

TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- Type Examination Certificate Number:** ETL22ATEX0241X **Issue 01**
- Product:** Igniter Plug
- Manufacturer:** Champion Aerospace LLC
- Address:** 1230 Old Norris Road
PO Box 686
Liberty, SC 29657-3508
United States of America
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing Services NA Ltd., certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of the products intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN IEC 60079-7:2015/A1:2018 except in respect of those requirements referred to within item 14 of the Schedule
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
- This Type Examination Certificate relates only to the design of the specified product and not to specific items subsequently manufactured.
- The marking of the product shall include the following:

II 3 G

Ex ec IIC Tx Gc



Where :

Tx = T3, -60 °C ≤ Ta ≤ +60 °C

Tx = T1, -60 °C ≤ Ta ≤ +260 °C

Certification Officer: _____

Todd L. Relyea
30 October 2023 1105496346

Todd L. Relyea

Date: _____

30 October 2023

SCHEDULE:

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11. Description of Equipment or Protective System

The Igniter Plug is for a Gas Turbine in an ambient range of 60° C to +60° C for T3 or -60° C to +260° C for T1. This assembly is comprised of an Ignition Lead attached to a Spark Plug Igniter. The ignition leads and igniters vary in length and are equipped with straight or 90 degree elbow fittings. The end of the Igniter, which ignites the mixture within the gas turbine, is sealed from the end that connects to the Ignition Lead by an internal hermetic seal and a specific Igniter Plug support that allows it to penetrate the casing of the gas turbine. This end of the igniter is considered to be in a non-classified area and is not covered by this certification. Therefore, this report pertains to the portion of the ignition lead assembly from the threaded connection on the igniter end to the conduit sealing fitting before the electrical enclosure.

The igniter is mounted securely to the engine via a custom stainless steel mounting assembly which also provide earthing for the igniter. The lead cable is threaded to the end of the igniter and the other end shall be terminated in a suitably approved for the ignition source (not covered by this certificate).

The Ignition Lead has an electric cable with a center conductor of stranded wire that runs the full length. This electrical cable is installed in a flexible metal conduit, which has a convoluted inner core and an outer jacket of braided stainless steel wire (not covered by this certificate).

The below tables describe the models number associated with the various lengths and end fittings for this assembly.

Table 1		
Champion Part #	Igniters	Length
CH31966-1	362A3951P001	23.00 in (584.2 mm)
CH31966-2	362A3953P003	23.00 in (584.2 mm)

12. Report Number

Intertek Report: 105163225CRT-002 Issue: 0 Dated: 28 April 2023 and Intertek Report: 105496346CRT-002 Issue: 0 Dated: 20-October-2023.

13. Conditions of Certification

(a). Special Conditions of Use

- ATEX approved seal fitting must be installed between the connected conduit seal and the electrical enclosure.
- The external exciter electrical enclosure must be properly grounded.

(b). Conditions of Manufacture – Routine Tests

- EN IEC 60079-7 – Dielectric Tests (Clause 7.1) – Carried out in accordance with 6.1 (2300Vrms for at least 1 minute) and alternatively, a test shall be carried out at 1.2 times the test voltage but maintained for at least 0.1 seconds.

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14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) affected by this variation have been identified and assessed in Intertek Report: 105496346CRT-002 Issue: 0 Dated: 20-October-2023.

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Igniter Assembly – Component Parts and Processes	31966-1PP	B	04/27/2012
Igniter CH31966-1 (Datasheet)	CH31966-1	--	--
Igniter CH31966-2 (Datasheet)	CH31966-2	--	--

16. Details of Certificate changes Issue 1

- Updated ambient temperature range from $-40^{\circ}\text{C} \leq T_a \leq +260^{\circ}\text{C}$ to $-60^{\circ}\text{C} \leq T_a \leq +260^{\circ}\text{C}$ and added ambient temperature range $-60^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$.
- Added Temperature Class T3.
- Added Drawing CH31966-2.