



INSTRUCTIONS

This manual contains important warnings and information.
READ AND KEEP FOR REFERENCE.

GM 3000® AIRLESS PAINT SPRAYERS Clutch Replacement Kit 238-798

GENERAL REPAIR INFORMATION

WARNING



INJECTION HAZARD

The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, splashing fluid, or moving parts, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- or install or clean the spray tip.

Pressure Relief Procedure

1. Engage the gun safety latch.
2. Turn the engine switch to OFF.
3. Move the pressure control ON/OFF switch to OFF.
4. Disengage the gun safety latch. Hold a metal part of the gun firmly to a grounded metal pail. Trigger the gun to relieve pressure.
5. Engage the gun safety latch.
6. Open the pressure drain valve. Leave the pressure drain valve open until you are ready to spray again.
7. Disconnect the spark plug cable.

If you suspect that the spray tip or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, **VERY SLOWLY** loosen the tip guard retaining nut or hose end coupling to Relieve the pressure gradually, then loosen completely. Now clear the tip or hose.

Clutch

⚠ WARNING



INJECTION HAZARD

To reduce the risk of serious injury, whenever you are instructed to relieve pressure, follow the **Pressure Relief Procedure** on page 1.

NOTE: The clutch assembly (51) includes the armature (51b) and rotor (51a). The armature and rotor must be replaced together so they wear evenly. A new hub (2h) should be installed as well to ensure long clutch life.

NOTE: If the drive assembly (D) is not yet separated from the clutch housing (1), follow Steps 1 to 4. Otherwise, start at Step 5.

NOTE: Refer to Fig. 2 for this procedure.

1. Follow the **Pressure Relief Procedure**, page 1.
2. Remove the two bottom screws (59) and lockwashers (16) first, then remove the top three screws (59) and lockwashers (16).

⚠ CAUTION

The sprayer may become out of balance with the drive housing and pinion housing removed. Support the rear of the cart to prevent the partially disassembled sprayer from falling over.

1

To engine alternator.

2

Disconnect this wire before pulling drive assembly (D) from the clutch housing.

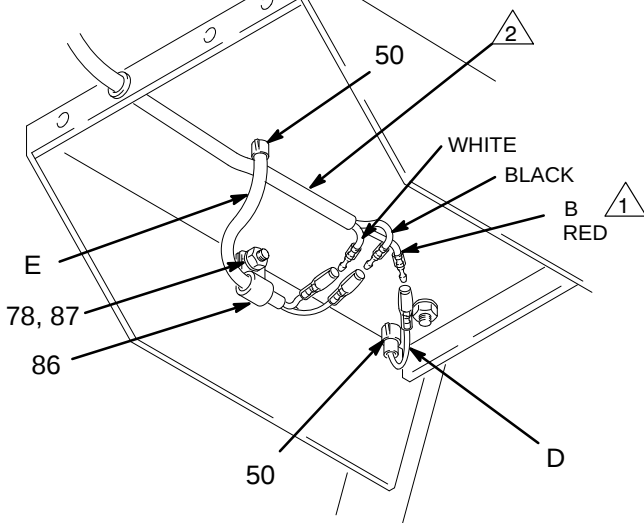


Fig. 1 Bottom View of Engine and Cart

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3. Pull the drive assembly (D) away from the clutch housing (1).
4. The armature (51b) will move with the drive assembly. Remove the armature from the pinion hub (2h).

⚠ CAUTION

Examine the splined hub (2h, Fig. 2) for wear. Replace as needed. Follow the Pinion Housing instructions, page 24, Manual 308–620.

5. There are two ways to remove the rotor (51a).
 - a. Remove the four socket head capscrews (57) and lockwashers (16). Install two of the screws in the threaded holes (E) in the rotor. Alternately tighten the screws until the rotor comes off. See Fig. 2.
 - b. You can use a standard steering wheel puller (A). However, two 1/4–28 x 3 or 4 in. long screws (B) are also needed. Replace the short screws of the steering wheel puller with the longer screws (B). Turn the screws (B) into the threaded holes (E) of the rotor (51a). Tighten the capscrew (C) of the tool until the rotor comes off. See the Detail in Fig. 2.
6. Skip ahead to **Reassembly**, on page 4.

