Thank You for Choosing Tregaskiss

Thank you for selecting a Tregaskiss product. The MIG gun you have purchased has been carefully assembled and is ready to weld and factory tested prior to shipment to ensure high performance. Before installing, compare the equipment received against the invoice to verify that the shipment is complete and undamaged. It is the responsibility of the purchaser to file all claims of damage or loss that may have occurred during transit with the carrier.

The owner’s manual contains general information, instructions and maintenance to help better maintain your MIG gun. Please read, understand and follow all safety precautions.

While every precaution has been taken to assure the accuracy of this owner’s manual, Tregaskiss assumes no responsibility for errors or omissions. Tregaskiss assumes no liability for damages resulting from the use of information contained herein. The information presented in this owner’s manual is accurate to the best of our knowledge at the time of printing. Please reference Tregaskiss.com for updated material.

For customer support and special applications, please call the Tregaskiss Customer Service Department at 1-855-MIGWELD (644-9353) (US & Canada) or +1-519-737-3000 (International) or fax 1-519-737-1530. Our trained Customer Service Team is available between 8:00 a.m. and 5:30 p.m. EST, and will answer your product application or repair questions.

Tregaskiss manufactures premium robotic MIG (GMAW) welding guns, peripherals and consumables. For more information on other premium Tregaskiss products, contact your local Tregaskiss distributor or visit us on the web at Tregaskiss.com.

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Subject to Change – The information presented in this manual is accurate to the best of our knowledge at the time of printing. Please visit Tregaskiss.com for the most up-to-date information.

Additional Material – For additional support materials such as spec sheets, troubleshooting information, how-to guides and videos, animations, online configurators and much more, please visit Tregaskiss.com.

Scan this QR Code with your smart phone for immediate access to Tregaskiss.com/TechnicalSupport
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SECTION 1 — SAFETY PRECAUTIONS — READ BEFORE USING

Protect yourself and others from injury — read, follow, and save these important safety precautions and operating instructions.

1-1 Symbol Usage

DANGER! — Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

NOTICE — Indicates statements not related to personal injury.

— Indicates special instructions.

This group of symbols means Warning! Watch Out! 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 Principal Safety Standards section. Read and follow all Safety Standards.

Only qualified persons should install, operate, maintain, and repair this equipment. A qualified person is defined as one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated ability to solve or resolve problems relating to the subject matter, the work, or the project and has received safety training to recognize and avoid the hazards involved.

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 semi-automatic 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 weld output in damp, wet, or confined spaces, 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.
- 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; or when there is a high risk of unavoidable or accidental contact with the workpiece or ground. For these conditions, use the following equipment in order presented: 1) a semi-automatic DC constant voltage (wire) welder, 2) a DC manual (stick) welder, or 3) an AC welder with reduced open-circuit voltage. In most situations, use of a DC, constant voltage wire welder is recommended. And, do not work alone!
- Disconnect input power or stop engine before installing or servicing this equipment. Lockout/tagout input power according to OSHA 29 CFR 1910.147 (see Principal Safety Standards).
- Properly install, ground, and operate 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.
- Keep cords dry, free of oil and grease, and protected from hot metal and sparks.
- Frequently inspect input power cord and ground conductor for damage or bare wiring – replace immediately if damaged – bare wiring can kill.
• Turn off all equipment when not in use.
• Do not use worn, damaged, undersized, or repaired 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.
• Do not touch electrode holders connected to two welding machines at the same time since double open-circuit voltage will be present.
• 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 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. Disconnect cable for process not in use.
• Use GFCI protection when operating auxiliary equipment in damp or wet locations.

SIGNIFICANT DC VOLTAGE exists in inverter welding power sources AFTER removal of input power.

• Turn off unit, disconnect input power, and discharge input capacitors according to instructions in Manual before touching any parts.

HOT PARTS can burn.

• Do not touch hot parts bare handed.
• Allow cooling period before working on equipment.
• To handle hot parts, use proper tools and/or wear heavy, insulated welding gloves and clothing to prevent burns.

