Doosan Infracore
Portable Power

Service Letter

SL: **40016**
Date: **1 Oktober 2010**
Product: **Compressors**
Subject: **7/20 - Engine - Airend Belt Tightening Procedure**

MODEL	SERIAL NUMBER
7/20	All 7/20 Compressors

When performing repair work to 7/20 compressors, the airend belt tension could become affected.

Therefore the procedure described in this Service Letter needs to be performed to adjust the airend belt tension.

Procedure

Frame Installation

Figure 1

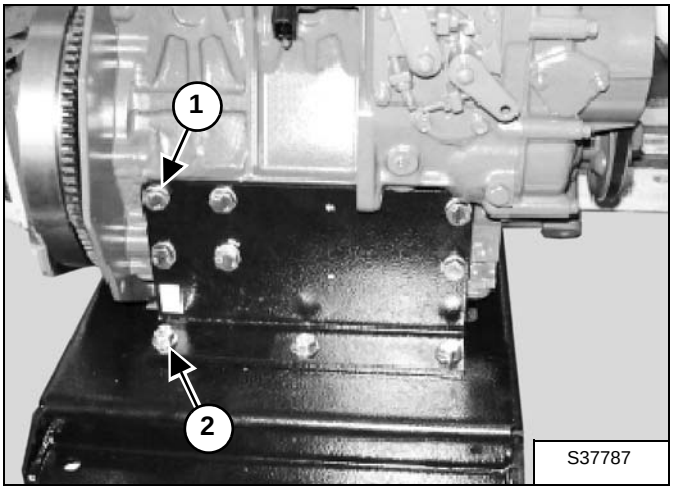
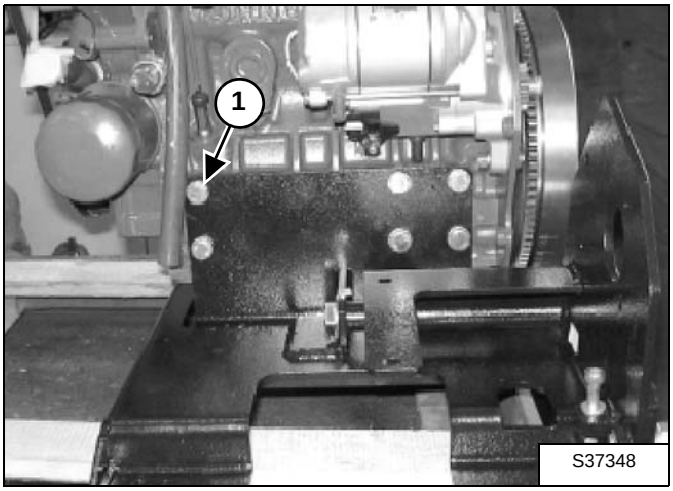


Figure 2

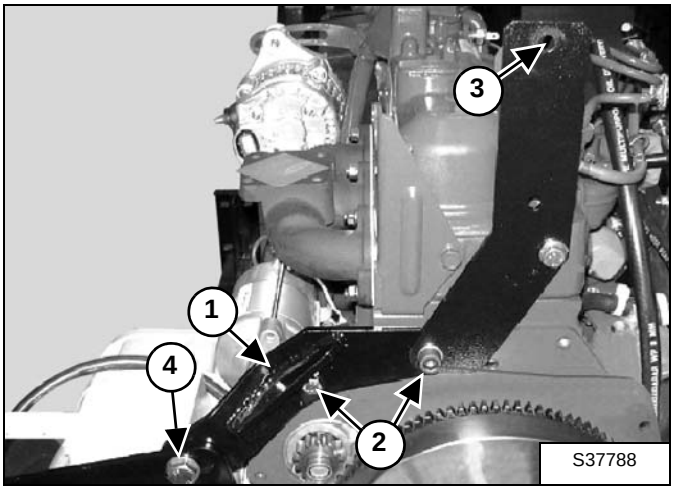


Apply Loctite 242 to the threads of the bolts. Fix the engine to the frame using the twelve bolts (Item 1) and the six bolts (Item 2) **[Figure 1]** and **[Figure 2]**.