Clutch

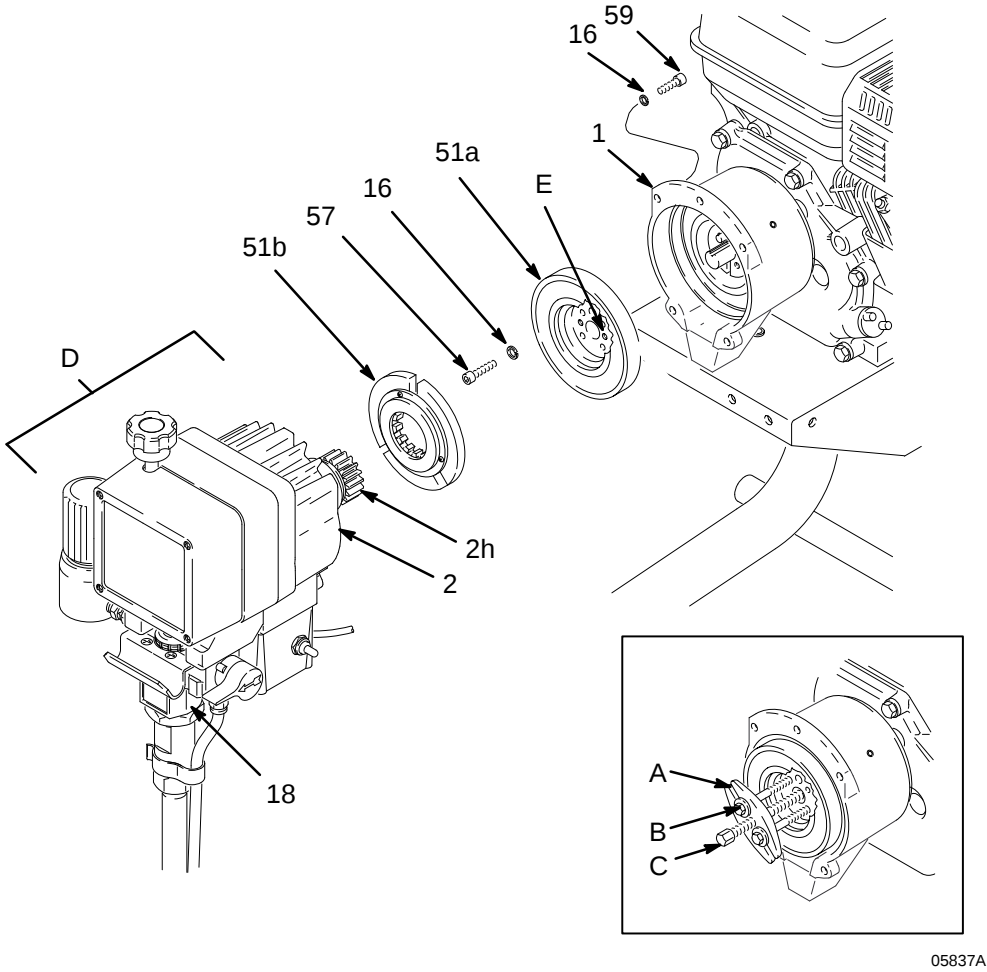


Fig. 2

Reassembly

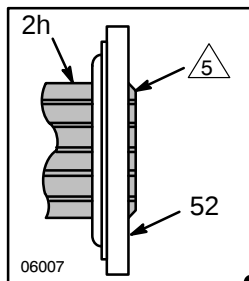
NOTE: With the autogap style armature, the gap between the rotor and the armature is critical for proper operation. The clutch kits with an autogap style armature include a cardboard spacer (p/n 186-857) to set the proper gap. This spacer is for use only during installation.

1. Clean the face of the **armature (52b)**. With the flat side of the armature facing the rotor (51a), slide the armature onto the hub (2h) in the drive/pinion assembly (D) just until the chamfered end of the hub (2h) protrudes through the armature. See Detail B, Fig. 3. There will be significant resistance. Attach the cardboard spacer, supplied with the clutch kit, to the face of the armature. Engage the tabs on the spacer with the slots in the armature or bend tabs over outside diameter of armature.

Brace the cart against a wall to keep it from rolling. Push the drive/pinion assembly onto the clutch housing (1). There will be significant resistance. When the mating surfaces of the drive/pinion assembly and the clutch housing (1) are flush, remove the drive/pinion assembly. **Remove the cardboard spacer.**

2. Assemble the **drive assembly (D)** to the clutch housing (1), using the capscrews (59) and lock-washers (16). See Fig. 3.
3. Reconnect all electrical connections. See Fig. 1.

