



MiTek

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MiTek Machinery SERVICE BULLETIN

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Product	M8 Mono-Press®
Description	Press Head Repacking Procedure

<i>Revised</i>	<i>Reviewed</i>	<i>Approved</i>
R. Tucker	PL	GM

M-8 Press Head Repacking Procedure

This procedure describes the disassembly and assembly of the M-8 Mono-Press® Press Head for the purpose of replacement of the hydraulic packings. This procedure is normally employed when packings become worn after prolonged service life, and the result is substandard hydraulic pressure. Refer to Section 3 of your M-8 Mono-Press manual for a test procedure to determine the status of your hydraulic system.

To complete this procedure, you will need SB145KIT and a separate seal kit. SB145KIT contains the parts needed every time the packings are replaced. Keep this kit and reuse it the next time you replace the Press Head packings. Each component in SB145KIT is listed in Table 1 and shown in Figure 1.

The seal kit must be purchased every time the repacking procedure is performed. It is purchased separately from SB145KIT. For the seal kit only, ask for MiTek® part number HF100200. For a seal kit including the pistons, request MiTek part number HF100300.

Other supplies you may need to purchase or locate before beginning this procedure are listed in Table 2.



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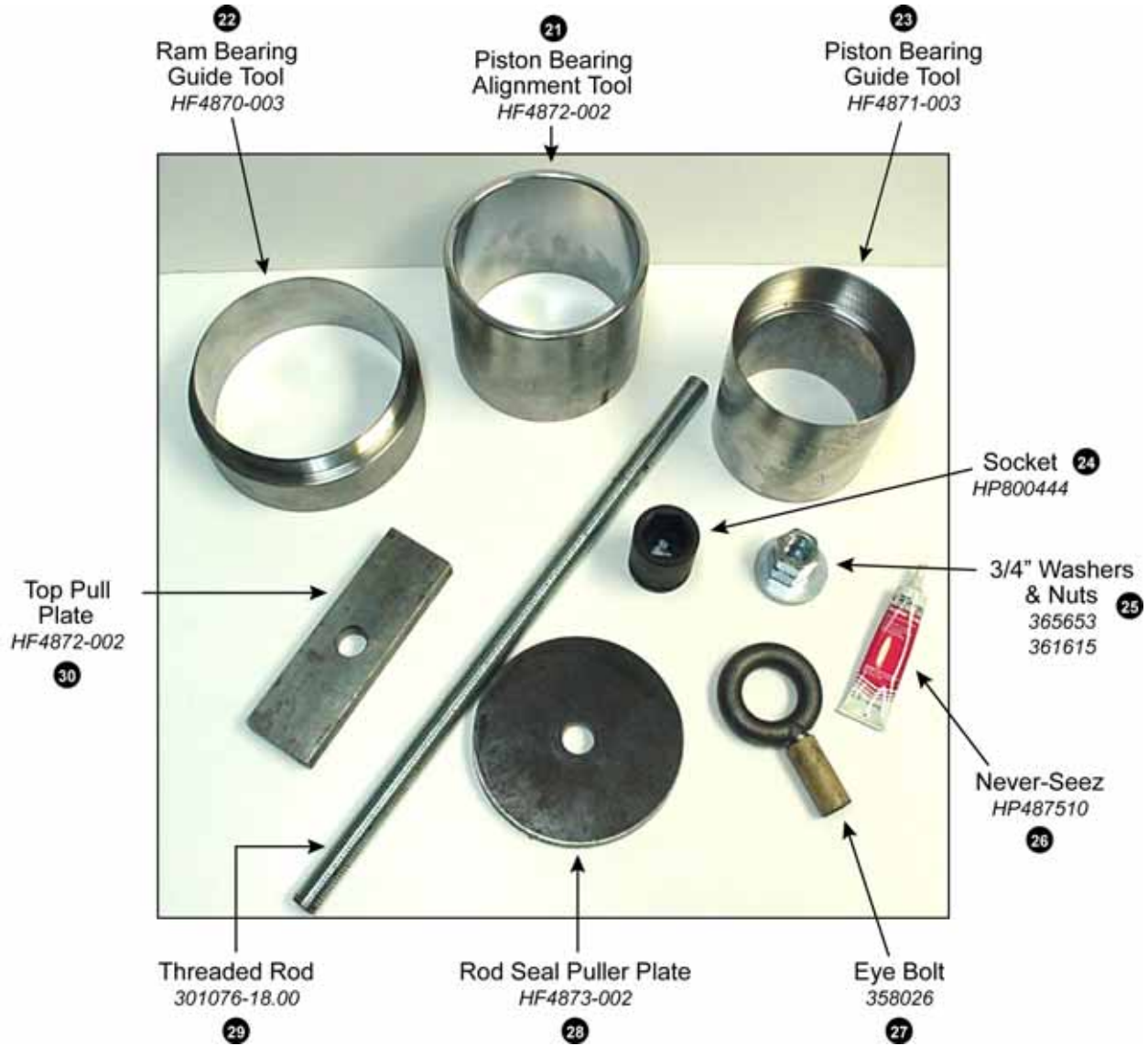
Table 1: Components of SB145KIT

