ALEMITE®

Service Guide

7337-C

Severe-Duty Fuel Hose Reel

Description

WARNING

Should reel model 7337-C be used to deliver gasoline or aircraft fuel, the:

- **delivery and connecting hose must contain a grounding wire**
- **entire fuel delivery system must be properly grounded**

This prevents the development of static electricity.

Personal injury can occur due to fire and/or explosion.

NOTE: The reel is grounded at the swivel with a wave washer. See **Figure 2**.

Hose reel model 7337-C is designed:

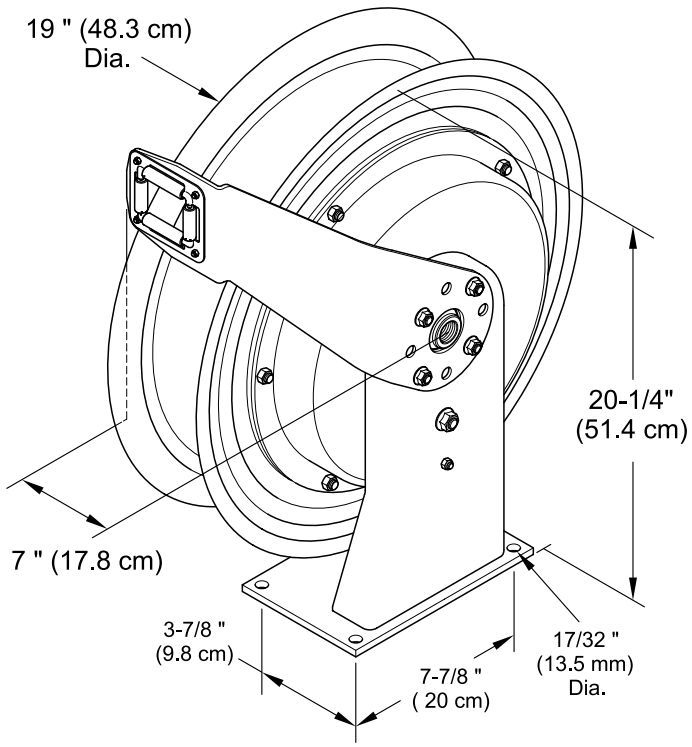
- for use on a lubrication truck to deliver fuel (such as diesel fuel, aircraft fuel, and gasoline) and lubricating oils.
- to mount to a ceiling* or wall.

The 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.

This model is equipped with a 3/4 " NPSM (f) low-pressure swivel.

Hoses

The reel handles a maximum of 30 feet of hose.



Inlet	Outlet (Swivel)	Reel Max. Pressure	
		psi	Bars
3/4 " NPTF (f)	3/4 " NPSM (f)	300	21

Figure 1 *Severe-Duty Fuel Hose Reel Model 7337-C*

Caution

*** The base of the reel must be at a height no greater than 16 feet (4.9 m) from the floor to comply with the warranty.**

