



270A PROFESSIONAL GAS/GASLESS MIG WELDER WITH BINZEL® EURO TORCH

MODEL NO'S: **SUPERMIG275.V3**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instruction manual



Wear a welding mask



Wear protective gloves



Warning! Electricity Shock hazard



Warning! Keep away from rain



Caution required



Arc rays can burn eyes and injure skin



Electric shock from welding electrodes can kill



Welding sparks can cause explosions or fire



Breathing welding fumes can be hazardous to your health



Electromagnetic fields can cause pacemaker malfunction

NOTE:

Diagrams of internal components are for reference only. There may be detail differences in the components of your welder but these will not affect its operation.

1. SAFETY

1.1. ELECTRICAL SAFETY

- WARNING!** It is the user's responsibility to check the following:
- ✓ Check all electrical equipment and appliances to ensure that they are safe before using. Inspect power supply leads, plugs and all electrical connections for wear and damage. Sealey recommend that an RCD (Residual Current Device) is used with all electrical products.
- ✓ **Electrical safety information.** It is important that the following information is read and understood:
- ✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
- ✓ Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that they are secure.
- ✗ **Important:** Ensure that the voltage rating on the appliance suits the power supply to be used and that the plug is fitted with the correct fuse.
- ✗ **DO NOT** pull or carry the appliance by the power cable.
- ✗ **DO NOT** pull the plug from the socket by the cable.
- ✗ **DO NOT** use worn or damaged cables, plugs or connectors. Ensure that any faulty item is repaired or is replaced immediately by a qualified electrician.

If the cable or plug is damaged during use, switch off the electricity supply and remove from use.

Ensure that repairs are carried out by a qualified electrician.

- ✗ **DO NOT** use with medical implants. Ensure the unit is correctly earthed via a three-pin plug.
- ✓ Cable extension reels. When a cable extension reel is used it should be fully unwound before connection. A cable reel with an RCD fitted is recommended since any product which is plugged into the cable reel will be protected. The section of the cable on the cable reel is important and should be at least 1.5mm², but to be absolutely sure that the capacity of the cable is suitable for this product and for others that may be used in the other output sockets, we recommend the use of 2.5mm² section cable.
- WARNING!** Be very cautious if using a generator to power the welder. The generator must be self-regulating and stable with regard to voltage, wave form and frequency. The output must be greater than the power consumption of the welder. If any of these requirements is not met the electronics within the welder may be affected.
- NOTE: The use of an unregulated generator may be dangerous and will invalidate the warranty on the welder.
- WARNING!** The welder may produce voltage surges in the mains supply which can damage other sensitive equipment (e.g. computers). To prevent this happening, it is recommended that the welder is connected to a power supply that does not feed any sensitive equipment.
- IMPORTANT:** If using welder to full capacity, we recommend a 16amp supply. We recommend you discuss the installation of a 16amp industrial round pin plug and socket with your electrician.

1.2. GENERAL SAFETY

- ▲ **DANGER! Unplug the welder from the mains power supply before performing maintenance or service.**
- ✗ Welding power sources are not suitable for use in rain or snow.
- ✗ The output is rated at an ambient temperature of 20°C and the welding time may be reduced at higher temperatures
- ✓ The unit must be placed on a flat, level surface to reduce risk of toppling over.
- WARNING!** Risk of electric shock: Electric shock from welding electrode can kill. **DO NOT** weld in the rain or snow. Wear dry insulating gloves. **DO NOT** touch electrode with bare hands. **DO NOT** wear wet or damaged gloves. Protect yourself from electric shock by insulating yourself from workpiece. **DO NOT** open the equipment enclosure.
- WARNING!** Risk induced by welding fumes: Breathing welding fumes can be hazardous to your health. Keep your head out of the fumes. Use equipment in an open area. Use ventilating fan to remove fumes.
- WARNING!** Risk induced by welding sparks: Welding sparks can cause explosion or fire. Keep flammables away from welding. **DO NOT** weld near flammables. Welding sparks can cause fires. Have a fire extinguisher nearby and have a watchperson ready to use it. **DO NOT** weld on drums or any closed containers.
- WARNING!** Risk induced by the arc: Arc rays can burn eyes and injure skin. Wear hat and safety glasses. Use ear protection and button shirt collar. Use welding helmet with correct shade of filter. Wear complete body protection.

