# INSTALLATION and MAINTENANCE INSTRUCTIONS UH24 UNIVERSAL HOSE REEL-CHAIN DRIVE

All units are provided with right hand rotation unless otherwise specified. This means that hose is pulled off spool top left or bottom right (spool rotates clockwise to wind hose) **when viewing spring end of reel.** See diagram on parts page.

Clock-type springs provide power for automatic hose take-up. **Spring must be pretensioned at time of installation** to insure that tension is applied to hose at all times. A tension adjustment spanner wrench is provided with each reel.

#### **INSTALLATION**

### **WARNING**

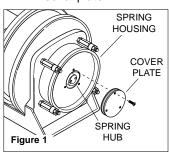
If machine pull reel, move machinery to position closest to reel before adjusting spring tension.

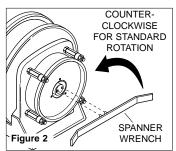
Adjusting tension with hose extended may result in damage to reel or personal injury.

- 1. Install hose if reel was purchased without hose. See instructions on page 4.
- 2. Insure that machinery to be serviced by reel is at position closest to reel.
- Securely mount reel in desired position using 1/2"(M12). Be sure spool is aligned with hose run.
- 3. Position hose guide if supplied so hose pays-out as straight as possible through hose guide.
- 4. Connect free end of hose to connections on machine or adjust hose stop so that desired length of hose extends from reel.
- 5. Connect flexible supply lines to swivel fitting. See HOSE INSTALLATION REFERENCE DRAWING.

NOTE: Do not hard plumb to swivel fitting.

- 6. Remove cover plate on spring housing to expose shaft and spring hub. (See Figure 1).
- 7. Insert spanner wrench into holes in spring hub (Fig 2). Rotate spanner wrench counter-clockwise. Number of 360° turns should match last digit in model number on serial plate.





## **A** CAUTION

Do not exceed number of turns indicated on serial plate. Over-tensioning can cause a broken spring, sheared shaft or other damage.

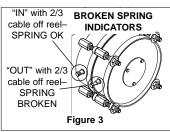
## **MARNING**

Do not attempt to relieve spring tension using spanner wrench. Doing so may result in personal injury.

### **A** WARNING

Some reels with large or multiple springs are equipped with a ratcheted adjustment wrench. Follow separate instructions for its use. Failure to use ratcheted wrench, on reels so equipped, could result in serious personal injury.

#### **MAINTENANCE**



**Periodically:** A. Inspect hose for wear and check mounting bolts and other hardware for tightness.

B. Check for broken springs by pulling about 2/3 hose off reel and observing "Broken Spring Indicators" on sides of spring canisters (Fig. 3).

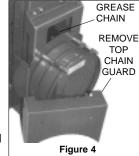
C. Remove top chain guard (Fig 4) and grease roller chain.

**NOTE:** Bearings and springs are prelubricated and require no periodic maintenance.

#### **SPRING REPLACEMENT**

The unique SAFETYCHANGE® spring motor consists of a spring and hub sealed within a housing. A

replacement spring is supplied sealed in its housing and the old unit should be discarded completely.



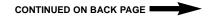
## **WARNING**

Do not attempt to remove spring from its housing. Clocktype springs can be dangerous to handle. Removal of spring from housing could result in personal injury.

- 1. Turn off supply pressure to reel.
  - Insure that machinery to be serviced by reel is at position closest to reel. Disconnect hose from machine connections.
- 3. Wind all hose onto reel to relieve all spring tension.
- \$\iiis 4. Remove inspection cover from face of spring housing.
- S. Rotate spool clockwise and observe inner shaft. Shaft should rotate clockwise and hub (with spring attached) should remain stationary.

NOTE: Do not attempt to remove spring if resistance is met or hub tends to rotate with shaft. Continue to rotate spool and strike end of shaft several sharp blows with a lead hammer or rubber mallet until shaft rotates freely and hub remains stationary.

- 6. Remove (4) bolts which secure spring motor to frame.
- 7. Slide spring motor off shaft and discard.



