



Pump and Gear/Yoke Replacement Kit

312186 rev.A

Use with MAGNUM SR7 and ProX Model Sprayers

SR7 Pump Replacement Kit: 288704
ProX7 Pump Replacement Kit: 288703
ProX9 Pump Replacement Kit: 288702

SR7; ProX7 & ProX9, Gear/Yoke Replacement Kit: 289102
3000 psi (21 MPa, 207 bar)



Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions. For detailed sprayer information and warnings, see your Operation manual.

<p>To reduce the risk of fluid injection or splashing in the eyes or on the skin, relieve all fluid pressure in system before you install, remove, or replace any parts. See the Pressure Relief Procedure provided in your Operating Instruction manual.</p>						

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SR7 Pump Replacement Kit - 288704

CAUTION

When repairing or cleaning the pump, never submerge the pump in water or allow fluid to enter the pressure control.

Disassembly

1. Thoroughly flush pump (M), if possible.
2. Unplug electrical cord, and **relieve pressure**.
3. Remove suction tube assembly (W) and drain tube (U).
4. Remove AutoPrime™ cover (A).
5. Remove the four cover screws (B) and front cover (C).
6. Remove yoke (D) and guide rods (E). Clean if necessary.
7. Disconnect pressure control wiring harness (F) and AutoPrime (G) wiring harness from control board connector (H) at back of drive housing (J). **Using fingernail or tip of small, flat-blade screwdriver, press tab on right side of retention clips (K) to release harness wires.**
8. Remove pump (M) from drive housing (J).
9. Place pump (M) on workbench or in vise.
10. Unscrew AutoPrime solenoid (Z).
11. Unscrew pressure control switch knob (P). Verify the o-ring seal (R) is removed from pump (M).
12. Remove gear (Y). Clean if necessary.

2. Apply one or two drops of thread locker (included in kit) to threads of pressure control switch (P). Screw pressure control switch knob into new pump (M). Torque to 140 to 160 in-lb (16 to 18 N•m). **Do not overtighten, or damage could occur.**
3. Screw AutoPrime solenoid (Z) into pump (M). Torque to 200-240 in-lbs (22.6 -27.1 N•m).
4. Use applicator brush to spread entire contents of grease tube (included in kit) into gear teeth (Y). Grease must be worked into roots of gear teeth to ensure long life. Reinstall gear.
5. Route AutoPrime wiring harness (G) through AutoPrime cover (A) and retention clip (K) and pressure control wiring harness (F) through retention clip (K) and connect to control board connector (H) at back of drive housing (J) as shown in wiring diagram, page 4.
6. Secure wires (F and G) in place by closing retention clips (K) securely over wires.
7. Install pump (M) on mounting pins (S). **Make sure the plastic washers (T) are between the drive housing (J) and the pump (M) and that the pressure control wires (F) and AutoPrime wires (G) are not pinched between pump and drive housing.**
8. Install yoke (D) with rod cap in slot of yoke, as shown in **Rod/Yoke Detail**.
9. Check final assembly against **Drive Train Detail**.
10. Install front cover (C) and cover screws (B). Torque to 110-120 in.-lbs (12.4 - 13.6 N•m).
11. Install AutoPrime cover (A).
12. Install suction tube assembly and drain tube (W) and drain tube (U) on new pump (M).

Installation

- Before you begin reassembly, read all **Installation Notes** on page 3. For more information, refer to assembly illustrations on page 4.
1. Examine pressure control switch (P) to verify o-ring seal (R) is in place. If it is not installed on pressure control switch, install o-ring seal.

SR7 Gear/Yoke Replacement Kit: 289102

Disassembly

1. Unplug electrical cord and **relieve pressure**.
2. Remove the four cover screws (B) and front cover (C).
3. Remove yoke (D) and guide rods (E).
4. Carefully slide pump (M) forward 3/8 in. (10 mm) on its mounting pins (S) and remove gear (Y). **You do not have to remove the pump to remove the gear.**

Installation

- Read all **Installation Notes** on page 3. For more information, refer to assembly illustrations on page 4.
1. Use applicator brush to spread entire contents of grease tube included in kit) into teeth of new gear (Y). Grease must be worked into roots of gear teeth to ensure long life.
 2. Carefully position new gear (Y) in drive housing (J). Slide pump (M) back into place.
 3. Follow Steps 5-11 of Pump Replacement Kit.

