# OPTIONAL HPi OXYCUTTING IGNITER

**SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE**

**INSTALLATION No 07054620NG/ 07054624NG**

EDITION : EN
REVISION : C
DATE : 02-2019

Instructions for use

REF. : **8695 4181**

***Original instructions***

**Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.**

**Its design, component specifications and workmanship comply with applicable European directives.**

**Please refer to the enclosed CE declaration to identify the directives applicable to it.**

**The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.**

**For your safety,there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.**

**Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.**

# CONTENTS

# INFORMATION

## DISPLAYS AND PRESSURE GAUGES

The measuring devices or displays for voltage, current, speed, pressure, etc., whether analog or digital, should be considered as indicators

For operating instructions, adjustments, troubleshooting and spare parts see safety instructions for use and maintenance

# REVISIONS

**REVISION B** **04/17**

| DESIGNATION | PAGE |
|---|---|
| 07085063->W000401132 (G4)<br>+ W000401825 (G8) | 14-15 |

**REVISION C** **02/19**

| DESIGNATION | PAGE |
|---|---|
| To change logos | |

# A - SAFETY INSTRUCTIONS

For general safety instructions, please refer to the specific manual supplied with the equipment.(8695 7050 and 8695 4180)

Safety is heightened if the operator does not need to manually ignite the torches.

However, because ignition uses fuel gas, the following precautions must be taken:

- If a torch does not light, disable the torch or put out all the torches. That is because in such a case, the discharge of oxygen and fuel can present an explosion or fire hazard.
- If any maintenance is carried out on the ignition gas line, the tightness of each fitting removed must be tested before putting back into service.
- Do not disconnect the igniter cable, because there is a risk of electromagnetic disruption.

# B - DESCRIPTION

This option allows ignition to be obtained from the control console, using a pilot flame located near the different torches

One option is required per torch. It comprises:

the ignition box
the pilot flame and its gas supply
the cables and pipes necessary for its operation

## 1 - SPECIFICATIONS

This option is designed to be interfaced with the HPI oxycutting method (see instructions 8695 4180)

There is a specific option for propane, another for acetylene.

Principle:

When a request is made to ignite the torch, the pilot valve opens (for a time set in the factory settings) and the fuel mixes with air in the hose. At the same time, the piezoelectric cell is powered and emits sparks: the pilot light appears

At the same time, the valves (fuel and oxygen) are opened: the flame is transmitted to the torch.

This ignition stage takes place at the overheating setting (fuel gas and oxygen).

At the end of the ignition stage, the pilot light goes out.

## 2 - COMPOSITION

There are different parts depending on the fuel gas used for oxycutting:

| Part no. | Fuel gas |
|---|---|
| **07054620NG** | *Propane,* natural gas Flamal |
| **07054624NG** | *Acetylene* |

# C - OPERATOR MANUAL

## 1 - CONTROLS

There are no specific controls for this option.

All the UI controls are available in the instructions 8695 4948.

## 2 - ADJUSTMENT

If the pilot light flame is too large and unstable, or too short, adjust the air intake with the ring located on the pilot light hose (supplied with the hose, ref. G3).

# D - MAINTENANCE

## 1 - SERVICING

- So that the machine continues to provide good service for as long as possible, a certain minimum of care and maintenance is necessary
- The frequency of this maintenance work is given on the basis of the production of one work station per day. Maintenance should be more frequent if production is greater.

Your maintenance department may photocopy these pages so that it can follow up maintenance dates and operations (tick as appropriate)

| Monthly | | |
|---|---|---|
| Date of maintenance : / / | | |
|  | | - Check that the gas circuit operates properly: pressure gauge, pressure regulator, electrovalve, valve, couplings, etc.<br>Note : any piping showing the slightest signs of fatigue, wear, damage, should be replaced by a standard identical pipe. |
| | | - Check the condition of all the electrical cables, especially near the torches and in the cable support chain (change them if required). |

While replacing components of the gas or pneumatic circuit, oxygen-compatible glue must be used for glued fittings and identical components (see references in list of spare parts).