- ❑ **WARNING!** Risk induced by electromagnetic fields: Welding current produces electromagnetic field. **DO NOT** use with medical implants.
- ✘ **DO NOT** coil welding cables around your body. Route the welding cables together.
- ✓ Keep the welder and cables in good working order and condition. Take immediate action to repair or replace damaged parts. And route the welding cables together.
- ✓ Use genuine parts and accessories only. Unapproved parts may be dangerous and will invalidate the warranty.
- ✓ Use an air hose to regularly blow out any dirt from the liner and keep the welder clean for best and safest performance.
- ✓ Check and spray the gas cup and contact tip regularly with anti-spatter spray, available from your Sealey stockist.
- ✓ Locate welder in a suitable work area. Ensure that the area has adequate ventilation as welding fumes are harmful.
- ✓ Keep work area clean, tidy and free from unrelated materials. Also ensure the working area has adequate lighting and that a fire extinguisher is at hand.
- ✓ Remove ill fitting clothing, remove ties, watches, rings and other loose jewellery and contain long hair.
- ✓ Ensure the workpiece is correctly secured before welding.
- ✓ Avoid unintentional contact with the workpiece. Accidental or uncontrolled use of the torch may be dangerous and will wear the nozzle.
- ✓ Keep unauthorised persons away from the work area. Any persons working within the area must wear a protective head shield and gloves.
- ✓ Operators must receive adequate training before using the welder.
- ✓ Stand correctly keeping a good footing and balance, ensure the floor is not slippery and wear non-slip shoes.
- ✘ **DO NOT** operate the welder if it or the cables are damaged and **DO NOT** attempt to fit any unapproved torches or other components to the welder.
- ✘ **DO NOT** get welder wet or use in damp or wet locations or areas where there is condensation. **DO NOT** use welder on uneven ground.
- ▲ **DANGER! DO NOT** weld near flammable solids, liquids or gases and **DO NOT** weld containers or pipes which have held flammable materials. Avoid welding materials which have been cleaned with chlorinated solvents. **DO NOT** use power source for pipe thawing.
- ✘ **DO NOT** stand welder on a metal workbench, car bodywork or similar.
- ✘ **DO NOT** touch any live metal parts of the torch or electrode while the machine is switched on.
- ✘ **DO NOT** pull the welder by the cable, or the torch. Protect cables from sharp or abrasive items. **DO NOT** bend, strain or stand on cables or leads.
- ✘ **DO NOT** wear wet or damaged gloves.
- ✘ **DO NOT** open the equipment enclosure while welder is switched on.
- ✓ Protect from heat. Long lengths of slack must be gathered and neatly coiled. **DO NOT** place cables where they endanger others.
- ✘ **DO NOT** touch the torch or workpiece immediately after welding as they will be very hot. Allow to cool.
- ✘ **DO NOT** operate welder while under the influence of drugs, alcohol or intoxicating medication, or if tired. When not in use store the welder in a safe, dry, childproof area.

1.3. GAS SAFETY

- ✓ Store gas cylinders in a vertical position only and ensure the storage area is correctly secured.
- ✘ **DO NOT** store gas cylinders in areas where the temperature may exceed 50°C. **DO NOT** use direct heat on a cylinder. Always keep gas cylinders cool.
- ✘ **DO NOT** attempt to repair or modify any part of a gas cylinder or valve and **DO NOT** puncture or damage a cylinder.
- ✘ **DO NOT** obscure or remove any official labels on a cylinder. Always check gas identity before use. Avoid getting gas cylinders oily/greasy.
- ✘ **DO NOT** lift a cylinder by the cap, guard or valve. Always keep caps and guards in place and close valve when not in use.

