

## Ratchet and Latch Replacement Kit for XD30 High Capacity Hose Reels

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### *Instructions for Replacing Ratchet and Latch XD Series High Capacity Hose Reels.*

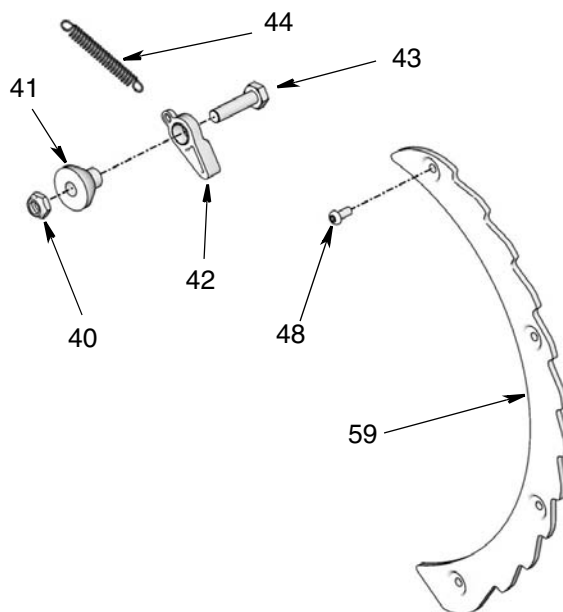
**Part No: 24C995**



#### **Important Safety Instructions**

Read all warnings and instructions in this manual. For complete Warnings and instructions see the XD30 High Capacity Hose Reel Instruction Manual. Save all instructions.

Ref No.	Description	Qty
40	NUT, lock	1
41	BUSHING, pawl	1
42	PAWL, ratchet	1
43	BOLT, 10 x 40	1
44	SPRING	1
48	SCREW	4
59	RATCHET	1



#### **Related Kits:**

The following optional replacement kits are available for use when replacing the ratchet and latch. Contact your Graco Distributor or Graco Customer Service at 612-623-6928 or 1-800-533-9655 (toll free).




**Swivel Replacement Kit:** 24C993 or 24C994

**Swivel Seal Replacement Kit:** 24D134

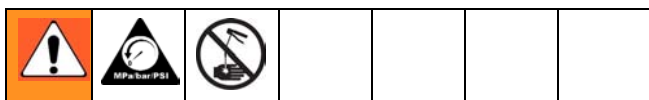
**Spool Replacement Kit:** 24C998

**Hose Replacement Kit:** 24C986, 24C987, 24C988, 24C989, 24C990, 24C991, 234C992

# Warnings

 <b>WARNING</b>	
	<b>SKIN INJECTION HAZARD</b> High-pressure fluid from dispense valve, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. <b>Get immediate surgical treatment.</b> <ul style="list-style-type: none"> <li>Do not point dispense valve at anyone or at any part of the body.</li> <li>Do not put your hand over the end of the dispense nozzle.</li> <li>Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>Follow <b>Pressure Relief Procedure</b> in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.</li> </ul>
	<b>MOVING PARTS HAZARD</b> Moving parts can pinch or amputate fingers and other body parts. <ul style="list-style-type: none"> <li>Keep clear of moving parts.</li> <li>Do not operate equipment with protective guards or covers removed.</li> <li>Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> in this manual. Disconnect power or air supply.</li> </ul>

## Pressure Relief Procedure



1. Close the supply pump's bleed-type master air valve (required for pneumatic systems) (FIG. 1).

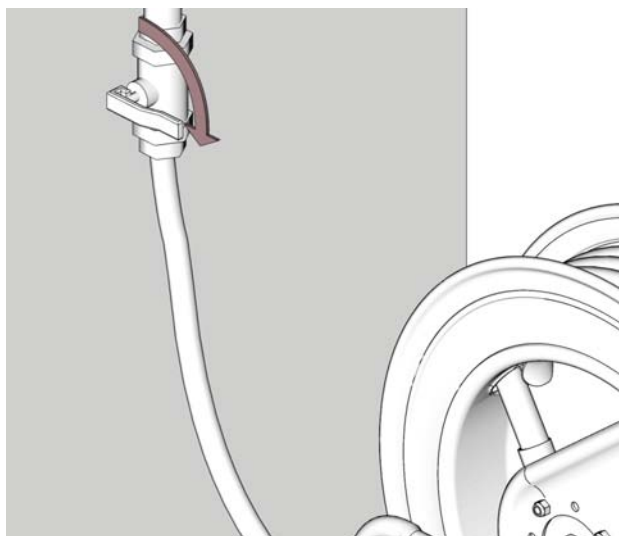


FIG. 1

2. Trigger fluid valve into a waste container until pressure is relieved (FIG. 2).



FIG. 2

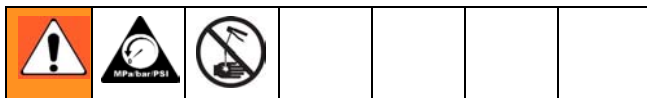
3. Leave the fluid valve open until you are ready to use the system again.

