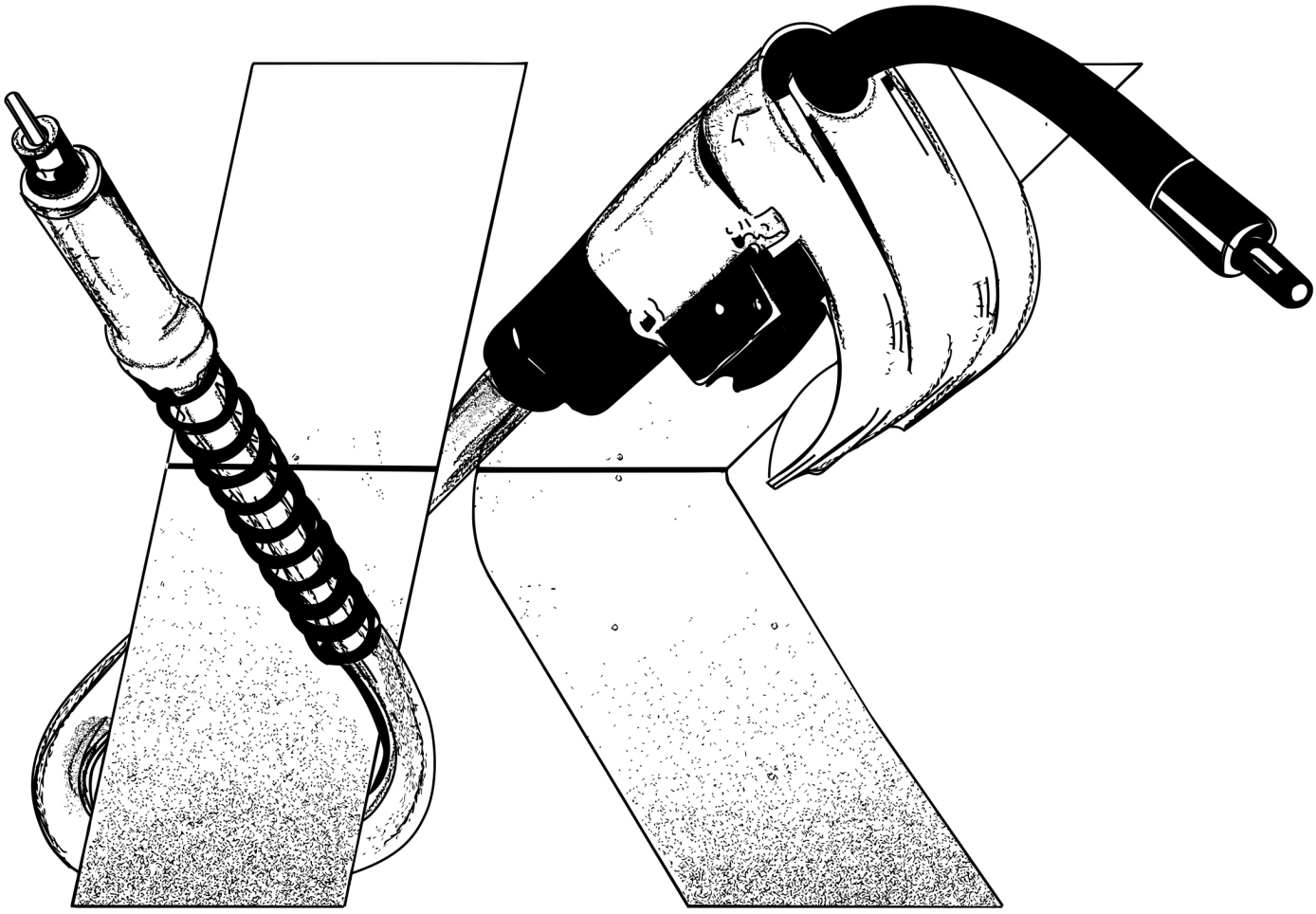
Jinan North welding Tools Co Ltd The North of 308 National Highway, Daqiao Town, Tianqiao Zone, Jinan 250121, Shandong, China

NORTH®

OPERATING MANUAL / INSTRUCTIONS



KLASIK SERIES
FLUX TORCH

PART NUMBER: OM-103A EN

ISSUE: 01-0223

Read and understand this entire Manual and your employer's safety practices before installing, operating, or servicing this Product. While the information contained in this Manual represents the Manufacturer's best judgment, the Manufacturer assumes no liability for its use

User Manual No: OM-103A EN for: KLASIK FLUX CORED FCAW Manual Welding Torches

KLASIK	FLUX CORED FCAW Manual Welding Torch Model Number
NK 126 (350A @ 60%)	NK-126-15L, NK-126-15E, NK-126-15M
NK 115 (450A @ 60%)	NK-115-15L, NK-115-15E, NK-115-15M

Published by: Jinan North Welding Tools Co Ltd
The North of 308 National Highway, Daqiao Town,
Tianqiao Zone, Jinan 250121, Shandong, China.
Website: www.northweld.com

Publication Date: February 2023

Record the following information for Warranty purposes

Place of Purchase:

_____

_____

_____

Purchase Date:

_____

Declaration of Conformity

Jinan North Welding Tools Co. Ltd. declares that the product(s) identified in this declaration conform to the essential requirements and provisions of the stated Council Directives and Standards.

Product Description: **Arc Welding Equipment KLASIK FLUX CORED FCAW Manual Welding Torches**

Product Models: **KLASIK SERIES FLUX CORED FCAW Manual Welding Torches**

Manufacturer: **Jinan North Welding Tools Co. Ltd.**

Address: **The North of 308 National Highway, Daqiao Town, Tianqiao Zone, Jinan 250121, Shandong, China.**

Product Identification:

KLASIK	FLUX CORED FCAW Manual Welding Torch Model Number
NK 126 (350A @ 60%)	NK-126-15L, NK-126-15E, NK-126-15M
NK 115 (450A @ 60%)	NK-115-15L, NK-115-15E, NK-115-15M

Council Directives:
- 2006/95/EC Low Voltage Directive
- 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment

Standards:
- GB/T 15579.7-2013 Standardization Administration of China - Arc Welding Equipment - Part 7: Torches
- IEC 60974-7:2019 Arc welding equipment – Part 7: Torches

Signature of Manufacturer's responsible representative:

Zhang Jinlu

Signature

February 09, 2023

Date

Zhang Jinlu

Name

Manager-Engineering

Title

CE

Table of Contents

SECTION 1 – SAFETY INSTRUCTIONS: Read Before Using this Product

DANGER! – Protect yourself and others around you from possible serious injury or death.

1) Read, follow, and understand this User Manual before installing, operating, or servicing this Product. 2) Pacemaker wearers keep away until consulting your doctor. 3) Have all installation, operation, maintenance, and repair work performed only by Suitably Trained and Qualified Tradesperson. 4) Keep children away. 5) Do not lose these instructions.

6) When shipped, ownership is passes to the purchaser upon receipt from the transportation company. Accordingly, claims for component damaged in shipment must be made by the purchaser against the transportation company at the time the shipment is received.

" NOTE:" Provides information regarding operating recommendations for this Product.

Product and processes can cause serious injury or death, or damage to other equipment or property, if the operator does not strictly observe all safety instructions and take precautionary actions.
Anyone not extensively trained in welding and cutting practices should not attempt to weld or cut metal.
Safe practices are outlined in American National Standard Z49.1 entitled: SAFETY IN WELDING AND CUTTING. This publication and other guides to what you should learn before using this product are listed at the end of these safety instructions.

1.01 Arc Welding Hazard Symbols

ELECTRIC SHOCK can kill

Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit are electrically live whenever the output is on. DO NOT WORK ALONE! The input power circuit and Power Source internal circuits are also electrically live when power is on. In semiautomatic or automatic wire welding, the wire, wire reel, drive roll housing, and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded welding equipment is a hazard.

- Do not touch live electrical parts.
- Beware of electric shock from wiring.
- Keep all panels and covers securely in place.
- Wear dry, hole-free insulating gloves, and body protection.
- Insulate yourself from work and ground using dry insulating mats or covers big enough to prevent any physical contact with the work or ground.
- Additional safety precautions are required when any of the following electrically hazardous conditions are present:
  - In damp locations or while wearing wet clothing.
  - On metal structures such as floors, gratings, or scaffolds.
  - When in cramped positions such as sitting, kneeling, or lying.
  - When there is a high risk of unavoidable or accidental contact with the workpiece or ground.

  For these conditions, use the following equipment:
  1) A semiautomatic DC constant voltage (wire) welder, or
  2) A DC manual (stick) welder. In most situations a DC welder is recommended.
- Disconnect input power or stop engine before installing or servicing this Product. Lockout/Tagout input power according to OSHA 29 CFR 1910.147.
- Properly install and ground this Power Source according to its User Manual and national, state, and local codes.
- Use only well-maintained equipment. Repair or replace damaged parts at once.
- Do not wrap cables around your body.
- Always verify the Input Power Cord ground – check and be sure that Input Power Cord ground wire is properly connected to ground terminal in disconnect box or that Input Power Cord plug is connected to a properly grounded receptacle outlet.
- When making input connections, attach proper grounding conductor first. DOUBLE - CHECK ALL CONNECTIONS.
- Keep all electrical Power Cords dry, free of oil and grease, and protected from hot metal, sparks, and sharp metal edges.
- Frequently inspect Input Power Cord and ground conductor for damage or bare wiring. Replace immediately if damage, bare wiring can kill.
- Turn off all equipment when not in use. Disconnect power to equipment if it will be left unattended or out of service.
- Use fully insulated Torch. Never dip Torch in water to cool it or lay it down on the ground or the work surface. Do not touch Torches connected to two Power Sources at the same time or touch other people with the Torch or electrode.
- Do not use worn, damaged, undersized, repaired or poorly spliced cables.
- Ground the work piece to a good electrical (earth) ground.
- Do not touch electrode while in contact with the work (ground) circuit.
- In confined spaces or damp locations, do not use a welder with AC output unless it is equipped with a voltage reducer. Use equipment with DC output.
- Wear a safety harness to prevent falling if working above floor level.
- Do not touch electrode holders connected to two Power Sources at the same time as double open-circuit voltage will be present.
- Insulate work clamp when not connected to workpiece to prevent contact with any metal object.
- Do not connect more than one electrode or work cable to any single weld output terminal. Disconnect cable for process not in use.
- Use ground-fault circuit interrupter (GFCI) protection when operating auxiliary equipment in damp or wet locations.

