

HOBART[®]
WELDING PRODUCTS

OM-184 693C

March 2000

Processes



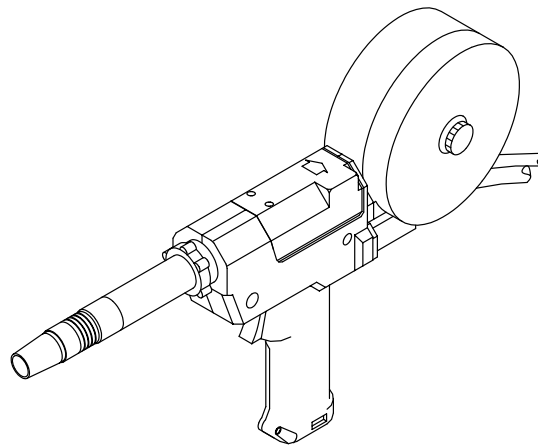
MIG (GMAW) Welding

Description



Feeder Gun

Olympic 30A



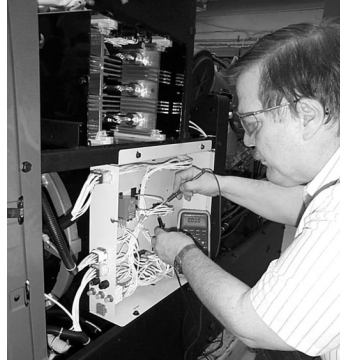
OWNER'S MANUAL

From Hobart to You

Thank you and congratulations on choosing Hobart. Now you can get the job done and get it done right. We know you don't have time to do it any other way.

This Owner's Manual is designed to help you get the most out of your Hobart products. Please take time to read the Safety precautions. They will help you

protect yourself against potential hazards on the worksite. We've made installation and operation quick and easy. With Hobart you can count on years of reliable service with proper maintenance. And if for some reason the unit needs repair, there's a Troubleshooting section that will help you figure out what the problem is. The parts list will then help you to decide which exact part you may need to fix the problem. Warranty and service information for your particular model are also provided.



Hobart is registered to the ISO 9001 Quality System Standard.

Hobart Welders manufactures a full line of welders and welding related equipment. For information on other quality Hobart products, contact your local Hobart distributor to receive the latest full line catalog or individual catalog sheets. **To locate your nearest distributor or service agency call 1-877-Hobart1.**



Hobart offers a Technical Manual which provides more detailed service and parts information for your unit. To obtain a Technical Manual, contact your local distributor. Your distributor can also supply you with Welding Process Manuals such as SMAW, GTAW, GMAW, and GMAW-P.

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WELDING PRODUCTS

TABLE OF CONTENTS

SECTION 1 – SAFETY PRECAUTIONS - READ BEFORE USING	1
1-1. Symbol Usage	1
1-2. Arc Welding Hazards	1
1-3. Additional Symbols for Installation, Operation, and Maintenance	3
1-4. Principal Safety Standards	3
1-5. EMF Information	4
SECTION 2 – INSTALLATION	5
2-1. Specifications	5
2-2. Removing Top Cover	5
2-3. Adjusting Contact Tip Position	5
2-4. Installing Wire Spool And Threading Welding Wire	6
2-5. Rotating Canister	6
2-6. Connecting To BETA-MIG® 251 Welding Power Source	7
2-7. Installing Gas Supply	7
2-8. Adjusting Drive Roll And Spool Brake Pressure	8
SECTION 3 – OPERATION	9
3-1. Controls	9
3-2. Shielding Gas	9
SECTION 4 – MAINTENANCE & TROUBLESHOOTING	10
4-1. Routine Maintenance	10
4-2. Changing Contact Tip And Liner	10
4-3. Gun Drive Assembly Maintenance	11
4-4. Replacing Canister Inlet Guide	12
4-5. Replacing Spool Canister	12
4-6. Replacing Contact Tip Adapter	13
4-7. Troubleshooting	13
SECTION 5 – ELECTRICAL DIAGRAMS	14
SECTION 6 – PARTS LIST	16
WARRANTY	

SECTION 1 – SAFETY PRECAUTIONS - READ BEFORE USING

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1-1. Symbol Usage



Means Warning! Watch Out! There are possible hazards with this procedure! The possible hazards are shown in the adjoining symbols.

▲ Marks a special safety message.

☞ Means "Note"; not safety related.



This group of symbols means Warning! Watch Out! possible ELECTRIC SHOCK, MOVING PARTS, and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid the hazards.

1-2. Arc Welding Hazards

▲ The symbols shown below are used throughout this manual to call attention to and identify possible hazards. When you see the symbol, watch out, and follow the related instructions to avoid the hazard. The safety information given below is only a summary of the more complete safety information found in the Safety Standards listed in Section 1-4. Read and follow all Safety Standards.

▲ Only qualified persons should install, operate, maintain, and repair this unit.

▲ During operation, keep everybody, especially children, away.



ELECTRIC SHOCK can kill.

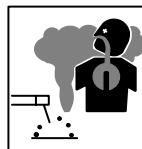
Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on. The input power circuit and machine internal circuits are also live when power is on. In semiautomatic or automatic wire welding, the wire, wire reel, drive roll housing, and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment is a hazard.

- Do not touch live electrical parts.
- 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.
- Do not use AC output in damp areas, if movement is confined, or if there is a danger of falling.
- Use AC output ONLY if required for the welding process.
- If AC output is required, use remote output control if present on unit.
- Disconnect input power or stop engine before installing or servicing this equipment. Lockout/tagout input power according to OSHA 29 CFR 1910.147 (see Safety Standards).
- Properly install and ground this equipment according to its Owner's Manual and national, state, and local codes.
- Always verify the supply ground – check and be sure that input power cord ground wire is properly connected to ground terminal in disconnect box or that cord plug is connected to a properly grounded receptacle outlet.
- When making input connections, attach proper grounding conductor first – double-check connections.
- Frequently inspect input power cord for damage or bare wiring – replace cord immediately if damaged – bare wiring can kill.
- Turn off all equipment when not in use.
- Do not use worn, damaged, undersized, or poorly spliced cables.
- Do not drape cables over your body.

- If earth grounding of the workpiece is required, ground it directly with a separate cable.
- Do not touch electrode if you are in contact with the work, ground, or another electrode from a different machine.
- Use only well-maintained equipment. Repair or replace damaged parts at once. Maintain unit according to manual.
- Wear a safety harness if working above floor level.
- Keep all panels and covers securely in place.
- Clamp work cable with good metal-to-metal contact to workpiece or worktable as near the weld as practical.
- 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.

SIGNIFICANT DC VOLTAGE exists after removal of input power on inverters.

- Turn Off inverter, disconnect input power, and discharge input capacitors according to instructions in Maintenance Section before touching any parts.



FUMES AND GASES can be hazardous.

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 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 instructions for metals, consumables, coatings, cleaners, and degreasers.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have a trained watchperson nearby. Welding fumes and gases can displace air and lower the oxygen level 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 vapors 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.



ARC RAYS can burn eyes and skin.

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

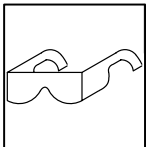
- Wear a welding helmet fitted with a proper shade of filter to protect your face and eyes when welding or watching (see ANSI Z49.1 and Z87.1 listed in Safety Standards).
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash and glare; warn others not to watch the arc.
- Wear protective clothing made from durable, flame-resistant material (leather and wool) and foot protection.



WELDING can cause fire or explosion.

Welding on closed containers, such as tanks, drums, or pipes, can cause them to blow up. Sparks can fly off from the welding arc. The flying sparks, hot workpiece, and hot equipment can cause fires and burns. Accidental contact of electrode to metal objects can cause sparks, explosion, overheating, or fire. Check and be sure 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 closed containers such as tanks, drums, or pipes, unless they are properly prepared according to AWS F4.1 (see Safety Standards).
- Connect work cable to the work as close to the welding area as practical to prevent welding current from traveling long, possibly unknown paths and causing electric shock and fire hazards.
- Do not use welder to thaw frozen pipes.
- Remove stick electrode from holder or cut off welding wire at contact tip when not in use.
- Wear oil-free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.
- Remove any combustibles, such as a butane lighter or matches, from your person before doing any welding.



FLYING METAL can injure eyes.

- Welding, chipping, wire brushing, and grinding cause sparks and flying metal. As welds cool, they can throw off slag.
- Wear approved safety glasses with side shields even under your welding helmet.



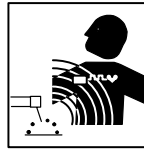
BUILDUP OF GAS can injure or kill.

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



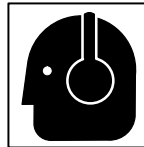
HOT PARTS can cause severe burns.

- Do not touch hot parts bare handed.
- Allow cooling period before working on gun or torch.



MAGNETIC FIELDS can affect pacemakers.