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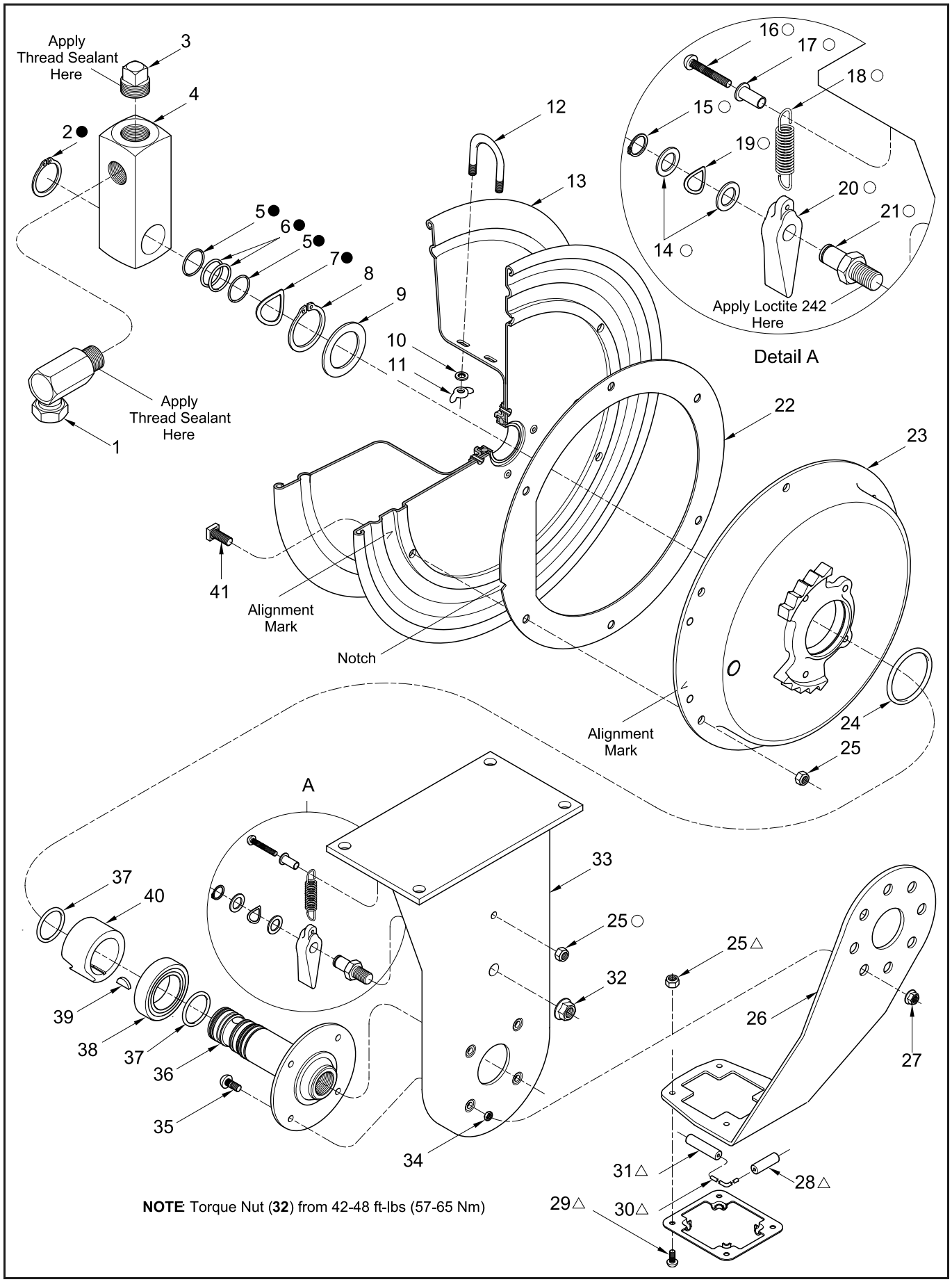


