

Heavy-Duty Hose Reels

Description

Caution

Install these reels at a height no greater than 20 feet (6.1 m) from the floor to comply with the warranty.

Hose reel models 7334-B, 7335-B, and 7336-B are designed to handle a maximum of 50 feet of hose and be mounted to the wall, ceiling, or floor.

The reels mount as a single unit or in banks of as many as required. Banked reels should be a minimum of 9 inches (23 cm) apart on center. For ease in reel maintenance, a space of up to 15" (38 cm) is recommended. See **Figure 4**.

Each model reel is spring-powered and self-retracting. When the hose is extended, the reel can be latched on either of two ratchet sections per revolution of the sheave. A pull releases the latch from the ratchet and allows the hose to retract onto the reel.

Reel Models 7334-B, 7335-B and 7336-B

Reel models 7334-B contain a high-pressure swivel assembly*. These reels are designed to dispense grease through either 1/4" or 3/8" ID two-wire braid delivery hose.

A medium-pressure swivel assembly is included with Model 7335-B. This model reel is designed for fluid lubricants such as motor and gear oil, and automatic transmission fluid. It can also be used with 1/2" ID air hose. Model 7336-B includes a low-pressure swivel for handling air and water.

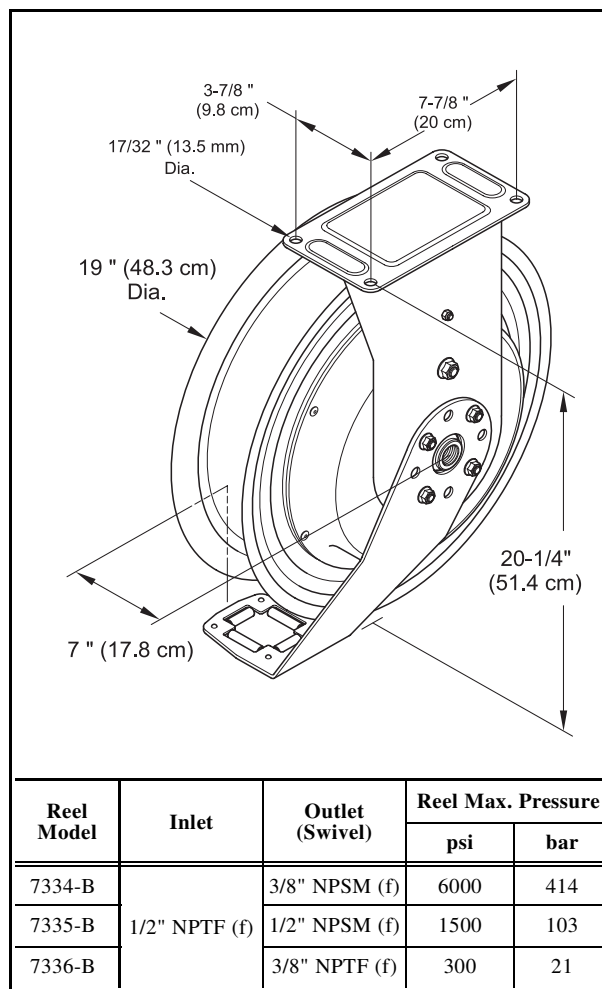


Figure 1 Reel Models 7334-B, 7335-B, & 7336-B

Delivery Hoses

Reel Model	High-Pressure Material		Medium-Pressure Material	Low-Pressure Air	Low-Pressure Air and Water
	1/4" ID Two-Wire Braid 3/8" NPTF (m) x 1/4" NPTF (f)	3/8" ID Two-Wire Braid 3/8" NPTF (m) x 1/4" NPTF (f)	1/2" ID Single-Wire Braid 1/2" NPTF (m) x 1/2" NPTF (m)	1/2" ID Fabric-Reinforced 1/2" NPTF (m) x 1/2" NPTF (m)	3/8" ID Fabric-Reinforced 1/4" NPTF (m) x 1/4" NPTF (m)
7334-B	317874-30, 317874-50	317870-50			
7335-B			317813-20, 317813-30, 317813-40, 317813-50	317811-50	
7336-B					317803-25, 317803-30, 317803-40, 317803-50

Delivery hose length is designated by the dash number. **Example:** 317874-30 is 30 feet long.

NOTE: Supplemental components are addressed within the section entitled **Reel Packages**.

