CX26B
CX30B
Series 2
Mini Excavators

Operator's Manual

Print No. 84371831
1st edition
English 01/11 - ORIGINAL INSTRUCTIONS

CASE

NOISE LEVELS (2000/14/EC)

SOUND POWER LEVEL

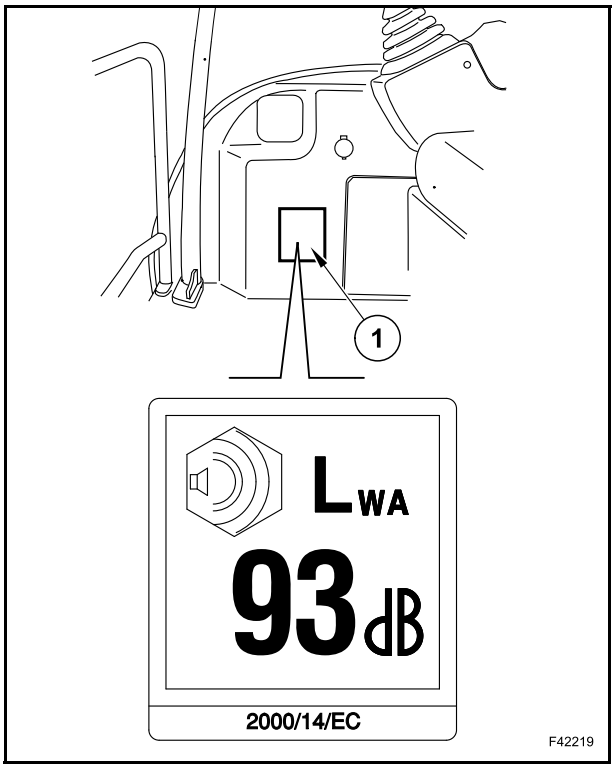
Lwa = 93 dB (A)

Plate (1) shows the guaranteed sound power level, determined in compliance with 2000/14/EC European Standard.

SOUND PRESSURE LEVEL AT THE OPERATOR'S SEAT

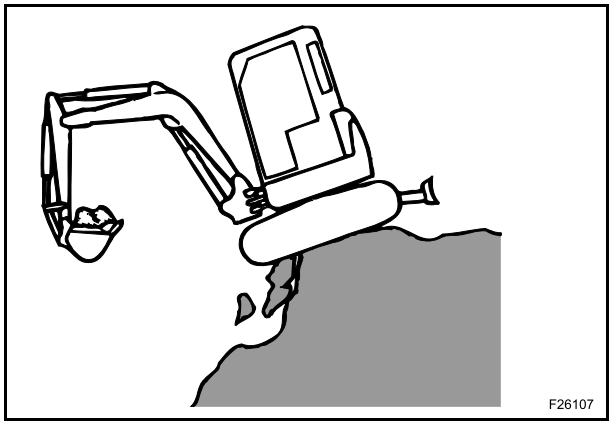
Lpa = 79 dB (A)

Sound pressure level continuous, equivalent and weighted, measured at the driver's seat inside the cab with door and windows closed and with the heater/air conditioner blower operating at 2nd speed, measured on an identical machine, in compliance with standard ISO 6396:2008.



ENSURE SAFETY AT THE WORK SITE

Know the work area! Before operating the machine, carefully survey and record the land and work site features to prevent the machine from falling or the soil from caving in.

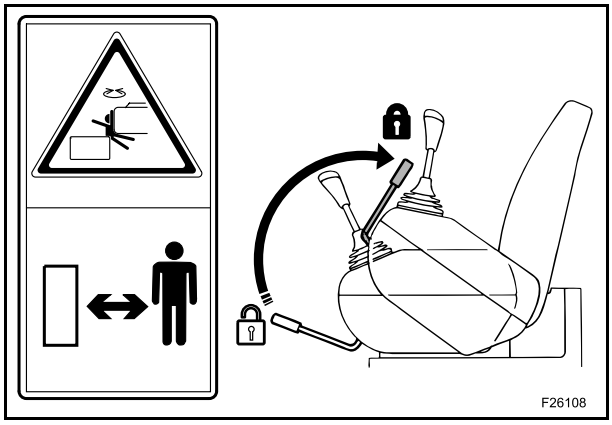


ENGAGE THE SAFETY LOCK LEVER(S) BEFORE LEAVING THE MACHINE

In models provided with cab, there is only one lever on the left side, while the models with canopy are provided with two levers, one on each side; by setting just one lever to the LOCKED position, the controls will be blocked.

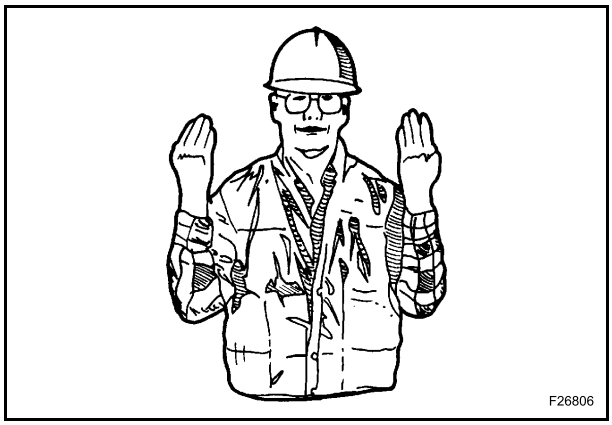
Before leaving the operator's seat, set the safety lock levers to the LOCKED (up) position. This will not allow operation of any hydraulic controls should they be accidentally moved. If the levers are not in LOCKED position and the hydraulic controls are accidentally operated, the machine may move unexpectedly, thus causing serious injury.

Before leaving the machine, lower the bucket to the ground, set the safety lock levers to the LOCKED (up) position, stop the engine and remove the starter key.



SIGNS, SIGNALS AND FLAGMEN

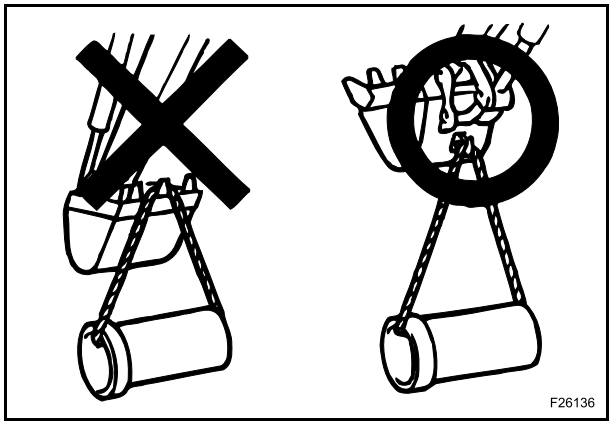
Install signs on soft shoulders and ground areas. Have a flagman direct the operation if necessary. The operator should note marks and follow signals from the flagman. All personnel should know the meaning of the signs, marks, and signals. Only one flagman should give the signs and signals.