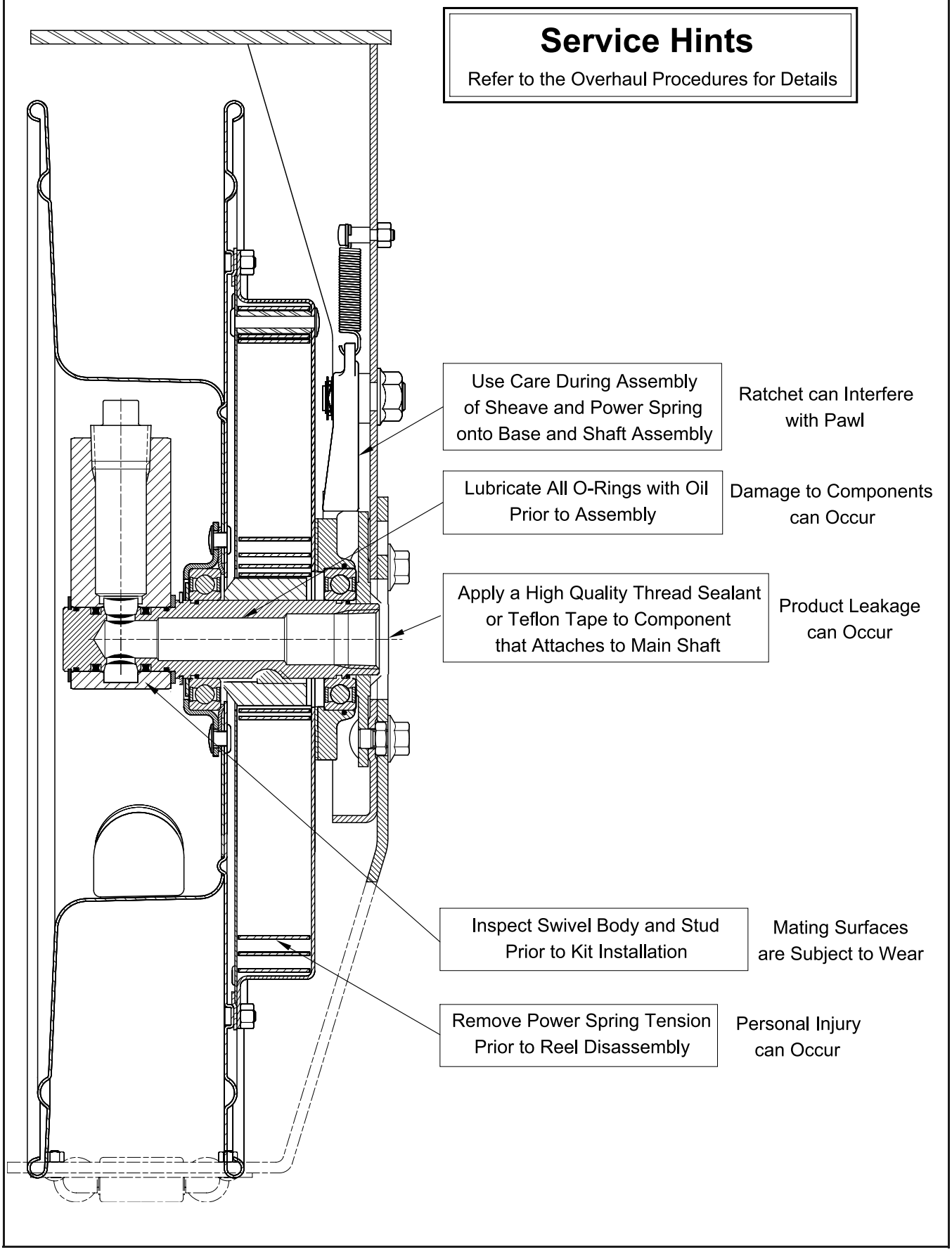
Figure 2 *Severe-Duty Fuel Hose Reel Model 7337-C - Exploded View*

Item No.	Part No.	Description	Qty	Notes		Numeric Order Part # (Item #)
1	1001-1212	90 ° Union, 3/4 " NPTF (m) x 3/4 " NPSM	1			1001-1212 (1)
2	171007-29	Ring, Retaining	1	●		*14534* (10)
3		Plug, Pipe 3/4 " NPTF (m)	1			*50876* (11)
4	339385	Body, Swivel	1			77696 (34)
5	171009-10	O-Ring, 1 " ID x 1-1/8 " OD	2	●		*170545* (16)
6		Quad-Ring, 7/8 " ID x 1-1/8 " OD	2	●		171007-10 (15)
7	337628-2	Washer, Wave	1	●		171007-29 (2)
8	171007-33	Ring, Retaining	1			171007-33 (8)
9	339209	Washer	1			*171008-17* (6)
10		Washer, 1/4 "	2			171009-10 (5)
11		Nut, Wing, 1/4 " -20	2			171009-14 (37)
12		U-Bolt	1			171009-44 (24)
13	339199-A	Sheave Assembly (w/ Bearing and Gasket)	1			172209-3 (39)
14		Washer	2	○		*311730* (3)
15	171007-10	Ring, Retaining	1	○		337628-2 (7)
16		Screw, 10-32 x 7/8 "	1	○		*339176* (26)
17	339212	Sleeve, Pawl Spring	1	○		*339177* (30)
18	339210	Spring, Pawl	1	○		*339178* (28)
19		Spring, Wave	1	○		*339179* (31)
20		Pawl	1	○		*339185* (20)
21		Shaft, Pawl	1	○		339193-1 (38)
22	339243-1	Gasket, Spring Case (Sponge Rubber)	1			339197 (40)
23	339200-B	Spring Assembly, Power (w/ Gasket)	1			339199-A (13)
24	171009-44	O-Ring, 2-1/2 " ID x 2-11/16 " OD	1			339200-B (23)
25		Nut, Elastic Stop, 10-32	11	○ △	1 in ○ kit, 4 in △ kit	*339205* (21)
26		Arm, Hose Guide	1			*339206* (19)
27		Nut, Flange, 5/16 " -18	4			*339207* (32)
28		Roller, Short	2	△		*339208* (14)
29		Screw, 10-32 x 1/2 "	4	△		339209 (9)
30		Pin	2	△		339210 (18)
31		Roller, Long	2	△		*339211* (27)
32		Nut, 1/2 " -20	1			339212 (17)
33	339245	Base Assembly	1			339213 (35)
34	77696	Nut, Jam, 5/16 " -18	4			*339218* (41)
35	339213	Bolt, Rib-Neck, 5/16 " -18 x 7/8 "	4			*339219-1* (12)
36	339388	Shaft and Flange Assembly	1			339243-1 (22)
37	171009-14	O-Ring, 1-1/4 " ID x 1-3/8 " OD	2			339245 (33)
38	339193-1	Bearing, Ball (Zinc-Dichromate Plated)	1			*339246* (29)
39	172209-3	Key, Woodruff	1			339385 (4)
40	339197	Arbor, Spring	1			339388 (36)
41		Screw, 10-32 x 3/8 "	6			*401514* (25)

