

OWNER'S MANUAL

**MODEL-970
Loader**

**Diesel
Gasoline**



**CLARK
EQUIPMENT**

CLARK EQUIPMENT COMPANY
MELROE DIVISION, GWINNER, N. DAK. 58040

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

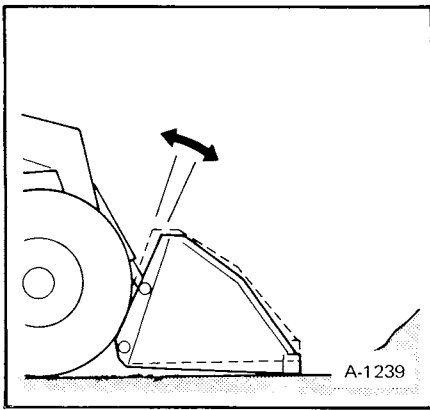


Fig. 17 Cutting Edge Grounded

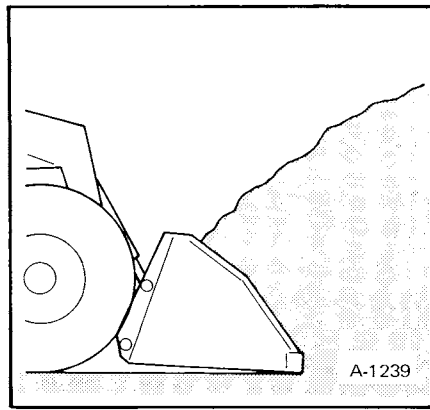


Fig. 18 Entering Pile

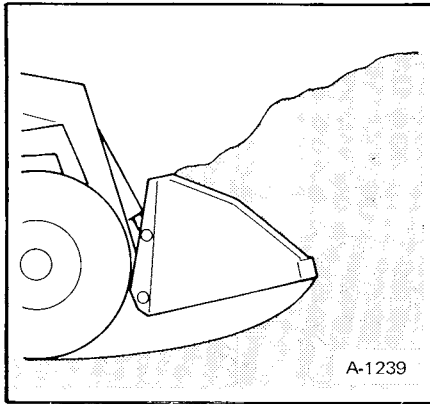


Fig. 19 Filling Bucket

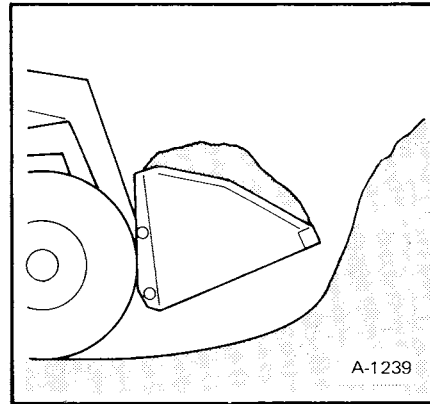


Fig. 20 Filled Bucket

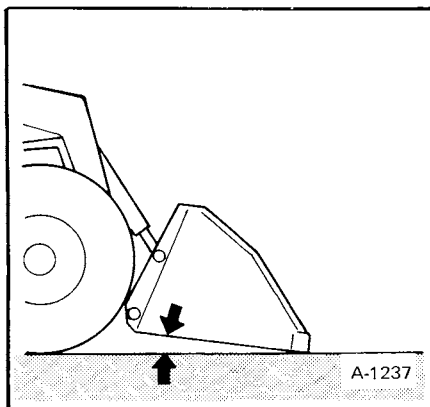


Fig. 21 Cutting Edge Grounded

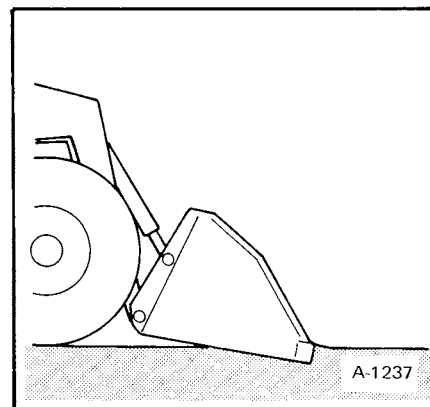


Fig. 22 Entering Surface

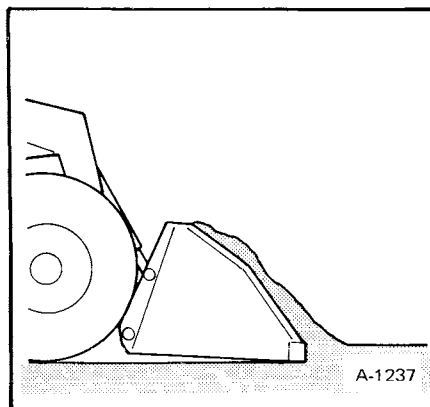


Fig. 23 Filling Bucket

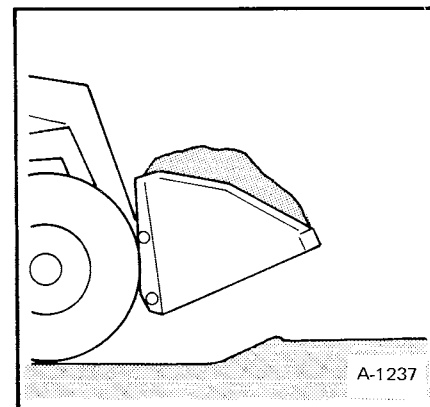
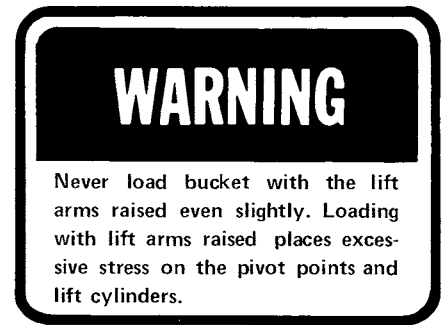


Fig. 24 Filled Bucket

OPERATING M-970 WITH BUCKET

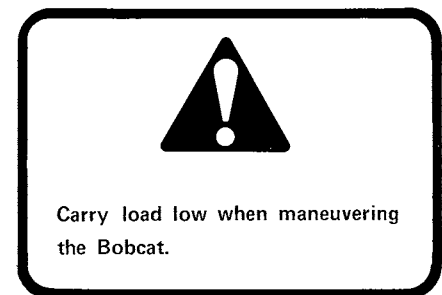
To fill bucket from a stock pile:

1. Place lip (cutting edge) of bucket on the ground (Figure 17).
2. Drive forward to fill bucket (Figure 18).
3. Roll bucket back as it fills (Figure 19).
4. When bucket is filled, back away from pile (Figure 20).



To dig into hard ground:

1. Tilt bucket down until it contacts the ground (Figure 21).
2. Drive forward, tilting bucket as necessary to penetrate surface (Figure 22).
3. Roll back bucket slightly to decrease bite, increase traction and to maintain uniform depth.
4. Continue driving forward until bucket is filled (Figure 23).
5. Roll back bucket and proceed to dumping area (Figure 24).



DUMPING LOAD INTO TRUCK BOX (Figure 25)

1. Raise loaded bucket high enough to clear side of truck box. Be certain to level load, with tilt control, as bucket is being raised. Leveling load will eliminate possibility of any material falling from back of bucket.

