INSTALLATION and MAINTENANCE INSTRUCTIONS UH21 UNIVERSAL HOSE REEL-DIRECT DRIVE



NOTE: These instructions are written for machine pull reels.
If installing or servicing hand pull reel, use only those steps marked with hand Image.

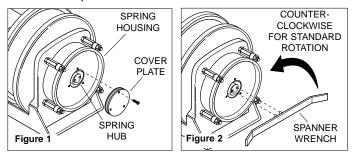
All units are provided with right hand rotation unless otherwise specified. This means that hose is pulled off spool top left or bottom right (spool rotates clockwise to wind hose) **when viewing spring end of reel.** See diagram on parts page.

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

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.
- 3. Securely mount reel in desired position using 1/2"(M12). Be sure spool is aligned with hose run.
- 4. Position hose guide if supplied so hose pays-out as straight as possible through hose guide.
- 5. Connect free end of hose to connections on machine or adjust hose stop so that desired length of hose extends from reel.
- Generating States of the supply lines to swivel fitting. See HOSE INSTALLATION REFERENCE DRAWING.
 NOTE: Do not hard plumb to swivel fitting.
- 7. Remove cover plate on spring housing to expose shaft and spring hub. (See Figure 1).
- 8. 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.

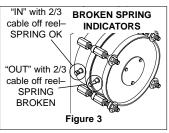


Do not exceed number of turns indicated on serial plate. Over-tensioning can cause a broken spring, sheared shaft or other damage.

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

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).

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

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.

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.

- ∠ Turn off supply pressure to reel.
 - 2. 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.
- 374. Remove inspection cover from face of spring housing.
- 5. 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.

- 36. Remove (4) bolts which secure spring motor to frame.
- 37. Slide spring motor off shaft and discard.
- 38. 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. See Fig 4, page 4.