## CHAIN DRIVE UH24 UNIVERSAL HOSE REEL REPLACEMENT PARTS LIST

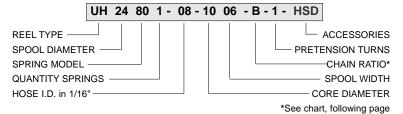
ITEM	PART NO	. DESCRIPTION	QTY.
1	042017	Vertical Frame Assy., Swivel Side	
2	012140	Housing, 2" Bore Bearing	2
3	103837	Ball Bearing, 2" Bore	1
4	038424	Flat Washer, M8	9
5	028268	ESNA Lock Nut, M8–1.25	8
6	042007	Vertical Frame Assy., Drive Side	1
7	119114	Housing, 1.75" Bore Bearing	2
8	103823	Ball Bearing, 1.75" Bore	1
9	042030	Spool Support Hub, Drive Side	1
10	012137	Stub Shaft Drive Pin	1
11	118322	Retaining Ring	1
12	042027	Spool Disk, U18	2
13	04271001	Wrapper Assy. Kit, 6"w, 10"-12"dia. core	1
13 13 13 13 13 13 13 13 13	04271001 04271002 04271003 04271005 04271006 04271007 04271008 04271009 04271010	Wrapper Assy. Kit, 0 % 10 -12 dia. core (Includes segments & hardware) Wrapper Assy. Kit, 8"w, 10"-12"dia. core Wrapper Assy. Kit, 12"w, 10"-12"dia. core Wrapper Assy. Kit, 14"w, 10"-12"dia. core Wrapper Assy. Kit, 6"w, 14"-18"dia. core Wrapper Assy. Kit, 6"w, 14"-18"dia. core Wrapper Assy. Kit, 10"w, 14"-18"dia. core Wrapper Assy. Kit, 12"w, 14"-18"dia. core Wrapper Assy. Kit, 14"w, 14"-18"dia. core Wrapper Assy. Kit, 14"w, 14"-18"dia. core	1 1 1 1 1 1 1 1 1 1 1
14	042711	Hose Adapter Kit, 0.25NPT, Standard Rotation	1
14 14 14	042712 042713 042714	(Includes swivel, hub, reducer & elbow) Hose Adapter Kit, 0.38NPT, Standard Rotation Hose Adapter Kit, 0.50NPT, Standard Rotation Hose Adapter Kit, 0.75NPT, Standard Rotation	1 1 1
14 14 14 14 14 14	042715 042716 042717 04271401 04271501 04271601 04271701	(Includes swivel, hub & goose neck fitting) Hose Adapter Kit, 1.25NPT, Standard Rotation Hose Adapter Kit, 1.25NPT, Standard Rotation Hose Adapter Kit, 1.50NPT, Standard Rotation Hose Adapter Kit, 0.75NPT, Reverse Rotation Hose Adapter Kit, 1.00NPT, Reverse Rotation Hose Adapter Kit, 1.50NPT, Reverse Rotation Hose Adapter Kit, 1.50NPT, Reverse Rotation	1 1 1 1 1 1
14a 14a 14a 14a 14a 14a 14a	102159 102159 102159 024670 102160 102161 041276	Swivel Joint Only, 0.25 (Reducer Required) Swivel Joint Only, 0.38 (Reducer Required) Swivel Joint Only, 0.50 Swivel Joint Only, 0.75 Swivel Joint Only, 1.00 Swivel Joint Only, 1.25 Swivel Joint Only, 1.50	1 1 1 1 1 1
15	028138	Lockwasher, M10	4
16	028131	Hex Hd. Cap Screw, M10-1.5 x 20L	4
17	04272201	Bottom Base Kit, 6" wide Wrapper	1
17 17 17 17	04272202 04272203 04272204 04272205	(Includes mounting hardware) Bottom Base Kit, 8" wide Wrapper Bottom Base Kit, 10" wide Wrapper Bottom Base Kit, 12" wide Wrapper Bottom Base Kit, 14" wide Wrapper	1 1 1
18	042733	Spanner Wrench (35–80 Springs) (Includes mounting hardware)	1
18	042734	Spanner Wrench (100 Springs)	1
19	042041	Gearbox backplate	1
20	103826	Housing. 1" Bore Bearing	4
21	103825	Ball Bearing, 1" Bore	2

