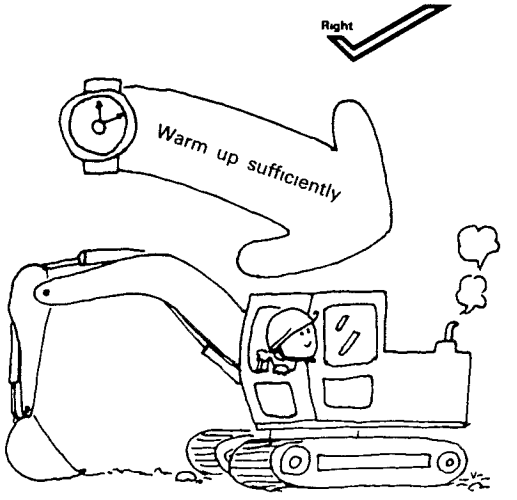
CAUTIONS FOR USE OF NEW MACHINE

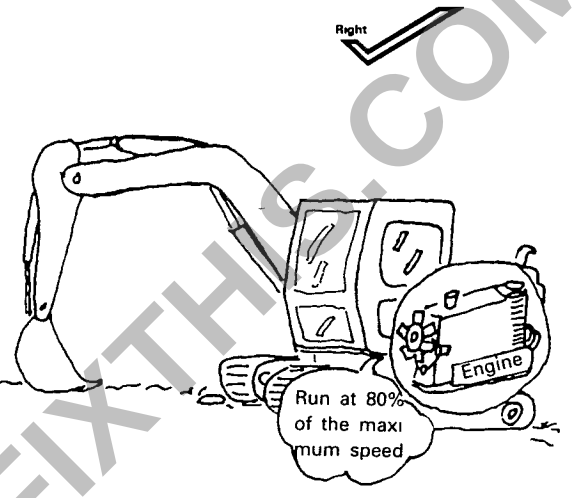
Gently operate the machine for first 50 hours of operation.

These machines are shipped after proper adjustment and inspection Severe operation from the beginning will hamper the performance and shorten the life

1 Always perform sufficient machine warm-up



2 Run the engine speed below 80% of the maximum speed.



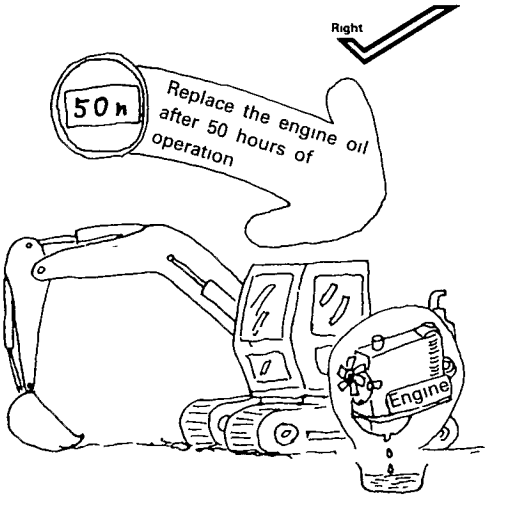
3 Avoid sudden starts and turns

4 Avoid hard shocks (such as rapid boom lowering or sudden stop)



5 Replace the engine oil after 50 hours of operation

Also, replace the oil filter element



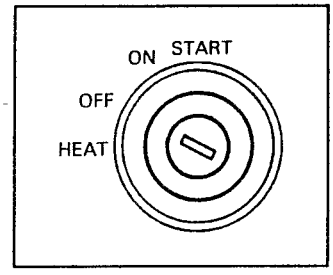
6 Change hydraulic oil filter element

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INSTRUMENTS AND CONTROLS

Starter switch



Machines 265U2–5368
270U2–5302
280U2–5557
340U2–5473
430U2–5547
and befor

OFF
Key can be inserted or removed in this position.
All the power is off.

ON
Used while engine is running.

⚠ CAUTION

◆ Be sure to keep the key in ON position while engine is running. Moving it to OFF position may damage the electric system.

Machines 265U2–5369
270U2–5303
280U2–5558
340U2–5474
430U2–5548
and after

OFF
Key can be inserted or removed in this position.
All the power is off.
To stop the engine, turn the key to OFF

ON
Used while engine is running.

START
Cranks the starter motor to start the engine Release it as soon as engine starts. Key will automatically return to ON position

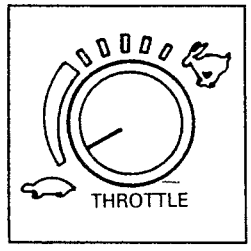
⚠ CAUTION

◆ If the engine dose not start on the first attempt, crank the starter for 10 – 15sec., then sllow it to cool for 10 – 15 sec. If the engine starting performance is poor during cold weather, it is O. K. to crank the starter continuously for about 30 sec.

