

Justification:
Safety

(Maintenance)

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Private Owner Circular Letter 663 Issue- 1a

Title

Screw coupling
failure.

AUTHORISATION

Authorised by:

p.p. 
.....
J. Allenden, Professional Head of Plant and T&RS

Amendment Record

Issue	Date	Amendment
1	25/01/13	First issue
1a	25/01/13	First issue (with typographical correction)

1. INTRODUCTION

POCL 663, Issue 1a, has been produced as a result of NIR 2883 received indicating that some vehicles may be fitted with an incorrectly rated screw coupling. The manufacturers X-Press Spares Ltd & Co. KG Hovesaatstr.6 48432 Rheine-Germany; believe that the screw coupling 850kN has been sold into the UK to many customers as a replacement for the C1-A2-9000275 since 2007.

N.B. Some couplings ordered to drawing CI A2 90000275 56t rating were delivered as a 34.5t coupling.

Vehicles are required to be fitted with the correct coupling rated as per the design when the vehicle passed Engineering Acceptance.

2. INSTRUCTION

Check the source of your supply of screw couplings. If there is any doubt as to their source or; if they have been supplied by the above supplier; then you should carry out an urgent fleet check to ensure that screw couplings fitted are the correctly rated coupling as per the original Engineering Acceptance Certificate.

Action Required

1. Inspect the screw coupling to identify if it is the correct type. The most effective way to do this is to measure the depth of section at the centre of the connecting rod. See figs 1, 2, & 3.

INCORRECT COUPLING	CORRECT COUPLING
Rating 34.5 tonne	Rating 56 tonne
Drawing B1-C0-9029821 item 06 to UIC 520 (see Appendices A to C)	Drawing B1-C0-9029821 item 05 or C1-A2-9000275 (see Appendices A to C)
Connecting Rod size 35 to 42mm (see figure 3)	Connecting Rod size 52 to 55mm (see figure 3)
Either no stamping marks or as per example photographs shown in Appendix D	May be stamped BR or 122T

2. Any screw couplings found to be the incorrect type must be renewed as a complete assembly. *Note: the incorrect coupling may be of lower grade steel than the correct version therefore if replacement is required then the entire assembly must be replaced.*

3. Record the details of the wagons checked and any couplings renewed

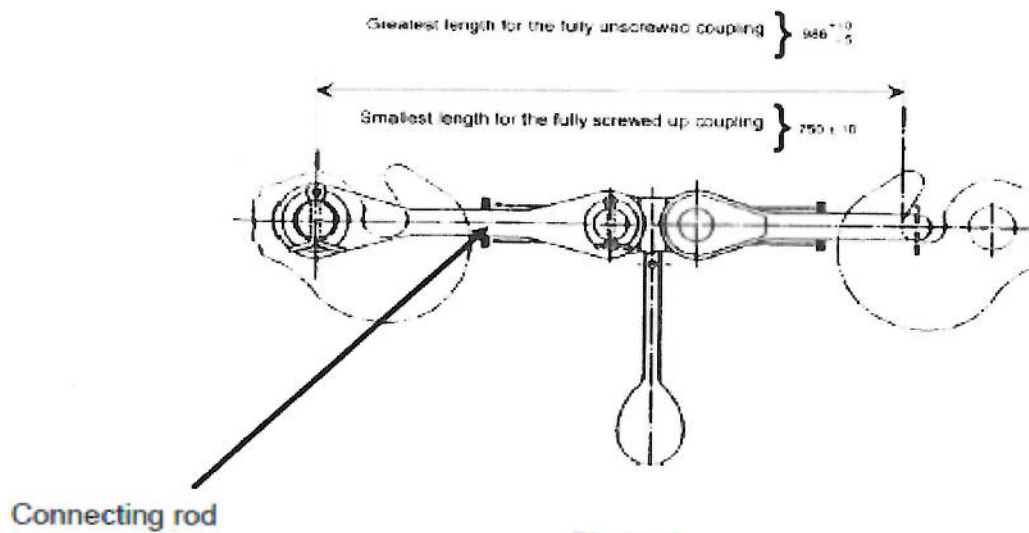


Figure 1

Screw Coupling



Correct 52-55 mm



Incorrect 35-42mm

Figure 2



Figure 3

Connecting Rod
Dimension to Check
(Correct version shown)

Please inform the Senior PWRA Engineer of the outcome of your investigations by 1st March 2013.

3. **SCOPE**

This instruction applies to all PWRA Owners operating vehicles fitted with UIC screw couplings.

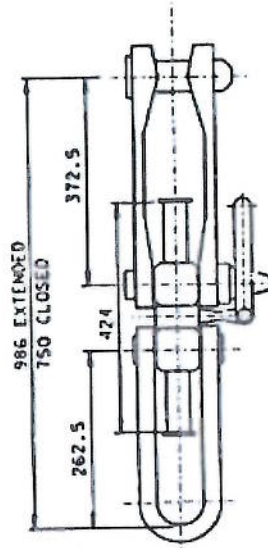
4. **IMPLEMENTATION**

This document shall be implemented immediately.