Callout in Figure 1	Part #	Qty.	Part Description
21	HF4872-002	1	Piston Bearing Alignment Tool
22	HF4870-003	1	Ram Bearing Guide Tool
23	HF4871-003	1	Piston Bearing Guide Tool
24	HP800444	1	1-1/8-in. socket
25	361615	2	3/4-10 hex nuts
25	365653	2	3/4-in. flat washers
26	HP487510	1	Container of <i>Never-Seez</i> or comparable product
27	358026	1	3/4-in. eye bolt
28	HF4873-002	1	Rod Seal Puller Plate
29	301076-18.00	1	3/4-10x18-in. Threaded Rod
30	HF4872-002	1	Top Pull Plate
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Table 2: Additional Supplies Required

Scrap wooden blocks (2)	Snap-ring pliers w/45° tips
3/4-in. hydraulic hose plugs or caps	3/4-in. breaker bar w/6 in. extension
3/8-in. hydraulic hose plugs or caps	Spanner wrench (<i>MiTek</i> PN 64185)
Seal Kit (<i>MiTek</i> part number HF100200 or HG100300)	

Figure 1: Components of SB145KIT*



*The components of the seal kit are found in the kit with a MiTek part number of HF100200.

Figure 2: Overview of Press Head Assembly

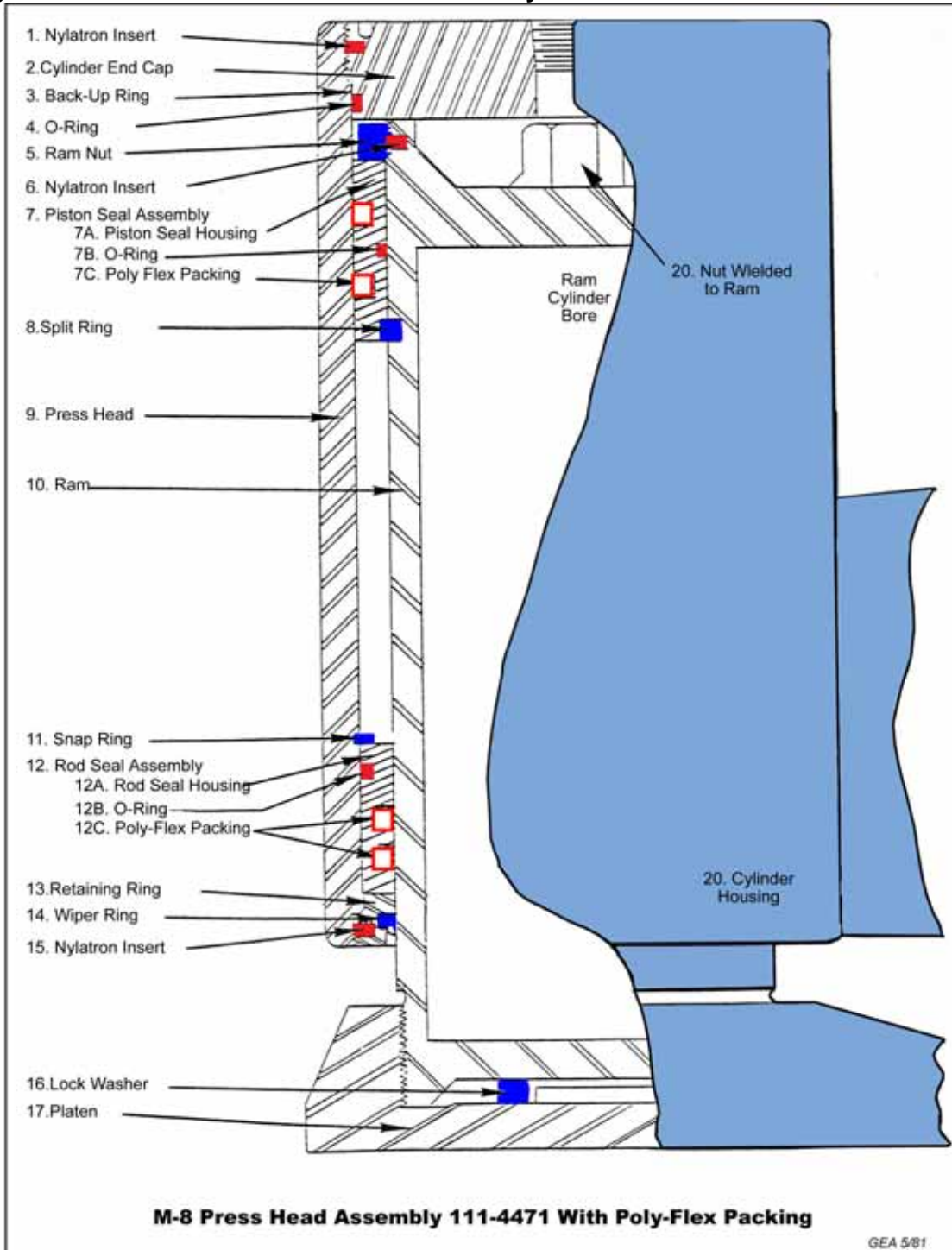


Figure 3: Installing the Piston Seal Assembly

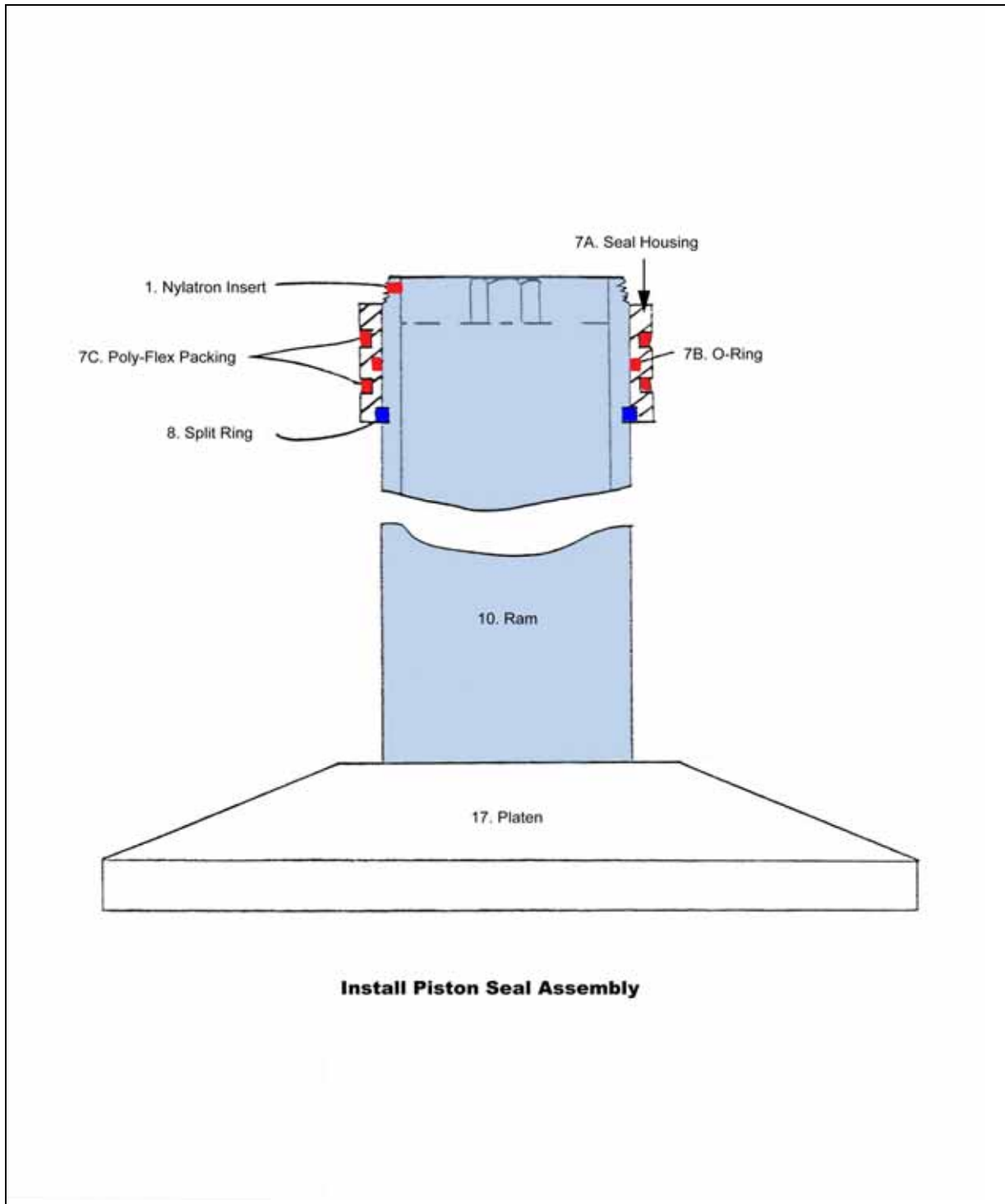