2. INTRODUCTION

270A Maximum performance. Heavy-duty high output transformer with forced Air Cooling System to maximise duty cycle performance. Excellent continuous performance on car panel thickness material. 3m Binzel® non-live Euro torch reduces accidental arcing and is comfortable in the hand, ensuring a steadier weld bead. Includes industrial gas regulator 2.4m earth cable with clamp, 0.6mm contact tip, 1.0mm contact tip, 1.4m gas hose, hose clamp (x2). Unit is suitable for both gas/gasless welding. For use with CO₂, Argon or CO₂/Argon mix. Proven wire feed system for trouble-free welding. Welds stainless and aluminium.

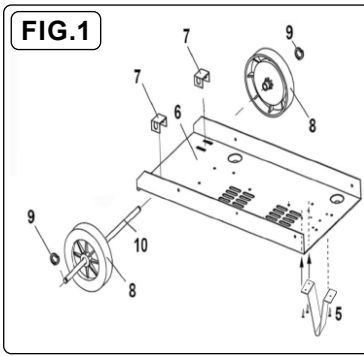
IMPORTANT: These instructions contain information you require to prepare your machine for welding, together with a maintenance and troubleshooting section. If you have no previous experience the instructions are not intended to show you how to become a welder. Should you have no experience, we recommend that you seek training from an expert source. MIG welding is relatively easy to perform, but does require a steady hand and time practising under supervision with scrap metal as it is only with continued practice that you will achieve the desired results.

3. SPECIFICATION

MODEL NO:	SUPERMIG275.V3	Pressure/Flow Rate	0.8Mpa, 0-20L/Min
Absorbed Power:	12.6kW	Nett Weight:	62.2kg
Case Size:	Extra-Large	Plug Type:	Bare Wire
Cooling System:	Forced Air	Power Supply Cable Length:	2m
Duty Cycle:	100% @ 112A	Spot Welding Timer:	Yes
	60% @ 146A	Supply:	230-55A
	20% @ 255A	Torch:	3m Euro Non-Live - BINZEL® MB25
Gas Type:	CO ₂ , Argon, CO ₂ /Argon Mix	Welding Current:	40-270A
EMC Classification	A	Wire Capacity:	5-15kg

IMPORTANT: If using welder to full capacity, we recommend a 16amp supply. We recommend you discuss the installation of a 16amp industrial round pin plug and socket with your electrician.

4. PREPARATION



4.1. ASSEMBLY OF WHEELS (FIG.1)

Drop the axle brackets (7) through the slots in the rear of the bottom tray (6). Attach a circlip (9) to one end of the axle (10) and slide a wheel (8) onto the axle and right up to the circlip. Pass the axle (10) under the tray (6) and through the two protruding brackets (7) until the first assembled wheel is up against the side of the tray. Slide the other wheel (8) onto the other end of the axle (10) and secure it by attaching a circlip (9) to the end of the axle. Place the foot (5) onto the underside of the tray (6) ensuring that the three holes on the foot align with the holes in the tray. Fix the foot in place with three self tapping screws.

4.2. FITTING A REEL OF WIRE (FIG.2 & 3)

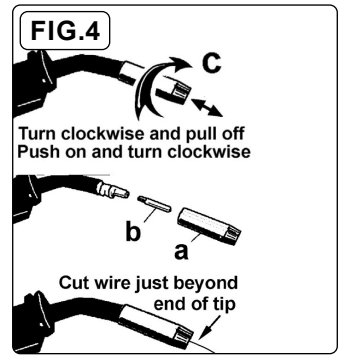
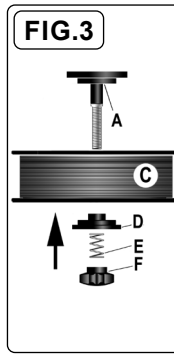
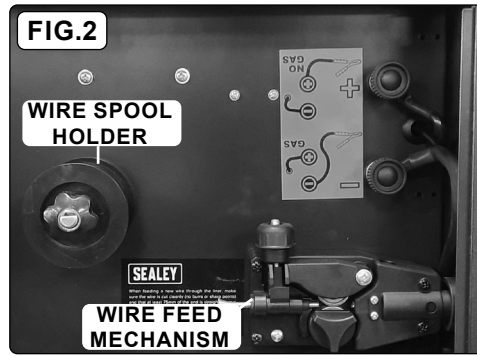
Lift the catch on the side of the welder and open the side compartment to gain access to the wire feed mechanism and wire spool holder (fig.2). Install the wire spool as shown in fig.3. **DO NOT** overtighten the pressure disc as too much braking will conflict with the wire tension set on the wire drive unit. Ensure the wire feeds from the bottom of the spool. Snip the end of the spool with pliers - keep hold of the wire so it does not unravel from the spool. Unlock the wire feed mechanism and feed the wire through the inlet guide, over the drive roll and approximately 100mm into the second inlet guide. Lock the wire feed mechanism whilst still holding the wire to prevent unravelling.

