



## Safety

Please read this manual carefully and follow its instructions. Improper use or failure to follow these instructions could result in serious injury, death or property damage. Operators should be instructed in the safe and proper use and maintenance of this product. Keep this manual for future reference.

### The following safety precautions call attention to potentially dangerous conditions.

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|  | <b>WARNING:</b> Warnings are used when hazards exist which could result in serious injury, death or property damage if proper precautions are not taken.       |
|  | <b>CAUTION:</b> Cautions are used as reminders of safety hazards which could result in personal injury or property damage if proper precautions are not taken. |

## Installation

- A. Mounting. Most reels are shipped with hose and are ready for installation. Welding reels are equipped with a fixed base and can be mounted in any position--either base up or base down, wall mounted or any position which allows the main shaft to be horizontal. The reel should be mounted so that it is level and the centerline of the drum is in line with the hose run. If the reel cannot be mounted in this way, consult the factory. Special hose guides and additional tension may be required.
- B. Safety Chain. When a reel is mounted overhead, it is recommended that a secondary chain, bracket or other device be used to prevent the reel from falling if the mounting bolts are removed or loosened due to vibration.
- C. Input Connections. Lead-in hose (5) are available from the factory as an optional item when not supplied with the reel. Connect the supply input hose on the fittings (2 and 29) on both ends of the shaft. Rigid pipe should not be used on input connections.

## Operation

- CAUTION:** Before any adjustments, remove all tension from reel.
- A. Tension Adjustment. Reels shipped complete with hose are pre-tensioned at the factory. Reels shipped less hose require pre-tensioning after hose is installed on reel and before making final connection of loose end of hose.
  - 1. To pre-tension reel, pull the hose out far enough to allow one full wrap of hose to be looped back over spool.
  - 2. Hold spool from turning while hose is being looped back on the reel.
  - 3. Repeat until desired starting tension is reached, a minimum of two pre-tension turns is recommended for optimum spring life.
  - 4. After tension is set, pull hose out completely to insure enough spring travel remains for operating, and that all twists and kinks are removed from the hose.Complete connections at loose end of hose. Never apply too much tension. Always leave at least one to two turns between the position of the drum when the hose is fully extended and the point where the spring ends or "bottoms out". Insufficient pre-tension may cause sluggish action when retracting and may also shorten spring life. Over tensioning can damage both hose and reel.
- B. Hose Guide Arm. Adjust guide to allow hose to be pulled from reel in a straight line to obtain maximum hose life and service (see diagrams on illustration). To adjust guide arm (41) remove two bolts (3) and rotate guide arm 90° to next mounting holes in stand.
- C. Ratchet Locks. The ratchet lock works in any mounting position and needs no adjustment. The ratchet lock has two locking positions in one complete rotation. If constant tension is desired, simply disconnect or remove spring (8) from ratchet dog (9).

## Service

**CAUTION:** Only lubricants that are approved for use with oxygen should be used on swivel components and hose fittings. Before servicing, cut off gas supply and remove all spring tension from reel.

