

Safety Notice (Coal Mining Hazardous Area ONLY)

Austdac Pullkey – Aluminium Crimp

Issue

Austdac is voluntarily notifying customers that, due to an error by our production partner, certain Austdac branded Pullkey products manufactured between January 2020 and March 2023 may contain an aluminium crimp that is not in accordance with the published product specifications. While Austdac is not aware of any product failures or injuries, we note that per the product specifications, Pullkeys should be fitted with a plated copper or stainless steel crimp.

Photo 1 below shows the location of the relevant crimp. In the event that an aluminium crimp was used on the Pullkey, the crimp will be in the form of a figure 8, as is shown in Photo 2. The plated copper or stainless steel crimp will appear as a hexagonally shaped crimp, as shown in Photo 3.



PHOTO 1: PULLKEY

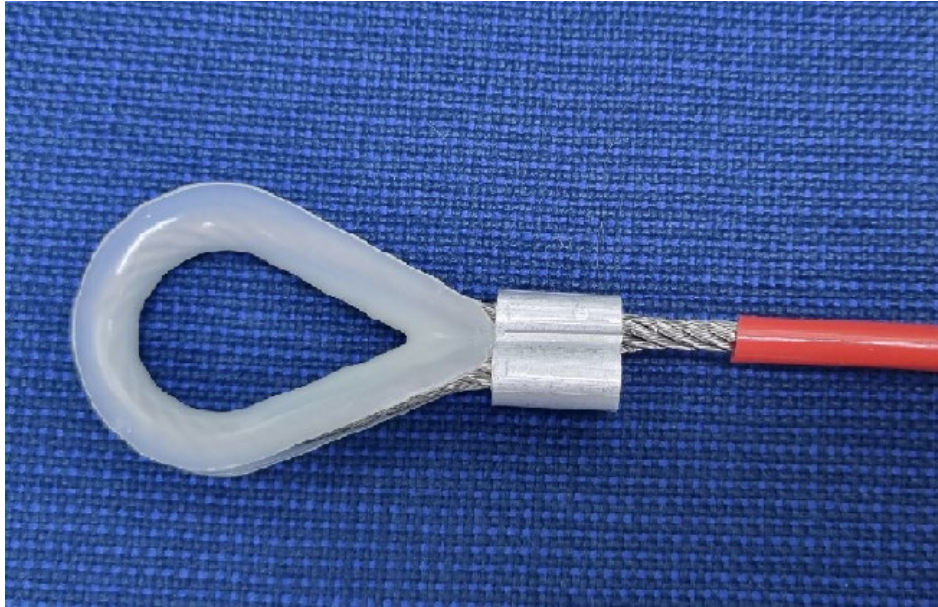


PHOTO 2: ALUMINIUM CRIMP SHOWN. NOTE THE FIGURE OF 8 SHAPE.