HEAT
Used for preheating the air intake when engine is difficult to start in winter. (Only when preheating manually) Returns to OFF position when released.

Throttle Dial

Position is the setting for the lowest engine rpm. Turning the switch to the right gradually increases engine rpm, and position is the maximum rpm setting.



◆ Resonating when the engine speed is lowered can cause vibrations, but they can be stopped by slightly increasing rpm.

Lamp Check/Buzzer Stop Switch

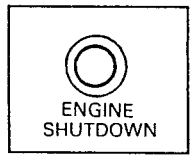
All lamps on the monitor should come on when this switch is pressed. Any lamp which does not come on at this time, check the system or lamp. It may by defective and should be replaced.



This switch can also be pressed to stop the buzzer from sounding.

Engine Stop Switch

The engine will stop when this switch is pressed.

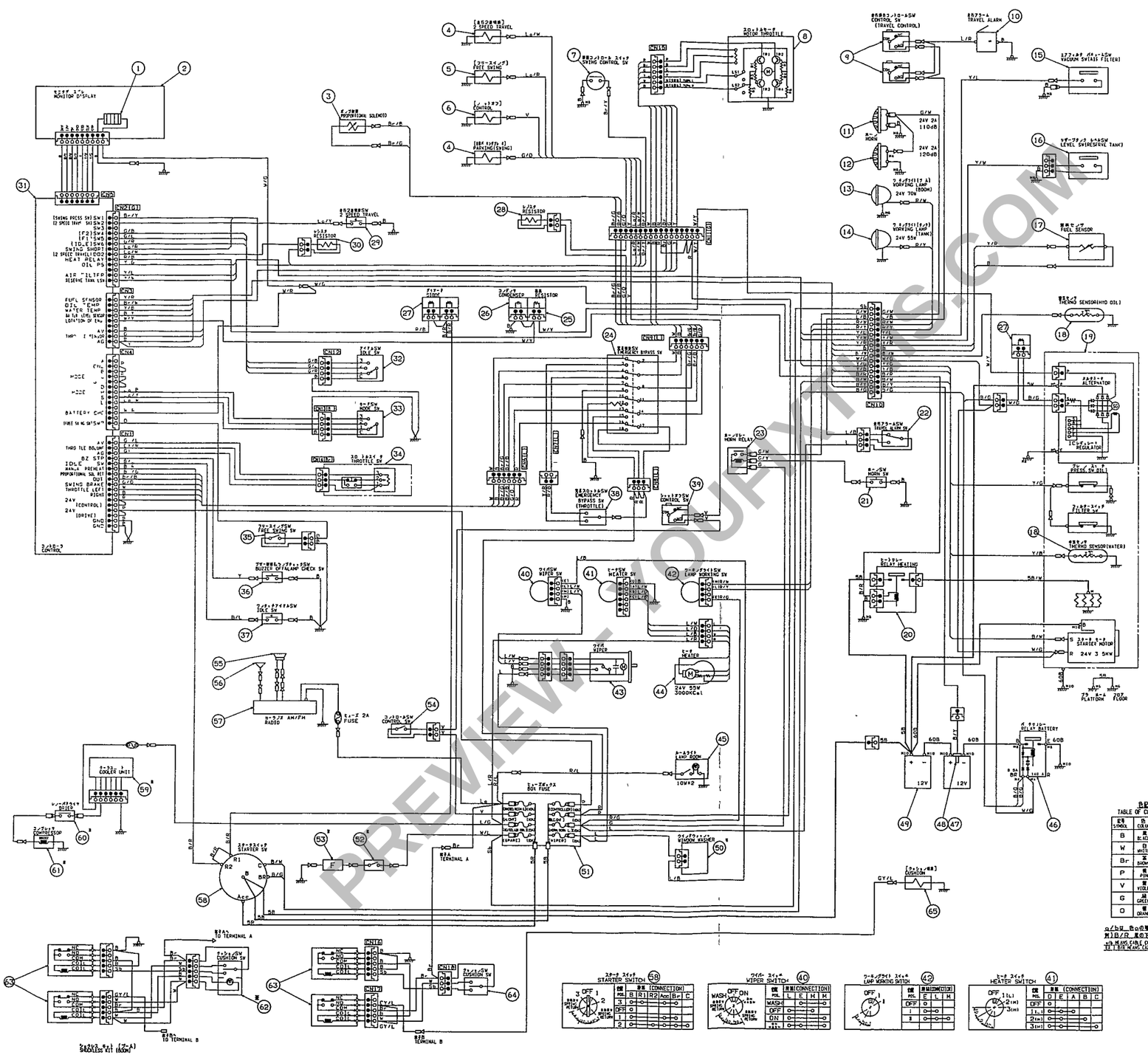


◆ The throttle speed dial should be turned to its lowest setting when stopping the engine.