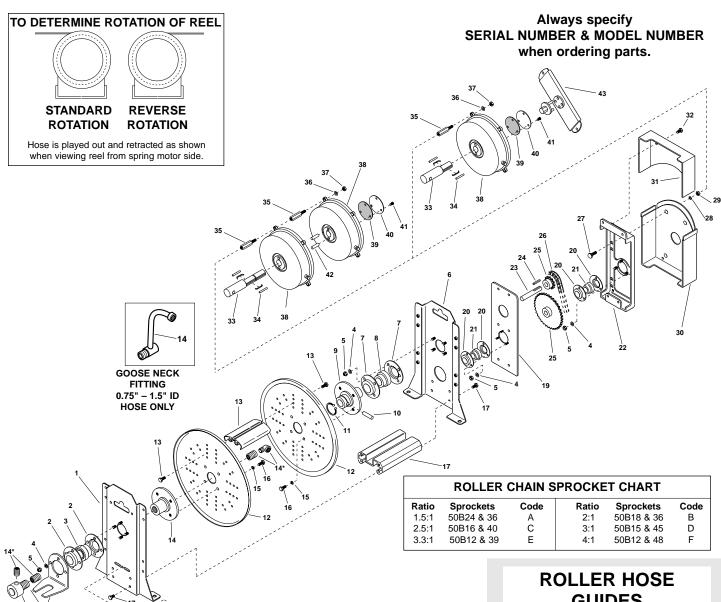
ITEM QTY.	PART NO	. DESCRIPTION	
22	042042	Outside Gearbox Plate	1
23	042043	Stub Shaft, Chain Drive	1
24	029880	Key	1
25 25 25 25 25 25 25 25 25 25 25 25 25	046803 042045 042046 042047 042049 042050 046804 042051 046802 042052	Sprocket–50B12 Sprocket–50B15 Sprocket–50B16 Sprocket–50B18 Sprocket–50B24 Sprocket–50B39 Sprocket–50B40 Sprocket–50B45 Sprocket–50B45	1 1 1 1 1 1 1 1 1
26 Not shown	104789 015680	Roller Chain (May be shortened as Required) Connecting Link	3.5 ft. 1
27	031484	Hex Hd. Cap Screw, M12-1.75 x 35L	4
28	025942	Lockwasher, M12	4
29	025941	Hex Nut, M12-1.75	4
30	042044	Bottom Guard, Chain Drive	1
31	042184	Top Guard, Chain Drive	1
32	028151	Hex Hd. Cap Screw. M6-1.0 x 12L	4
33 33 33 33	042168 042169 042172 042173	Stub Shaft, 1002, Chain, Standard Rotation Stub Shaft, 1001, Chain, Standard Rotation Stub Shaft, 802/622/752, Chain, Std. Rot. Stub Shaft, 801/621/751, Chain, Std. Rot.	1 1 1 1
33 33 33 33	042176 042177 042180 042181	Stub Shaft, 1002, Chain, Reverse Rotation Stub Shaft, 1001, Chain, Reverse Rotation Stub Shaft, 802/622/752, Chain, Rev. Rot. Stub Shaft, 801/621/751, Chain, Rev. Rot.	1 1 1 1
34 34	012426 012427	Pawl Kit (62, 75 & 80 Springs) (Includes 2 pawls & springs) Pawl Kit (100 Spring)	AR AR
35 35	042183 042182	Stand-off, 62, 75 & 80 Springs Stand-off, 100 Spring	AR AR
36	029159	Flat Washer, M12	4
37	028502	ESNA Nut, M12-1.75	4
38 38 38 38 38 38 38 38 38	042725 042730 042726 042731 042724 042729 042723 042728	Spring Motor Kit, 62, Standard Rotation (Includes items 20, 27, 28, 29, & 30) Spring Motor Kit, 62, Reverse Rotation Spring Motor Kit, 75, Standard Rotation Spring Motor Kit, 75, Reverse Rotation Spring Motor Kit, 80, Standard Rotation Spring Motor Kit, 80, Reverse Rotation Spring Motor Kit, 100, Standard Rotation Spring Motor Kit, 100, Reverse Rotation Spring Motor Kit, 100, Reverse Rotation	AR AR AR AR AR AR AR
39	G51-23	Gasket, Hub Cover	1
40	G27-42	Hub Cover, Springs	1
41	101220	Screw, #8-32 x 0.25" Lg.	3
42	021762	Hub Lock Pin Kit (100 Springs) (Includes two pins)	1
42	021761	Hub Lock Pin Kit (All Other Springs)	1
43 43	042735 042736	Ratchet Wrench Kit (35–80 Springs) Ratchet Wrench Kit (100 Springs)	1 1