### A. Hose Replacement

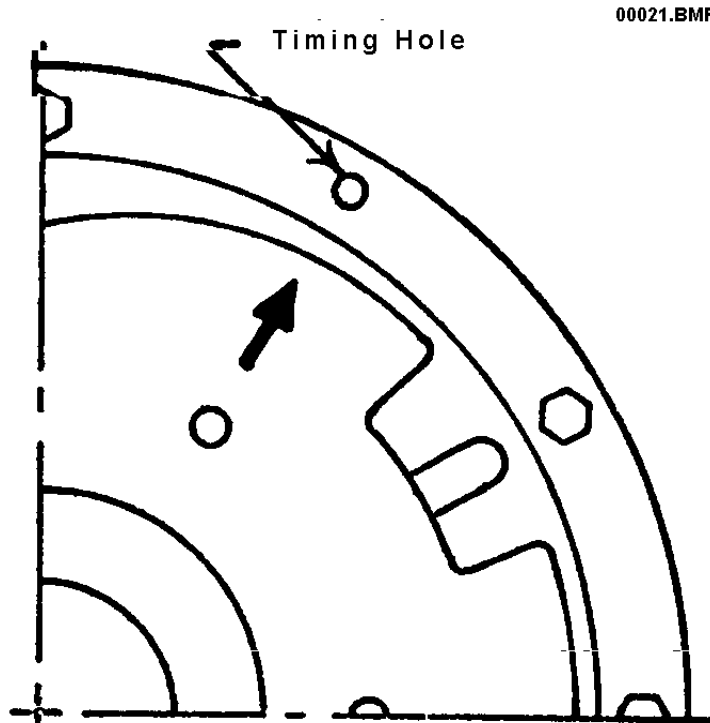
1. Remove stop (16) and hose clamp (15).
2. Remove all tension from the reel and remove hose from reel.
3. Hose can now be removed from swivels.
4. Replace hose, making sure that all fittings and clamps are snug.
5. It is recommended that all fittings be sealed with thread sealer that is approved for use with oxygen.
6. Pre-tension reel as described in Section "Tension Adjustment".

### B. Main Spring Replacement

1. Disconnect hoses and remove fittings at shaft ends (2, 1, 29).
2. Loosen set screw (40) until the main shaft and spool slide out completely.
3. Remove the six nuts (14) from the spool.
4. Slide the spring cup assembly (37) off the shaft.  
NOTE: Main springs are containerized for easy handling and safety. The spring should not be removed from the spring cup at any time.
5. If spring hub (36) comes off the shaft with the spring cup, place the hub (36) in new spring cup assembly, making sure that the hub engages the spring.
6. When reassembling, check the hub to insure engagement with spring and key on the main shaft.  
NOTE: Timing hole on spring cup assembly (37) and timing hole on spool (35) should be in line for correct timing. See illustration.

7. Reverse the above procedure for reassembly.
8. Pre-tension reel as described in Section "Tension Adjustment".

### C. O-Ring Replacement





**CAUTION:** Before servicing, cut off gas supply and remove all spring tension from reel.

NOTE: There are two sets of O-rings (AA) in this reel. An inner set (24), 1.254 inch O.D. and an outer set (32) 1.005 inch O.D. It is recommended that if the O-rings require replacement, that both sets should be replaced at the same time to prevent excessive down time.

1. Remove the reel from service.
2. Place reel on work surface with stand side down.
  - a. Outer O-ring replacement
    1. Disconnect the hoses from the swivels. 28 and 19.
    2. Remove outer swivel (28) from the reel by loosening nut (27) and backing the shaft (33) out.
    3. Disassemble the outer swivel by removing the retaining ring (30) and the washer (31).
    4. Slide the shaft (33) out of the swivel body (34).
    5. Remove the old O-rings and any contamination from the shaft and swivel.
    6. Install the new O-rings (32) 1.005 inch O.D. A light coat of special grease approved for use with oxygen may be used on the O-rings and shaft for ease of assembly.



**CAUTION:** Only use lubricants that are approved for use with oxygen.

7. Reverse the above procedure for reassembly.
  - b. Inner O-Ring Replacement
    1. Remove retaining ring (26), washer (25) from shaft and the four nuts (20) from the swivel.
    2. Carefully slide the swivel (19) off from the shaft (23), noting the position of the swivel. The swivel must be replaced in the same position for hose connections.
    3. Remove the old O-rings and any contamination from the shaft and swivel.
    4. Install the new O-rings (24), 1.254 inch O.D. A light coat of special grease approved for use with oxygen may be used on the O-rings and shaft for ease of assembly.



