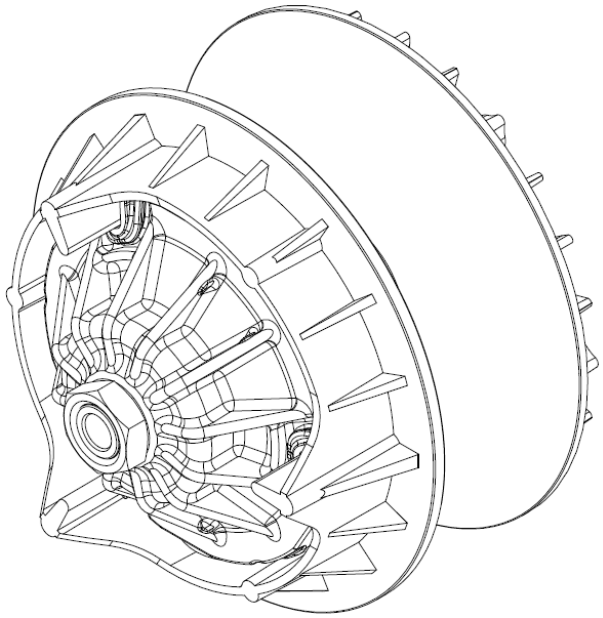
INSTALLATION AND MAINTENANCE GUIDE FOR A CONTINUOUSLY VARIABLE DRIVER PULLEY TRAILBLOC (09)



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IMPORTANT NOTICE

Only qualified personnel should perform maintenance and repair operations on this continuously variable pulley.

Means there is a risk of serious injuries if the instructions are not followed as described.

Means that, when performing this step, there is a risk of damaging a part or may cause components malfunction.

CVTech shall not be liable for any damage or injury resulting from misunderstanding of the text, improper use of the transmission system, or improper use of the recommended tools.

It is very important to always use the indicated tightening torque.

MAINTENANCE FREQUENCY

This continuously variable pulley does not require any lubrication. It is designed to work without any lubricant. Given this, certain rules of cleanliness must be applied when handling the system to avoid having any lubricants come into contact with its components.

To increase the life of the continuously variable pulley, it is strongly recommended that you respect the following recommendations:
- Perform maintenance according to the table below
- Replace the worn parts. This ensures correct operation and will prevent any warranty from being excluded from the continuously variable pulley.

Description	Maintenance interval	
	Every 5 000 Km or 250 h	**Every 10 000 Km or 500 h**
Drive pulley	Visual inspection	Disassemble and Clean
Fixed sheave	Visual inspection	Clean
Sliding sheave	Visual inspection	Clean
Assembly of centrifugal weights	Visual inspection	Replacement recommended
Cap shoes	Visual inspection	Replacement recommended

NECESSARY HANDLING TOOLS

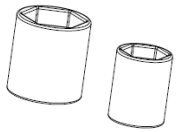

Figure 1

Appropriate socket for fixation bolt and 30 mm or 32 mm sockets (for the drive pulley nut, depending on the version of the pulley)

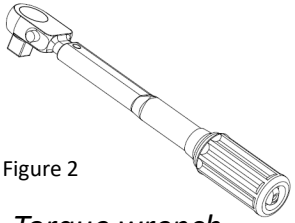

Figure 2

Torque wrench

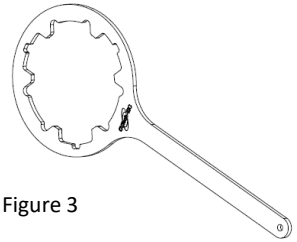

Figure 3

**Retaining tool*

(0155-1018)

