

## **VEHICLE OPERATION (continued)**

5. Run engine at ½ speed for 5 minutes. Do not run at fast or slow idle.
6. Caution: Clear area of personnel before operating.
7. Exercise propel and swing functions slowly, initially moving only short distances.
8. Operate boom, arm, and bucket functions by moving cylinders a short distance each direction for the first time.
9. Continue cycling cylinders by increasing the travel each cycle until full stroke is obtained.
10. Swing upper structure so boom is perpendicular to tracks.
11. Caution: Prevent possible injury from machine sliding backwards. Keep angle between boom and arm 90-110 deg.
12. Keep the angle between boom and arm 90 - 110 deg., fully actuate bucket close function (cylinder extend) and lower bucket to raise track off ground.
13. Caution: Hold function actuated for more than 10 seconds can cause damage from hot spots in the control valve.
14. While rotating raised track in forward direction, actuate bucket curl function (cylinder extend) for 10 seconds and release for 5 seconds for a period of 2-1/2 minutes.
15. While rotating raised track in reverse direction, actuate bucket curl function (cylinder extend) for 10 seconds and release for 5 seconds for a period of 2-1/2 minutes.
16. Lower machine to the ground.
17. Repeat steps 10- 16 on opposite track.
18. Operate all hydraulic functions to distribute warm oil in all cylinders, motors, and lines.
19. If hydraulic functions still move slowly, repeat steps 12-15.
20. Caution: Turbocharger may be damaged if engine is not properly shut down,

## **VEHICLE OPERATION (continued)**

21. When stopping the engine park machine on level surface, lower bucket to ground, and turn auto-idle switch off. Run engine with rpm dial at 1/3 position without load for 2 minutes. Move engine rpm dial to slow idle position. Turn key to OFF position. Remove key from switch. Pull pilot control shut-off lever to locked position
22. Watch engine and transmission oil temperature and pressure lights closely.
23. If any warning message or oil levels are ignored, damage may result.
24. Make sure all air inlets are kept clear.
25. Check all hoses and fittings frequently to insure proper fit.
26. Ensure radiator air inlet screen is clean and free of debris.
27. Top fuel tank off at end of work day.

## **MAINTAIN BATTERIES**

1. Check battery specific gravity (refer to TM 5-3805-280-10).
2. Watch ELECTRICAL SYSTEM voltmeter closely.
3. Keep batteries full, but do not overfill.
4. Start up vehicles regularly to prevent discharge of batteries.

## **GENERAL**

1. Check track tension daily.
2. Lubricate suspension items daily, and clean grease fittings.
3. Check lubrication orders and TM's for the correct viscosity of lubricants for cold temperatures.
4. Clean dirt, snow and ice away from vehicle.
5. Clean away any excess lubrication or fluid seepage.
6. Check hand held fire extinguishers.
7. Check main hydraulic fluid reservoir.

## **GENERAL (continued)**

8. Check oil levels frequently.
9. Follow proper engine cool down and shutdown procedures.
10. Adhere to proper shutdown procedures.
11. Type II only, check compressor oil level regularly. Ensure Rock Drill is properly lubricated.

**GTA # 43-01-104**

## **HYDRAULIC EXCAVATOR (HYEX) TYPE I/II** **Cold Weather Operation**

***This abbreviated checklist is not to be used as a replacement for the -10 series Tech Manuals or any other PMCS guide***

**TB 43-0245-50, COLD WEATHER OPERATIONS, MATERIEL READINESS: TANK-AUTOMOTIVE ARMAMENT EQUIPMENT contains general instructions that can be applied to the HYEX TYPE III; TM 5-3805-280-10 contains detailed PMCS instructions for proper maintenance and operation.**

**NOTE: A very high standard of maintenance is essential to long term operation under conditions of extreme cold. Cold temperature can cause early failure of systems. Constant checking is necessary to prevent failures.**

## **VEHICLE OPERATION**

1. Use correct lubricates, refer to TM 5-3805-280-10.
2. Never crank engine for more than 30 seconds at a time.
3. Refer to TM 5-3805-280-10 for Cold Weather Starting Aid operations.
4. Refer to TM 5-3805-280-10 for Artic Starter operations

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