FLYING METAL or DIRT can injure eyes

Welding, chipping, wire brushing, and grinding cause sparks and flying metal.

- Welding slag can be thrown off welds as they cool down.

- Wear approved safety glasses with side shields even under your welding helmet.

HOT PARTS can burn

Nozzles, contact tips, gas diffuser welded parts, cut metal, or ground clamp can cause burn bare skin when hot.

- Do not touch hot parts with bare skin.

- To handle hot parts, use proper tools and/or wear heavy, insulated welding gloves and clothing to prevent burns.

ARC RAYS can injure eyes and burn skin

Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin.

- Wear approved safety glasses. Side shields recommended.
- Wear a welding helmet fitted with a proper shade of filter (see ANSI Z49.1 listed in Safety Standards) to protect your face and eyes when welding or watching.
- Use protective screens or barriers to protect others from flash and glare; warn others not to watch the arc.
- Wear protective clothing made from durable, flame-resistant material (wool and leather) and foot protection.

NOISE can damage hearing

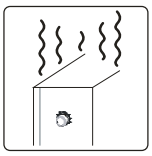
Noise from some processes can damage hearing.

- Use approved ear plugs or earmuffs for high noise levels environments.

FLYING SPARKS can injure

Flying sparks and hot metal can cause injury. Chipping and grinding cause flying metal.

- Wear proper body protection to protect skin.
- Wear approved face shield or safety goggles. Side shields are recommended.
- Sparks can cause fire, remove all flammable materials within 35 ft (10.7 m) of the working zone.



EQUIPMENT OVERHEATING

Power Source casing, terminals, cables, ground clamp, electrode stub or torch parts can cause inquiry when overheated.

- Allow cooling period before touching MIG Torch.
- Allow cooling period; follow rated duty cycle of MIG Torch.
- Reduce amperage and/or arc on time before starting to weld again.
- Do not block or filter air vent to Power Source.

BUILDUP OF GAS can injure or kill

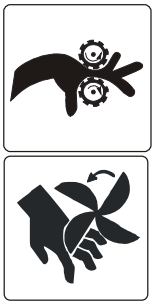
Shielding GAS used for wire welding can cause asphyxiation or death in confined places.

- Shut off compressed shielding gas supply when not in use.
- Always ventilate confined spaces or use approved air supplied respirator.

FUMES and GASES can be hazardous

FUMES and GASES can be hazardous to your health. Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- If inside, ventilate the area and/or use local exhaust at the arc to remove welding fumes and gases.
- If ventilation is poor, use an approved air-supplied respirator.
- Read the Material Safety Data Sheets (MSDSs) and the manufacturer's instruction for consumables, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have an observer trained in rescue and emergency procedures to monitor the person in a confined space. Shielding gases used for welding can displace air causing injury or death. Be sure the breathing air is safe.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapours to form highly toxic and irritating gases.
- Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and if necessary, while wearing an air supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.



MOVING PARTS can cause injury

Moving parts, such as fans, drive gears, rotating wire spools, rotors, and belts can cut fingers and hands and catch loose clothing.

- Keep all doors, panels, covers, and guards closed and securely in place.
- Switch OFF Power Source before installing or connecting it.
- Keep hands, hair, loose clothing, and tools away from moving parts.
- Have only suitably Trained and Qualified Tradesperson remove guards or covers for maintenance and troubleshooting, as necessary.
- To prevent accidental starting during servicing, disconnect Power Source from power receptacle or disconnect negative battery cable from battery.
- Reinstall panels or guards and close doors when servicing is finished and before starting engine.

ELECTRIC and MAGNETIC FIELDS (EMF) can affect Implanted Medical Devices

Consult your doctor and the Implanted Medical Device manufacturer before going near arc welding, spot welding, gouging or plasma arc cutting.

- Wearers of Pacemakers and other Implanted Medical Devices should keep away.

SHIELDING GAS CYLINDERS can explode

Shielding gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process; be sure to treat them carefully.

- Protect compressed gas cylinders from excessive heat, mechanical shocks, and arcs.
- Install and secure cylinder(s) in an upright position by chaining cylinder(s) to a stationary support or equipment cylinder rack to prevent falling or tipping.
- Keep cylinders away from any welding or other electrical circuits.
- Never allow a welding electrode to touch any cylinder.
- Use only correct shielding gas cylinders, regulators, hoses, and fittings designed for the specific application; maintain them and associated parts in good condition.
- Turn face away from valve outlet when opening cylinder valve.
- Keep protective cap in place over valve except when cylinder is in use or connected for use.
- Read and follow instructions on compressed gas cylinders, associated equipment, and CGA publication P-1 listed in Safety Standards.

WELDING WIRE can cause injury

Welding wire can cause injuries to hands, ears, eyes, etc.

- Do not depress Torch Trigger or commence welding process until it is safe to do so.
- Do not point the end of the MIG Torch near any part of your body, other people, or any metal when threading the welding wire thru the MIG Torch.

Eye protection filter shade selector numbers for welding (goggles or helmet)			
Welding operation	**Arc Amperage (Amps)**	**Minimum Filter Shade Number**	**Suggested ^ Filter Shade Number**
Flux Cored Arc Welding (FCAW)	Less than 60	7	7
	60 – 160	10	11
	160 – 250	10	12
	250 – 550	10	14

^ As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. This Lens Shade Selector Guide was adapted from ANSI Z49.1, 2012.

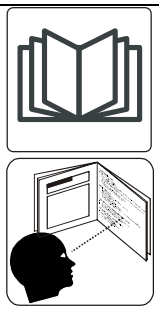
WELDING can cause fire or explosion

Sparks and spatter fly off from the welding arc. The flying sparks and hot molten metal, weld spatter, hot work piece and hot equipment can cause fires and burns.

Welding on closed containers, such as tanks, drums, or pipes, can cause them to blow up. Accidental contact of electrode or welding wire to metal objects can cause sparks, overheating, fire, or explosion. Check that the area is safe before doing any welding.

- Protect yourself and others from flying sparks and hot metal.
- Do not weld where flying sparks can strike flammable material.
- Remove all flammables within 35 ft (10.7 m) of the welding arc. If this is not possible, tightly cover them with approved covers.
- Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas.
- Watch for fire and keep a fire extinguisher nearby.
- Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
- Do not weld on containers that have held combustibles or on closed containers such as tanks, drums, or pipes unless they are properly prepared according to AWS F4.1 and AWS A6.0.
- Do not weld where the atmosphere contains flammable dust, gas, or liquid vapours (gasoline for example).
- Connect work cable to the work as close to the welding area as practical to prevent welding amperage from travelling long, possibly unknown paths and causing electric shock and fire hazards.
- Use only correct fuses or circuit breakers. Do not oversize or bypass them.
- Cut off welding wire at contact tip when not in use.
- Wear body protection made from durable, flame–resistant material (leather, heavy cotton, wool). Body protection includes oil-free clothing such as leather gloves, heavy shirt, cuff less trousers, high shoes, and a cap.
- Remove any combustibles, such as butane lighter or matches, from your person before doing any welding.
- After completion of work, inspect area to ensure it is free of sparks, glowing embers, and flames.
- Follow requirements in OSHA 1910.252 (a) (2) (iv) and NFPA 51B for hot work and have a fire watcher and extinguisher nearby.
- Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, coatings, cleaners, consumables, coolants, degreasers, fluxes, and metals.

1.02 Additional Installation, Operation and Maintenance Hazard Symbols



READ USER MANUAL

Read and follow all Power Source labels and User Manual carefully before installing, operating, or servicing the Power Source.

- Read the safety information at the beginning of the manual and in each section.
- Perform installation, maintenance, and service according to the User Manual, industry standards, and national, state, and local codes.

IMPROPER INSTALLATION can cause fire

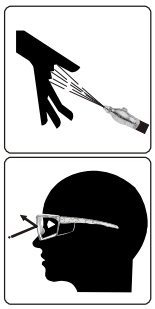
Improper equipment installation can cause fire.

- Do not install or place Power Source on, over, or near combustible surfaces.
- Do not install Power Source near flammables.
- Do not overload building wiring; be sure Input Power Supply system is properly sized, rated, and protected for weld system.

ARC WELDING can cause interference

Arc welding produces electromagnetic energy that can interfere with sensitive electronic equipment.

- Electronic equipment that can be affected are computers, telecommunication equipment, and computer-driven equipment such as robots.
- Be sure all equipment in the welding area is electromagnetically compatible.
- To reduce possible interference, keep weld cables as short as possible, close together, and down low, such as on the floor.
- Locate welding operation 100 meters from any sensitive electronic equipment.
- Be sure this Power Source is installed and grounded according to this manual.
- If interference still occurs, the user must take extra measures such as moving the Power Source, using shielded cables, using line filters, or shielding the work area.



COMPRESSED AIR can injure or kill. Whipping air hoses can injure.

A concentrated stream of air at high pressure and high speed that can cause serious injury you or people around you.