LIFTING

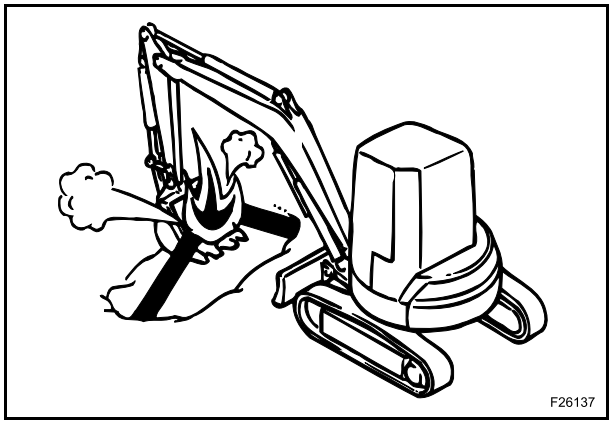
This machine is an excavator. Use extreme caution when lifting or moving heavy loads. Use proper lifting equipment rated at a capacity to handle the load.

Never use the bucket teeth to lift or move heavy loads.



WORKING AROUND UTILITY LINES UNDERGROUND

When working in the presumed area of power, water or gas lines under the ground, ask the organization concerned for the actual location and carry out a trial digging. Once located the lines, proceed with your work carefully.

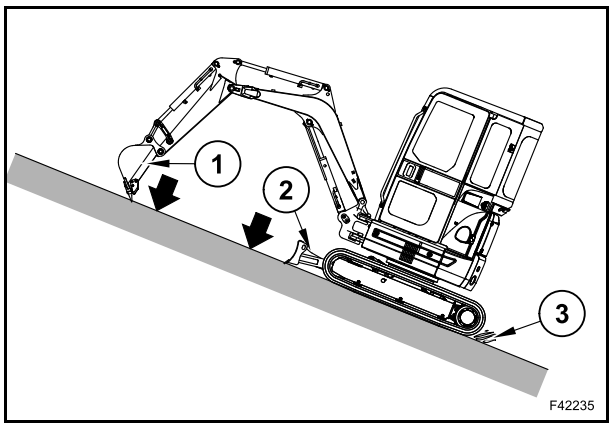


PARKING THE MACHINE

Always park the machine on a firm, level surface.

If no level and firm surface is available, block the crawlers with wedges (1) and lower the bucket (2) and the dozer (3) to the ground to prevent an unexpected machine movement.

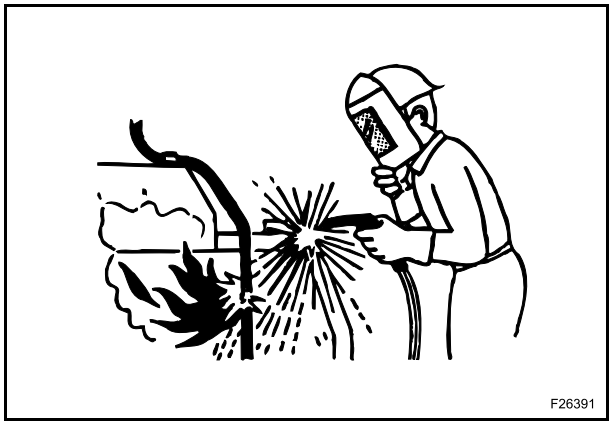
Should the machine be parked on a roadway, move the machine to the shoulder to allow passing of traffic. Also warn other drivers by placing warning signals and lights. To protect the work site, observe the local regulations in force.



DO NOT HEAT HYDRAULIC EQUIPMENT OR PIPING

Hot hydraulic components or piping will cause gas expansion, which can easily catch fire.

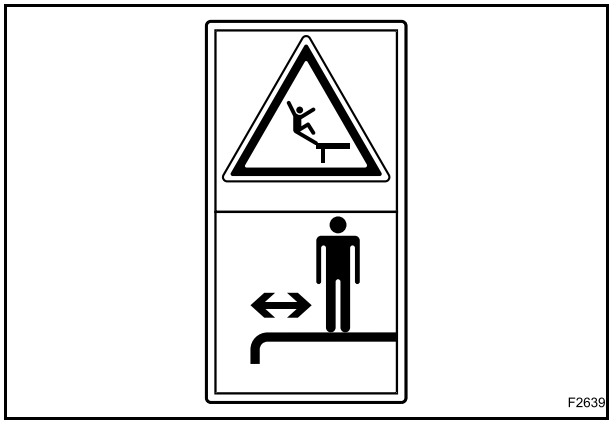
Dangerous works like welding, brazing, torch heating, etc. on components or ducts of the hydraulic system, or in the vicinity of it are not allowed.



WORKING ON HIGH PLACES

To work on high places can generate danger of falls. Be careful not to approach edges.

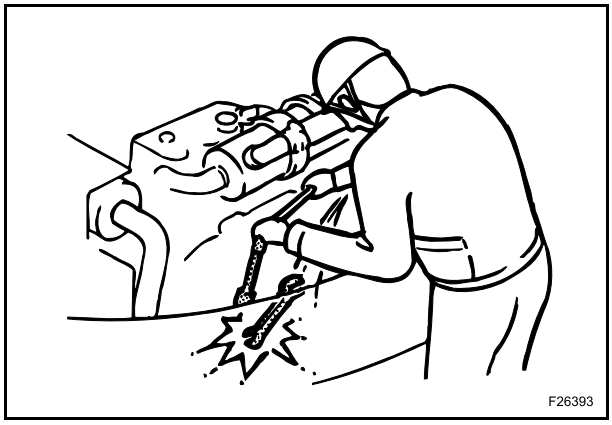
- Make sure to use the appropriate equipment, such as: ladders, man lifts etc.
- In addition, strap yourself to the proper equipment accordingly.
- Avoid spillage of any oil or grease.
- Do not leave any tools around the working area.
- Use extreme caution to avoid slipping while walking.
- Never jump into or from climbing equipment. Use a step-ladder or handrail and securely maintain a three point contact while mounting or dismounting at all times.
- Make sure to read the man lift equipment operator's manual before using.
- Comply with climbing equipment weight ratings.



DO NOT DROP TOOLS AND PARTS

Dropping of any tools and parts in the working area may cause injury or faulty machine operation.

Do not leave tools or articles in the working area or component compartments. Be sure to store all tools properly when the work is completed.



HOT SURFACE DECAL

Located on hood hinge.

Immediately after the machine is operated, the temperature and pressure of the engine coolant, engine oil, and hydraulic oil are very high. Burns may result if caps are removed, or oil, water, or filters are changed under these conditions. Let the components cool down first.

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PRESSURIZED FLUIDS AND LUBRICANTS

Located on radiator cover.

Always release pressure from hydraulic reservoir, engine coolant, fuel system and all systems under pressure before removing any caps or components. Be cautious of hot fluids and gases from engines that have just been stopped. Carry out inspection and maintenance operations only after the systems have cooled down.