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SER 7334-B
Revision (08-10)

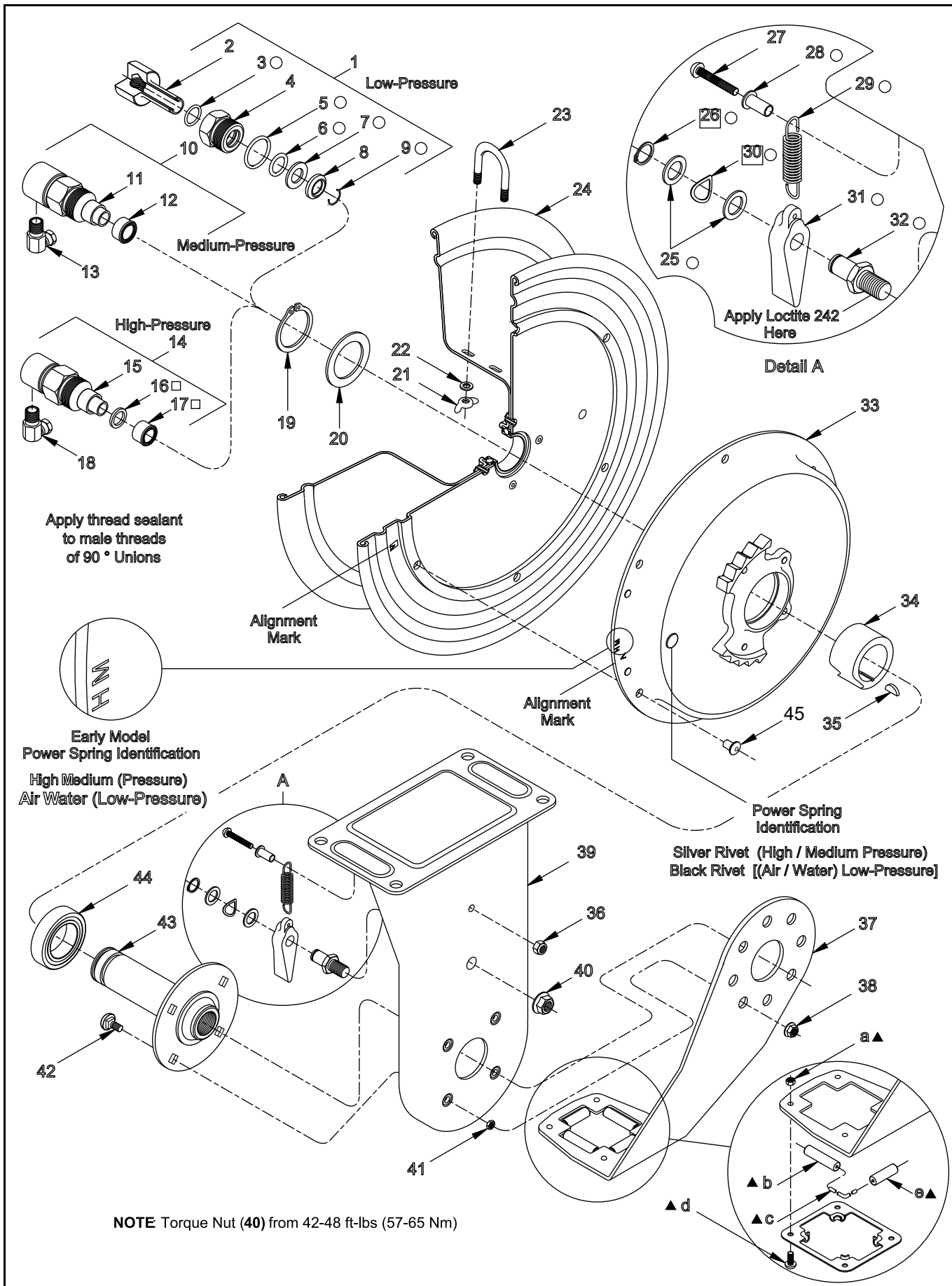


Figure 2 Heavy-Duty Hose Reels - Exploded View

Item No.	Part No.	Description and Model	Qty	Notes	Numeric Order Part # (Item #)
1	339228	Swivel Assembly, Low-Pressure	1		(11)
2	339241	Stud, Swivel	1		(15)
3	X171009-2	O-Ring, 1/2 " ID x 5/8 " OD	1	●	1001-66 (18)
4	339242	Body, Swivel	1		1001-88 (13)
5	X171009-18	O-Ring, 7/8 " ID x 1-1/16 " OD	1	●	14534 (22)
6	X171000-10	O-Ring, 1/2 " ID x 11/16 " OD	1	●	50876 (21)
7		Washer, Thrust (Nylon)	1	●	77696 (41)
8	339239	Retainer	1		170545 (27)
9		Keeper	1	●	X171000-10 (6)
10	339227	Swivel Assembly, Medium-Pressure	1		171007-10 (26)
11		Body and Stud Assembly, Swivel	1		171007-33 (19)
12	393530-24	Seal, 1/2 " ID x 3/4 " OD	1		X171009-2 (3)
13	1001-88	90 ° Union, 1/2 " NPTF x 1/2 " NPSM	1		X171009-18 (5)
14	339226-1	Swivel Assembly, High-Pressure	1		172190-32 (17)
					172209-3 (35)
15		Body and Stud Assembly, Swivel	1		339174 (37)
					339177 (c)
16		Washer, Back-Up (Brass)	1	□	339178 (e)
17		Seal, 3/8 " ID x 3/4 " OD	1	□	339179 (b)
18	1001-66	90 ° Union, 3/8 " NPTF x 3/8 " NPSM	1		339182 (39)
19	171007-33	Ring, Retaining	1		339185 (31)
20	339209	Washer	1		339193 (44)
21		Nut, Wing, 1/4 " -20	2		339197 (34)
22		Washer, 5/16 "	2		339199 (24)
23	339219	U-Bolt	1		339200 (33)
	339219-4	U-Bolt	1		339200-A (33)
24	339199	Sheave Assembly (w/ Bearing)	1		339205 (32)
25		Washer	2	○	339206 (30)
26		Ring, Retaining	1	○	339207 (40)
27		Screw, 10-32 x 7/8 "	1		339208 (25)
28	339212	Sleeve, Pawl Spring	1	○	339209 (20)
29	339210	Spring, Pawl	1	○	339210 (29)
30		Spring, Wave	1	○	339211 (38)
31		Pawl	1	○	339212 (28)
32		Shaft, Pawl	1	○	(42)
33	339200	Spring Assembly, Power (High/Med)	1		339214-1 (43)
	339200-A	Spring Assembly, Power (Low)	1		339214-2 (43)
34	339197	Arbor, Spring	1		