Legend:
Part numbers left blank (or in *italics*) are not available separately
● ○ △ designates a repair kit item

Repair Kits

Part No.	Kit Symbol	Description
393701	●	Kit, Low-Pressure Swivel Repair
393692	○	Kit, Pawl Assembly Repair
393696	△	Kit, Hose Guide Assembly Repair


Service Hints
Refer to the Overhaul Procedures for Details
Use Care During Assembly of Sheave and Power Spring onto Base and Shaft Assembly
Ratchet can Interfere with Pawl
Lubricate All O-Rings with Oil Prior to Assembly
Damage to Components can Occur
Apply a High Quality Thread Sealant or Teflon Tape to Component that Attaches to Main Shaft
Product Leakage can Occur
Inspect 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 (**40**).
   - A pronounced "click" will sound.
4. Unwrap each coil of hose from Sheave Assembly (**13**).
5. Remove Wing Nuts (**11**) and Washers (**10**) that secure U-Bolt (**12**) to the Sheave Assembly.
   - Remove the U-Bolt from the Sheave.
6. Remove the hose from 90 ° Union (**1**)

Swivel Assembly

7. Remove Retaining Ring (**2**) that secures Swivel Body (**4**) to Shaft and Flange Assembly (**36**).
   - Remove the Swivel Body from the Shaft and Flange Assembly.
8. Remove O-Rings (**5**), Quad-Rings (**6**), and Wave Washer (**7**) from the Shaft and Flange Assembly.

Sheave and Power Spring Assembly

9. Remove Retaining Ring (**8**) and Washer (**9**) from the Shaft and Flange Assembly.
   - Use care not to mar the surface of the shaft.
10. Remove the Sheave and Power Spring Assembly from the Shaft and Flange Assembly.
11. Position the Sheave and Power Spring Assembly with the ratchet upward.
12. Remove O-Ring (**24**) from the Power Spring Assembly.
13. Remove Nuts (**25**) that secure Power Spring Assembly (**23**) to the Sheave Assembly.
    - Remove the Power Spring Assembly from the Sheave Assembly.
14. Remove Gasket (**22**) and Screws (**41**) from the Sheave Assembly.