*If you suspect that the dispensing valve, extension, or grease fitting coupler is clogged, or that pressure has not been fully relieved after you have followed the steps above, **very slowly** loosen the coupler or hose end coupling to relieve the pressure gradually, then loosen it completely. Then clear the clog.*

## Disassembly

**NOTE:** Part numbers provided in these instructions correspond to the part numbers used on the assembly drawing provided in the XD30 High Capacity Hose Reel Instruction Manual.

Unless otherwise noted, do not discard removed parts. They will be reused for reassembly.



1. **Relieve the pressure** (page 2).



### Never allow the reel to spin freely!

Most hose reel spools are replaced due to a broken spring. Even though the spring is broken, there may still be tension left in the spring which could cause the reel to spin freely. Doing so causes the reel to spin out of control, which could cause serious injury if you are hit by the hose or other moving parts.

To ensure all tension is completely removed from the spring, decrease spring tension using the procedure provided on page 9.

2. **Decrease spring tension** (page 7).

3. Remove reel from service by removing 4 screws (A) holding reel base to mounting surface (FIG. 3)

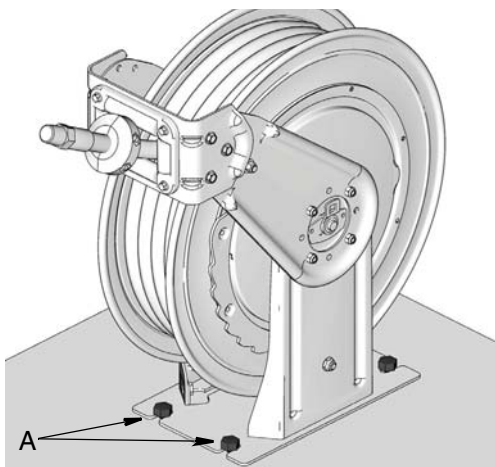


FIG. 3

4. Remove nuts (51) and screws (50) to remove hose stop (49) from end of hose (FIG. 4).

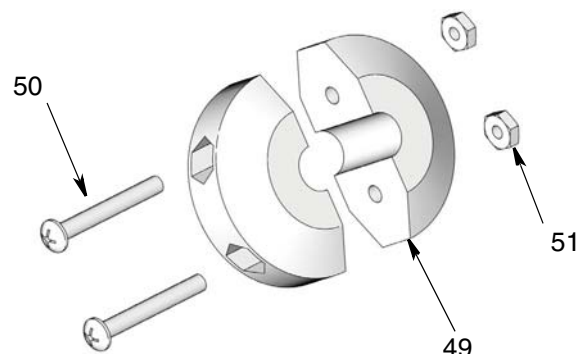


FIG. 4

5. Disconnect hose fitting (B) from swivel fitting (23) (FIG. 5).

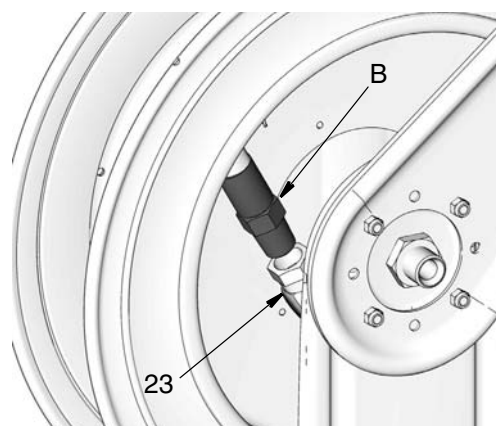


FIG. 5

Unless otherwise noted, steps 6 - 11 refer to FIG. 7.

6. Remove large nut (32).
7. Remove two screws (27) holding pedestal (26) to base (24) and three screws (52) and nuts (53) holding hose guide (31) to guide arm (30).
8. Completely remove guide arm and pedestal assembly (26 / 30) and set it aside to reinstall on the new spool. These parts do not have to be disassembled.

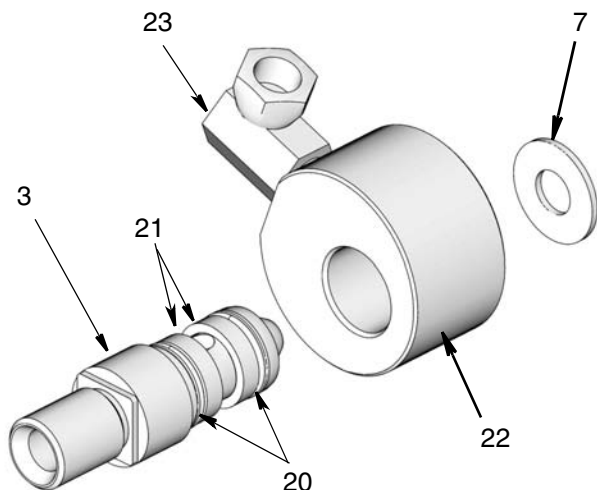


FIG. 6

9. Lay hose reel with spool side down so you can easily access the remaining installed guide arm and pedestal (24 / 30). Remove long bolt (18) and washers (15 / 16).

