

AERO-MOTIVE COMPANY

A Woodhead Industries, Inc. Subsidiary



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.

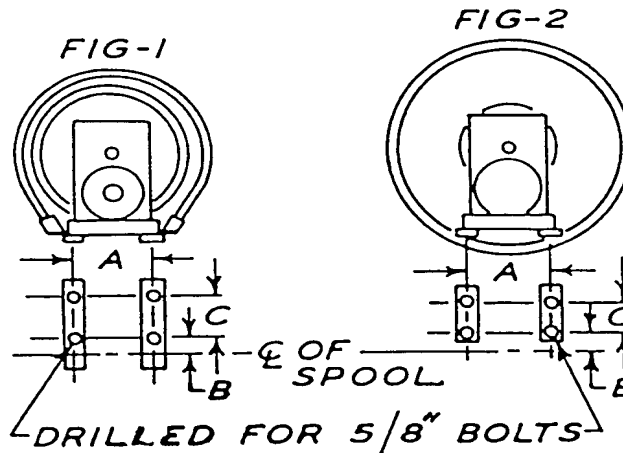
- WARNING:** Warnings are used when hazards exist which could result in serious injury, death or property damage if proper precautions are not taken.
- CAUTION:** Cautions are used as reminders of safety hazards which could result in personal injury or property damage if proper precautions are not taken.

Installation

Mounting

Pow-R-Matic hose reels are equipped with a fixed base and can be mounted in any position-- either base up or base down, wall mounted, or in any position which allows the main shaft to the 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, special hose guides and additional tension may be required.

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.



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Model	Dim. A		Dim B		Dim C	
2053 - 2050	11.25	(285.8)	9.00	(228.6)	9.25	(247.7)
2343 - 2340	15.25	(387.4)	9.00	(228.6)	9.25	(247.7)
2373 - 2370	15.25	(387.4)	9.00	(228.6)	10.75	(273.1)
2576 and 2776	11.25	(285.2)	8.25	(209.6)	11.38	(289.1)
2577 and 2777	11.25	(285.2)	10.44	(265.2)	11.38	(289.1)
2578 and 2778	11.25	(285.2)	12.56	(319.0)	11.38	(289.1)
2579 and 2779	11.25	(285.2)	14.75	(374.7)	11.38	(289.1)
2570 and 2770	11.25	(285.2)	16.94	(430.3)	11.38	(289.1)

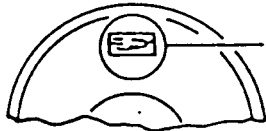
Pretensioning

Pow-R-Matic® reels are not pretensioned at the factory. It will be necessary to apply set up turns to the motor to pretension the reel--in much the same way as a window shade is pretensioned.

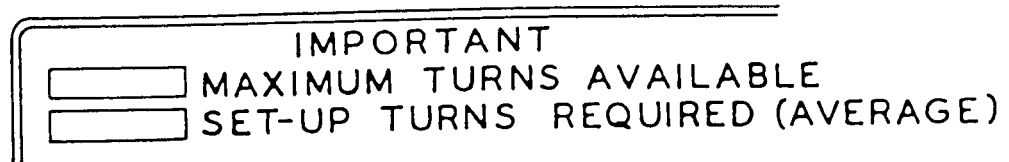
A. Determining the number of pretension turns

There are two methods of determining the number of pre-tension turns to be applied to the cable reel.

1. There is an instruction plate located on the flange. This instruction plate states the maximum number of turns available in the reel. The instruction plate also has a space for the number of set up turns to pre-tension the reel--if this box is blank, go to A.2. Using the figure, obtain the set up turn box, proceed to Section "Applying pre-tension set up turns". See diagram.



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2. If the set up turn box is blank, use the following procedure. Determine the number of revolutions of the cable drum to wrap up the working cable. Subtract the number of turns required to wrap the cable on the drum from the maximum turns available--obtained from the instruction plate on the flange. Divide the answer by two. This will give you the average number of pretensioning set up turns.

