



Advisory Notice for Titan T-51 Mustang Aircraft

March 4th, 2020

Inspection required before any further flights

Affected aircraft:

- T-51 Mustangs with V8 Engine

Aircraft not affected:

- T-51 Mustangs without V8 Engines.

Circumstances:

When the Elastomeric coupler is installed on the thrust bearing of the V8 crank shaft, it may come in contact with the socket headed cap screws that secure the adaptor plate to the fly wheel. This changes the installation height which in turn puts lateral pressure on the engine crank shaft which may result in excessive wear on the crank shaft thrust bearing. In extreme cases, this may result in engine damage.

Inspection required:

Use an **.020" feeler gauge** to check the clearance between the 1/2-20 7/8 **Drive Adaptor Bolts** and the **Elastomeric Coupler**. If the gap between the drive adaptor and the Elastomeric Coupler while installed allows the gauge, the clearance is adequate. If not, take corrective action.

Corrective action:

Remove the gearbox from the aircraft and remove the Bolts in question. Then Machine 1/8" off the Cap screw bolt heads. Then reinstall the Bolts. This will provide adequate clearance between the bolt heads and the elastomeric coupler.

Contact Titan Aircraft: 440-275-3205 or email support@titanaircraft.com with any questions or concerns.

Best Regards,

A handwritten signature in black ink that reads "John Williams".

John Williams

President

Titan Aircraft

When the Elastomeric coupler is installed it may come in contact with the socket headed cap screws that secure the adaptor plate to the fly wheel (see fig 2) . This changes the installation height which in turn puts lateral pressure on the engine crank shaft which may result in excessive wear on the crank shaft thrust bearing. Which in extreme cases may result in engine damage.