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ELECTRIC CIRCUIT



SYM	DESCRIPTION	QTY
1	METER HOUR	1
2	MONITOR DISPLAY ASSY	1
3	PUMP;HYD	1
4	VALVE;SOLENOID	2
5	VALVE;SOLENOID	1
6	VALVE;SOLENOID	1
7	SWITCH;PRESSURE	1
8	MOTOR;THROTTLE	1
9	SWITCH;LIMIT	2
10	ALARM;TRAVEL	1
11	HORN;ELECTRIC	1
12	HORN;ELECTRIC	1
13	LAMP;WORKING	1
14	LAMP;WORKING	1
15	SENSOR;VACUUM	1
16	SWITCH;LIMIT	1
17	SENSOR;FUEL	1
18	SENSOR;THERMO	2
19	ENGIN;DIESEL	1
20	RELAY;HEATING	1
21	KNOB(SWITCH)	1
22	SWITCH;ROCKER(HORN)	1
23	RELAY;HORN	1
24	SWITCH	1
25	RESISTER	1
26	CONDENSER	1
27	DIODE	3
28	RESISTER	1
29	PUSH BUTTON DIMMER	1
30	RESISTER	1
31	CONTROLLER	1
32	SWITCH;ROTARY(IDLE)	1
33	SWITCH;ROTARY(MODE)	1
34	SWITCH(THROTTLE)	1
35	SWITCH;ROCKER(SWING)	1
36	PUSH BUTTON	1
37	SWITCH;TOGGLE	1
38	SWITCH;LIMIT	1
39	SWITCH;ROTARY(WIPER)	1
40	SWITCH;ROTARY(HEATER)	1
41	SWITCH;ROTARY(LAMP)	1
42	MOTOR;WIPER	1
43	HEATER CORE	1
44	LAMP;ROOM	1
45	RELAY;BATTERY	1
46	BATTERY(SENSOR)	1
47	SENSOR;SPECIAL	1
48	BATTERY	1
49	WINDOW WASHER TANK	1
50	BOX;FUSE	1
51	SWITCH;TOGGLE	1
52	FAN	1
53	SWITCH;ROCKER(CONTROL)	1
54	SPEAKER	1
55	ANTENNA	1
56	RADIO SET	1
57	SWITCH;STARTER	1
58	COOLER PAD (INTER)	1
59	COOLER PAD (COMPRESSOR)	1
60	COOLER PAD (COOLER UNIT)	1
61	SWITCH;ROCKER(CUSHION)	1
62	RELAY	1
63	SWITCH;ROCKER(CUSHION)	2
64	VALVE;SOLENOID	1
65	VALVE;SOLENOID	1

TABLE OF COLOUR SYMBOLS

SYMBOL	COLOUR	SYMBOL	COLOUR
B	BLACK	R	RED
W	WHITE	Y	YELLOW
Br	BROWN	Lo	LIGHT BLUE
P	PINK	Sb	SKY BLUE
V	VIOLET	L	BLUE
G	GREEN	GY	GRAY
O	ORANGE		

CUSHION

NO MEANS CABLE COLOUR is STRIPED BY 2 KINDS OF THE MAIN CABLE COLOUR BLACK STRIPED BY RED

STARTER SWITCH (58)

	B	R1	R2	Acc	Br	C
3						
OFF	O					
1						
2						

WIPER SWITCH (40)

	L	E	H	M
WASH				
OFF				
ON				

LAMP WORKING SWITCH (42)

	E	L	H
OFF			
1			
2			

HEATER SWITCH (41)

	D	E	A	B	C
OFF					
1 (L)					
2 (M)					
3 (H)					

NOTES

1) ※印はオプションを示す。
※ IS OPTIONAL

2) 図中にあるアース記号及び記載文章はすべてのメリである。
EARTH LINE SYMBOLS AND CROSS POINT OF LINES IN THIS DRAWING SHOWS THE FOLLOWING

3) 記載線上の記号は電線色を示しその右に付記した数値は電線の断面積を示す。但し付属のない 0.85 sq である。
THE SYMBOL AT EACH LINE SHOWS COLOUR OF CABLE AND THE FIGURE BEFORE THE SYMBOL SHOWS THE AREA OF CABLE THE AREA OF CABLE NOT INDICATED IS 0.85 sq

4) コネクタ表示は下記のメリである。
THE SYMBOL OF CONNECTER IN THIS DRAWING SHOWS THE FOLLOWING

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HYDRAULIC SYSTEM

This machine carries out all functions, such as traveling, swing, excavation, etc by hydraulic pressure The system can be roughly divided in two

- Hydraulic actuator
- Control device

Hydraulic actuator

This is composed of main hydraulic device which directly actuates traveling, swinging and excavating devices, and two hydraulic devices

