

ENDA, ENDB, ENMA, ENMB, ENHA, ENHB Series Hose Reel 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 *minor* 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, and follow these instructions may result in 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 *minor* personal injury or product or property damage.

MOUNTING

Some reels come complete with hose and are set at proper tension, ready to install. The fixed base of the reel allows mounting in several different positions including base up, base down, or wall mounted. Here are general mounting requirements:

- Main-shaft must be horizontal.
- Centerline of the spool assembly must be in-line with the hose pull out.
- When mounted overhead in base up position, add a secondary chain, bracket or other safety device to prevent reel from falling in case the mounting bolts are removed or become loosened from vibration.

SECONDARY SUPPORT CHAIN



DANGER: A secondary safety cable or chain is to be attached to all reels mounted overhead to prevent reel from falling. Immediate hazards **WILL** result in severe personal injury or death.

All reels mounted over head should have a secondary support chain to protect personnel in case of structure or mounting component failure. Attach one end of secondary support chain or cable to reel. Attach other end of secondary support chain or cable to a support component other than that which supports the reel. The chain or cable should be as short as possible allowing reel to drop no more than 6 to 12 inches if the primary connection is released.

SUPPLY HOSE

Assemble supply hose to main-shaft. **Do not** use rigid pipe at input connection. Use Teflon tape or pipe sealant to reel hose fitting threads.

NOTE: To avoid damage to swivel, use a wrench to support swivel fitting while tightening hose.

ADJUSTMENT

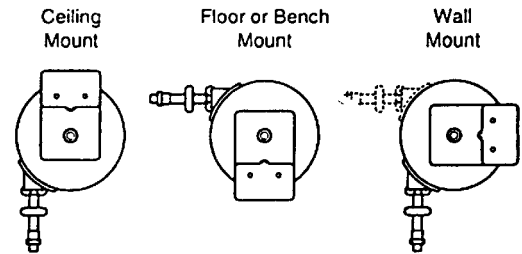
RATCHET LOCK

CAUTION: To avoid damage to the reel or personnel, always hold on to the hose while it is rewinding. Hazards or unsafe practices which MAY result in *minor* personal injury or product or property damage.

Ratchet lock works with reel mounted in any position and needs no adjustment. Check reel for correct operation by slowly pulling out the hose. A “clicking” noise will be heard every half revolution of the drum. To latch the reel, pull out the hose and allow it to retract after hearing the first second or third “click”. To unlatch, slowly pull out the hose until the “clicking” noise stops, then let the hose retract until the hose stop rests against the hose guide. To disable, ratchet parts must be removed.

HOSE GUIDE ADJUSTMENT

For maximum hose life, adjust guide arm so that the hose payout is in line with guide assembly (see illustration below). To adjust the hose guide arm, remove screws, and rotate guide band.



TENSION ADJUSTMENT

CAUTION: Failure to test for adequate spring revolutions can cause damage. Hazards or unsafe practices MAY result in *minor* personal injury or product or property damage.

NOTE: Pull hose out completely to insure enough spring revolutions remain for operating. Always leave at least 1-2 turns between full extension and when spring is wound tight (bottomed out). If entire hose assembly cannot be pulled out, decrease spring tension until full extension is possible.

Reels shipped with hose installed are pre-tensioned at the factory. Reels shipped without hose require pre-tensioning after hose is installed and *before* making final hose connections. To pre-tension hose reel, pull hose out far enough to allow one full wrap of hose to be looped back over drum assembly. Hold, drum from turning and loop hose back on drum. Repeat steps above until desired tension is achieved. After tension is set, pull hose out completely to check spring travel. If full hose extension is not possible, remove pre-tension turns until full hose tension is possible. Failure to test in this manner may cause spring damage. Complete all hose connections.

SERVICE

WARNING: Before performing any service, always disconnect and lock out compressed air or fluid, and remove all spring tension. Hazards or unsafe practices COULD result in severe personal injury or death.

