



# DET NORSKE VERITAS

## EC-TYPE EXAMINATION CERTIFICATE

- [2] **EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC**
- [3] EC-Type Examination Certificate Number: **DNV 06 ATEX 0369X** Rev. 2
- [4] Equipment or Protective System: **Ignitor Assembly**
- [5] Applicant – Manufacturer or Authorized representative: **Champion Aerospace LLC**
- [6] Address: **P.O. Box 686, 1230 Old Norris Road,  
Liberty, SC 29657-0686, USA**
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV, notified body number 0575 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
  
The examination and test results are recorded in confidential reports listed in section 14.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 60079-0: 2012 and EN 60079-1:2007**
- [10] If the sign “X” is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protected system. If applicable, further requirements of this Directive apply to the manufacturer and supply of this equipment or protective system.
- [12] The marking of the equipment or protective system shall include the following:

	<b>II 2 G</b>	<b>Ex d IIB+H2 T5 Gb, -20°C ≤ T<sub>amb</sub> ≤ +85°C</b>
	<b>II 2 G</b>	<b>Ex d IIB T5, -20°C ≤ T<sub>amb</sub> ≤ +85°C</b>

Høvik, 2013-05-03  
for Det Norske Veritas AS

Bjørn Spongsveen  
*Certification Manager*



Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.  
The digitally signed and electronically distributed document is the original and valid certificate. Ref.: [www.dnv.com/digitalsignatures](http://www.dnv.com/digitalsignatures)

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300,000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



[13]

## Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE No.:** DNV 06 ATEX 0369X

Rev 2

### Certificate History

Revision	Description	Report no.	Issue date
-	Original certificate	2006-3423	2006-10-30
1	Updated obsolete standards and reformatted certificate number	2009-3636	2009-11-27
2	Type 305136 Exciter includes H2 in the gas group. Gas group changed from IIB to IIB + H2.	2013-3181	2013-05-03

[15] **Description of Equipment or Protective System**

The ignition exciter compizes aluminium Ex d that contains up to 8 solid state ignition switching devices. The Ignition Exciter is supplied with enclosure compatible output adaptors for connection to Champion ignition leads and ignitors (spark plugs) mounted in a gas turbine. The leads are protected by a nickel iron condit type 51751.

### Type Identification & Electrical data:



#### 305136 Exciter

	305136 Exciter	Electrical Data	305136
<b>Adaptor</b>	CH71012	<b>Input Voltage:</b>	18 – 28 VDC
<b>Ignition Lead</b>	53363-DS	<b>Input Current:</b>	2.5A (max) 1.6A (nominal)
<b>Ignitor (Spark Plugs)</b>	CH34736-1 or CH38923	<b>Power Consumption:</b>	60W (peak) 32W Average

#### CH92099 Exciter

	CH92099 Exciter	Electrical Data	CH92099
<b>Adaptor</b>	CH71024	<b>Input Voltage:</b>	18 – 28 VDC
<b>Ignition Lead</b>	CH53518-DS	<b>Input Current:</b>	10A (max) 6A (nominal)
<b>Ignitor (Spark Plugs)</b>	CH34813-1	<b>Power Consumption:</b>	150W (peak) 75W Average

### Ex Marking

305136 Exciter	 II 2 G Ex d IIB+H2 T5 Gb, -20°C ≤ T <sub>amb</sub> ≤ +85°C
CH92099 Exciter	 II 2 G Ex d IIB T5 -20°C ≤ T <sub>amb</sub> ≤ +85°C

**Degrees of protection (IP Code):** IP66

[16] **Project No.:** PRJC-183508-2009-PRC-USA

### Descriptive Documents

Number	Title	Rev.	Date
IS-124	CH92099 Schedule drawing	B	2009-10-30
IS-130	305136 Schedule drawing	D	2013-04-30

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**[17] Special Conditions for Safe Use**

Manufacturer shall perform a routine pressure test on all Ignition Leads at a minimum of pressure of 15bar for 1 minute.

The connector to the spark plug must not be opened when the equipment is energized

**[18] Essential Health and Safety Requirements**

See part 9 of this certificate

END OF CERTIFICATE

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300.000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.