No 1 pump → Control valve → Arm speed 2, Bucket, Boom, Right travel

No 2 pump → Control valve → Arm, Swing, Boom speed 2, Left travel

No 3 pump (Pilot pump) → Pilot valve

Hydraulic system

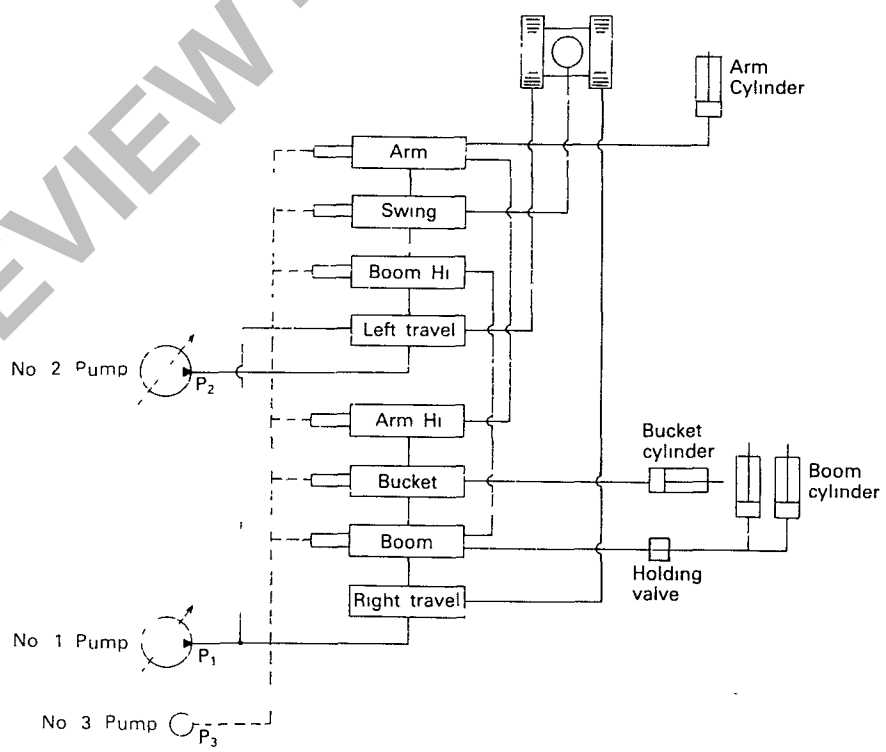
To carry out the functions described to the left, actuate the control valve to supply hydraulic oil to the device

The control valve uses the pilot method to operate the hydraulic system, and can be operated with a light touch (Except travel)

No 3 Pump → Shutoff valve → Pilot valve → Control valve

When the shutoff valve is turned OFF, (the control switch is OFF or the console box is raised up), the pilot pressure will be stopped to make all other operations except travel

Hydraulic Circuit



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LUBRICATION CHART

LS-2700CII LUBRICATION CHART

REF NO	DESCRIPTION	NO POINTS	SPECIFICATION	INTERVALS (hr)					
				50	100	250	500	1000	2000
①	FRONT ATTACHMENT PIN	16	EP GREASE No 2	○					
②	TURNTABLE BEARING	3			○				
③	SWING RING GEAR	13kg 28.7lb					○		
④	ENGINE OIL PAN	13.8ℓ 3.6gal	ENGINE OIL	△		●			
⑤	SWING GEAR REDUCER	6.0ℓ 1.6gal	GEAR OIL			△		●	
⑥	TRAVEL GEAR REDUCER	3.0ℓ×2 0.8gal×2	GEAR OIL			△		●	
⑦	HYDRAULIC SUMP TANK	170ℓ 44.9gal	HYDRAULIC OIL						●
⑧	ENGINE RADIATOR	17.7ℓ 4.7gal	WATER WITH LONG LIFE COOLANT	EVERY 2 YEARS					
⑨	FUEL TANK	240ℓ 63.4gal	LIGHT OIL	WHEN REQUIRED					
Ⓐ	PILOT OIL FILTER	1	ELEMENT	△			●		
Ⓑ	FUEL FILTER	1	ELEMENT				●		
Ⓒ	ENGINE OIL FILTER	1	ELEMENT			●			
Ⓓ	RETURN FILTER	1	ELEMENT	△			●		
Ⓔ	SUCTION FILTER	1	ELEMENT				□		●
Ⓕ	DRAIN FILTER	1	ELEMENT	△			●		
Ⓖ	AIR CLEANER	1	ELEMENT			□		●	
Ⓗ	AIR BREATHER	1	ELEMENT					●	