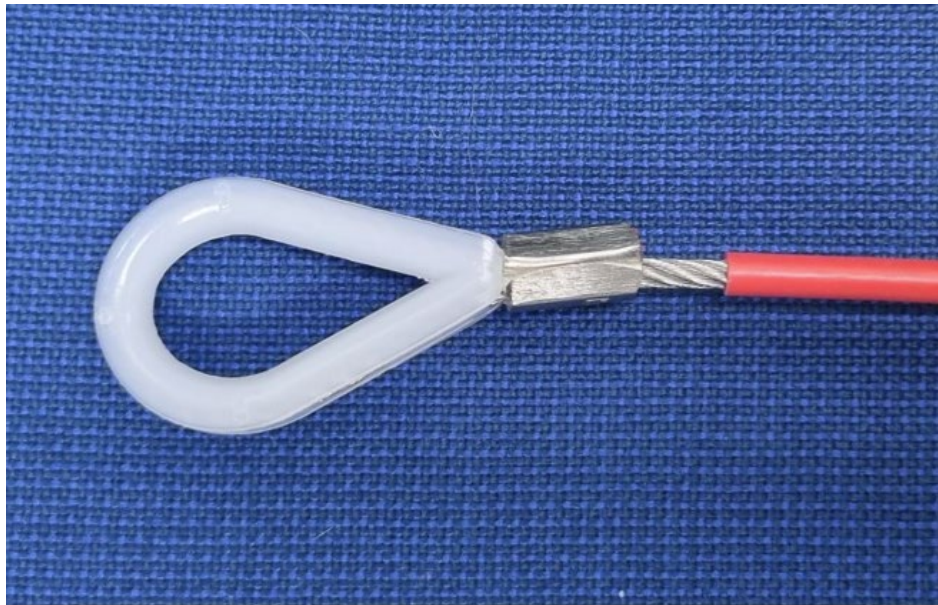


PHOTO 3: STAINLESS STEEL CRIMP SHOWN. NOTE THE HEXAGON SHAPE.

The Pullkey is used for emergency stops for conveyors and is often integrated with an intercom system such as the BMA69 and BMA70 (Photo 4) in coal mining applications.



PHOTO 4: TYPICAL APPLICATION

Regulations

The various regulations require aluminium to be protected or not exposed in a hazardous area within a coal mine;

Work Health and Safety (Mines and Petroleum Sites) Regulation 2022 [NSW]

4 Uncoated or unprotected light metal alloys or aluminium

Uncoated or unprotected light metal alloys or aluminium must not be used in the following places at an underground coal mine—

- (a) in a hazardous zone,
- (b) on the inbye side of the first cut-through outbye from a longwall face,
- (c) in a rotating component or in a component subject to impacts.

Coal Mining Safety and Health Regulation 2017 [Qlds]

Part 8 Mechanical

Division 1 Aluminium alloys

254 Using aluminium alloys underground

(1) The underground mine manager for an underground mine must ensure an exposed aluminium alloy is not used underground at the mine if the alloy contains more than 6% by mass of combined magnesium and titanium.

(2) The underground mine manager must also ensure external rotating or reciprocating parts of plant used underground are not constructed of alloys containing more than 0.6% magnesium and titanium combined

Investigation

Investigation have revealed the following;

Some Pullkeys since 2020 have used the aluminium crimp.

The Pullkeys affected have been traced and the date of manufacture is shown below;

Date of manufacturing
 2020/1/3-2020/1/8
 2020/3/20-2020/3/26
 2020/5/7
 2020/6/15
 2021/2/26-2021/5/23
 2021/9/12
 2022/5/11-2022/5/23
 2022/6/14
 2023/2/7
 2023/2/21-2023/2/27

The aluminium used in the crimp is 6063 which has the following composition;

Aluminum alloy 6063

Constituent element	Minimum (% by weight)	Maximum (% by weight)
Aluminium (Al)	97.5%	99.35%
Magnesium (Mg)	0.45%	0.90%
Silicon (Si)	0.20%	0.60%
Iron (Fe)	0	0.35%
Chromium (Cr)	0	0.10%
Copper (Cu)	0	0.10%
Manganese (Mn)	0	0.10%
Titanium (Ti)	0	0.10%
Zinc (Zn)	0	0.10%
(others)	0	0.15% total (0.05% each)

Note that Queensland's Coal Mining Safety and Health Regulation 2017 allows aluminium alloys with less than 6% by mass of combined magnesium and titanium. The aluminium 6063 used in the aluminium crimp has a maximum of 1% by mass of combined magnesium and titanium and therefore the use of this grade of aluminium is permitted by the regulations in Queensland. However, Austdac understands that it may be difficult to control the use of aluminium in a mine and understands if a Queensland mine has a policy or prefers to manage the use of aluminium by protection or exclusion.

Action

Immediate Action

If you have a Pullkey that is used in a coal mining hazardous area then you should take the following steps;

Conduct a risk assessment to determine if further action is required.

Identify the crimp by the shape and colour of the crimp. An aluminium crimp has a figure of 8 shape while the correct crimp has a hexagon shape.

For the aluminium crimp Austdac recommends the use of a suitable tape to cover the aluminium crimp. The tape should be suitable for the hazardous area and environment.

Permanent Solution

Austdac is working on a suitable cover to protect the aluminium crimp. Further details will be released when available.

Contact

For further information please contact either Austdac Customer Service or Peter Chan;

Austdac Customer Service
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or

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Regards



Peter Chan
Head of Quality