applied through this grease fitting is unnecessary and does not provide additional wear protection for the moving parts.

- e. Breather. The breather should be cleaned when the oil is changed in the rotary table, or more often if an excess of dirt and grime has collected on the breather.
 - (1). Clean the breather and surrounding area before removing the breather.

CAUTION

Always use a wrench of the proper size to remove or replace the breather. Pliers or a pipe wrench may crush or damage the breather, and produce metal chips which can enter rotary table.

- (2). Remove the breather.
- (3). Wash the breather thoroughly by agitating it in mineral spirits, and dry thoroughly with compressed air.
 - (4). Reinstall the breather.
- 2-9. LUBRICATION OF THE MUD PUMP DRIVE ASSEMBLY (Figure 2-6) The oil level in the mud pump drive should be checked periodically. It is recommended that the oil level be checked each week initially. If the oil level is consistently found to be satisfactory, then the interval between oil level checks may be lengthened. The oil level should be checked at any time there is evidence that leakage might be occurring. The oil should be changed after each 4 months of operation.
- a. Checking Oil Level. With the machine level, remove the oil level check plug. The oil level should be even with the oil level check plug hole. If the oil level is low, add oil until oil starts to flow from the oil level check plug hole. Reinstall the plug.
 - b. Recommended Lubridants. Refer to the Lubrication Chart for the type of lubricant to be used.
- c. Changing the Oil. The oil should be changed after the machine has been operating to assure maximum suspension and drainage of any minute foreign particles.

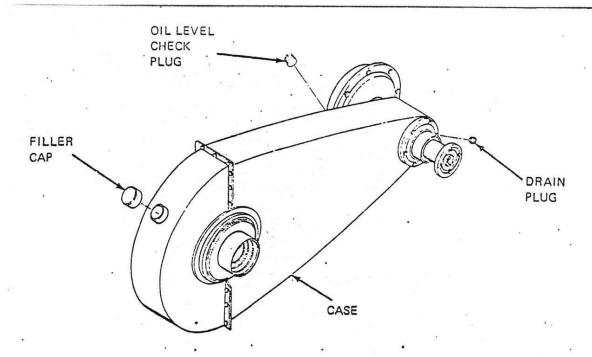


Figure 2-6 Mud Pump Drive Lubrication

- (1). Remove the drain plug and drain the oil. Clean and reinstall the drain plug.
- (2). Remove the oil level check plug and filler cap. Service the mud pump drive assembly with oil until oil starts to flow from the oil level check plug hole.
 - (3). Reinstall the oil level check plug and filler cap.
- 2-10. LUBRICATION OF THE AUXILIARY TRANSMISSION (Figure 2-7). The oil level in the transmission should be checked periodically. It is recommended that the oil level be checked each week initially. If the oil level is consistently found to be satisfactory, the interval between oil level checks may be lengthened. The oil level should be checked at any time there is evidence that leakage might be occurring. The oil should be changed after each 4 months of operation.
- a. Checking Oil Level. With the drilling machine level, remove the oil level check plug. The oil level should be even with the oil level check plug hole. If the oil level is low, add oil until the oil level is even with the oil level check plug hole.
 - b. Recommended Lubricant. Refer to the Lubrication Chart for the type of lubricant to be used.
- c. Changing the Oil. The oil should be changed after the machine has been operating to ensure maximum suspension and drainage of any minute foreign particles.
 - (1). Remove the drain plug and drain the oil. Clean and reinstall the drain plug.