○ LUBRICATE/GREASE
△ CHANGE INITIALLY
● CHANGE OIL OR REPLACE ELEMENT
□ CLEAN

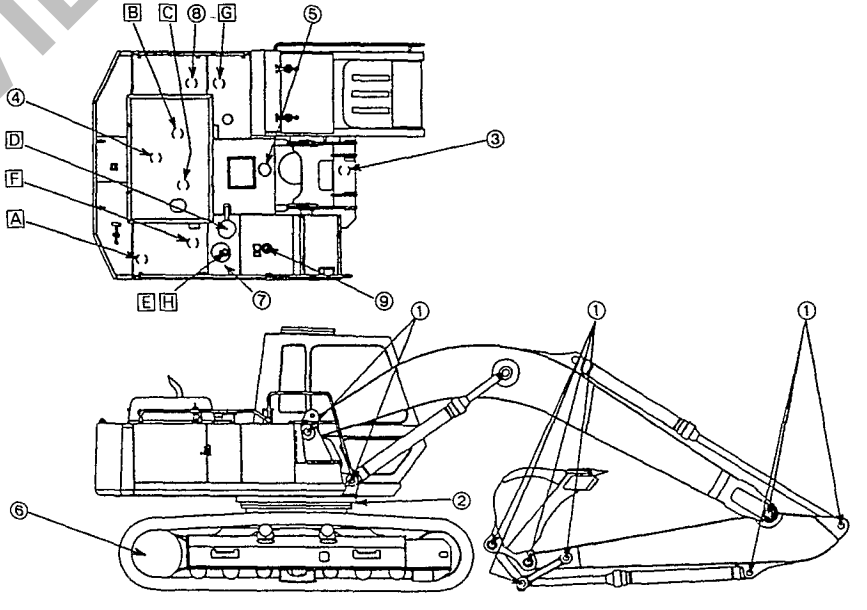
RECOMMENDED GREASE AND OIL SPEC ARE AS FOLLOWS

EP GREASE	LITHIUM GREASE No 2
ENGINE OIL	API CD SAE 30
GEAR OIL	API GL-4 SAE 90
HYDRAULIC OIL	ISO VG 32

NOTES 1 AS FOR FRONT ATTACHMENT PINS, DAILY LUBRICATION IS RECOMMENDED IN CASE OF OPERATION IN WATER
2 THIS CHART IS PRIOR TO THE ENGINE INSTRUCTION MANUAL
3 INTERVAL HOURS ON THIS CHART ARE BASED ON SAE J752b AS FOLLOWS

50 (OR WEEKLY)	*	500 (OR 3 MONTHS)	*
100 (OR 2 WEEKS)	*	1000 (OR 6 MONTHS)	*
250 (OR MONTHLY)	*	2000 (OR YEARY)	*

* WHICHEVER OCCURS FIRST



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HYDRAULIC HAMMER ATTACHMENT

General Information And Precautions

Special attachments, including the hydraulic hammer are used quite often on some machines. Pay particular attention to the additional precautions listed here when using a hydraulic hammer.

1. Read and understand the machine and the hammer operators manual before beginning installation or operation
2. Select the right attachment for the job
3. Follow the recommended, more frequent maintenance schedule for hydraulic oil and filters given later in this section
4. Follow the recommended installation and operetion procedures for the hammer given later in this section
5. Use the machine and attachment for jobs which they are designed to do

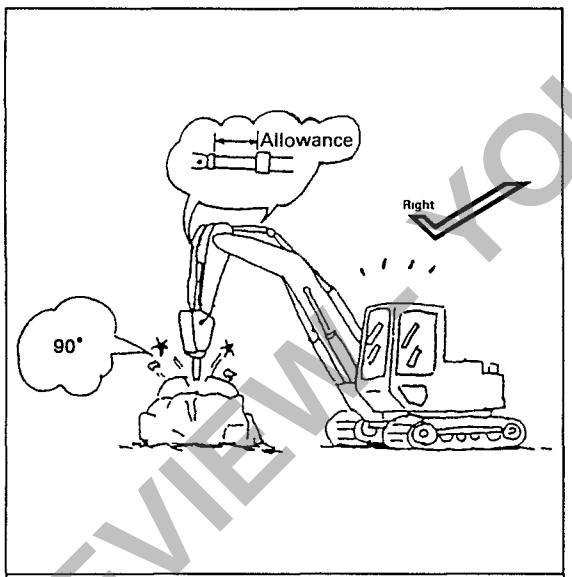


Figure 1
Correct operation.

6. Keep the chisel at a right angle to the surface being broken Do not operate with any attachment cylinder extended or retracted to the stroke end

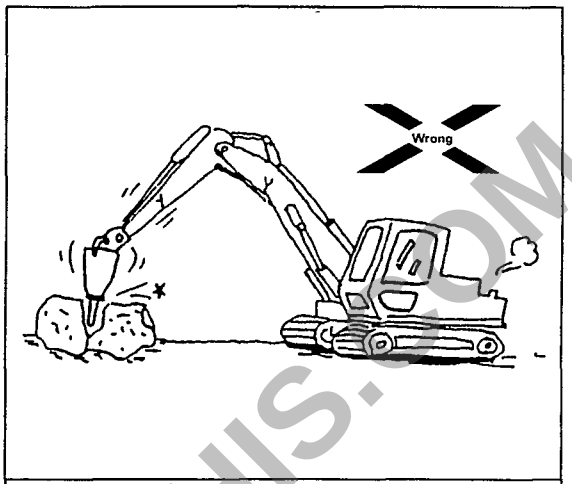


Figure 2
Do not the to pry.