NOTE: DO NOT tighten the bolts yet.

Airend Installation

Figure 1



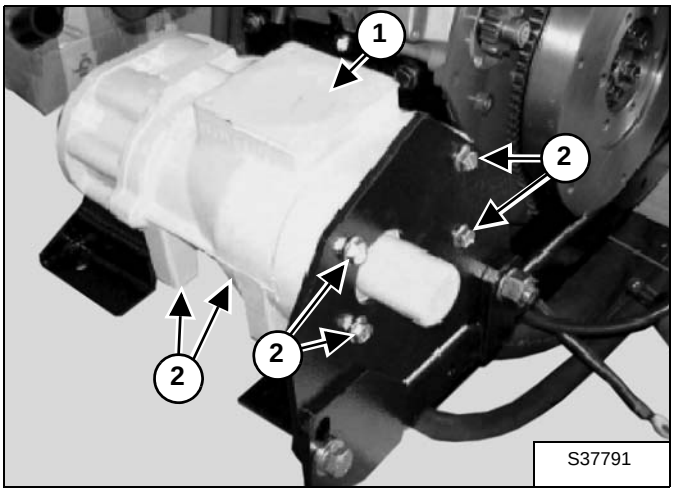
Install the bracket (Item 1) on the engine and tighten the screws and bolts (Item 2) **[Figure 1]**.

Tighten the eightteen bolts installed during “Frame Installation” on page 1.

Loosen the screw (Item 3) **[Figure 1]**.

Loosen the bolt (Item 4) **[Figure 1]**. Leave the nut on handtight.

Figure 2

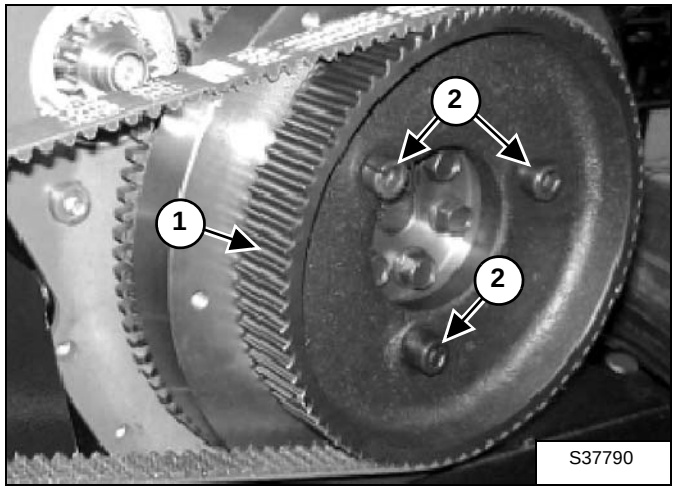


Mount the airend (Item 1) **[Figure 2]** on the support frame.

Apply Loctite 242 to the threads of the six bolts (Item 2) **[Figure 2]**. Install and tighten the bolts.

Pulleys Installation

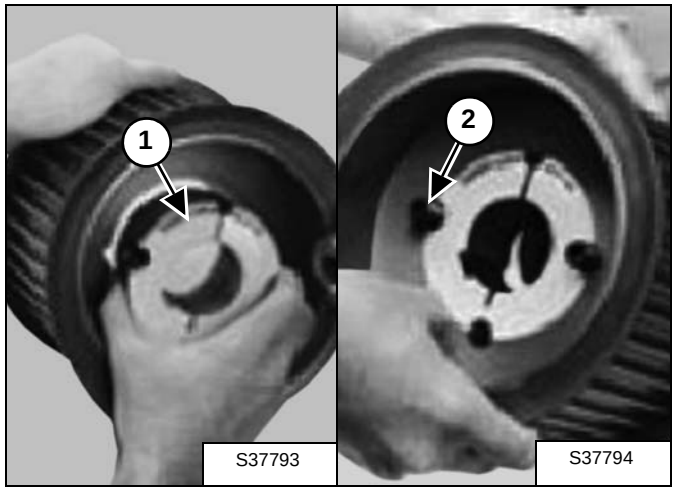
Figure 1



Mount the large pulley (Item 1) **[Figure 1]** on the engine.