Fig 1

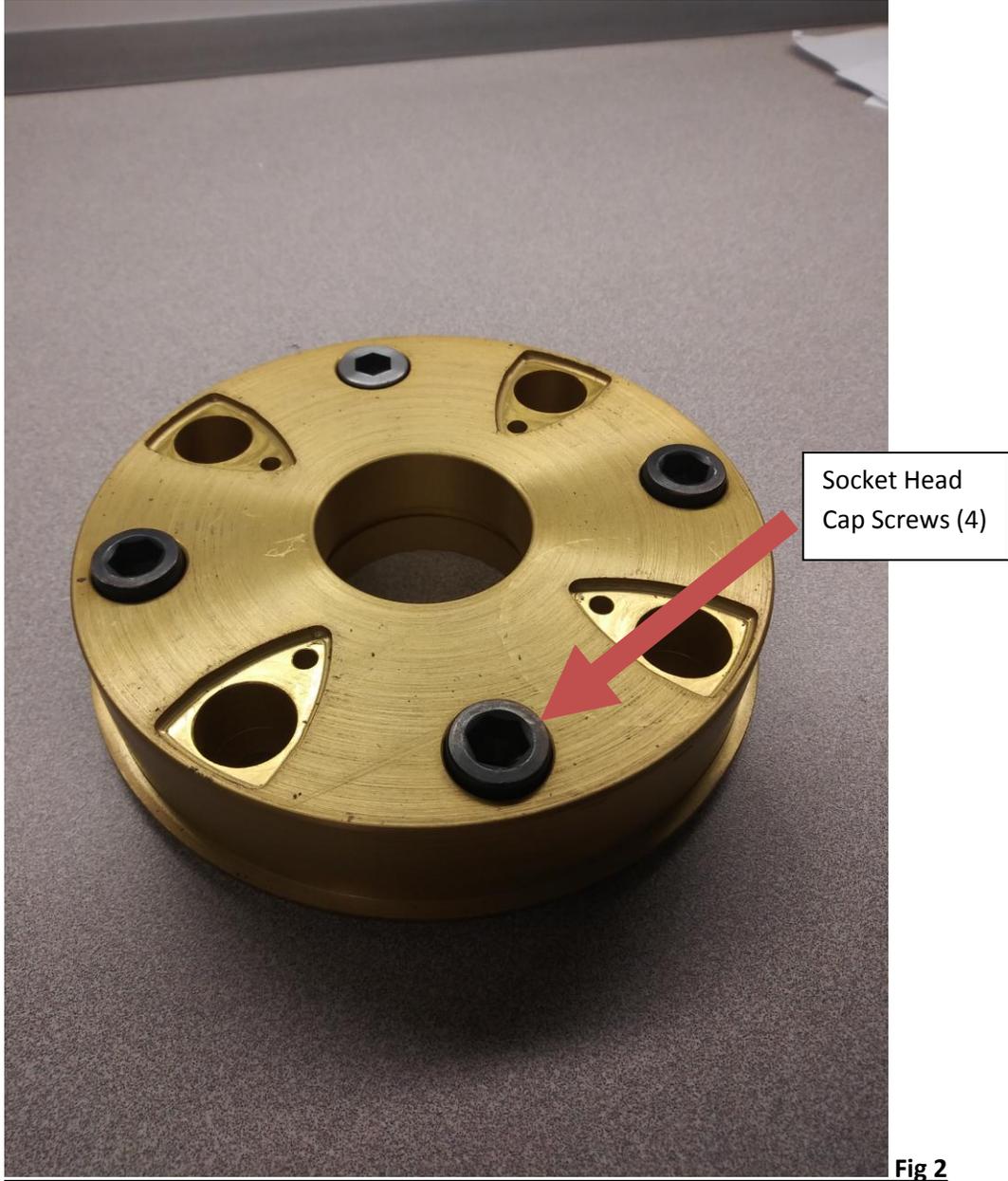
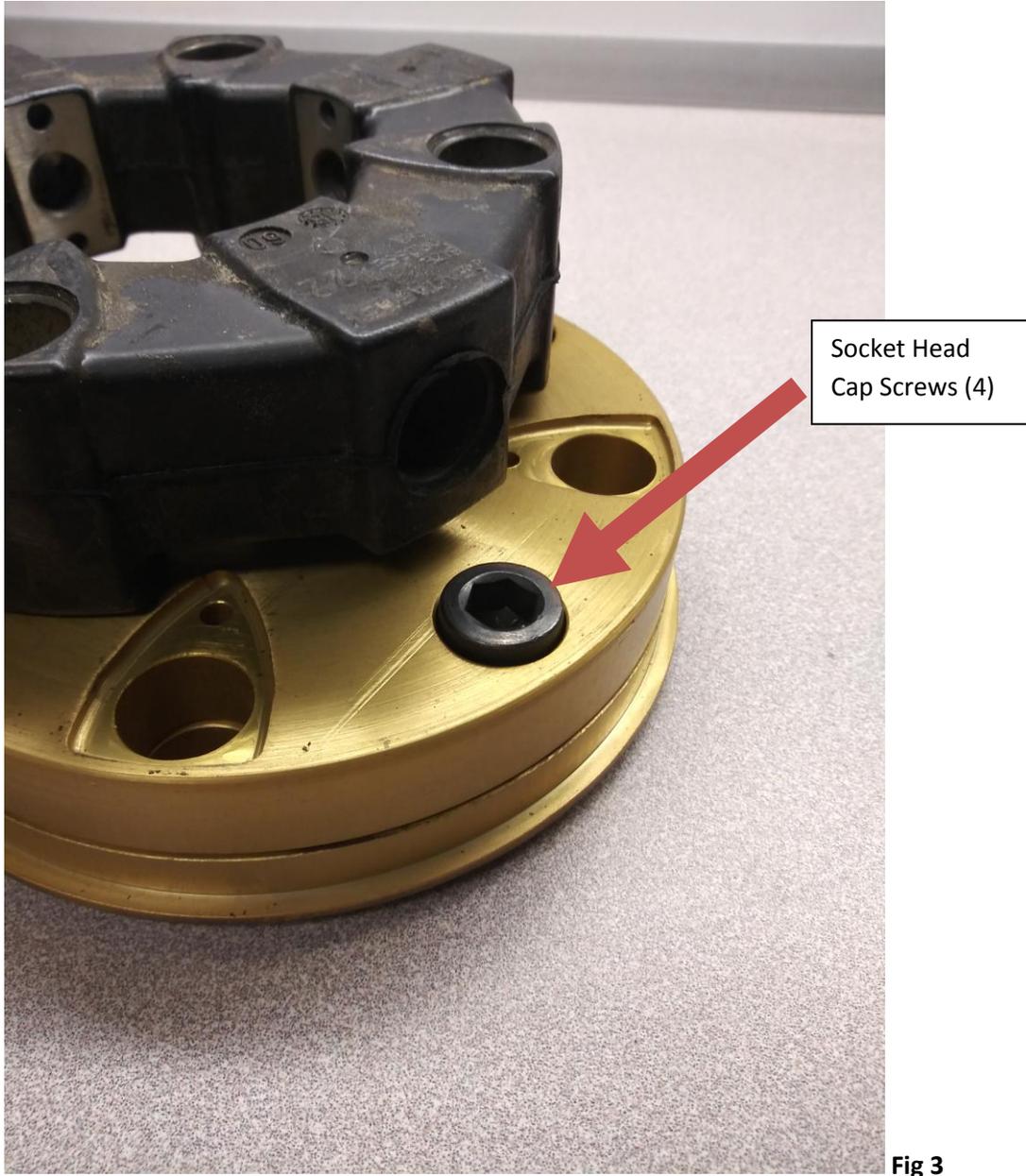


Fig 2



UNMODIFIED BOLT HEAD CLEARANCE



Fig 4

The 1/2-20 7/8 bolts in the **Drive Adaptor** contact the **Elastomeric Coupler** while in operation, and may potentially cause a failure in the engine by applying a lateral load against the thrust bearing. Machining the head of Socket Head Cap Screws so that you can fit a **0.020 Feeler Gauge** between the bolt and the **Elastomeric Coupler**. This may be as much as 0.125" This will make the bolt head flush against the **Drive Adaptor**. While assembled in the aircraft, check this measurement by rotating the engine until the bolt lines up in the gearbox window at the bottom . You may now check the clearance of each Socket Head Cap Screws. If the clearance is inadequate, then the gearbox must be removed from the aircraft the bolts in question will need to be removed and machined for adequate clearance. If you have questions on the removal process, contact sales@titanaircraft.com or call 440-275-3205.

0.020 Feeler Gauge between bolt and Elastomeric Coupler.



Fig 5

If the part is assembled and your clearance resembles this, the part is ok.

CORRECTED BOLT HEAD CLEARANCE



Fig 6

Proper Clearance should look like this.