

W SERIES DUAL HYDRAULIC HOSE REEL

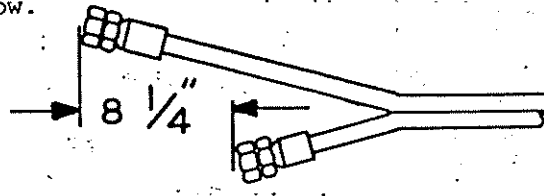
I. REEL INSTALLATION

- A. Mounting: The Reel may be mounted in any position which allows the Main Shaft to be horizontal, and the Hose Line to be perpendicular to the center of the Reel. The Reel can be installed using the Base (AI-6) or the optional Mounting Stand (AI-13).
- B. Supply Hose Installation: The Input Hose must be attached to the two (7/8 - 14 J.I.C.) ports on the Swivel Body (AI-8). Rigid pipe should NOT be used on input connections.

CAUTION: Remove all tension before any maintenance.

C. Working Hose Installation:

1. Insert both lines through Drum opening (AI-19). Attach one Hose on the uppermost male fitting on the Manifold (AI-24). Loop the second Hose around the Manifold to the lower male fitting. If a Dual Bonded Hose is used, the fittings must be staggered as shown in the diagram below.



2. After the fittings are tightened to the Manifold, the Hose can be wrapped on the Drum by back winding the Reel.

NOTE: When reverse winding the reel, you will hear a clicking sound, as the springs disengage from the drive hubs. This is a protective device to prevent damage to the spring while reverse winding, all springs will re-engage when the hose is pulled out.

3. Before attaching free end of Working Hose, Pretension turns must be applied to Reel. Carefully follow the spring tensioning section (II) below.

II. SPRING TENSION ADJUSTMENT

CAUTION: Before any adjustments, remove all tension from the Reel.

- A. Before connecting the free end of the Hose, the Reel will require approximately three (3) "Pretension" or Priming turns to establish initial tension. This should be adequate for most applications, but if not, due to Hose length, more or less tension may be applied.
- B. To Pretension a Reel, pull Hose out until the Springs engage. Continue to pull Hose out until Drum rotates one complete turn.

II. SPRING TENSION ADJUSTMENT (cont.)

- C. Hold the drum stationary and loop the hose back around the drum of the Reel.
- D. Repeat until adequate "pretension" is applied.
- E. Pull entire hose length off from the Reel and remove all twists and kinks and be sure there is enough spring travel.

CAUTION: Never apply too many "pretension" turns. 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". Over tensioning can damage both the hose and Reel. Insufficient pretension may cause sluggish action when retracting and may also shorten spring life.

- F. Connect the free end of the working hose, being careful not to lose any of the "pretension" turns.

III. MAIN SPRING MOTOR

NOTE: The spring motor contains from 1 to 4 springs. If one of them has broken due to fatigue, it is recommended that all of the springs be replaced to avoid excessive downtime as each of the old springs break.

- A. Remove all tension from Reel.
- B. Be sure the spring motor is adequately supported.
- C. Remove the four (4) bolts (AI-3) and washers from the mounting plate (AI-1). Pull the motor from the plate disengaging the motor shaft (AI-36) from the Reel shaft drive pin (AI-17).
- D. When replacing the spring motor, reverse the above procedure being sure that the spring motor shaft engages the pin on the main shaft (AI-16) of the Reel.

IV. MAINSPRING REPLACEMENT

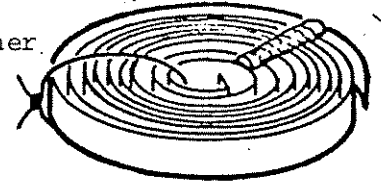
CAUTION: Remove all tension from the Reel before any disassembling. All springs are potentially dangerous and must be handled with care. If it is necessary to disassemble the spring motor, follow the instructions carefully.