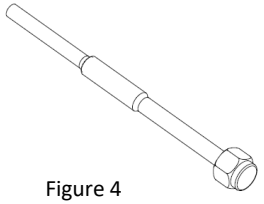

Figure 4

*Puller

Refer to owner's manual for part number

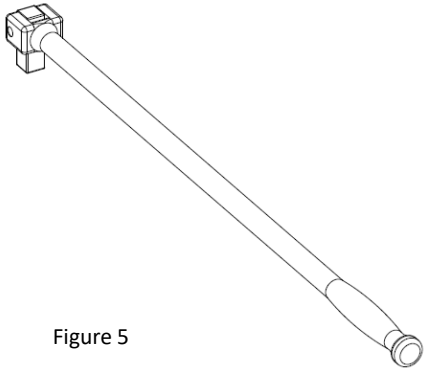

Figure 5

Breaker bar

***Important*: Using impact tools is not recommended.**

**** Tool available from CVTech***

PULLEY INSTALLATION ON THE VEHICLE

Drive pulley installation

Assemble the drive pulley onto the engine shaft by passing it inside the belt first. ***It is extremely important not to apply grease or lubricant on the cone of the engine shaft.***

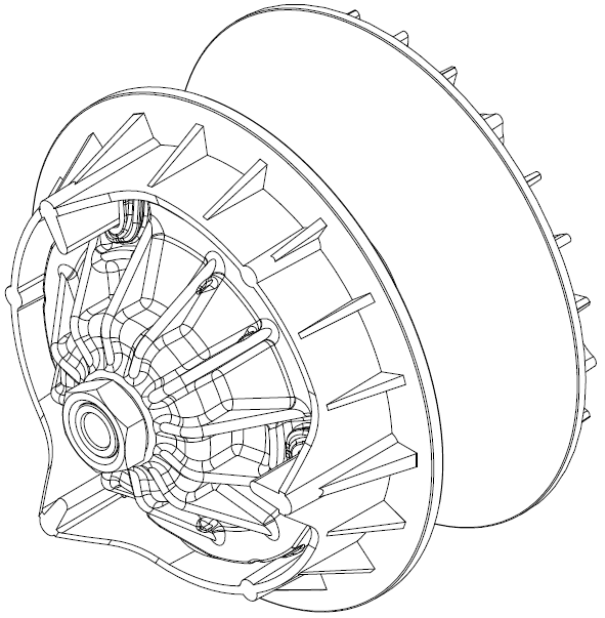

Figure 6

PULLEY TIGHTENING

Recommended torque: Refer to owner's manual

- Once the pulley is properly installed, use a torque wrench to tighten the fixation bolt.
- To tighten the drive pulley, use the retaining tool ① to lock the rotation.