7. Do not use the hammer to pry. Prying leads to hammer and machine damage

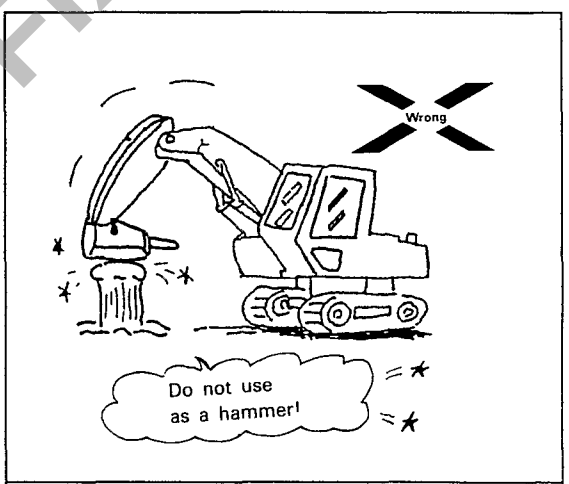


Figure 3
Do not use as a hammer.

8. Use the hammer as a "breaker". Do not use it to "hammer"
9. Do not use the swing force to attempt to break materials. This might damage the swing mechanism.
10. Do not operate the hammer under water Water will enter the seals and damage the hammer and machine.
11. Do not operate the hammer in the same position for more than 1 minute. If material is not broken in less than 1 minute, change positions Continued operations in the same position will overheat the hammer (chisel) and the hydraulic oil which will damage the hammer and the machine

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Fan belt tension checking and adjustment

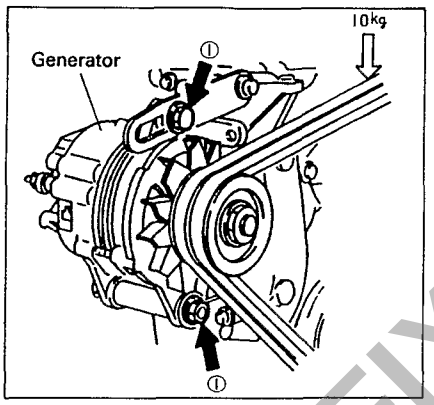
(Every 250 hour maintenance)

Push (about 22 lb, 10 kg) the fan belt at a point between the generator and the water pump. The standard bending is 0.4 in (10 mm) To adjust the tension, loosen the nuts ①, and relocate the generator.

(Refer to "Operation manual for engine".)

★ If the fan belt is so extended that there is no allowance for adjustment, replace it with a new belt

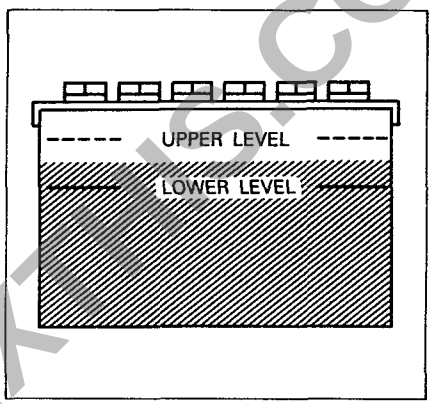
★ When the belt is replaced, run the engine for about 1 hour, and then recheck the tension.



Checking the battery solution level

(Every 250 hour maintenance)

Since the battery solution decreases with repeated charging and discharging, check to see that the solution is at the proper level



Bolt tightening

(Every 250 hour maintenance)

Check the torque on every bolt and nut and, if necessary, tighten them in accordance with the following table, otherwise a serious accident may be caused.

Bolt tightening torque table

	Bolt to be tightened	Bolt size	Hex size	Tightening torque	
1	Turntable bearing mounting bolt	M20	30 mm	384~434 ft lb	53.1~60 0 kg m
2	Swing reduction gear mounting bolt	M20	30 mm	384~434 ft·lb	53 1~60 0 kg·m
3	Engine mounting bolt				
	Radiator side	M12	19 mm	40~47 ft·lb	5 5~6 5 kg·m
	Pump mounting side	M10	17 mm	46~54 ft·lb	6 4~7 4 kg·m
4	Radiator mounting bolt	M12	19 mm	40~47 ft lb	5 5~6 5 kg m
5	Hydraulic pump mounting bolt				
	Pump mounting	M10	17 mm	46~54 ft lb	6 4~7 4 kg m
	Coupling hub mounting	M16	Hexagon hole	152~166 ft lb	21 0~23.0 kg m
6	Oil tank mounting bolt	M16	24 mm	137~152 ft lb	19 0~21 0 kg m
8	Control valve mounting bolt	M16	24 mm	195~231 ft lb	14.5~17 5 kg m
9	Operator's cab mounting nut	M16	24 mm	109~128 ft lb	15 1~17 7 kg m
10	Travel reduction gear mounting bolt				
	Motor section	M16	24 mm	197~230 ft lb	27 2~31 8 kg m
	Sprocket section	M16	24 mm	197~230 ft·lb	27 2~31 8 kg m
11a	Shoe mounting bolt	M18	27 mm	394~401 ft lb	54 5~55.5 kg m
12	Carrier roller mounting bolts	M20	30 mm	195~231 ft·lb	27 0~32 0 kg·m
13	Track roller mounting bolt	M16	24 mm	105~127 ft·lb	14 5~17 5 kg m
14	Counterweight mounting bolts	M27	41 mm	536~625 ft lb	74 1~86 4 kg m