### **ACCESSORY CODE**

 $\begin{array}{ll} \mbox{Horizontal Roller Guide} = \mbox{H} & 340^o \mbox{ Pivot Base} = \mbox{P} \\ \mbox{Vertical Roller Guide} = \mbox{V} & \mbox{Dog \& Ratchet (ratchet lock)} = \mbox{D} \\ \mbox{Spool Lock} = \mbox{S} & \mbox{Limit Switch} = \mbox{L} \\ \end{array}$ 

#### **Reel Model Number Structure**







\*Reducers included in Hose Adapter Kits when required.

PART NUMBER	TYPE	FITS O.D.S MIN - MAX
037529	В	0.44 - 0.62
037531	A	0.62 - 0.75
037532	A	0.75 - 1.05
037533	A	1.06 - 1.30
037535	В	0.75 – 1.05
037536	В	1.06 – 1.38
037537	В	1.39 – 1.55
041845	В	1.56 – 1.87
041846	В	1.88 – 2.06

## **DOG & RATCHET**

Standard Rotation....P/N 042230 Reverse Rotation....P/N 042231

## SPOOL LOCK

All models....P/N 042227



SPOOL	PART
WIDTH	NUMBER
4"-6"	042284
8"-10"	042285
12"-14"	042286

# **GUIDES**



**HORIZONTAL** (shown)

SPOOL	PART
WIDTH	NUMBER
6"	042200
8"	042201
10"	042202
12"	042203
14"	042204

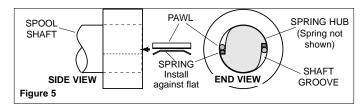
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VENTIONE		
SPOOL	PART	
WIDTH	NUMBER	
6"	042270	
8"	042271	
10"	042272	
12"	042273	
14"	042274	

8. Install replacement spring motor, pawls and pawl springs.

NOTE: Pawl springs must be located between the pawls and the deepest section of the shaft grooves.

Make sure that pawls and pawl springs are inserted flush with ends of shaft and hub or they may rub against inspection cover (Fig. 5).



- 9. Tighten bolts securing spring housing to reel frame.
- 10. Connect free end of hose to connections on machine or adjust hose stop so that desired length of hose extends from reel.
  - 11. Tension spring with spanner wrench. Refer to **INSTALLATION** section.
- 12. Replace inspection cover.

#### **HOSE REMOVAL**

Use the following procedure to remove worn or damaged hose from reel prior to installation of new hose.

