

# ChamPro®

## weld



## TIG WELDING TORCH MODELS TK9 & TK13

PART NO: 6012236 & 6012239

## OPERATING & MAINTENANCE INSTRUCTIONS

UK  
CA | CE

GC0124

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## INTRODUCTION

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Thank you for purchasing this CLARKE Welding Torch.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

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## GUARANTEE

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

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## GENERAL SAFETY PRECAUTIONS

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**WARNING: IN ADDITION TO THE FOLLOWING PRECAUTIONS, YOU SHOULD READ, AND FULLY COMPLY WITH, ALL INSTRUCTIONS AND SAFETY PRECAUTIONS THAT WERE SUPPLIED WITH YOUR TIG WELDER. PLEASE KEEP THESE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE.**

1. **NEVER** point the torch at any person or animal.
2. **NEVER** touch the nozzle unless the welder is switched **OFF** and the nozzle has been allowed to cool off.
3. **NEVER** connect, disconnect, or attempt to service the torch, unless the welder is switched **OFF** and disconnected from the mains power supply.
4. **NEVER** allow the cables to become wrapped around the operator or anyone in the vicinity.
5. When welding, users and bystanders must **ALWAYS** use a protective headshield fitted with the correct shade of lens. Failure to do so can cause serious damage to your eyes.

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## INVENTORY AND APPLICATION

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Unpack and lay out the components, checking against the following list. Any damage which may have been incurred in transit should be reported to your CLARKE dealer immediately.

**The TK9 is designed for use with a 9mm socket.**

**The TK13 is designed for use with a 13mm socket.**

The welding torch comprises the following items:)

- 1 x Torch body with 3.8 metre cable (TK9) / 3.7m cable (TK13)
- 1 x 5mm gas shroud
- 1 x 6mm gas shroud
- 1 x 7mm gas shroud
- 1 x tip adaptor
- 3 x Tungsten sleeves
- 1 x Stubby black cap
- 1 x Long black cap
- Tungsten needles 1.6 & 2.4mm

**CLARKE welders that can use these welding torches are as follows;**

**TK9 Torch (9mm socket)**

Multi-Mig 120

AT165

MMA120/160/200

MIG150 Multi

**TK13 Torch (13mm socket)**

MIG200 S-Multi

MIG250 Multi

MIG270DV Multi

## ASSEMBLY

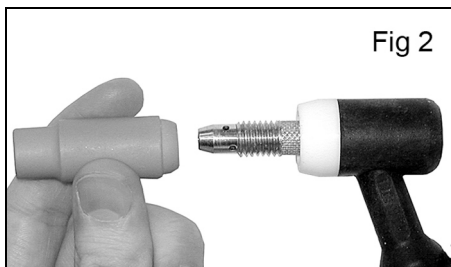
A complete torch assembly with electrode, is supplied and is assembled as follows:

1. Screw the collet body into the head of the torch, (Fig.1) and tighten finger tight.

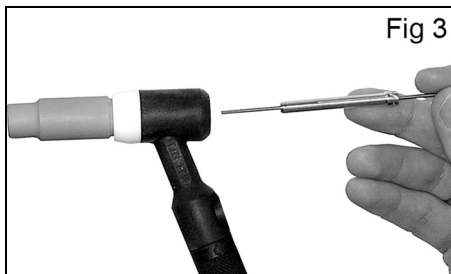


2. Screw on the ceramic nozzle insulator (Fig 2).

**NOTE:** Before assembly, file or grind the tip of the electrode to a point (from 40° to 60°), as this will give optimum performance.



3. Pass the electrode through the collet from the shoulder end and insert the collet into the collet body through the rear of the torch, with its shoulder facing the rear as in Fig 3.



4. Pass the electrode through, so that it protrudes from the nozzle by approx 10 mm and screw on the rear end cap.

If welding space is likely to be restricted, the short end cap should be used in conjunction with an electrode of reduced length. Otherwise use the long end cap and standard electrode.