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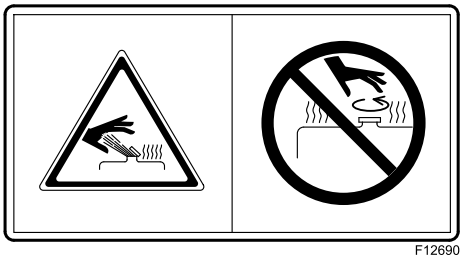

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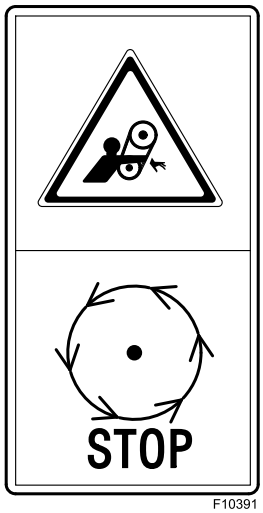
ENGINE STOP DECAL

Located on engine radiator.

It indicates that it is obligatory to stop the engine before opening the engine guard.

Danger of serious injury because of rotating pieces like fan, pulleys and belts.

6



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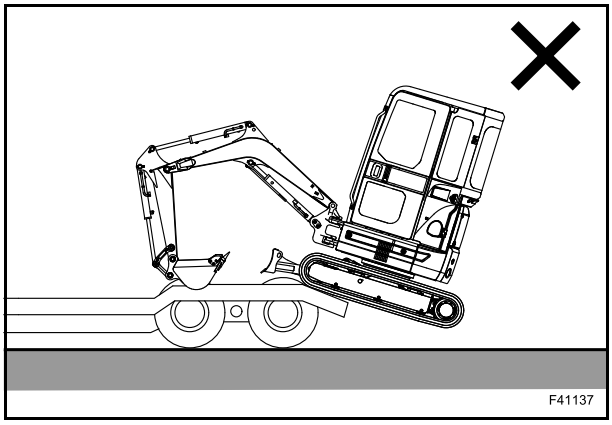
1.10 TRANSPORTATION

Use the following general guidelines for loading or unloading the machine on a transportation vehicle.

The machine must be loaded and unloaded on firm, level ground, away from the road shoulder. Do not use the attachments to load or unload the machine onto/from the trailer.

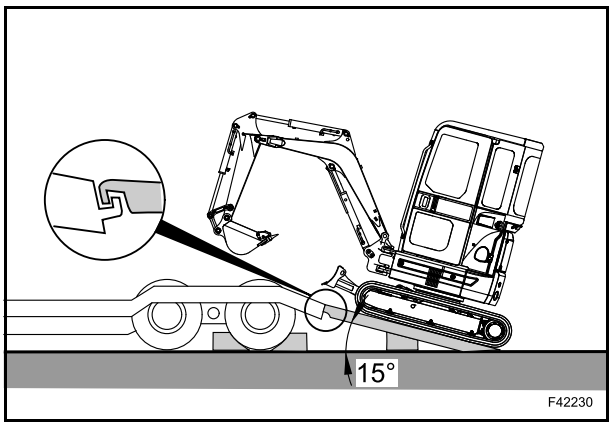


When necessary, use a ramp capable of bearing the machine's weight. Check the ramp's width, length and thickness to secure the loading/unloading work. And when much warp appears on the ramp structure, support them with safety blocks or alike.

Remove any mud, oil and grease from the ramp surface as well as from crawlers in order to prevent the machine from slipping.

Do not change the travelling direction on the ramp. When required, back down the machine to the ground, reposition and try again.

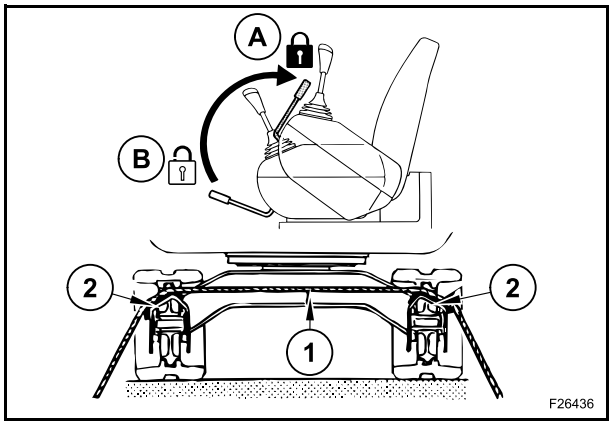
Always use low travel speed for loading or unloading onto/from the trailer.



After loading the machine, stop the engine and set the safety lock lever from the UNLOCKED (B) to the LOCKED (up) position (A).

Use cables or wire ropes (1) with sufficient length to secure front and rear of the machine to trailer. Provide blocks to the machine crawlers, to avoid any movement of the machine.

Protect wire ropes against edges with pads (2).



If the engine is overheating, stop operation immediately and let the engine idle, to lower its temperature.

Once the coolant has cooled down, stop the engine.

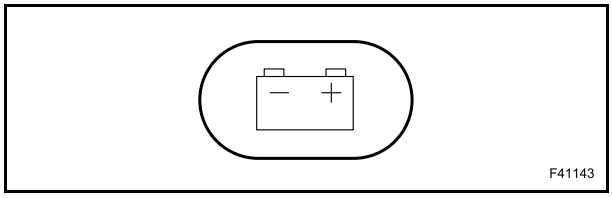
Check the coolant quantity, the fan belt tension and the radiator filter clogging, etc.

⚠ WARNING

DO NOT PERFORM ANY KIND OF MAINTENANCE ON AN ENGINE THAT HAS JUST STOPPED WORKING. IMMEDIATELY AFTER ENGINE STOP, FLUIDS AND SURFACES WILL BE EXTREMELY HOT. ALLOW THE ENGINE TO COOL, BEFORE PROCEEDING TO INSPECTION AND/OR MAINTENANCE.

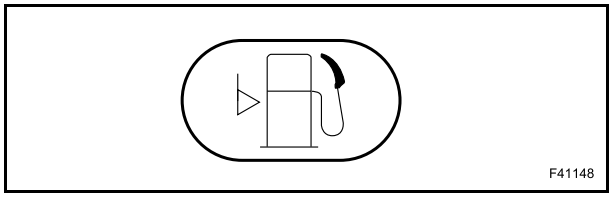
5. BATTERY CHARGE LAMP (red)

It warns about a fault in the battery charging system during engine running. This lamp turns on when the starter key is turned to ON, and must turn off after the engine has been started. If this lamp does not switch off, the battery does not charge correctly. Check the charging system.



6. LOW FUEL WARNING LAMP (red)

If the fuel is low, a warning lamp lights up. Stop the engine immediately and refuel.

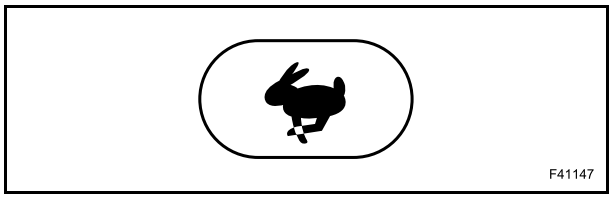


C. INDICATOR LAMP

This lamp indicates the working conditions.

7. HIGH-SPEED TRAVEL LAMP (yellow)

This lamp turns on when the travel speed is switched to high. The travel speed selector switch is located on the grip of the right travel lever.



