

INSTRUCTIONS-PARTS LIST

This manual contains **IMPORTANT WARNINGS and INFORMATION**
READ AND RETAIN FOR REFERENCE



308-271

Rev. B

Supersedes Rev. A

First choice when
quality counts.™

PUMP REPAIR KIT

Kit 235-186, for 3 GPM TexSpray Pump

Kit 235-973, for 2 GPM TexSpray Pumps

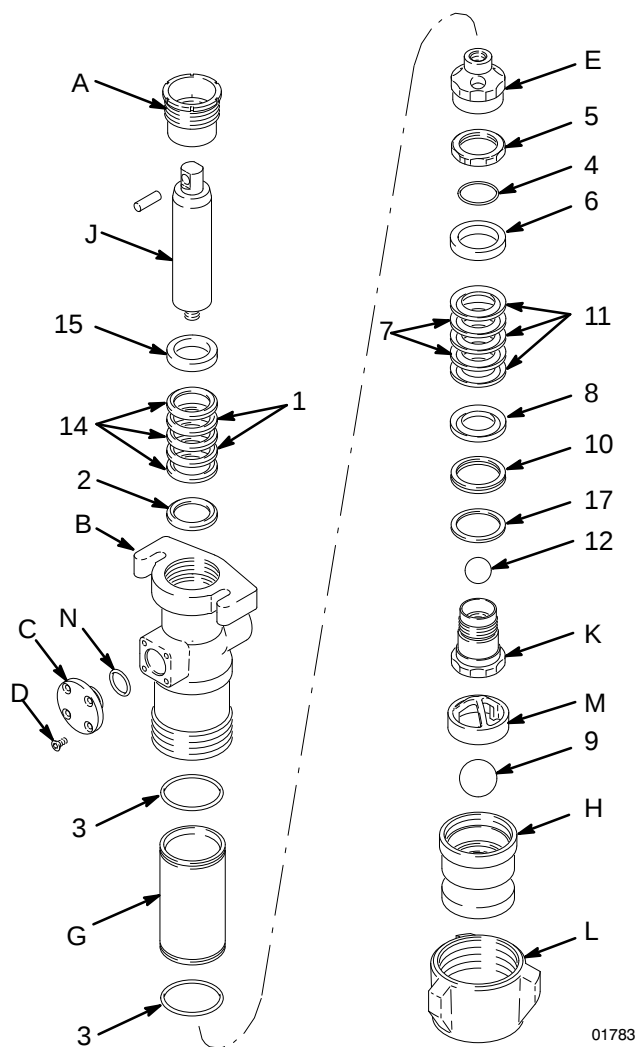
⚠ WARNING



MOVING PARTS HAZARD

To reduce the risk of injury, including injury from moving parts, always follow this procedure when not spraying and before checking or adjusting the system.

1. Turn the Easy Spray Control to OFF.
2. Turn the engine stop lever to OFF.



Ref No.	235-186 Part No.	235-973 Part No.	Description	Qty
1	188-560	188-656	V-PACKING, leather	2
2	187-939	188-568	GLAND, male	1
3	188-557	188-557	O-RING	2
4	188-559	188-555	O-RING, Viton®	1
5	188-434	188-578	NUT	1
6	188-432	188-566	GLAND, male	1
7	188-561	188-657	V-PACKING, leather	2
8	188-433	188-565	GLAND, female	1
9	102-973	102-973	BALL, intake	1
10	188-558	188-556	U-CUP SEAL, poly/Viton®	1
11	187-072	188-553	V-PACKING, poly	3
12	102-972	101-859	BALL, piston	1
14	187-071	188-550	V-PACKING, poly	3
15	187-070	188-567	GLAND, female	1
16	111-829	111-829	U-CUP PACKING for pressure drain valve	1
17	188-627	188-626	WASHER, backup	1

Disassembly

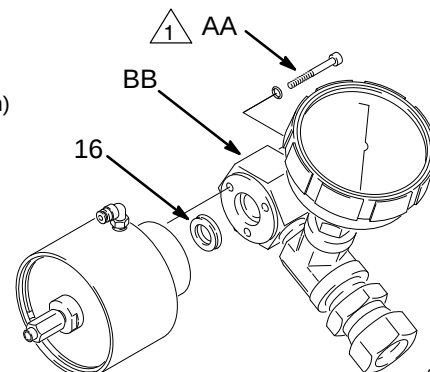
1. Refer to the sprayer manual for how to remove the pump from the sprayer.
2. Use a hammer on tabs of lug nut (L) to loosen the foot valve housing.
3. Disassemble pump. Do not disassemble piston rod (J) from piston housing (E) unless one of those parts needs to be replaced; the joint must be heated before disassembly.
4. Use a compatible solvent to thoroughly clean all parts and remove all traces of sealant.
5. Inspect the parts, including the seats, for nicks and scratches. Replace worn or damaged parts as they cause the packings to wear more quickly and may result in poor pump performance.

To replace pressure drain valve packing

Remove the three screws (AA), pull off the cap (BB). Remove the packing (16). Install the new packing, so lips face into the cap. Reassemble drain valve. Torque screws as shown.



Torque to
40-50 in-lb
(45-55 N.m)



GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441

Graco Inc. is registered to I.S. EN ISO 9001

01792

Reassembly

1. If disassembled, clean piston rod (J) and piston housing (E) threads thoroughly. Apply Loctite® primer and then red Loctite to threads and torque to 80 to 100 ft-lb (110 to 135 N.m). Allow to dry at least one hour.
2. Assemble onto piston seat (K): backup washer (17); u-cup seal (10) with lips toward ring; female gland (8) and then alternate the white (7) and purple packings (11), all with lips facing up; male gland (6).
3. Install nut (5) on the piston seat (K). Hand tighten the nut very firmly.
4. Install the ball (12) in the piston housing (E).
5. Apply blue Loctite (supplied in kit) to the piston seat (K) threads and screw the assembly onto the rod, hand tight.