**Never use a greasy substance (such as oil or grease).**
Before reassembly, apply either “1000 bulles” leak detector or soapy water on the plug thread.

We recommend replacing the pipes
- at the first sign of fatigue, wear and tear or damage
- no later than after every 3 years by the user in case of heavy-duty use,
- no later than after every 5 years in all other cases.

We recommend replacing the flame arrester non-returns:
- As soon as flame return occurs
- No later than after three years of use.

**Caution:**

**Follow the rules below if a pipe or valves are replaced:**

- **Use the spare parts recommended in this documentation.**
- **The pipes are standardised (colour, composition); they must be replaced by identical pipes. Gas pipes MAY NOT BE REPAIRED.**
- **The fittings must be changed, as they may be damaged while changing the pipes.**
- **Fittings must be degreased and cleaned of dust before assembly: risk of explosion.**
- **To change a valve on the unit, first take the line off its support, then take the valve off the line.**
- **Olive type fittings are screwed on directly.**
- **Adhesive must be applied on other fittings and valves. The adhesive must be compatible with oxygen. Risk of explosion.**
- **If acetylene is being used, tighten the fittings to standardised torque according to the diameter (please contact us). Risk of leaks and fire.**
- **The pipes in the cable drag chains many not be under strain, as that could lead to premature wear.**
- **A leak test (e.g. with 1000 bulles bubble leakage tester) must be carried out after each repair operation. Risk of explosion.**

**Caution:**

**Whenever a flame arrester non-return is faulty, it must be replaced. No cutting without anti-return. Risk of explosion and fire.**

## 2 - TROUBLESHOOTING

Torch ignition faults can have several causes. The most common are as follows:

- Excessively low fuel pressure. Check the pressure and change the supply if needed
- Gas outlet blocked by impurity. Clean the pilot outlet.
- Fire-screen non-return worn. Replace the non-return.

If the torch goes on, and then goes out while cutting or overheating, change the gas pressure or the ramp time in the cutting tables.

Alarms:

If there is an alarm on the UI, please refer to documentation 8695 4180

# 3 - SPARE PARTS

**How to order**

The photos or sketches identify nearly every part in a machine or an installation

**The descriptive tables include 3 kinds of items:**

- **those normally held in stock:** ✔
- **articles not held in stock:** ✘
- **those available on request:** **no marks**

(For these, we recommend that you send us a copy of the page with the list of parts duly completed. Please specify in the Order column the number of parts desired and indicate the type and the serial number of your equipment.)

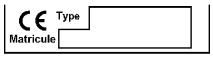
For items noted on the photos or sketches but not in the tables, send a copy of the page concerned, highlighting the particular mark.