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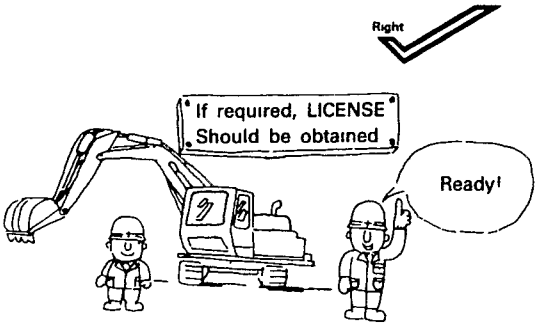
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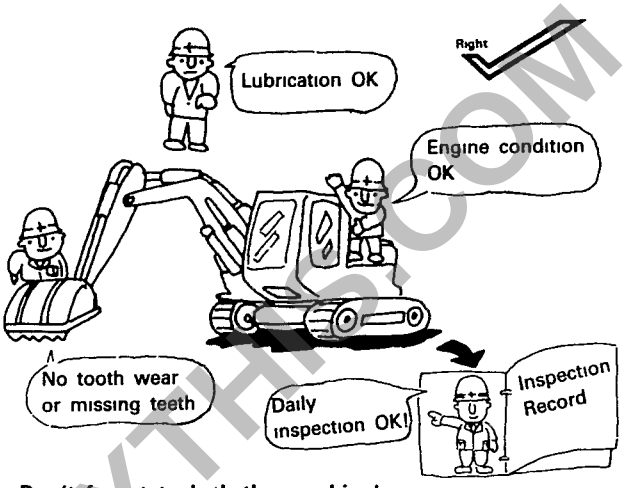
SAFETY

(Before moving to the job site)

ALWAYS wear proper safety equipment and work clothing!



Inspect your machine!



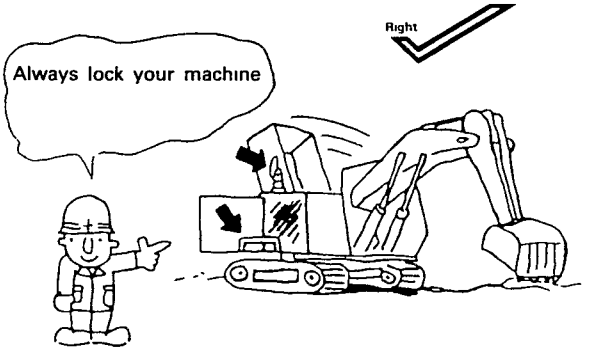
Do not overwork yourself.

Do not attempt to operate the machine when you do not feel well It's dangerous to you and to the people you work with



Don't forget to lock the machine!

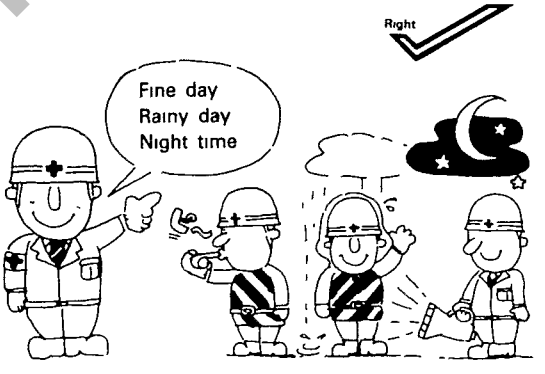
Always lock machine when opening or shutting doors or hood



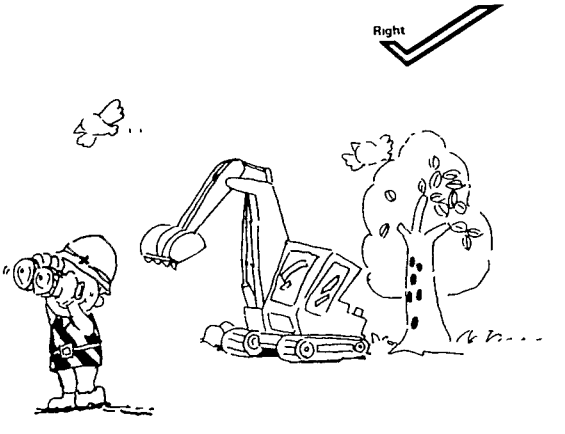
(When the machine is moved to job site)

Set up a work schedule!