35	172209-3	Key, Woodruff	1		339219 (23)
36		Nut, Elastic Stop, 10-32	1		339219-4 (23)
37	339174	Guide Assembly, Hose	1		339226-1 (14)
38		Nut, Flange, 5/16 " -18	4		339226-2 (14)
39	339182	Base Assembly	1		339227 (10)
40		Nut, 1/2 " -20	1		339228 (1)
41	77696	Nut, Jam, 5/16 " -18	4		339233 (16)
42		Bolt, Carriage, 5/16"-18 x 1"	4		339237 (7)
43	339214-1	Shaft and Flange Assembly	1		339238 (9)
			1		339239 (8)
44	339193	Bearing, Ball	1		339241 (2)
45		Rivet			339242 (4)
Hose Guide Assembly Kit Items					339246 (d)
a		Nut, Elastic Stop, 10-32	4		340722 (45)
b		Roller, Long	2		393530-24 (12)
c		Pin	2	▲	401514 (36, a)
d		Screw, 10-32 x 1/2"	4		
e		Roller, Short	2		
Legend: Part numbers left blank (or in <i>italics</i>) are not available separately ● □ ○ ▲ designates a repair kit item					

Repair Kits

Part No.	Kit Symbol	Description
393693	●	Kit, Low-Pressure Swivel Repair
393695	□	Kit, High-Pressure Swivel Repair
393692	○	Kit, Pawl Assembly Repair
393696	▲	Kit, Hose Guide Assembly Repair (contains hardware to replace drilled rivets)

Service Hints

Refer to the Overhaul Procedures for Details

Observe the Color of the Rivet
on the Power Spring Cassette

Identifies
Power Spring

Use Care During Assembly
of Sheave and Power Spring
onto Base and Shaft Assembly

Ratchet can Interfere
with Pawl

Lubricate Seal Component
with Oil Prior to Assembly
(High- & Medium-Pressure Swivels)

Damage to
Seal Component
can Occur

Apply a High Quality Thread Sealant
or Teflon Tape to Component
that Attaches to Main Shaft

Product Leakage
can Occur

Inspect Low-Pressure Swivel Body
and Stud Prior to Kit Installation

Mating Surfaces
are Subject to Wear

Remove Power Spring Tension
Prior to Reel Disassembly

Personal Injury
can Occur

Overhaul

NOTE: Refer to **Figure 2** for component identification on all overhaul procedures.