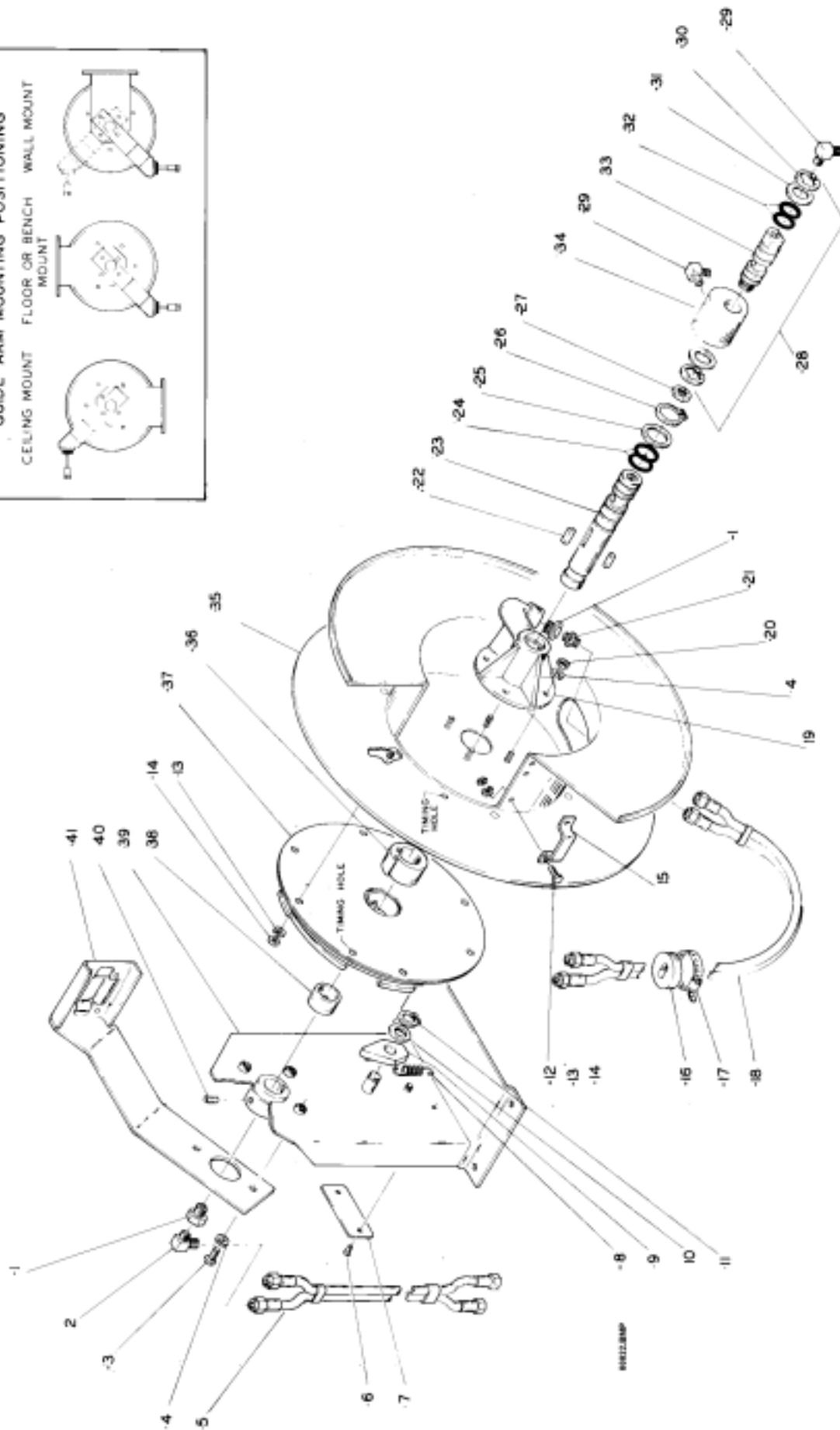
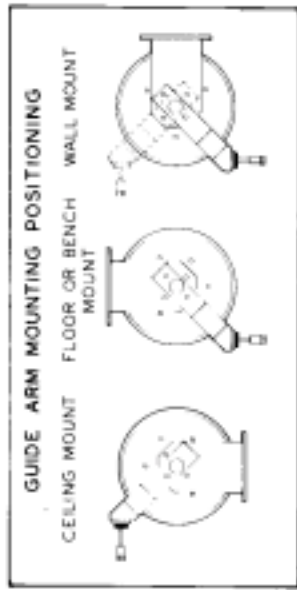
**CAUTION:** Only use lubricants that are approved for use with oxygen.