Installation Notes for page 4

To prevent misalignment, assemble with sprayer tipped onto back of enclosure.



Take care to not pinch wiring harnesses (F and G) between pump (M) and any part of drive housing (J) or between front cover (C) and drive housing. Use a needle-nose pliers to remove harness.



For best cover (C) alignment, tighten lower two cover screws (B) first, then top two. Torque screws to 110-120 in.-lbs (12.4 - 13.6 N•m).



For yoke (D) installation, bearing (X) on gear (Y) must touch top of pump rod. Turn gear to move eccentric bearing to proper height.



If yoke guide rods (E) drop out of position during assembly, damage will occur when cover is tightened. Always check position of guide rods before tightening cover.

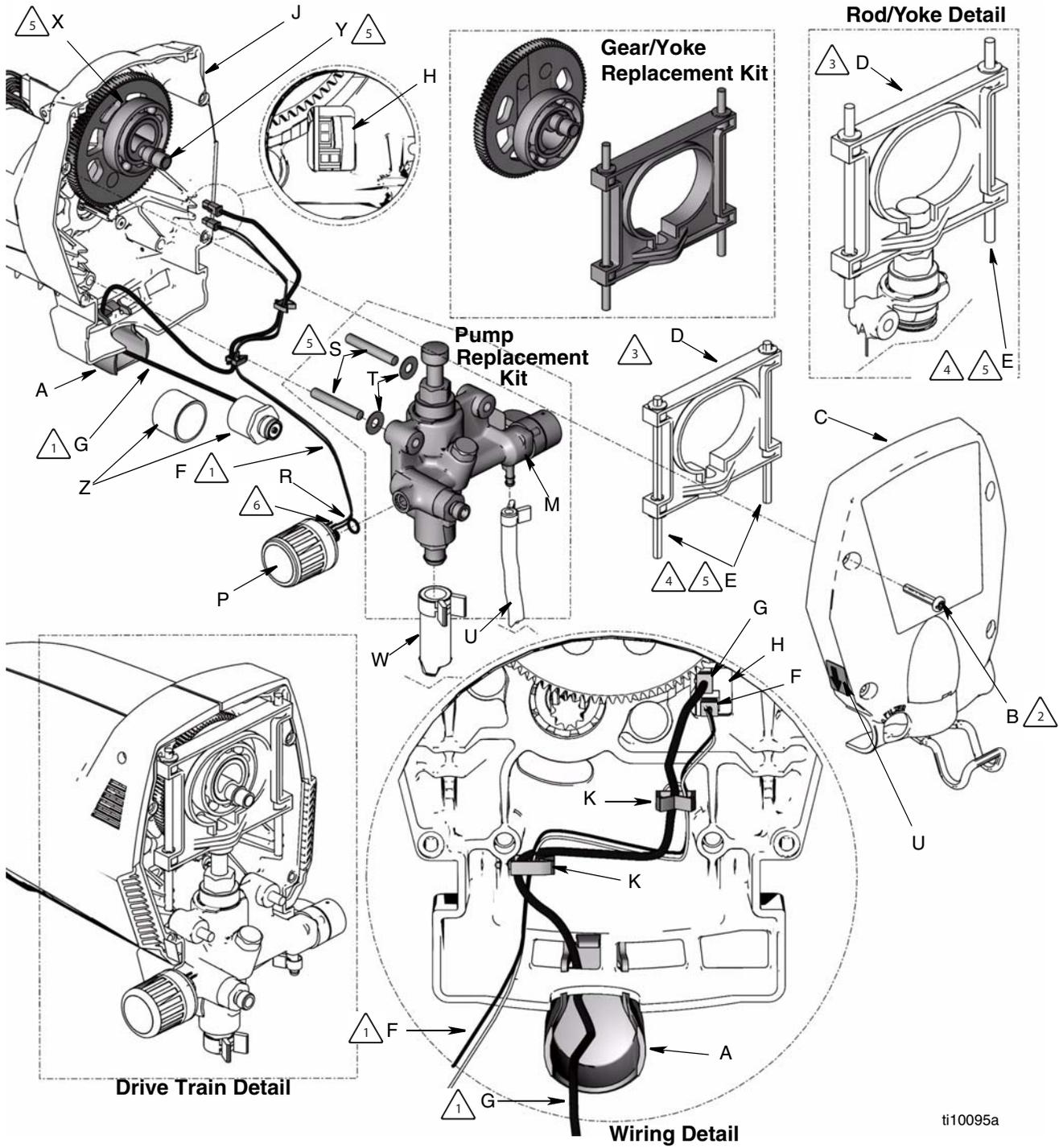


Apply light coat of oil.