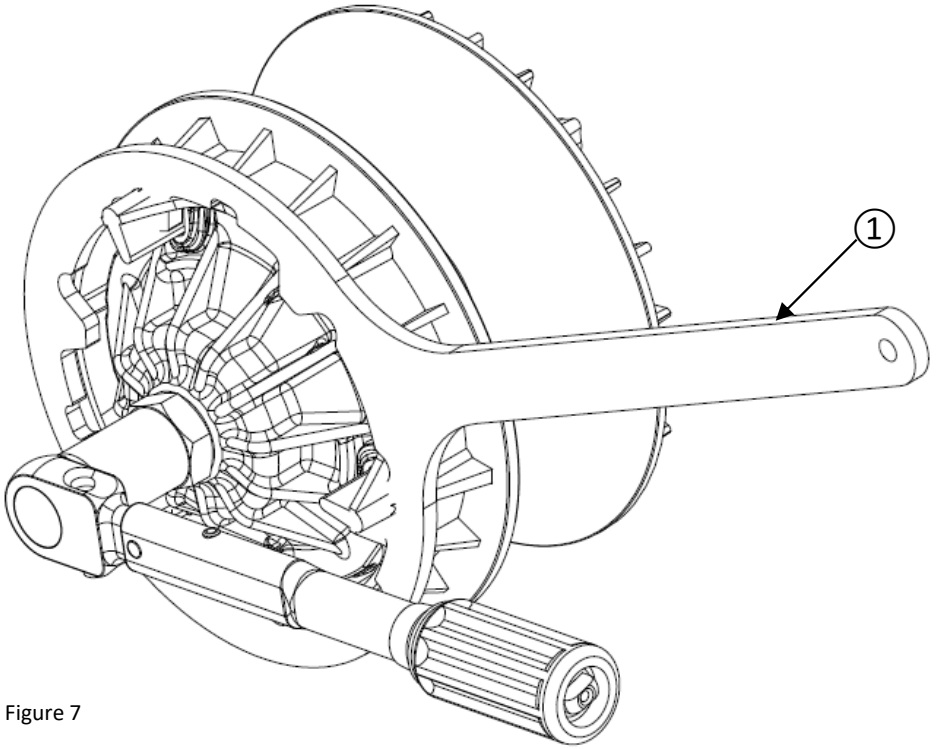

Figure 7

Do not forget to remove the tools from the drive pulley.

Before you start the engine:

- Make sure all the components are clean without any trace of oil, dust and contaminants.
- Do not use any lubricants.

For optimal tightening force

- Repeat this tightening procedure after traveling a few kilometers with the vehicle.

PULLEY REMOVAL FROM THE VEHICLE

Removing the drive pulley:

- Remove the fixation bolt from the drive pulley (you will need to use the retaining tool to prevent the pulley from rotating).

- Screw the puller in the drive pulley shaft and use a breaker bar; torque the puller until the pulley comes off.

    - Hint: apply grease on the tip and on the threads of the puller

    - If the pulley does not comes off, please refer to the CVTech document #0046-5239 for complementary information on how to remove the drive pulley.

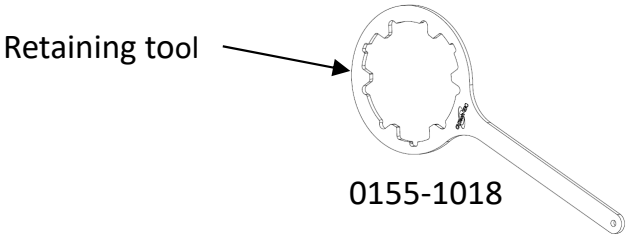

Figure 8

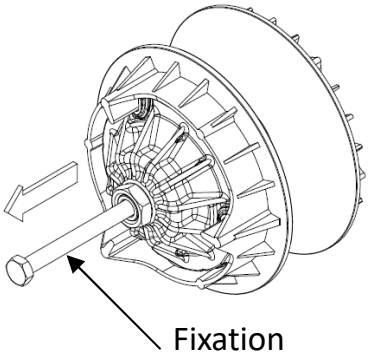

Figure 9

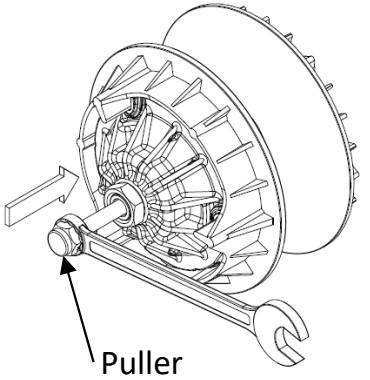

Figure 10

DRIVE PULLEY DISASSEMBLY

1 Fixed sheave
2 Shim (If applicable)
3 Freewheel or idle bearing
4 Spacer (If applicable)
5 Spring seat
6 Shim (if applicable)
7 Shim
8 Stroke limiter
9 Spring
10 Sliding sheave
11 Centrifugal mass
12 Block
13 Mass
14 Cap
15 Cap shoe
16 Washer (If applicable)
17 Nut
18 Washer (If applicable)