WARNING

Release all pressure within the system prior to performing any overhaul procedure.

- **Disconnect the air supply line to the pump's motor.**
- **Into an appropriate container, operate the control valve to discharge remaining pressure within the system.**
- **Disconnect the delivery connecting hose.**

Read each step of the instructions carefully. Make sure a proper understanding is achieved before proceeding.

Disassembly

IMPORTANT: Prior to disassembly, release tension on the power spring.

1. Pull on the delivery hose to unlatch the reel.
2. Allow the hose to retract onto the reel.
3. Turn the reel in the same direction until the power spring bypasses Spring Arbor (34).
 - A pronounced "click" will sound.
4. Unwrap each coil of hose from Sheave Assembly (24).
5. Remove Wing Nuts (21) and Washers (22) that secure U-Bolt (23) to the Sheave Assembly.
 - Remove the U-Bolt from the Sheave.

Model Dependent Step

6. Remove the hose from 90 ° Union (13 or 18) or Swivel Assembly (1).

Sheave and Power Spring Assembly

Model Dependent Step

7. Remove Swivel Assembly (1, 10 or 14) from Shaft and Flange Assembly (43).
 - Remove the 90 ° Union from the Swivel Assembly as necessary (*Models 7334-B, and 7335-B*).

8. Remove Retaining Ring (19) and Washer (20) from the Shaft and Flange Assembly.
 - Use care not to mar the surface of the shaft.

9. Remove the Sheave and Power Spring Assembly from the Shaft and Flange Assembly.

Note: Perform steps 10+11 only if replacing Sheave Assembly (24) or Power Spring Assembly (33).

10. Position the Sheave and Power Spring Assembly with the ratchet upward.
11. Drill out Rivets (45) that secure Power Spring Assembly to the Sheave Assembly.
 - Remove the Power Spring Assembly from the Sheave Assembly.

Base and Hose Guide Assembly

12. Remove Spring Arbor (34) from the Shaft and Flange Assembly.
 - Remove Woodruff Key (35).
13. Remove Bearing (44) from the Shaft and Flange Assembly.
14. Remove Nuts (38) that secure Hose Guide Assembly (37) to Base Assembly (39).
 - Remove the Hose Guide Assembly from the Base Assembly.
15. Remove Nuts (41) that secure the Shaft and Flange Assembly to the Base Assembly.
 - Remove the Shaft and Flange Assembly from the Base Assembly.
16. Remove Bolts (42) from the Shaft and Flange Assembly as required.
17. Remove Nut (36) that secures Screw (27) to the Base Assembly.
 - Remove the Screw and Pawl Spring Sleeve (28) from the Base Assembly and Pawl Spring (29).
18. Remove Nut (40) that secures the Latch Pawl assembly to the Base Assembly.
 - Remove the Latch Pawl assembly from the Base Assembly.

Pawl Assembly

19. Remove Retaining Ring (26) from Pawl Shaft (32).
20. Remove Washers (25), Wave Spring (30), and Pawl (31) from the Pawl Shaft.
21. Remove the Pawl Spring from the Pawl.

Low-Pressure Swivel Assembly

22. Remove O-Ring (5) from Swivel Body (4).
23. Push Retainer (8) toward Swivel Stud (2) to expose Keeper (9).
24. Remove the Keeper from the Swivel Stud.
25. Remove the Retainer, Thrust Washer (7), and the Swivel Body from the Swivel Stud.
26. Remove O-Rings (3 and 6) from the Swivel Body.

Medium- and High-Pressure Swivel Assemblies

The body and stud assemblies for the medium- and high-pressure swivels cannot be repaired. However, the sealing and back-up components are available separately.

Clean and Inspect

NOTE: Use the repair kit for replacement parts. Make sure all the components are included in the kit before discarding used parts.

Clean all metal parts in a modified petroleum-based solvent. The solvent should be environmentally safe.

- Make sure to remove the old sealant from the threads of all components.

Assembly

NOTE: Prior to assembly, certain components require lubrication. Refer to **Tables 1** and **2** for details.

Pawl Assembly

NOTE: Refer to **Figures 2** and **3** for component identification on assembly procedures.