**NOTE:** The swivel assembly is held in place by the tension created when bolt (18) is tightened and securely in place. When this tension is removed by loosening the bolt, the swivel and swivel shaft assembly parts (3 / 22) and washer (7) may come apart (FIG. 6).

Examine swivel assembly and o-rings. If these parts are damaged, replacement kits for the Swivel Assembly (24C993 or 24C994) or just the Swivel Seals (24D134) are available. Contact your local Graco Distributor or Graco Customer Service to order this kit.

10. Remove snap ring (25).
11. Remove guide arm and pedestal base (24 / 30) as one piece.

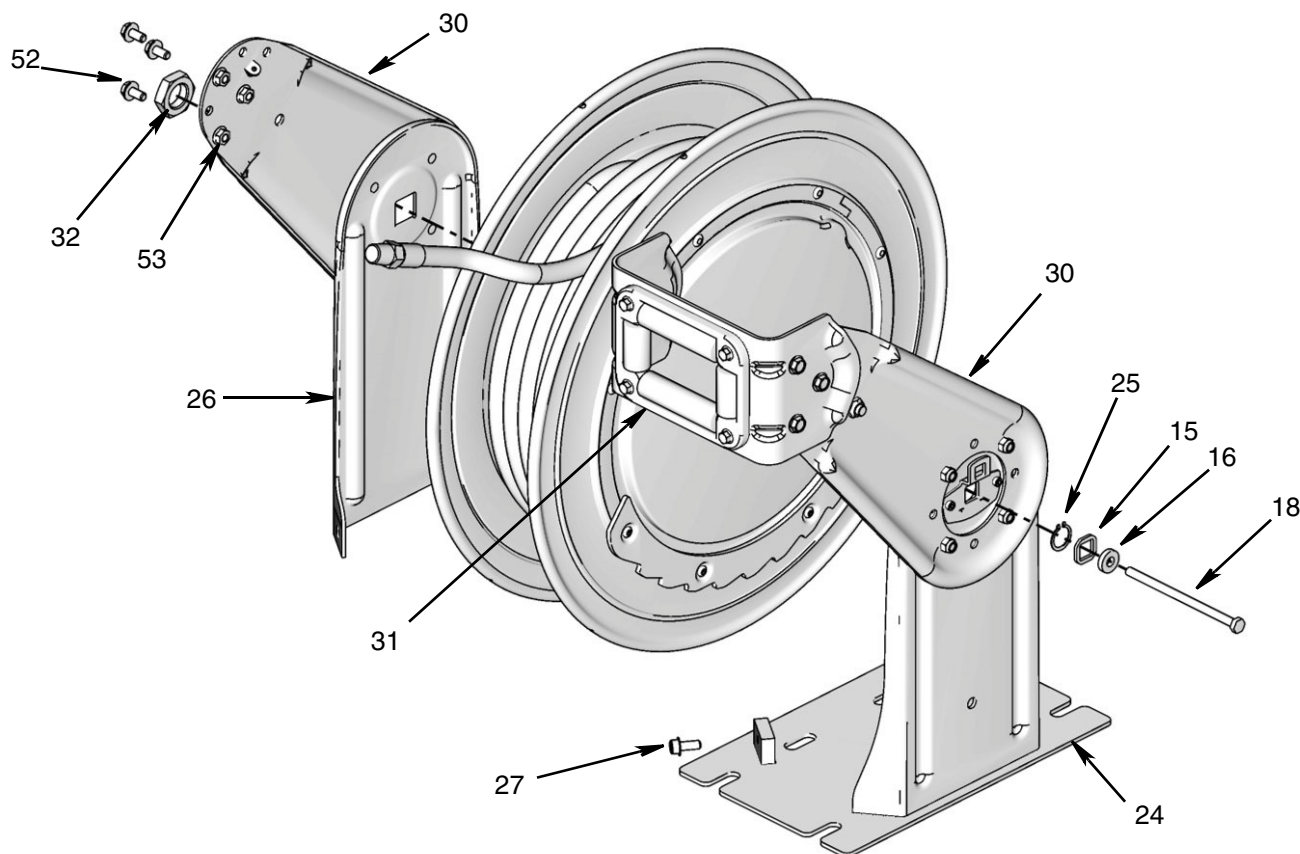


FIG. 7

12. Remove nut (40) and bolt (43), bushing (41), pawl (42) and spring (44) from arm (FIG. 8). Discard these parts. Use new parts included in the kit for reassembly.

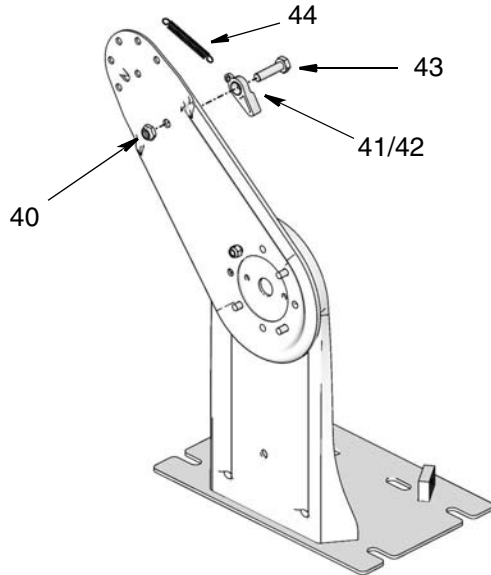


FIG. 8

13. Remove screws (48) and ratchet (59) from spool (FIG. 9). Discard these parts. Use new parts included in the kit for reassembly.

