

ENGINEERING BULLETIN

Ref Document No.	EB17003	Issue No.	1
Subject	COALTRAM® Rear Tow Hitch Allowable Vertical Load and Power Frame Gussets		
Release Date	5 th May, 2017		

Purpose – Advise COALTRAM® owners and operators of the recommended maximum allowable static vertical load on the rear tow hitch and recommend the installation of gussets on the COALTRAM® power frame to stop cracking at the mudguard joint.

Applicability – In service COALTRAM® models – CT08, CT10 & CT10LP

Information

A Coaltram power frame has experienced substantial cracking after being used to tow a single axel gravel trailer from the rear tow hitch. This is the first instance of a Coaltram power frame cracking in more than a superficial way. The trailer involved placed a static 3.6T vertical load on the rear tow hitch.

The Coaltram TBS nominates allowable towing limits for gross weight and maximum tractive effort, however, does not give an allowable vertical load on the rear tow hitch.

PPK has completed analysis of the COALTRAM® power frame and recommends trailers impose a maximum static vertical load of 1 Tonne when being towed from the rear tow hitch. Trailers that impose a greater vertical load than this should be towed from the hitch at the front of the COALTRAM® using appropriate attachments. This does not change the tractive effort that can be transferred via the rear tow point.

Additional

During the investigation PPK looked at the minor cracking that can occur at the junction between the mud guards and the sides of the rear frame. During normal operation this area is not highly stressed. The cracking in this location is caused by the sharp angle of the connection and will start at the weld, particularly if there is some undercut as shown in figure 1.

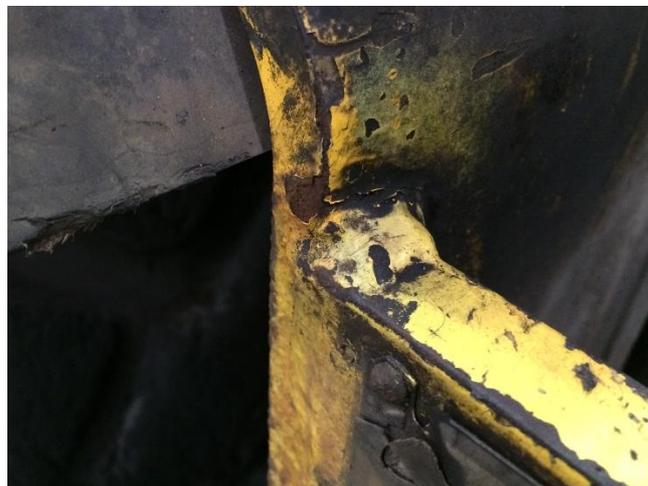
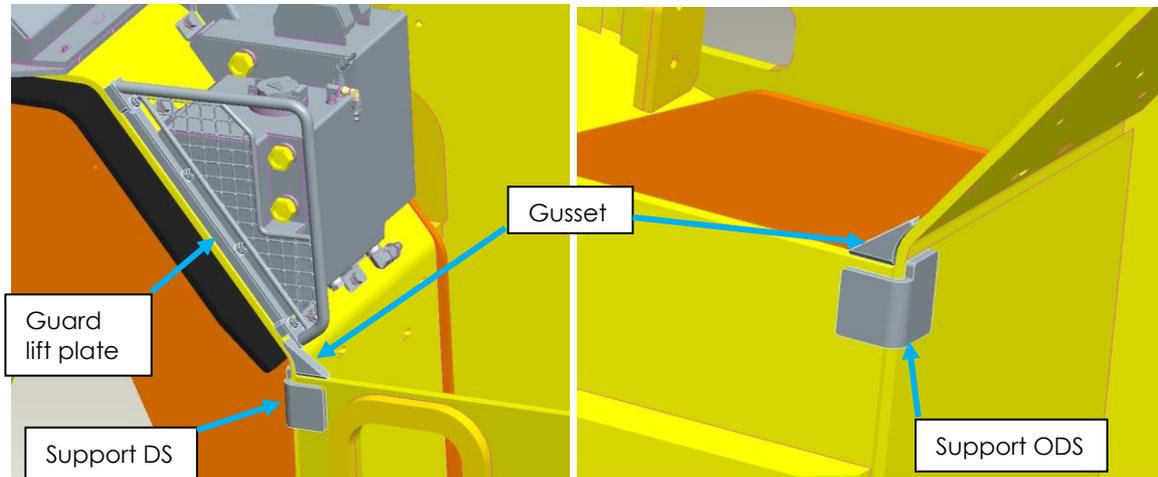


Figure 1

To strengthen the area and reduce the likelihood of cracking, PPK have designed a gusset and support to be added to the frame. This will spread the load across a larger joint and add strength. The installed parts can be seen in the pictures below.



Recommendations

- Follow PPK recommendations for maximum static vertical load of 1 Tonne when towing from the rear tow hitch. Updated general arrangement drawings including this new information has been attached to this bulletin for each type of COALTRAM®.
- At the next major service or available opportunity install the additional gussets and supports to reduce the likelihood of cracking and repair any existing cracking. Contact your PPK service centre for pricing on installation. Alternatively attach new plate work in accordance with attached drawing 5520010463 and appropriate site procedures. A kit of the required parts is available under part number 5520010435.

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