1. Install Pawl Shaft (32) [threaded end first] into the inside of Base Assembly (39).
2. Apply Loctite 242 to the threads of the Pawl Shaft.
3. Screw Nut (40) onto the Pawl Shaft.
 - Tighten the Nut from 42 to 48 ft.-lbs (57 - 65 Nm).
 - Make sure to hold the Pawl Shaft stationary.

Item No.	Description
5	O-Ring, 7/8 " ID x 1-1/16 " OD
12	Seal, 1/2 " ID x 3/4 " OD
17	Seal, 3/8 " ID x 3/4 " OD

Table 1 Components Lubricated in Clean Oil

4. Install Pawl (31) [flat side first] onto the Pawl Shaft.
5. Install Washer (25), Wave Spring (30), and additional Washer (25) onto the Pawl Shaft.
6. Install Retaining Ring (26) onto the Pawl Shaft.
7. Install Pawl Spring (29) into the eye on the Pawl. See **Figure 3** for proper orientation.
8. Install Screw (27) into the large diameter end of Pawl Spring Sleeve (28).
9. Install the Screw and Sleeve assembly through the Pawl Spring and into the Base and Shaft Assembly.
10. Install Nut (36) onto the Screw.
 - Tighten the Nut securely.

Base and Hose Guide Assembly

11. Install Bolts (42) into Shaft and Flange Assembly (43).
12. Secure the Shaft and Flange Assembly to the Base Assembly with Nuts (41).
 - Tighten the Nuts securely in a criss-cross pattern.
13. Position Hose Guide Assembly (37) onto the Bolts in the Base Assembly.

NOTE: The Hose Guide Assembly can attach to the Base Assembly in five (5) separate positions. Select the required relationship of the Guide to the mounting plate of the Base Assembly.

14. Secure the Hose Guide Assembly to the Base Assembly with Nuts (38).
 - Tighten the Nuts securely in a criss-cross pattern.
15. Install and seat Bearing (44) onto the Shaft and Flange Assembly.
16. Install and hold Woodruff Key (35) into the shaft of the Assembly.

Item No.	Description
3	O-Ring, 1/2 " ID x 5/8 " OD
4	cavity in Swivel Body
6	O-Ring, 1/2 " ID x 11/16 " OD
29	hooks of Pawl Spring
30	Wave Spring
32	bearing surface of Pawl Shaft
33	ratchet teeth on Power Spring Assembly

Table 2 Components Lubricated in Lithium Grease

17. Slide Spring Arbor (34) [flat side first] onto the shaft and onto the Woodruff Key.

Sheave and Power Spring Assembly

18. Position Sheave Assembly (24) bearing side up.

IMPORTANT: Make sure to align the mark on the Power Spring Assembly with the alignment mark on the Sheave Assembly. See Figure 2.

19. Position Power Spring Assembly (33) [at alignment marks] on the Sheave Assembly.
20. Secure the Power Spring Assembly to the Sheave Assembly using screws and nuts included with Replacement Assembly.
- Make sure the screw heads seat properly into the rib of the sheave.
21. Install and seat the Power Spring and Sheave Assembly onto the Spring Arbor.
- Make sure the end of the power spring properly engages the cam on the Spring Arbor.
 - Make sure the ratchet either clears the Pawl or engages properly.
22. Install Washer (20) and Retaining Ring (19) onto the Shaft and Flange Assembly.

Swivel Assemblies

Low-Pressure Swivel Assembly

Caution

Do not mix O-Rings. O-Ring (6) is slightly larger in outside diameter than O-Ring (3).

23. Install O-Ring (6) into the threaded end of Swivel Body (4).
- Install O-Ring (3) into the opposite end of the Swivel Body.
24. Install the Swivel Body onto Swivel Stud (2).