4.3. FEEDING THE WIRE

Remove the nozzle and contact tip from the torch as shown in fig.4. Turn the power on and wire speed up to 10 (fig.5). Ensure there are no bends in the torch. Hold the trigger down and wait for the wire to exit the tip of the torch. Release the trigger. Reinstall the contact tip and nozzle. Cut the excess wire.

4.4. SETTING WIRE TENSION

IMPORTANT: You must set the correct tension, too little or too much tension will cause problematic wire feed and result in a poor weld. Turn the wire lock screw clockwise to increase the tension and anticlockwise to decrease the tension. Correct tension between the rollers is checked by slowing down the wire between gloved fingers. If the pressure roller skids the tension is correct. Try to use the lowest tension possible as tension will deform the wire.



5. CONTROL PANEL

5.1. THERMAL OVERLOAD LIGHT (FIG.5-1)

If the duty cycle is exceeded as a result of welding too long with a high current the yellow overload light will illuminate and the welder will turn off. When the welder has cooled down (approx. 5 to 10 minutes) the power will be restored and welding can recommence.

5.2. POWER ON/OFF SWITCH (FIG.5-2)

When the power is ON the green switch will be illuminated. When the welder is no longer required it should be switched to the OFF position and the power plug should be disconnected from the mains supply.

5.3. VOLTAGE SWITCH (FIG.5-3)

The welder has four voltages settings from A (low) to D (high).

5.4. WIRE SPEED CONTROL KNOB. (FIG.5-4)

Wire speed can be adjusted using the wire speed control knob. As a general rule, a higher voltage requires a higher wire speed.

5.5. SPOT WELD TIMER (FIG.5-5)

The spot weld timer allows the user to set a fixed weld time, typically up to 10 seconds, which is initiated when the gun trigger is pulled. This feature is ideal for making consistent spot welds on thin sheet metal.



6. GASLESS OPERATION

WARNING! ENSURE THAT YOU READ, UNDERSTAND AND APPLY SAFETY INSTRUCTIONS BEFORE OPERATING THE WELDER. IF WELDING A VEHICLE, DISCONNECT THE BATTERY OR FIT AN ELECTRONIC CIRCUIT PROTECTOR.

6.1. CHECK POLARITY (FIG.6)

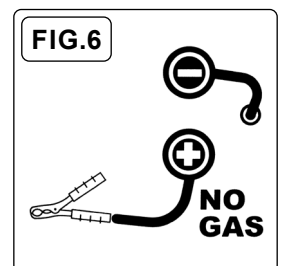
Ensure that the welder is disconnected from the main power supply, open the side panel and check the polarity is correctly set up for gasless operation. The earth clamp wire must be connected to the POSITIVE (+) terminal and the power (torch) lead must be connected to the NEGATIVE (-) terminal.

6.2. EARTH CLAMP

To ensure a complete circuit, the earth clamp must be securely attached to the workpiece. The weld area must also be free of paint, rust, grease, etc. Grind the point of contact on the workpiece before connecting the clamp to ensure the best connection. **NOTE:** If welding a vehicle, disconnect the battery or fit a "Electronic Circuit Protector" (available from your Sealey stockist).