Figure 4: Installing the Piston Seal Assembly

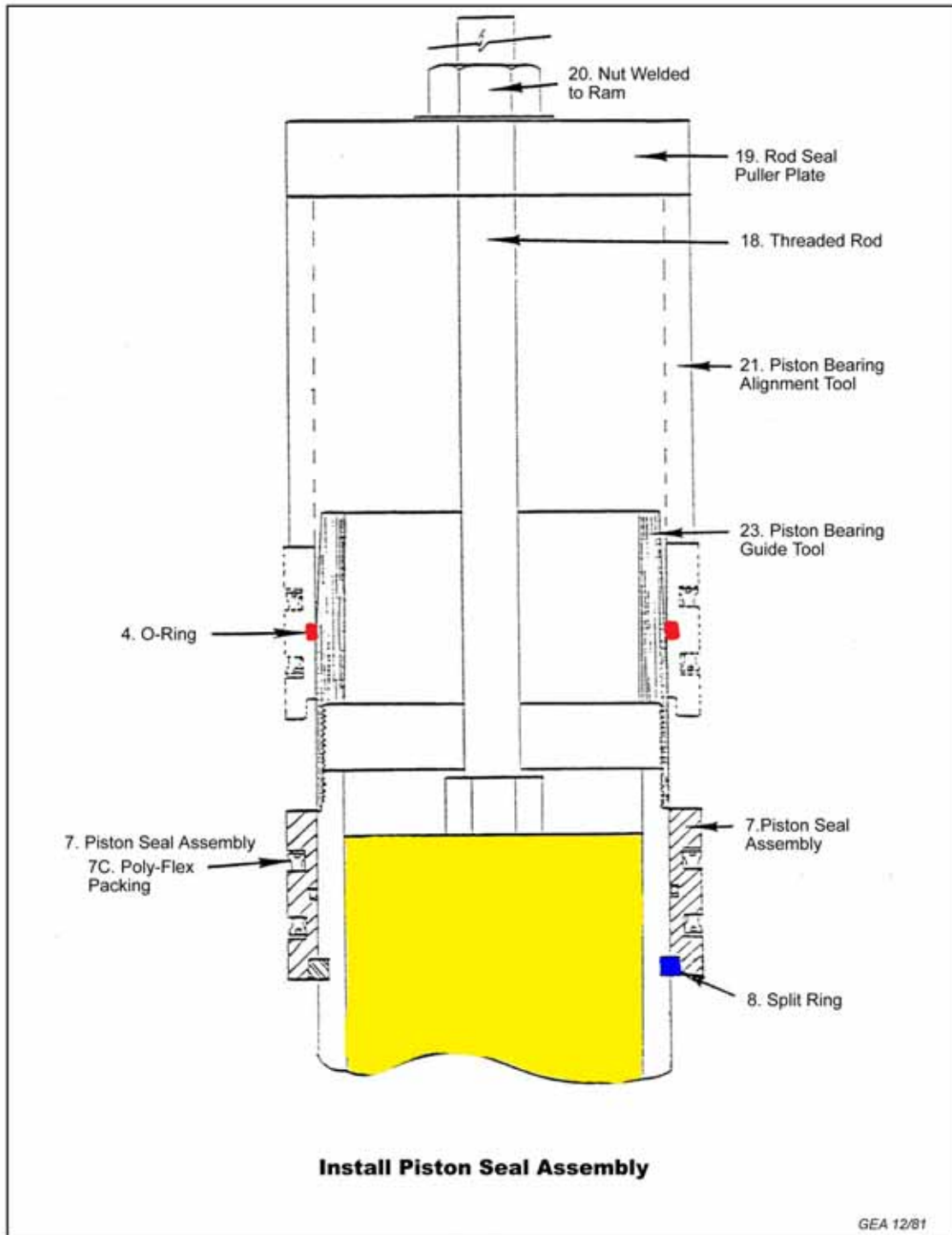


Figure 5: Installing the Rod Seal Assembly

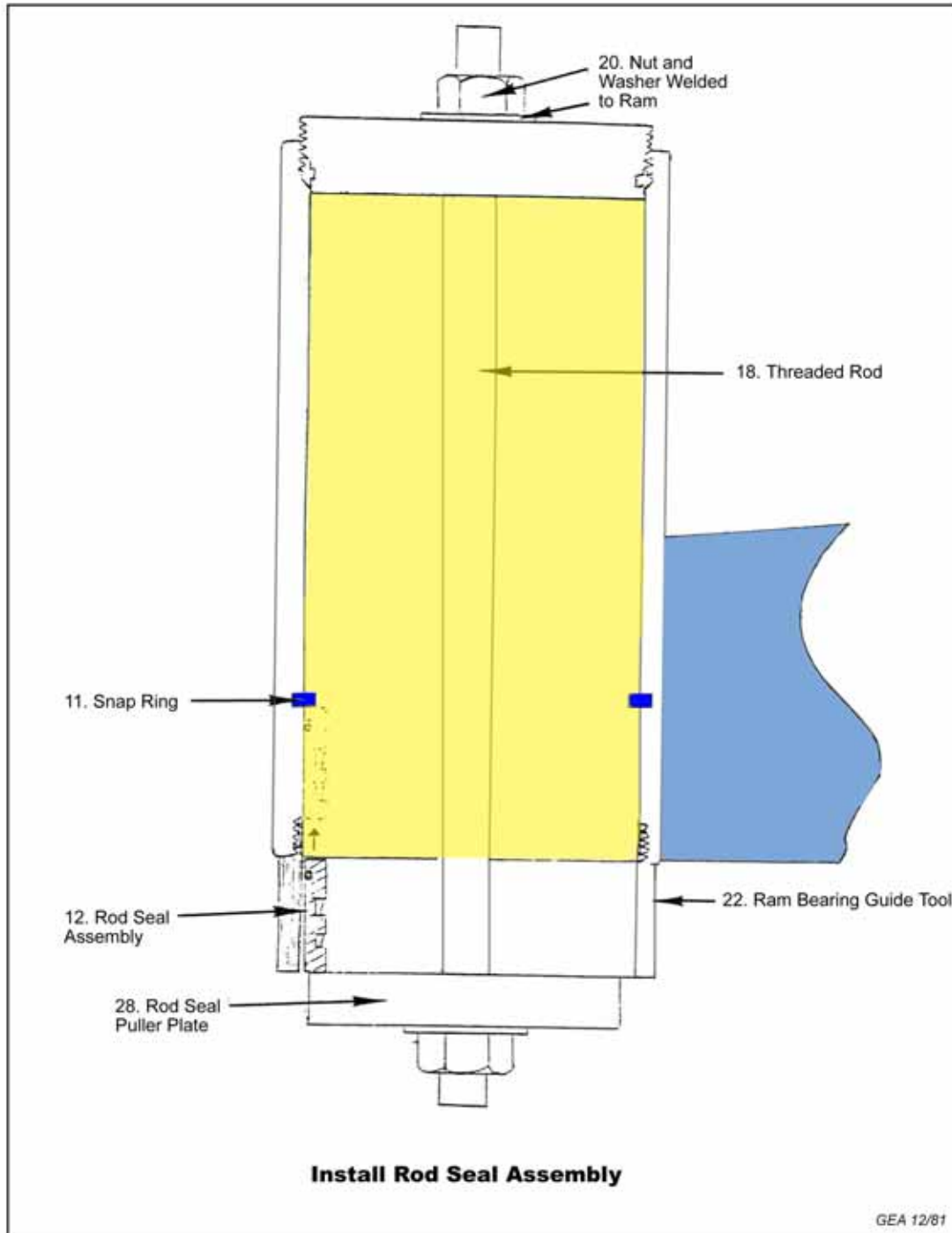


Figure 6: Installing the Ram in the C-Frame

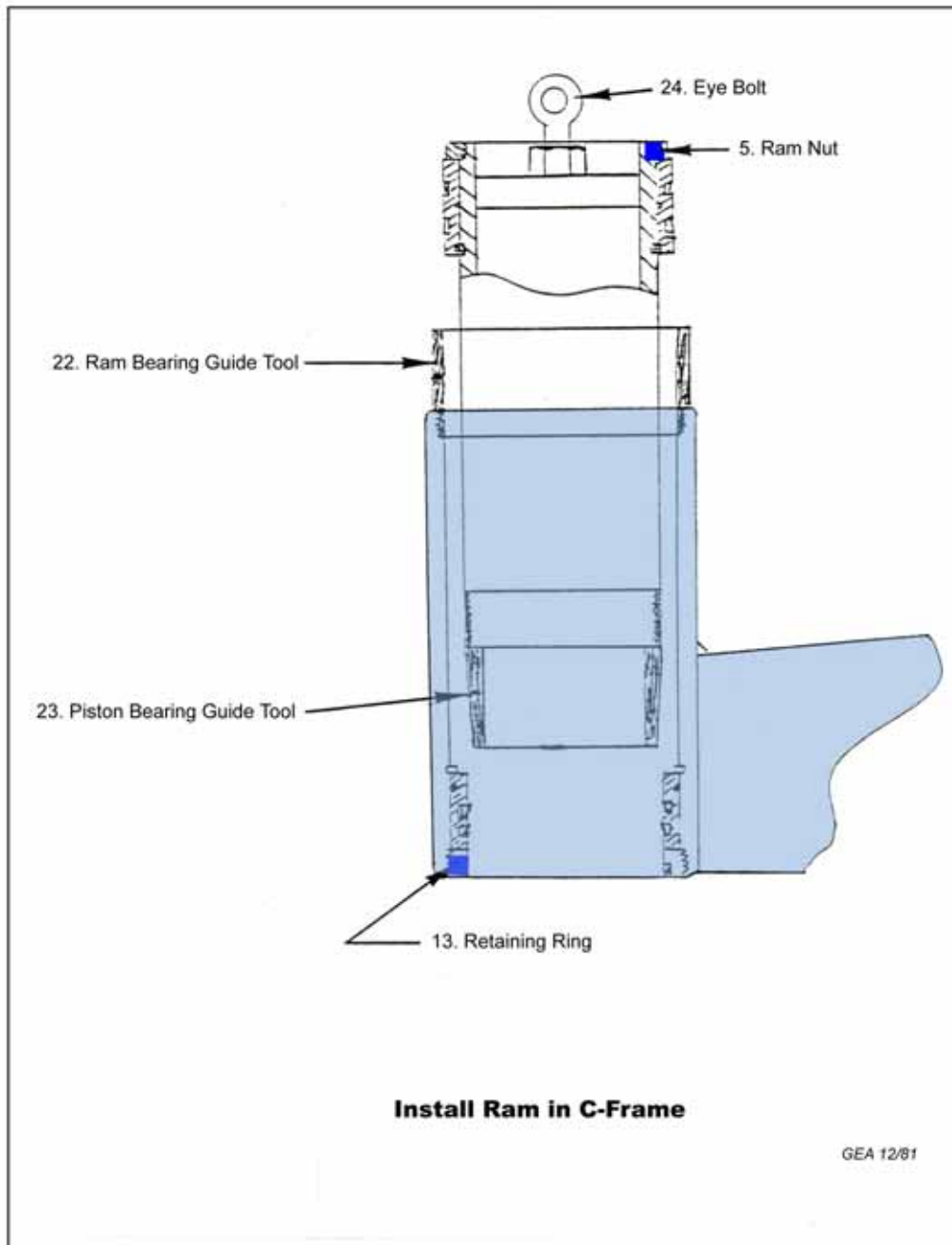
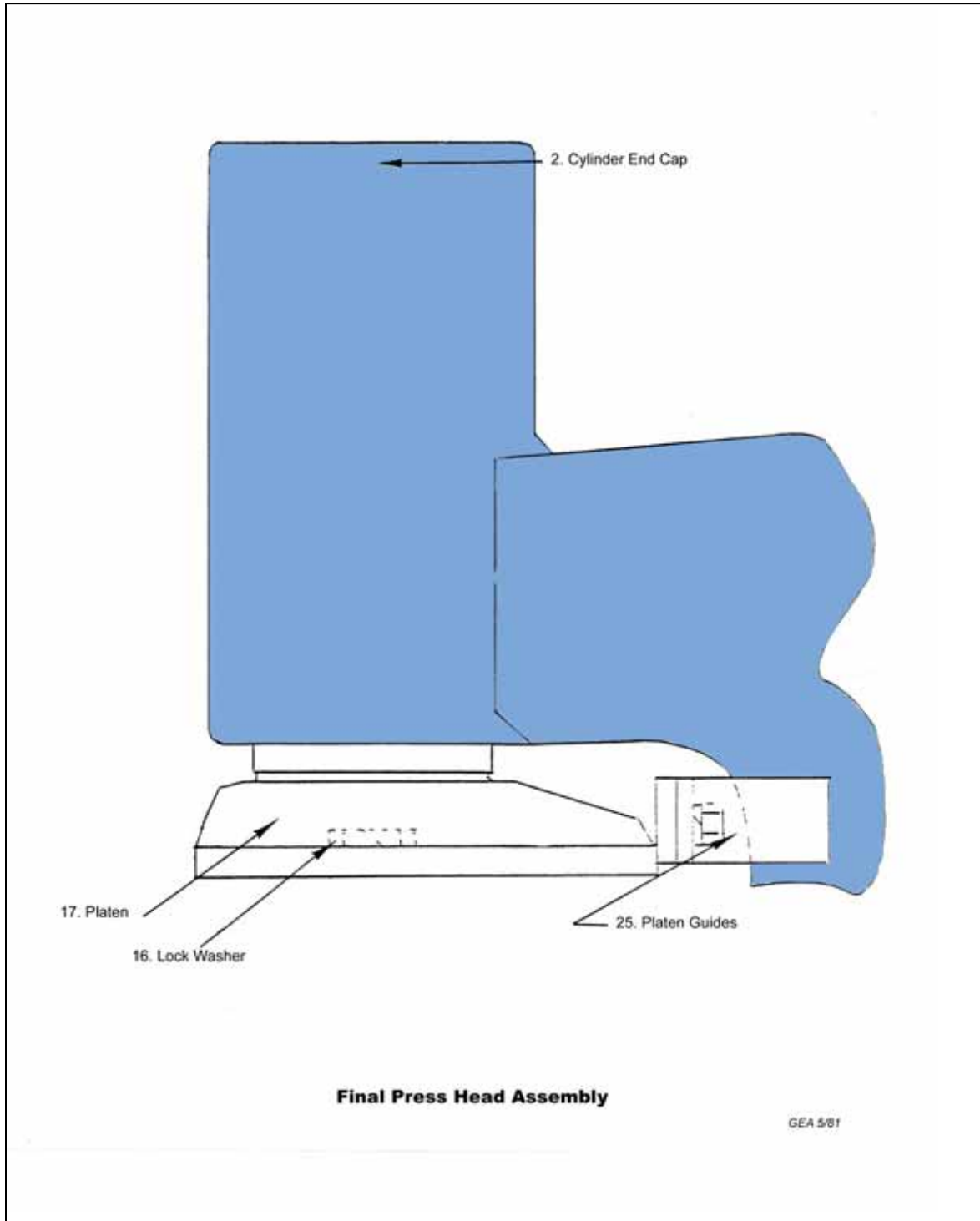