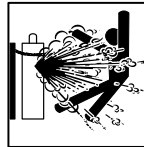
- Pacemaker wearers keep away.
- Wearers should consult their doctor before going near arc welding, gouging, or spot welding operations.



NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.



CYLINDERS can explode if damaged.

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, slag, open flames, sparks, and arcs.
- Install cylinders in an upright position by securing to a stationary support or cylinder rack to prevent falling or tipping.
- Keep cylinders away from any welding or other electrical circuits.
- Never drape a welding torch over a gas cylinder.
- Never allow a welding electrode to touch any cylinder.
- Never weld on a pressurized cylinder – explosion will result.
- 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.

1-3. Additional Symbols For Installation, Operation, And Maintenance



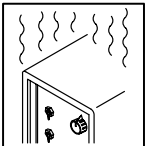
FIRE OR EXPLOSION hazard.

- Do not install or place unit on, over, or near combustible surfaces.
- Do not install unit near flammables.
- Do not overload building wiring – be sure power supply system is properly sized, rated, and protected to handle this unit.



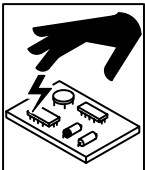
FALLING UNIT can cause injury.

- Use lifting eye to lift unit only, NOT running gear, gas cylinders, or any other accessories.
- Use equipment of adequate capacity to lift and support unit.
- If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit.



OVERUSE can cause OVERHEATING

- Allow cooling period; follow rated duty cycle.
- Reduce current or reduce duty cycle before starting to weld again.
- Do not block or filter airflow to unit.



STATIC (ESD) can damage PC boards.

- Put on grounded wrist strap BEFORE handling boards or parts.
- Use proper static-proof bags and boxes to store, move, or ship PC boards.



MOVING PARTS can cause injury.

- Keep away from moving parts.
- Keep away from pinch points such as drive rolls.



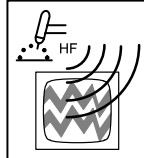
WELDING WIRE can cause injury.

- Do not press gun trigger until instructed to do so.
- Do not point gun toward any part of the body, other people, or any metal when threading welding wire.



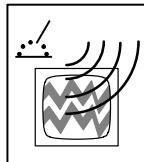
MOVING PARTS can cause injury.

- Keep away from moving parts such as fans.
- Keep all doors, panels, covers, and guards closed and securely in place.



H.F. RADIATION can cause interference.

- High-frequency (H.F.) can interfere with radio navigation, safety services, computers, and communications equipment.
- Have only qualified persons familiar with electronic equipment perform this installation.
- The user is responsible for having a qualified electrician promptly correct any interference problem resulting from the installation.
- If notified by the FCC about interference, stop using the equipment at once.
- Have the installation regularly checked and maintained.
- Keep high-frequency source doors and panels tightly shut, keep spark gaps at correct setting, and use grounding and shielding to minimize the possibility of interference.



ARC WELDING can cause interference.

- Electromagnetic energy can interfere with sensitive electronic equipment such as computers 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 welding machine is installed and grounded according to this manual.
- If interference still occurs, the user must take extra measures such as moving the welding machine, using shielded cables, using line filters, or shielding the work area.

1-4. Principal Safety Standards

Safety in Welding and Cutting, ANSI Standard Z49.1, from American Welding Society, 550 N.W. LeJeune Rd, Miami FL 33126

Safety and Health Standards, OSHA 29 CFR 1910, from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Recommended Safe Practices for the Preparation for Welding and Cutting of Containers That Have Held Hazardous Substances, American Welding Society Standard AWS F4.1, from American Welding Society, 550 N.W. LeJeune Rd, Miami, FL 33126

National Electrical Code, NFPA Standard 70, from National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, from Compressed Gas Association, 1235 Jefferson Davis Highway, Suite 501, Arlington, VA 22202.

Code for Safety in Welding and Cutting, CSA Standard W117.2, from Canadian Standards Association, Standards Sales, 178 Rexdale Boulevard, Rexdale, Ontario, Canada M9W 1R3.

Safe Practices For Occupation And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute, 1430 Broadway, New York, NY 10018.

Cutting And Welding Processes, NFPA Standard 51B, from National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

1-5. EMF Information

Considerations About Welding And The Effects Of Low Frequency Electric And Magnetic Fields

Welding current, as it flows through welding cables, will cause electromagnetic fields. There has been and still is some concern about such fields. However, after examining more than 500 studies spanning 17 years of research, a special blue ribbon committee of the National Research Council concluded that: "The body of evidence, in the committee's judgment, has not demonstrated that exposure to power-frequency electric and magnetic fields is a human-health hazard." However, studies are still going forth and evidence continues to be examined. Until the final conclusions of the research are reached, you may wish to minimize your exposure to electromagnetic fields when welding or cutting.

To reduce magnetic fields in the workplace, use the following procedures:

1. Keep cables close together by twisting or taping them.
2. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.
4. Keep welding power source and cables as far away from operator as practical.
5. Connect work clamp to workpiece as close to the weld as possible.

About Pacemakers:

Pacemaker wearers consult your doctor first. If cleared by your doctor, then following the above procedures is recommended.

SECTION 2 – INSTALLATION

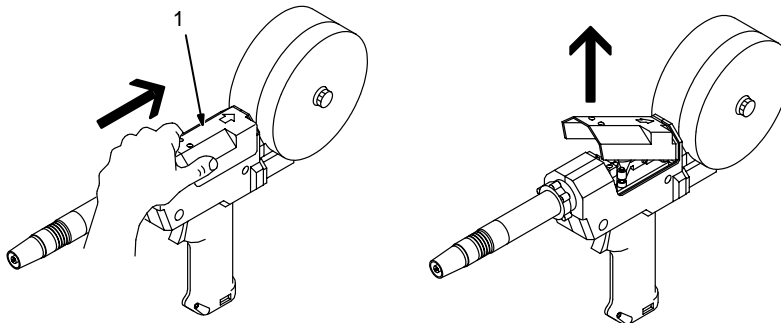
2-1. Specifications

Wire Diameter Range	Approximate Wire Feed Range	Cooling Method	Maximum Spool Size	Weld Circuit Rating	Overall Dimensions	Weight
.025 Thru 1/16 in (0.6 Thru 1.6 mm) Aluminum Wire	70 To 875 ipm (1.7 To 22.2 mpm)	Air Cooled	4 in (102 mm) Diameter	100 Volts, 200 Amperes, 100% Duty Cycle Using Argon Shielding Gas	Length: 15-3/8 in (390 mm) Width: 2-1/2 in (64 mm) Height: 10-3/4 in (273 mm)	2.9 lb (1.3 kg) Gun Only 14 lb (6.4 kg) Gun With Cable

NOTE

Use weld control or welding power source Owner's Manual during gun installation. If contact tip, liner, and drive roll groove are not correct for wire size and type, see Section 4 to change parts as needed. See Parts List for other available contact tips.

2-2. Removing Top Cover



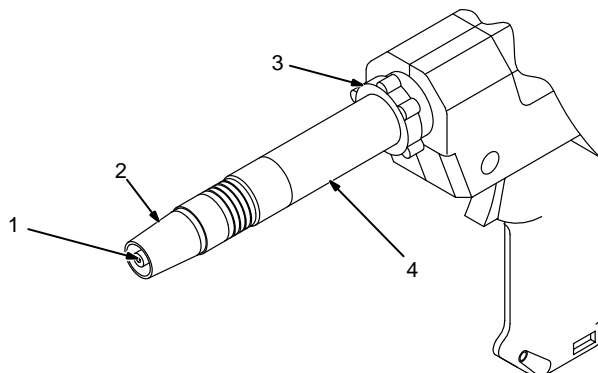
1 Top Cover

Push back and lift off as shown.

To reinstall cover, set rear of cover in gun/feeder, and push cover back, down, and forward until it clicks into position.

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2-3. Adjusting Contact Tip Position



1 Contact Tip

2 Nozzle

Adjusting barrel changes contact tip location from 1/16 in (1.6 mm) out end of nozzle to 1/4 in (6.3 mm) inside nozzle.

For aluminum welding, contact tip should be at least 1/8 in (3.2 mm) inside nozzle. For steel welding, contact tip should be flush with end of nozzle.

