

## Packing adjustment instructions:

**ATTENTION ⚠ DANGER**

DO NOT ATTEMPT TO ADJUSTMENT THE PACKING GLAND WHEN THE APPARATUS AND/OR THE PUMP IS RUNNING.

**ATTENTION ⚠ WARNING**

ALWAYS STOP THE ENGINE, SET THE PARKING BRAKE, AND CHOCK THE WHEELS BEFORE GOING UNDER THE APPARATUS FOR ANY REASON. FAILURE TO SECURE THE APPARATUS/TRUCK MAY ALLOW UNEXPECTED MOVEMENT.

ALWAYS REMOVE ALL TOOLS FROM THE AREA SURROUNDING THE PACKING GLAND BEFORE CHECKING THE DRIP RATE.

AVOID CONTACT WITH HOT SURFACES. THE PACKING GLAND AND PUMP BODY MAY PRESENT A TEMPERATURE HAZARD. OVERHEATING MAY RESULT IN A SCALDING WATER HAZARD.

**NOTE  
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Heat dissipates through the cross-section of the packing, transferring heat to the packing gland and pump body.

Relieve pressure by opening drains prior to the disconnection of hoses or caps on pump intake or discharge connections.

Circulate enough water through the pump to prevent overheating. Do not pressurize the pump over 600 psi or exceed the pressure rating of any item attached to the pump. (This includes valves, hoses, gauges, drain, primers, etc.)

Adjust the drip rate (controlled leakage) to between 8 to 10 100 drops per minute at 150 psi for all midship pumps equipped with a packing gland.

Refer to Table 14 for a list of tools and/or consumables required for this procedure. Table 1. Packing Gland Adjustment Tools and Consumables List

Standard Tools	Special Tools	Consumables
PPE (Eye and Hand Protection)	None	Shop Rag(s) (As Required)
PPE (for Handling Oil)		Aerosol Can of Penetrating Oil
Pry Bar or Large Screwdriver		Aerosol Can of Cleaning Fluid
Spanner Wrench (Optional)		Catch Pan
Timer (Stopwatch) (1 minute)		
Parts Cleaning Brush (Optional)		

## NOTES

If it is necessary to use penetrating oil always wear appropriate PPE and utilize a catch pan to contain all used oil.

If an adjustment is required due to a LOW drip rate, begin by loosening the gland nut enough to allow the packing to leak liberally. Then, after 20 minutes of run time, perform the Check Packing (Drip Rate) procedure (see paragraph 7.5.2.1). Repeat alternating between the two procedures until the drip rate is about 60 drops per minute.

ALWAYS use the paragraph 7.5.2.1, Check Packing (Drip Rate) in conjunction with the adjustment procedure to check/verify the drip rate after each adjustment. Do NOT run the apparatus/pump as part of the adjustment procedure.

Perform the following procedure to adjust the drip rate of the packing gland for a midship pump.

Tighten Packing Gland (Reduce Drip Rate)

- A. Clean entire rear bearing housing area, including pump shaft and split packing gland. See Figure 39.

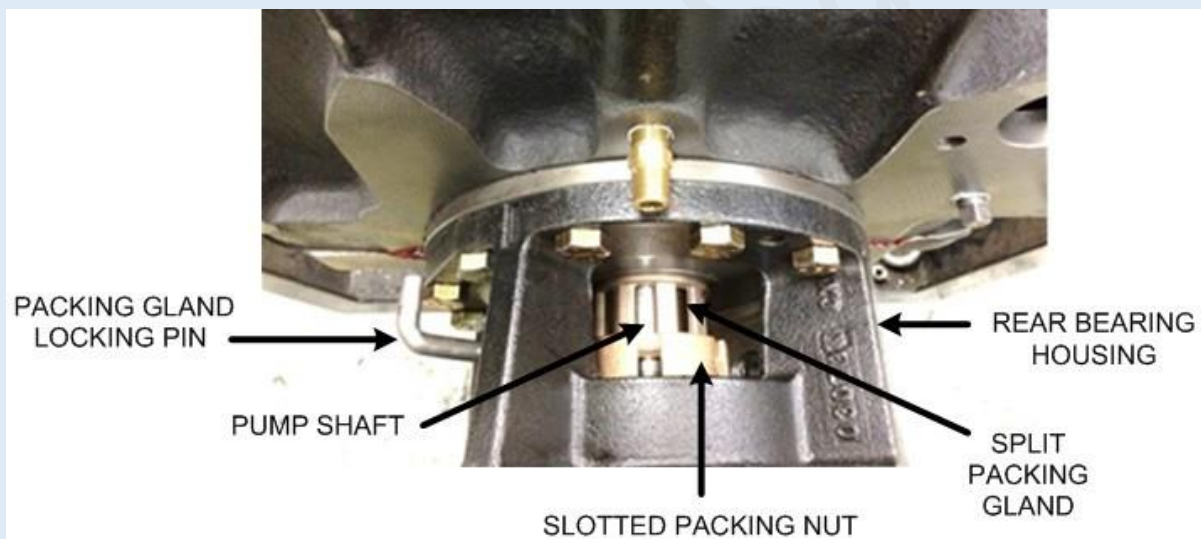


Figure 39. Packing Gland Adjustment

- A. Release packing gland locking pin. See Figure 39.
  1. Lift spring loaded packing gland locking pin.
  2. Turn packing gland locking pin so it rests on raised shoulder (part of rear bearing housing) and remains in released position.
- B. Tighten slotted packing nut one slot. See Figure 39.