EXAMPLE: A reel has 100 feet of working cable. You have determined, by counting the number of revolutions, that the drum rotates 20 times to wrap up the working cable. The instruction plate states that there are a maximum of 50 turns available.

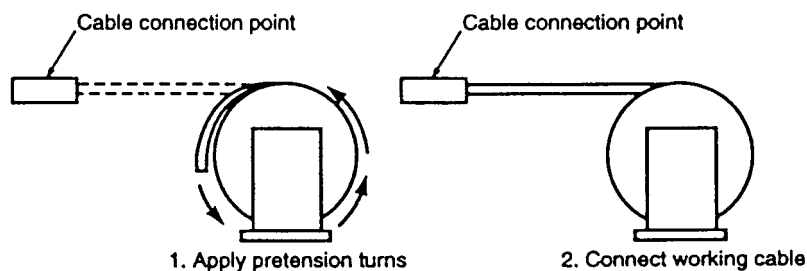
50 turns available

- 20 turns to wrap cable on drum

30 -- 30 turns ÷ 2 = 15 set up turns. This reel would have 15 pre-tension set up turns applied.

Applying Pretension Set Up Turns

Prior to terminating hose, follow the prescribed steps below for application. Make sure there are no twists or kinks in the hose and that all hose is on 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 cable is pulled out.

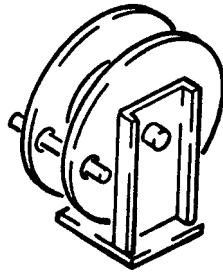


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Hose Anchoring

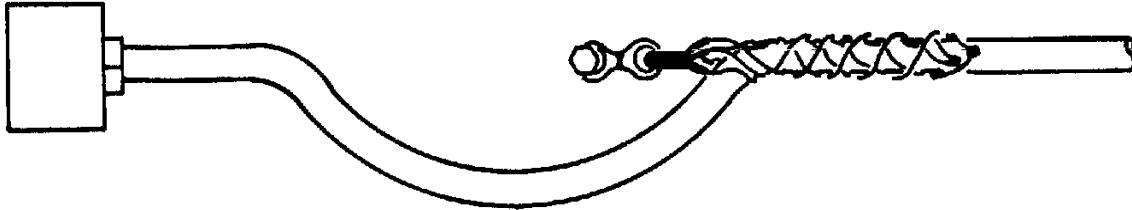
CAUTION: Before terminating or anchoring hoses, always pull all of the hose off from the reel--against the spring tension--to be sure that there are enough turns in the reel for the hose travel. If you reach the end of the spring before all hose is removed from the drum, stop and remove pretension turns. Remove any twists or kinks from the hose while hose is extended. Failure to comply with this procedure can result in damage to the reel and hose.

- A. Pull the working hose--against the tension of the reel--to the connection point, with adequate slack to make the connections. Place a bar through the holes near the edge of the flanges to relieve the tension on the hose and hold the pretension turns on the reel. Make sure there are no twists or kinks in the hose.



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- B. When anchoring the hose, a hose grip should be incorporated in such a way as to allow a slack in the hose prior to entering the connection points. See illustration.



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- CAUTION:** **Never** apply so many turns that the springs are worked to the end of their travel. Always leave several turns between the end of the spring and the position of the drum when the hose is fully extended. If the spring reaches the end of its travel before satisfactory tension is achieved, consult the factory at 616/337-7700.