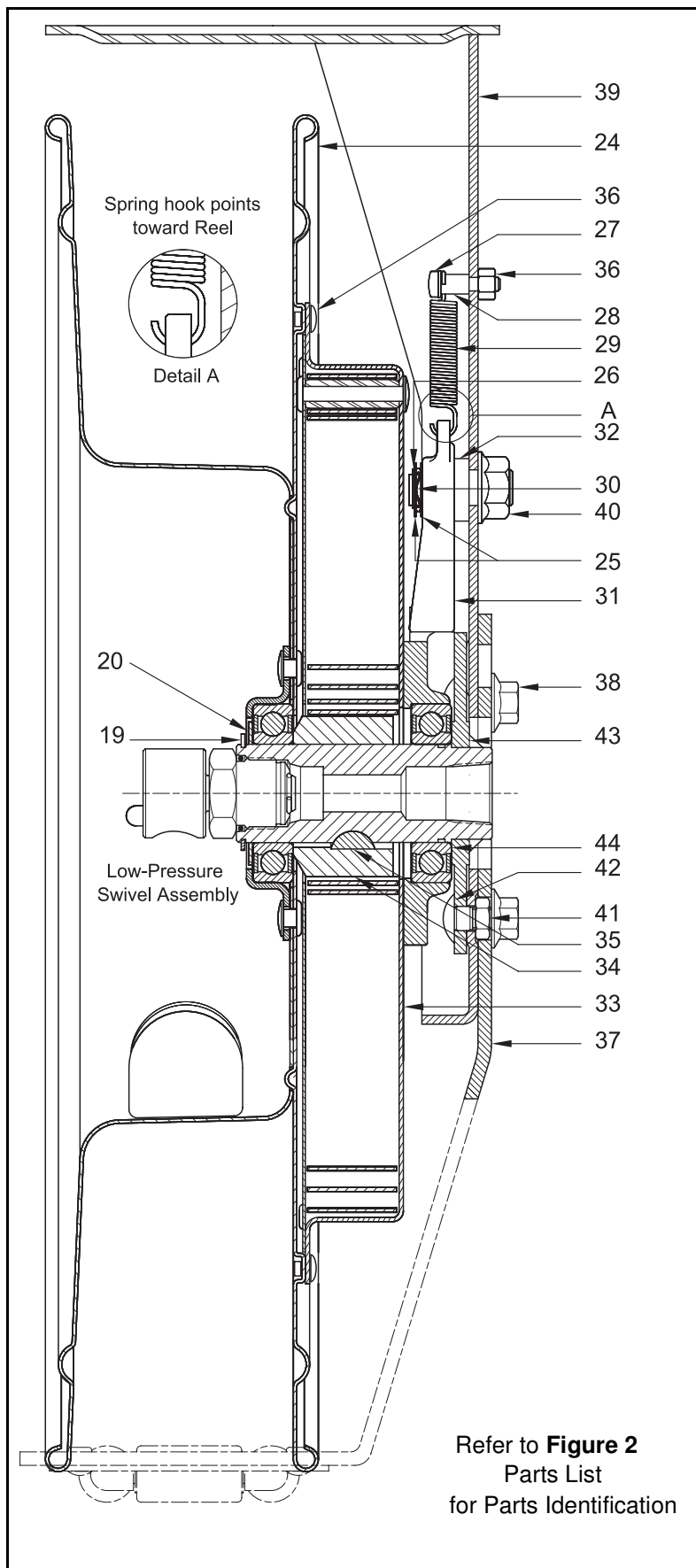


Figure 3 Heavy-Duty Hose Reels - Section View

25. Install Thrust Washer (7) and Retainer (8) [flat side first] onto the Swivel Stud.
26. Push the Retainer to expose the groove in the Swivel Stud.
 - Install Keeper (9) onto the Swivel Stud.
27. Install O-Ring (5) onto the Swivel Body.
28. Screw the Swivel Assembly into the Base and Shaft Assembly.
 - Tighten the Swivel Assembly securely.

Medium- and High-Pressure Swivel Assemblies

29. Screw 90 ° Union (13 or 18) [with thread sealant] into the Swivel Body and Stud Assembly.

Model Dependent Step

30. Install and seat Back-Up Washer (16) and Seal (17) onto Body and Stud Assembly (15) [models 7334-B].

Install and seat Seal (12) [heel end first] onto Body and Stud Assembly (11) [model 7335-B].

31. Screw the Swivel Assembly into the Base and Shaft Assembly.
 - Tighten the Swivel Assembly securely.

Bench Test

While facing the ratchet on the power spring Assembly, turn the reel in a counterclockwise direction and allow the ratchet to latch the Pawl.

If the reel does not tension or latch properly, refer to the **Troubleshooting Chart**.

Installation

On the Bench

1. Feed the end of the delivery hose through the opening in Sheave Assembly (24).

Model Dependent Step

2. Screw the delivery hose securely into 90 ° Union (13 or 18) or into Swivel Stud (2).

IMPORTANT: Final U-Bolt adjustment must occur after the hose has been pressurized.

3. Loosely attach the delivery hose to the Sheave Assembly with U-Bolt (23), Washers (22) and Wing Nuts (21).
4. Rotate the Sheave Assembly to wrap the hose onto the reel.