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.
• Ventilate the work area and/or use local forced ventilation at the arc to remove welding fumes and gases. The recommended way to determine adequate ventilation is to sample for the composition and quantity of fumes and gases to which personnel are exposed.
• If ventilation is poor, wear an approved air-supplied respirator.
• Read and understand the Safety Data Sheets (SDSs) and the manufacturer's instructions for adhesives, 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 a trained watch-person 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 the 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 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 an approved welding helmet fitted with a proper shade of filter lenses to protect your face and eyes from arc rays and sparks when welding or watching (see ANSI Z49.1 and Z87.1 listed in Principal Safety Standards).
• Wear approved safety glasses with side shields under your helmet.
• Use protective screens or barriers to protect others from flash, glare and sparks; warn others not to watch the arc.
• 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, cuffless trousers, high shoes, and a cap.

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.

• Remove all flammables within 35 ft (10.7 m) of the welding arc. If this is not possible, tightly cover them with approved covers.
• Do not weld where flying sparks can strike flammable material.
• Protect yourself and others from flying sparks and hot metal.
• 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 cut or weld on tire rims or wheels. Tires can explode if heated. Repaired rims and wheels can fail. See OSHA 29 CFR 1910.177 listed in Principal Safety Standards.
• 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 (see Principal Safety Standards).
• Do not weld where the atmosphere can contain flammable dust, has, or liquid vapors (such as gasoline).
• 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, sparks, 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 body protection made from durable, flame-resistant material (leather, heavy cotton, wool). Body protection includes oil-free clothing 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.
• After completion of work, inspect area to ensure it is free of sparks, glowing embers, and flames.
• Use only correct fuses or circuit breakers. Do not oversize or bypass them.
• 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.

FLYING METAL or DIRT 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 compressed gas supply when not in use.
• Always ventilate confined spaces or use approved air-supplied respirator.

ELECTRIC AND MAGNETIC FIELDS (EMF) can affect Implanted Medical Devices.

• Wearers of Pacemakers and other Implanted Medical Devices should keep away.
• Implanted Medical Device wearers should consult their doctor and the device manufacturer before going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating 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.

Compressed 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, physical damage, 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 compressed 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. Do not stand in front of or behind the regulator when opening the valve.
• Keep protective cap in place over valve except when cylinder is in use or connected for use.
• Use the proper equipment, correct procedures, and sufficient number of persons to lift, move, and transport cylinders.
• Read and follow instructions on compressed gas cylinders, associated equipment, and Compressed Gas Association (CGA) publication P-1 listed in Principal 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 EQUIPMENT** can injure.
- Use lifting eye to lift unit only, NOT running gear, gas cylinders, or any other accessories.
- Use correct procedures and equipment of adequate capacity to lift and support unit.
- If using fork lifts to move unit, be sure forks are long enough to extend beyond the opposite side of unit.
- Keep equipment (cables and cords) away from moving vehicles when working from an aerial location.
- Follow the guidelines in the Applications Manual for the Revised NIOSH Lifting Equation (Publication No. 94-110) when manually lifting heavy parts or equipment.

**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.

**FLYING SPARKS** can injure.
- Wear a face shield to protect eyes and face.
- Shape tungsten electrode only on grinder with proper guards in a safe location wearing proper face, hand, and body protection.
- Sparks can cause fires – keep flammables away.

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

**WELDING WIRE** can injure.
- 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.

**BATTERY EXPLOSION** can injure.
- Do not use welder to charge batteries or jump start vehicles unless it has a battery charging feature designed for this purpose.

**MOVING PARTS** can injure.
- Keep away from moving parts such as fans.
- Keep all doors, panels, covers, and guards closed and securely in place.
- Have only qualified persons remove doors, panels, covers, or guards for maintenance and troubleshooting as necessary.
- Reinstall doors, panels, covers, or guards when maintenance is finished and before reconnecting input power.

**COMPRESSED AIR** can injure or kill.
- Before working on compressed air system, turn off and lockout/tagout unit, release pressure, and be sure air pressure cannot be accidentally applied.
- Relieve 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.
- Do not direct air stream toward self or others.
- Wear protective equipment such as safety glasses, hearing protection, leather gloves, heavy shirt and trousers, high shoes, and a cap when working on compressed air system.
- Use soapy water or an ultrasonic detector to search for leaks – never use bare hands. Do not use equipment if leaks are found.
- Reinstall doors, panels, covers, or guards when servicing is finished and before starting unit.
- If ANY air is injected into the skin or body, seek medical help immediately.
READ INSTRUCTIONS.