- Do not direct air stream toward self or others.
- Wear protective equipment such as safety glasses, hearing protection, leather gloves, heavy shirt / trousers, steel toe boots, and a cap when working on compressed air system.
- Release air pressure from air system / air tools before servicing, adding, or changing attachments.
- Turn off and lockout / Tagout air compressor, release air pressure from system and be sure air pressure cannot be accidentally reapplied before working on compressed air system.
- Relieve air pressure before disconnecting or connecting air lines.
- Check compressed air system components and all connections and hoses for damage, leaks, and wear before operating unit.
- Use soapy water to search for leaks; never use bare hands. Do not use equipment if leaks are found.

FALLING EQUIPMENT can injure

Use designated lifting device on power source to lift the power source only, NOT cart/running gear, gas cylinders, or any other accessories

- Use lifting equipment of adequate capacity to lift and support power source.
- If using lift forks to move power source, be sure forks are long enough to extend beyond opposite side of power source.
- Keep cables and Power Cords away from moving vehicles when working from an aerial location.
- Follow the guidelines in the *Applications Manual for the Revised NIOSH Lifting Equation* [DHHS (NOISH) Publication No. 94–110] when manually lifting heavy parts or Power Source.

1.03 Read Principal Safety Standards

Safety in Welding, Cutting, and Allied Processes, ANSI Standard Z49.1, is available as a free download from the American Welding Society at (Website: www.aws.org).

Safe Practices for the Preparation of Containers and Piping for Welding and Cutting, American Welding Society Standard AWS F4.1, from Global Engineering Documents (Website: www.global.ihs.com).

Safe Practices for Welding and Cutting Containers that have Held Combustibles, American Welding Society Standard AWS A6.0, from Global Engineering Documents (Website: www.global.ihs.com).

National Electrical Code, NFPA Standard 70, from National Fire Protection Association, Quincy, MA 02269 (Website: www.nfpa.org).

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, from Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151 (website: www.cganet. com).

Safety in Welding, Cutting, and Allied Processes, CSA Standard W117.2, from Canadian Standards Association, Standards Sales, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5NS (Website: www.csagroup.org).

Safe Practice for Occupational and Educational Eye and Face Protection, ANSI Standard Z87.1, from American National Standards Institute, 25 West 43rd Street, New York, NY 10036 (Website: www.ansi.org). Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B, from National Fire Protection Association, Quincy, MA 02269 (Website: www.nfpa.org).

OSHA, Occupational Safety and Health Standards for General Industry,

Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart Q, and Part 1926, Subpart J, from U.S. Government Printing Office, Superintendent of Documents, (Website: www.osha.gov).

Applications Manual for the Revised NIOSH Lifting Equation, The National Institute for Occupational Safety and Health (NIOSH), 1600 Clifton Rd, Atlanta, GA 30329-4027 (Website: www.cdc.gov/NIOSH).

1.04 California Proposition 65 Warnings

This product contains chemicals, including lead, or otherwise produces chemicals known to the State of California to cause cancer, birth defects and other reproductive harm. Wash hands after handling. (California Health & Safety Code 25249.5 et seq.)

Welding and cutting equipment produce fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. Wear an approved air-supplied respirator for welding and cutting. (California Health & Safety Code Section 25249.5 et seq.)

1.05 ELECTRIC and MAGNETIC FIELDS (EMF) Recommendations

Consult your doctor and the Implanted Medical Device manufacturer before going near arc welding, spot welding, gouging, or plasma arc cutting.
EMF is produced around welding cables / accessories during the welding operation and can interfere with some medical implants such as pacemakers. All Welding Operators should use the following procedures in order to minimize exposure to EMF when welding.

- Keep electrode / ground cables together by twisting or taping them together.
- Keep electrode / ground cables away from your body.
- Do not place your body in between the electrode and ground cables.
- Do not coil or drape cable around the body.
- Keep Power source and accessories as far away from your body as possible.
- Do not weld whilst carrying the Power source or accessories.
- Connect the ground clamp to the workpiece as close as possible to the weld zone.

SECTION 2 – WARRANTY

The Flux Cored Manual Welding Torch is safe and reliable in operation when handled, installed, and maintained by suitably Trained and Qualified Tradesperson.

JINAN NORTH WELDING TOOLS products are meticulously checked during and at completion of manufacture. JINAN NORTH WELDING TOOLS guarantees that each product is free from material defects and workmanship at the time of dispatch and functions according to its intended use.

JINAN NORTH WELDING TOOLS provides warranty on material defects and workmanship according to national or state legal requirements.

Contact Tips, Nozzles, and Liners (consumables) are exempt from this warranty.

The warranty does not cover any damages or functional defects resulting from:

- Overloading, abusing, or diverting from intended use of the product.
- Collisions or accidents.
- Non-compliance with instructions stated in this document.
- Improper installation or assembly.
- Insufficient maintenance.
- Modifying the product from its original state.
- Chemical influences.
- Normal wear and tear.

JINAN NORTH WELDING TOOLS assumes no liability other than for replacement or repair of faulty parts.

JINAN NORTH WELDING TOOLS makes no other warranty of any kind, expressed or implied, including, but not limited to the warranties of merchantability, or fitness for any purpose. JINAN NORTH WELDING TOOLS shall not be liable under any circumstances to Buyer, or to any person who shall purchase from Buyer, for damages of any kind, including, but not limited to any direct, indirect incidental or consequential damages or loss of production or loss of profits resulting from any cause whatsoever, including, but not limited to any delay, act, error, or omission of JINAN NORTH WELDING TOOLS.

Genuine JINAN NORTH WELDING TOOLS parts must be used for safety and performance reasons, or the warranty becomes invalid. Warranty shall not apply if accident, abuse, or misuse damages of a product, or if a product is modified in any way except by authorized JINAN NORTH WELDING TOOLS personnel.

2.01 Conditions of Intended Use

- This product is intended for industrial and commercial use and must only be utilized by suitably trained personnel. JINAN NORTH WELDING TOOLS is not liable for any damage or accidents resulting from improper usage.
- The instructions for installation, operation and maintenance described in this document must be followed.
- The Flux Cored Manual Welding Torch must only be installed, operated, and serviced by suitably Trained and Qualified Tradesperson. The installation, operation, and maintenance regulations detailed in this manual are to be followed.
- The Flux Cored Manual Welding Torch must solely be used for the intended purpose by the user within the Torches technical specifications and with an automated welding system. The type of Torch must be selected to suit the welding task.
- The Flux Cored Manual Welding Torch was designed for use as a complete system. The incorporation of components from other manufacturers into the system is not permissible.
- The product must be kept dry and protected from humidity when transported, stored, or used.
- The system is designed for environmental temperature range from 5 °C to 40 °C (41 °F to 104 °F). In case these limits are exceeded, specific action is needed.

SECTION 3 – INTRODUCTION

3.01 KLASIK Flux Cored Torch Description

These air-cooled Flux Cored Manual Welding Torches are designed for hand Flux Cored welding using FCAW welding Power Source.

The Torches consist of a variety design elements:

1. CNC machined tips are 100% compatible with OEM FCAW Torches.
2. Ergonomic, solid handle design.
3. Positive grip Trigger Button with long life contacts.
4. Heavy Duty insulated metal jacketed swan neck with high conductivity inner copper tube.
5. Cable supported by steel spring to reduce hand fatigue.

These elements create a very reliable and long-lasting Torch system with minimal maintenance.

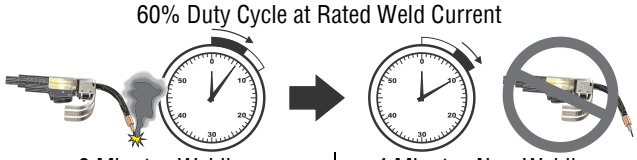
The JINAN NORTH WELDING TOOLS ordering numbers, available accessories, spare parts, and wear parts are found within this User Manual.

3.02 NK-126 Flux Cored Torch Duty Cycle

The Flux Cored Torches rated duty cycles is a statement of the time it may be operated at its rated welding amperage without exceeding the temperature limits of the component parts.

Flux Cored Torches NK-126 (350A @ 60%)

60% Duty Cycle at Rated Weld Current



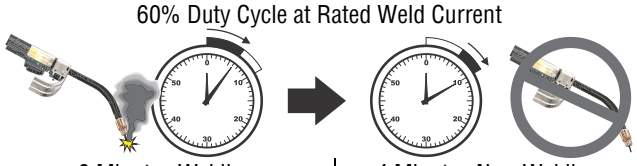
6 Minutes Welding in any 10 Minute Period	4 Minutes Non-Welding in any 10 Minute Period

3.03 NK-115 Flux Cored Torch Duty Cycle

The Flux Cored Torches rated duty cycles is a statement of the time it may be operated at its rated welding amperage without exceeding the temperature limits of the component parts.

Flux Cored Torches NK-115 (450A @ 60%)

60% Duty Cycle at Rated Weld Current



6 Minutes Welding in any 10 Minute Period	4 Minutes Non-Welding in any 10 Minute Period

3.04 KLASIK Torch Contents

All KLASIK Torches come complete with:

- FLUX CORED FCAW Manual Welding Torch
- Contact Tip
- Nozzle
- User Manual No: OM-103A EN

NOTE 1: *JINAN NORTH WELDING TOOLS reserves the right to change, improve or revise the specifications or design of this product without prior notice. Such updates or changes do not entitle the buyer of this Product previously sold or shipped to the corresponding changes, updates, improvements, or replacement. The values specified in the table above are nominal parameters. An individual Torch may differ from the above specifications due to in part, but not exclusively, to any one or more of the following variations or changes in manufactured components, installation location/conditions.*

3.05 NK-126 (350A@60%) KLASIK FLUX CORED Torch Specifications

Refer to NOTE 1.