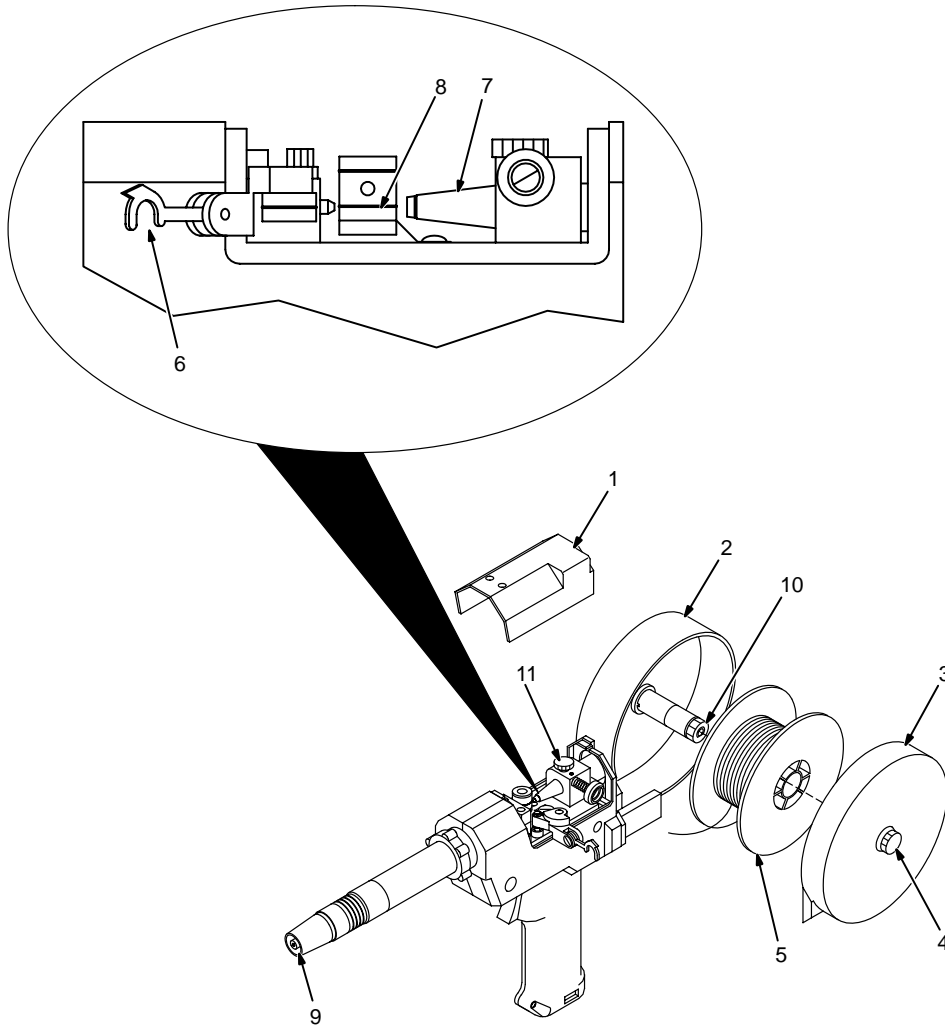
3 Jam Nut

4 Barrel

To change contact tip location, loosen jam nut, and turn barrel. Tighten jam nut.

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2-4. Installing Wire Spool And Threading Welding Wire



- 1 Top Cover
- 2 Canister
- 3 Canister Cover
- 4 Thumbscrew (Canister Cover)

Loosen thumbscrew and remove cover.

- 5 Wire Spool

Loosen wire from spool, cut off bent wire, and pull 6 in (150 mm) of wire off spool.

- 6 Pressure Roll Assembly

Lift arm and open pressure roll assembly.

- 7 Canister Inlet Guide

- 8 Drive Roll Groove

For wire sizes .035 in (0.9 mm) and smaller use small groove, and .047 in (1.2 mm) and 1/16 in (1.6 mm) use large groove.

- 9 Contact Tip

Thread wire through canister inlet guide, along drive roll groove, and out contact tip.

Install spool so wire feeds off bottom.

- 10 Spool Brake Thumbnut

If necessary, turn thumbnut counterclockwise slightly to install spool.

- 11 Thumbscrew (Canister Rotation)

Loosen thumbscrew to rotate canister (see Section 2-5).

Close and secure pressure roll assembly.

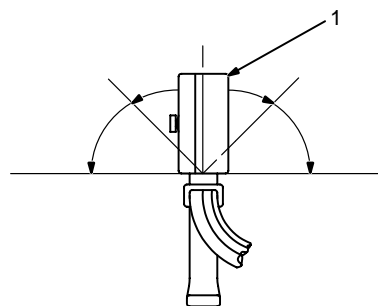
Reinstall top cover and canister cover.

Tools Needed:



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2-5. Rotating Canister



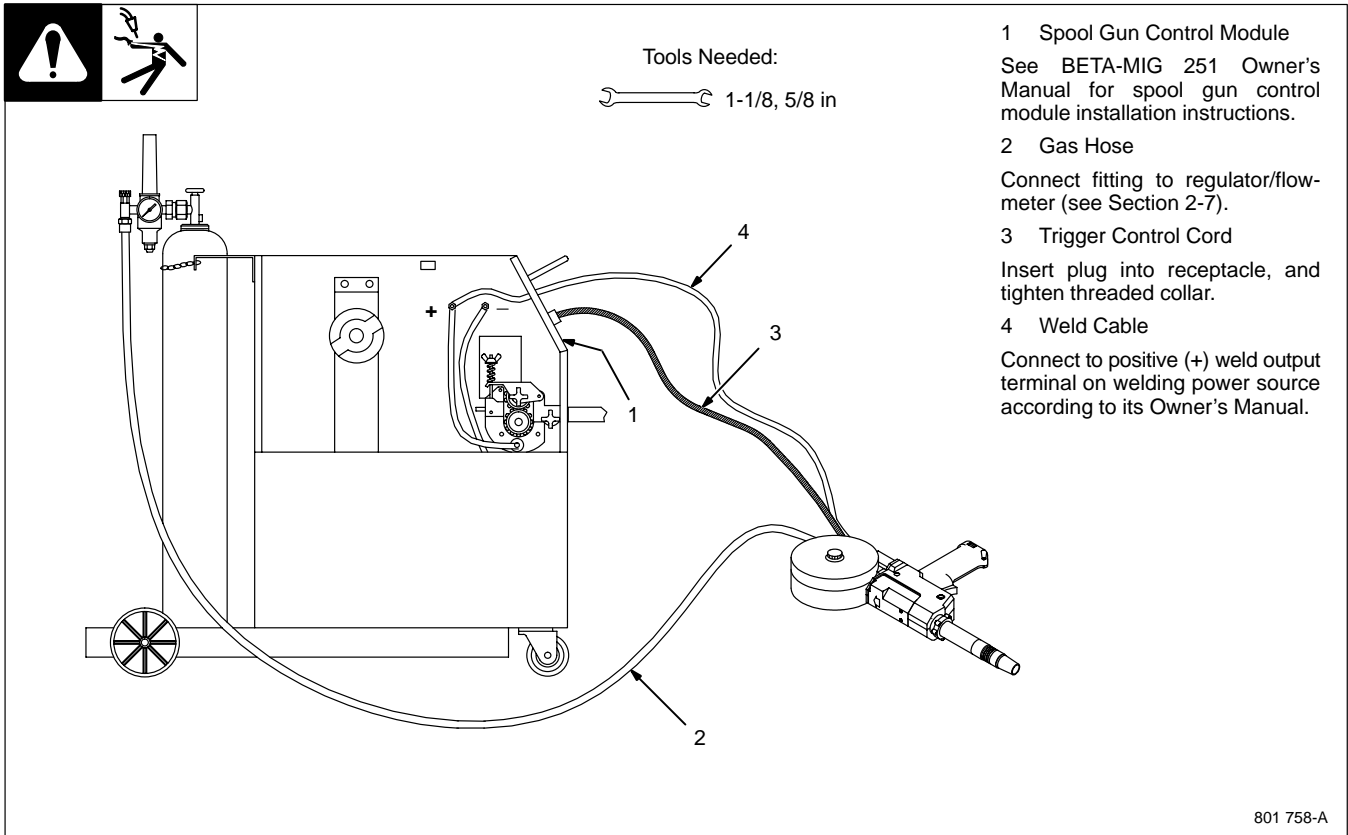
Rear View

- 1 Canister

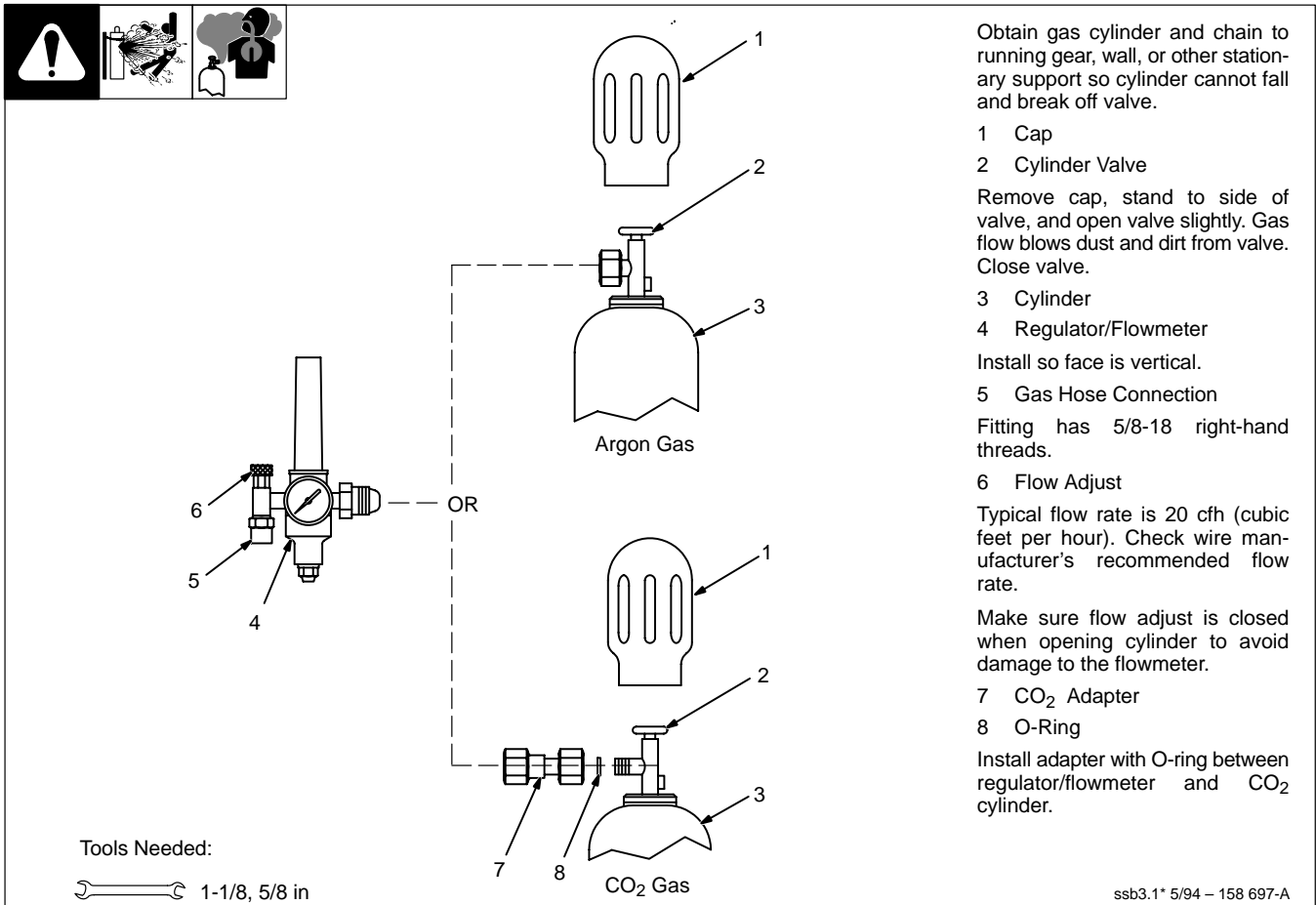
Loosen canister rotation thumbscrew (see Section 2-4). Move canister to desired position. Tighten thumbscrew.

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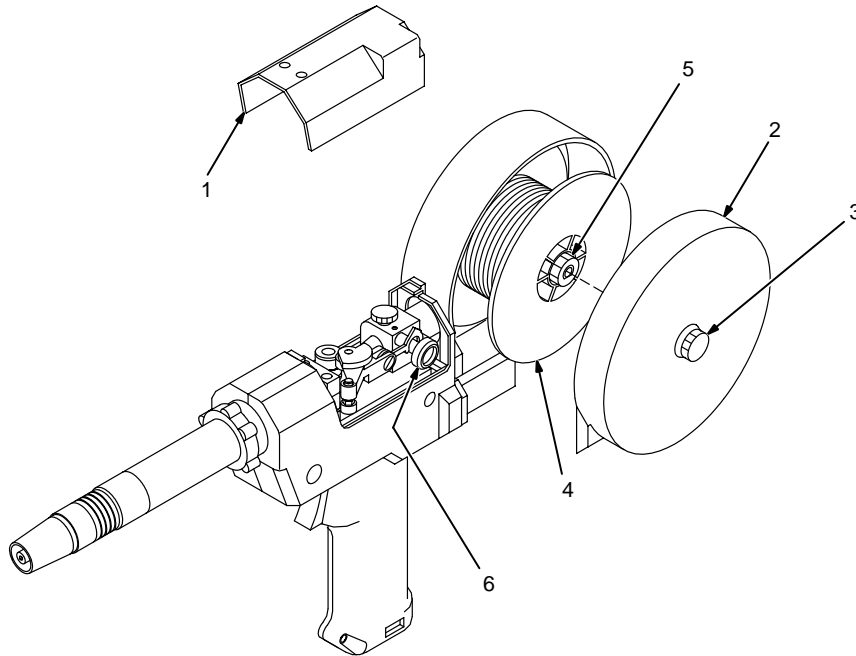
2-6. Connecting To BETA-MIG® 251 Welding Power Source



2-7. Installing Gas Supply



2-8. Adjusting Drive Roll And Spool Brake Pressure



- 1 Top Cover
- 2 Canister Cover
- 3 Thumbscrew

Loosen thumbscrew and remove cover.

- 4 Spool

Cut welding wire off at contact tip. Retract wire onto spool and secure.

- 5 Spool Brake Thumbnut

Grasp spool in one hand and turn while adjusting spool brake thumbnut. When a slight force is needed to turn spool, tension is set. Do not overtighten.

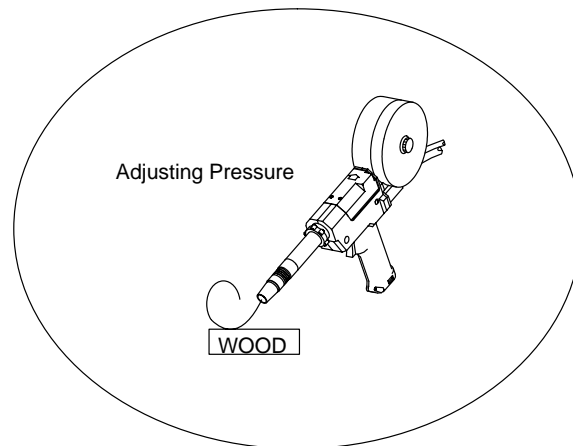
Reinstall canister cover. Thread welding wire (see Section 2-4).

- 6 Drive Roll Tension Thumbnut

Turn On unit and check drive roll pressure by feeding wire against a wood board or concrete surface; wire should feed steadily without slipping.

Adjust drive roll tension thumbnut if necessary. Do not overtighten.

Turn Off unit. Reinstall top cover.



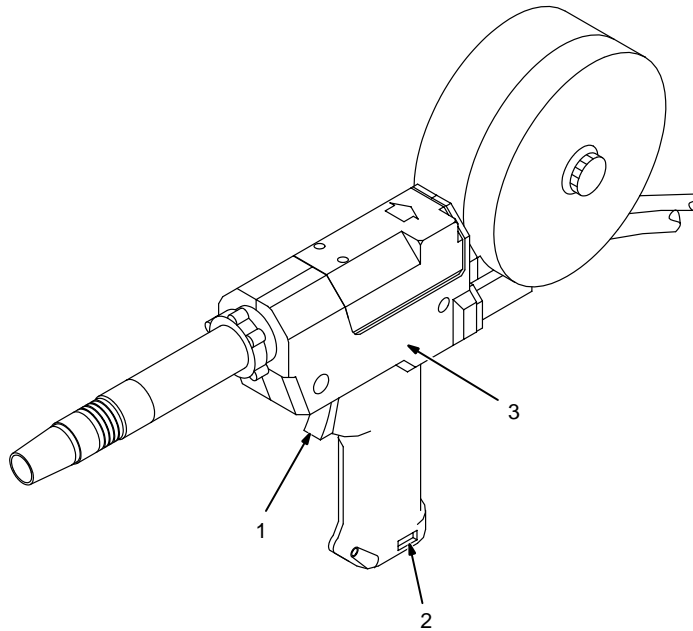
Tools Needed:



Ref. 151 112-A / S-0651

SECTION 3 – OPERATION

3-1. Controls



1 Trigger

Press trigger to energize welding power source contactor (if applicable), start shielding gas flow, and begin wire feed.

For shielding gas preflow and post-flow, lightly press trigger before and after welding.

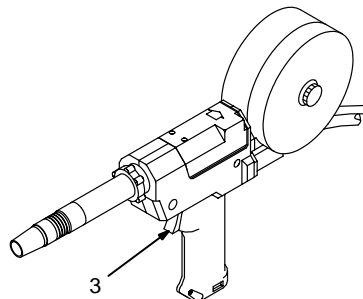
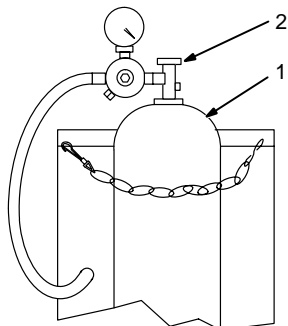
2 Wire Speed Control

Use control to adjust wire feed speed. The numbers in the opening are not a wire feed speed and are for reference only.

