REPLACEMENT PARTS LIST

for

HELIARC

TRADE-MARK

FSH-3

(250-AMPERE DC)

HAND-WELDING TORCH

FIG. 1 - FSH-3 "HELIARC" TORCH (PART NO. D-217780)
FIGURE 3 - FUSE AND HOSE ASSEMBLY (PART NO. D-246839)

REPLACEMENT PARTS LIST
FOR
"HELIARC" FSH-3 250-AMPERE DC
HAND-WELDING TORCH (D-217780)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-21779</td>
<td>Torch Body</td>
<td>D-217450</td>
<td>Split Nut</td>
</tr>
<tr>
<td>D-217842</td>
<td>Argon Hose Assembly #</td>
<td>D-217814</td>
<td>Cup Nut Sleeve</td>
</tr>
<tr>
<td>D-217843</td>
<td>Water Inlet Hose Assembly #</td>
<td>D-217824</td>
<td>No. 8 Cup Body &amp; Tube</td>
</tr>
<tr>
<td>D-217844</td>
<td>Coupling Hose</td>
<td>D-218317</td>
<td>Sealing Ring</td>
</tr>
<tr>
<td>D-218318</td>
<td>Torch Cap</td>
<td>D-246839</td>
<td>Fuse &amp; Hose Assembly Includes:</td>
</tr>
<tr>
<td>D-218321</td>
<td>Nameplate</td>
<td></td>
<td>Fuse Assembly Includes:</td>
</tr>
<tr>
<td>D-243979</td>
<td>Body Insulator (Not Illustrated)</td>
<td></td>
<td>Fuse Link</td>
</tr>
<tr>
<td>54Y63</td>
<td>Power Cable &amp; Hose Assembly #</td>
<td>84W30</td>
<td>Fuse Body</td>
</tr>
<tr>
<td>76Z22</td>
<td>Torch Handle</td>
<td>75Z29</td>
<td>Fuse Centering Disk (2)</td>
</tr>
<tr>
<td>ACCESSORIES</td>
<td></td>
<td>75Z29</td>
<td>Fuse Locking Screw (2)</td>
</tr>
<tr>
<td>D-217781</td>
<td>No. 6 Gas Cup &amp; Tube Assembly</td>
<td>75Z28</td>
<td>Fuse Coupling (2)</td>
</tr>
<tr>
<td></td>
<td>Includes:</td>
<td>54Y77</td>
<td>Cable &amp; Body Assembly Includes:</td>
</tr>
<tr>
<td>D-217450</td>
<td>Split Nut</td>
<td>84W83</td>
<td>Cable Lug</td>
</tr>
<tr>
<td>D-217814</td>
<td>Cup Nut Sleeve</td>
<td>54Y27</td>
<td>Cable Body</td>
</tr>
<tr>
<td>D-217817</td>
<td>No. 6 Cup Body &amp; Tube</td>
<td>76Z25</td>
<td>Cable</td>
</tr>
<tr>
<td>D-218317</td>
<td>Sealing Ring</td>
<td>54Y78</td>
<td>Water Outlet Hose Assembly</td>
</tr>
<tr>
<td>D-217782</td>
<td>No. 8 Gas Cup &amp; Tube Assembly</td>
<td>76Z12</td>
<td>Fuse Casing</td>
</tr>
<tr>
<td></td>
<td>Includes:</td>
<td>84W30</td>
<td>Spare Fuse Links (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10Z30</td>
<td>Water Hose Connection Adaptor</td>
</tr>
</tbody>
</table>

*See "Hose Repair and Replacement"

<table>
<thead>
<tr>
<th>Size</th>
<th>Collet</th>
<th>Nut</th>
<th>Electrodes (7-in.)</th>
<th>Electrodes (3-in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.040-in.</td>
<td>D-217783</td>
<td>D-217784</td>
<td>79Z15</td>
<td>79Z15</td>
</tr>
<tr>
<td>1/16-in.</td>
<td>D-217785</td>
<td>D-217786</td>
<td>76Z251</td>
<td>76Z247</td>
</tr>
<tr>
<td>3/32-in.</td>
<td>D-217787</td>
<td>D-217788</td>
<td>76Z257</td>
<td>--</td>
</tr>
<tr>
<td>1/8-in.</td>
<td>D-217789</td>
<td>D-217790</td>
<td>76Z252</td>
<td>--</td>
</tr>
</tbody>
</table>

The term "Heliarc" is a registered trade-mark of Union Carbide and Carbon Corporation.
HOSE REPAIR AND REPLACEMENT

Power Cable-and-Hose Assembly

If the power cable-and-hose assembly becomes damaged, we recommend that you (1.) purchase a new assembly, or (2.) turn the damaged cable-and-hose assembly over to your LINDE Office, where it will be repaired for 50 cents plus the cost of parts, if such repair is advisable. DO NOT TRY TO REPAIR IT YOURSELF. The connection fittings at each end of the assembly are crimped to the cable and insulator hose by special crimping tools at the factory to obtain a strong and completely water-tight joint. A satisfactory repair job can not be done without these tools.