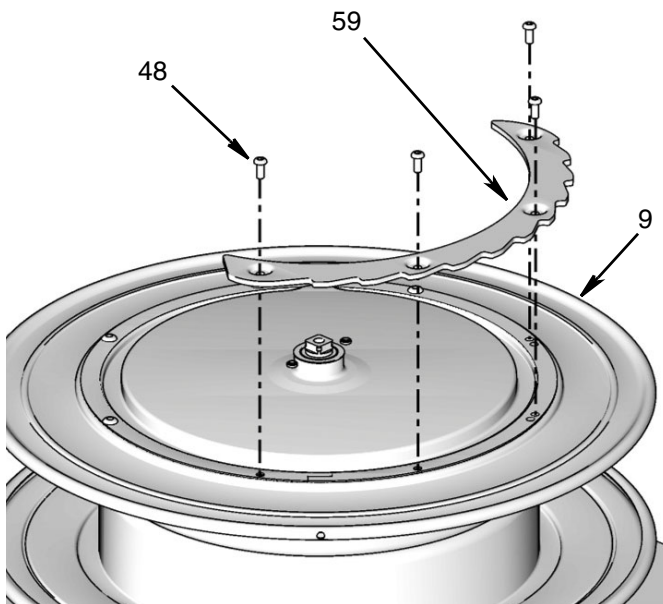


FIG. 9

## Reassembly

1. Install new pawl (42), bushing (41), spring (44), nut (40) and bolt (43) to guide arm (30). Tighten bolt securely (FIG. 10).

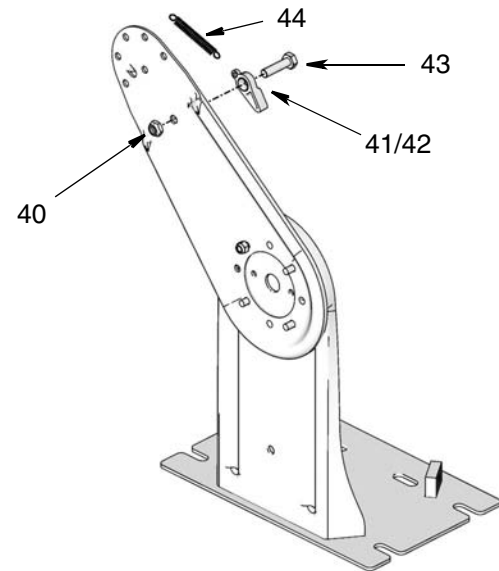


FIG. 10

2. Place spool (9) on its side on a work bench (FIG. 11).

**NOTE:** It is easier to reattach the guide arm and pedestal assembly to the spool if the spool is supported and somewhat level. Placing a couple blocks of 1" thick scrap wood under the spool as shown in FIG. 11 will help support the spool during the arm installation.

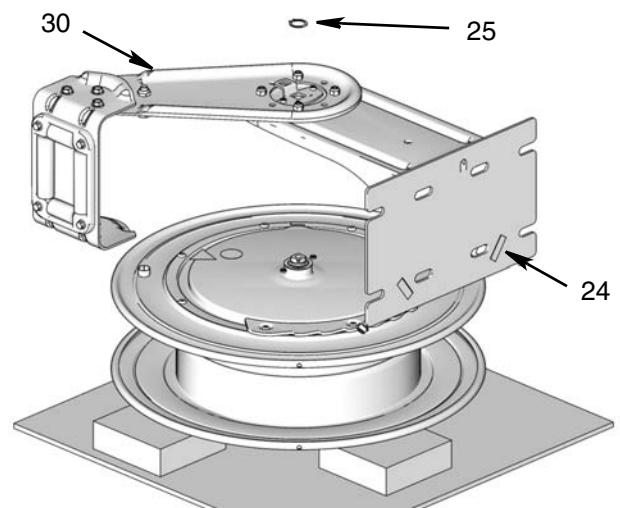
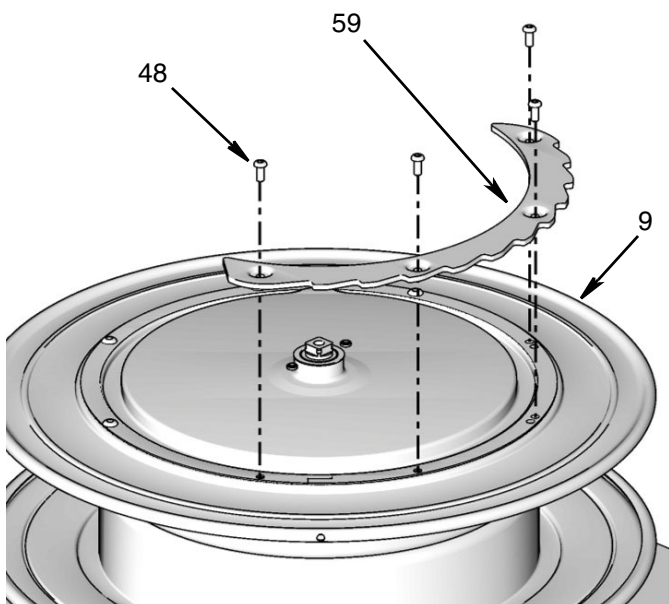