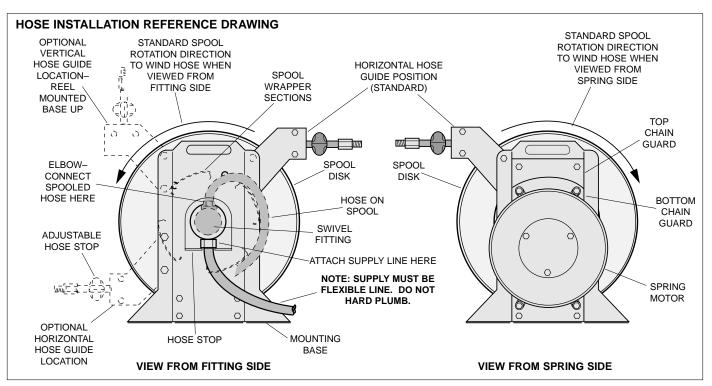
- Move machine serviced by reel to a position closest to reel. Spring will still be under pre-tension at this point.
- 2. Turn off supply pressure to reel.

- 3. Disconnect hose from machine or other attachments. Remove hose stop, if installed, and allow hose to retract onto spool. Ensure all tension is off spring by manually rotating spool (normally clockwise when viewed from spring side).
- 4. Unwrap hose without allowing spool to turn.
- 5. Disconnect hose from elbows inside spool wrapper.
- 6. Install new hose following directions below.

#### **HOSE INSTALLATION**

Use the following procedure to replace hose or if reel was ordered without hose. Refer to HOSE INSTALLATION REFERENCE DRAWING, below.

- 1. Unspool new hose from shipping spool and lay out to eliminate twist.
  - NOTE: This step is not essential, but will aid in winding operation of the reel and prolong hose life.
- 2. Insert hose end through guide and connect to elbows inside spool wrapper. (See drawing below.)
- 5. Wind the hose onto the reel spool by hand rotating spool in direction it turns free of spring tension. (Normally clockwise when viewed from spring side)
- 6. Adjust hose stop (not used on machine pull reel).
- 7. Complete working end connections.
- 8. Pretension reel and complete installation as described in REEL INSTALLATION section.