- Read and follow all labels and the Owner's Manual carefully before installing, operating, or servicing unit. Read the safety information at the beginning of the Manual and in each section.
- Use only genuine replacement parts from the manufacturer.
- Perform installation, maintenance, and service according to the Owner's Manuals, industry standards, and national, state, and local codes.

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 the welding machine is installed and grounded according to the 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 California Proposition 65 Warnings

**WARNING:** This product can expose you to chemicals including lead, which are known to the state of California to cause cancer and birth defects or other reproductive harm.

For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

1-5 EMF Information

Electric current flowing through any conductor causes localized electric and magnetic fields (EMF). The current from arc welding (and allied processes including spot welding, gouging, plasma arc cutting, and induction heating operations) creates an EMF field around the welding circuit. EMF fields may interfere with some medical implants, e.g., Pacemakers. Protective measures for persons wearing medical implants have to be taken. For example, restrict access for passersby or conduct individual risk assessment for welders. All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:

1. Keep cables close together by twisting or taping them, or using a cable cover.
2. Do not place your body between welding cables. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.
4. Keep head and trunk as far away from the equipment in the welding circuit as possible.
5. Connect work clamp to workpiece as close to the weld as possible.
6. Do not work next to, sit or lean on the welding power source.
7. Do not weld while carrying the welding power source wire feeder.

**About Implanted Medical Devices:**

Implanted Medical Device wearers should consult their doctor and the device manufacturer before performing or going near arc welding, spot welding, gouging, plasma arc cutting, or induction heating operations. If cleared by your doctor, then following the above procedures is recommended.

1-6 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 [http://www.aws.org](http://www.aws.org) or purchased from Global Engineering Documents (phone: 1-877-413-5184, website: [www.global.ihs.com](http://www.global.ihs.com)).


**National Electrical Code**, NFPA Standard 70, from National Fire Protection Association, Quincy, MA 02269 (phone: 1-800-344-3555, website: [www.nfpa.org](http://www.nfpa.org) and [www.sparky.org](http://www.sparky.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 (phone: 703-788-2700, website: [www.cganet.com](http://www.cganet.com)).


**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 (phone: 212-642-4900, website: [www.ansi.org](http://www.ansi.org)).


**Applications Manual for the Revised NIOSH Lifting Equation**, The National Institute for Occupational Safety and Health (NIOSH), 1600 Clifton Rd, Atlanta, GA 30329-4027 (phone: 1-800-232-4636, website: [www.cdc.gov/NIOSH](http://www.cdc.gov/NIOSH)).
1-7 Commercial Warranty

Product is warranted to be free from defects in material and workmanship for the period specified below after the sale by an authorized Buyer.

- Robotic MIG Guns and Components: 1 year
- Automatic MIG Guns 1 year
- Reamer: 1 year
- Reamer when factory-equipped with Lubricator: 2 years
- Reamer when factory-equipped with Lubricator and used only with Tregaskiss® TOUGH GARD® Anti-Spatter Liquid: 3 years
- Robotic Peripherals (Clutch, Sprayer, Wire Cutter, Mounting Arms): 1 year
- Low-Stress Robotic (LSR) Unicables: 2 years

| Through-Arm Robot Articulation Limits for LSR Unicable |
|-----------------|----------------|
| **Axis** | **Articulation Limit** |
| 5      | +/- 90°        |
| 4+6    | +/- 270°       |

**NOTE:** Any articulation beyond these limits is considered abuse of the cable and will accelerate LSR Unicable wear.

Tregaskiss reserves the right to repair, replace, or refund the purchase price of non-conforming product. Product found not defective will be returned to the Buyer after notification by Customer Service.

Tregaskiss makes no other warranty of any kind, expressed or implied, including, but not limited to the warranties of merchantability or fitness for any purpose. Tregaskiss 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 Tregaskiss.

Genuine Tregaskiss® 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 Tregaskiss personnel. Use as directed.
2-1 System Components

