>
  <u>ALIGNMENT</u> Service Manual subsection.
- 5. Adjust the drive belt tension. Refer to <u>DRIVE BELT AND REAR</u> <u>WHEEL Service Manual</u> subsection.
- 6. Reinstall all previously removed parts.
- 7. Connect vehicle to BUDS.
- 8. Activate venting of HCM oil circuit. Refer to venting procedure in <u>ELECTRONIC SHIFT</u> <u>SYSTEM (SE6)</u> Service Manual subsection.

### **WARRANTY**

Submit a warranty claim using the following information.

For claiming procedure, refer to the **online**DEALER/DISTRIBUTOR WARRANTY GUIDE.

### MY2017 Models

# Inspection (Mileage Validation) and Sprocket Replacement

OLAIM DETAILO		
CLAIM DETAILS		
Claim Type	Unit Campaign	
Serial Number	Enter Serial Number	
Warranty Campaign	Select 2017 OUTPUT SHAFT + SPROCKET Bulletin 2019-13 - Output Shaft + Sprocket / Mileage Validation + Sprocket replacement Only-3WV-2017- 0013 from the drop-down list	
Date of Repair	Repair date	
Total Labor Time Paid	0.6 hour (RT) 0.5 hour (F3)	
Mandatory Attachments	Picture of ODOMETER	

## Inspection (Mileage Validation), Sprocket Replacement and Output Shaft Replacement

CLAIM DETAILS		
Claim Type	Unit Campaign	
Serial Number	Enter Serial Number	
Warranty Campaign	Select 2017 OUTPUT SHAFT + SPROCKET Bulletin 2019-13 - Output Shaft + Sprocket / Mileage Inspect + Sprocket and Shaft replacement-3WV-2017-0013 from the drop-down list	
Date of Repair	Repair date	
Total Labor Time Paid	8.4 hours	
Mandatory Attachments	BUDS File	

### MY2018 Models

# Inspection (Mileage Validation) and Sprocket Replacement

CLAIM DETAILS		
Claim Type	Unit Campaign	
Serial Number	Enter Serial Number	
Warranty Campaign	Select 2018 OUTPUT SHAFT + SPROCKET Bulletin 2019-13 - Output Shaft + Sprocket / Mileage Validation + Sprocket replacement Only-3WV-2018- 0013 from the drop-down list	
Date of Repair	Repair date	
Total Labor Time Paid	0.6 hour (RT) 0.5 hour (F3)	
Mandatory Attachments	Picture of ODOMETER	

### Inspection (Mileage Validation), Sprocket Replacement and Output Shaft Replacement

CLAIM DETAILS		
Claim Type	Unit Campaign	
Serial Number	Enter Serial Number	
Warranty Campaign	Select 2018 OUTPUT SHAFT + SPROCKET Bulletin 2019-13 - Output Shaft + Sprocket / Mileage Inspect + Sprocket and Shaft replacement-3WV-2018-0013 from the drop-down list	
Date of Repair	Repair date	
Total Labor Time Paid	8.4 hours	
Mandatory Attachments	BUDS File	

# **MY2019 Models**

# Inspection (Mileage Validation) and Sprocket Replacement

CLAIM DETAILS		
Claim Type	Unit Campaign	
Serial Number	Enter Serial Number	
Warranty Campaign	Select 2019 OUTPUT SHAFT + SPROCKET Bulletin 2019-13 - Output Shaft + Sprocket / Mileage Validation + Sprocket replacement Only-3WV-2019- 0025 from the drop-down list	
Date of Repair	Repair date	
Total Labor Time Paid	0.6 hour (RT) 0.5 hour (F3)	
Mandatory Attachments	Picture of ODOMETER	

# Inspection (Mileage Validation), Sprocket Replacement and Output Shaft Replacement

CLAIM DETAILS	
Claim Type	Unit Campaign
Serial Number	Enter Serial Number
Warranty Campaign	Select 2019 OUTPUT SHAFT + SPROCKET Bulletin 2019-13 - Output Shaft + Sprocket / Mileage Inspect + Sprocket and Shaft replacement-3WV-2019-0025 from the drop-down list
Date of Repair	Repair date
Total Labor Time Paid	8.4 hours
Mandatory Attachments	BUDS File