- A. If the main spring is broken, there will be no tension. If the spring is not broken, disconnect the working hose at free end and allow Reel to slowly run down completely.
- B. Repeat steps B & C in Section V to remove the spring motor.
- C. Stand motor on its end plate (AI-45).
- D. Remove the six (6) nuts (AI-46) from the end plate (AI-45) and remove end plate (AI-31) with the six (6) bolts (AI-30).
- E. Slide band assembly (AI-37) off to expose spring and cup assembly.
- F. Remove the shaft (AI-36) and fixed hub (AI-39) by pulling upward on the shaft.

CAUTION: Hold the center of the spring down as the hub is pulled out. If the center is allowed to raise up, the spring may escape from its container with enough force to cause injuries.

CAUTION: DO NOT remove the Springs from their containers.

- G. Carefully remove the spring and cup assembly (AI-40) and subsequent spring and cup assembly. Do not remove the spring from these containers. When removing the rotating hubs (AI-40) caution must be exercised as in "F," above.
- H. When disposing of old or broken spring assemblies, the coils should be welded or wired securely together to prevent possible injury to scrap handling personnel.
- I. Replace the broken spring assembly and reassemble the spring motor in reverse order. When replacing the spring assemblies make sure that the square projection, on the end of the spring hub, is properly engaged in the opening in the spring cup. Refer to the parts drawing for part sequence and location.
- J. After reassembly, replace spring tension as described in Section III.



V. MAINSHAFT SEALS REPLACEMENT

CAUTION: Remove all tension and disconnect and remove all Hydraulic pressure and drain lines to avoid excessive spillage before servicing Seals.

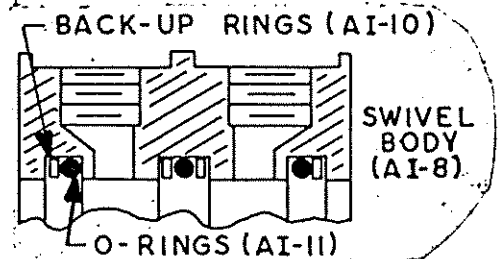
- A. Remove all tension from Reel. See Section II.
- B. Remove Spring Motor Assembly (B) (See Section III).
- C. Remove Working Hose from Spool. (See Section I-C).
- D. Remove Outer Flange (AI-19) and Inner Flange (AI-15) by removing the six (6) Screws (AI-21) and Washers.

CAUTION: Disassemble in a clean environment to avoid damage to the Shaft and Swivel. Remove all contamination from the Shaft and Swivel before replacing.

- E. Remove Retaining Ring (AI-4) and Washer (AI-5). Very carefully pull the entire Shaft and Manifold Block in the direction of the Manifold Block. Be sure to grasp the Swivel Housing (AI-8) firmly while removing Shaft Assembly to avoid scratching or damaging both units.
- F. Remove old O-Rings (AI-11) and Back-Up Rings (AI-10) from Inner Swivel Body and all contamination.