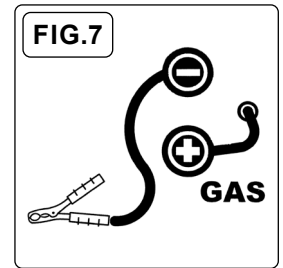
6.3. OPERATION

Set up the current switches to give the required power setting and adjust the wire speed accordingly. During the welding process, wire drawn from the spool is automatically fed through an insulated liner in the torch cable to the torch tip. The torch switch activates the wire feed roller (to stop wire feed release the switch). As wire comes into contact with the workpiece an arc is struck. The arc melts the wire which is deposited into the weld.



7. CONVERSION TO MIG WELDING

For welding stainless steel or aluminium, this welder can be converted to a conventional MIG welder. To convert to gas, order a reel of regular wire, a bottle of suitable gas, tips and nozzles and a conversion kit. Kit 120.802032 contains a regulator plus connection hoses, hose adaptor and jubilee clips.



7.1. CHECK POLARITY (FIG.7)

Ensure that the welder is disconnected from the mains power supply, open the side panel and check the polarity is correctly set up for gas operation. The earth clamp wire must be connected to the NEGATIVE (-) terminal and the power (torch) lead must be connected to the POSITIVE (+) terminal.

7.2. CHECK WIRE FEED ROLLER

If necessary, change and/or turn the wire feed roller (See maintenance section 10) so that the appropriately sized groove is in line with the drive path i.e. in the groove nearest to you.

7.3. FIT REQUIRED WIRE

Fit a reel of steel or aluminium wire (either 0.6 or 0.8mm). Check the wire tension as described in 4.4.

7.4. MOUNT THE GAS CYLINDER

Strap the gas cylinder to the back of the machine. Two nylon straps are provided to hold small cylinders in place. Thread the straps through the raised metal fixing loops on the back of the welder. Stand the gas cylinder on the rear platform and fix the straps around it. Close the flow regulator before screwing it onto the cylinder. Screwing down the regulator will automatically open the cylinder valve. When the sound of gas escaping is heard screw the regulator one further turn only. This will be sufficient to seal the cylinder.

❑ **WARNING!** Excessive tightening of the flow regulator will over-compress the rubber sealing washer and allow the gas to escape slowly without being detected.

7.5. CONNECT GAS CYLINDER TO WELDER GAS INPUT. (KIT 120.802032)

Push the small adaptor into one end of the larger diameter hose. Push the other end of the hose onto the ribbed gas input connector on the back of the welder. Secure both ends of the hose with the jubilee clips provided. Push one end of the smaller diameter gas hose into the open end of the adaptor and push the other end into the regulator outlet, it will seal automatically. To release the gas hose, press the collet inwards on the quick couplers and pull the hose out. Turn the gas regulator knob halfway for a 2L/min flow and all way for maximum flow of 4L/min. **NOTE:** Always remove the flow regulator after use if the machine is to be stored for any length of time.

7.6. GAS TYPES

Welding mild steel with CO₂ gas is appropriate for most welding tasks where spatter and high build up of weld do not pose a problem. To achieve a spatter-free and flat weld however, you must use an CO₂/Argon mixture. To weld aluminium use: Argon gas, 0.8mm Contact Tip, 0.8mm Aluminium Wire (MIG/2/KAL08)

7.7. CYLINDER SIZES

The platform at the rear of the welder will support cylinders up to a diameter of 140mm, a height of 500mm and a maximum weight of 10kg. If you wish to use larger cylinders they must be properly secured to a separate welding trolley. An industrial gas cylinder adaptor kit will be required. Contact your local Sealey stockist to order these items. The following table is estimated duration of cylinders based on a flow rate of 2 litres per minute. Actual duration will be dependant upon various job conditions including the operator's welding technique. All times are therefore approximate.

DISPOSABLE CYLINDERS			
CO ₂ /100 390g	CO ₂ /101 600g	Argon ARG/100 300g	Argon/CO ₂ MIX/100 300g
1-1/4hours	2 hours	1hour	1 hour

7.8. MIG/MAG GAS WELDING PRINCIPLES

Welding wire is automatically fed through an insulated liner to the tip of the torch. The torch consists of a switch, liner, gas hose and control cable. The switch activates the wire feed roller and the gas flow. Releasing the switch stops the wire feed and gas flow. The weld current is transferred to the electrode (the wire) from the contact tip at the torch end. The current switches control the current to the electrode. Wire speed must be adjusted according to current output. The higher the current the faster the wire speed. A gas cup fits over the contact tip to direct gas flow towards the weld, ensuring that the arc welding process is shielded from oxidation. The shielding gas also assists heating of the weld. The torch is connected to the positive side of a DC rectifier, and the negative clamp is attached to the workpiece.