Part Numbers	NK-126-15L	NK-126-15E	NK-126-15M
Torch Length	4.5 m (15ft)	4.5 m (15ft)	4.5 m (15ft)
Torch Power Connector	Lincoln® Style	Euro Style	Miller® Style
Swan Neck Angle (°)	67 or 30	67 or 30	67 or 30
Wire Size Range (mm)	0.9–2.4	0.9–2.4	0.9–2.4
Standardization Administration of China – Arc Welding Equipment – Part 7: Torches IEC Standard for Safety – Arc Welding Equipment – Part 7: Torches	GB/T 15579.7-2013 IEC 60974-7:2019		
Cooling Method	Air-Cooled		
Operating Temperature Range	-10 °C to +40 °C	(+14 °F to +104 °F)	
Storage/Transportation Temperature Range	-25 °C to +55 °C	(-13 °F to +131 °F)	
Relative Air Humidity During Operating	0% to 90%	(at +20 °C ambient air temperature)	
Welding Power Rating for FLUX CORED Manual Welding Torch [+40 °C Air Temperature]			
Rated Amps / Duty Cycle	350A/60%		
FLUX CORED Torch Maximum Voltage	113 VDC (Peak Welding Voltage)		

3.06 NK-115 (450A@60%) KLASIK FLUX CORED Torch Specifications

Refer to NOTE 1.

Part Numbers	NK-115-15L	NK-115-15E	NK-115-15M
Torch Length	4.5 m (15ft)	4.5 m (15ft)	4.5 m (15ft)
Torch Power Connector	Lincoln® Style	Euro Style	Miller® Style
Swan Neck Angle (°)	90 / 45 / 25	90 / 45 / 25	90 / 45 / 25
Wire Size Range (mm)	2.0–3.0	2.0–3.0	2.0–3.0
Standardization Administration of China – Arc Welding Equipment – Part 7: Torches IEC Standard for Safety – Arc Welding Equipment – Part 7: Torches	GB/T 15579.7-2013 IEC 60974-7:2019		
Cooling Method	Air-Cooled		
Operating Temperature Range	-10 °C to +40 °C	(+14 °F to +104 °F)	
Storage/Transportation Temperature Range	-25 °C to +55 °C	(-13 °F to +131 °F)	
Relative Air Humidity During Operating	0% to 90%	(at +20 °C ambient air temperature)	
Welding Power Rating for FLUX CORED Manual Welding Torch [+40 °C Air Temperature]			
Rated Amps / Duty Cycle	450A/60%		
FLUX CORED Torch Maximum Voltage	113 VDC (Peak Welding Voltage)		

SECTION 4 – INSTALLATION

4.01 Environmental Limits

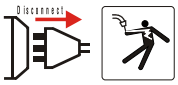
These air-cooled FLUX CORED Manual Welding Torches are designed for use in environments where:

- Operating temperature range is -10 °C to +40 °C (+14 °F to +104 °F)
- Relative air humidity during operating is 0% to 90% @ + 20 °C ambient air temperature

4.02 Operation Guidelines

Be sure to locate the FCAW equipment according to the following guidelines:

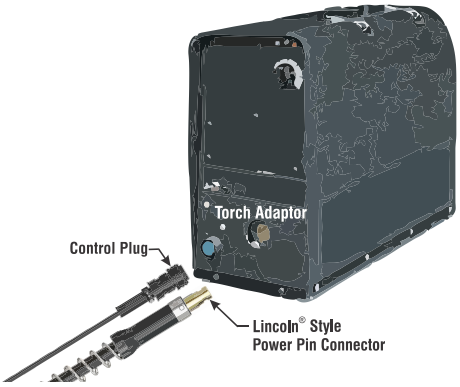
- In areas, free from moisture and dust.
- In areas, free from oil, steam, and corrosive gases.
- In areas, not subjected to abnormal vibration or shock.
- In areas, not exposed to direct sunlight or rain.

								
Torch installation must be done by a suitably Trained and Qualified Tradesperson.	Disconnect Mains Power to FCAW equipment. Electric shock can kill.	Flying metal or dirt can injure eyes.	FUMES can be hazardous to your health.	Moving parts can cause injury.	Sparks, weld spatter or hot work piece can cause fires and burns.	Improper installation can cause fire.	Read User Manual.	

Genuine JINAN NORTH WELDING TOOLS parts must be used for safety and performance reasons, or the warranty becomes invalid. Inspect all parts for transportation damage. ***Do not use damaged parts.***

4.03 Connecting FLUX CORED Torch Power Pin to MIG Equipment Adaptor

Lincoln® Style FCAW Equipment Adaptor

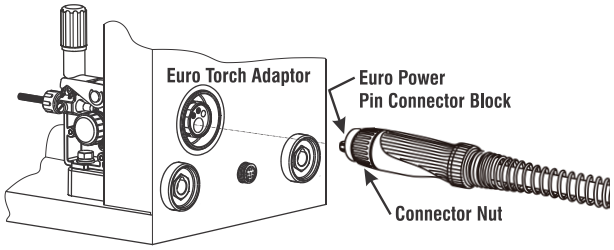


a) Disconnect Mains Power to the FCAW equipment.

b) Insert the **Lincoln® Style Power Pin** into the **Lincoln® Torch Adaptor** to shoulder then secure using mechanical means as described in FCAW equipment user manual.

c) Connect the Control Plug to the FCAW equipment Control Socket.

Euro Style FCAW Equipment Adaptor



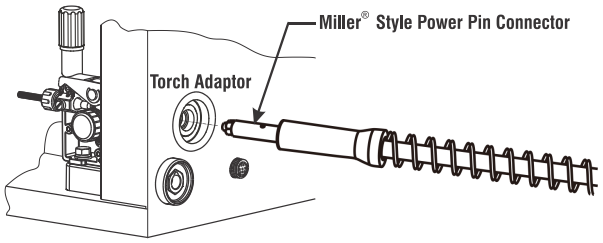
a) Disconnect power to the FCAW equipment.

b) Align **Euro Power Pin** Connector Block with **Euro Torch Adaptor** then insert it.

c) Secure tighten the Connector Nut into the Euro Adaptor.

d) Refer to the FCAW equipment user manual for feeding the welding wire into the FCAW Manual Welding Torch.

Miller® Style FCAW Equipment Adaptor



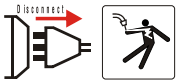
a) Disconnect power to the FCAW equipment.

b) Insert the **Miller® Power Pin** into the **Miller® Torch Adaptor** to shoulder then secure using mechanical means as described in FCAW equipment user manual.

c) Connect then secure the control plug into FCAW equipment.

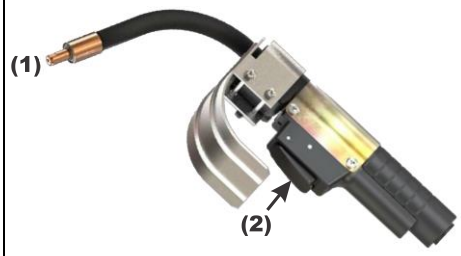
d) Refer to the FCAW equipment user manual for feeding the welding wire into the FCAW Manual Welding Torch.

SECTION 5 – OPERATION

							
Torch installation must be done by a suitably Trained and Qualified Tradesperson.	Disconnect power to FCAW equipment. Electric shock can kill.	Flying metal or dirt can injure eyes.	FUMES can be hazard-ous to your health.	Moving parts can cause in-jury.	Sparks, weld spatter or hot work piece can cause fires and burns.	Improper instal-lation can cause fire.	Read User Manual.

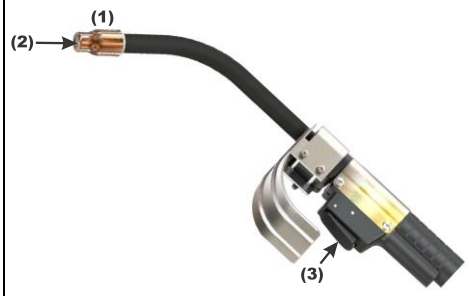
5.01 Feeding Welding Wire Thru FCAW Manual Torch

NK-126 FLUX CORED Torch



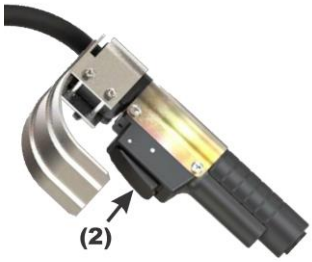
a) Connect FCAW Manual Welding Torch as per Section 4.03.
b) Remove **Contact Tip (1)**.
c) Connect power to the FCAW equipment.
d) With the Torch laying straight and a low Wire Feed Speed setting, depress **Torch Trigger Switch (2)** to energizes welding power to drive welding wire thru the FCAW torch.
e) Release **Torch Trigger Switch (2)** when welding wire emerges from the **Swan Neck**.
f) Fit **Contact Tip (1)** and secure.

NK-115 FLUX CORED Torch



a) Connect FCAW Manual Welding Torch as per Section 4.03.
b) Remove **Nozzle (1)**.
c) Remove **Contact Tip (2)**.
d) Connect power to the FCAW equipment.
e) With the Torch laying straight and a low Wire Feed Speed setting, depress **Torch Trigger Switch (3)** to energizes welding power to drive welding wire thru the FCAW torch.
f) Release **Torch Trigger Switch (3)** when welding wire emerges from the **Swan Neck**.
g) Fit **Contact Tip (2)** and secure.
h) Fit **Nozzle (1)** and secure.