- The clicking sound is the power spring bypassing the cam on the Spring Arbor.

5. Screw the connecting hose (with thread sealant) into the outlet of the reel.

*IMPORTANT: It is mandatory that these reels be installed at a height no greater than 20 ' (6.1 m) from the floor. Should the existing ceiling height be greater, mount the reel to a suspension bracket. See **Figure 4**.*

6. Mount the reel assembly with the appropriate hardware.
7. Attach the connecting hose to the distribution system.
8. Install the control valve.

CAUTION

The hose must be extended when the system is pressurized. Damage to the Sheave Assembly can occur.

9. Pull the hose fully from the reel and pressurize the system.
10. Tighten the Wing Nuts onto the U-Bolt.
11. Retract the hose onto the reel.
12. Install and secure the hose stop to the desired position.

Setting Spring Tension

CAUTION

Do not overwind the power spring. Too much tension reduces the life of the spring.

To adjust tension on the power spring:

13. Add / remove one coil of hose to / from the Sheave Assembly.

IMPORTANT: Add or remove hose coils to provide the amount of spring tension that gently holds the hose stop against the hose guide. When the hose is fully extended from the reel, the power spring should be a minimum of 1/2 turn from a fully wound condition.

14. Repeat step 13 until the proper tension is achieved.

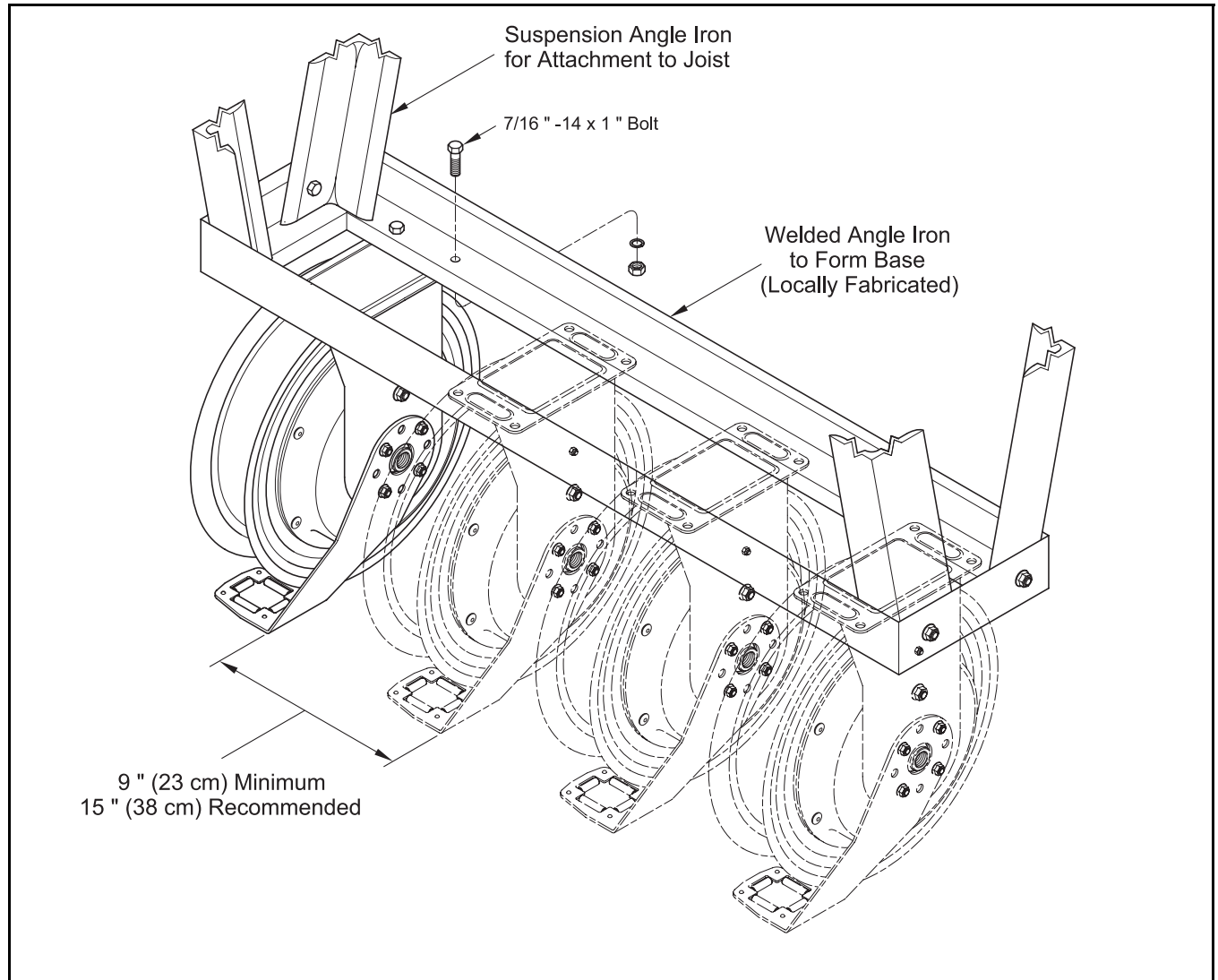


Figure 4 *Suspension Bracket for Ceilings Greater than 20 Feet (6.1 meters) - Typical*

Reel Operation



WARNING

Do not exceed the lowest pressure rating of any component in the system.

Never point a control valve at any portion of your body or another person. Lubricant discharged at high velocity can penetrate the skin and cause severe injury. Should any fluid appear to puncture the skin, get medical care immediately.

Ensure all components are in operable condition. Replace any suspect parts prior to operation. Personal injury can occur.

Hold the delivery hose securely until the reel is securely latched or fully retracted. Uncontrolled retraction can result in personal injury.

Latch Lockout

Do not extend the hose from the reel too rapidly. Too much velocity can cause the reel to over-run and latch. If this occurs, pulling on the hose will not release the latch mechanism.

Should the reel latch in this condition, it will be necessary to have an assistant maintain tension on the hose while the latching mechanism is manually released.



WARNING

The reel is under maximum spring tension. Personal injury can occur.

