

# **General Equipment Safety Bulletin**

### **Technical Support**

Reference Number	Bulletin 01 - 2016
Affected Product	D11T Tractors with AMA / MDG serial number prefix, fitted with the latest version of the optional high pressure hydraulic screen group
Risks Identified	Failure of the 421-7245 Hose assembly may result in a machine fire
Revision	First release

# Chafing and Failure of 421-7245 Hydraulic Hose

#### Overview

This issue applies only to those tractors fitted with the lastest version of the optional 340-2061 & 340-2062 high pressure hydraulic screen groups. These groups are part of Hastings Deering's standard consist for D11T and AMA / MDG prefix machines sold into Hastings Deerings territory. Therefore most machines in Hastings Deering's territory will have this screen group fitted ex factory or dealer. The earlier version of the 340-2061 & 340-2062 screen groups incorporated threaded connectors on the hoses. The lastest version has flanged hose connections designed to suit 4 bolt flanges. Caterpillar Special Instruction REHS8552-02 (attached) describes the update from threaded to flanged hose ends. The 421-7245 hose assembly, the subject of this bulletin, has flanged fittings at both ends and is part of the latest 340-2061 & 340-2062 screen groups. This hose conveys hydraulic oil from the hydraulic fan discharge to the outer rear hydraulic screen port.

### **Potential Risk**

In some cases, the 421-7245 hose assembly may contact the 247-9961 accessory drive shaft guard and lead to early hose failure due to chafing wear. If this hose fails, there is a possibility that hydraulic oil may spray onto hot engine parts, resulting in a fire.

To eliminate the chafing problem, Caterpillar have recently increased the specified length of the 421-7245 hose by 25.4 mm to 1195 mm overall length. This will assist in ensuring hose does not contact the 247-9961 accessory drive shaft guard.

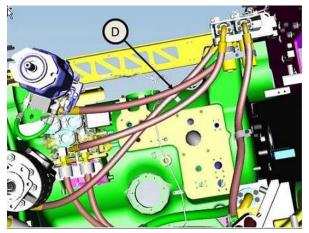


Figure 1. Location of 421-7245 Hose - D (guard not shown).

Figure 2. Chafe point on accessory drive shaft guard.



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#### Additional risk factor

There have been known cases where the six bolts that attach the two hydraulic screens to their mounting bracket have been found to be loose, missing, or the threads stripped. This has resulted in the subject hose having additional unintended movement.

## **Actions required**

- On receipt of this bulletin, carry out a visual inspection of the 421-7245 hose on affected D11T product to establish whether the hose has been contacting the 247-9961 accessory drive shaft guard.
- 2. If the existing 421-7245 hose is chafing on the power train pump drive shaft guard, replace the hose with a new dealer fabricated 421-7245 hose, built to the latest Caterpillar specifications, with an overall length of 1195 mm. It is essential to ensure that the existing or newly fabricated hose, does not contact the drive shaft guard, or other components.
- 3. Inspect the security of the hydraulic screens to the 421-7250 mounting bracket. There should be six bolts securing the two screens to the mounting bracket. Three mounting bolt locations have a ladder clip and require a 4L-6454 bolt [3/8" x 1" long], and the other three locations require a 5S-7379 bolt [3/8" x 7/8" long] refer to Special instruction REHS8552-02 for details. If a shorter bolt has been incorrectly fitted where a longer bolt is required, the thread in the screen may be damaged. Inspect each bolt for correct length, and correct any defects, and torque the six bolts to 47 Nm [35 ft lb].

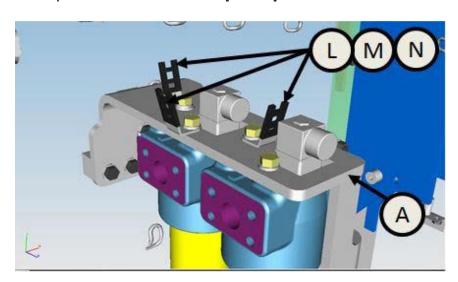


Figure 3. Hydraulic screen mounting bolt locations. NB: ladder clips (locations L, M, N) require longer 4L6454 bolts.

#### **Contact details**

For more information about this bulletin, including inspection procedures, please contact your Hastings Deering Product or Mining Support Representative.

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