5.02 Depress Torch Trigger Switch



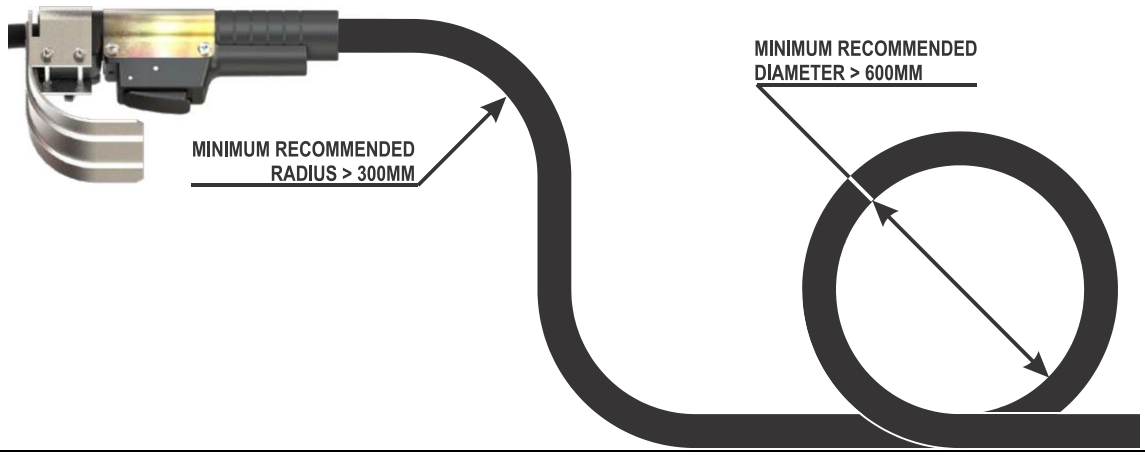
a) Connected the FLUX CORED Torch to the FCAW equipment as described in Section 4.03.
b) Depressed **Torch Trigger (2)** to energized welding power, **Welding Wire** (if fitted) is driven into FLUX CORED torch.

*DO NOT put FLUX CORED Torch near your ears or eyes when the **Torch Trigger (2)** is depressed as **Welding Wire** will rapidly exit the Contact Tip then the Nozzle (if fitted) and will cause serious to your ears, eyes, or skin.*

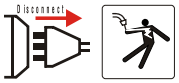
*Touching **Welding Wire** when electrically alive may cause fatal shocks or severe burns.*

Always wear Safety glass when operating or near FCAW equipment.

5.03 Minimum Cable Assembly Radius 300mm / Diameter 600mm



SECTION 6 – REPLACING WORN CONSUMABLE PARTS

							
Torch installation must be done by a suitably Trained and Qualified Tradesperson.	Disconnect Mains Power to FCAW equipment. Electric shock can kill.	Flying metal or dirt can injure eyes.	FUMES can be hazardous to your health.	Moving parts can cause injury.	Welding wire can cause injury	Improper installation can cause fire.	Read User Manual.

Genuine JINAN NORTH WELDING TOOLS parts must be used for safety and performance reasons, or the warranty becomes invalid. Inspect all parts for transportation damage. ***Do not use damaged or worn parts****. Before starting the FCAW equipment, check the whole installation according to the manufacturer's instructions, this Manual and applicable national / state / local safety regulations.*

6.01 Change Thread Protector/Nozzle and Contact Tips

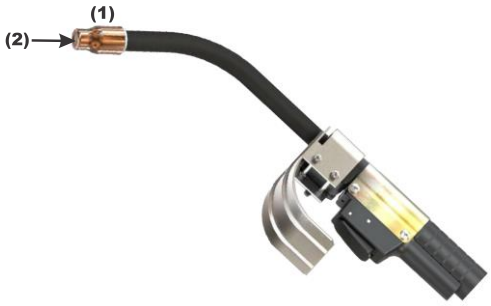
NK-126 FLUX CORED Torch

a) Disconnect Mains Power to FCAW equipment.

b) **Remove**
- **Thread Protector (1):** Remove by turning in a counter clockwise direction.
- **Contact Tip (2):** Cut **Welding Wire** (electrode) close to the **Contact Tip (2)** and remove burrs before turning the **Contact Tip (2)** in a counter clockwise direction.

c) **Replace**
- **Contact Tip (2):** Screw the **Contact Tip (2)** in a clockwise direction.
- **Thread Protector (1):** Screw the **Thread Protector (1)** in a clockwise direction.

NK-115 FLUX CORED Torch

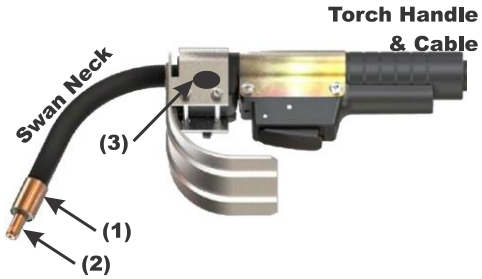


a) Disconnect Mains Power to FCAW equipment.

b) **Remove**
- **Nozzle (1):** Remove by turning in a counter clockwise direction.
- **Contact Tip (2):** Cut **Welding Wire** (electrode) close to the **Contact Tip (2)** and remove burrs before turning the **Contact Tip (2)** in a counter clockwise direction.

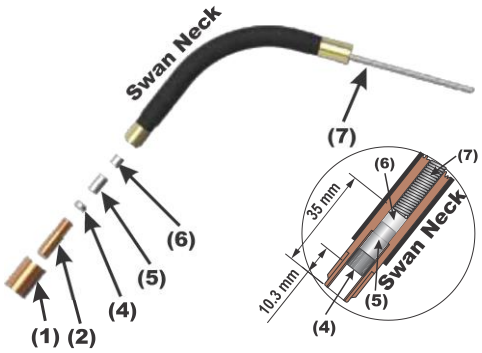
c) **Replace**
- **Contact Tip (2):** Fit the contact tip turning the **Contact Tip (2)** in a clockwise direction.
- **Nozzle (1):** Screw the Fit the **Nozzle (1)** in a clockwise direction.

6.02 Change NK-126 Swan Neck Liner



a) Disconnect Mains Power to FCAW equipment.

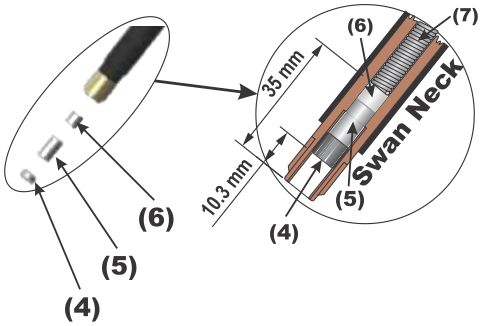
b) **Remove**
- **Nozzle (1):** Remove by turning in a counter clockwise direction.
- **Contact Tip (2):** Cut **Welding Wire** (electrode) close to the **Contact Tip (2)** then unscrew the **Contact Tip (2)** in a counter clockwise direction.
- **Socket Head Cap Screw (3):** Unscrew using a **3/16" A/F Allen Key** in a counter-clockwise direction to loosen the **Swan Neck**.



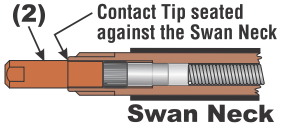
c) Separate the **Swan Neck** from the **Torch Handle** by using a twisting motion while holding the **Swan Neck** in one hand and the **Torch Handle & Torch Cable** in the other hand.

d) **Remove**
- **Locking Screw (4):** Unscrew using a **5/32" A/F Allen Key** in a counter-clockwise direction.
- Take out the **Steel Insert (5).**
- Take out the **Ceramic Insert (6).**

e) Push the old **Swan Neck Liner (7)** out of the **Swan Neck** using a new **Swan Neck Liner (7)** then continue to push the new **Swan Neck Liner (7)** into the **Swan Neck** to a depth of approximately **35mm.**

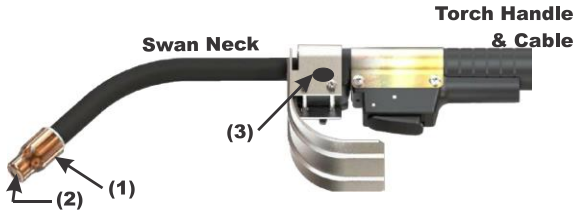


f) Assemble the **Ceramic Insert (6)** then the **Steel Insert (5)** then the **Locking Screw (4)** into the **Swan Neck.** Check the **Locking Screw (4)** is screwed into the **Swan Neck** to a depth of **10.3mm**. This allows the **Contact Tip (2)** to be seated up against the **Swan Neck** for good electrical contact.



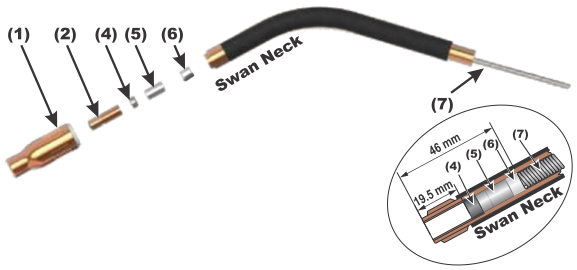
g) Screw the **Nozzle (1)** back onto the **Swan Neck** in a clockwise direction.

6.03 Change NK-115 Swan Neck Liner



a) Disconnect Mains Power to FCAW equipment.

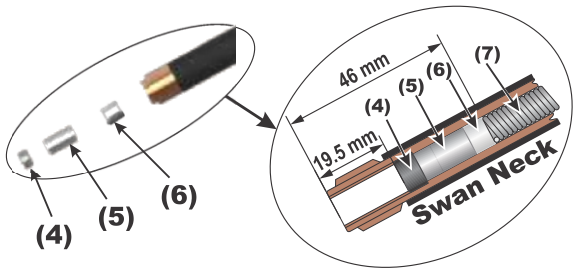
b) **Remove**
- **Nozzle (1):** Remove by turning in a counter clockwise direction.
- **Contact Tip (2):** Cut **Welding Wire** (electrode) close to the **Contact Tip (2)** then unscrew the **Contact Tip (2)** in a counter clockwise direction.
- **Socket Head Cap Screw (3):** Unscrew using a **3/16" A/F Allen Key** in a counter clockwise direction to loosen the **Swan Neck**.