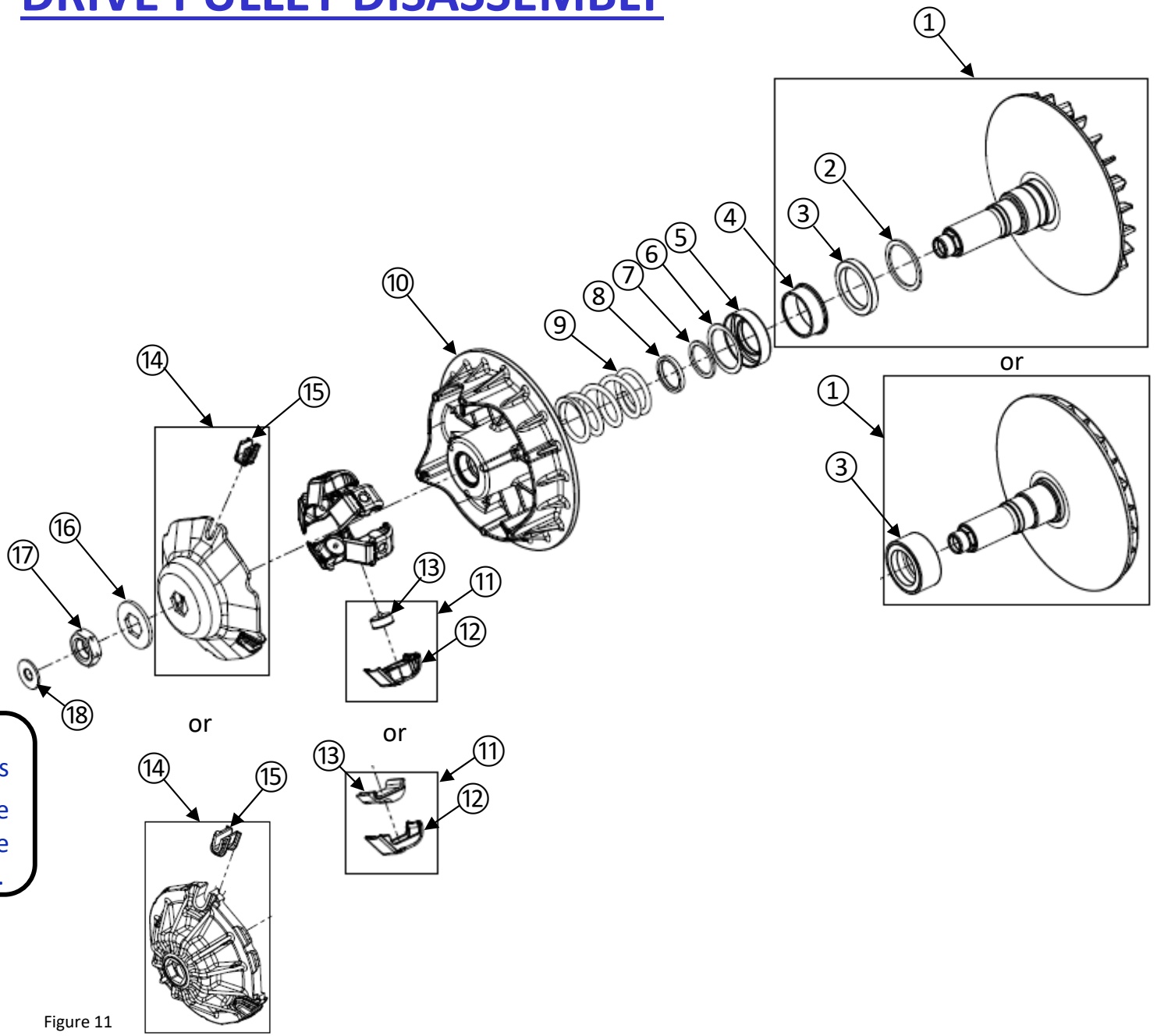

Figure 11

The sliding sheave is spring loaded. When unscrewing the nut ⑰, the spring ⑨ will push the cap ⑭ and the sliding sheave ⑩ up.

DRIVE PULLEY DISASSEMBLY

Remove each component as shown in the exploded view on the previous page.