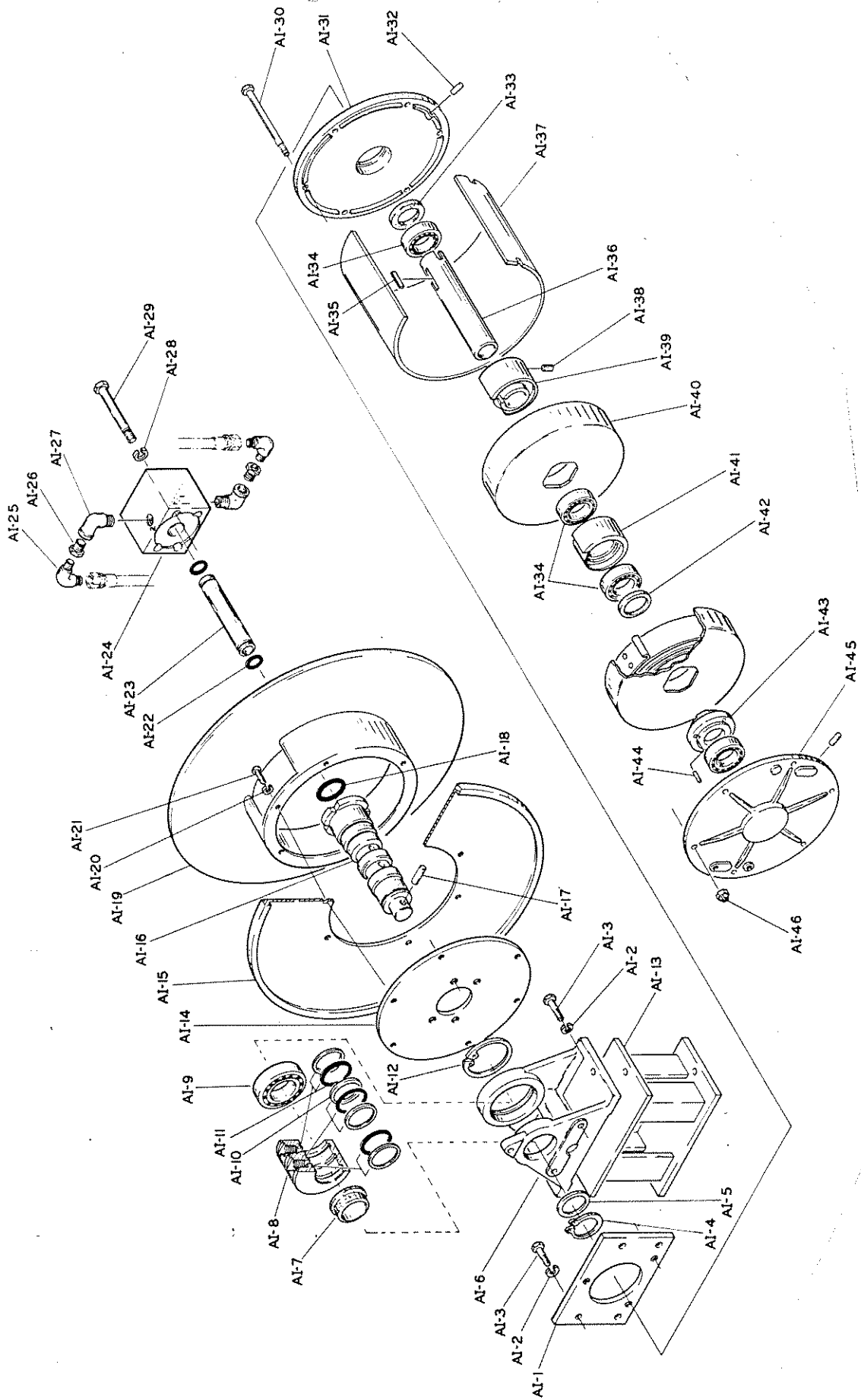
CAUTION: When removing O-Rings from swivel body do not scratch O-Ring surface with a sharp tool.

- G. Replace Seals with Kit (A). Install the four (4) Back-Up Rings (AI-10) and the three (3) O-Rings (AI-11) carefully in order shown in diagram. The center O-Ring has a Back-Up Ring on each side. While the two outside O-Rings have a single Back-Up installed toward the outside of the Swivel End (See Diagram).



- H. A light coat of Hydraulic oil or O-Ring lubricant applied to the O-Rings and Back-Up Rings will allow easy installation of Shaft and insure sealing of the O-Rings.
- I. To reassemble reverse the above procedures. Retension Reel as described in Section II.

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"W" SERIES DUAL HYDRAULIC HOSE REEL

AERO-MOTIVE

A SUBSIDIARY OF DANIEL WOODHEAD, INC.

AERO-MOTIVE MFG. CO.