Figure 7: Final Press Head Assembly





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The numbers in parentheses identify that part on the diagrams located at the beginning of this document. Numbers 21-30 are supplied in this kit.

Dissassembly

1. Turn off all electric (source) power to the *M-8 Mono-Press* machine. Place the *M-8 Press Head* on a pedestal or forklift truck, and move it to a clean working area.
2. Secure the reservoir end of the boom to the overhead I-beam with a chain. Loop the chain around the electric motor and position the chain to allow slack in the hanger cable. Take care to keep the chain clear of the electric conduit around the motor.
3. Disconnect the Press Hanger and remove the Pistol Grips.
4. Remove the wire mesh safety guard. (Models with long Ram feature do not have a guard.)
5. Disconnect both hydraulic hoses at the Press Head. Cap the hose connections quickly with 3/4-in. and 3/8-in. plugs or caps.
6. Support the upper Platen with two wooden blocks placed on the lower Platen.
7. Unscrew the Cylinder End Cap (2) with a spanner wrench. A spanner wrench is not included in this kit but can be ordered from MiTek as part number 64185.
8. Remove the Teflon Backup Ring (3) and O-ring (4) from the End Cap.

<p>CAUTION: Extreme care should be taken not to mar or scratch the O-ring groove, cylinder bore, and ram surfaces.</p>

9. Unscrew the Ram from the upper Platen (17). Use a 3/4-in. breaker bar with a 6-in. extension and 1-1/8 in. socket (24) to turn the nut welded to the top of the Ram. Allow the upper Platen to rest on the two wooden blocks used in step 6.
10. Insert the supplied 3/4-10x3-in. eyebolt (27) into the nut welded to the top of the Ram. Run a chain through the eyebolt and slowly pull the Ram out of the Cylinder Housing with the chain.
11. Remove the Ram Nut (5) with the spanner wrench (PN 64185).



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12. On some older models, you must remove the top Bronze Bushing and its Woodruff Key up over the Ram. Also remove the top polyflex packing set (7C) on some model. Note and record how the beveled lips of the packing are positioned on the Ram.
13. Remove the Bronze Bushing.
14. Remove the Split Retaining Ring (8).
15. Remove the Bottom Retainer in the cylinder (13) with the spanner wrench.
16. Gently remove the lower polyflex packing (12C) and both Bronze Bushings from inside of the Cylinder Housing.
17. Inspect the Tru-Arc Snap Ring (11) for damage. DO NOT remove it unless absolutely necessary. If so, remove the Tru-Arc Snap Ring using snap-ring pliers with 45 degree tips.



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Press Head Repacking Procedures for Cast Iron Bearing/Poly Flex Packing

Disassemble the Press Head using the instruction in the maintenance manual. Clean and inspect the bore of the cylinder and the exterior surface of the Ram.

As each piece is assembled, clean and thoroughly lubricate it with hydraulic oil.