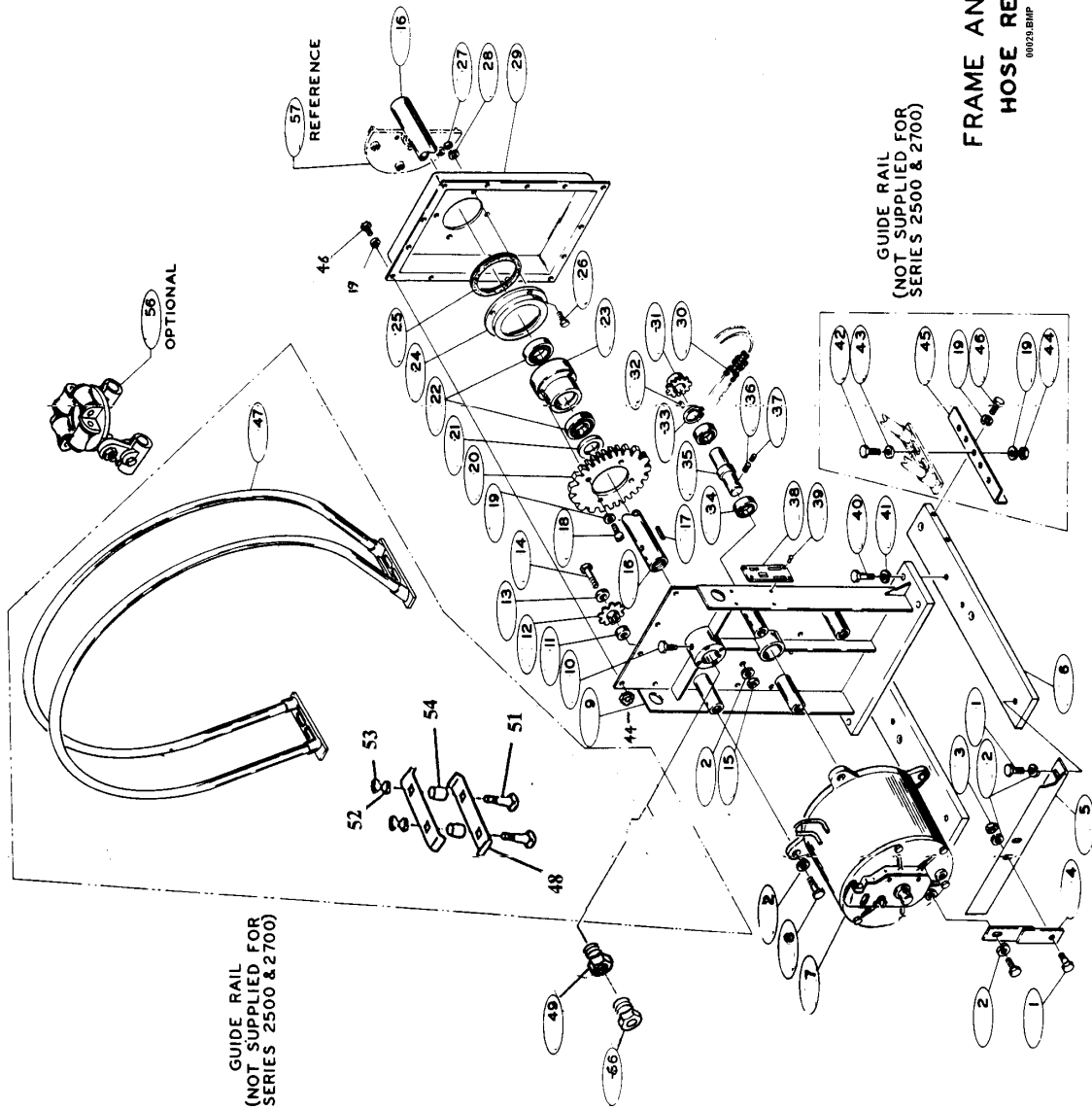
Service

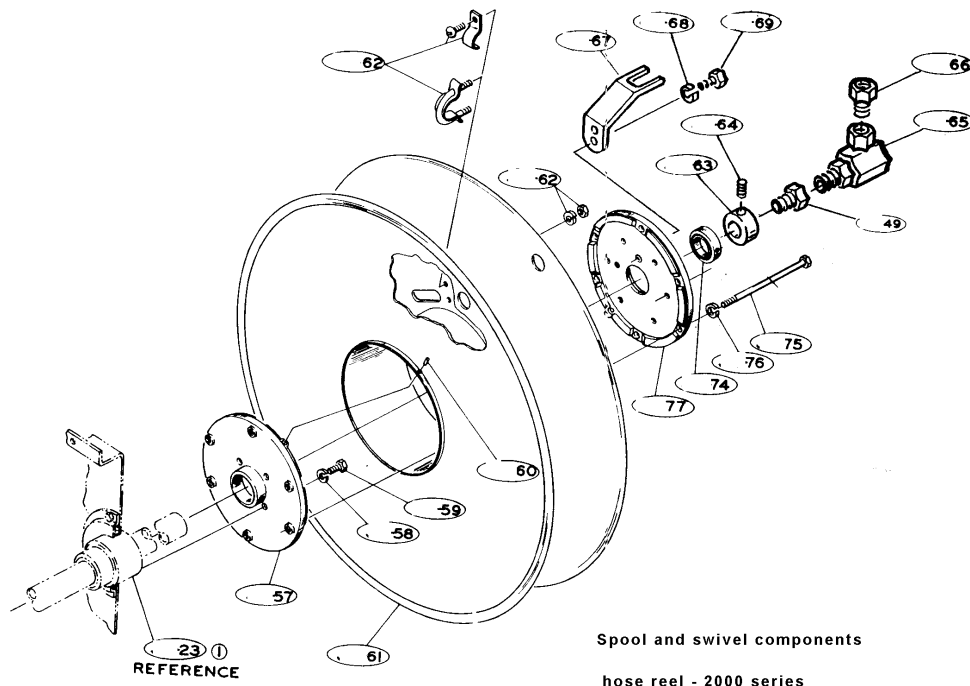
- CAUTION:** Before performing any service, always disconnect and lock out all power and always remove all reel spring tension. Failure to comply with these practices can result in injury to personnel or damage to equipment.

A. Spring motor replacement

- CAUTION:** Be sure that all spring tension has been removed from reel before servicing spring motor.
1. Be sure spring motor is adequately supported. Lifting hooks have been provided for this.
 2. Remove four bolts (8) and rear motor support bracket (4) and when applicable (5).
 3. Slide the spring motor back to disengage from the drive shaft.
 4. Read the enclosed spring motor instructions SM0088-03 carefully before attempting spring replacement.
 5. To replace spring motor, reverse the above procedure.
 6. After spring motor is reinstalled, repeat the spring tensioning procedure described in the "Pretensioning" section.

Replacement Parts





Reference Number	Part Number	Qty.	Description
1.	00032P0105	3	Screw, hex head 3/8-16 x 7/8
	00032P0103	1	Screw, hex head 3/8-16 x 1
2	00101P0021	8	Washer lock 3/8