Argon and Water Hose Assemblies

If the argon or water hose assemblies become damaged, we recommend that you (1.) purchase a new hose assembly, or (2.) turn the damaged hose assembly over to your LINDE Office, where it will be repaired for 50 cents plus the cost of parts, if such repairs are advisable. As with the power cable-and-hose assembly, the connection fittings are crimped on at the factory by special crimping tools to assure a leak-proof connection. A satisfactory job can not be done without these tools. Improper repair of an argon hose connection, for example, could cause argon dilution, resulting in incomplete arc protection and consequent unsatisfactory welds. If you must continue to use the torch until new or properly repaired hose can be installed, temporary repairs can be made by substituting the screw-type fittings described below for the factory crimped fittings. Remember that these fittings are only temporary and are not recommended. Install new or properly repaired hose assemblies as soon as possible.

<table>
<thead>
<tr>
<th>Hose to be Temporarily Repaired</th>
<th>Temporary Repair Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No.</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>D-217842</td>
<td>Argon</td>
</tr>
<tr>
<td>D-217843</td>
<td>Water Inlet</td>
</tr>
<tr>
<td>54Y78</td>
<td>Water Outlet</td>
</tr>
</tbody>
</table>
INDUSTRIAL GASES
LINDE Oxygen, Nitrogen, Argon, Neon, Helium, Krypton, Xenon, Hydrogen
PREST-O-LITE Acetylene

CALCIUM CARBIDE
UNION Carbide
CARBIC Processed Carbide

OXY-ACETYLENE EQUIPMENT
OXWELD Apparatus for Cutting, Joining, Treating, and Forming Metals Acetylene Generators Manifolds, Regulators and Valves Welding Rods and Supplies
PREST-O-WELD Welding and Cutting Apparatus
PUROX Welding and Cutting Apparatus
PREST-O-LITE Air-Acetylene Apparatus and Small Tanks
CARBIC Acetylene Flood Lights Acetylene Generators

ELECTRIC WELDING EQUIPMENT
UNIONMELT Automatic Welding Apparatus and Supplies
HELIARC Welding Torches
LINDE Argon Metal Arc Welding Equipment

SPECIAL EQUIPMENT
LINDE Jet-Piercing Equipment Plate-Edge Preparation Equipment Polyethylene Powder and Flame-Spraying Equipment Steel-Conditioning Machines Sub-Zero Cold Treatment Equipment

OXWELD Oxy-Acetylene Cutting Machines Pressure-Welding Machines

OXYGEN THERAPY SUPPLIES
LINDE Oxygen U.S.P.
Oxygen Therapy Regulators Oxygen Therapy Manifolds and Valves

SYNTHETIC CRYSTALS
LINDE Synthetic Sapphire, Ruby, Spinel, and Titania Synthetic Calcium- and Cadmium Tungstates Fine Alumina Abrasive

ORGANOSILICONS
LINDE Silane Monomers Polysiloxane Polymers and Resins


LINDE AIR PRODUCTS COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION

DOMINION OXYGEN COMPANY, LIMITED, TORONTO

General Office
30 East 42nd Street, New York 17, N. Y.

Eastern States
BALTIMORE 18, M.D.
332 East 25th Street
BOSTON 16, MASS.
441 Stuart Street
BUFFALO, N. Y.
P. O. Box 124
East Park Drive
TOWANDA, N. Y.
CHARLESTON 1, W. VA.
2 Virginia Street
NEW YORK 17, N. Y.
205 East 42nd Street
PHILADELPHIA 22, PA.
1421 North Broad Street
PITTSBURGH 19, PA.
511 Ross Street

Central States
CHICAGO 1, ILL.
230 North Michigan Avenue
CINCINNATI 29, OHIO
729 Main Avenue
CLEVELAND 14, OHIO
1513-17 Superior Avenue
DETROIT 2, MICH.
6-240 General Motors Building
INDIANAPOLIS 4, IND.
720 North Pennsylvania Street
MILWAUKEE 46, WIS.
1623 South 28th Street
MINNEAPOLIS 2, MINN.
827 Second Avenue, South
ST. LOUIS 8, MO.
4226 Forest Park Boulevard

Southern States
ATLANTA 3, GA.
310 Peachtree Street, N. E.
BIRMINGHAM 5, ALA.
1001-13 South 22nd Street
JACKSONVILLE 3, FLA.
2410 Dennis Street
MEMPHIS 5, TENN.
48 West McLemore Avenue
NEW ORLEANS 13, LA.
300-32 Howard Avenue

Southwestern States
DALLAS 1, TEXAS
2626 Commerce Street
DENVER 2, COLO.
685 South Broadway
HOUSTON 11, TEXAS
6139 Harrisburg Boulevard
KANSAS CITY 6, MO.
910 Baltimore Avenue
TULSA 3, OKLA.
614 National Bank of Tulsa Bldg.

Western States
EL PASO, TEXAS
810 Texas Street
LOS ANGELES 58, CALIF.
2724 Louis Boulevard
PHOENIX, ARIZ.
401 East Buchanan Street
PORTLAND 9, ORE.
1205 Northwest Marshall Street
SALT LAKE CITY 1, UTAH
362 Pierpont Avenue
SAN FRANCISCO 6, CALIF.
22 Battery Street
SEATTLE 4, WASH.
2901 First Avenue, South
SPOKANE 12, WASH.
2023 West Maxwell Avenue

In Canada
Dominion Oxygen Company, Limited
TORONTO • MONTREAL
WINNIPEG • VANCOUVER