8. RATINGS PLATE

On the front of the welder is the ratings plate, giving the following data:

②	Model No. SUPERMIG275.v3	B/N:	EN60974 - 6			①
③		40A/16V ~ 255A/26.7V				⑧
	U ₀ = 46V	X	20%	60%	100%	
		I ₂	255A	146A	112A	
		U ₂	26.7V	21.3V	19.6V	
④		U ₁ = 230V	I _{1max} = 55A	I _{1eff} = 24.6A		⑥
⑤	IP21S					⑦

1	The standard relating to the safety and construction of arc welding and associated equipment.
2	Single phase transformer - rectifier.
3	Welding with a continuous flow of welding wire.
4	Single-phase AC supply.
5	Rating of internal protection provided by casing.
6	Output: U ₀ : Rated maximum and minimum no load voltage. I ₂ , U ₂ : Current and corresponding voltage. X: Welding ratio based on a 10 minute cycle. 20% indicates 2 minutes welding and 8 minutes rest, 100% indicates continuous welding.
7	Welding current range.
8	Mains Supply U ₁ : Rated supply voltage and frequency. I _{1max} : Maximum current. I _{1eff} : Maximum effective current.

9. MAINTENANCE

▲ **DANGER!** Unplug the welder from the mains power supply before performing maintenance or service.

9.1. WIRE FEED UNIT

Check the wire feed unit at regular intervals. The feed roller wire guide plays an important part in obtaining consistent results. Poor wire feed affects the weld. Clean the rollers weekly, especially the feed roller groove, removing all dust deposits.

9.2. TORCH

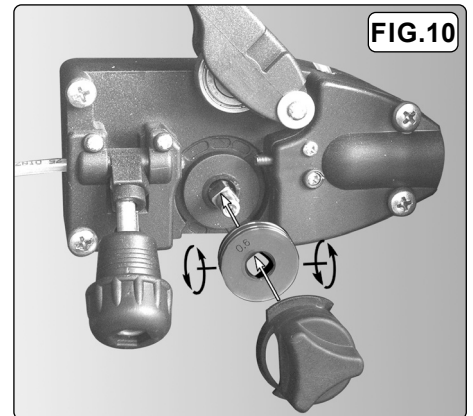
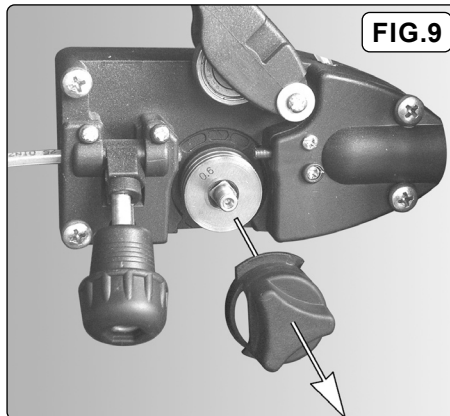
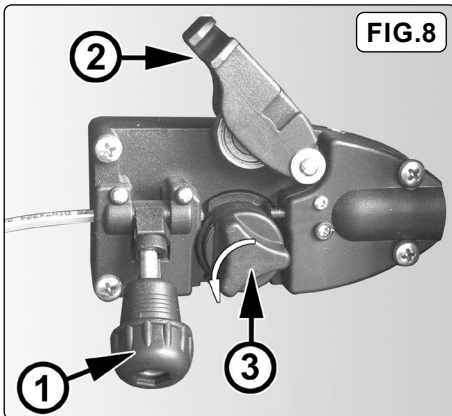
Protect the torch cable assembly from mechanical wear. Clean the liner from the machine forwards by using compressed air. If the liner is blocked it must be replaced.

9.3. CONTACT TIP

The contact tip is a consumable item and must be replaced when the bore becomes enlarged or oval. The contact tip **MUST** be kept free from spatter to ensure an unimpeded flow of gas.

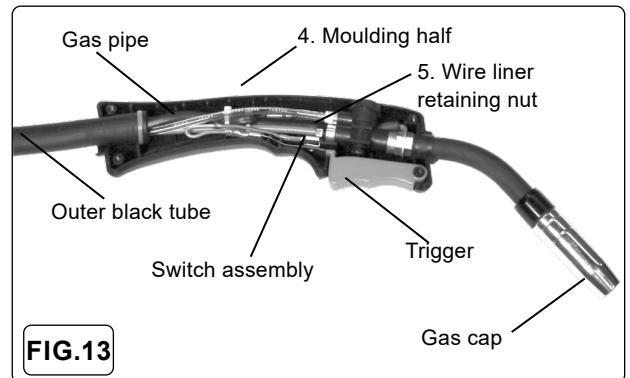
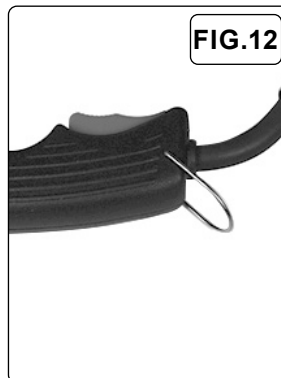
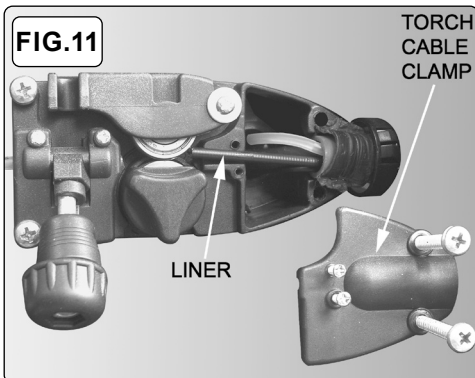
9.4. GAS CUP

The gas cup must also be kept clean and free from spatter. Build-up of spatter inside the gas cup can cause a short circuit at the contact tip which will result in expensive machine repairs. To keep the contact tip free from spatter, we recommend the use of anti-spatter spray (MIG/722307) available from your Sealey stockist.



9.5. TURNING FEED ROLLER (FIG. 8, 9 & 10)

IMPORTANT: Turn the feed roller to suit the wire size. There are two grooves on the feed roller, 0.6mm and 0.8mm. Always have the groove that is being used on the outside of the roller (nearest to you). Loosen the wire tension knob and move it down (fig. 8-1). Move the tensioning roller to the up position (fig. 8-2). Take hold of the knob on the roller retainer and rotate it 90° anticlockwise to release it (fig. 8-3). Pull the roller retainer off the drive spindle (fig. 9). Remove the drive spindle, flip it over and replace (fig. 10). The groove size you require should now be visible printed on the face of the roller. Ensure that the flanges at the base of the retainer, seat fully into the circular recess in the main moulding and then rotate the retainer through 90° to lock it in place.



9.6. REPLACING WIRE LINER (FIG. 11, 12 & 13)

IMPORTANT: A worn or damaged wire liner will seriously affect the performance of the welder and should be immediately replaced.

9.6.1. Removal

Wind the wire back onto the spool and secure it. Remove the four screws to remove the torch cable clamp (fig. 11). To open the torch case, first remove the metal locking ring (fig. 12). Unscrew the four screws from the torch handle and open the casing (fig. 13). Disconnect the blue liner from the torch control assembly by pressing the locking ring into the connector and withdrawing the liner (fig. 11). With the torch cable as straight as possible unscrew the retaining nut (fig. 13-5) in the torch handle. Pull the liner from the torch cable.