Base and Hose Guide Assembly

15. Remove O-Ring (**37**) from the Shaft and Flange Assembly.
16. Remove Spring Arbor (**40**) from the Shaft and Flange Assembly.
    - Remove Woodruff Key (**39**).
17. Remove Ball Bearing (**38**) from the Shaft and Flange Assembly.
18. Remove additional O-Ring (**37**) from the Shaft and Flange Assembly.
19. Remove Nuts (**27**) that secure Hose Guide Arm (**26**) to Base Assembly (**33**).
    - Remove the Hose Guide Arm from the Base Assembly.
20. Remove Jam Nuts (**34**) that secure the Shaft and Flange Assembly to the Base Assembly.
    - Remove the Shaft and Flange Assembly from the Base Assembly.
21. Remove Bolts (**35**) from the Shaft and Flange Assembly as required.
22. Remove Nut (**25**) that secures Screw (**16**) to the Base Assembly.
    - Remove the Screw and Pawl Spring Sleeve (**17**) from the Base Assembly and Pawl Spring (**18**).
23. Remove Nut (**32**) that secures the Latch Pawl assembly to the Base Assembly.
    - Remove the Latch Pawl assembly from the Base Assembly.

Pawl Assembly

24. Remove Retaining Ring (**15**) from Pawl Shaft (**21**).

25. Remove Washers (**14**), Wave Spring (**19**), and Pawl (**20**) from the Pawl Shaft.

26. Remove the Pawl Spring from the Pawl.

Clean and Inspect

> **NOTE**: Use the appropriate 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 **Table 1** for details.

Pawl Assembly

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

1. Install Pawl Shaft (**21**) [threaded end first] into the inside of Base Assembly (**33**).

Item No.	Description
2	Retaining Ring
4	bore of Swivel Body
5	O-Ring, 1 " ID x 1-1/8 " OD
6	Quad-Ring, 7/8 " ID x 1-1/8 " OD
7	Wave Washer
18	hooks of Pawl Spring
19	Wave Spring
21	bearing surface of Pawl Shaft
23	ratchet teeth on Power Spring Assembly
24	O-Ring, 2-1/2 " ID x 2-11/16 " OD
36	grooves of Shaft and Flange Assembly
37	O-Ring, 1-1/4 " ID x 1-3/8 " OD

Table 1 *Components Lubricated in Lithium Grease*

2. Apply Loctite 242 to the threads of the Pawl Shaft.

3. Screw Nut (**32**) onto the Pawl Shaft.
   - Tighten the Nut from 42 to 48 ft-lbs (57 - 65 Nm).
   - Make sure to hold the Pawl Shaft stationary.

4. Install Pawl (**20**) [flat side first] onto the Pawl Shaft.

5. Install Washer (**14**), Wave Spring (**19**), and additional Washer (**14**) onto the Pawl Shaft.

6. Install Retaining Ring (**15**) onto the Pawl Shaft.

7. Install Pawl Spring (**18**) into the eye on the Pawl. See **Figure 3** for proper orientation.

8. Install Screw (**16**) into the large diameter end of Pawl Spring Sleeve (**17**).

9. Install the Screw and Sleeve assembly through the Pawl Spring and into the Base and Shaft Assembly.

10. Install Nut (**25**) onto the Screw.
    - Tighten the Nut securely.

Base and Hose Guide Assembly

11. Install Bolts (**35**) into Shaft and Flange Assembly (**36**).

12. Secure the Shaft and Flange Assembly to the Base Assembly with Nuts (**34**).
    - Tighten the Nuts securely in a criss-cross pattern.

13. Position Hose Guide Arm (**26**) onto the Bolts in the Base Assembly.

> **NOTE**: The Hose Guide Arm 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 Arm to the Base Assembly with Nuts (**27**).
    - Tighten the Nuts securely in a criss-cross pattern.

15. Install one O-Ring (**37**) onto the inner groove [closest to the flange] of the Shaft and Flange Assembly.

16. Install and seat Ball Bearing (**38**) onto the Shaft and Flange Assembly and over the O-Ring.
    - Use care not to damage the O-Ring.

17. Install and hold Woodruff Key (**39**) into the slot of the Assembly.

18. Slide Spring Arbor (**40**) [flat side first] onto the shaft and onto the Woodruff Key.

19. Install remaining O-Ring (**37**) into the groove of the Shaft and Flange Assembly.

Sheave and Power Spring Assembly

20. Position Sheave Assembly (**13**) Bearing side up.

21. Install Gasket (**22**) onto the Sheave Assembly.
    - Make sure to align the notch in the Gasket with the alignment mark on the Sheave Assembly. See **Figure 2**.