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DIRECT DRIVE UH21 UNIVERSAL HOSE REEL REPLACEMENT PARTS LIST

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ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	042016	Vertical Frame Assy., Swivel Side		17	04272201	Bottom Base Kit, 6" wide Wrapper (Includes mounting hardware)	1
				17	04272202	Bottom Base Kit, 8" wide Wrapper	1
2	012140	Housing, 2" Bore Bearing	2	17	04272203	Bottom Base Kit, 10" wide Wrapper	1
				17	04272204	Bottom Base Kit, 12" wide Wrapper	1
3	103837	Ball Bearing, 2" Bore	1	17	04272205	Bottom Base Kit, 14" wide Wrapper	1
4	038424	Flat Washer, M8	9	18	042733	Spanner Wrench (35–80 Springs) (Includes mounting hardware)	1
5	028268	ESNA Lock Nut, M8–1.25	8	18	042734	Spanner Wrench (100 Springs)	1
6	042006	Vertical Frame Assy., Drive Side	1	19 19	042152 042153	Stub Shaft, 1002, Direct, Standard Rotation Stub Shaft, 1001, Direct, Standard Rotation	1 1
7	119114	Housing, 1.75" Bore Bearing	2	19	042156	Stub Shaft, 802/622/752, Direct, Std. Rot.	1
8	103823	Ball Bearing, 1.75" Bore	1	19 19	042157 042554	Stub Shaft, 801/621/751, Direct, Std. Rot. Stub Shaft, 351, Direct, Standard Rotation	1 1
9	042030	Spool Support Hub, Drive Side	1	19 19	042160 042161	Stub Shaft, 1002, Direct, Reverse Rotation Stub Shaft, 1001, Direct, Reverse Rotation	1 1
10	012137	Stub Shaft Drive Pin	1	19	042164	Stub Shaft, 802/622/752, Direct, Rev. Rot.	1
10	012101			19	042165	Stub Shaft, 801/621/751, Direct, Rev. Rot.	1
11	118322	Retaining Ring	1	19	042566	Stub Shaft, 351, Direct, Reverse Rotation	1
12	042026	Spool Disk, U21	2	20	012425	Pawl Kit (35 Spring) (Includes 2 pawls & springs)	AR
13	04271001	Wrapper Assy. Kit, 6"w, 10"-12"dia. core	1	20	012426	Pawl Kit (62, 75 & 80 Springs)	AR
		(Includes segments & hardware)		20	012427	Pawl Kit (100 Spring)	AR
13 13	04271002 04271003	Wrapper Assy. Kit, 8"w, 10"-12"dia. core Wrapper Assy. Kit, 10"w, 10"-12"dia. core	1 1	21	031484	Hay Hd. Cap Saraw M12, 1 75 y 251	4
13	04271003	Wrapper Assy. Kit, 12"w, 10"–12 dia. core Wrapper Assy. Kit, 12"w, 10"–12"dia. core	1	21	031404	Hex Hd. Cap Screw, M12–1.75 x 35L	4
13	04271004	Wrapper Assy. Kit, 12 w, 10 –12 dia. core Wrapper Assy. Kit, 14"w, 10"–12"dia. core	1	22	025942	Lockwasher, M12	4
13	04271005	Wrapper Assy. Kit, 6"w, 14"–18"dia. core	1	22	023942		4
13	04271000	Wrapper Assy. Kit, 8"w, 14"-18 dia. core	1	23	025941	Hex Nut, M12–1.75	4
13	04271007	Wrapper Assy. Kit, 10"w, 14"–18 dia. core	1	23	023941	Tiex Nut, W12-1.75	4
13	04271008	Wrapper Assy. Kit, 12"w, 14"–18 dia. core	1	24	042555	Stand-off, 35 Springs	AR
13	04271010	Wrapper Assy. Kit, 12 w, 14 –18 dia. core	1	24	042333	Stand-off, 62, 75 & 80 Springs	AR
13	04271010	Wiappel Assy. Kit, 14 w, 14 – 18 ula. core	1	24	042183	Stand-off, 100 Spring	AR
14	042711	Hose Adapter Kit, 0.25NPT, Standard Rotation (includes swivel, hub, reducer & elbow)	1	25	029159	Flat Washer, M12	4
14	042712	Hose Adapter Kit, 0.38NPT, Standard Rotation	1	-			
14 14	042713 042714	Hose Adapter Kit, 0.50NPT, Standard Rotation Hose Adapter Kit, 0.75NPT, Standard Rotation	1 1	26	028502	ESNA Nut, M12–1.75	4
		(Includes swivel, hub & goose neck fitting)		27	042727	Spring Motor Kit, 35, Standard Rotation	AR
14	042715	Hose Adapter Kit, 1.00NPT, Standard Rotation	1	07	040700	(Includes items 20, 27, 28, 29, & 30)	
14	042716	Hose Adapter Kit, 1.25NPT, Standard Rotation	1	27 27	042732 042725	Spring Motor Kit, 35, Reverse Rotation	AR AR
14	042717	Hose Adapter Kit, 1.50NPT, Standard Rotation	1			Spring Motor Kit, 62, Standard Rotation	
14	04271401	Hose Adapter Kit, 0.75NPT, Reverse Rotation	1	27	042730	Spring Motor Kit, 62, Reverse Rotation	AR
14	04271501	Hose Adapter Kit, 1.00NPT, Reverse Rotation	1	27	042726	Spring Motor Kit, 75, Standard Rotation	AR
14	04271601	Hose Adapter Kit, 1.25NPT, Reverse Rotation	1	27	042731	Spring Motor Kit, 75, Reverse Rotation	AR
14	04271701	Hose Adapter Kit, 1.50NPT, Reverse Rotation	1	27	042724	Spring Motor Kit, 80, Standard Rotation	AR
	400450			27	042729	Spring Motor Kit, 80, Reverse Rotation	AR
14a	102159	Swivel Joint Only, 0.25 (Reducer Required)	1	27	042723	Spring Motor Kit, 100, Standard Rotation	AR
14a	102159	Swivel Joint Only, 0.38 (Reducer Required)	1	27	042728	Spring Motor Kit, 100, Reverse Rotation	AR
14a	102159	Swivel Joint Only, 0.50	1	00	054 00		
14a	024670	Swivel Joint Only, 0.75	1	28	G51–23	Gasket, Hub Cover	1
14a	102160	Swivel Joint Only, 1.00	1	00	0.07 40		
14a 14a	102161 041276	Swivel Joint Only, 1.25 Swivel Joint Only, 1.50	1 1	29	G27–42	Hub Cover, Springs	1
		5.		30	101220	Screw, #8–32 x 0.25" Lg.	3
15	028138	Lockwasher, M10	4	31	021762	Hub Lock Pin Kit(100 Springs)	1
16	028131	Hex Hd. Cap Screw, M10–1.5 x 20L	4	31	021761	<i>(includes two pins)</i> Hub Lock Pin Kit(All Other Springs)	1
				00	040707		
				32 32	042735 042736	Ratchet Wrench Kit (35–80 Springs) Ratchet Wrench Kit (100 Springs)	1 1
1				1			

