

Gear Motor Drive Reel
A74120001 100ft, 4c/#3-0 W
A74120002 120ft, 4c/#3-0 W
Service Manual

AERO-MOTIVE COMPANY



A Woodhead Industries, Inc. Subsidiary

IMPORTANT SAFETY INSTRUCTIONS

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.

- | | |
|--|--|
| | DANGER: Immediate hazards which WILL result in severe personal injury or death. |
| | WARNING: Hazards or unsafe practices which COULD result in severe personal injury or death. |
| | CAUTION: Hazards or unsafe practices which MAY result in <i>minor</i> personal injury or product or property damage. |

NOTE: Instruct operators in the safe, proper use and maintenance. Keep this manual for future reference.

INSTALLATION

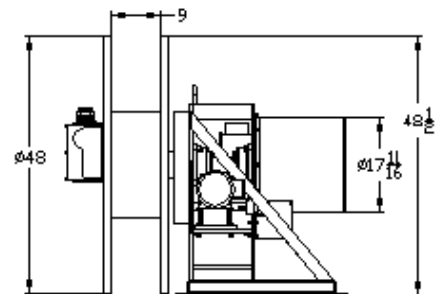
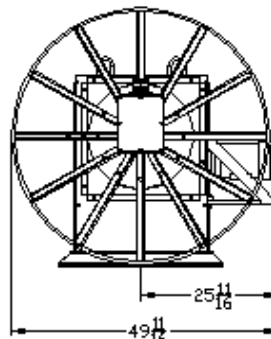
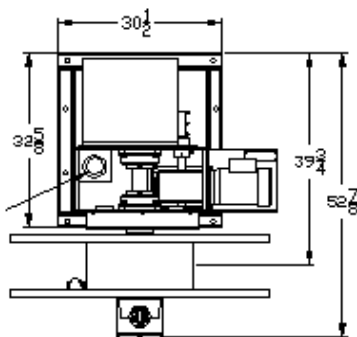
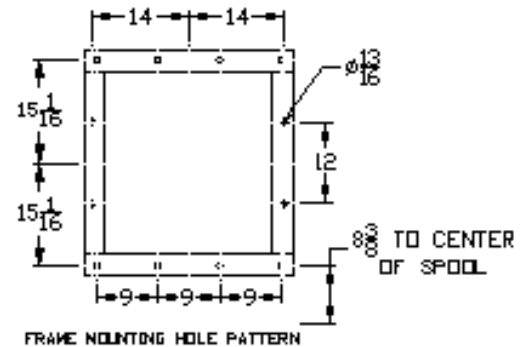
- | | |
|--|---|
| | WARNING: Failure to read, understand or follow these instructions could lead to hazards or unsafe practices COULD result in severe personal injury or death. |
| | CAUTION: Operators need to be instructed on the safe, proper use and maintenance of this product. Keep this manual for future references. Hazards or unsafe practices MAY result in <i>minor</i> personal injury or product or property damage. |

MOUNTING

Cable Reel is equipped with a fixed base to be mounted base down maintaining base parallel with ground without any modifications.

- Reel must be mounted with main shaft horizontal and level.
- Centerline of spool must be in line with cable payout.

Note: Reel is **NOT** to be mounted with base up (upside down).



WORKING CABLE INSTALLATION

DANGER: Lockout all electrical power before opening any enclosures. Fuse protection should be installed. Immediate hazards WILL result in severe personal injury or death.

Remove junction box cover and cable clamp attached to spool. Strip outer jacket of cable approximately 5 inches. Loosen watertight connector until cable will slide through. Insert stripped end of cable between flanges of spool. Then between two spokes, by cable clamp, and then through watertight connector into junction box, until outside jacket extends about 1/2" into the enclosure. Tighten watertight connector. Connect individual leads of working cable to lead wires from mainshaft in junction box. Allow approximately a 5-inch loop of working cable between watertight connector and spool to relieve tension, then secure cable to spoke with cable clamp. Since spool is not freewheeling, cable can only be loaded by running the electric motor. Replace junction box cover, making sure all gaskets are in position and fasteners are tightened securely. Tighten watertight connector.

POWER SUPPLY CABLE

DANGER: Lockout electrical power before opening any enclosures. Fuse protection should be installed. Immediate hazards WILL result in severe personal injury or death.

Remove junction box cover. Strip outer jacket of cable approximately 5-inches, possibly more may be required depending on number of conductors. Bring cable with watertight connector through threaded hole in the junction box. Connect proper supply conductors to corresponding lead wires from slip ring assembly. Replace cover of junction box, making sure all gaskets are in position and fasteners are tightened securely.