2.4.5 CAB

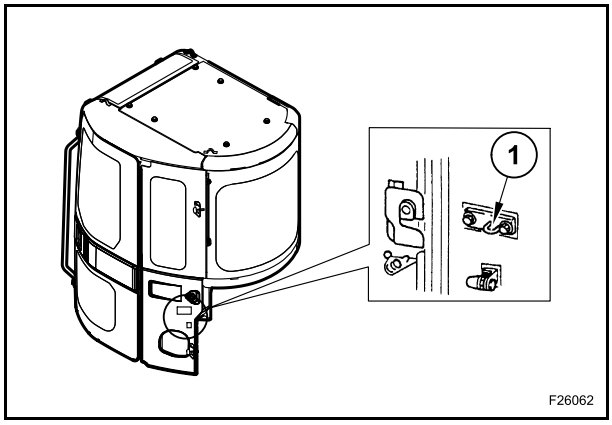
The following equipment are provided for the cab to ventilate or to facilitate operation.

⚠ WARNING

WHEN USING THE EQUIPMENT IN THE CAB, SET THE SAFETY LOCK LEVER TO THE LOCKED POSITION TO AVOID UNEXPECTED MACHINE MOVEMENT IF A WORK LEVER IS ACCIDENTALLY ACTUATED. THIS MAY CAUSE INJURIES.

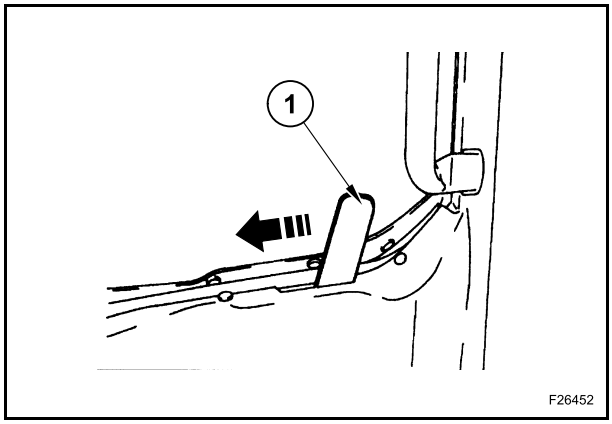
LOCKING CAB DOOR

To lock the door in the open position, slide the door fully open until it locks on the catch (1) located on the rear of the cab.



UNLOCKING DOOR FROM INSIDE

To unlock the door, pull the lever (1) backward.



3.1.2 CHECKS BEFORE ENGINE START-UP

The following items should be inspected before starting machine operation:

CHECK AND RESTORE ENGINE COOLANT LEVEL

⚠ WARNING

NEVER REMOVE RADIATOR CAP WHEN ENGINE IS HOT. WAIT FOR THE ENGINE TO COOL DOWN BEFORE REMOVING THE RADIATOR CAP.

The radiator (3) reservoir (4) is located on the right side of the engine compartment.

Check the coolant level with cold engine only.

Open the radiator reservoir. The proper coolant level is between the “FULL” and “LOW” marks visible in the reservoir.

NOTE: engine coolant level is higher than normal when the engine is warm. The coolant level lowers with engine temperature.

Maintain coolant level at full mark when the engine is cold.

Open the cap (1) of the reservoir (4), fill with proper coolant up to the “LOW” mark on the reservoir.

Restore the level of the radiator coolant when it is below the “LOW” mark in the reservoir. Make sure to check the engine cooling system for leakages and repair as needed, before resuming operation.

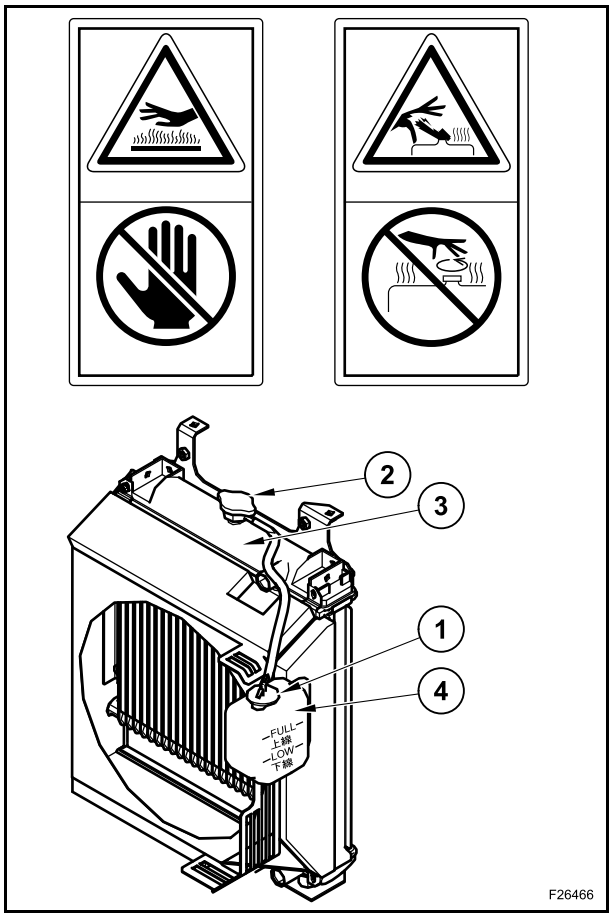
Remove the radiator cap (2), and check for proper coolant level.

Top up with proper coolant until the level approximately reaches the “FULL” mark.

Install radiator cap (2) and tighten securely.

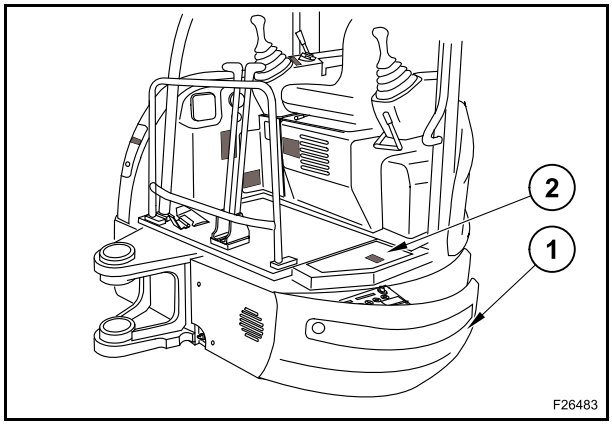
⚠ WARNING

BE CAUTIOUS OF HOT FLUIDS AND SURFACES. WEAR GOGGLES, SAFETY SHOES, HARD HAT, WORK CLOTHES AND WORK GLOVES TO PERFORM INSPECTION AND MAINTENANCE ON THIS MACHINE.