P.O. Box 2678 • Kalamazoo, Michigan 49003

Telephone (616) 381-1242 • Telex: 224420

**PARTS LIST; "W" SERIES HOSE REEL
DUAL HYDRAULIC**

ITEM NO.	QTY.	DESCRIPTION	ITEM NO.	QTY.	DESCRIPTION
AI-1	1	Mount Plate (Motor)	AI-27	2	Elbow (1/4-14 N.P.T.)
AI-2	7	Lockwasher (3/8")	AI-28	4	Lockwasher (3/8)
AI-3	7	Bolt (3/8-16 x 1)	AI-29	4	Bolt (3/8-16 x 3")
AI-4	1	Retaining Ring	AI-30	6	Bolt
AI-5	1	Washer	AI-31	1	End Plate
AI-6	1	Frame	AI-32	2	Pin (.094 x .375)
AI-7	1	Bushing	AI-33	1	Felt Washer
AI-8	1	Swivel Housing	AI-34	2*	Bearing
AI-9	1**	Bearing	AI-35	1	Key
AI-10	4	Back-Up Ring	AI-36	1	Main Shaft
AI-11	3	O-Ring	AI-37	1	Band Ass'y.
AI-12	1	Retaining Ring (Bearing)	AI-38	1	Set Screw (3/8-16 x 1/2)
AI-13	1	Stand (Optional)	AI-39	1	Fixed Hub
AI-14	1	Mount Plate (Spool)	AI-40	A/R**	Main Spring & Cup Ass'y.
AI-15	1	Flange	AI-41	A/R	Rotating Hub
AI-16	1	Main Shaft	AI-42	1x	Spacer
AI-17	1**	Pin (.375 x 1.375)	AI-43	1	Drive Ring
AI-18	1	O-Ring	AI-44	4	Drive Pin
AI-19	1	Flange & Drum	AI-45	1	End Plate
AI-20	6	Lockwasher (1/4")	AI-46	6	Lock Nut (5/16-18)
AI-21	6	Screw (1/4-20 x 1/4)			
AI-22	2	O-Rings			OPTIONAL KITS
AI-23	1	Inner Shaft	AI-A	**	O-Ring Kit
AI-24	1	Manifold Block	AI-B		Spring Motor Complete
AI-25	2	Elbow (1/4-18 x 1/4-20)	AI-C		Rotating Hub & Bearings
AI-26	2	Adapter (1/4 - 1/4)			

* 2 Per Spring More Than One

x 1 Per Spring More Than One

** Recommended Spare Parts

WHEN ORDERING PARTS, ALWAYS SPECIFY ITEM NUMBER, QUANTITY AND DESCRIPTION OF PARTS REQUIRED.
MODEL NUMBER AND SERIAL NUMBER OF REEL MUST BE INCLUDED.

VI. INNER SEALS

CAUTION: Remove all tension and disconnect and remove all hydraulic pressure and drain lines to avoid excessive spillage before servicing seals.

- A. Remove hoses from fittings on manifold block.

CAUTION: Disassemble in a clean environment to avoid damage to shaft and swivel. Remove all contamination from shaft and swivel before replacing.

- B. Remove the four (4) bolts (AI-29) and washers from manifold block (AI-24).
- C. Remove manifold block (AI-24) from mainshaft. Remove the O-Ring (AI-18) from the manifold.
- D. Pull the inner shaft (AI-23) straight out of the mainshaft and remove O-Rings (AI-22) from each end.
- E. Replace O-Rings (AI-22) on ends of shaft from Kit (A) and O-Rings (AI-18) on mainshaft (AI-16). A light coat of hydraulic oil or O-Ring lubricant applied to the O-Rings will allow easy installation of shaft and insure sealing of the O-Rings.
- F. To reassemble, carefully reverse the above procedures. Retension Reel as described in Section II.

VII. LUBRICATION

The Reel is lifetime lubricated at the factory. Further lubrication is neither required nor recommended.

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PARTS PRICE SHEET PP5650-01 DK
 EFFECTIVE DATE APRIL 1, 1980

"W" SERIES DUAL HYDRAULIC HOSE REEL

SUPERSEDES ALL PREVIOUS SHEETS
 (REF. #SM5650-01)

NOTE: WHEN ORDERING PARTS MODEL NUMBER AND SERIAL NUMBER MUST BE SPECIFIED.