22. Position Power Spring Assembly (**23**) onto the Sheave Assembly.
    - Make sure to align the mark on the Power Spring with the notch in the Gasket. See **Figure 2**.

23. Secure the Power Spring Assembly to the Sheave Assembly with Screws (**41**) and Nuts (**25**).
    - Make sure the Gasket does not move.
    - Make sure the Screws enter the Sheave Assembly and seat properly into the rib of the sheave.
    - Tighten the Nuts securely.

24. Install O-Ring (**24**) into the groove of the Power Spring Assembly.

25. Install and seat the Power Spring and Sheave Assembly onto the Spring Arbor and Bearing.
    - Use care not to damage the O-Rings.
    - 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.

26. Install Washer (**9**) and Retaining Ring (**8**) onto the Shaft and Flange Assembly.

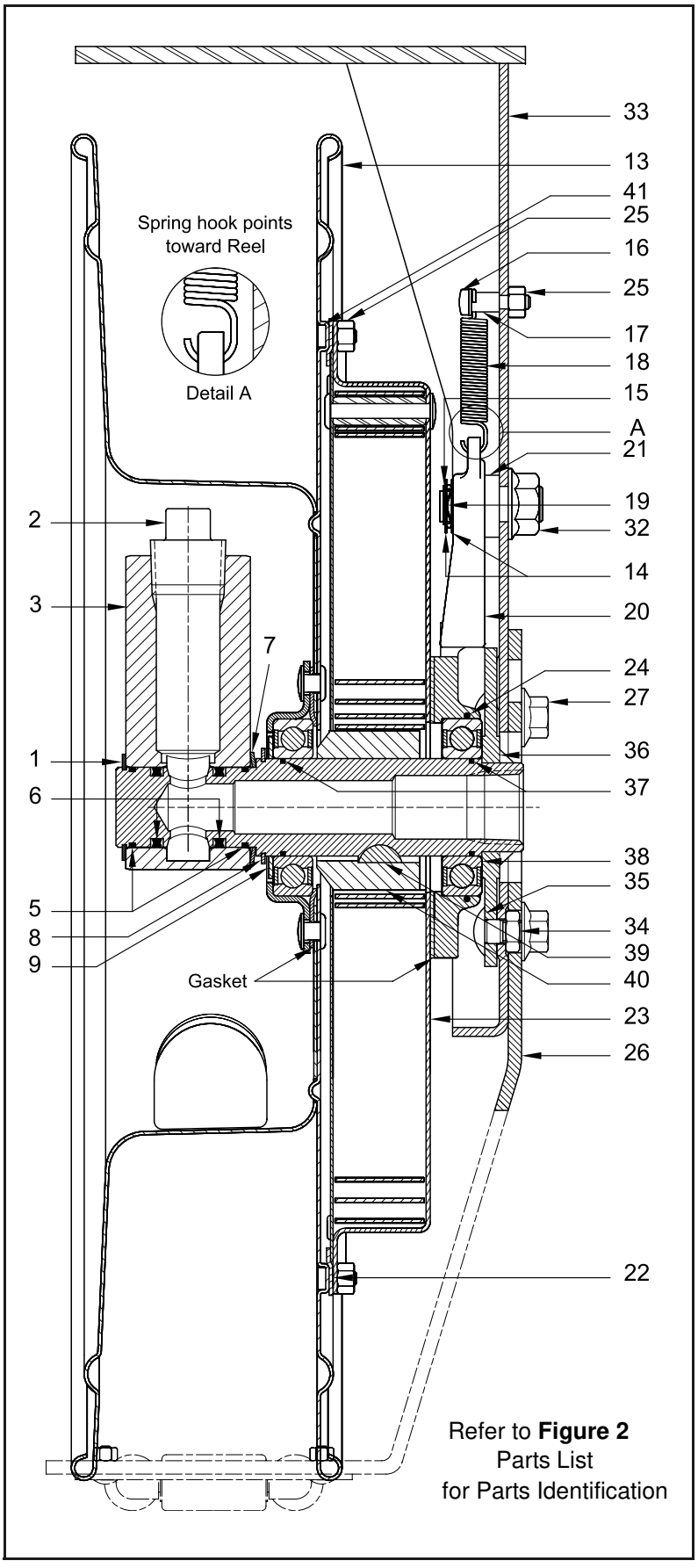


Figure 3 *Severe-Duty Fuel Hose Reel - Section View*

Swivel Assembly

27. Install Wave Washer (**7**) one O-Ring (**5**), Quad-Rings (**6**), and additional O-Ring (**5**) onto the Shaft and Flange Assembly.