5. As the end cap tightens, the electrode will be gripped and secured in position. Whilst it is still possible for the electrode to move, adjust it so that it protrudes from the nozzle by 4 - 5mm, and then tighten the end cap against the rubber O-ring. The electrode will now be secured in position. Your torch assembly is now ready for use.



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## GAS SUPPLY

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it will be necessary to procure a supply of pure ARGON gas and a suitable gas regulator.

Attach the gas hose to the pressure regulator, securing with a worm drive clip and the pressure regulator to the gas bottle, ensuring the connection is perfectly gas tight. Pressure is regulated by turning the control knob on the regulator.

**ALWAYS** release the pressure from the regulator when not in use, and remember to turn **OFF** the gas supply as soon as you have finished welding.

**ALWAYS** close the cylinder valve before attempting to change an empty cylinder.

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## CONNECTIONS

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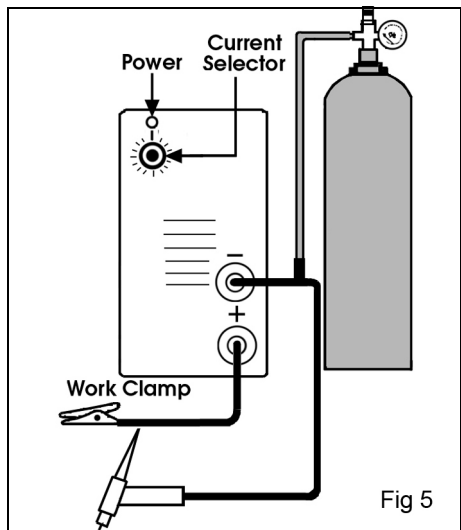
Before connecting the torch to the welder, ensure the welder is switched **OFF**, and disconnected from the mains supply.

It is important to note that the torch cable male DIN connector, is plugged into the **NEGATIVE** terminal of the welder as shown in Fig 5, otherwise the tungsten electrode will melt.

**The earth clamp cable is connected to the POSITIVE terminal.**

Connect the earth clamp from the welder to the workpiece choosing an area of bare metal, free from rust, paint or oil etc.

Fig 5 illustrates a typical connection.



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## OPERATION

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There are three methods generally employed for producing the initial arc for TIG welding.

On smaller, DIY machines, a 'scratch arc' method is used where the electrode is 'scratched' against the workpiece to strike an arc, similar to normal arc welding. Other machines employ a 'lift arc' method, which is similar to scratch arc in that the electrode must touch the workpiece, but a far greater degree of control is available. Others are fitted with a High Frequency unit which allows the arc to form once the electrode is brought to within a specified distance from the workpiece.

If you are unfamiliar with TIG welding, you should consult the manual supplied with your TIG welder, where full details of its operation should be given.

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## MAINTENANCE

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The torch and cable should be inspected before use, to ensure it is undamaged. Replace any part which is suspect and ensure all connections are firmly secured before switching on the welder.

Consumable component (electrodes, nozzles etc) are listed in the parts list on page 7.

Do not dispose of welding products with general household waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of appropriately.

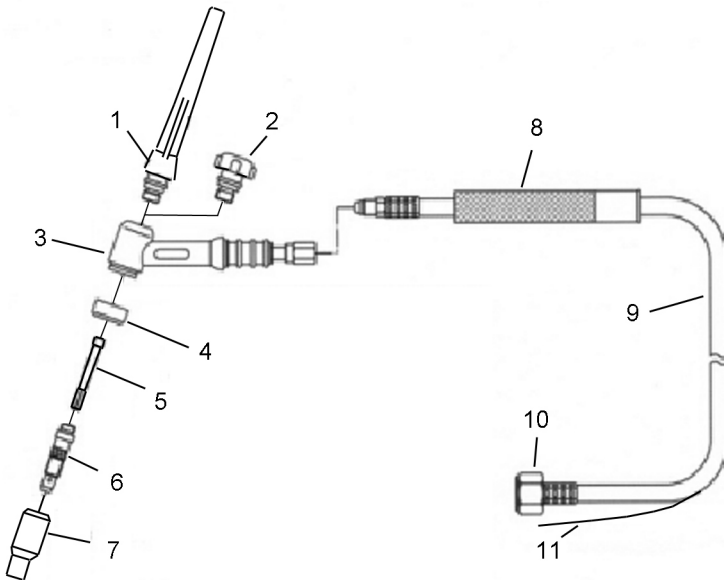
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## ACCESSORIES