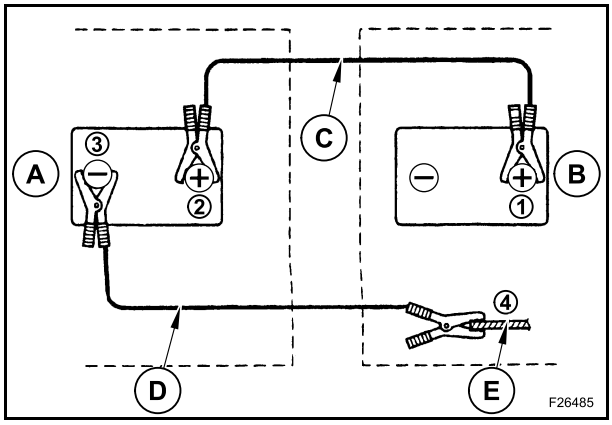
CONNECTING/DISCONNECTING BOOSTER CABLES

Turn the starter key to OFF before connecting the booster cables. Connect booster cables as per following sequence.



⚠ WARNING

- **ERRONEOUS CONNECTION OF BOOSTER CABLES MAY CAUSE EXPLOSION OF THE BATTERY. PAY SPECIAL ATTENTION WHEN CONNECTING AND DISCONNECTING THE BOOSTER CABLES.**
- **THE ELECTRICAL SYSTEM OF THIS MACHINE WORKS WITH 12 V DC.**



Remove left hood (1). Then open the cover (2) under the operator's seat.

Remove protection (3) from the battery terminals.

Connect the booster cable (red) terminal to the positive (+) terminal on the battery of the disabled machine.

Connect the other terminal of the positive cable (+) (red) to the positive terminal (+) of the battery of the normal vehicle.

Connect the terminal of the booster cable (black) to the negative terminal (-) of the battery of the normal vehicle.

Finally, connect the other terminal of the negative booster cable (-) (black) to the upper frame of the disabled machine, away from the battery.

Start the engine of the normal vehicle, and operate it for around 10 minutes at high idling.

Start the engine of troubled machine.

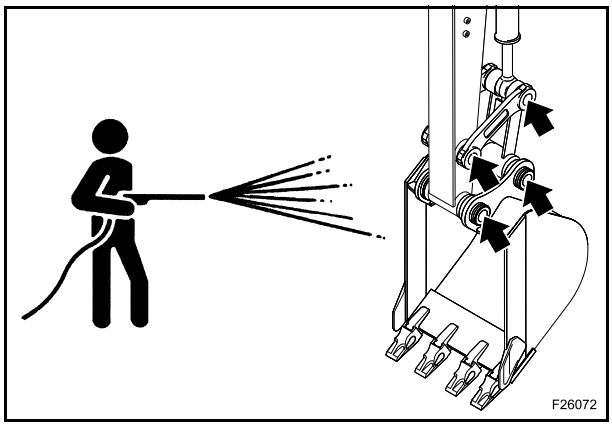
After starting the engine of the disabled machine, disconnect the booster cables exactly in the reverse order.

Make sure to check and repair the cause of the problem of the charging system on the disabled machine.

A. Booster battery
B. Discharged battery
C. Red cable
D. Black cable
E. To the upper frame of the troubled machine

Cable connecting order: 1>2>3>4
Cable disconnecting order: 4>3>2>1

Make sure to lubricate bucket pins and bushing every 4 hours if working with materials in wet conditions, supply grease with a grease gun until grease oozes out.

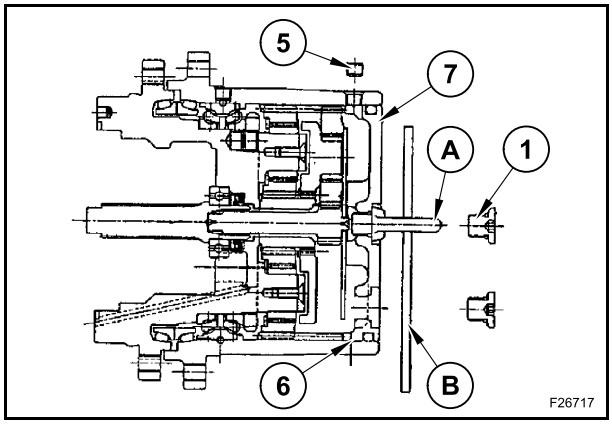


⚠ CAUTION

Avoid oil spills, use containers, rags, and/or paper towels to contain any oil leakage. Dispose all waste oils, fluids, lubricants, used filters and other hazardous waste properly, according to current legislation.

Unscrew the plug (5). Attach eyebolt (A) to the threaded hole of plug (1) and insert pry-bar (B) in the eye hole, and turn the bar until snap ring (6) can be seen through the threaded hole of plug (5). Take out the snap ring when it becomes visible.

Remove the cover (4), sun gear assy (14), holder (15), planetary gear (7), needle bearing (8), inner race (9), drive gear (10) and thrust plate (11).

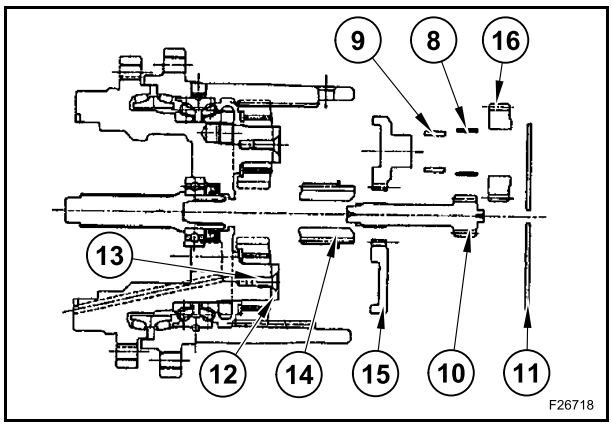


Remove the thrust plate (12) and screw (13).

NOTE: the sprocket for this crawler becomes free from the travel motor.

Temporarily install the cover (7).

Repeat the previous steps on the reduction gear at the opposite side.



Tow the machine to a safe place to proceed with the appropriate repairs.

NOTE: after all repairs are made, reinstall the inner parts on both travel reduction units in reverse order and make sure to use fresh gear oil.

⚠ CAUTION

Clean up all spilled oil. Dispose of all hazardous waste in accordance with current legislation relevant to the environment.

CARE FOR ELECTRICAL EQUIPMENT

The electrical equipment is especially sensitive to water. Be careful not to expose the electrical equipment to water when washing the machine or when it is raining. The electrical components (relays, fuses, etc.) are installed in the vicinity of the operator's seat.
Never expose the operator's seat to water.

OPERATION IN DUSTY AREAS

Air cleaner

Clean or replace the filter element at the corresponding intervals. See "Maintenance" section for details.

Radiator

Clean the radiator regularly to prevent the radiator core from becoming clogged with dust.

Fuel

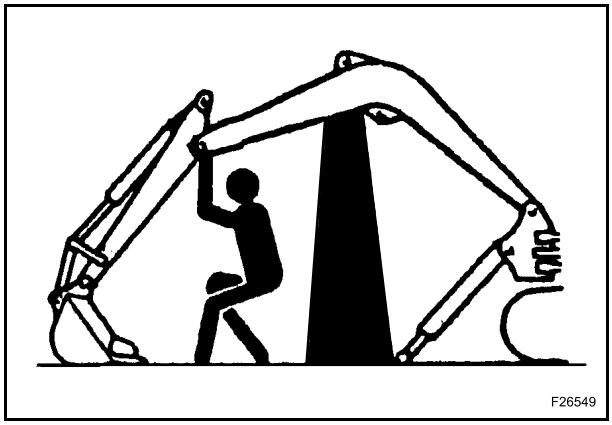
Be careful not to let contamination in the fuel when refuelling. Inspect the elements and filters at the corresponding interval.