28. Screw 90 ° Union (**1**) [with thread sealant] into Swivel Body (**4**).
    - Make sure to orient the 90 ° Union properly.
    - See **Figure 2**.

29. Install and seat the Swivel Body assembly [see **Figure 2** for proper orientation] onto the Shaft and Flange Assembly.
    - Use care not to damage the O-Rings and the Quad-Rings.

30. Install Retaining Ring (**2**) onto the Shaft and Flange Assembly.

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

WARNING

Should the reel be used to deliver gasoline or aircraft fuel, the:

- **delivery and connecting hose must contain a grounding wire**
- **entire fuel delivery system must be properly grounded**

This prevents the development of static electricity.

Personal injury can occur.

On the Bench

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.

1. Feed the end of the delivery hose through the opening in Sheave Assembly (**13**).

2. Screw the delivery hose securely into 90 ° Union (**1**).

   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 (**12**), Washers (**10**) and Wing Nuts (**11**).

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 90 ° union and connecting hose assembly (with thread sealant) into the inlet of the reel.

6. Mount the reel assembly with the appropriate hardware.

7. Attach the connecting hose to the distribution system.

8. Install the control valve.

CAUTION

Extend the hose fully before pressurizing the system. 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.

Latch Lockout

Reel Over-Run

IMPORTANT: Do not extend the hose from the reel too rapidly. Too much velocity can cause the reel to over-run and latch.

Should latch lockout occur, pulling on the hose will not release the latch mechanism.

With 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 (**20**) to be free of tension from the ratchet on Power Spring Assembly (**23**).
   - 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 Package

Hose reel model 7337-C is included in the reel package listed below.

Reel Package Model	Hose Reel (Bare)	Inlet Components		Outlet Components	
		90 ° Union	Connecting Hose	Delivery Hose	Hose Stop
8078-K	7337-C	1001-1212	317868-2	317868-30	339389

Hose Model	Description				
	Inside Diameter	Outside Diameter	Type	Electrically Conductive	Length in Feet
317868-2	3/4 "	1-1/8 "	SAE 100R1, Type AT (Thin Cover)	Yes	2
317868-30					30

Table 2 *Diesel Fuel and Lubricating Oil Hoses*

Troubleshooting Chart

Indications	Possible Problems	Solution
Reel does not latch	Spring (**18**) broken or not attached to Latch Pawl (**20**)	Replace or secure Spring (**18**)
Reel does not retract	Power spring broken*	Replace Power Spring Assembly (**23**)
Reel retracts partially	1. Improper power spring tension 2. *Hose length greater than 30 ' (9.1 m)*	1. Set tension properly 2. Install a hose not to exceed 30 ' (9.1 m)
Reel does not unlatch after maximum length of hose is removed	1. *Power spring wound solid* 2. *Hose removed from the reel too quickly (Reel Over-Run)*	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 (**1**) or Pipe Plug (**3**) 2. Worn or damaged Quad-Rings (**6**) 3. Worn or damaged Shaft and Flange Assembly (**36**) 4. Worn or damaged Swivel Body (**4**)	1. Apply sealant to male threads of 90 ° Union (**1**) and/or Pipe Plug (**3**) and tighten connections 2. Replace Quad-Rings (**6**) 3. Replace Shaft and Flange Assembly (**36**) 4. Replace Swivel Body (**4**)
Material leakage at inlet of Shaft and Flange Assembly (**36**)	90 ° Union not sufficiently tight and/or thread sealant missing or inadequate	Apply sealant to 90 ° Union and tighten to Shaft and Flange Assembly (**36**)
* The possible causes for broken components are listed in *italics*		

Changes Since Last Printing

Added Loctite and Torque for Pawl Shaft
Removed Washer 339180