FIG. 11



## Warnings

3. Install ratchet (59) to side of spool using screws (48) (FIG. 12).



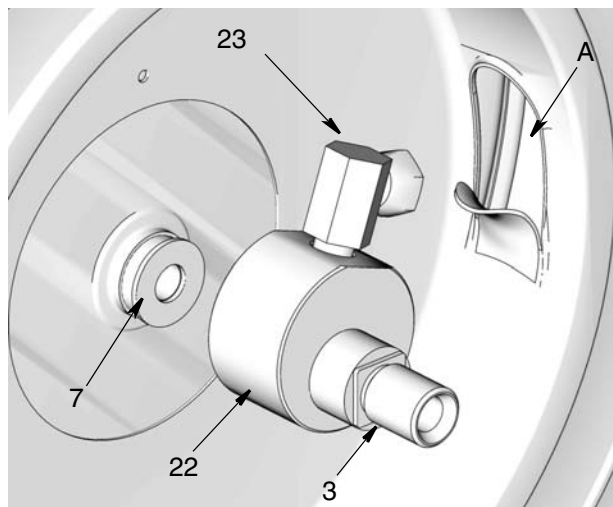
**FIG. 12**

4. Position guide arm and pedestal base (24 / 30) assembly over spool. Adjust as needed to correctly align parts (FIG. 11).

5. Replace snap ring (25) (FIG. 11, page 5).

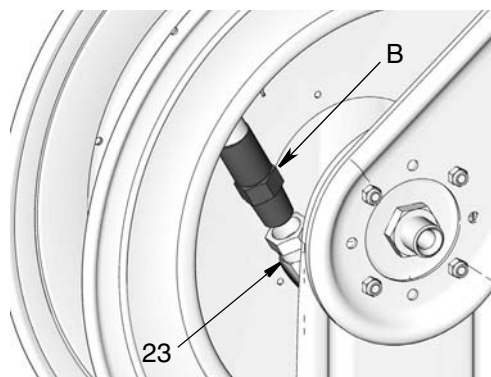
Unless otherwise noted, steps 6 - 13 refer to FIG. 7, page 4.

6. Install washers (15 / 16) over end of bolt (18) and slide them over the threads to the bolt head.
7. Slide bolt (18) through hole in center of spool. Do NOT tighten bolt.
8. Stand hose reel assembly upright on the base (24).
9. Install swivel assembly (3 / 22 / 23) and (if removed) washer (7) in spool. Align fitting (23) with opening (A) in side of spool. For hose reel to operate correctly, these parts must be aligned correctly (FIG. 13).



**FIG. 13**

10. Tighten bolt (18).
11. Align pedestal assembly (26) to base (24). Install 2 screws (27). Tighten and torque screws to 20-30 ft. lbs (89 - 133 N.m).
12. Align guide arm (30) and hose guide (31). Install and tighten screws (52) and nuts (53).
13. Install large nut (32). Tighten and torque nut to 85-105 ft. lbs (378 - 467 N.m).
14. Insert the hose fitting end (B) of hose through the hose guide (31) and connect hose end to the hose reel swivel fitting (23) (FIG. 14). Tighten securely.



**FIG. 14**

15. Reinstall hose reel to wall, ceiling or truck bed.
16. Insert end of hose through hose guide. Install stop to end of hose.
17. Set spring tension following Adjusting Spring Tension instructions on page 6.

# Adjusting Spring Tension



## IMPACT HAZARD

The spring is always under great tension and could be propelled or uncoil with enough force to cause serious injury.

- The hose reel spring is not a serviceable part. Do not attempt to replace or service the spring.
- Always grasp ratchet handle firmly with both hands when adjusting tension.
- When decreasing spring tension, never attempt to turn ratchet more than 1/4 turn with each push-in motion.

Uncontrolled spinning of the hose reel could cause serious injury if you are hit by the hose or a tool.

- Never allow reel to spin freely.
- The reel must be bolted securely in place when making adjustments.