HOSE INSTALLATION AND REPLACEMENT

Remove all tension from reel (see Tension Adjustment). Remove ball-stop, unwind hose on reel, and unscrew hose from swivel. Feed new hose through roller guide and through slot in flange. Then connect hose to swivel (use Teflon tape or thread sealant), wind onto drum assembly, and re-tension reel.

MAINSRING ASSEMBLY REPLACEMENT

WARNING: Never, under any circumstances, remove spring from its container assembly. Replacement springs are assembled in a sealed assembly for safety and there is no need to remove them. Serious injury or death COULD result from removal of spring from its container assembly.

NOTE: Mainspring is completely self-contained and safe to handle. If spring is to be replaced when not broken make sure to remove all tension from reel before proceeding.

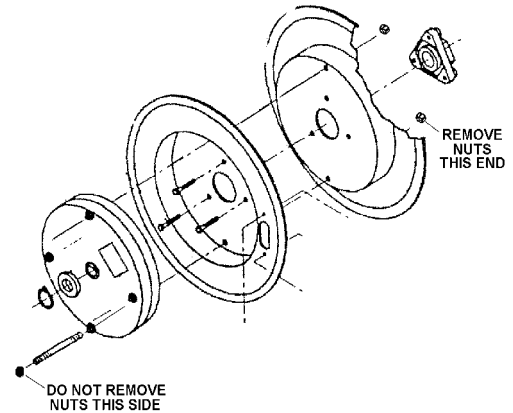
If reel will not develop tension or retract hose, the main-spring will need to be replaced.

To replace main-spring:

- Remove supply hose to swivel
- Remove the enclosure pieces
- Remove swivel by loosening its hex end
- Remove retaining ring and spacer washers from main-shaft.

NOTE: Do not attempt to remove screws from swivel side of spring pocket. Instead, remove nuts from the stand side of the drum cavity.

- Pull containerized spring pocket assembly off drum axle
- Reverse procedure to reassemble (use Teflon tape or thread sealant on hose connections)
- Re-tension reel as in "Tension Adjustment"