3 Rating Label Location

Ref. 147 741-B

3-2. Shielding Gas



1 Shielding Gas Cylinder

2 Valve

3 Gun Trigger

Open valve on cylinder just before welding.








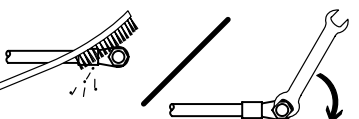
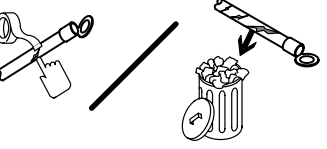
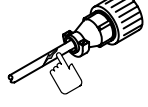
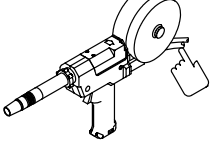

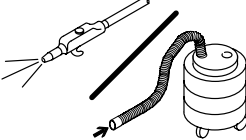
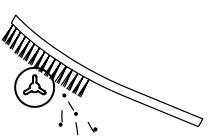
Gun trigger turns weld output and gas flow on and off. For shielding gas preflow and postflow, lightly press trigger before and after welding.

Close valve on cylinder when finished welding.


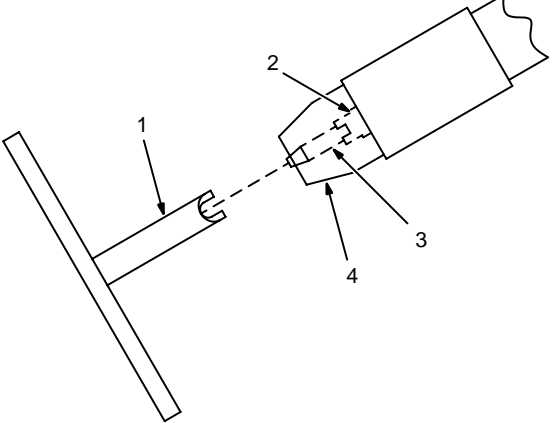

sb5.1* 6/92 – S-0621-C / Ref. 147 741-B

SECTION 4 – MAINTENANCE & TROUBLESHOOTING

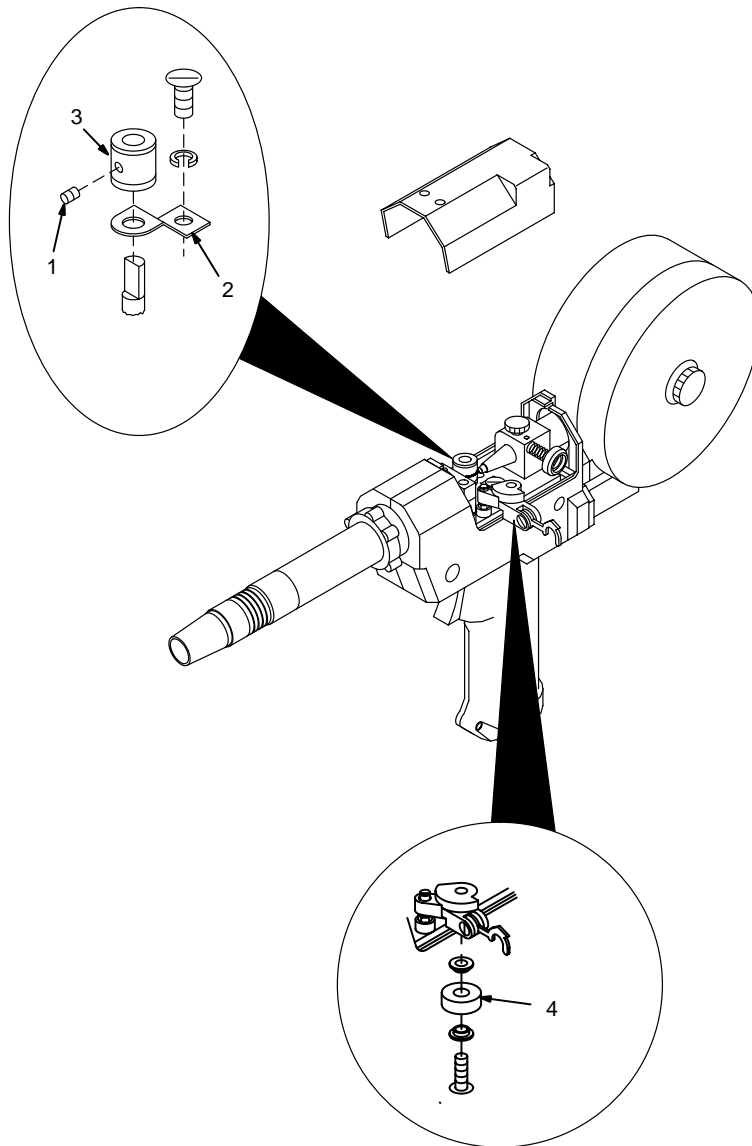
4-1. Routine Maintenance

					 ▲ Disconnect power before maintaining.		 <i>Maintain more often during severe conditions.</i>							
 3 Months														
  Replace Damaged Or Unreadable Labels			 Replace Damaged Gas Hose			 Clean And Tighten Weld Terminals								
										 Repair Or Replace Cracked Cables And Cords				
 6 Months														
 Blow Out Or Vacuum Inside					 Clean Drive Rolls									

4-2. Changing Contact Tip And Liner

					<p>Remove top cover and open pressure roll assembly as shown in Section 4-3.</p> <ol style="list-style-type: none"> 1 Contact Tip Wrench Insert wrench into nozzle over contact tip. 2 Compression Nut Loosen nut. Pull out contact tip. 3 Contact Tip 4 Nozzle <p>Pull wire out nozzle and liner should slide out. If necessary, tilt nozzle down to remove liner.</p> <p>Close pressure roll assembly. Re-install top cover.</p> <p>Install new liner and contact tip over wire. Cut off wire at end of contact tip.</p> <p>Tighten nut just until contact tip is secure. Overtightening nut will damage adapter.</p>				
									
<p>Tools Needed:</p> 									

4-3. Gun Drive Assembly Maintenance



Retract wire onto spool.

- 1 Setscrew
- 2 Current Pick-Up Tab

This tab helps prevent burnback caused by welding arcs inside the contact tip. This tab may be removed to provide an insulated drive roll. (If tab is removed, a smaller diameter contact tip is recommended. See options in Parts List.) Lightly grease top of tab before reinstalling.

- 3 Drive Roll

Use wire brush to clean drive roll. Install drive roll with desired groove down, and turn drive roll so one setscrew faces flat side of shaft.

- 4 Bearing

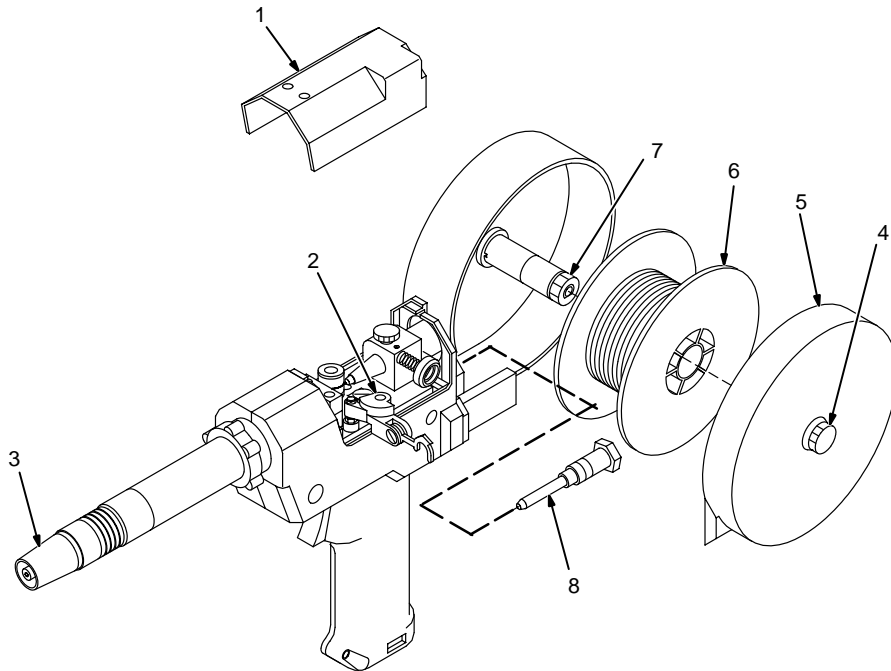
Use wire brush to clean bearing. Line up drive roll groove with bearing groove and liner opening. Tighten setscrews.

Thread welding wire through gun (see Section 3-3). Close and secure pressure roll assembly. Adjust drive roll pressure, if necessary (see Section 3-8). Reinstall top cover.