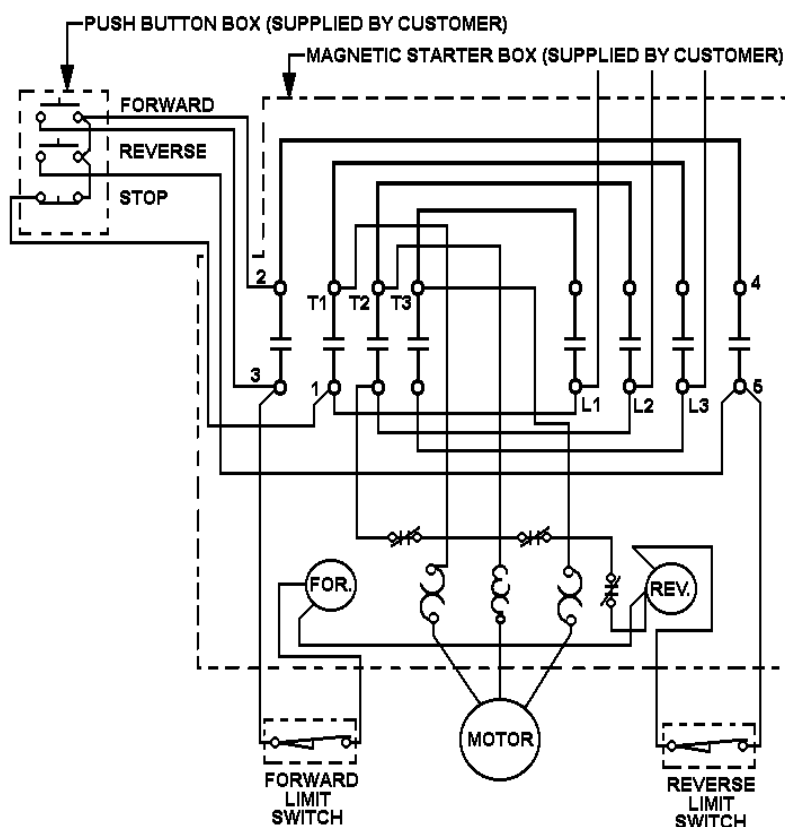
LIMIT SWITCH HOOK UP

A rotary limit switch, which operates from the main gear, may be adjusted when wired into the motor circuit to stop reel at both the up and down positions. This switch is equipped with two sets of normally open and normally closed contacts. To make Cam adjustments in switch, remove cover plate. The limit switch is to prevent damage to cable and is set accordingly to cable length. Set to trip just before full payout and complete cable wind-up. See instructions on inside lid of limit switch.

ELECTRICAL MOTOR CONTROLS

Motor controls are not included & must be supplied by customer. This illustration is a typical starter-wiring diagram showing integration of motor & limit switch. Check motor nameplate for rated Voltage and required Amps.

3 PHASE REVERSING MAGNETIC STARTER WIRING DIAGRAM



NOTE: FORWARD & REVERSE CONTACTS MECHANICALLY INTERLOCKED.

SERVICE

COLLECTOR RING REPLACEMENT



DANGER: Disconnect and lockout all power before opening any enclosures. Immediate hazards **WILL** result in severe personal injury or death.



CAUTION: Check continuity and replace all covers before turning on electrical power.

Remove collector ring covers by removing bolts as necessary. Disconnect ring lead wires in spool junction box from cable and lead wires to brush holders on slip ring. Loosen the two setscrews on collector ring collar and slide collector ring from main shaft. Refer to Collector Ring Instruction sheet before attempting repairs (SM953002). Reverse above procedure to re-assemble. Collector ring should be snug against lip of main shaft.

SPOOL REPLACEMENT



DANGER: Disconnect and lockout electrical power before opening any enclosures. Immediate hazards **WILL** result in severe personal injury or death.

Return all cable to reel or bring mobile equipment to maximum "in" position (closest to reel). Disconnect working cable at spool junction box. All cable must be removed from spool. This is most easily done by winding from reel to an adjacent shipping spool. Remove junction box from spool end of main shaft and retaining ring. Loosen setscrews in drum hub. Slide complete spool from main shaft. Be sure to retain key for replacing. Replace spool and reassemble by reversing above procedure.

GEAR REPLACEMENT

Continue from the previous disassembly. Remove gear cover. Loosen setscrews in gear and remove/replace in the same fashion. Re-assemble reel by reversing above procedure.