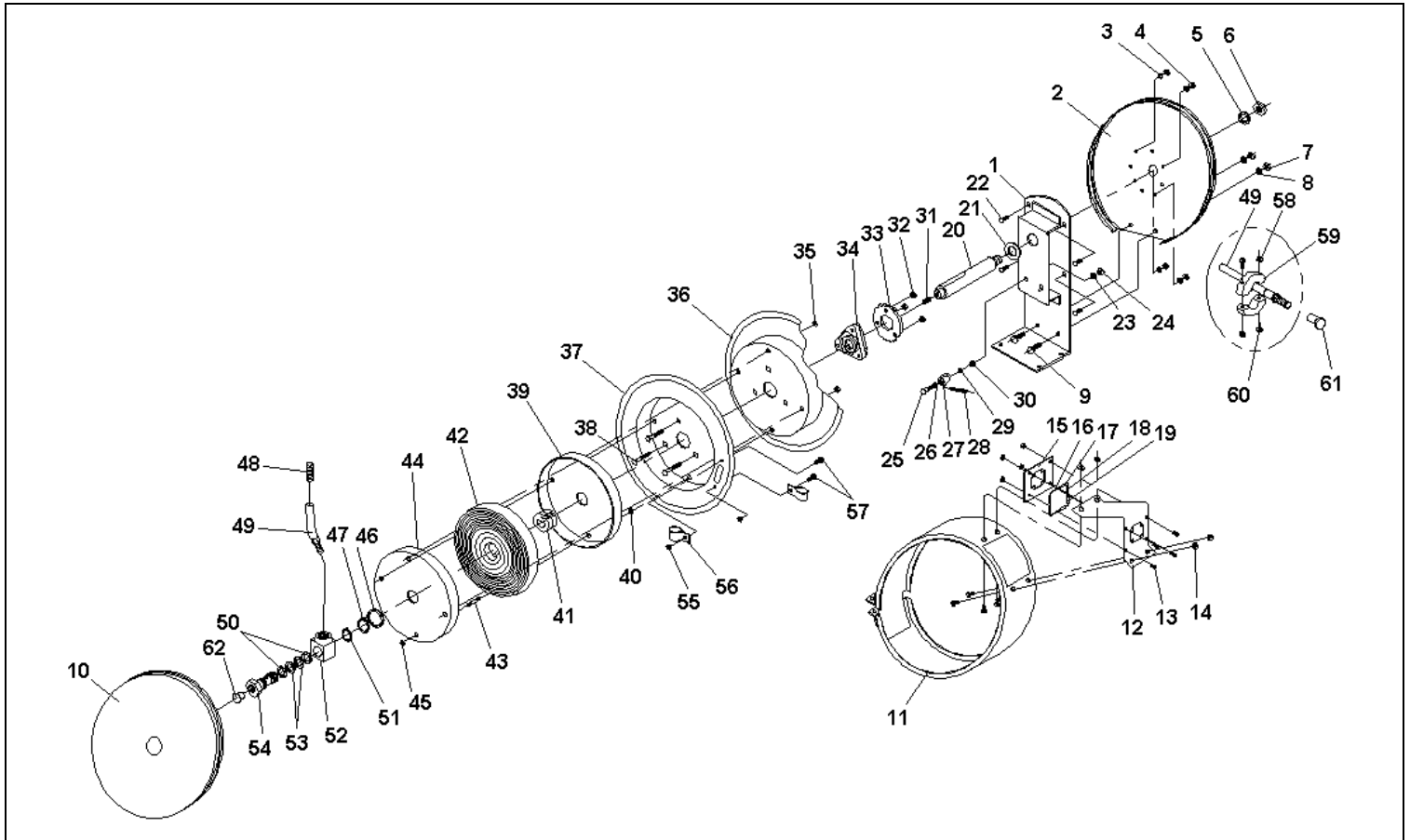
SWIVEL REPLACEMENT

NOTE: Swivel only sold as complete assembly. If o-rings are leaking, complete swivel must be replaced. You may test for leaks using soapy water.

To replace swivel:

- Turn off or lockout air/fluid supply to reel
- Remove all tension from reel (see Tension Adjustment)
- Disconnect supply hose to swivel
- Remove swivel by loosening its hex end
- Disconnect reel hose from swivel
- Reverse above procedure and install new swivel (use Teflon tape or thread sealant on connections)

REPLACEMENT PARTS



NOTE: These reels have common wearing components available as replacement parts. If the part needed is not found on this list, a new reel may be required.

Reference Items	Part Number	Qty.	Description		
39,40,41,42, 43,44,45,	H41220132	1	Spring Assembly for ENDA Series		
	H41220134		Spring Assembly for ENDB Series		
	H41220146		Spring Assembly for ENMA Series		
	H41220136		Spring Assembly for ENMB Series		
	H41220135		Spring Assembly for ENHA Series		
	H41220148		Spring Assembly for ENHB Series		
	H41220131		Spring Assembly for ESDA Series		
	H41220133		Spring Assembly for ESDB Series		
	H41220152		Spring Assembly for ESMA Series		
	H41220153		Spring Assembly for ESMB Series		
	H41220154		Spring Assembly for ESHA Series		
	H41220155		Spring Assembly for ESHB Series		
	50,51,52,53, 54,62		H72320025	1	Swivel Assembly for ENDA2XX, ENMA2XX
			H72320024		Swivel Assembly for ENDA3XX, ENMA3XX
H72320035		Swivel Assembly for ENDB3XX, ENMB3XX			
H72320036		Swivel Assembly for ENDB4XX, ENMB4XX			
H72320037		Swivel Assembly for ENHA2XX, ENHB2XX			
H72320028		Swivel Assembly for ENHA3XX, ENHB3XX			
H72320030		Swivel Assembly for ESDA3XX, ESMA3XX, ESDB3XX, ESMB3XX			
H72320043		Swivel Assembly for ESDB4XX, ESMB4XX			
H72320058	Swivel Assembly for ESHA2XX, ESHB2XX				
H72320059	Swivel Assembly for ESHA3XX, ESHB3XX				