Tools Needed:



4-4. Replacing Canister Inlet Guide



Tools Needed:



- 1 Top Cover
- 2 Pressure Roll Assembly

Cut off welding wire where it enters pressure roll assembly area.

- 3 Nozzle

Pull wire out nozzle.

- 4 Thumbscrew

- 5 Canister Cover

Loosen thumbscrew and remove cover.

- 6 Wire Spool

- 7 Spool Brake Thumbnut

Loosen thumbnut, retract wire onto spool, secure, and remove spool.

- 8 Canister Inlet Guide

Turn counterclockwise to remove. Install new guide.

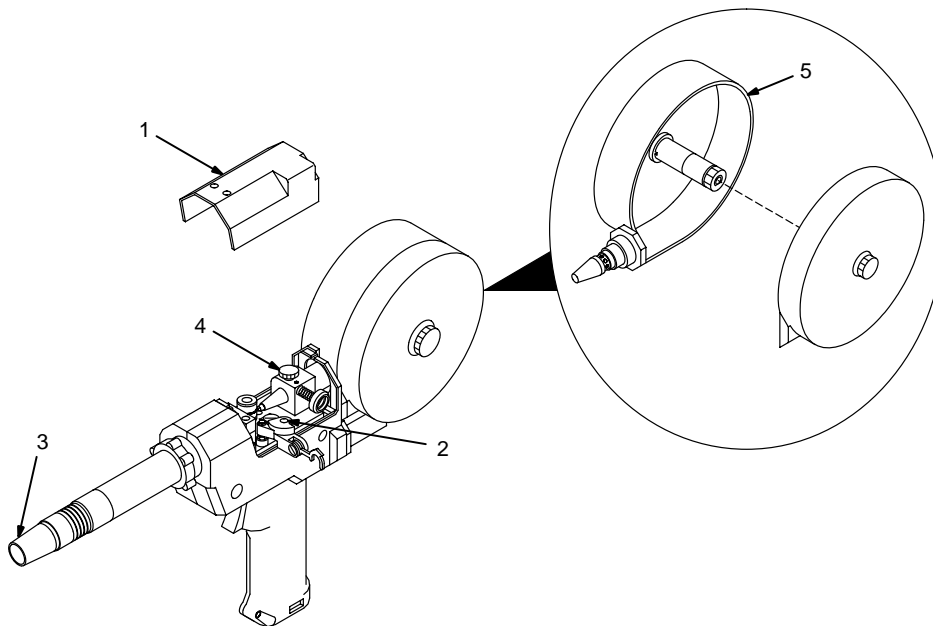
Reinstall spool and thread welding wire (see Section 2-4).

Close pressure roll assembly. Adjust spool brake pressure and drive roll pressure if necessary (see Section 2-8).

Reinstall covers.

Ref. 150 436-A / Ref. 149 967-C

4-5. Replacing Spool Canister



Tools Needed:



- 1 Top Cover

- 2 Pressure Roll Assembly

Cut off welding wire where it enters pressure roll assembly area.

- 3 Nozzle

Pull wire out nozzle.

- 4 Thumbscrew (Canister Rotation)

Turn thumbscrew counterclockwise three full turns.

- 5 Spool Canister

Remove as shown. Push new canister into wire drive housing until fully seated. Tighten thumbscrew.

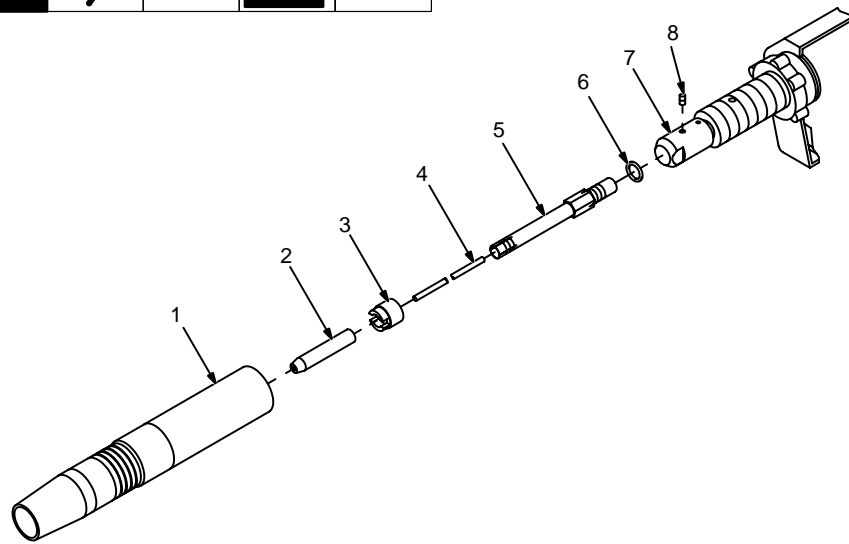
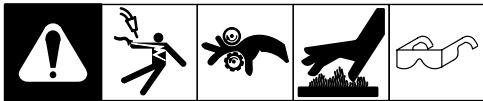
Install spool and thread welding wire (see Section 2-4).

Close pressure roll assembly. Adjust spool brake pressure and drive roll pressure as necessary (see Section 2-8).

Reinstall covers.

Ref. 149 967-C

4-6. Replacing Contact Tip Adapter



1 Barrel Extension

Remove as shown.

2 Contact Tip

3 Compression Nut

To remove, see Section 4-2.

4 Liner

5 Contact Tip Adapter

6 O-Ring

7 Head Tube

8 Head Tube Setscrew

Loosen setscrews and remove adapter.

Install new o-ring and adapter, and tighten setscrews. Reinstall contact tip, compression nut, and nozzle.

Tools Needed:

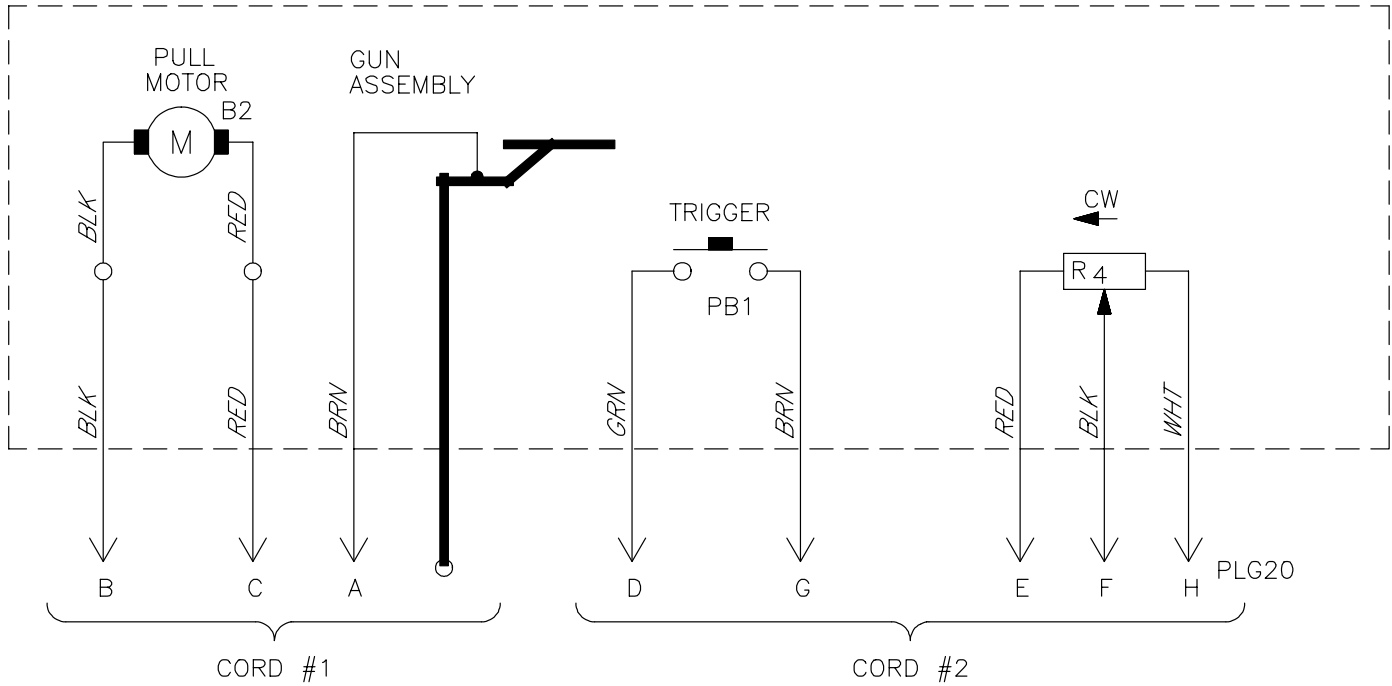


150 430-B

4-7. Troubleshooting

Trouble	Remedy
No weld output; gun/feeder does not work.	Place Power switch on welding power source in the On position (see welding power source Owner's Manual).
Erratic weld output.	Tighten and clean all connections.
Pressing gun/feeder trigger does not energize weld control; welding wire is not energized; shielding gas does not flow.	Secure plug from gun/feeder trigger cord into 10-socket receptacle on weld control (see Section 2-6).
Wire feeds, shielding gas flows, but welding wire is not energized.	Secure control cable leads in welding power source (see welding power source Owner's Manual). See Troubleshooting section in welding power source Owner's Manual.
Wire feeds erratically.	Check and correct drive roll pressure (see Section 2-8). Clean drive roll or replace drive roll (see Section 4-3). Decrease spool brake pressure (see Section 2-8).