Electrical equipment

Clean the starter and generator especially, at the corresponding interval, to prevent dust from accumulating.

SUPPORT MACHINE PROPERLY

Never attempt to work on the machine without securing the machine first. Always lower the attachment to the ground before any intervention on the machine. If you must work with the machine or attachment lifted, support them securely.

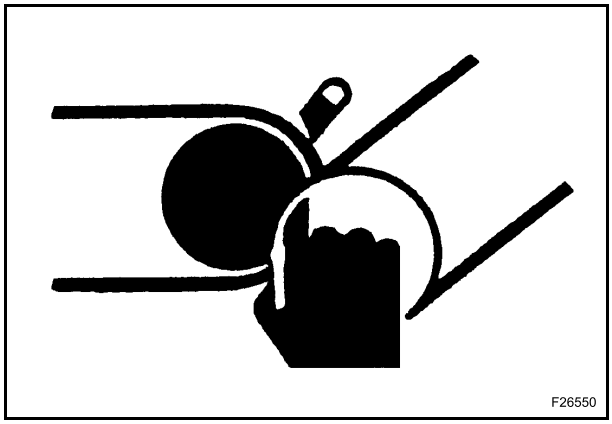


CAUTION DURING BUCKET REPLACEMENT

Never insert your finger into the pin bore.

When aligning the pin bores, never insert your finger, hands or arms into them.

The alignment check must be carried out visually.



Bring the throttle lever to low idle. Set the safety lock lever to “LOCKED” position.

Stop the engine, remove the starter key and wait until the machine is cold.

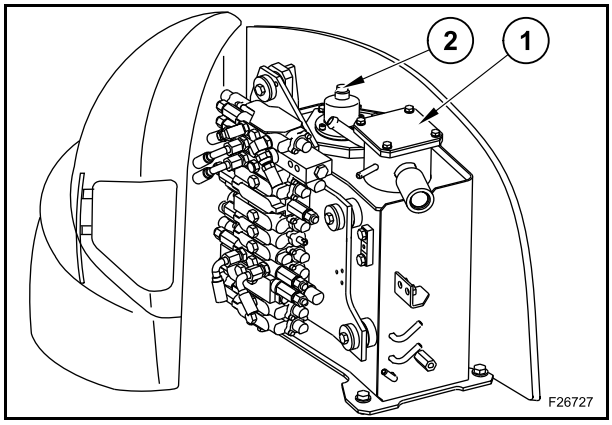
Clean the hydraulic oil tank upper side to prevent dirt contamination in the hydraulic system.

Open hydraulic tank cover (1) to relieve the pressure inside.

Press the rubber cap (2) on the upper surface of hydraulic reservoir several times (5 to 7 times).

This completes the bleeding of pressure remaining in the hydraulic tank.

Check and service the hydraulic system.



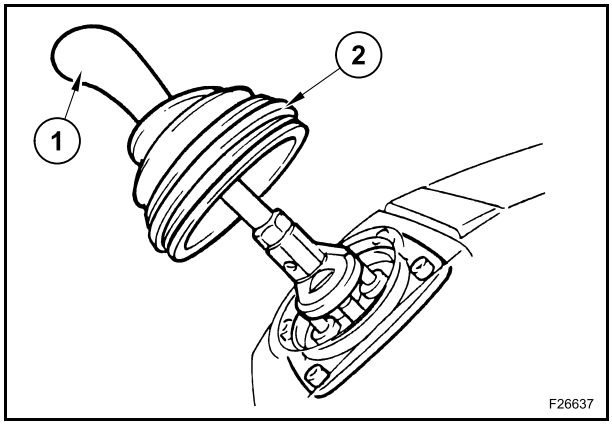
Components	Detail	Range		When required	Prestart 8 h	Every week 50 h	Every 3 months 250 h	Every 6 months 500 h	Every 12 months 1000 h	2000 h	Lubricant etc. (piece to be replaced)	Page
Fuel system	Fuel tank	Fuel Checking / adjusting			O							3-7
		Drain water and deposits				O						4-45
		Leakages check			O							3-8
Hydraulic system	Hydraulic oil tank	Hydraulic oil	Checking the level		O						Hydraulic Oil	3-6
			Replace-ment							O		4-62
		Suction strainer	Checking / replacing							O	Filter	
		Return filter				✱ (1°)	O (Breaker)	O			Element	4-56
	Checking oil leakage and damage of cylinders, etc.				O							4-40
	In-line filter / cleaning									O		4-64
Upper structure	Slewing bearing lubrication (balls and pinion/slewing bearing teeth)						O				Grease	4-49
	Slewing bearing, replace of grease									O	Grease	4-71
Lower frame	Travel reduction motor	Oil change						✱ (1°)		O	Gear oil	4-67
	Checking / adjusting for tension of rubber belt					O						4-23
	Checking wear and damage of rubber belt			O								4-36
	Crawler idler and wheel	Check			O							4-41
		Change								O		4-67
	Checking oil leakage and wear of sprocket/travel reduction motor				O							4-41
Attachment	Greasing of pins	Bucket				O					Grease	4-43
		Boom, arm cylinder and dozer					O				Grease	4-48
	Bucket			O								4-34
	Replacing / adjusting mounting gap			O								
	Checking wear and damage of the tooth and side cutters			O								4-32
Electrical equipment	Check of the electric wiring and fuses			O								4-38
	Battery Checking the fluid level Measuring the specific gravity					O					Sterile water	4-46
	Checking the function of warning lamps				O							3-9
	Checking switches/levers				O							3-15
	Work light replacement (lamp)			O							12V 55W (Halogen lamp)	4-31
Others	Checking abnormal deformation and damage of the machine exterior				O							4-39
	Checking looseness and missing of the bolts and nuts				O							4-39
	Control lever			O								4-38

LUBRICATION OF CONTROL LEVERS

When a control lever becomes heavy to operate or does not move smoothly, apply grease to the sliding and rotating portion (4) and the top portion (5) of the universal joint (3).

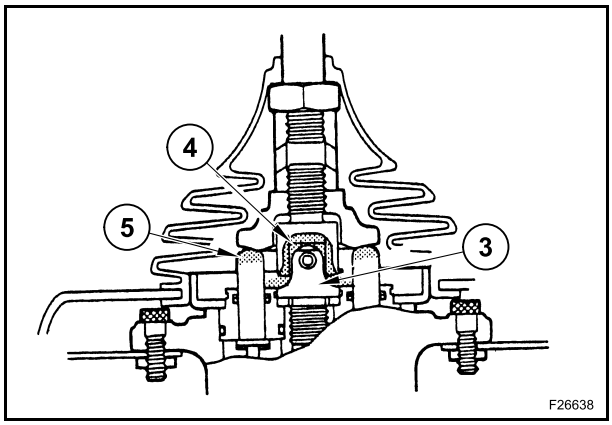
Place the machine on a firm and level ground, and engage safety control lever on “LOCK” position. Stop the engine, pull out the starter key.