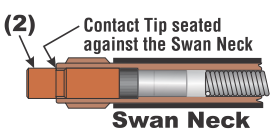
c) Separate the **Swan Neck** from the **Torch Handle** by using a twisting motion while holding the **Swan Neck** in one hand and the **Torch Handle & Torch Cable** in the other hand.

d) **Remove**
- **Locking Screw (4):** Unscrew using a **3/16" A/F Allen Key** in a counter clockwise direction.
- Take out the **Steel Insert (5).**
- Take out the **Ceramic Insert (6).**

e) Push the old **Swan Neck Liner (7)** out of the **Swan Neck** using a new **Swan Neck Liner (7)** then continue to push the new **Swan Neck Liner (7)** into the **Swan Neck** to a depth of approximately **46mm.**



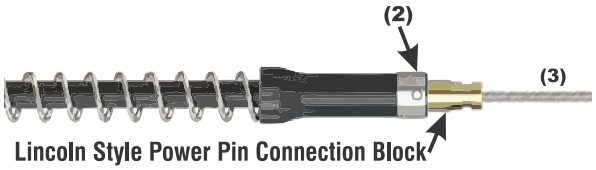
f) Assemble the **Ceramic Insert (6)** then the **Steel Insert (5)** then the **Locking Screw (4)** into the **Swan Neck.** Check the **Locking Screw (4)** is screwed into the **Swan Neck** to a depth of **19.5mm**. This allows the **Contact Tip (2)** to be seated up against the **Swan Neck** for good electrical contact.



g) Screw the **Nozzle (1)** back onto the **Swan Neck** in a clockwise direction.

6.04 Change Torch Cable Liner

A. Lincoln Style Torch Cable Liner

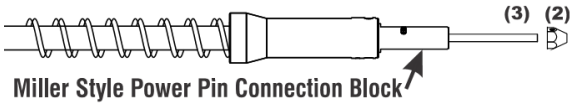


a) Disconnect Mains Power to FCAW equipment.
b) Lay the Torch cable out straight.
c) **Socket Head Screw (2)** – Remove use an appropriate wrench in a counter clockwise direction.
d) **Liner (3)** – Remove by pulling the liner end out of the **Lincoln Style Power Pin Connector Block**.
e) With the Torch laying straight, insert new liner into **Lincoln Style Power Pin Connector Block** and feed 50mm at a time into the Torch using a twisting motion to stop the liner from kinking.
f) **Secure Liner (3)** – Screw **Socket Head Screw (2)** into **Lincoln Style Power Pin Connector Block** to secure the **Liner (3)**.
g) **Trim New Liner** – Trim **Liner (3)** close to the **Lincoln Style Power Pin Connector Block** end if needed. Remove all burrs from end of the **Liner (3)**.

B. Euro Style Torch Cable Liner

a) Disconnect Mains Power to FCAW equipment.
b) Lay the Torch cable out straight.
c) **Liner Nut (2)** – Remove use an appropriate wrench in a counter clockwise direction.
d) **Liner (3)** – Remove by pulling the liner end out of the **Euro Style Power Pin Connector Block.**
e) With the Torch laying straight, insert new **Liner (3)** into **Euro Style Power Pin Connector Block** and feed 50mm at a time into the Torch using a twisting motion to stop the liner from kinking.
f) **Trim New Liner:**
– Measure the excess **Liner (3)** from the **Euro Style Power Pin Connector Block** end to the end of **Liner (3).**
– Remove the **Liner (3)** from the Torch.
– Trim the Torch Handle end of **Liner (3)** by the length you measured previously and remove all burrs from end of the **Liner (3).**
– Insert the new cut **Liner (3)** back into **Euro Style Power Pin Connector Block** and feed 50mm at a time into the Torch using a twisting motion to stop the liner from kinking.
g) **Secure Liner (3)** – Screw **Liner Nut (2)** into **Euro Style Power Pin Connector Block** to secure the **Liner (3).**

C. Miller Style Torch Cable Liner



a) Disconnect Mains Power to FCAW equipment.
b) Lay the Torch cable out straight.
c) **Liner Nut (2)** – Remove use an appropriate wrench in a counter clockwise direction.
d) **Liner (3)** – Remove by pulling the liner end out of the **Miller Style Power Pin Connector Block.**
e) With the Torch laying straight, insert new **Liner (3)** into **Miller Style Power Pin Connector Block** and feed 50mm at a time into the Torch using a twisting motion to stop the liner from kinking.
f) **Trim New Liner:**
– Measure the excess **Liner (3)** from the **Miller Style Power Pin Connector Block** end to the end of **Liner (3).**
– Remove the **Liner (3)** from the Torch.
– Trim the Torch Handle end of **Liner (3)** by the length you measured previously and remove all burrs from end of the **Liner (3).**
– Insert the new cut **Liner (3)** back into **Miller Style Power Pin Connector Block** and feed 50mm at a time into the Torch using a twisting motion to stop the liner from kinking.
g) **Secure Liner (3)** – Screw **Liner Nut (2)** into **Miller Style Power Pin Connector Block** to secure the **Liner (3).**

SECTION 7 – CONSUMABLE PARTS and TORCH PARTS

7.01 Contact Tips (Wear Parts)

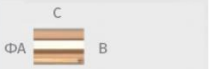
A. NK-126 CONTACT TIPS

Part Number	Shape	Material	Wire Diameter (mm)			NK 126 / NK 115	Product picture
ZB3116	–	Copper	1.6	–	–		
ZB3118	–	Copper	1.8	–	–		
ZB3120	–	Copper	2.0	–	–		
ZB3124	–	Copper	2.4	–	–		
ZB3116L	–	CuCrZr	1.6	–	–		
ZB3118L	–	CuCrZr	1.8	–	–		
ZB3120L	–	CuCrZr	2.0	–	–		
ZB3124L	–	CuCrZr	2.4	–	–		

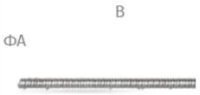
B. NK-115 CONTACT TIPS

Part Number	Shape	Material	Wire Diameter (mm)			NK 126 / NK 115	Product picture
ZB4120	–	Copper	2.0	–	–		
ZB4124	–	Copper	2.4	–	–		
ZB4127	–	Copper	2.7	–	–		
ZB4130	–	Copper	3.0	–	–		
ZB4120L	–	CuCrZr	2.0	–	–		
ZB4124L	–	CuCrZr	2.4	–	–		
ZB4127L	–	CuCrZr	2.7	–	–		
ZB4130L	–	CuCrZr	3.0	–	–		

7.02 Nozzles / Thread Protectors (Wear Parts)

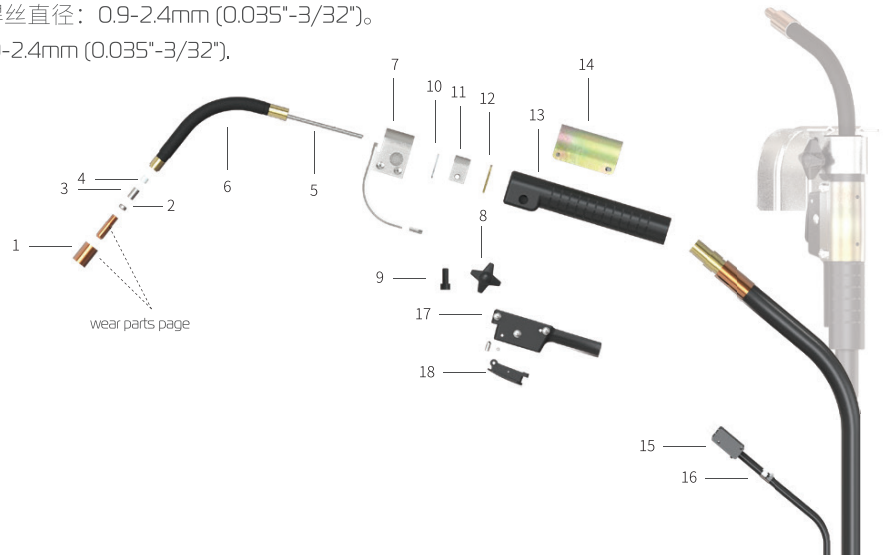
Part Number/	Shape	Material	ΦA(mm)	B	C (mm)	NK 126 NK 115	Product picture
ZN3101	—	Copper	8.5	1/2-13UNC	22	●	
ZN4101	—	Copper	7.4	5/8-11UNC	60	●	
ZN4102	—	Copper	7.4	5/8-11UNC	40	●	

7.03 Torch Liners (Wear Parts)

Part Number	Material	Wire Size ΦA mm	Length B meters	NK 126 NK 115	Product picture
ZR3224-4.5	Steel	1.6-2.4	4.5	● ●	
ZR4230-4.5	Steel	2.4-3.0	4.5	●	

7.04 FLUX CORED TORCH NK-126 (350A @ 60%): Torch Parts

额定值：350A，60% 暂载率。 焊丝直径：0.9-2.4mm (0.035"-3/32")。
Rating：350A, 60% duty. wires: 0.9-2.4mm (0.035"-3/32").



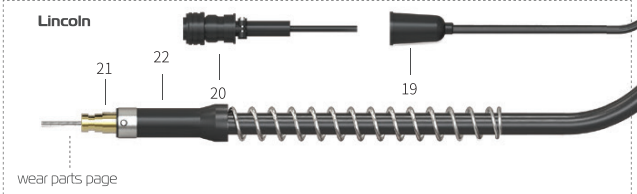
Model 型号

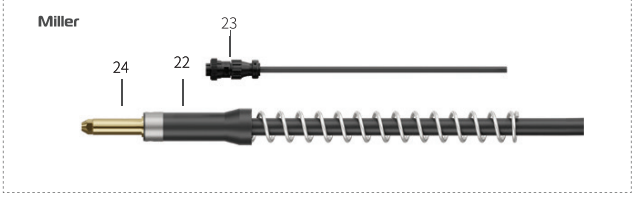
Description 描述	Length 长度	Part Number 编号
NK 126 焊枪 林肯接头 Welding Gun Lincoln Fitting	15FT	NK-126-15L
NK 126 焊枪 米勒接头 Welding Gun Miller Fitting	15FT	NK-126-15M
NK 126 焊枪 欧式接头 Welding Gun Euro Fitting	15FT	NK-126-15E

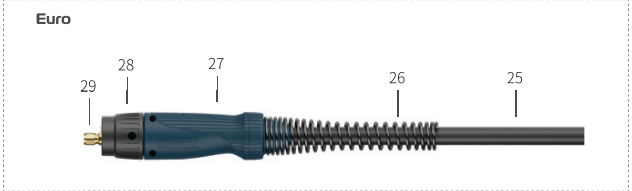
Components 部件

No. 序号	Part Number 零件号	Description 描述
1	ZN3101	Thread Protector 绝缘套
2	ZF3211	Locking Screw 锁紧螺钉
3	ZF3212	Steel Insert 钢套
4	ZF3213	Creamic Insert 瓷环
5	ZF32163	Liner 163mm 前导丝簧 ,163mm
	ZF32133*	Liner 133mm 前导丝簧 ,133mm
6	ZF3230	Swan Neck 30° 枪颈 30°
	ZF3230J	Swan Neck 30°, Jacketed 带外套枪颈 30°
	ZF3267	Swan Neck 67° 枪颈 67°
	ZF3267J	Swan Neck 67°, Jacketed 带外套枪颈 67°
	ZF3290	Swan Neck 90° 枪颈 90°
7	ZK3001	Handle Protector 手把护罩组件
8	ZT3001*	Locking Screw 紧固螺钉
9	ZT3002	Socket Head Cap Screw 内六角紧固螺钉
10	Q1316	Ring 挡圈
11	ZM3001	Clamp 夹紧块
12	ZH3011	Spatter Shield 挡板
13	ZH3101	Handle 手柄
14	ZJ3014	Switch Housing 扳机固定板
15	Q712	Switch 微动开关
16	ZJ3015	Switch Assembly 开关组件
17	ZJ3001	Triggrer Housing Assembly 扳机座总成
18	ZJ3011	Triggrer 扳机
19	LV0002*	2 Pin Plug (LN-7,8,9,25) 二芯插头 (LN-7,8,9,25)
20	ZV0005	5 Pin Plug (LN-7,8,9,25) 五芯插头 (LN-7,8,9,25)
	ZV3003	3 Pin Plug (LN-22,23) 三芯插头 (LN-22,23)
21	ZL3115L	Cable Assembly (Lincoln) 15FT 林肯接头电缆总成 15FT
22	ZH3201	Insulator Sleeve W/Spring 后尾壳
23	MV0004	4 Pin Plug 四芯插头
24	ZL3115M	Cable Assembly (Miller) 15FT 米勒接头电缆总成 15FT
25	ZL3115E	Cable Assembly (Euro) 15FT 欧式接头电缆总成 15FT

No. 序号	Part Number 零件号	Description 描述
26	8M9501	Back Cable Support Spring 电缆后弹簧护套
27	NH0202	Back Handle Assembly 后枪壳组件
28	NH020203	Gun Plug Nut 插件锁母
29	ZEU0002	Euro Gun Plug 欧式插头总成



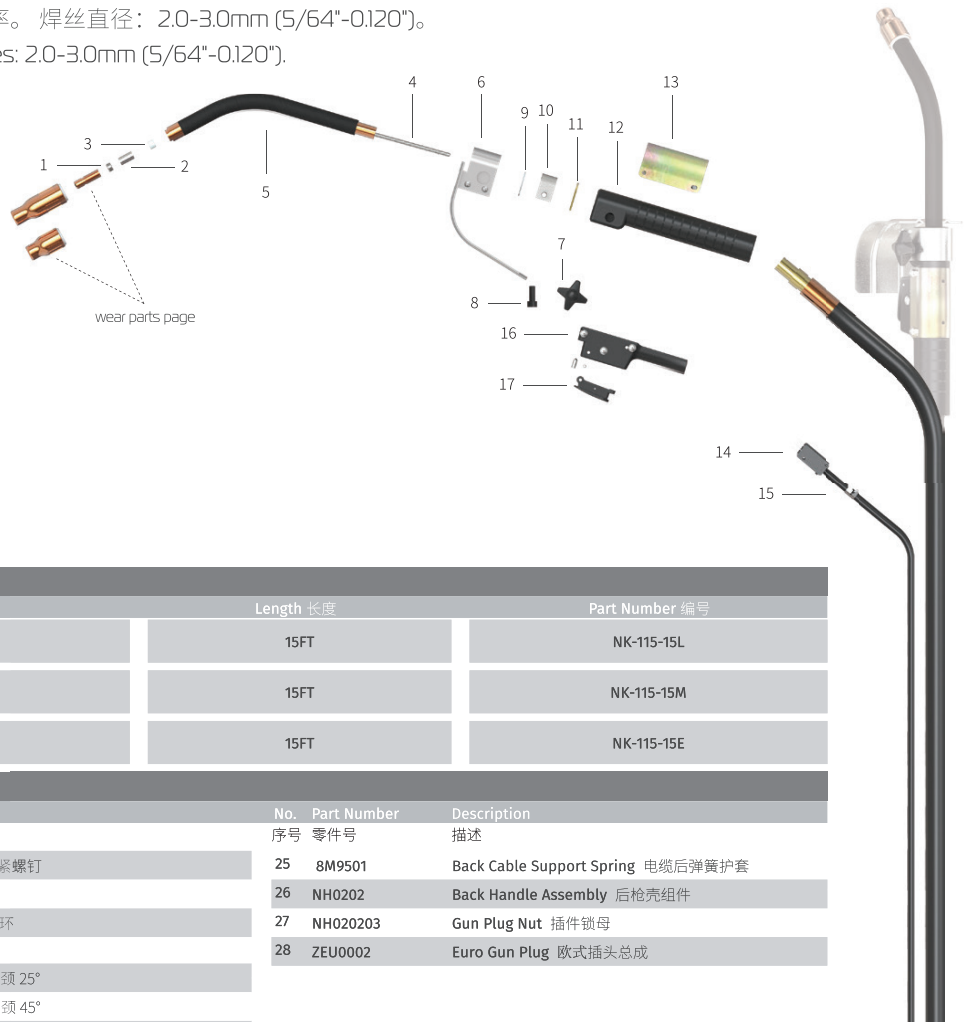




Refer to Page 16 [NK-126 CONTACT TIPS], and Page 17 [Nozzles / Thread Protectors (Wear Parts) & Torch Liners (Wear Parts)].

7.05 FLUX CORED TORCH NK-115 (450A @ 60%): Torch Parts

额定值：450A，60% 暂载率。焊丝直径：2.0-3.0mm (5/64"-0.120")。
Rating：450A, 60% duty. wires: 2.0-3.0mm (5/64"-0.120").



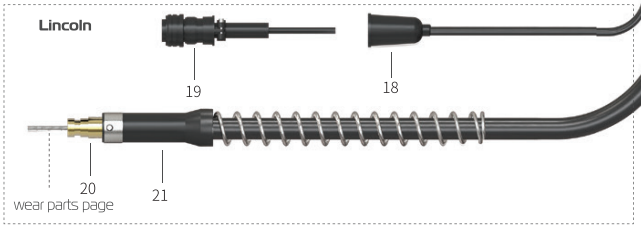
Model 型号

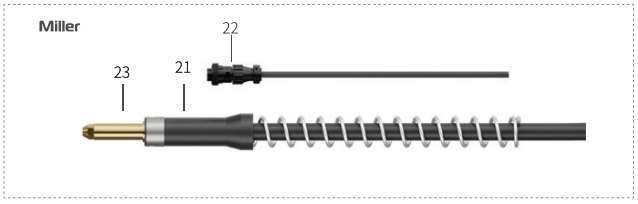
Description 描述	Length 长度	Part Number 编号
NK 115 焊枪 林肯接头 Welding Gun Lincoln Fitting	15FT	NK-115-15L
NK 115 焊枪 米勒接头 Welding Gun Miller Fitting	15FT	NK-115-15M
NK 115 焊枪 欧式接头 Welding Gun Euro Fitting	15FT	NK-115-15E

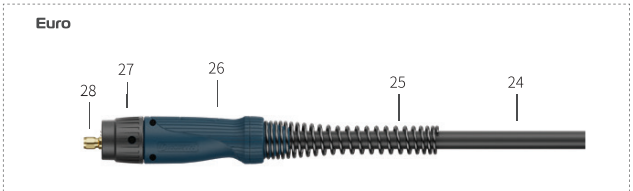
Components 部件

No. 序号	Part Number 零件号	Description 描述
1	ZF4211	Locking Screw 锁紧螺钉
2	ZF4212	Steel Insert 钢套
3	ZF4213	Creamic Insert 瓷环
4	ZF4214	Liner 前导丝簧
5	ZF4225	Swan Neck 25° 枪颈 25°
	ZF4245	Swan Neck 45° 枪颈 45°
	ZF4290	Swan Neck 90° 枪颈 90°
	ZF4290J	Swan Neck 90°, Jacketed 带外套枪颈 90°
6	ZK4001	Handle Protector 手把护罩组件
7	ZT3001*	Locking Screw 紧固螺钉
8	ZT3002	Socket Head Cap Screw 内六角紧固螺钉
9	Q1316	Ring 挡圈
10	ZM3001	Clamp 夹紧块
11	ZH4010	Spatter Shield 挡板
12	ZH3101	Handle 手柄
13	ZJ3014	Switch Housing 扳机固定板
14	Q712	Switch 微动开关
15	ZJ3015	Switch Assembly 开关组件
16	ZJ3001	Triggrer Housing Assembly 扳机座总成
17	ZJ3011	Triggrer 扳机
18	LV0002*	2 Pin Plug (LN-7,8,9,25) 二芯插头 (LN-7,8,9,25)
19	ZV0005	5 Pin Plug (LN-7,8,9,25) 五芯插头 (LN-7,8,9,25)
20	ZL4115L	Cable Assembly (Lincoln) 15FT 林肯接头电缆总成 15FT
21	ZH3201	Insulator Sleeve W/Spring 后尾壳
22	MV0004	4 Pin Plug 四芯插头
23	ZL4115M	Cable Assembly (Miller) 15FT 米勒接头电缆总成 15FT
24	ZL4115E	Cable Assembly (Euro) 15FT 欧式接头电缆总成 15FT

No. 序号	Part Number 零件号	Description 描述
25	8M9501	Back Cable Support Spring 电缆后弹簧护套
26	NH0202	Back Handle Assembly 后枪壳组件
27	NH020203	Gun Plug Nut 插件锁母
28	ZEU0002	Euro Gun Plug 欧式插头总成







Refer to Page 16 [NK-115 CONTACT TIPS], and Page 17 [Nozzles / Thread Protectors (Wear Parts) & Torch Liners (Wear Parts)].