Install Piston Seal Assembly

1. Place the Platen threaded side up on a work bench and screw the Ram into it. This will hold the Ram while the Piston Seal Assembly is being installed.
2. Assemble the Piston Seal Assembly so that the lip of the top seal is up and the lip of the bottom seal is down.
3. Thoroughly coat the O-ring (7B) with grease prior to installing in the groove, and grease the inner surface of the Piston Seal Assembly.
4. Place the Split Ring (8) in the groove of the Ram.
5. Screw the Ram Bearing Guide Tool (22) over the threads on top of the Ram. Slip the Piston Seal Assembly (7) with the groove for the Split Ring down over this as far as it will go by hand. Place the Piston Bearing Alignment Tool on top of the Piston Seal Assembly. Install the Threaded Rod into the nut on top of the Ram. Place the Rod Seal Puller Plate over the Threaded Rod and start a washer and nut. Continue to screw the nut down, pulling the Piston Seal Assembly onto the Ram until it seats over the Split Ring. Remove all tools.
6. Install the new Nylatron inserts from your seal kit into the top of the Ram. (Drill out the old Nylatron inserts using a 3/16-in. drill bit.)
7. Screw the Ram Nut onto the top of the ram. It should be tight.
8. Remove the Ram from the Platen and turn over.
9. Install the Ram Bearing Guide Tool onto the end of the Ram by screwing it on. The tool should cover the threads and form a smooth connection with the outside dimensions of the ram.
10. Set aside for later use.



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Install Rod Seal Assembly

1. Without removing the Snap Ring, clean and inspect it.
2. Turn the Press Head on its back.
3. Thread the Ram Bearing Guide Tool (22) into the bottom of the cylinder. Make sure the tool covers the threads and there is a smooth connection between the tool and the bore of the cylinder.
4. Assemble the Rod Seal Assembly so that the lips of both packing seals are facing up. (The O-ring groove is toward the top of the assembly.)
5. Grease the O-ring prior to installing in the Rod Seal Assembly, and grease the inner and outer surface of the assembly prior to inserting it into the bottom of the cylinder.
6. Place the Rod Seal Assembly with the lips facing into the cylinder into the Ram Bearing Guide Tool (22).
7. Insert the Threaded Rod (29) through the center hole of the Top Pull Plate (30) and out the bottom of the Rod Bearing Seal Assembly. Place the Rod Seal Puller Plate (28) over the end of the Threaded Rod (29) and against the Rod Seal Assembly and install washers and nuts on both ends of the Threaded Rod.
8. Make sure the Rod Seal Puller Plate (28) is aligned with the Rod Seal Assembly and tighten the top nut until the Rod Seal Assembly is tight against the Snap Ring.
9. Remove the tools.
10. Install the new Nylatron inserts from your seal kit in the Retainer Ring.
11. Check the Wiper Ring or felt seal from your seal kit and replace if worn.
12. Install the Retainer Ring in the bottom of the cylinder making sure it is tight against the Rod Seal Assembly.



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Install the Ram Into the C-Frame

1. Turn the C-Frame unto its normal upright position.
2. Screw the Ram Bearing Guide Tool (22) into the top of the cylinder.
3. Screw an eye-bolt or cap screw into the top of the Ram.
4. Pick up the Ram that now has the Ram Bearing Guide Tool (22) attached to it. Insert the Ram, (Ram Bearing Guide Tool first) into the top of the cylinder. Carefully lower it until the end of the Ram enters the Rod Seal Assembly and the downward motion is stopped.
5. Tap the top of the eye-bolt or cap screw with a small hammer until the Ram Bearing Guide Tool is completely exposed below the bottom of the cylinder.
6. Remove all tools.

Final Press Head Assembly

1. Place the Press Head into a pedestal, so it will be held for the installation of the Platen and End Cap.
2. Coat the threads of the end of the Ram and threads in the platen with a light coat of the supplied *Never-Seez* (26) or comparable product.
3. Place the lock washer over the guide washer in the center of the platen threaded hole.
4. One person should hold the Platen up so the Ram threads will enter the Platen while a second person turns the Ram. (Use the supplied 1-1/8-in. hex socket and a customer-supplied 3/4-in. drive breaker bar or ratchet handle to turn the Ram.)
5. When the Ram bottoms out in the Platen, apply an additional 50 ft-lbs of torque to lock the Ram securely to the Platen.
6. Rotate the Platen so it is square with the bottom Platen of the C-Frame and install the Platen Guides. Adjust the Guides so they just clear the sides of the C-Frame.
7. Install the new Nylatron inserts in the Cylinder End Cap.
8. Install the Back-Up Ring, followed by the O-ring in the groove of the Cylinder End Cap.
9. Grease the O-ring and screw the End Cap into the top of the cylinder until it is flush and then stop. (The End Cap does not bottom out on a solid stop.)