Checks signals with everyone Designate a signal person



Look about job site



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CAUTION

CONSTRUCTION EQUIPMENT CAN BE DANGEROUS IF IMPROPERLY OPERATED OR MAINTAINED. THIS MACHINE SHOULD BE OPERATED AND MAINTAINED ONLY BY TRAINED AND EXPERIENCED PEOPLE WHO HAVE READ, UNDERSTOOD, AND COMPLIED WITH THE OPERATORS MANUAL.

The productive life of any machine depends largely on the care and consideration given it This especially holds true with construction equipment

Link-Belt excavators embody the best of engineering knowledge, years of experience, and construction in accordance with the high standard of the Company
The present machine age and universal use of the automobile has taught most people to appreciate that systematic, periodical inspection and maintenance will be repaid with a longer period of satisfactory service

This Operator's Manual was compiled to explain the procedure and adjustments necessary for proper operation of this machine A study of this book will acquaint operator and serviceman with the construction of this equipment It is advisable to correct minor troubles before they develop into costly major shutdowns

Any questions pertaining to the care and upkeep of this machine which have not been covered it this book should be directed to your nearest Link Belt distributor

The Company reserves the right to make alternations or modifications to this equipment at any time, which in their opinion may improve the performance or efficiency of the machine The manufacturer is not obligated to make such alterations or modifications to machines already in service

If any instruction, caution, warning, or danger label, decal or plate becomes lost, damaged or unreadable, it should be replaced

Replacement labels may be ordered through your distributor Information contained on such labels is important and failure to follow it may result in an accident

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Mechanical Control Monitors

	Meaning of Display
L	• Illuminates when L mode operations are in progress (The load mode switch is at the L position.)
S	• Illuminates when S mode operations are in progress (The load mode switch is at the S position)
H	• Illuminates when H mode operations are in progress (The load mode switch is at the H position)
F	• Illuminates when F mode operations are in progress. (Either the F1 or F2 position has been selected at the idle/F mode selection switch with the idle switch on)
IDLE	• Illuminates when one touch idle switch operations are in progress (The idle switch is at the ON position and IDLE has been selected at the idle/F mode switch)
(P) SWING BRAKE	• Swing brake is on when lamp is illuminated (Swing parking brake) Lamp will go on within 5 seconds of putting swing lever in neutral position (If Free swing switch is at the OFF position)
FREE SWG	• Comes on during free swing operation (Free swing switch is at the ON position)
TRAVEL	• Comes on during high speed travel operation (Travel switch is at th high speed position)

Swing Parking Brake ((P) SWING BRAKE)

The swing parking brake prevents swing from inertia forces when operating on an inclined surface
The brake will engage within five seconds of the time that the swing lever is placed in the neutral position
The brake will automatically be released when the swing operation lever is operated

⚠ DANGER

- Although this vehicle has been provided with a swing parking brake, it is still necessary to lower the bucket to the ground before leaving the operator's seat
- The swing parking brake will not function if the free swing switch is at the ON position

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INSPECTION AND MAINTENANCE CHECK LIST

■ Periodic maintenance

■ Perform the following checks daily, before start-up

Oil and water leakage
Looseness of bolts and nuts, tighten if necessary
Disconnection and short circuit of electric wire, loose terminals
Cleanliness of oil
Coolant amount, refill if necessary
Fuel level.
Engine oil level, refill if necessary
Oil level in the hydraulic oil tank refill if necessary

■ Every 50 hour maintenance

Items with asterisks must be done after first 50 hours of operation on new machine

*Change engine oil
*Change pilot oil filter element
*Change return filter element
*Change drain filter element
*Retighting bolts and nuts (Refer to "Bolt Torque Chart" for specifications)
Greasing of front attachment pin
Draining water and deposits in the fuel tank
Drain water in water separator.

■ Every 100 hour maintenance

Grease turntable bearing

■ Every 250 hour maintenance

Items with asterisks must be done after 250 hours of operation on new machine

*Check of oil amounts in the upper and lower rollers, and take-up roller, and oil refilling
*Change oil in swing reduction gear
*Change oil in travel reduction gear
Change engine oil
Change engine oil filter element
Wash air cleaner element
Inspect oil level of swing reduction gear and/or refill
Inspect oil level of travel reduciton gear and/or refill
Drain water and deposits in the hydraulic oil tank
Inspect and adjust tension on fan belt
Battery solution level
Retightening of bolts and nuts (Refer to "Bolt Torque Chart" for specifications)

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