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## **CHAIN DRIVE UH24 UNIVERSAL HOSE REEL** REPLACEMENT PARTS LIST

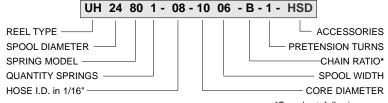
ITEM	PART NO.	DESCRIPTION	QTY
1	042017	Vertical Frame Assy., Swivel Side	
2	012140	Housing, 2" Bore Bearing	2
3	103837	Ball Bearing, 2" Bore	1
4	038424	Flat Washer, M8	9
5	028268	ESNA Lock Nut, M8-1.25	8
6	042007	Vertical Frame Assy., Drive Side	1
7	119114	Housing, 1.75" Bore Bearing	2
8	103823	Ball Bearing, 1.75" Bore	1
9	042030	Spool Support Hub, Drive Side	1
10	012137	Stub Shaft Drive Pin	1
11	118322	Retaining Ring	1
12	042027	Spool Disk, U18	2
13	04271001	Wrapper Assy. Kit, 6"w, 10"-12"dia. core	1
13 13 13 13 13 13 13 13	04271002 04271003 04271004 04271005 04271006 04271007 04271008 04271009 04271010	(Includes ségments & hardware) Wrapper Assy. Kit, 8"w, 10"–12"dia. core Wrapper Assy. Kit, 10"w, 10"–12"dia. core Wrapper Assy. Kit, 12"w, 10"–12"dia. core Wrapper Assy. Kit, 14"w, 10"–12"dia. core Wrapper Assy. Kit, 6"w, 14"–18"dia. core Wrapper Assy. Kit, 8"w, 14"–18"dia. core Wrapper Assy. Kit, 10"w, 14"–18"dia. core Wrapper Assy. Kit, 12"w, 14"–18"dia. core Wrapper Assy. Kit, 14"w, 14"–18"dia. core Wrapper Assy. Kit, 14"w, 14"–18"dia. core	1 1 1 1 1 1 1
14	042711	Hose Adapter Kit, 0.25NPT, Standard Rotation	1
14 14 14	042712 042713 042714	(Includes swivel, hub, reducer & elbow) Hose Adapter Kit, 0.38NPT, Standard Rotation Hose Adapter Kit, 0.50NPT, Standard Rotation Hose Adapter Kit, 0.75NPT, Standard Rotation	1 1 1
14 14 14 14 14 14	042715 042716 042717 04271401 04271501 04271601 04271701	(Includes swivel, hub & goose neck fitting) Hose Adapter Kit, 1.25NPT, Standard Rotation Hose Adapter Kit, 1.25NPT, Standard Rotation Hose Adapter Kit, 1.50NPT, Standard Rotation Hose Adapter Kit, 0.75NPT, Reverse Rotation Hose Adapter Kit, 1.00NPT, Reverse Rotation Hose Adapter Kit, 1.25NPT, Reverse Rotation Hose Adapter Kit, 1.50NPT, Reverse Rotation	1 1 1 1 1 1
14a	102159	Swivel Joint Only, 0.25 (Reducer Required)	1
14a 14a	102159 102159	Swivel Joint Only, 0.38 (Reducer Required) Swivel Joint Only, 0.50	1 1
14a	024670	Swivel Joint Only, 0.75	1
14a 14a	102160 102161	Swivel Joint Only, 1.00 Swivel Joint Only, 1.25	1 1
14a	041276	Swivel Joint Only, 1.50	1
15	028138	Lockwasher, M10	4
16	028131	Hex Hd. Cap Screw, M10-1.5 x 20L	4
17	04272201	Bottom Base Kit, 6" wide Wrapper (Includes mounting hardware)	1
17 17 17 17	04272202 04272203 04272204 04272205	Bottom Base Kit, 10" wide Wrapper Bottom Base Kit, 10" wide Wrapper Bottom Base Kit, 12" wide Wrapper Bottom Base Kit, 14" wide Wrapper	1 1 1
18	042733	Spanner Wrench (35–80 Springs)	1
18	042734	(Includes mounting hardware) Spanner Wrench (100 Springs)	1
19	042041	Gearbox backplate	1
20	103826	Housing. 1" Bore Bearing	4
21	103825	Ball Bearing, 1" Bore	2

ITEM QTY.	PART NO	. DESCRIPTION	
22	042042	Outside Gearbox Plate	1
23	042043	Stub Shaft, Chain Drive	1
24	029880	Key	1
O.F.			1
25 25	046803 042045	Sprocket–50B12 Sprocket–50B15	1
25	042046	Sprocket-50B16	1
25	042047	Sprocket–50B18	1
25 25	042049 042050	Sprocket–50B24 Sprocket–50B36	1 1
25	046804	Sprocket–50B39	i
25	042051	Sprocket-50B40	1
25 25	046802 042052	Sprocket–50B45 Sprocket–50B48	1 1
26 Not shown	104789 015680	Roller Chain (May be shortened as Required) Connecting Link	3.5 f
27	031484	Hex Hd. Cap Screw, M12-1.75 x 35L	4
28	025942	Lockwasher, M12	4
29	025941	Hex Nut, M12-1.75	4
30	042044	Bottom Guard, Chain Drive	1
31	042184	Top Guard, Chain Drive	1
32	028151	Hex Hd. Cap Screw. M6-1.0 x 12L	4
33	042168	Stub Shaft, 1002, Chain, Standard Rotation	1
33	042169	Stub Shaft, 1001, Chain, Standard Rotation	1 1
33 33	042172 042173	Stub Shaft, 802/622/752, Chain, Std. Rot. Stub Shaft, 801/621/751, Chain, Std. Rot.	1
33	042176	Stub Shaft, 1002, Chain, Reverse Rotation	1
33	042177	Stub Shaft, 1001, Chain, Reverse Rotation	1
33 33	042180 042181	Stub Shaft, 802/622/752, Chain, Rev. Rot. Stub Shaft, 801/621/751, Chain, Rev. Rot.	1 1
34	012426	Pawl Kit (62, 75 & 80 Springs)	AR
34	012427	(Includes 2 pawls & springs) Pawl Kit (100 Spring)	AR
35	042183	Stand-off, 62, 75 & 80 Springs	AR
35	042182	Stand-off, 100 Spring	AR
36	029159	Flat Washer, M12	4
37	028502	ESNA Nut, M12–1.75	4
38	042725	Spring Motor Kit, 62, Standard Rotation (Includes items 20, 27, 28, 29, & 30)	AR
38	042730	Spring Motor Kit, 62, Reverse Rotation	AR
38 38	042726 042731	Spring Motor Kit, 75, Standard Rotation Spring Motor Kit, 75, Reverse Rotation	AR AR
38	042724	Spring Motor Kit, 80, Standard Rotation	AR
38 38	042729 042723	Spring Motor Kit, 80, Reverse Rotation Spring Motor Kit, 100, Standard Rotation	AR AR
38	042728	Spring Motor Kit, 100, Standard Rotation Spring Motor Kit, 100, Reverse Rotation	AR
39	G51-23	Gasket, Hub Cover	1
40	G27-42	Hub Cover, Springs	1
41	101220	Screw, #8-32 x 0.25" Lg.	3
42	021762	Hub Lock Pin Kit (100 Springs) (Includes two pins)	1
42	021761	Hub Lock Pin Kit (All Other Springs)	1
43 43	042735 042736	Ratchet Wrench Kit (35–80 Springs) Ratchet Wrench Kit (100 Springs)	1 1