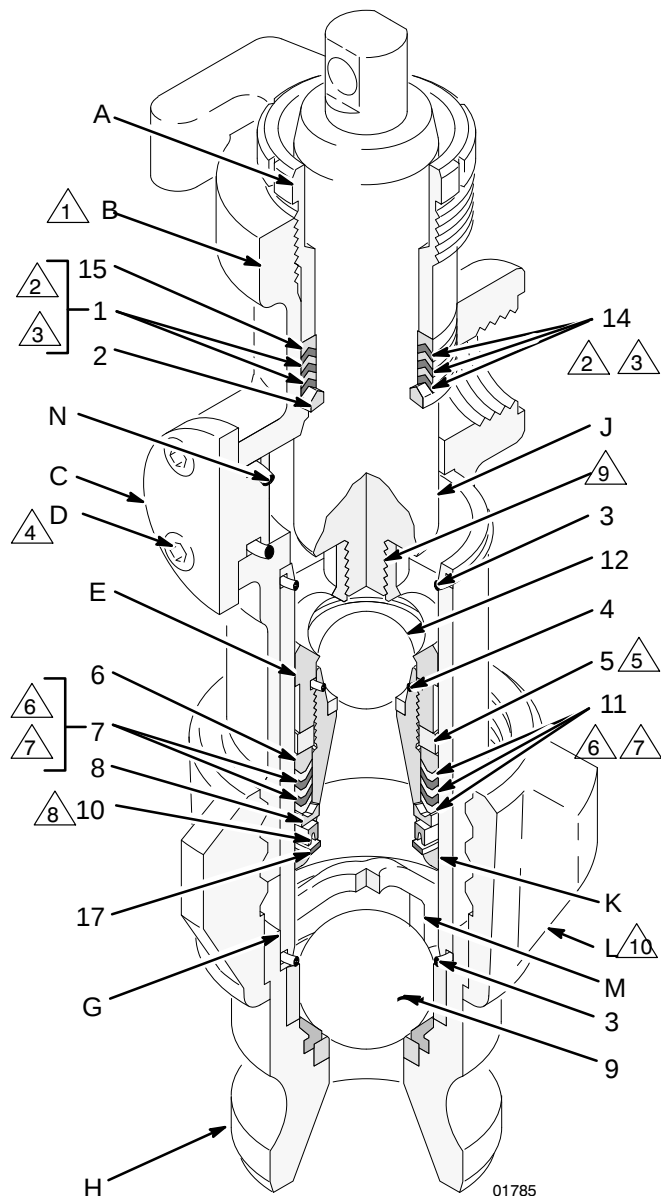
TIP: Use a felt tip marker to draw a line across the male gland, nut and piston housing to use as a visual reference when tightening the piston and nut.

6. Place the piston seat (K) in a vise. Hold the packing nut (5) steady with one wrench and use a torque wrench to tighten the rod assembly to 90–125 ft-lb (122–170 N.m). Make sure the line you made in step 5 is still aligned.
7. Grease the throat of the intake housing (B). Assemble into the throat: male gland (2), flat side first; alternate white packings (14) and purple packings (1) and then the female gland, all with lips facing down. Install the packing nut (A) and tighten firmly by hand.
8. Grease the piston packings and inside the throat packings.
9. Grease the new o-rings (3) and install on the cylinder (G). Slide the cylinder into the bottom of the intake housing (B) until you hear it snap.
10. Guide the piston rod assembly into the cylinder so the piston rod flats are aligned with the opening in the front of the pump. Push down until you hear another snap. Turn the pump over and push the assembly the rest of the way in.
11. If the rod hole is not aligned with the front of the pump, use a screw driver through the rod hole to turn it into place.
12. Grease the o-ring (N), install on the plug (C), install the plug and the screws (D) loosely. Torque the screws to 50–70 in-lb (5.6–8 N.m) in a crosswise pattern.
13. Install the ball (9) and ball guide (M) into the foot valve. Place the pump assembly on the foot valve and push into place.
14. Screw on the lug nut (L). Use a hammer to tighten the lug nut securely.

TIP: The lug nut must be very tight or the pump will not prime. Use a felt tip marker to draw a line between the intake housing and the lug nut to use as a visual alignment reference during operation.

15. Install the pump and prime it. Check the packing nut (A) and tighten it just enough to prevent leakage.

- | | |
|--|---|
| 1 Grease inside of throat before installing packings | 6 Lips of v-packings on piston must face up |
| 2 Lips of v-packings in throat must face down | 7 Grease outside of packings before installing |
| 3 Grease inside of packings after installing | 8 Lips of U-cup seal on piston must face down |
| 4 Torque 50–70 in-lb (5.6–8 N.m) in crosswise pattern | 9 If piston seat and rod were separated, apply Loctite primer, then red Loctite, and torque to 80–100 ft-lb (110–135 N.m) |
| 5 Torque piston housing to piston seat (K) to 90–125 ft-lb (122–170 N.m) without changing alignment of packing nut | 10 Tighten with hammer |



Sales Offices: Minneapolis, Detroit, Los Angeles
Foreign Offices: Belgium, Canada, England, Korea, France, Germany, Hong Kong, Japan

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441

<http://www.graco.com>

©1998–1990 Graco Inc. 308–271 Rev. B February 1998 PRINTED IN U.S.A.