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## CERTIFICATE OF APPROVAL

### No CF 215

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This is to certify that, in accordance with  
TS00 General Requirements for Certification of Fire Protection Products  
The undermentioned products of

## ROYDE & TUCKER LIMITED

**Bilton Road, Cadwell Lane, Hitchin, Hertfordshire, SG4 0SB**  
**Tel: 01462 444444 Fax: 01462 444433**

Have been assessed against the requirements of the Technical Schedule(s)  
denoted below and are approved for use subject to the conditions  
appended hereto:

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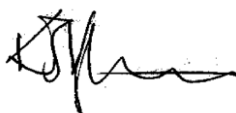
#### CERTIFIED PRODUCT

**Hi-Load Hinges Concealed  
Bearing Series**

#### TECHNICAL SCHEDULE

**TS24 - The Contribution of  
Single Action Hinges to the  
Fire Resistance of Door  
Assemblies**

**Signed and sealed for and on behalf of Exova (UK) Limited trading as  
Warrington Certification**



**Sir Ken Knight  
Chairman  
Impartiality Committee**



**Paul Duggan  
Certification Manager**



Issued: 7<sup>th</sup> February 2000  
Reissued: 14<sup>th</sup> October 2016  
Valid to: 13<sup>th</sup> October 2021

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## CERTIFICATE No CF 215

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#### HI-LOAD HINGES – CONCEALED BEARING SERIES

1. This approval relates to the use of the above single axis hinges in contributing to the fire resistance performance of timber based doorsets (ITT), for periods of 30 or 60 minutes integrity and insulation, as defined by BS EN 1634-1 or BS 476 : Part 22 : 1987. This approval also relates to the use of the stainless steel and mild steel hinges in contributing to the fire resistance performance of metallic based doorsets (MM/IMM), as defined by EN 1634-1 or BS 476: Part 22, for periods of up to 240 minutes integrity.
2. This certification is designed to demonstrate compliance of the product or system specifically with Approved Document B (England and Wales), Section D of the Technical Standards (Scotland) and Technical Booklet E (N. Ireland). If compliance is required to other regulatory or guidance documents there may be additional considerations or conflict to be taken into account.
3. The hinges are approved on the basis of:
  - i. Initial type testing to EN1935 and testing/appraisal to EN 1634-1.
  - ii. A design appraisal against TS24
  - iii. Production surveillance under ISO9001: 2008
  - iv. On-going audit testing in accordance with BS EN 1935 requirements
  - v. Inspection and surveillance of factory production control
4. The concealed bearing series hinges comprise a range of single axis, self-lubricating hinges, which may be of various sizes for use on various classes of doorsets. The hinges are a minimum of Class 11 in accordance with BS EN 1935.
5. This certification relates to the following variants of Hi-load concealed bearing series hinges:
  - H201 Lift-off hinge – Maximum leaf weight of 80 kg
  - H206 Lift-off hinge - Maximum leaf weight of 80 kg
  - H207 Butt hinge - Maximum leaf weight of 120 kg
  - H208 Butt hinge - Maximum leaf weight of 120 kg
  - H209 Butt hinge - Maximum leaf weight of 120 kg
  - H210 Butt hinge - Maximum leaf weight of 160 kg
  - H211\* Butt hinge - Maximum leaf weight of 160 kg

*\*Note specific requirements later in this document for the door thickness and intumescent protection of the H211 hinge.*

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#### HI-LOAD HINGES – CONCEALED BEARING SERIES