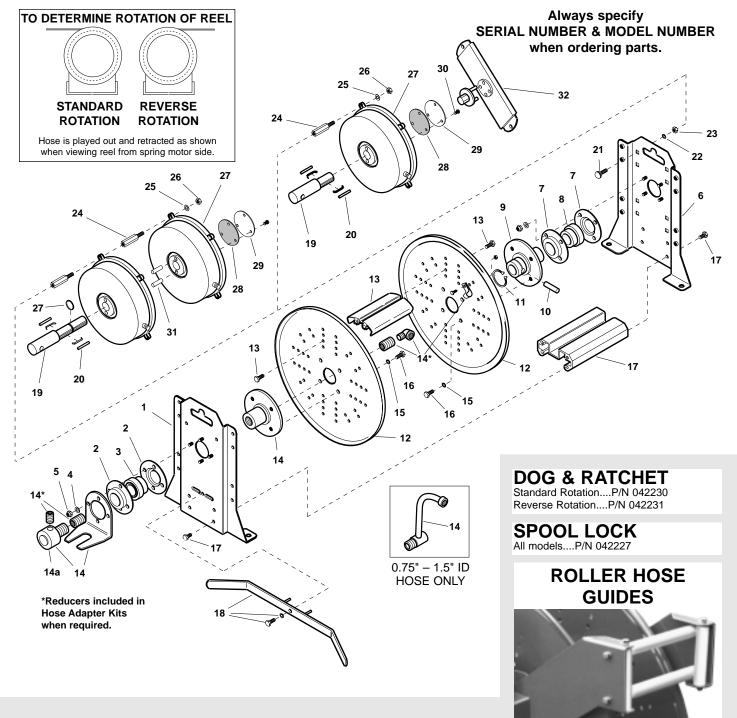
Reel Model Number Structure

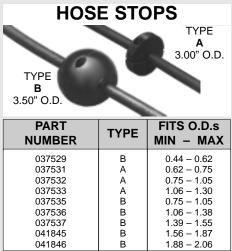
UH 21 80 1 - 08 - 10 06 - 1 - HSD REEL TYPE SPOOL DIAMETER QUANTITY SPRINGS HOSE CODE

ACCESSORY CODE

Horizontal Roller Guide =
Vertical Roller Guide = V
Spool Lock = S

= H 340° Pivot Base = P V Dog & Ratchet (ratchet lock) = D Limit Switch = L





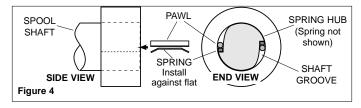
340° PIVOT BASE



PART NUMBER		
042284		
042285		
042286		

HORIZONTAL (shown)					
SPOOL	PART				
WIDTH	NUMBER				
6"	042195				
8"	042196				
10"	042197				
12"	042198				
14"	042199				

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



39. 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.

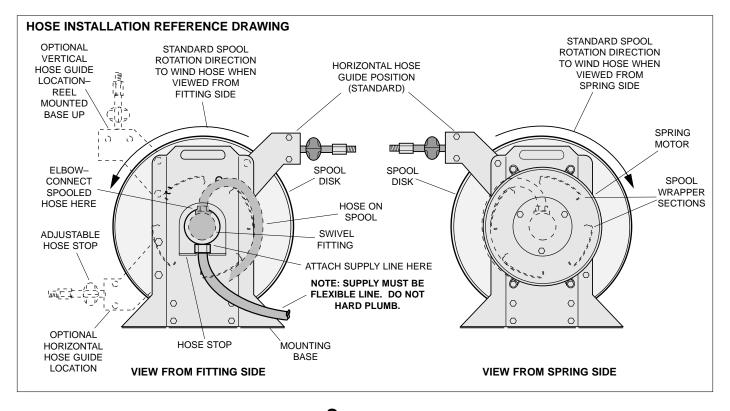
- 1. Move machine serviced by reel to a position closest to reel. Spring will still be under pre-tension at this point.
- ^{CST}2. Turn off supply pressure to reel.
- 3. Disconnect hose from machine or other attachments. Remove hose stop, if installed, and allow hose to retract onto spool. Ensure all 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).
- ^C7. Complete working end connections.
- 8. Pretension reel and complete installation as described in REEL INSTALLATION section.





GLEASON REEL CORP. P.O. Box 26 • 600 South Clark St. Mayville, WI 53050–0026 Phone 920–387–4120 • Fax 920–387–4189