1 # TYPE EXAMINATION CERTIFICATE

2 **Component Intended for use on/in an Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

3 Type Examination Certificate Number: **Baseefa18ATEX0067U**

4 Product: **TCAE Range of Couplings**

5 Manufacturer: **Thompson Couplings Limited**

6 Address: **3/12 Rodwell St, Archerfield, Brisbane, 4108, Australia**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential Report No. **18(C)0064**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

BS EN ISO 80079-36: 2016 **BS EN ISO 80079-37: 2016**

except in respect of those requirements listed at item 18 of the Schedule.

10 The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the product shall include the following :

⟨Ex⟩ II 2 GD **Ex h IIC Gb**
Ex h IIIC Db

SGS Baseefa Customer Reference No. **7822** Project File No. **18/0064**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

M POWNEY
Certification
Manager

13 # Schedule

14 ## Certificate Number Baseefa18ATEX0067U

15 Description of Product

The TCAE range of couplings are designed to couple the drive and driven shafts. They are a flexible coupling that is capable of operating with a misalignment from 1° to 10°. The couplings also allow relative movement through the splined shaft to allow for heat expansion.

The couplings are manufactured from carbon steel for the hubs that connect to the drive and driven shafts, these are then bolted to the aluminium adaptor boss that houses the constant velocity coupling head. The C.V joint is driven by the splined shaft that locates in to the inner race of the C.V joint. The inner race houses the ball bearings that allow the alignment of the splined shaft, the ball bearings also act as 'teeth' that drive the outer race and is in turn bolted to the coupling head.

The couplings are available in the following size range.

Coupling Size	Maximum misalignment angle	Maximum Torque N.m	Maximum RPM at maximum misalignment angle	Distance between shaft ends in mm
TCAE-1	10°	630	3600	133 - 147
TCAE-2	10°	1470	3600	162 - 178
TCAE-3	10°	2890	3000	285 - 305
TCAE-4	10°	4000	3000	285 - 305
TCAE-5	10°	5880	3000	300 - 330

16 Report Number

18(C)0064

17 Schedule of Limitations

1. The service temperature of 0°C to +120°C is not be exceeded.
2. Electrical continuity between shafts must be established prior to operation.
3. The operating parameters set out by the manufacturer's instructions must not be exceeded.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.6.1	Manual Override to ensure safety of systems
1.6.3	Hazards from Power Failure
1.6.5	Placing of Warning Devices
3	Protective Systems

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
016008001	-	0	05/09/18	ATEX label details
001024030	4 of 4	-	13/7/18	BOM-TCAE-1
001024035_BOM	4 of 4	-	13/7/18	BOM-TCAE-2
001029001_BOM	3 of 3	-	13/7/18	BOM-TCAE-3
001028001_BOM	3 of 3	-	13/7/18	BOM-TCAE-4
001031001_BOM	3 of 3	-	13/7/18	BOM-TCAE-5
001024030	1 to 3	6	05/09/18	AE1 Assembly
001024035	1 to 3	4	05/09/18	AE2 – 125
001029001	1 to 2	6	31/8/18	AE3 Coupling Assembly
001028001	1 to 2	4	31/8/18	AE4 Coupling Assembly
001031001	1 to 2	4	31/8/18	AE5 Coupling Assembly