3	C22020312	1	Nut, hex 3/8-16 -- 2300 only
4	5987500000	1	Support -- 2300 only
5	5987400001	1	Support - others
6	4083200000	2	Mounting foot -- specify complete model number
7*	4432100000	1	Spring motor
	4432101305	AR	Spring motor for model 2xx3-xx-xxx
	4432101405	AR	Spring motor for model 2xx4-xx-xxx
	4432101505	AR	Spring motor for model 2xx5-xx-xxx
	4432101605	AR	Spring motor for model 2xx6-xx-xxx
	4432101705	AR	Spring motor for model 2xx7-xx-xxx
	4432101805	AR	Spring motor for model 2xx8-xx-xxx
	4432101905	AR	Spring motor for model 2xx9-xx-xxx
	4432101005	AR	Spring motor for model 2xx0-xx-xxx
8	00032P0103	4	Screw, hex head 3/8-16 x 1
9	5982700000	1	Stand weldment - others
	5987800000	1	Stand weldment - 2300 only
10	4068000000	1	Screw
11	4082500000	1	Spacer, sprocket
12	00380P0003	1	Idler
13	C01010222	1	Washer 3/8 x .065
14	00032P0112	1	Screw, hex head 3/8-16 x 2
15	C22020312	1	Nut, hex 3/8-16
16	40149xxxxx	1	Main shaft - specify model number
17	4077300002	1	Key 1/4 sq x 7/8 L
18	00029P0108	4	Screw, soc head 1/4-20 x 5/8
19	00101P0030	23	Washer, lock 1/4x.062 - 15 required -- 2500 and 2700
20	40822-AR	1	Sprocket, driven -- specify model number
21	4011900000	1	Spacer