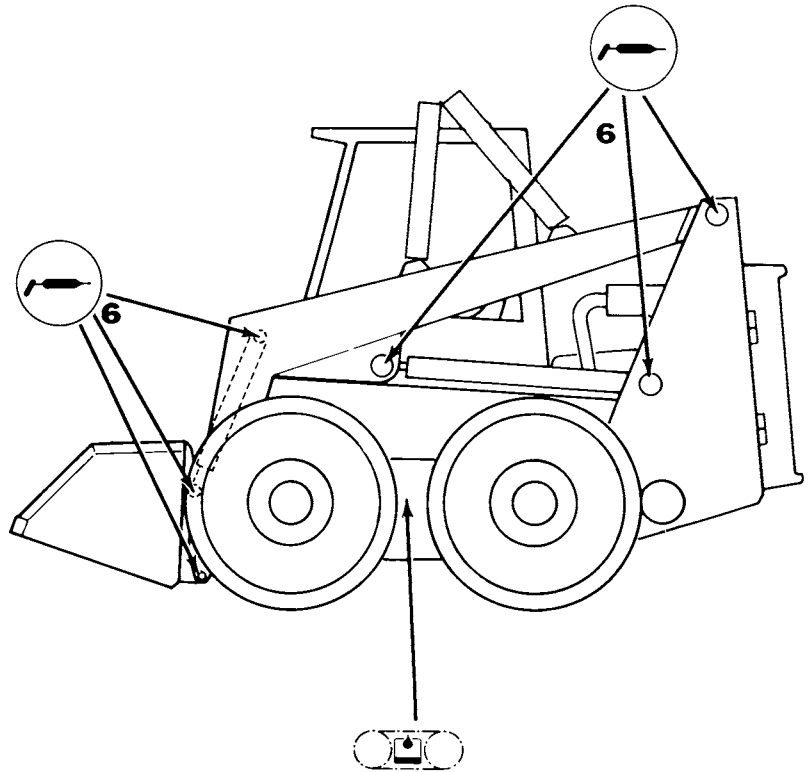
M-970 SERVICE SCHEDULE

Every 10 Hours

1. **ENGINE OIL:** Check, do not overfill.
2. **RADIATOR COOLANT LEVEL:** Check when the engine is cool, radiator capacity is approximately 17 quarts - Gas; 19 quarts - Diesel.
3. **ENGINE AIR CLEANER:** Check indicator, service or replace filter element as required.
4. **HYDRAULIC RESERVOIR:** Check fluid level, to refill use only approved fluid (See Page 10).

NOTE: Use extra care to prevent dirt from entering the hydraulic system.









5. **LOADER LIFT ARM GREASE FITTINGS:** Lube 12 points, see illustration at right.
6. **CHECK TIRES:** Inflate 15 x 19.5 to 55 PSI.
7. **PRE-START "WALK AROUND" CHECK:** Look for loose wheel nuts, signs of excess wear, loose or broken parts, oil leaks, etc. Make any needed corrections or repairs promptly.



EVERY 50 HOURS

1. **50 HOUR INSPECTION:** Per form 50 hour inspection using 50 hour inspection form. Tighten cylinder head bolts on Perkins diesel.
2. **CHASSIS GREASE FITTINGS:** Lube 7 points, see illustrations on the following page.
3. **FINAL DRIVE CHAINS:** Check tension on both sides, raise one side of the loader until both tires clear the ground, rock the wheels, if there is any "free play" the chain requires adjustment.
4. **ENGINE OIL:** Drain when hot, replace oil element, refill with any SE/CD grade motor oil. Oil refill capacity including the filter is: Gasoline - 6 quarts; Diesel - 8 quarts.

LEGEND

Grease		Air Filter	
Engine Oil		Hydraulic Oil Filter	
Engine Oil Filter		Hydraulic Oil Reservoir	
Coolant		Final Drive	

PI-1533

Battery Installation (Cont'd)

Be sure the cables are in good condition and the terminal clamps are clean and tight.

Grease battery terminals lightly after attaching cable clamps.

Make sure the ground cable is clean and tight at the frame.

Check polarity to be sure battery is not reversed with respect to the generating system.

Connect "grounded" terminal of the battery last to avoid short circuits which may damage the battery.