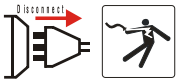
SECTION 8 – TROUBLESHOOTING

NOTE: *Weld quality is dependent on the correct consumables, proper Torch position/angles, and Product maintenance.*

Description	Possible Cause	Corrective Action
1. Welding wire feeding problems.	A **Contact Tip** is worn. B **Torch Liner** and/or **Swan Neck Liner** is worn / dirty. C Consumables used are not suitable for the welding wire diameter or material. D FCAW equipment not set-up properly. E Welding wire is contaminated. F **FLUX CORED TORCH** control Multi-Pin Connector is not connected to the FCAW equipment. G FCAW equipment not plugged into Mains Power or isn't switch ON. H Faulty **Torch Trigger Switch,** or **Multi-Pin Plug,** or Cable to the **Torch Trigger Switch.**	A Replace **Contact Tip**. B Check the **Liners**; blow it out with clean, dry compressed air. If needed replace it. C Use recommended consumables for the welding wire diameter/material used. D Check the feed rolls, feed roll pressure and the spool brake are adjusted as stated by the FCAW equipment's manual. E Use a cleaning felt to clean welding wire in the FCAW equipment. F Connect the Multi-Pin to the FCAW equipment. G Plug FCAW equipment into Mains Power or switch ON. H Get a suitably Trained and Qualified Tradesperson to repair the **FLUX CORED TORCH.**
2. Welding wire does not feed out of the **FLUX CORED TORCH** due to a **Birds Nest** that may develop at the FCAW equipment Drive Rolls. **NOTE**: A **Birds Nest** is a tangle of welding wire at the Drive Rolls when the welding wire stops due an obstruction in a Torch Liner while the Drive Rolls are spinning.	A The **FLUX CORED TORCH** is not fitted with the correct size **Contact Tip**, **Swan Neck Liner**, or **Torch Cable Liner**. B The **Contact Tip** is blocked with wire debris OR the **Swan Neck Liner** / **Torch Cable Liner** are worn / filled with dirt and debris. C Worn or broken Torch Trigger Switch D Wrong size/type feed rolls for welding wire or worn feed rolls in the FCAW equipment.	A Check then replace any incorrect size parts in the **FLUX CORED TORCH** such as **Contact Tip**, **Swan Neck Liner,** or **Torch Cable Liner**. B Replace the **Contact Tip** and/or **Swan Neck Liner** / **Torch Cable Liner**, blow out **Swan Neck Liner** / **Torch Cable Liner** with clean, dried compressed air. C Test, if not working then replace. D Change feed rolls to correct size/type for welding wire or change worn feed rolls in the FCAW equipment.
3. Slower than normal Wire Feed Speed when the **Torch Trigger Switch** is pressed once the **FLUX CORED TORCH** has heated up to operating temperature.	A **Worn Feed Rolls** in the FCAW equipment. B **Torch Liner** and/or **Swan Neck Liner** is worn / contaminated with welding wire shavings, or the **Torch Liner** has a kink in it. C The **FLUX CORED TORCH Cable** is got a kink in it or is **less than 600mm** diameter coil.	A Replace **Worn Feed Rolls** in the FCAW equipment. B Check the **Liners**; blow it out with clean, dry compressed air. If the **Liners** cannot be cleaned, then replace the **Liners.** If **Liners** have kinks, then replace the **Liners**. C Remove the kink by straightening the **FLUX CORED TORCH Cable** or increase the **FLUX CORED TORCH Cable** to **greater than 600mm** diameter coil.
4. Torch is getting extremely hot.	A Contact tip or tip holder are not tightened properly. B Torch Cable connections loose or defective.	A Make tighter using a suitable tool. B Make Torch Cable / Swan Neck connections tighter.

Description	Possible Cause	Corrective Action
5. Welding wire feeding problems.	A **Contact Tip** is worn. B **Torch Liner** and/or **Swan Neck Liner** is worn / dirty. C Consumables used are not suitable for the welding wire diameter or material. D FCAW equipment not set-up properly. E Welding wire is contaminated. F **FLUX CORED TORCH** control Multi-Pin Connector is not connected to the FCAW equipment.	A Replace **Contact Tip**. B Check the **Liners**; blow it out with clean, dry compressed air. If needed replace the **Liners**. C Use recommended consumables for the welding wire diameter/material used. D Check the feed rolls, feed roll pressure and the spool brake are adjusted as stated by the FCAW equipment's manual. E Use a cleaning felt to clean welding wire in the FCAW equipment. F Connect the Multi-Pin to the FCAW equipment.
6. Wire feed stops during welding.	A Welding Wire blockage in **Contact Tip**. B Wire burns back into **Contact Tip**. C Groove worn in **Contact Tip** by welding wire.	A Check for contamination/clogging, clean or replace **Contact Tip**. B Replace the **Contact Tip** and move the **Contact Tip** further away from the welding arc when welding. C Replace **Contact Tip**.
7. Welding arc: - always varies length - is unstable - is erratic	A **Contact Tip** is worn. B Wrong welding parameters. C Poor electrical connections in the welding circuit.	A Change **Contact Tip**. B Check the FCAW equipment setup parameters then change parameters. C Check / tighten all electrical connections of the FCAW equipment, Torch, and ground cable to work piece.
8. Welding wire burns back to contact tip.	A Incorrect arc voltage/ wire feed speed weld parameters for the welding wire/material/Torch position. B Erratic / unstable welding arc. C Incorrect welding wire stick-out length for required weld. D Ground cable to work piece fault.	A Adjust arc voltage and/or wire feed speed parameters as recommended by the Welding Wire Manufacturer. B Check the FCAW equipment for the correct welding parameters as recommended by the Welding Wire Manufacturer. C Adjust wire stick-out by adjusting the distance between the **Contact Tip** and the **Welding Arc**. D Replace ground cables and/or connections.
9. Short contact tip life	A **Contact Tip** size. B Welding wire eroding **Contact Tip** due to feed rolls scoring wire. C Exceeding Torch duty cycle.	A Replace with correct **Contact Tip** size. B Change feed rolls. C Replace with higher rated amperage rated Torch.
10. Extreme spatter	A Incorrect arc voltage/ wire feed speed weld parameters for the welding wire / material / Torch position. B Contaminated wire or work piece.	A Adjust arc voltage and/or wire feed speed parameters as recommended by the Welding Wire Manufacturer. B Use a cleaning felt to clean welding wire in the FCAW equipment or clean the work piece.
11. Welding Wire comes out of the **FLUX CORED TORCH** with out pressing the **Torch Trigger Switch**.	A Faulty **Torch Trigger Switch**. B Faulty **Multi-Pin Plug,** or Cable to the **Torch Trigger Switch.**	A Get a suitably Trained and Qualified Tradesperson to repair or replace the **Torch Trigger Switch.** B Get a suitably Trained and Qualified Tradesperson to repair or replace the **Multi-Pin Plug,** or Cable to the **Torch Trigger Switch.**

SECTION 9 – ROUTINE SERVICE and MAINTENANCE

								
Service / Maintenance must be performed by a suitably Trained and Qualified Tradesperson	Disconnect Input Mains Power Supply from Welding System before performing maintenance on the system. Electric shock can kill	Hot parts can burn. Let the Torch cool down prior to doing maintenance work	Turn off air compressor, and release air pressure from system. Compressed air can injure or kill.	Welding wire can cause injury	Moving parts can cause injury	Flying metal or dirt can injure eyes	Improper installation can cause fire	Read User Manual

Damaged Swan Necks, Torches, or Cable Assemblies must not be used!

Known defects must be repaired by suitably Trained and Qualified Tradesperson prior using Torch.

Schedule for Routine Maintenance / Inspection with Actions

Before Every Use	• Check torch, contact tip, nozzle, liner, cables, Wire Drive System, Worn Drive Roll, and overall equipment for damage. Replace any damaged components.
Every 8 Hours of Use	• Change Contact Tip.
Once per Day	• Visual inspect for damages on the Swan Neck, and Torch Cable Assembly.
Every 16 Hours of Use	• Use dry, clean compressed air to blow out the Liner but first remove contact tip.
Every 40 Hours of Use	• Remove the Liner and check for wear. Replace Liner if worn. • Remove the Liner and check for dirt deposits. Use dry, clean compressed air to blow out the Liner but first remove contact tip. Replace Liner if dirt cannot be removed from Liner.
Once per Month (1 x 8 Hour Shift per Day) OR **Twice per Month (2 x 8 Hour Shifts per Day) OR** **Three Times per Month (3 x 8 Hour Shifts per Day)**	• Make sure that all screws are tightened. • Inspect all connections and hoses for damages.

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Premium Torches, Spares & Accessories

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