9.6.2. Replacement

Insert the new liner into the torch cable proceed to feed it through the outer black tube. Secure it in the wire drive unit by replacing the torch cable clamp (fig. 11). Insert the other end of the liner through the torch fully into the torch control assembly. Re-tighten the locking nut (fig. 13-5). Ensure that the switch moulding is fully seated down into the side moulding. Place the torch head assembly into the side moulding and arrange the inner connections within the moulding. The gas pipe and wire liner will rest into notches on the inner ribs of the moulding. The two thin switch wires should be below the gas pipe and the larger blue control cable should be below the wire liner. Replace the two mouldings together ensuring that there are no wires trapped between the two halves. The two mouldings should close easily, do not force them shut. Once the mouldings are closed replace the four cross head screws into the handle, then replace the metal locking ring.

10. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
1. Power source stops	Overheating protection activated due to overload	Protection automatically resets when transformer has cooled (about 15 min)
2. No weld current	Rectifier blown	Rectifier blown
3. No weld current	Bad connection between clamp & workpiece	Clean or grind contact surface and weld area
	Break in earth lead	Repair or replace earth lead.
	Break in torch lead	Repair or replace torch
4. Feed motor not working, lamp is on	Gear damaged or worn	Replace gears. (Contact service agent)
	Motor defective	Replace motor (Contact service agent)
	PCB fault	Replace PCB
5. Wire does not feed, feed roller rotates	Pressure roller improperly adjusted	Adjust tension.
	Dirt, copper, dust, etc, has collected in torch liner	Clean the liner from the machine forward. Use compressed air. If too much dirt, replace the liner.
	Gas cup (Nozzle) or tip defective	Replace gas cup (nozzle) and/or tip. (Section 9)
	Deformed wire	Check roller tension and adjust it if necessary (Section 4)
6. Wire feeds unevenly	Dirt, etc, in liner	Clean the liner from the machine forward. Use compressed air
	Gas cup (Nozzle) or Tip defective	Replace gas cup (nozzle) and/or tip. (Section 9)
	Gas cup (Nozzle) spattered	Replace gas cup (nozzle) and/or tip. (Section 9)
	Feed roller groove clogged	Clean feed roller.
	Feed roller groove deformed	Replace feed roller.
	Pressure roller tension improper	Adjust tension. (Section 4)
7. Unstable arc	Incorrect settings	Check settings.
	Impurities in weld area	Clean and/or grind workpiece.
	Worn or defective gas cup (nozzle)	Replace gas cup (nozzle) and/or tip. (Section 9)
8. Porous weld	No gas	Open gas cylinder, regulate gas flow
	Gas cup clogged	Replace gas cup (nozzle) and/or tip. (Section 9)
	Draft blowing away shielding gas	Screen off welding site or increase gas flow
	Rusty or dirty joints	Clean and/or grind workpiece.
	Torch too far from or at wrong angle to work	The distance from gas cup to workpiece should be 8 to 10mm
	Gas leak	Check hoses, connections and torch assembly. Press the gas cup into correct position
	Faulty electrovalve	Clean out or replace
9. Electrode sticking in gas cup (nozzle)	Worn or defective gas cup (nozzle)	Replace gas cup (nozzle) and/or tip. (Section 9)
	Electrode deformed	Check roller tension. (Section 4)
	Wire speed too slow	See recommendations for wire speed
10. Irregular weld head	Torch incorrectly held	Use correct torch angle
	Wire weaving in weld pool	Check roller tension and adjust as needed. (Section 4)
11. Weld bead too narrow and raised	Weld current too low	Increase power and wire speed.
	Weld speed too high	Move torch slower and weave a little more
12. Weld bead too wide	Weld current too high	Decrease power and wire speed.
	Weld speed too low	Move torch faster and weave less
	Arc too long	Bring torch closer to workpiece
13. Poor penetration	Weld current too low	Increase power and wire speed.
	Arc too long	Bring torch closer to workpiece
14. Excessive penetration	Weld current too high	Decrease power and wire speed.
	Weld speed too slow	Move torch faster
	Incorrect distance of torch to workpiece	Torch distance should be 8-10mm



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



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WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on technical@sealey.co.uk or 01284 757505.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Lifetime guarantee on Transformer - Comprises 1 year unconditional parts and labour on all parts, followed by a lifetime guarantee (parts and labour) conditional on registering your purchase with us online at www.sealey.co.uk.

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