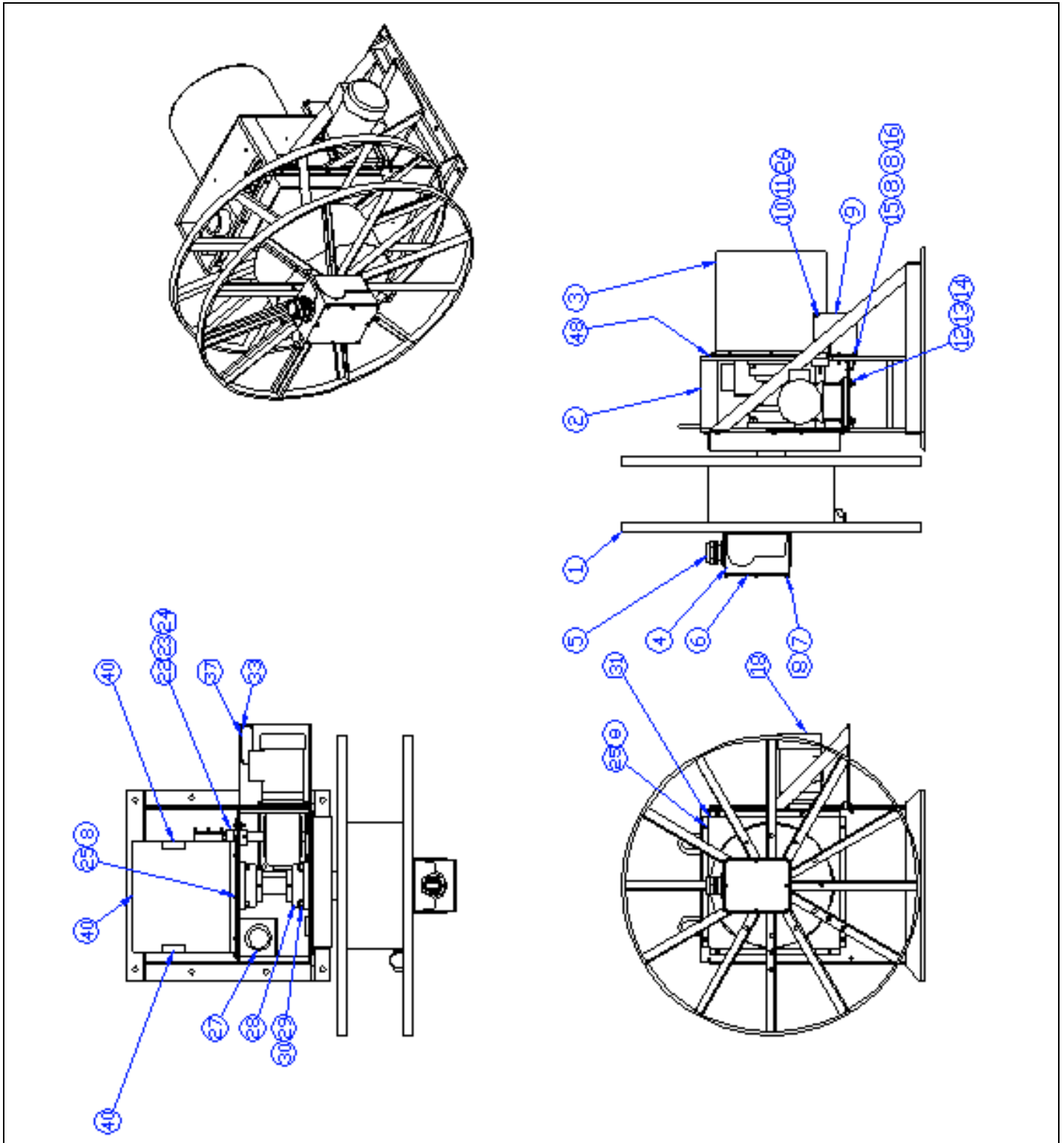
MAIN SHAFT OR BEARING REPLACEMENT

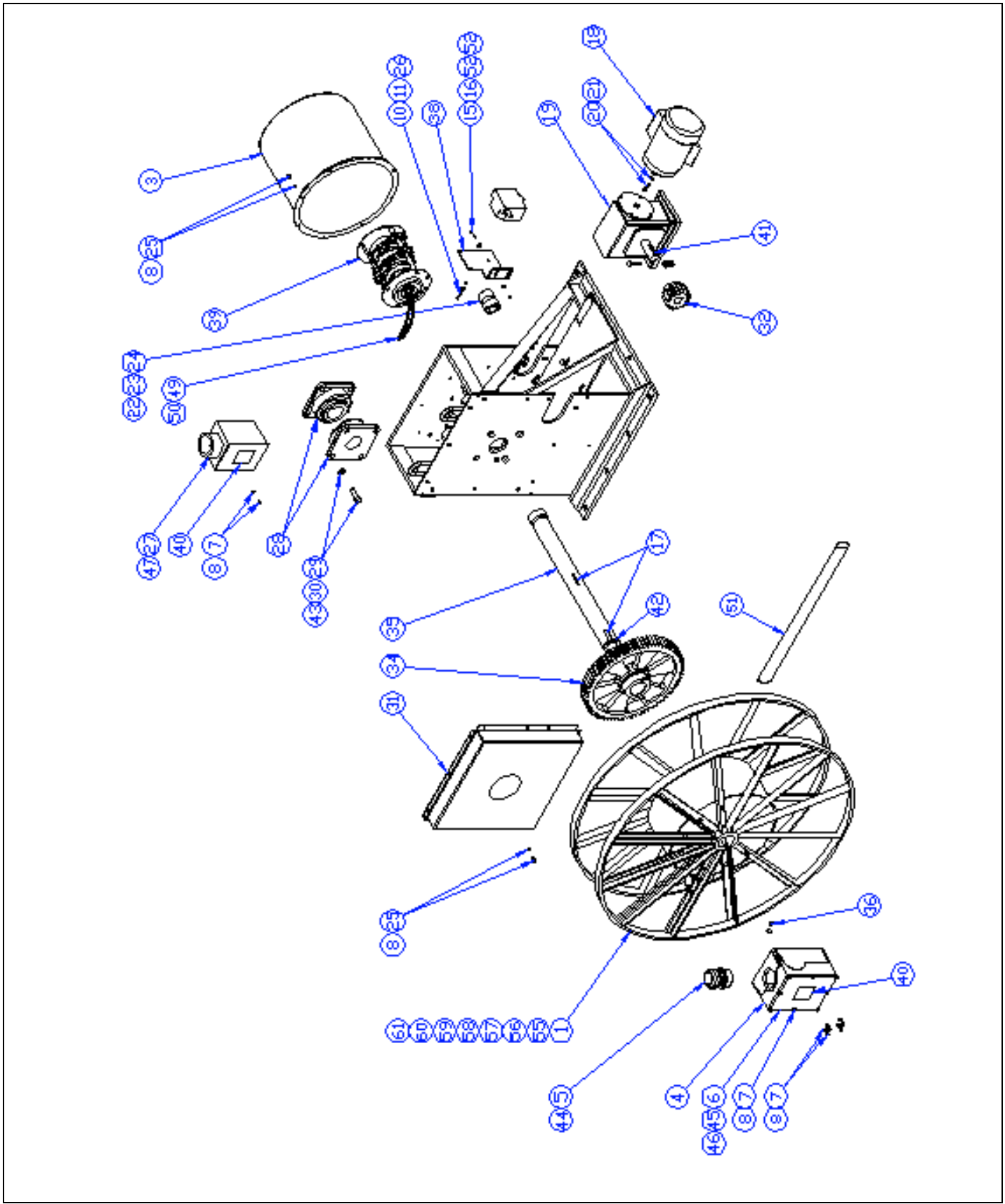
Continue from the previous disassembly. Loosen setscrews on driven sprocket hub and remove sprocket from main shaft. Loosen setscrews in bearing inner race and withdraw main shaft from frame. Replace shaft or bearings, re-assemble by reversing the above procedures.

LUBRICATION

Continue from the previous disassembly. Bearings have been sufficiently lubricated at the factory to last for the normal life of the reel. If grease has been removed during maintenance, it should be replaced with good quality high-low, temperature grease (Texaco AFB 2 or equal). Bearings should be packed. The right angle gearbox has gears running in oil. Use an oil like Mobil 630 or Shell Omala 220.