SECTION 5 – ELECTRICAL DIAGRAMS



195 712-A

Figure 5-1. Circuit Diagram For Gun/Feeder

SECTION 6 – PARTS LIST

 Hardware is common and not available unless listed.

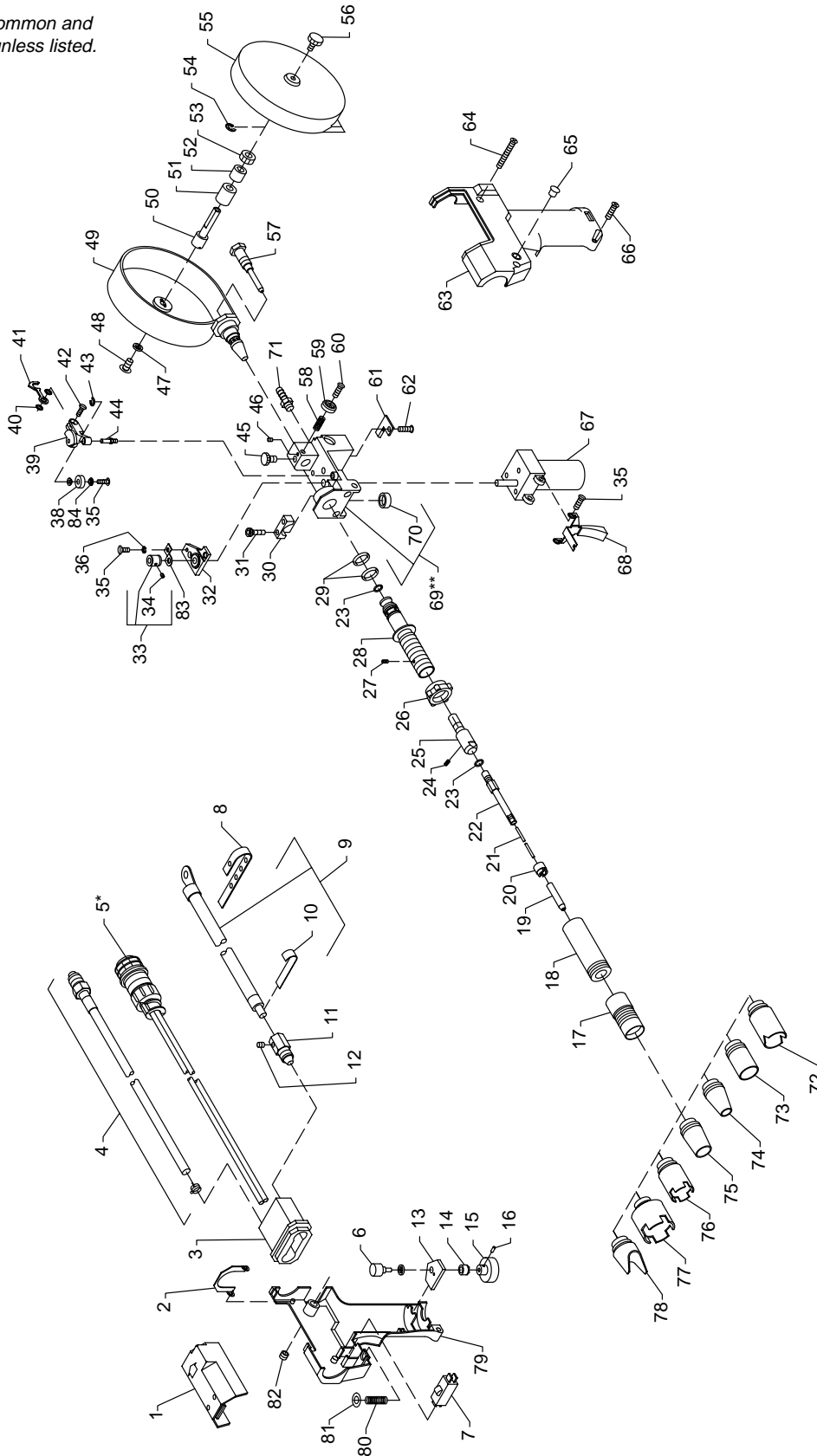


Figure 6-1. Complete Assembly

*Includes Items 6 & 7
 **Includes Item 71

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 6-1. Complete Assembly (Product No. 130 831-01-9)

1		133 479	COVER	1
2		135 196	SPRING, closure cover	1
3		133 362	STRAIN RELIEF, cable	1
4		182 824	HOSE, gas in	1
5		198 810	CABLE, control	1
6	R4	137 854	POTENTIOMETER, C sltd sft 1/T .5W 10K ohm	1
7	PB1	000 369	SWITCH, lim 10A 125/250VAC DPST plgr	1
8		073 476	CLAMP, strap rbr 5 holes .375 wide x 4.625 lg	13
9		137 479	CABLE, power	1
10		152 577	STRIP, cop .010 x 2.000 x .750	1
11		137 495	FITTING, connection power weld	1
12		141 694	SCREW, set .312-18 x .375sch stl	1
13		144 861	WASHER, anti-turn	1
14		135 127	LOCK, shaft pot .250-32 x .125dia shaft	1
15		134 856	KNOB, speed control 1-10 .140 shaft x 1.125 OD	1
16		602 169	SCREW, set stl sch 8-32 x .187 cup pt	1
17		144 862	EXTENSION, nozzle	1
18		156 821	EXTENSION, barrel 2.875 lg	1
19		◆136 171	TIP, contact .025/31 wire	1
19		◆135 428	TIP, contact .030/41 wire	1
19		135 430	TIP, contact .035/52 wire	1
19		135 424	TIP, contact .047/61 wire	1
19		◆135 425	TIP, contact .062/81 wire	1
		136 821	WRENCH, nut tip contact	1
		166 575	WRENCH, hex .078 across the flat	1
20		136 748	NUT, .375-24 .41dia stl	1
21		136 683	LINER, teflon .045-1/16 wire x 6.875 lg	1
21		136 682	LINER, teflon .023-.035 wire x 6.875 lg	1
22		164 421	ADAPTER, contact tip	1
23		164 485	O-RING .176 ID x .070CS	2
24		604 612	SCREW, set 8-32 x .125 cup pt sch stl	1
25		164 422	TUBE, head	1
26		058 685	NUT, 1.000-8 1.5knrl nyl	1
27		602 172	SCREW, set 10-32 x .187 cup point sch stl	1
28		164 423	ADAPTER, tip head	1
29		134 800	O-RING, .614 ID x .070CS	2
30		133 365	CLAMP, head tube	1
31		000 417	SCREW, 10-24 x1.000sochd hex	2
32		162 041	BEARING BLOCK ASSEMBLY	1
		604 638	SCREW, 6-32 x .375sochd hex	3
		143 480	SCREW, 6-32 x .625sochd hex stl	1
33		136 135	ROLL, drive VK groove .023-1/16 wire (consisting of)	1
33		183 357	ROLL, drive VK groove .030/.035 wire (consisting of)	1
33		183 358	ROLL, drive VK groove .047/.062 wire (consisting of)	1
34		604 612	SCREW, set stl sch 8-32 x .125 cup point	2
35		114 045	SCREW, 6-32 x .500hexwhd slt stl slffmg	3
36		602 198	WASHER, lock .141 ID stl split	1
38		134 623	BEARING, idler roll	1
39		132 852	ARM, pressure	1
40		605 798	WASHER, shldr nyl .375 OD x .168 ID x .080	2
41		133 083	SPRING, tension adj drive roll	1
42		144 860	SCREW, 8-32 x .437flathd slt stl	1
43		058 968	RING, retainer E	1
44		135 474	PIN, hinge	1
45		155 565	SCREW, thumb	1
		134 799	O-RING, .176 ID x .070CS (used w/thumbscrew)	1
46		135 126	SCREW, set 6-32 x .125 cup point sch stl	1

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 6-1. Complete Assembly (Continued)