Apply Loctite 270 to the threads of the three bolts (Item 2) **[Figure 1]**. Install and tighten the bolts.

Figure 2

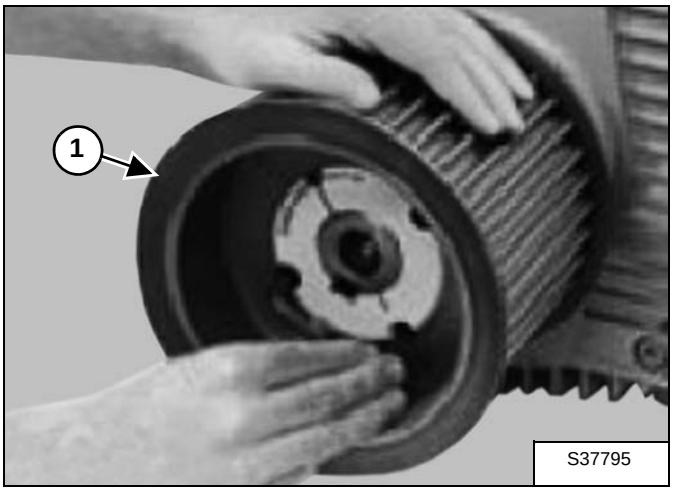


Ensure that the mating tapered surfaces, bore and shaft are completely clean and free from oil or dirt.

Insert the bush (Item 1) **[Figure 2]** in the hub so that the holes line up.

Sparingly oil thread and point of the grub screws, or thread and under the head of the cap screws. Position the four screws (Item 2) **[Figure 2]** loosely in the threaded holes in the hub.

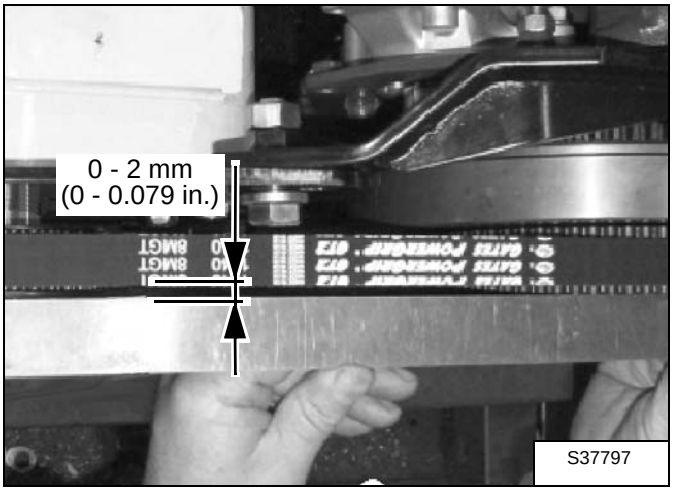
Figure 3



NOTE: If a key is to be fitted, place it in the shaft keyway before mounting the hub. It is essential that it is a parallel key with side fitting only. The key must have top clearance.

Clean the shaft and mount the hub (Item 1) **[Figure 3]** as one unit on the shaft. Put in the desired position, remembering that the bush will nip the shaft first and then the hub will be slightly drawn onto the bush.

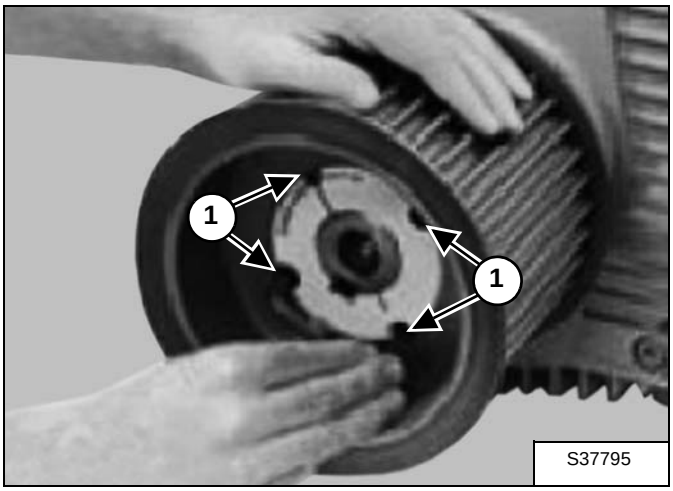
Figure 4



Set a distance of 0 - 2 mm (0 - 0.079 in.) between the face of the large and small pulley **[Figure 4]**.