New block

Figure 12

Cap shoe

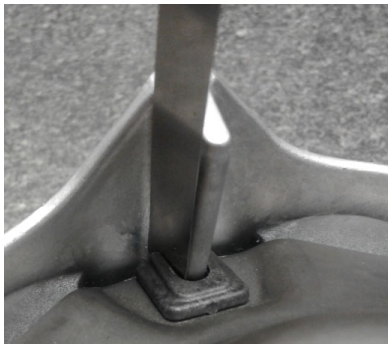

Figure 13

Recommended inspection and replacement

1. Check for wear marks on the blocks ⑫ (see figure 12 and 14).
   1.1 Change the blocks ⑫ when the wear marks shown in figure 14 exceed the wear limit. Admissible wear limit of the block is less than 14mm.

   Always change all 6 centrifugal blocks ⑫ at the same time.

2. Check for wear of the cap shoe ⑮ (see figure 13).
   2.1 Change cap shoes ⑮ when a 1mm feeler gauge enters between the cap shoe ⑮ and sliding sheave ⑩ tower or if the pulley makes too much noise at idle.

   Always change all 3 cap shoes ⑮ at the same time.

3. Check the Freewheel or idle bearing ③.
   3.1 Change when an irregular rotation is detected by hand or a creaky noise is heard when rotating the freewheel ③.

Worn block

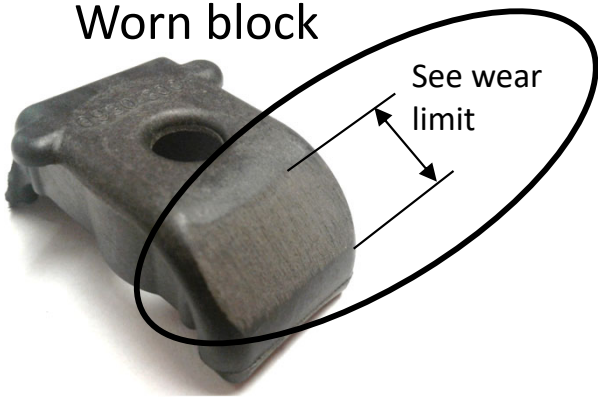

Figure 14

DRIVE PULLEY DISASSEMBLY

- Measure the spring ⑨ forces at the distances indicated on the CVTech website. For more specifications: **www.cvtech-ibc.com**

To maintain the performance of the pulley, make sure the sliding sheave ⑩ bushings are cleaned with a microfiber towel or dry cloth. CAUTION: Do not use acetone to clean the bushings.