<u>REF. NO.</u>	<u>PART NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>
AI-1	48344	1	Motor Mounting Plate
AI-2	101-P-21	7	Lock Washer
AI-3	32-P-103	7	Bolt
AI-4	580-P-100	1	Retaining Ring
AI-5	49713	1	Washer
AI-6	48301-1	1	Frame
AI-7	48366	1	Bearing
AI-8	49708	1	Swivel Housing
AI-9	376-P-191	1	Ball Bearing
AI-10	1228-P-10	4	Back-up Ring
AI-11	700-P-79	3	O-Ring
AI-12	581-P-45	1	Retaining Ring
AI-13	48347	1	Optional Stand
AI-14	48380	1	Plate
AI-15	48303-3	1	Flange for Model WXXDX
	48303-4	1	" " " WXXEX
	48303-5	1	" " " WXXFX
	48303-6	1	" " " WXXGX
	48303-7	1	" " " WXXHX
AI-16	49709	1	Mainshaft
AI-17	230-P-135	1	Pin
AI-18	700-P-59	1	O-Ring
AI-19	48338-9	1	Flange & Drum for WXXD2
	48338-12	1	" " " " WXXE2
	48338-15	1	" " " " WXXF2
	48338-18	1	" " " " WXXG2
	48338-21	1	" " " " WXXH2
	48338-8	1	" " " " WXXD3
	48338-11	1	" " " " WXXE3
	48338-14	1	" " " " WXXF3
	48338-17	1	" " " " WXXG3
	48338-20	1	" " " " WXXH3
	48338-7	1	" " " " WXXD4
	48338-10	1	" " " " WXXE4
	48338-13	1	" " " " WXXF4
	48338-16	1	" " " " WXXG4
	48338-19	1	" " " " WXXH4
AI-20	101-P-30	6	Lock Washer
AI-21	2-P-502	6	Screw
AI-22	700-P-62	2	O-Ring (Inner Shaft)
AI-23	49710	1	Inner Shaft
AI-24	49712	1	Manifold Block
AI-25	675-P-10	2	Elbow for Model WXXX2
	675-P-9	2	WXXX3
	675-P-8	2	WXXX4

* Consult Factory

<u>REF. NO.</u>	<u>PART NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>
AI-26	669-P-59	2	Adaptor Model WXXX2 only
AI-27	675-P-6	2	Elbow
AI-28	101-P-21	4	Lock Washer
AI-29	32-P-122	4	Bolt
AI-30	44894-AR	6	Tie Bolt
AI-31	43817-1	1	End Plate
AI-32	230-P-105	2	Pin
AI-33	40829	1	Felt Washer
AI-34+	40005	2**	Bearing
AI-35	40773-2	1	Key
AI-36	43814-T	1	Mainshaft
AI-37	40120-AR	1	Band Assembly
AI-38	53-P-502	1	Set Screw
AI-39	40185-1	1	Fixed Hub
AI-40+	43782-105	AR	Spring & Cup for WWXXX
	43782-108	AR	" " " " WKXXX
	43782-110	AR	" " " " WNXXX
	43782-116	AR	" " " " WRXXX
	43782-117	AR	" " " " WTXXX
AI-41	59741-1	AR	Rotating Hub
AI-42	40119	AR	Spacer
AI-43	40176	1	Drive Ring
AI-44	230-P-122	4	Drive Pin
AI-45	40809-1	1	End Plate
AI-46	77-P-1	6	Locknut
AI-A+	61654	1	Seal Kit (Includes: AI-4, AI-10, AI-11, AI-18, AI-22)
AI-B	43861-T	AR	Complete Spring Motor
AI-C	59744-1	AR	Rotating Hub & Bearing

* Consult Factory

** Plus 2 required per Rotating Hub

+ Recommended Spares

TERMS: 1 $\frac{1}{2}$ -10 days, Net-30 days

SHIPMENT: F.O.B. Kalamazoo, Michigan U.S.A.

MINIMUM BILLING: \$25.00 on any order

NOTES: 1. All screws, nuts, etc., listed at \$.80 each are standard items and may be procured from local sources.

2. Prices subject to change without notice.