5. Reverse the above procedure for reassembly.
    6. Pre-tension the reel as described in Section "Tension Adjustment".



**CAUTION:** Use of petroleum based lubricants on the swivel components, or hose fittings, can cause fire or explosion.

## **Replacement Parts**



**D70A WELDING REEL**

Reference Number	Part Number	Qty.	Description
1	00669P0061	2	Reducer 1/2 x 1/4 NPT
2	00746P0001	1	Adaptor 1/4 NPT - 9/16-18 RH - 90° oxygen
3	00030P0110	2	Screw, hex head 1/4-20-3/4
4	00101P0030	6	Washer 1/4 x .062
5	5503800000	1 *	Lead in hose 1/4 x 5
6	00076P0030	2	Drive screw #2 x 1/4 Type U
7	5383100000	1	Name plate
8	5385600000	1	Ratchet spring
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9	5942400000	1	Ratchet lever
10	5945300000	1	Washer
11	00580P0065	1	Retaining ring .744 ID
12	00030P0211	2	Screw, hex head #10-24 x 3/8
13	00101P0015	8	Lock washer #10
14	00151P0025	8	Nut, hex #10-24
15	01220P0002	1	Clamp
16	ST22	1 *	Stop assembly - 61653
17	not required	- *	included with item number 16
18-1	4306600020	1 *	Dual weld hose assembly - x 40 feet
18-2	4306600021	1 *	Dual weld hose assembly - x 50 feet
19	6118200000	1	Swivel assembly
20	00151P0020	4	Nut, hex 1/4-20
21	00750P0001	1	Connector - oxygen - 1/4 NPT - 9/16-18
22	4077300005	2	Key
23	5375000000	1	Shaft main
24	00700P0075	2	O-ring 1.254 OD
25	5373000000	1	Spacer
26	00576P0043	1	Retaining ring 1.250 ID
27	00155P0010	1	Lock nut 1/4 NPT
28	5958400000	1	Swivel assembly
29	00746P0002	2	Adaptor - 90° Acetylene - 1/4 NPT - 9/16-18 LH
30	00580P0136	2	Retaining ring
31	5946300000	2	Washer
32	00700P0076	2	O-ring 1.005 OD
33	5946000000	1	Shaft body
34	5946100000	1	Swivel
35	6161600000	1	Drum and flange assembly
36	5370600001	1	Spring hub
37	5955700000	1	Spring and cup assembly
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38	5955400000	1	Spacer
39	5954700000	1	Frame
40	00053P0411	1	Set screw 5/16-24 x 3/8
41	5954800000	1	Guide arm assembly
Kit A	6147500000		O-ring kit includes 24 and 32
	**		

\* optional

\*\* Recommended spare parts

Aero-Motive Company	Aero-Motive (UK) Limited	Woodhead Asia PTE LTD	Woodhead Canada LTD.
W A Woodhead Industries Inc. Subsidiary 5688 ML Avenue East PO Box 2678 Kalamazoo, MI 49003-2678 (800)-999-8559 (800) 333-6119 FAX	W A Woodhead Industries Inc. Subsidiary 9 Rassau Industrial Estate EBBW Vale Gwent NP3 5SD United Kingdom (0495) 350436 (0495) 350877 FAX	W A Woodhead Industries Inc. Subsidiary 8 Chia Ping Road #05-09/10 JTC Flatted Factory Singapore 619973 (65) 261-6533 (65) 261-3588 FAX	W A Woodhead Industries Inc. Subsidiary 1090 Brevik Place Mississauga Ontario L4W 3Y5 Canada (905) 624-6518 (905) 624-9151 FAX