22 *	4000500000	2	Bearing
23	4080600000	1	Sprocket hub
24	6116700000	1	Retainer
25	4081600000	2	Felt washer
26	00030P0211	4	Screw, hex head #10 -24x3/8
27	00151P0025	4	Nut, hex #10 -24
28	00101P0015	10	Washer, lock #10
29	6111500000	1	Sprocket housing
30 *	01158P0002	AR	Chain #40 -- specify model number -- roller
31 *	43723-AR	1	Sprocket, driving -- specify model number
32	00751P0011	1	Key, Woodruff 1/4x3/4
33	00581P0075	2	Retaining ring
34 *	00376P0120	2	Bearing
35	4370300000	1	Shaft
36 *	00230P0133	1	Pin .375 dia x 1.75 L
37 *	00230P0151	1	Pin .218 dia x 1.75 L
38	3743600000	1	Name plate
39	00209P0023	4	Rivet, dome 1/8
40	00034P0013	4	Screw, hex head cap 1/2-13x1-1/4
41	00101P0016	4	Washer, lock 1/2
42	00030P0117	4	Screw, hex head 1/4-20x1 -- 2000, 2300
43	00126P0050	4	Washer 1/4x20 -- 2000, 2300
44	00151P0020	11	Nut, hex 1/4x20 - quantity 15 on 2000, 2300
45	4026600000	2	Mounting bracket - 2000, 2300
46	00030P0111	11	Screw, hex head 1/4-20x5/8 - quantity 15 on 2000, 2300
47	2R	1	Guide rail assembly - 2000 - 40729
	3R	1	Guide rail assembly - 2300 - 4 inch wide spool - 40729-1
	4928500003	1	Guide rail assembly - 2300- 7 inch wide spool
48	6079300000	2	Tie bar 4 inch
	60794 00000	2	Tie bar 7 inch
49	00669P0035	2	Reducer -002 = 004
	00669P0054	2	Reducer -006
51	00035P0014	2	Bolt, carriage 5/16-18x1-3/4
52	00101P0014	2	Lock washer 5/16
53	00151P0075	2	Nut, hex 5/16-18
54	6110500000	2	Spacer
56	4182600000	AR	Roller guides - model 2FRE or 2FYE only
	4375200000	AR	Roller guides - model 3FRE or 3FYE only
57	4080500001	1	End plate
58	00101P0030	4	Washer 1/4 x .062
59	00030P0110	4	Screw hex head 1/4-20x3/4
60	00230P0105	2	Pin .094 dia x 375 L
61	4399200019	1	Spool - 4 inch width, 32" dia - 2300
	4399200022	1	Spool - 7 inch width, 32" dia - 2300
	4399000001	1	Spool - 5 inch width, 24" dia - 2000
	4399300001	1	Spool - 7 inch width, 36" dia - 2500
	4399300002	1	Spool - 7 inch width, 42" dia - 2700
62	61503-AR	AR	Cable clamp - specify cable size
	49201-AR	AR	Cable clamp - specify cable size
63	5947900000	1	Collar, lock
64	00011P0019	1	Set screw 3/8-16x1/2
65 *	00666P0032	1	Swivel -002 = 004
	00666P0038	1	Swivel -006 = 008
66	00669P0010	2	Reducer 002
	00669P0064	2	Reducer 003
67	5953500000	1	Drive fork -002 = 004
	5953800000	1	Drive fork -006 and 008
68	00101P0030	2	Lock washer 1/4 x .062
69	00030P0111	2	Screw, hex head 1/4-20 x 5/8

70 *	4025500000	1	Gasket
71 *	00004P0211	6	Screw, slot head #10-24x5/8
72	5490100001	1	Entrance ring
73 *	4015300000	1	Gasket
74 *	4000500000	1	Bearing
75	4014300035	6	Bolt 4 inch spool
	4014300038	6	Bolt 7 inch spool
76	00101P0030	6	Lock washer 1/4 x .062
77	6178900000	1	end plate

* Recommended spare parts

When ordering parts, model number and serial number must be specified.

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