6. This approval relates to the above hinges used with latched or unlatched single-leaf or double-leaf door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores and in timber frames (Code ITT):
- Door leaf not less than 44 mm thick for FD30, E30 and EI30 applications (except H211 hinges which shall be a minimum thickness of 54 mm thick)
  - Door leaf not less than 54mm thick for FD60, E60 and EI60 applications.
  - The door frame shall consist of timber with a density in the range of 450 to 585 kg/m<sup>3</sup> for FD30, E30 and EI30 applications.
  - The door frame shall consist of timber with a density in excess of 640 kg/m<sup>3</sup> for FD60, E60 and EI60 doorsets.
7. Where the H211 hinge is incorporated on a standard 54 mm thick ITT FD60, E60 and EI60 door leaf, it shall be positioned such that 2.5 mm of the hinge blade extends beyond the opening face of the door face to ensure 10 mm of door edge material is maintained alongside the hinge blade.
8. This approval also relates to the stainless steel versions of the above hinges used with latched or unlatched single-leaf or double-leaf door assemblies consisting of metallic faced and edged leaves in metallic frames (Codes MM/IMM)
- Door leaf not less than 45 mm thick.
9. The hinges may be suitable for use on thinner door leaves or with lower density frames but these shall be the subject of a separate test and approval and will be limited to that doorset.
10. The hinges may be fitted to timber based doorsets without intumescent protection for up to 20 minutes integrity.
11. Both blades of the hinges must be bedded onto 1mm thick Interdens when used with ITT doorsets for 30 and 60 minute applications, except for the H211 where both blades of the hinges must be bedded onto 2mm thick Interdens when used with ITT doorsets for 30 and 60 minute applications.
12. All applications apply to glazed and unglazed doorsets.
13. The hinges may only be fitted to previously tested timber door assemblies when fitted in the manner described in this certificate and when particular aspects of the door assembly are maintained.
14. Hinges shall only be fitted using the fixings supplied by the hinge manufacturer.

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### HI-LOAD HINGES – CONCEALED BEARING SERIES

15. The doorset, including door frame and associated building hardware, should be either CERTIFIRE approved for the relevant application and classification or the doorset, including door frame and associated building hardware, should have achieved at least 30 or 60 minutes fire resistance (ITT) or up to 240 minutes (MM/IMM) as required when tested, or subsequently assessed to BS EN 1634-1 or BS 476: Part 22: 1987. In either case regard should be paid to the maximum door mass permitted to be used with the hinge (see classifications).
16. Timber doorsets shall be installed in accordance with BS 8214.
17. The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

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### HI-LOAD HINGES – CONCEALED BEARING SERIES

18. The following table show acceptable doorset types and fire resistance periods:

Class	Approved Door Type				
	IMM	MM	ITT	ITM	ITC
FD20	✓	✓	✓	✗	✗
FD30	✓	✓	✓*	✗	✗
FD60	✓	✓	✓	✗	✗
FD120	✓	✓	✗	✗	✗
FD240	✓	✓	✗	✗	✗
E 20	✓	✓	✓	✗	✗
EI 20	✓	✓	✓	✗	✗
E 30	✓	✓	✓	✗	✗
EI 30	✓	✓	✓	✗	✗
E 60	✓	✓	✓	✗	✗
EI 60	✓	✓	✓	✗	✗
E 90	✓	✓	✗	✗	✗
EI 90	✓	✓	✗	✗	✗
E 120	✓	✓	✗	✗	✗
EI 120	✓	✓	✗	✗	✗
E 240	✓	✓	✗	✗	✗
EI 240	✓	✓	✗	✗	✗

\* Where H211 hinges are fitted to FD30, E30 and EI30 doorsets the door leaf shall be a minimum of 54 mm thick.

**Key:**

- ✓ - Approved
- ✗ - Not approved

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19. Doors are classified as the following types:

**Type MM** - 20 minute to 240 minute doorsets that consist of metallic leaves in metallic frames that do not contain intumescent materials in the frame to leaf gap.

**Type IMM** - 20 minute to 240 minute doorsets that consist of metallic leaves in metallic frames that contain intumescent materials in the frame to leaf gap.

**Type ITT** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of non-metallic faced and edged leaves hung in timber frames

**Type ITM** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of non-metallic faced and edged leaves hung in metal frames.

**Type ITC** - 20 minute to 120 minute doorsets containing intumescent seals and consisting of non-metallic faced and edged leaves hung in proprietary composite frames, of which the principal material is other than timber or metal but which may include any other materials.

#### Classification codes

The above approval provides the following classifications:

H207/8/9/10/11 – Stainless Steel Hinges

4	7	6	1	1	4	0	13
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H207/8/9/10/11 – Mild Steel Hinges

4	7	6	1	1	3	0	13
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H201/6 – Mild Steel & Stainless Steel Hinges

3	7	4	1	1	1	0	11
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### HI-LOAD HINGES – CONCEALED BEARING SERIES

#### Further Information

Further information regarding the details contained in this data sheet may be obtained from Royde & Tucker Limited (Tel: 01462 444444).

Further information regarding the CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).

Page 7 of 7 Signed  
E/004

Two handwritten signatures in black ink, one appearing to be "Paul" and the other "Hogg".

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