## Decreasing Spring Tension

1. If it is not already loose, loosen (A) 3-5 turns. Do not remove (A)! (FIG. 15).

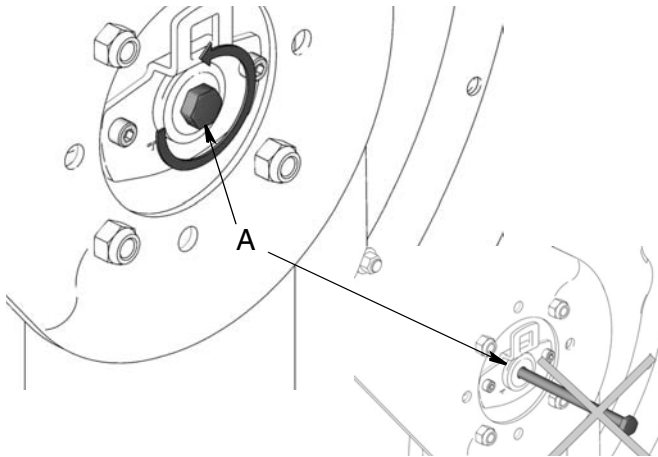


FIG. 15

2. If they are not already loose, loosen (B) 3-5 turns. Do not remove (B) yet (FIG. 16).

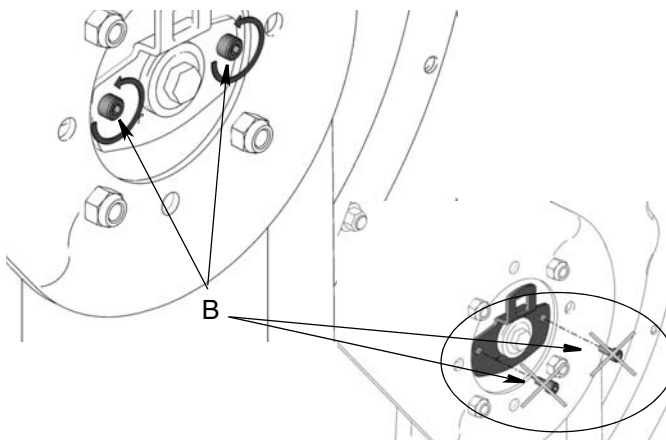


FIG. 16

3. Insert ratchet (C). Then remove screws (B) (FIG. 17).

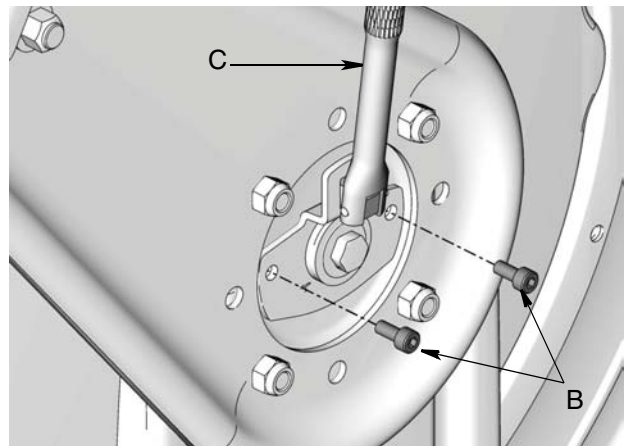


FIG. 17

4. Turn ratchet (C) one full turn counter-clockwise (FIG. 18).

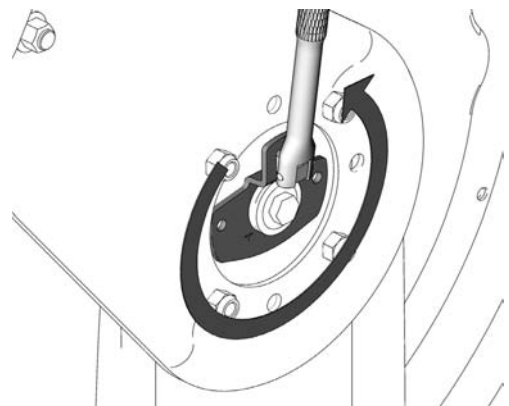
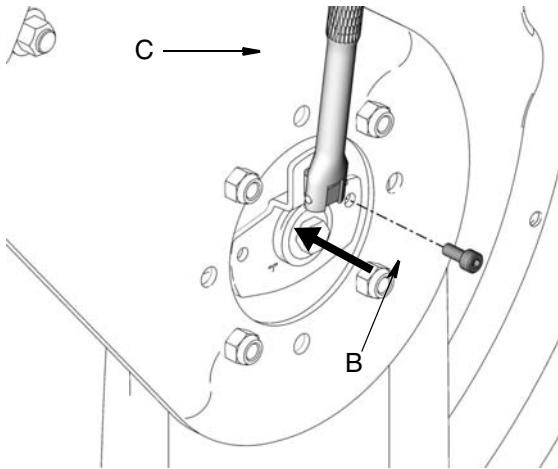


