4. MAINTENANCE CHECK LIST

1) DAILY SERVICE BEFORE STARTING

| Check items | Service | Page |
|----------------------------|---------------|------|
| Visual check | | |
| Fuel tank | Check, Refill | 6-25 |
| Hydraulic oil level | Check, Add | 6-29 |
| Engine oil level | Check, Add | 6-18 |
| Coolant level | Check, Add | 6-20 |
| Control panel & pilot lamp | Check, Clean | 6-39 |
| Water separator | Check, Drain | 6-26 |
| Fan belt tension | Check, Adjust | 6-24 |

2) EVERY 50 HOURS SERVICE

| Check items | Service | Page |
|------------------------------|---------------|------|
| Fuel tank | Drain | 6-25 |
| Track tension | Check, Adjust | 6-34 |
| Swing bearing | Lubricate | 6-32 |
| Swing reduction gear oil | Check, Add | 6-32 |
| Lubricate pin and bushing | Lubricate | 6-38 |
| Boom cylinder tube end | | |
| - Boom foot | | |
| Boom cylinder rod end | | |
| · Arm cylinder tube end | | |
| · Arm cylinder rod end | | |
| · Boom + Arm connecting | | |
| Bucket cylinder tube end | | |
| Bucket cylinder rod end | | |
| · Arm + Bucket connecting | | |
| · Arm + Link, Bucket control | | |
| Bucket control rod | | |

3) INITIAL 50 HOURS SERVICE

| Check items | Service | Page |
|------------------------------------|--------------|----------|
| Engine oil | Change | 6-18, 19 |
| Engine oil filter | Replace | 6-18, 19 |
| Pilot line filter | Replace | 6-31 |
| Hydraulic return filter | Replace | 6-30 |
| Drain filter cartridge | Replace | 6-31 |
| Fuel filter | Replace | 6-26 |
| Bolts & Nuts | Check, Tight | 6-8 |
| · Sprocket mounting bolts | | |
| Travel motor mounting bolts | | |
| Swing motor mounting bolts | | |
| Swing bearing mounting bolts | | |
| Engine mounting bolts | | |
| Counterweight mounting bolts | | |
| Turning joint locating bolts | | |
| Track shoe mounting bolts and nuts | | |
| Hydraulic pump mounting bolts | | |

Service the above items only for the new machine, and thereafter keep the normal service interval.

4) EVERY 100 HOURS SERVICE

| Check items | Service | Page |
|------------------------------------|---------|------|
| Return filter | Replace | 6-30 |
| Pilot line filter | Replace | 6-31 |
| Element in hydraulic tank breather | Replace | 6-31 |
| Drain filter cartridge | Replace | 6-31 |

Replace 4 filters for continuous hydraulic breaker operation only.

5) EVERY 250 HOURS SERVICE

| Check items | Service | Page |
|------------------------------------|--------------|----------|
| Engine oil | Change | 6-18, 19 |
| Engine oil filter | Replace | 6-18, 19 |
| Battery electrolyte | Check, Add | 6-39 |
| Hydraulic oil return filter | Replace | 6-30 |
| Drain filter cartridge | Replace | 6-31 |
| Swing reduction gear oil | Change | 6-32 |
| Swing reduction grease | Check, Add | 6-32 |
| Pilot line filter | Replace | 6-31 |
| Element in hydraulic tank breather | Replace | 6-31 |
| Bolts & Nuts | Check, Tight | 6-8 |
| Sprocket mounting bolts | | |
| Travel motor mounting bolts | | |
| - Swing motor mounting bolts | | |
| Swing bearing mounting bolts | | |
| Engine mounting bolts | | |
| Counterweight mounting bolts | | |
| Turning joint locating bolts | | |
| Track shoe mounting bolts and nuts | | |
| Hydraulic pump mounting bolts | | |

If you use high sulfur containing fuel above than 0.5% or use low grade of engine oil reduce change interval.

Change oil and add grease after initial 250 hours of operation.

6) EVERY 500 HOURS SERVICE

| Check items | Service | Page |
|---------------------------|----------------|----------|
| Engine oil | Change | 6-18, 19 |
| Engine oil filter | Replace | 6-18, 19 |
| Radiator and cooler fin | Inspect, Clean | 6-24 |
| Air cleaner element | Check, Clean | 6-25 |
| Fuel filter | Replace | 6-26 |
| Travel reduction gear oil | Check, Add | 6-33 |
| Travel reduction gear oil | Change | 6-33 |

Clean the primary element only after 500 hours operation or when the air cleaner warning lamp blinks. Replace primary element and safety element after 4 times cleanings of primary element.

Change oil after initial 500 hours of operation.

If you use high sulfur containing fuel abore then 0.5% or use low grade of engine oil reduce change intervel.

7) EVERY 1000 HOURS SERVICE

| Check items | Service | Page |
|---------------------------------|---------|------|
| Travel motor reduction gear oil | Change | 6-33 |
| Swing reduction gear oil | Change | 6-32 |
| Swing reduction grease | Refill | 6-32 |
| Grease in swing gear and pinion | Change | 6-33 |

8) EVERY 2000 HOURS SERVICE

| Check items | Service | Page |
|------------------|--------------|------------------|
| Hydraulic tank | | |
| · Oil | Change | 6-29 |
| Suction strainer | Check, Clean | 6-30 |
| Coolant | Change | 6-20, 21, 22, 23 |

Change oil every 600 hours of continuous hydraulic breaker operation.

9) WHEN REQUIRED

Whenever you have trouble in the machine, you must perform the service of related items, system by system.

| Check items | Service | Page |
|----------------------------|------------------|------------------|
| Fuel system | | |
| · Fuel tank | Drain or Clean | 6-25 |
| · Water separator | Drain or Replace | 6-26 |
| · Fuel filter | Replace | 6-26 |
| Engine lubrication system | | |
| · Engine oil | Change | 6-18, 19 |
| · Engine oil filter | Replace | 6-18, 19 |
| Engine cooling system | | |
| · Coolant | Add or Change | 6-20, 21, 22, 23 |
| · Radiator | Clean or Flush | 6-20, 21, 22, 23 |
| Engine air system | | |
| · Air cleaner element | Replace | 6-25 |
| Hydraulic system | | |
| · Hydraulic oil | Add or Change | 6-29 |
| · Return filter | Replace | 6-30 |
| · Drain line filter | Replace | 6-31 |
| · Pilot line filter | Replace | 6-31 |
| · Element of breather | Replace | 6-31 |
| · Suction strainer | Clean | 6-30 |
| Undercarriage | | |
| · Track tension | Check, Adjust | 6-34 |
| Bucket | | |
| · Tooth | Replace | 6-36 |
| · Side cutter | Replace | 6-36 |
| · Linkage | Adjust | 6-37 |
| · Bucket assy | Replace | 6-35 |
| Air conditioner and heater | | |
| · Fresh filter | Clean, Replace | 6-42 |
| · Recirculation filter | Clean | 6-43 |