NOTE: DO NOT install the belt yet.

Figure 5



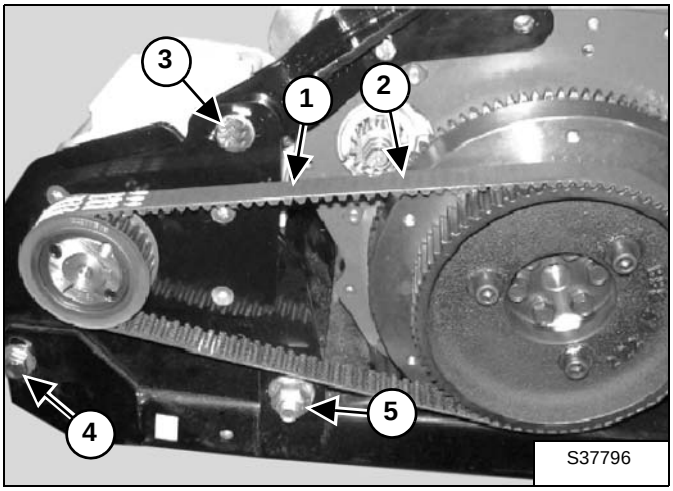
Gradually tighten the four screws (Item 1) **[Figure 5]** to 20 N•m (14.75 ft.-lb.) torque.

Hammer against the large end of the bush, using a block or sleeve to prevent damage. The screws (Item 1) **[Figure 5]** will turn a little more.

Repeat this alternate hammering and screw tightening once or twice to achieve maximum grip on the shaft.

Belt Installation And Tensioning

Figure 6



Install the belt (Item 1) **[Figure 6]** on the pulleys.

Use aftermarket belt tensioning tool to adjust until the belt tension is 110 - 118 Hz when measured at point (Item 2) **[Figure 6]**.

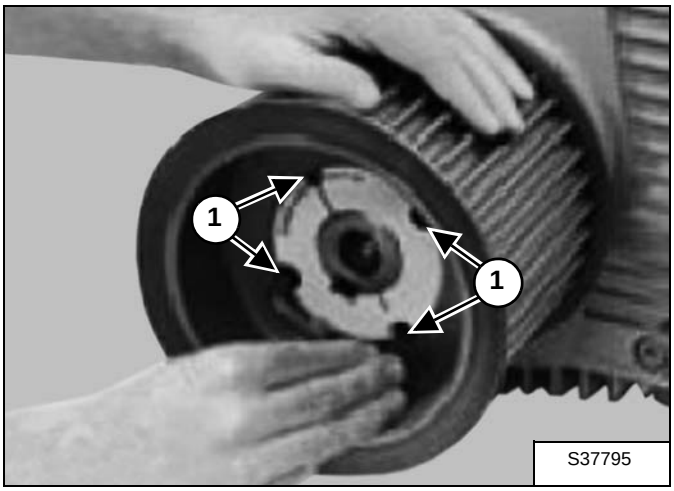
Tighten the bolt (Item 3) **[Figure 6]**.

Tighten the bolt (Item 4) to 73 - 78 N•m (53.84 - 57.53 ft.-lb.) torque and the bolt (Item 5) **[Figure 6]** to 143 - 180 N•m (105.47 - 132.76 ft.-lb.) torque.

Check the belt tension and re-adjust if out of range.

Testrun the compressor and check the belt tension once more.

Figure 7



Check tightness of the screws (Item 1) **[Figure 7]**. Fill empty holes with grease to exclude dirt.