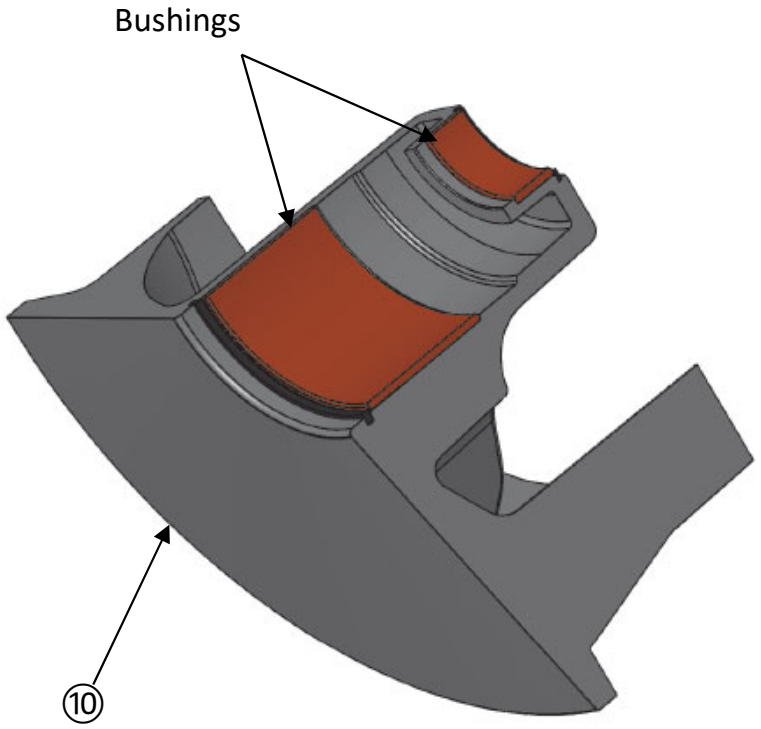

Figure 15

DRIVE PULLEY RE-ASSEMBLY

Alignment of fixed sheave ①, sliding sheave ⑩ and cap ⑭

- Align the 2 notches on the sheaves ① and ⑩ and also the square shape notch or point or part number on the cap ⑭ (depending on cap model) together to make sure the pulley is balanced (see figures 16 - 19).

Tightening the Pulley

- Use a torque wrench and a 30 mm or 32mm socket (depending on the version of pulley) to tighten the pulley nut ⑰ (for replacement pulleys, see the tightening torque chart by pulley number on the CVTech website – for OEM pulleys, refer to your owner's manual).

Square notch

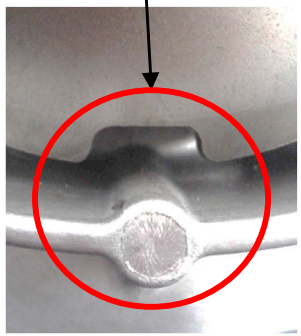

Figure 16

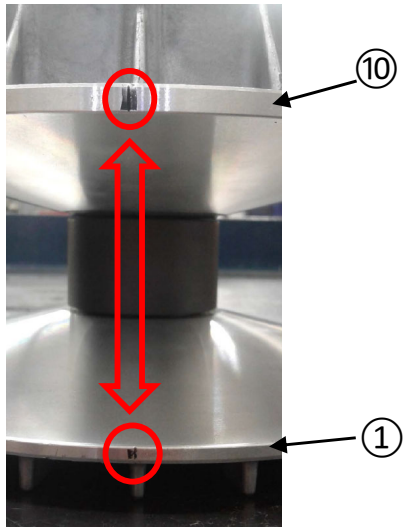

Figure 19

Part Number

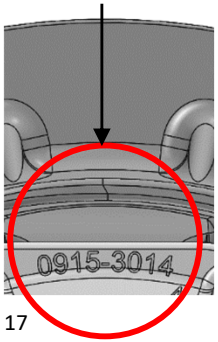

Figure 17

or

Point

Figure 18

Make sure the alignment of the hexagon shape of the cap ⑭ and washer ⑯ are fully engaged on the shaft hexagon shape before applying torque to the nut ⑰ (see figure 20).

Use the tightening torque value listed on the tightening torque chart by pulley number on **www.cvtech-ibc.com** website or in your owner's manual.

Hexagon top surface on the pulley shaft

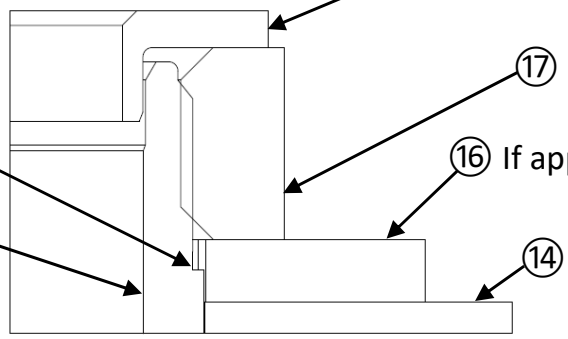

Figure 20

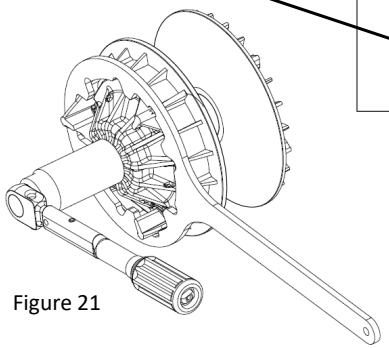

Figure 21