FIG. 18

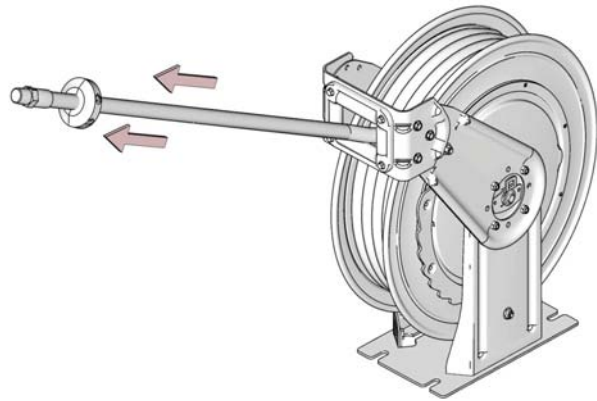
## Adjusting Spring Tension

5. Replace one screw (B). Leave ratchet (C) in place (FIG. 19).



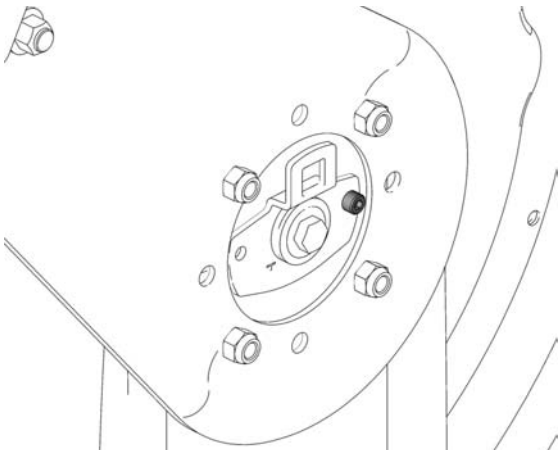
**FIG. 19**

7. Pull hose to test tension. Repeat 3 - 7 if necessary (FIG. 21).



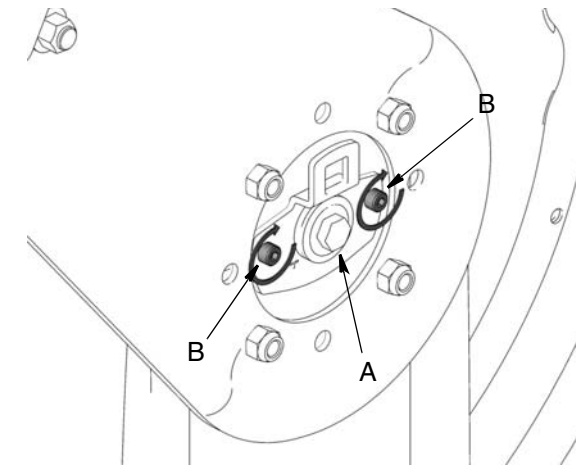
**FIG. 21**

6. Remove ratchet (C) (FIG. 20).



**FIG. 20**

8. Replace and tighten screws (B) and (A) (FIG. 22).



**FIG. 22**



## Increasing Spring Tension

1. Loosen, but **DO NOT REMOVE**, bolt (A) (approximately 3 to 5 turns) (FIG. 23).

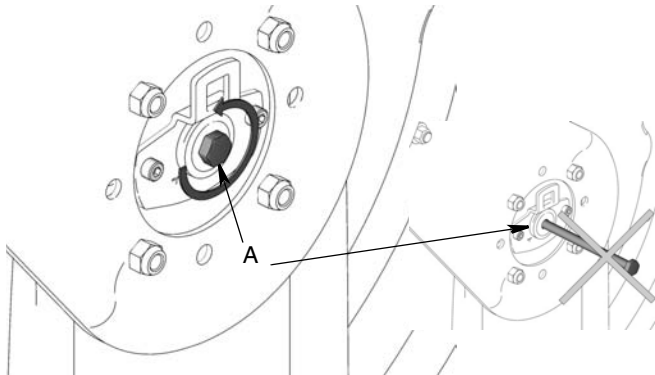


FIG. 23

2. Loosen screws (B) approximately 3 to 5 turns. **Do not remove screws (B) yet** (FIG. 24).

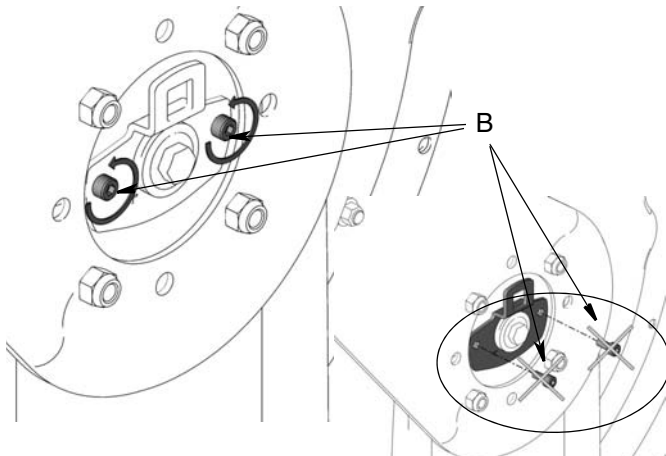


FIG. 24

3. Insert ratchet (C) in slot (D) first, then entirely remove screws (B) (FIG. 25).

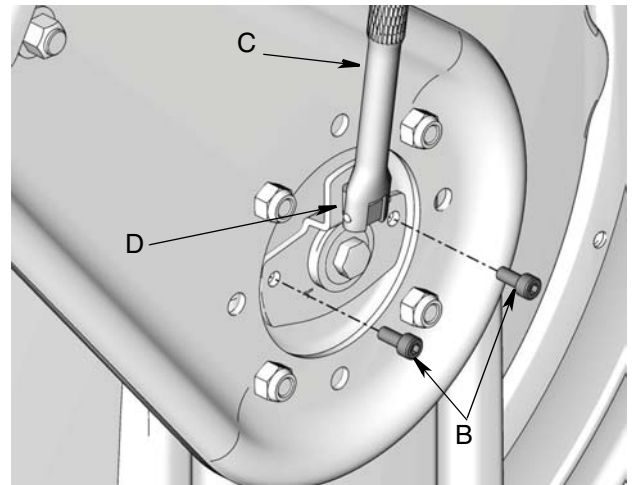


FIG. 25

4. Tighten spring by turning ratchet (C) clockwise. Refer to Table 1 to determine the number of full turns recommended for setting the spring tension for your hose reel model (FIG. 26).

**Table 1: Recommended Turns to Set Spring Tension**

Model	Approx. No. Turns From Fully Relaxed Position to Increase Spring Tension