In the event of any query arising, or clarification required, please contact:

Senior PWRA Engineer
Network Certification Body
Caldecotte - Ground Floor,
The Quadrant MK
Elder Gate, Milton Keynes,
MK9 1EN

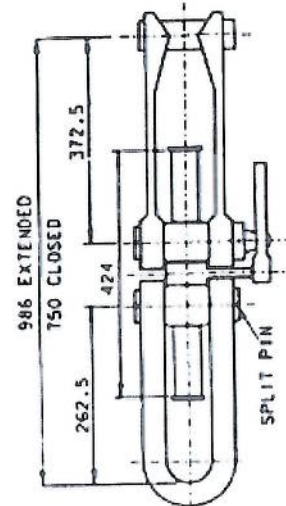
Appendix A- extract from drawing BI-C0-902982I



6 INTERNATIONAL SCREW COUPLING.

DRAWING NO: U.I.C. BOOKLET 520.
 TRACTION LOAD: NOT SPECIFIED BUT 34.5 t
 PROOF LOAD: USED IN MT 19
 MIN. BREAKING STRENGTH: 850KN

This coupling is not to be ordered for DR or PO UIC regions except with specific permission of Freight Engr.

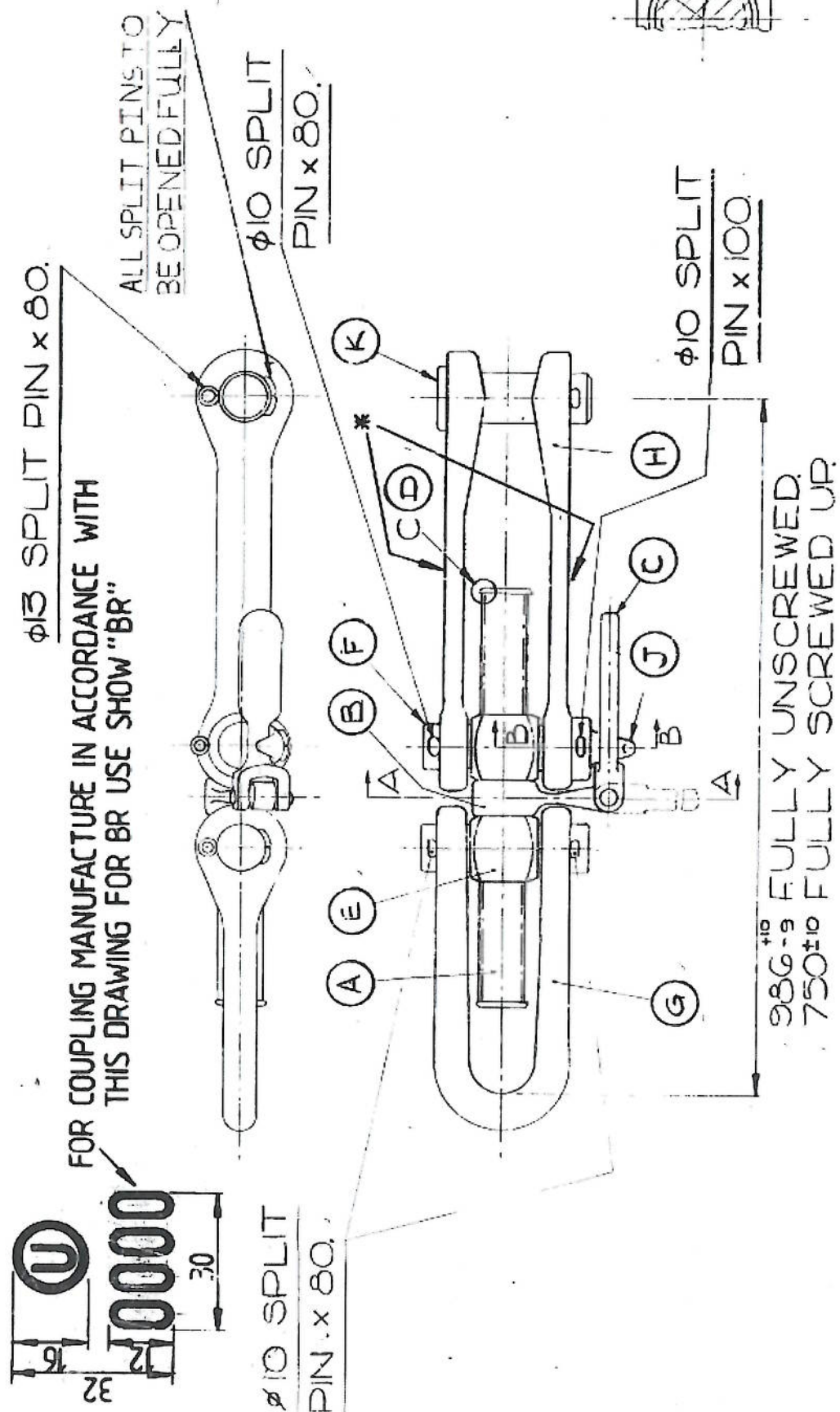


5 INTERNATIONAL SCREW COUPLING.

DRAWING NO: C1-A2-9000275 (BR CAT NO. 73/724)
 (B.R.DESIGN) SUPERSEDES R.C.N.2827

TRACTION LOAD: 56 t
 PROOF LOAD: 71 t
 MIN. BREAKING LOAD: 122 t

Appendix B – extract from drawing CI-A2-9000275



Technical drawing of a mechanical part showing two views: a front view and a side view.

Front View Dimensions:

- Overall length: 426 ± 1
- Slot width: $53.5 + 1.5 / - 0.5$
- End feature diameter: $\phi 100$
- End feature radius: $R 12.5$
- Transition radius: $R 63$
- Slot radius: $R 25$
- Surface finish: $Ra 12.5$
- Feature A: $\phi 5$
- Feature B: $\phi 100$

Side View Dimensions:

- Overall width: 46
- Angle: 90°
- Radius: $R 63$
- Feature C: $\phi 100$
- Feature D: $\phi 100$

Annotations:

- REMOVE SHARP EDGES
- INTERCHANGEABILITY MARK
- MANUFACTURERS MARK & DATE
- 6.5 HIGH CHARACTERS

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