REPLACEMENT PARTS





26	3	00126P0075	WASHER, LOCK, #10
25	20	00030P0115	BOLT, 1/4-20 x 1/2
24	1	C55240005	COUPLING SEAL
23	1	C55240003	COUPLING HALF
22	1	M02130001	COUPLING HALF
21	4	C01010222	WASHER, LOCK, 3/8"
20	4	00032P0110	BOLT, 3/8-16 x 1-1/4 HHC
19	1	4791000008	REDUCER
18	1	4791000007	MOTOR
17	2	4077300019	KEY, 1/2 x 2
16	2	C22470102	NUT, HEX, 1/4-20 SELF-LOCKING
15	2	00030P0108	BOLT, 1/4-20 x 1-1/2 HHC
14	4	00126P0080	WASHER, LOCK, 1/2"
13	4	C22470101	NUT, HEX, 1/2-13 SELF-LOCKING
12	4	00034P0018	BOLT, 1/2-13 x 2
11	3	00160P0020	NUT, HEX, #10-24
10	3	00002P0427	BOLT, #10-24 x 2
9	1	01030P0001	SWITCH BOX
8	40	00101P0030	WASHER, 1/4"
7	16	00030P0110	BOLT, 1/4-20 x 3/4 HHC
6	1	4342300001	SPOOL JUNCTION BOX COVER
5	1	01151P0027	CONNECTOR
4	1	4342200002	SPOOL JUNCTION BOX
3	1	6070100001	COLLECTOR RING COVER
2	1	H22110435	FRAME ASSEMBLY
1	1	6026600002	SPOOL, DRUM BAND
ITEM	QTY.	PART/MAT'L NO.	DESCRIPTION

61	4	C22470105	NUT, LOCK, 5/16-18
60	2	00056P0010	U-BOLT
59	12	C22470100	NUT, LOCK, 3/8-16
58	12	00032P0136	SCREW, 3/8-16 X 10 HHC
57	1	6115400003	FLANGE ASSEMBLY
56	1	6068900003	FLANGE ASSEMBLY
55	1	6027100002	SPACER
54	1	SM376008	SERVICE MANUAL
53	1	6143000000	ENVELOPE, SERVICE MANUAL
52	4	00126P0050	1/4" LOCK WASHER
51	^{SEE CHART}	R62110336	CABLE, WORKING, 4C #3/0 W
50	4	00042P0040	LUG, CONNECTOR
49	4	R61440123	WIRE, 3-0 600V 200C (8FT CUTS)
48	5	00682P0002	GASKET TAPE
47	AR	01179P0011	SEALING COMPOUND
46	1	4342600002	GASKET
45	1	00682P0001	GASKET TAPE
44	1	00669P0068	BUSHING REDUCER
43	8	00101P0061	3/4" LOCK WASHER
42	1	00582P0024	RING, RETAINING, EXTERNAL 3"
41	1	4077300028	KEY, SQUARE 3/8 X 2"
40	5	3740700000	LABEL, WARNING, HIGH VOLTAGE
39	1	SR634	COLLECTOR RING ASSEMBLY
38	1	M53720020	BRACKET, SWITCH BOX
37	1	3743600000	NAMEPLATE
36	2	00053P0206	SCREW, SET, SDC HD, 1/2-13 x 5/8
35	1	6029300005	MAIN SHAFT
34	1	01190P0015	LARGE GEAR
33	4	00076P0040	NAMEPLATE RIVET
32	1	01190P0014	SMALL GEAR
31	1	M53480111	GEAR COVER
30	8	00151P0145	NUT, HEX, 3/4-10
29	8	00046P0003	BOLT, 3/4-10 x 2-1/2 HHC
28	2	00379P0019	PILLOW BLOCK BEARING
27	1	H82120037	FRAME JUNCTION BOX
ITEM	QTY.	PART/MAT'L NO.	DESCRIPTION

Aero-Motive Company

W A Woodhead Industries Inc. Subsidiary
 PO Box 2678
 Kalamazoo, MI 49003-2678
 USA
 (269) 337 7700 / (800) 999 8559
 FAX: (800) 333 6119
 www.aeromotive.com
 techhelp@aeromotive.com

Woodhead Connectivity LTD.

W A Woodhead Industries Inc. Subsidiary
 Factory No. 9
 Rassau Industrial Estate
 Ebbw Vale Gwent NP23 5SD
 United Kingdom
 44-1495-356300
 FAX: 44-1495-356301
 sales@wdhd.co.uk

Woodhead Asia PTE LTD.

W A Woodhead Industries Inc. Subsidiary
 No. 4 Toh Tuck Link
 Level 3 Mezzanine
 Markono Logistics Bldg.
 Singapore 596226
 65-6-261-6533
 FAX: 65-6-261-3588
sales@wasia.com.sg

Woodhead Canada LTD.

W A Woodhead Industries Inc. Subsidiary
 1090 Brevik Place
 Mississauga Ontario
 L4W 3Y5 Canada
 (905) 624-1079
 FAX: (905) 624-9151
www.woodhead.ca