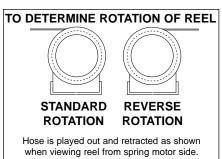
#### **Reel Model Number Structure**

**ACCESSORY CODE** 

Horizontal Roller Guide = H 340° Pivot Base = P Vertical Roller Guide = V Dog & Ratchet (ratchet lock) = D Spool Lock = S Limit Switch = L

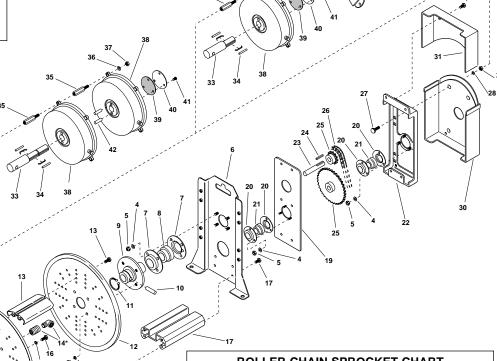


\*See chart, following page



GOOSE NECK 0.75" - 1.5" ID HOSE ONLY

#### Always specify SERIAL NUMBER & MODEL NUMBER when ordering parts.



ROLLER CHAIN SPROCKET CHART					
Ratio	Sprockets	Code	Ratio	Sprockets	Code
1.5:1	50B24 & 36	Α	2:1	50B18 & 36	В
2.5:1	50B16 & 40	С	3:1	50B15 & 45	D
3.3:1	50B12 & 39	E	4:1	50B12 & 48	F

**DOG & RATCHET** Standard Rotation....P/N 042230 Reverse Rotation....P/N 042231

SPOOL LOCK All models....P/N 042227



PART NUMBER	TYPE	FITS O.D.s MIN - MAX
037529	В	0.44 - 0.62
037531	A	0.62 - 0.75
037532	A	0.75 - 1.05
037533	A	1.06 - 1.30
037535	В	0.75 – 1.05
037536	В	1.06 - 1.38
037537	В	1.39 – 1.55
041845	В	1.56 – 1.87
041846	В	1.88 – 2.06



SPOOL	PART
WIDTH	NUMBER
4"-6"	042284
8"-10"	042285
12"-14"	042286

## **ROLLER HOSE GUIDES**



**HORIZONTAL** (shown)

WIDTH	PAR I NUMBER
6"	042200
8"	042201
10"	042202
12"	042203
14"	042204

VER	TICAL
OL	PAF

SPOOL WIDTH	PART NUMBER
6"	042270
8"	042271
10"	042272
12"	042273
14"	042274