A. G-405CA Neck Checking Fixture for Quick-Change Air-Cooled and TOUGH GUN I.C.E.® Necks

<table>
<thead>
<tr>
<th>22 Degree</th>
<th>Air-Cooled Neck</th>
<th>TOUGH GUN I.C.E.® Neck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short length</td>
<td>405-22QC</td>
<td>590-22-x.xxx*</td>
</tr>
<tr>
<td>Medium length</td>
<td>405-22QCL</td>
<td>590-22L-x.xxx*</td>
</tr>
<tr>
<td>Long length</td>
<td>405-22QCL1</td>
<td>590-22L1-x.xxx*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>45 Degree</th>
<th>Air-Cooled Neck</th>
<th>TOUGH GUN I.C.E. Neck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short length</td>
<td>405-45QC</td>
<td>590-45-x.xxx*</td>
</tr>
<tr>
<td>Medium length</td>
<td>405-45QCL</td>
<td>590-45L-x.xxx*</td>
</tr>
<tr>
<td>Long length</td>
<td>405-45QCL1</td>
<td>590-45L1-x.xxx*</td>
</tr>
<tr>
<td>Extended length</td>
<td>405-45QCL2</td>
<td>590-45L2-x.xxx*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>180 Degree</th>
<th>Air-Cooled Neck</th>
<th>TOUGH GUN I.C.E. Neck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short length</td>
<td>405-180QC</td>
<td>590-180-x.xxx*</td>
</tr>
</tbody>
</table>

*x.xxx represents nozzle O.D. (i.e. 590-45L-1.060)

**IMPORTANT:**
The neck locating datum MUST be installed properly before operating the fixture! DO NOT operate the fixture without the neck locating datum being installed properly.
B. G-495-8 Gauge Pointer
Required for all neck checking fixtures

C. GS-101 Kit
For Special Air-Cooled Necks (includes all parts from G-405CA except base plate)
**NOTE:** Prints to manufacture base plates for Special necks will be supplied upon request

### 2-2 Checking Fixture by Product Type

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Checking Fixture Part Number (TOUGH GUN CA3 Series)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick-Change Air-Cooled</td>
<td>G-405CA</td>
</tr>
<tr>
<td>TOUGH GUN I.C.E. Neck</td>
<td>G-405CA</td>
</tr>
</tbody>
</table>
SECTION 3 — OPERATION

3-1 Using the Neck Checking Fixture

Instructions for G-405CA (other fixtures similar)

1. Remove front-end consumables (nozzle, retaining head, and neck insulator), with the exception of TOUGH GUN I.C.E. Components.
2. Install the gauge point into the neck.

3. Slide neck completely into the datum block, aligning keys on neck to keyway in datum block.
4. Turn the neck completely clockwise against shoulder.
5. To secure the neck, use a 5/16" Allen key to tighten the socket head cap screw (SHCS) on the front of the datum block.

6. Push check pin towards gauge point.
7. Check pin should insert into the mating hole on gauge point.
8. Slip bending handle onto gauge point and bend until aligned with check pin.
9. Remove neck from datum block and gauge point from neck.
10. Reinstall front-end consumables.

IMPORTANT NOTE:
There should always be a 0.016" gap between the neck body and the datum block (see Figure 3-D) when the neck is properly installed.

If the rear stop was removed to close this gap, it must be reinstalled!
The rear stop should only be removed to clean debris from inside the block and then immediately reinstalled.

Never operate the fixture without the rear stop installed.
4-1 Checking Fixture Parts List

<table>
<thead>
<tr>
<th>Component</th>
<th>Air-Cooled Neck</th>
<th>TOUGH GUN I.C.E. Neck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking Fixture</td>
<td>G-405CA</td>
<td>G-405CA</td>
</tr>
<tr>
<td>Datum Block</td>
<td>G-405-4*</td>
<td>G-405-4*</td>
</tr>
<tr>
<td>Gauge Pointer</td>
<td>G-495-8*</td>
<td>G-495-8*</td>
</tr>
<tr>
<td>Neck Alignment Kit for Special Necks</td>
<td>GS-101*</td>
<td>GS-101* and G-495-8*</td>
</tr>
</tbody>
</table>

* Included with G-405CA checking fixture.

4-2 Common Parts to All Checking Fixtures

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-405-3</td>
<td>Checking pin block assembly (includes the G-495-3 checking pin); for all gauges</td>
</tr>
<tr>
<td>G-495-3</td>
<td>Checking pin; for all gauges</td>
</tr>
<tr>
<td>G-495-6</td>
<td>Gauge bending handle</td>
</tr>
</tbody>
</table>
ADDITIONAL SUPPORT MATERIALS

For additional support materials such as Spec Sheets, troubleshooting information, how-to guides and videos, animations, online configurators and much more, please visit Tregaskiss. Scan the QR Code with your smart phone for immediate access to Tregaskiss.com/TechnicalSupport.

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