Carefully raise up the rubber boot (2) and the control lever (1) paying attention not to damage them.



Apply grease on the sliding parts and on the 4 places of rotating portion (4) and the top (5) of the universal joint (3).

Set back the rubber boot (2) to the original position.



CHECK ELECTRIC WIRING AND FUSES

⚠ WARNING

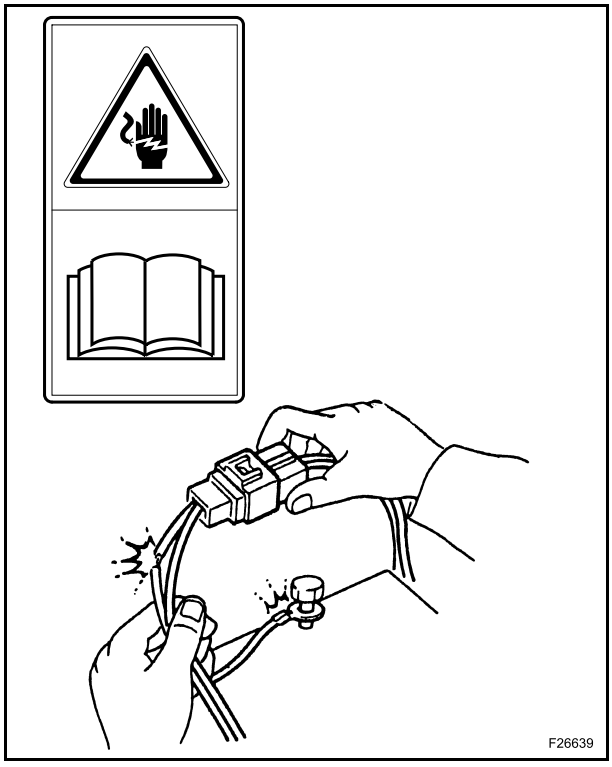
IF SHORT CIRCUIT TRACES ARE NOTICED ON THE WIRING HARNESS, CONTACT YOUR DEALER.

BEFORE CHECKING THE ELECTRICAL SYSTEM, DISCONNECT THE NEGATIVE (-) BATTERY CABLE.

ERRONEOUS SHORT CIRCUITING MAY CAUSE FIRE.

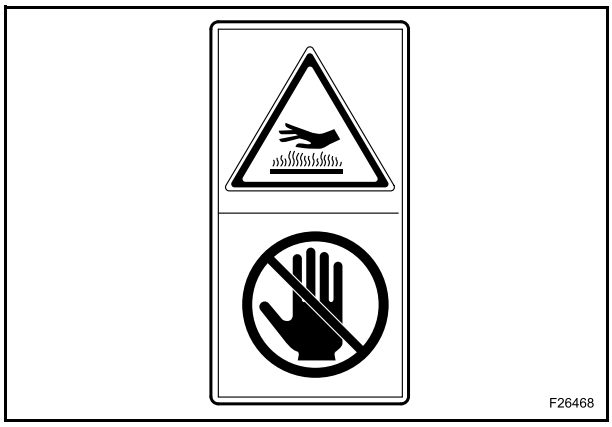
⚠ WARNING

ALWAYS MAKE SURE TO INSTALL FUSES OF CORRECT AMPERAGE, TO AVOID OVERLOADING AND DAMAGING THE ELECTRIC SYSTEM.



4.16 250-HOUR (3-MONTH) INSPECTION AND MAINTENANCE

Carefully read and understand section “1. SAFETY INSTRUCTIONS” before operating or servicing the machine.



ENGINE OIL CHANGE

⚠ WARNING

DO NOT CHANGE THE ENGINE OIL IMMEDIATELY AFTER THE ENGINE HAS STOPPED. ALLOW SUFFICIENT TIME FOR THE ENGINE TO COOL DOWN. THE FIRST OIL CHANGE MUST BE CARRIED OUT AT 50 HOURS OPERATION FOR A NEW MACHINE ENGINE.

⚠ CAUTION

Avoid prolonged repeated skin contact with exhaust engine oil as skin diseases or other syndromes may result. If this happens, thoroughly wash the area of contact.

Park the machine on a level surface.

Rest the bucket to the ground.

Bring throttle control lever to minimum speed, stop the engine and remove starter key, then position safety lock lever on “LOCK”.

Wait until the machine is cold. Open engine guard and lock it in this position.

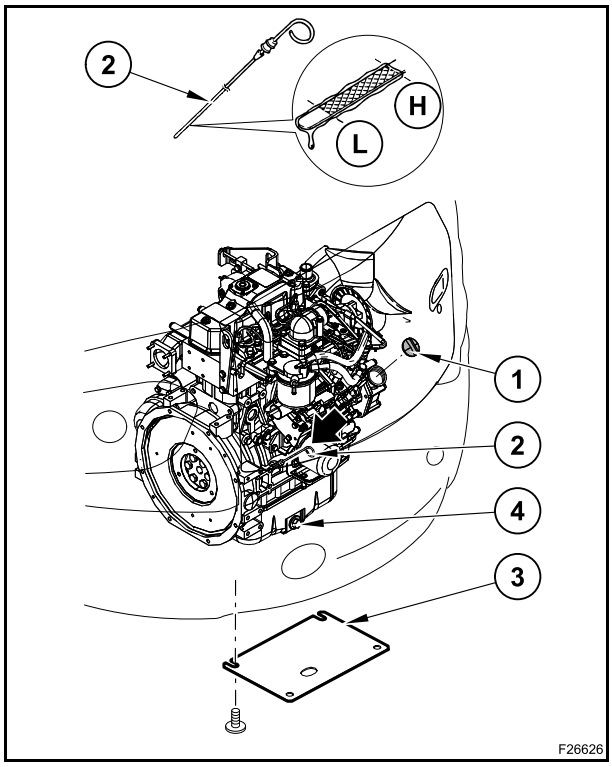
Remove plug (1) and slide out the level dipstick (2). These two actions allow faster draining of the oil from the sump.

Reach upper structure underneath, loosen the retaining screws of protection (3) and remove it from its seat.

Loosen plug (4), to allow waste oil to flow into a suitable container.

Once the draining is finished, reinstall plug (4) and protection (3).

Start up the engine, operate it for several minutes idle, and then stop it. Check the oil level with proper dipstick (2), it should be set between marks “H” and “L”.