1. Instruct the assistant to grip the hose securely with both hands to prevent uncontrolled retraction.
2. Grip the Sheave Assembly securely with gloved hands.

3. Turn the Sheave Assembly in the direction just enough that allows Pawl (32) to be free of tension from the ratchet on Power Spring Assembly (34).
 - This direction further increases tension on the power spring.
4. While maintaining the position of the Sheave assembly with one hand, move the Pawl away from the ratchet.
 - Use a screwdriver or other suitable tool.
5. Instruct the assistant to allow the hose to retract slowly onto the Sheave Assembly.

Reel Packages

Hose reel models 7334-B, 7335-B, and 7336-B are included in the reel packages listed below.

Reel Package Model	Hose Reel (Bare)	Inlet Components		Outlet Components				
		90 ° Union	Connecting Hose	Bushing	Delivery Hose	Air Coupler	Air Connector	Hose Stop
8078-A	7334-B	1001-86	317876-2	N/A	317874-30	N/A	N/A	337437
8078-B					317874-50			
8078-C	7335-B	1001-88	317813-2		317813-30			
8078-D					317813-50			
8078-M			317811-2		317811-50	328031	328033	
8078-E	339236			317803-30	328030	328034		
8078-F				317803-50				
N/A = Not Applicable								

Troubleshooting Chart

Indications	Possible Problems	Solution
Reel does not latch	Spring (29) broken or not attached to Latch Pawl (31)	Replace or secure Spring (29)
Reel does not retract	Power spring broken*	Replace Power Spring Assembly (33)
Reel retracts partially	1. Improper power spring tension 2. <i>Reel installed over 20' (6.1 m)</i> 3. <i>Hose length greater than 50' (15.2 m)</i>	1. Set tension properly 2. Install reel at 20' (6.1 m) 3. Install a hose not to exceed 50' (15.2 m)
Reel does not unlatch after maximum length of hose is removed	1. <i>Power spring wound solid</i> 2. <i>Hose removed from the reel too quickly</i>	1. Decrease power spring pre-wind 2. Remove hose slowly when close to being fully extended
Material leakage at the Swivel Assembly	1. Connection not sufficiently tight and/or thread sealant missing at 90 ° Union 2. Worn or damaged Swivel Assembly	1. Apply sealant to male threads of 90 ° Union and tighten connections 2. Repair or replace Swivel
Material leakage at Shaft and Flange Assembly (43)	Connection hose not sufficiently tight and/or thread sealant missing or inadequate	Apply sealant to connection hose and tighten to Shaft and Flange Assembly (43)
* The possible causes for broken components are listed in <i>italics</i>		

Changes Since Last Printing
On page 10, 317813-30 and -50 were
317856-30 and -50