Apply one or two drops of thread locking adhesive (included in kit) 6 to threads of pressure control switch (P).

SR7 Model Sprayers



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ProX7 and Prox9 Pump Replacement Kit - 288703

CAUTION

When repairing or cleaning the pump, never submerge the pump in water or allow fluid to enter the pressure control.

Disassembly

1. Thoroughly flush pump (M), if possible.
2. Unplug electrical cord, and **relieve pressure**.
3. Remove suction tube assembly (W) and drain tube (U).
4. Remove the four cover screws (B) and front cover (C).
5. Remove yoke (D) and guide rods (E). Clean if necessary.
6. Disconnect pressure control wiring harness (F) and AutoPrime wiring harness (G) from control board connector (H) at back of drive housing (J). **Using fingernail or tip of small, flat-blade screwdriver, press tab on right side of connector to release.**
7. Remove pump (M) from drive housing (J).
8. Place pump (M) on workbench or in vise.
9. Remove AutoPrime cover (A).
10. Unscrew AutoPrime solenoid (Z).
11. Unscrew pressure control switch knob (P). Verify the o-ring seal (R) also is removed from pump (M).
12. Remove gear (Y). Clean if necessary.

Installation

- Before you begin reassembly, read all **Installation Notes** on page 6. For more information, refer to assembly illustrations on page 7.
1. Examine pressure control switch (P) to verify o-ring seal (R) is in place. If it is not installed on pressure control switch, install o-ring seal.
 2. Apply one or two drops of thread locker (included in kit) to threads of pressure control switch. Screw pressure control

switch knob (P) into new pump (M), and torque to 140 to 160 in-lb (16 to 18 N•m). **Do not overtighten, or damage could occur.**

3. Screw AutoPrime solenoid (Z) into pump (M). Torque to 200-240 in-lbs (22.6 -27.1 N•m).
4. Use applicator brush to spread entire contents of grease tube (included in kit) into gear teeth (Y). Grease must be worked into roots of gear teeth to ensure long life. Reinstall gear.
5. Route pressure control wiring harness (F) and AutoPrime wiring harness (G) through AutoPrime cover (A) and retention clips (K) and connect to control board connector (H) at back of drive housing (J) as shown in wiring diagram, page 7.
6. Secure wires (F and G) in place by closing retention clips (K) securely over wires.
7. Install AutoPrime cover (A).
8. Install pump (M) on mounting pins (S). **Make sure the plastic washers (T) are between the drive housing (J) and the pump and that the pressure control wires (F) and AutoPrime wires (G) are not pinched between pump and drive housing.**
9. Install yoke (D) with rod cap in slot of yoke, as shown in **Rod/Yoke Detail**.
10. Check final assembly against **Drive Train Detail**.
11. Install front cover (C) and cover screws (B). Torque to 110-120 in.-lbs (12.4-13.6 N•m).
12. Install AutoPrime cover (A).
13. Install suction tube assembly and drain tube (W) and drain tube (U) on new pump (M).

SR7 Gear/Yoke Replacement Kit: 289102

Disassembly

1. Unplug electrical cord and **relieve pressure**.
2. Remove the four cover screws (B) and front cover (C).
3. Remove yoke (D) and guide rods (E).
4. Carefully slide pump (M) forward 3/8 in. (10 mm) on its mounting pins (S) and remove gear (Y). **You do not have to remove the pump to remove the gear.**

Installation

- Read all **Installation Notes** on page 3. For more information, refer to assembly illustrations on page 4.
1. Use applicator brush to spread entire contents of grease tube (included in kit) into teeth (Y) of new gear (Y). Grease must be worked into roots of gear teeth to ensure long life.
 2. Carefully position new gear (Y) in drive housing (J). Slide pump (M) back into place.
 3. Follow Steps 5-11 of Pump Replacement Kit.

Installation Notes for page 7

To prevent misalignment, assemble with sprayer tipped onto back of enclosure.



Take care to not pinch wiring harnesses (F and G) between pump (M) and any part of drive housing (J) or between front cover (C) and drive housing. Use a needle-nose pliers to remove harness.



For best cover (C) alignment, tighten lower two cover screws (B) first, then top two. Torque screws to 110-120 in.-lbs (12.4-13.6 N•m).