... 47		602 209	.. WASHER, tooth .256 ID stl intl	1
... 48		602 154	.. SCREW, .250-20 x .500hexhd stl slffmg	1
... 49		132 527	.. CANISTER, spool	1
... 50		148 488	.. POST, support spool	1
... 51		132 529	.. PAD, brake	1
... 52		148 489	.. WASHER, anti-turn .380 ID	1
... 53		132 524	.. NUT, .375-24 .56knrl alum	1
... 54		000 364	.. RING, retainer ext .145 shaft grv x .025thk	1
... 55		132 526	.. COVER, spool	1
... 56		132 528	.. SCREW, thumb canister	1
... 57		132 521	.. GUIDE, inlet canister	1
... 58		112 896	.. SPRING, cprsn .240 OD x .020 wire x .437	1
... 59		135 773	.. NUT, 8-32 .56knrl stl	1
... 60		143 360	.. SCREW, 8-32 x .500panhd phl stl	1
... 61		136 679	.. CLAMP, strain relief	1
... 62		129 351	.. SCREW, 8-32 x .500hexwhd slt stl slffmg	1
... 63		164 591	.. CASE, gun LH	1
... 64		173 527	.. SCREW, 8-32 x 1.500	2
... 65		143 397	.. BLANK, snap in nylon	1
... 66		173 528	.. SCREW, 8-32 x .875	1
... 67	B2	161 813	.. MOTOR, gear PM 24VDC 420RPM 10.2:1 ratio	1
... 68		164 592	.. TRIGGER	1
... 69		164 582	.. HOUSING, wire drive (consisting of)	1
... 70		058 262	.. CAP, valve	1
... 71		135 580	.. FITTING, gas	1
		146 555	.. SCREW, set 8-32 x .125 cup sch	2
... 72		◆050 115	.. NOZZLE, 1/2 orf x 1-5/8 lg	1
		050 622	.. NOZZLE, 5/8 orf x 1-5/8 lg	1
... 73		164 590	.. CASE, gun RH	1
... 74		183 884	.. SPRING, cprsn .240 OD x .026 wire x 1.000	1
... 75		184 101	.. WASHER, shldr .140 ID x .250 OD	1
... 76		135 647	.. NUT, 8-32 .33knrl brs	3
... 83		162 042	.. CONTACT, current pick-up	1
... 84		134 624	.. BEARING, flg nyl .140 ID x .187 OD x .375flg x .031thk	2

◆OPTIONAL

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

HOBART WARRANTY

Effective January 1, 2000

(Equipment with a serial number preface of "LA" or newer)

This limited warranty supersedes all previous Hobart warranties and is exclusive with no other guarantees or warranties expressed or implied.

Warranty Questions?

Call

1-877-HOBART1

for your local
Hobart distributor.

Service

You always get the fast, reliable response you need. Most replacement parts can be in your hands in 24 hours.

Support

Need fast answers to the tough welding questions? Contact your distributor or call 1-800-332-3281. The expertise of the distributor and Hobart is there to help you, every step of the way.

LIMITED WARRANTY – Subject to the terms and conditions below, Hobart Welding Products., Troy, Ohio, warrants to its original retail purchaser that new Hobart equipment sold after the effective date of this limited warranty is free of defects in material and workmanship at the time it is shipped by Hobart. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

Within the warranty periods listed below, Hobart will repair or replace any warranted parts or components that fail due to such defects in material or workmanship. Hobart must be notified in writing within thirty (30) days of such defect or failure, at which time Hobart will provide instructions on the warranty claim procedures to be followed.

Hobart shall honor warranty claims on warranted equipment listed below in the event of such a failure within the warranty time periods. All warranty time periods start on the date that the equipment was delivered to the original retail purchaser, or one year after the equipment is sent to a North American distributor or eighteen months after the equipment is sent to an International distributor.

1. 5 Years Parts – 3 Years Labor
 - * Original main power rectifiers
 - * Inverters (input and output rectifiers only)
2. 3 Years — Parts and Labor
 - * Transformer/Rectifier Power Sources
 - * Plasma Arc Cutting Power Sources
 - * Semi-Automatic and Automatic Wire Feeders
 - * Inverter Power Supplies
 - * Intelligig
 - * Engine Driven Welding Generators
(NOTE: Engines are warranted separately by the engine manufacturer.)
3. 1 Year — Parts and Labor
 - * DS-2 Wire Feeder
 - * Motor Driven Guns (w/exception of Spoolmate 185 & Spoolmate 250)
 - * Process Controllers
 - * Positioners and Controllers
 - * Automatic Motion Devices
 - * RFCS Foot Controls
 - * Induction Heating Power Sources
 - * Water Coolant Systems
 - * HF Units
 - * Grids
 - * Maxstar 140
 - * Spot Welders
 - * Load Banks
 - * Hobart Cyclomatic Equipment
 - * Running Gear/Trailers
 - * Plasma Cutting Torches (except APT & SAF Models)
 - * Field Options
(NOTE: Field options are covered under True Blue® for the remaining warranty period of the product they are installed in, or for a minimum of one year — whichever is greater.)
4. 6 Months — Batteries
5. 90 Days — Parts
 - * MIG Guns/TIG Torches
 - * Induction Heating Coils and Blankets

- * APT, ZIPCUT & PLAZCUT Model Plasma Cutting Torches
- * Remote Controls
- * Accessory Kits
- * Replacement Parts (No labor)
- * Spoolmate 185 & Spoolmate 250
- * Canvas Covers

HOBART's Limited Warranty shall not apply to:

1. **Consumable components; such as contact tips, cutting nozzles, contactors, brushes, slip rings, relays or parts that fail due to normal wear.**
2. Items furnished by Hobart, but manufactured by others, such as engines or trade accessories. These items are covered by the manufacturer's warranty, if any.
3. Equipment that has been modified by any party other than Hobart, or equipment that has been improperly installed, improperly operated or misused based upon industry standards, or equipment which has not had reasonable and necessary maintenance, or equipment which has been used for operation outside of the specifications for the equipment.

HOBART PRODUCTS ARE INTENDED FOR PURCHASE AND USE BY COMMERCIAL/INDUSTRIAL USERS AND PERSONS TRAINED AND EXPERIENCED IN THE USE AND MAINTENANCE OF WELDING EQUIPMENT.

In the event of a warranty claim covered by this warranty, the exclusive remedies shall be, at Hobart's option: (1) repair; or (2) replacement; or, where authorized in writing by Hobart in appropriate cases, (3) the reasonable cost of repair or replacement at an authorized Hobart service station; or (4) payment of or credit for the purchase price (less reasonable depreciation based upon actual use) upon return of the goods at customer's risk and expense. Hobart's option of repair or replacement will be F.O.B., Factory at Appleton, Wisconsin, or F.O.B. at a Hobart authorized service facility as determined by Hobart. Therefore no compensation or reimbursement for transportation costs of any kind will be allowed.

TO THE EXTENT PERMITTED BY LAW, THE REMEDIES PROVIDED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL HOBART BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFIT), WHETHER BASED ON CONTRACT, TORT OR ANY OTHER LEGAL THEORY.

ANY EXPRESS WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTY OR REPRESENTATION AS TO PERFORMANCE, AND ANY REMEDY FOR BREACH OF CONTRACT TORT OR ANY OTHER LEGAL THEORY WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE OR COURSE OF DEALING, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, WITH RESPECT TO ANY AND ALL EQUIPMENT FURNISHED BY HOBART IS EXCLUDED AND DISCLAIMED BY HOBART.

Some states in the U.S.A. do not allow limitations of how long an implied warranty lasts, or the exclusion of incidental, indirect, special or consequential damages, so the above limitation or exclusion may not apply to you. This warranty provides specific legal rights, and other rights may be available, but may vary from state to state.

In Canada, legislation in some provinces provides for certain additional warranties or remedies other than as stated herein, and to the extent that they may not be waived, the limitations and exclusions set out above may not apply. This Limited Warranty provides specific legal rights, and other rights may be available, but may vary from province to province.





Owner's Record

Please complete and retain with your personal records.

Model Name

Serial/Style Number

Purchase Date

(Date which equipment was delivered to original customer.)

Distributor

Address

City

State

Zip



Resources Available

Always provide Model Name and Serial/Style Number.

To locate a Distributor, retail or service location:

Call 1-877-Hobart1 or visit our website at www.HobartWelders.com

For technical assistance:

Call 1-800-332-3281

Contact your Distributor for:

Welding Supplies and Consumables

Options and Accessories

Personal Safety Equipment

Service and Repair

Replacement Parts

Training (Schools, Videos, Books)

Technical Manuals (Servicing Information and Parts)

Circuit Diagrams

Welding Process Handbooks

Contact the Delivering Carrier for:

For assistance in filing or settling claims, contact your distributor and/or equipment manufacturer's Transportation Department.

File a claim for loss or damage during shipment.

Hobart Welding Products

An Illinois Tool Works Company
600 West Main Street
Troy, OH 45373 USA

For Technical Assistance:

Call 1-800-332-3281

For Literature Or Nearest Dealer:
Call 1-877-Hobart1