49,61	H71130001	1	Hose Assembly for ENDA230, ESDA230; 30 ft, 1/4 in ID
	H71130035		Hose Assembly for ENDA325, ESDA325; 25 ft, 3/8 in ID
	H71130004		Hose Assembly for ENDB350, ESDB350; 50 ft, 3/8 in ID
	H71130005		Hose Assembly for ENDB430, ESDB430; 30 ft, 1/2 in ID
	H71130006		Hose Assembly for ENDB450, ESDB450; 50 ft, 1/2 in ID
	H71130020		Hose Assembly for ENMA230, ESMA230; 30 ft, 1/4 in ID
	H71130036		Hose Assembly for ENMA325, ESMA325; 25 ft, 3/8 in ID
	H71130012		Hose Assembly for ENMB350, ESMB350; 50 ft, 3/8 in ID
	H71130013		Hose Assembly for ENMB430, ESMB430; 30 ft, 1/2 in ID
	H71130014		Hose Assembly for ENMB450, ESMB450; 50 ft, 1/2 in ID
	H71130015		Hose Assembly for ENHA230, ESHA230; 30 ft, 1/4 in ID
	H71130019		Hose Assembly for ENHA325, ESHA325; 25 ft, 3/8 in ID
	H71130016		Hose Assembly for ENHB250, ESHB250; 50 ft, 1/4 in ID
	H71130017		Hose Assembly for ENHB330, ESHB330; 30 ft, 3/8 in ID
H71130018	Hose Assembly for ENHB350, ESHB350; 50 ft, 3/8 in ID		
11	M64380001	1	Band for ENDA, ENMA, ENHA
	M64380002		Band for ENDB, ENMB, ENHB
	M64380007		Band for ESDA, ESMA, EDHA
	M64380008		Band for ESDB, ESMB, ESHB
10	M64380003	1	Cover for ENDA, ENMA, ENHA
	M64380004		Cover for ENDB, ENMB, ENHB
	M64380009		Cover for ESDA, ESMA, EDHA
	M64380010		Cover for ESDB, ESMB, ESHB
2,7,8	M64380005	1	Base Cover for ENDA, ENMA, ENHA
	M64380006		Base Cover for ENDB, ENMB, ENHB
	M64380011		Base Cover for ESDA, ESMA, EDHA
	M64380012		Base Cover for ESDB, ESMB, ESHB
25-30	H46220001	1	Ratchet Kit for ENDA, ENMA, ENHA series
	H46220004		Ratchet Kit for ENDB, ENMB, ENHB series
	H46220002		Ratchet Kit for ESDA, ESMA, ESHA series
	H46220005		Ratchet Kit for ESDB, ESMB, ESHB series
12-19	H25410126	1	Guide Roller Kit for ESDA, ESMA, ESHA series
	H25410124		Guide Roller Kit for ENDA, ENMA, ENHA series
	H25410127		Guide Roller Kit for ESDB, ESMB, ESHB series
	H25410125		Guide Roller Kit for ENDB, ENMB, ENHB series
48,55-60	H73130006	1	Hose Stop Kit for 1/4" Hose (EN models)
	H73130007		Hose Stop Kit for 3/8" Hose (EN models)
	H73130008		Hose Stop Kit for 1/2" Hose (EN models)
	H73130044		Hose Stop Kit (stainless steel) for 1/4" hose (ES models)
	H73130045		Hose Stop Kit (stainless steel) for 3/8" hose (ES models)
	H73130046		Hose Stop Kit (stainless steel) for 1/2" hose (ES models)

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