BATTERY PROBLEMS

All batteries will become discharged if the current demand exceeds the current input from the generator. A new battery which becomes discharged is no different than the battery which has seen considerable service and then becomes discharged. Very few new batteries that become discharged have anything wrong with them and may, therefore, be returned to service after they are recharged.

Battery freezing:

The freezing point of electrolyte depends on its specific gravity. The following table gives the freezing temperatures of electrolyte at various specific gravities:

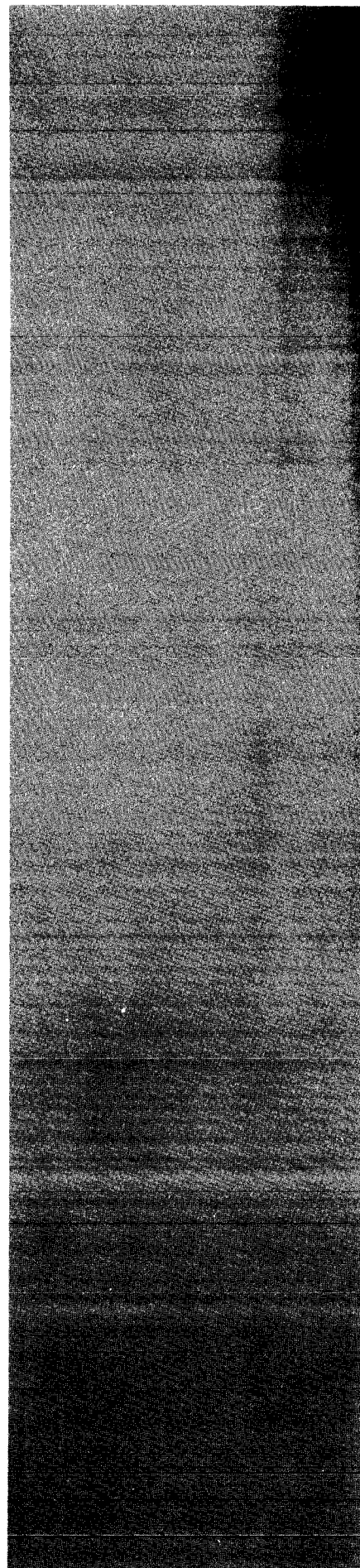
Value of Specific Gravity	Freezing Temperature Degree F.	Value of Specific Gravity	Freezing Temperature Degree F.
1.100	18	1.220	-31
1.120	13	1.240	-50
1.140	8	1.260	-75
1.160	1	1.280	-92
1.180	-6	1.300	-95
1.200	-17		

Excessive usage of battery water indicates the battery is being overcharged. Most common causes of overcharge are high battery temperatures or a too high voltage regulator setting.

No appreciable usage of water, over two or three months of vehicle use, indicates an undercharged battery condition. Poor cable connections or a too low voltage regulator setting could be the cause.

ENGINE ADJUSTMENTS

	Diesel	Gasoline
Spark Plug Gap:	---	.025 in.
Valve Tappets		
Exhaust:	.012 (Cold)	.020 (Hot) .023 (Cold)
Intake:	.012 (Cold)	.012 (Hot) .015 (Cold)
Ignition Points:	---	.021 in.
Ignition Timing:	(Injection Pump) 22° 2500 RPM	10° BTDC @ 900 RPM or 15° BTDC @ 1800 RPM
Cylinder Head Torque (Engine Hot):	60 ft. lbs.	35 - 40 ft.-lbs.
Idle RPM Setting:	---	800
Firing Order:	1-3-4-2	1-5-3-6-2-4
Thermostat	190°	180°
Radiator Cap:	7 lbs.	7 lbs.
Fan Belt Tension	3/8" - 1/2" Deflection between alternator and crankshaft pulley.	



LOADER SPECIFICATIONS

DIESEL	31
GASOLINE	32

**LOADER
SPECIFICATIONS**

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL