

Safety Alert

July 2011

Importance of Plant Reception Inspections

On Monday 11th July an Hitachi 210 Excavator arrived on site the machine had been hired by Caufields Contractors from Apex Contracting Ltd.

On arrival the machine was inspected by the section one plant inspector Guy Starley, on completing the reception inspection Guy found that only one lock was operating and that also the alarm in the cab was not working.

The machine Thorough Examination Certificate was dated 02/07/2011

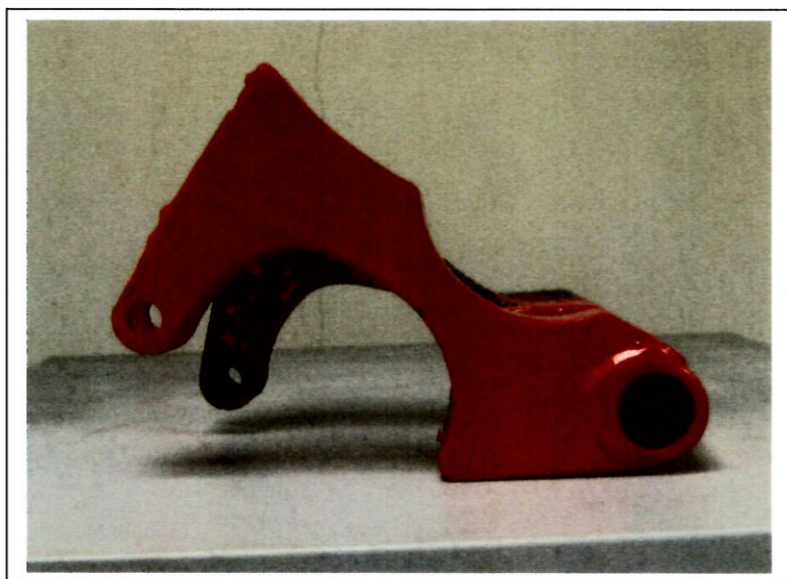
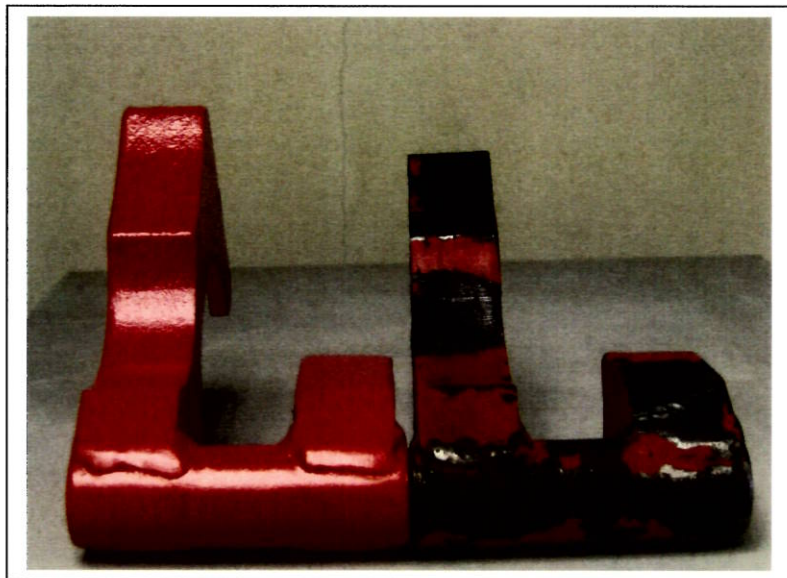
The Quick Hitch in question was a Hill twin locking hitch; this is the third incident with a Hill Quick Hitch with the same problem

See attached Hill report and picture of the first two incidents.



This lock failed to close

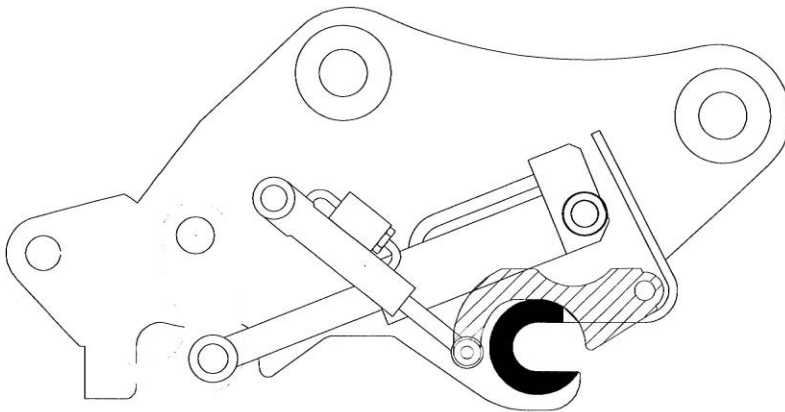
Hill Hitch Failure



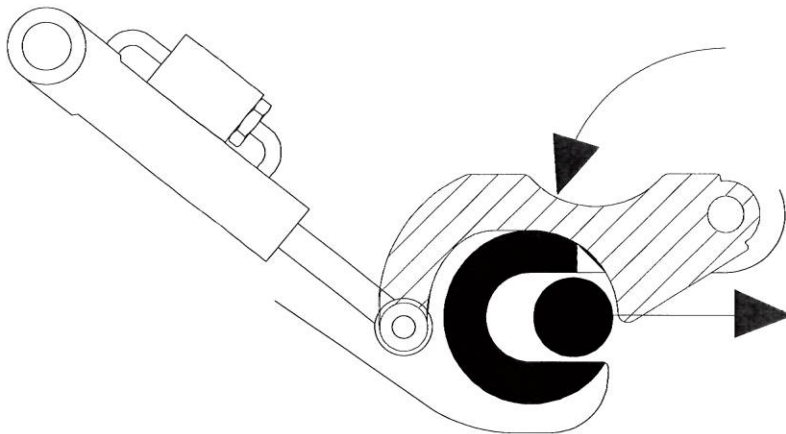
Bent Safety Mechanism Report

The damage is being caused by operators trying to force the front pin of the buckets in past the closed front jaw.

Should the front pin try to force its way out from the front aperture the force is taken directly on top of the gub of the coupler (the large circular part that restrains the front pin). This cannot bend the safety lock in the way that has been seen in both cases of damage. The action of the front pin trying to force its way out would bend the mechanism in the opposite direction to the direction both safety mechanisms were actually bent. However the forces seen in this direction and the design of the safety mechanism means that it is virtually impossible for damage to occur in this event.

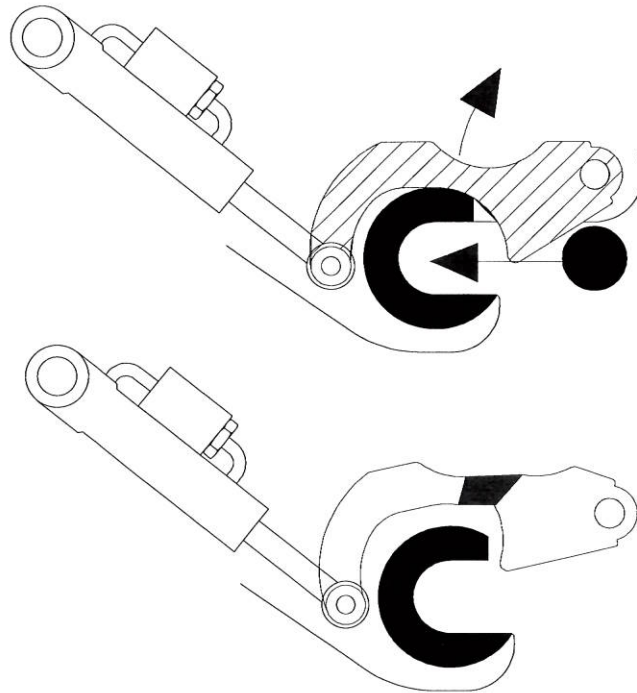


SIDE VIEW OF COUPLER



FRONT PIN TRYING TO FORCE ITS WAY OUT

Bent Safety Mechanism Report



ABOVE SHOWS WHAT HAPPENS WHEN THE OPERATOR TRIES TO FORCE THE FRONT PIN OF THE ATTACHMENT PAST A CLOSED SAFETY LOCK. THIS WILL EVENTUALLY RESULT IN A BENT SAFETY LOCK WITH DAMAGE IN THE RED AREA IN THE LOWER DIAGRAM. THIS CAN OCCUR THROUGH THE INCORRECT USE OF THE COUPLER OR FAILURE TO LIFT AND CROWD THE ATTACHMENT BEFORE LOCKING THE COUPLER.

If the photos of the damaged safety mechanism are compared with the lower diagram above it can be clearly seen that this is the damage evident on these parts. The safety mechanism is designed to withstand forces far greater than any that could be seen if the front pin tries to escape from the front aperture. However if the operator tries to force the front pin in past the closed safety mechanism damage will occur as illustrated above. This is down to correct operator training and procedures.

NOTE

With any make of coupler the attachment **MUST** be fully crowded before turning off the switch to lock the coupler. Failure to do this can also result in the rear hook missing the rear attachment pin.