**For example:**

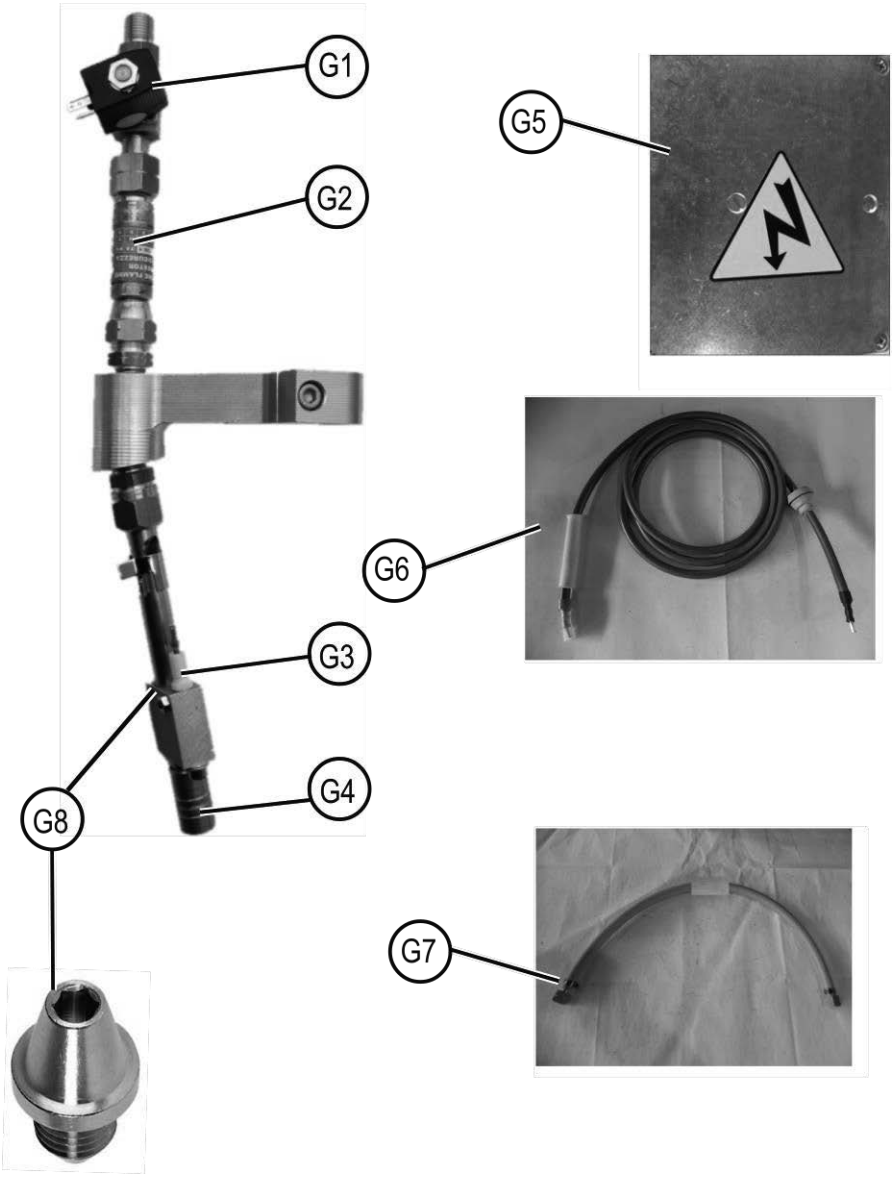
| | |
|---|---|
| ✔ | normally in stock |
| ✘ | not in stock |
| | on request |

| Item | Ref. | Stock | Order | Designation |
|---|---|---|---|---|
| **1** | W000XXXXXX | ✔ | | Machine interface board |
| **2** | W000XXXXXX | ✘ | | Flowmeter |
| **3** | 9357 XXXX | | | Silk-screen printed front panel |

- For parts order, give the quantity required and put the number of your machine in the box below.



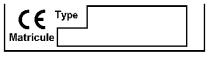

| |
|---|
| TYPE: |
| Number: |


G1
G2
G3
G4
G5
G6
G7
G8

| | |
|---|---|
| ✔ | normally in stock |
| ✘ | not in stock |
| | on request |

| Item | Ref. | Stock | Order | Designation |
|---|---|---|---|---|
| **G1** | W000381937 | ✔ | | 2/2 NF 4 bar 24VCC solenoid valve **Propane** |
| **G1** | W000381938 | ✔ | | 2/2 NF 4 bar 24VCC solenoid valve **Acetylene** |
| **G2** | W000290913 | ✔ | | Fuel gas flame arrester<br>=> MACH OXY - MACH HP |
| **G3** | W000138675 | ✔ | | Electrode |
| **G4** | W000401132 | | | Ignition pipe **Propane** natural gas |
| **G4** | W000138691 | ✔ | | Ignition pipe **Acetylene** |
| **G5** | W000381944 | ✔ | | Equipped igniter unit |
| **G6** | W000381945 | ✔ | | Igniter bundle |
| **G7** | 0705 2948 | | | Pipe for **Propane**(12m, orange) + fittings |
| **G7** | 0705 2949 | | | Pipe for **Acetylene** (12m, red) + fittings |
| **G8** | W000401825 | ✔ | | Injector |
| | W000381948 | ✔ | | Strong adhesive compatible with oxygen 250mL |

- For parts order, give the quantity required and put the number of your machine in the box below.




TYPE:

Number:

# PERSONAL NOTES

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