- | | |
|---|---------------------------------------|
| △ 1 Torque the screw to 7 ft.-lb (9.5 N.m). | △ 5 Chamfered end of hub (2h) |
| △ 2 The face must be clean. | △ 6 Apply low strength thread locker. |
| △ 3 To engine alternator. | △ 7 Torque to 100 in.-lb (N-m). |
| △ 4 Spline | |



Detail B

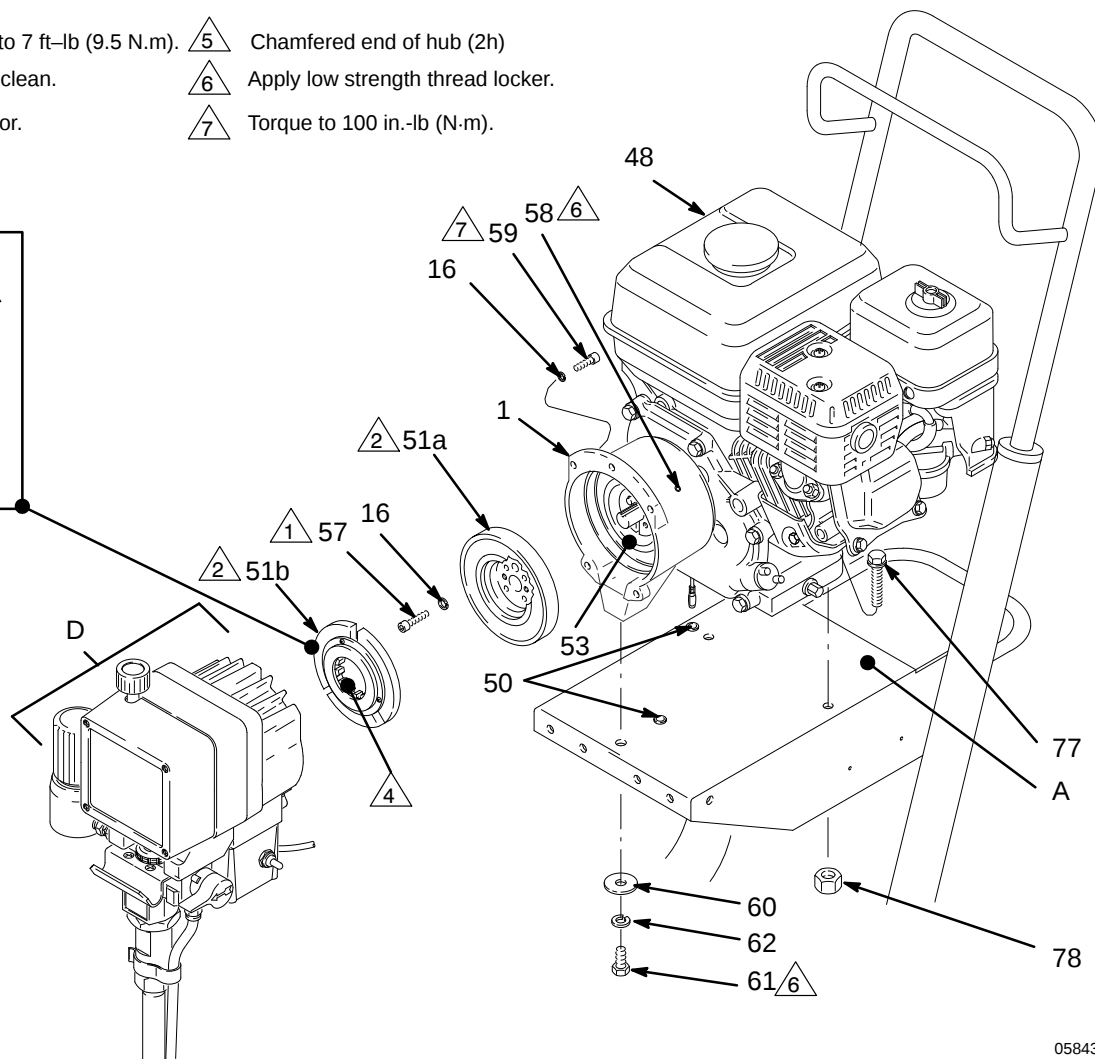


Fig. 3

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