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Regulator	Part No: 8134140
Argon (60 bar)	Part No: 6000661
Argon (110 bar)	Part No: 6000663

# COMPONENT PARTS



No	Description
1	Long Cap
2	Short Cap
3	Torch Head
4	Insulator
5	Collecting Body
6	Electrode

No	Description
7	Ceramic Tip
8	Handle
9	Connecting Cable
10	Coupling
11	Gas Hose

# TK9 DECLARATION OF CONFORMITY - UK



Hemnal Street, Epping, Essex, CM16 4LG

## DECLARATION OF CONFORMITY

**This is an important document and should be retained.**

**We hereby declare that this product(s) complies with the following legislation:**

*The Electrical Equipment (Safety) Regulations 2016*

*The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012*

**The following standards have been applied to the product(s):**

*EN IEC 60974-1:2018+A1:2019, IEC 62321-4:2013/AMD1:2017, IEC 62321:2013, IEC 62321-1:2013,*

*EN IEC 60974-7:2019, IEC 62321-8:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-2:2013,*

*IEC 62321-3-1:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017*

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

**The UKCA mark was first applied in: 2023**

**Product Description:** Welding Torch  
**Model Number(s):** TK9  
**Serial/Batch Number:** Refer to product/packaging label  
**Date of Issue:** 03/11/2023

**Signed:**

J.A Clarke

Director



# TK9 DECLARATION OF CONFORMITY - CE



**Clarke**<sup>®</sup>  
**INTERNATIONAL**

Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

## DECLARATION OF CONFORMITY

**This is an important document and should be retained.**

**We hereby declare that this product(s) complies with the following legislation:**

2014/35/EU                      *Low Voltage Directive*  
2011/65/EU                      *Restriction of Hazardous Substances (RoHS) Directive*

**The following standards have been applied to the product(s):**

*EN IEC 60974-1:2018+A1:2019, IEC 62321-4:2013/AMD1:2017, IEC 62321:2013, IEC 62321-1:2013,  
EN IEC 60974-7:2019, IEC 62321-8:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-2:2013,  
IEC 62321-3-1:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017*

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

**The CE mark was first applied in: 2023**

**Product Description:**                      Welding Torch  
**Model Number(s):**                          TK9  
**Serial/Batch Number:**                      Refer to product/packaging label  
**Date of Issue:**                                03/11/2023

**Signed:**

**J.A Clarke**  
**Director**

# TK13 DECLARATION OF CONFORMITY - UK



Hemnal Street, Epping, Essex, CM16 4LG

## DECLARATION OF CONFORMITY

**This is an important document and should be retained.**

**We hereby declare that this product(s) complies with the following legislation:**

*The Electrical Equipment (Safety) Regulations 2016*

*The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012*

**The following standards have been applied to the product(s):**

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*IEC 62321-3-1:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017*

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

**The UKCA mark was first applied in: 2023**

**Product Description:** Welding Torch  
**Model Number(s):** TK13  
**Serial/Batch Number:** Refer to product/packageing label  
**Date of Issue:** 03/11/2023

**Signed:**

**J.A Clarke**

**Director**

# TK13 DECLARATION OF CONFORMITY - CE



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Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

## DECLARATION OF CONFORMITY

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**We hereby declare that this product(s) complies with the following legislation:**

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**Date of Issue:**                                03/11/2023

**Signed:**

**J.A Clarke**

**Director**

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