For yoke (D) installation, bearing (X) on gear (Y) must touch top of pump rod. Turn gear to move bearing to proper height.



If yoke guide rods (E) drop out of position during assembly, damage will occur when cover is tightened. Always check position of guide rods before tightening cover.

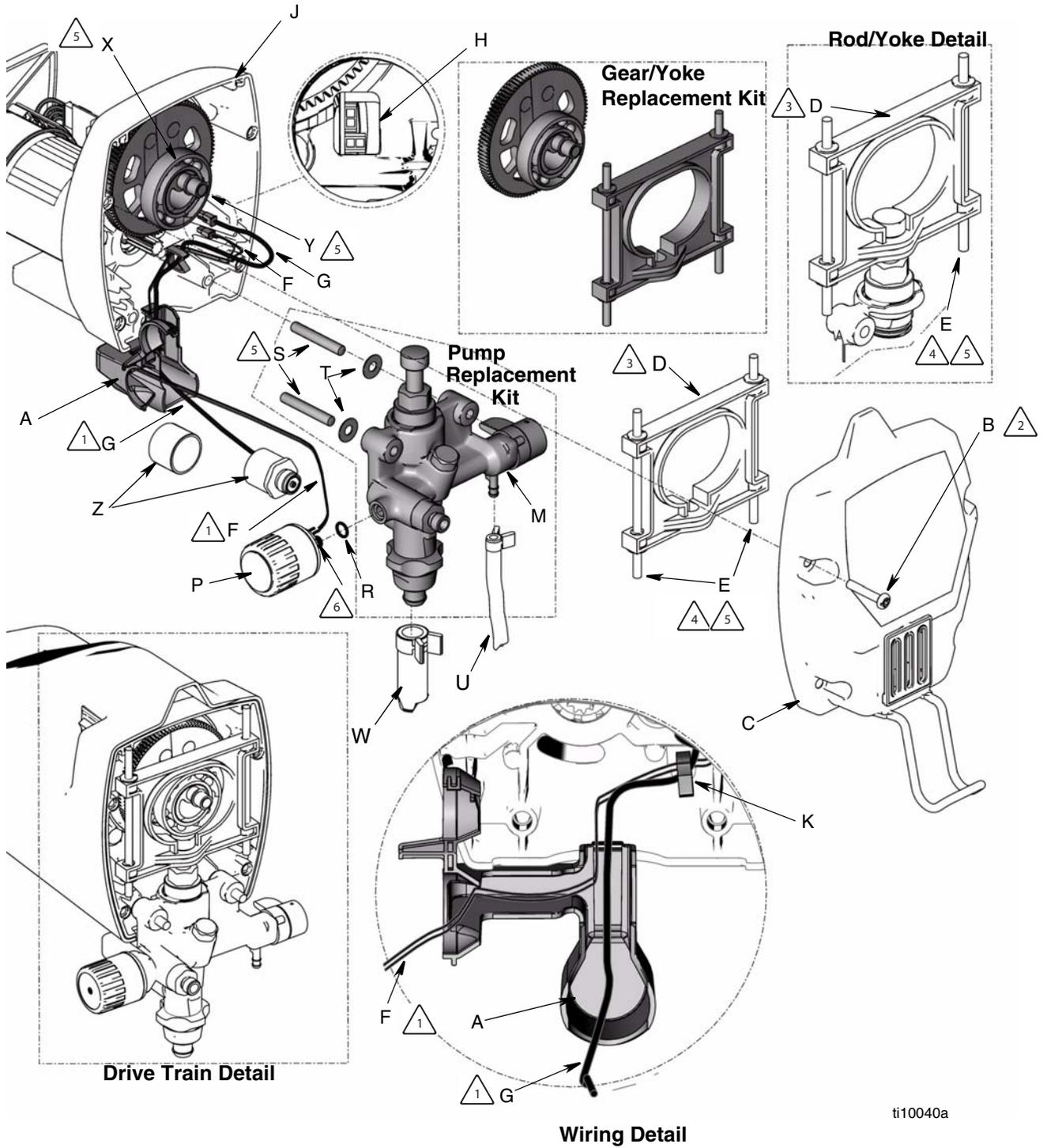


Apply light coat of oil.



Apply one or two drops of thread locking adhesive (included in kit) to threads of pressure control switch (P). Torque to 140-160 in.-lbs (16-18 N•m).

ProX7 and ProX9 Model Sprayers



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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 312186

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