#### NOTE

If necessary, soak the threads with penetrating oil. If the nut jams (or won't turn freely), work the nut back and forth to loosen it and clean out the threads.

1. Make ONLY small adjustments; only rotate packing nut one-slot-at-a-time.
  2. Using spanner (or pry rod or large screwdriver), turn Q-57R packing nut CW.
- C. Engage packing gland locking pin.
1. Lift spring loaded packing gland locking pin.
  2. Turn packing gland locking pin so it clears raised shoulder (part of rear bearing housing) and then push locking pin until fully seated.
  3. Ensure packing gland locking pin remains in engaged position.
- D. Remove all tools from area near pump packing gland.
- E. Perform paragraph 7.5.2.1, Check Packing (Drip Rate).

#### Loosen Packing Gland (Increase Drip Rate)

As stated in the NOTES following Table 14, if an adjustment is required due to a LOW drip rate, begin by loosening the gland nut enough to allow the packing to leak liberally. Then, after 20 minutes of run time, perform the Check Packing (Drip Rate) procedure (see paragraph 7.5.2.1). Repeat alternating between the Check and Adjustment procedures until the drip rate is approximately 60 drops per minute.

- A. Clean entire rear bearing housing area, including pump shaft and split packing gland. See Figure 39.
- B. Release packing gland locking pin. See Figure 39.
  1. Lift spring loaded packing gland locking pin.
  2. Turn packing gland locking pin so it rests on raised shoulder (part of rear bearing housing) and remains in released position.
- C. Loosen slotted packing nut one slot. See Figure 39.

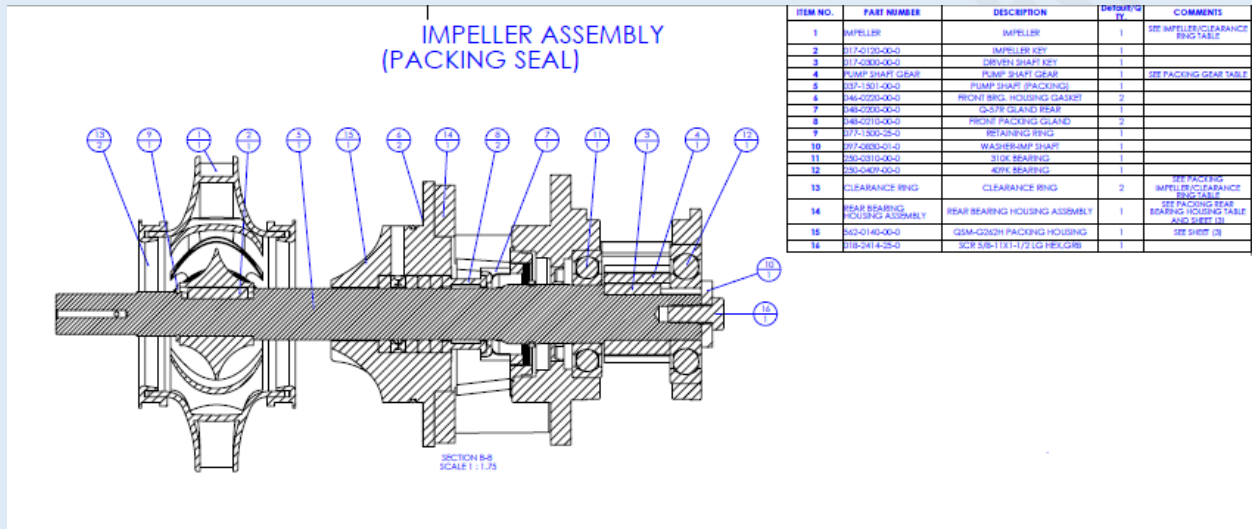
#### NOTES

If necessary, soak the threads with penetrating oil. If the nut jams (or won't turn freely), work the nut back and forth to loosen it and clean out the threads. Forcing the nut CCW only may result in stripped threads.

If the packing is NOT dripping at all (or very little), loosen the packing nut until free from the gland however do NOT back the nut off the threads. The nut must always engage the threads to prevent the packing from blowing out.

1. Make ONLY small adjustments; only rotate packing nut one-slot-at-a-time. (See NOTES above for the ONLY exception.)
2. Using spanner (or pry rod or large screwdriver), turn Q-57R packing nut CCW.

- D. Engage packing gland locking pin.
1. Lift spring loaded packing gland locking pin.
  2. Turn packing gland locking pin so it clears raised shoulder (part of rear bearing housing) and then push locking pin until fully seated.
  3. Ensure packing gland locking pin remains in engaged position.
- E. Remove all tools from area near pump packing gland.
- F. Check Packing (Drip Rate).



Refer to Page 83 - 85 in your Hale Muscle Pump manual for additional details