HSHC5	12
HSLC8	7
HSLD5	10
HSLE3	12
HSMC8	7
HSMD5	13
HSPB8	9

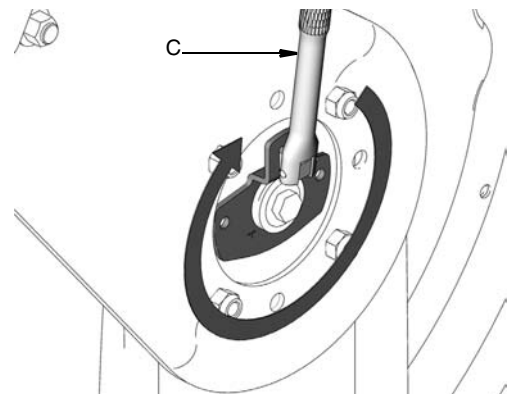


FIG. 26

5. Leave ratchet (C) in place. Replace one screw (B) (FIG. 27).

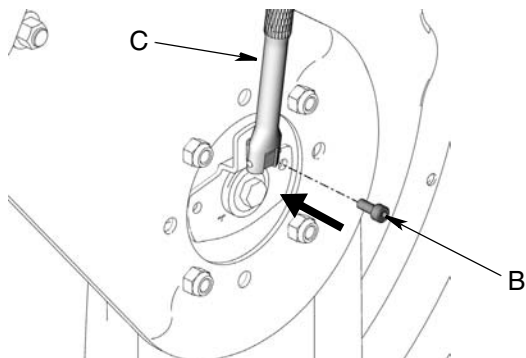


FIG. 27

6. Remove ratchet (C) from opening (D) (FIG. 28).

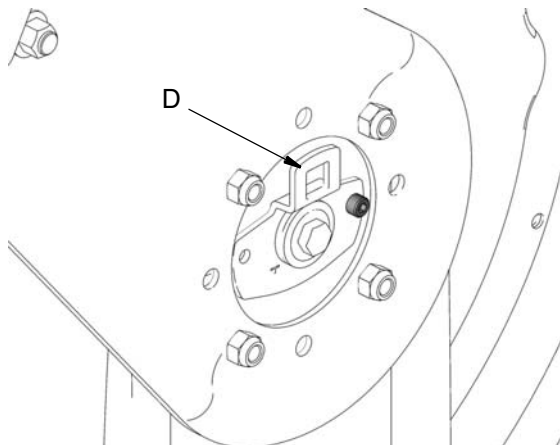


FIG. 28

7. Pull on hose to test tension (FIG. 29).

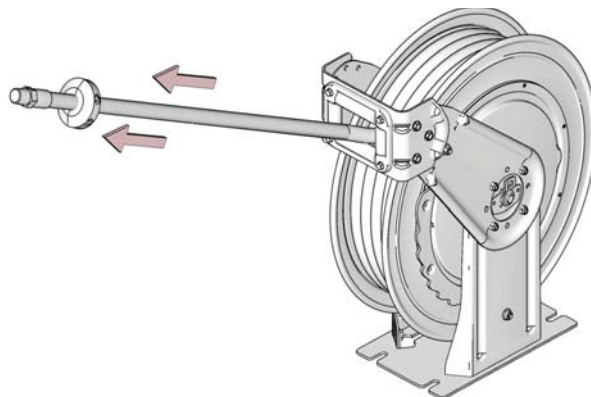


FIG. 29

8. If spring tension is still a little loose, reinsert ratchet (C) in slot (D) and remove screw (B) again.
9. Turn ratchet (C) one full turn clockwise.
10. Repeat Steps 5 - 7 until tension is tight.

**OR**

11. If spring tension is too tight, follow instructions for Decreasing Spring Tension, beginning on page 7.

When spring tension is set correctly, replace and tighten screws (B) and bolt (A).

## Installing Dispensing Device

Install meter or dispense device to end of hose.

*All written and visual data contained in this document reflects the latest product information available at the time of publication.  
Graco reserves the right to make changes at any time without notice.*

*This manual contains English. MM 3A0142*

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