4.17 500-HOUR (6-MONTH) INSPECTION AND MAINTENANCE

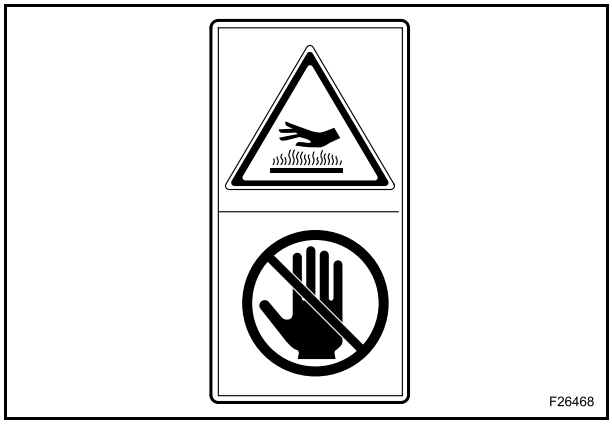
Carefully read and understand section “1. SAFETY INSTRUCTIONS” before operating or servicing the machine.

Perform together with the daily and 250-hour maintenance operations.

REPLACEMENT OF FUEL FILTER

⚠ WARNING

NEVER USE GASOLINE, OR OTHER FLAMMABLE SOLVENTS TO CLEAN PARTS. USE ONLY PROPRIETARY CERTIFIED SOLVENTS, NON-FLAMMABLE AND NON-TOXIC. ALWAYS ENSURE THAT ENGINE GUARD IS CORRECTLY LOCKED IN THE RAISED POSITION: DANGER OF PERSONAL INJURIES.

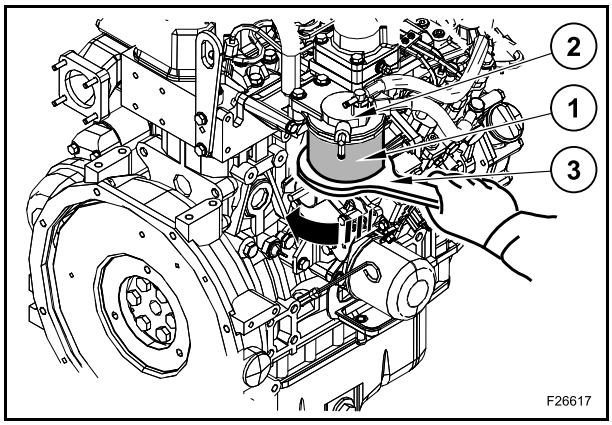


⚠ CAUTION

You are reminded that the engine can reach a high temperature during operation. Protect body and limbs with appropriate clothing and protections, since there is a danger for burns and personal injuries.

⚠ WARNING

PAY ATTENTION, DURING THE REMOVAL PHASE, TO AVOID SPILLING THE FUEL IN THE FILTER: DANGER OF FIRE.



Park the machine on a level surface.

Rest the bucket to the ground.

Bring throttle control lever to minimum speed, stop the engine and remove starter key, then position safety lock lever on “LOCK”.

Wait until the machine is cold.

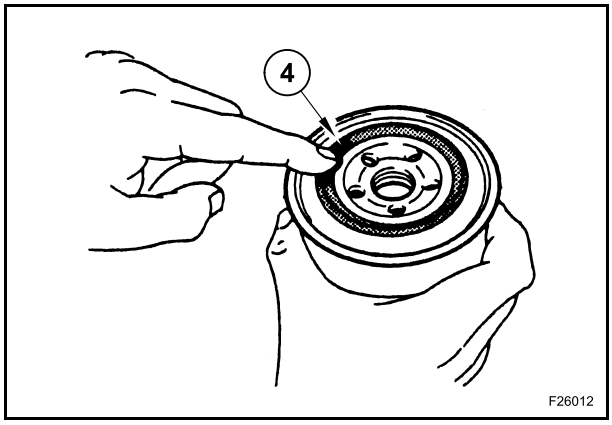
Open engine guard and lock it in this position.

Clean the area around filter (1) and support (2).

Loosen filter (1) using a universal tool (3).

Replace cartridge (1) and O-ring (4) with new pieces.

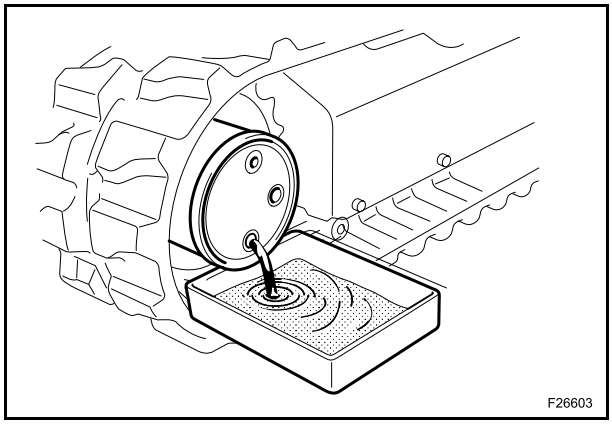
The reassembly is carried out according to the inverse procedure of the described one.



Slowly remove the filler (2) and level (3) plugs with an Allen wrench.
Then remove the plug of drain port (1) to discharge oil into the container.

Apply a sealing (teflon) tape on the thread of drain plug (1), and securely tighten the plug (1).

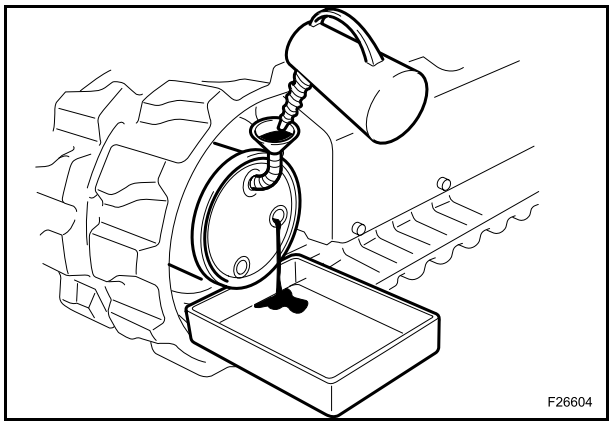
Slowly fill with oil through filling port (2), until oil comes out from level port (3). Oil flowing out indicates that the correct level is reached.



Apply sealing (teflon) tape on the threads of the level (3) and filler (2) plugs, then retighten them.
Thoroughly wipe off oil residues.

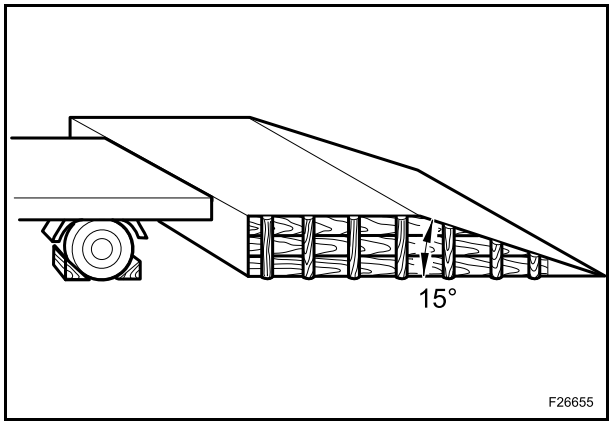
Travel at low speed and check for oil leaks.

NOTE: check used oil. If metal particles are found, contact your Dealer.



USE OF A RAMP

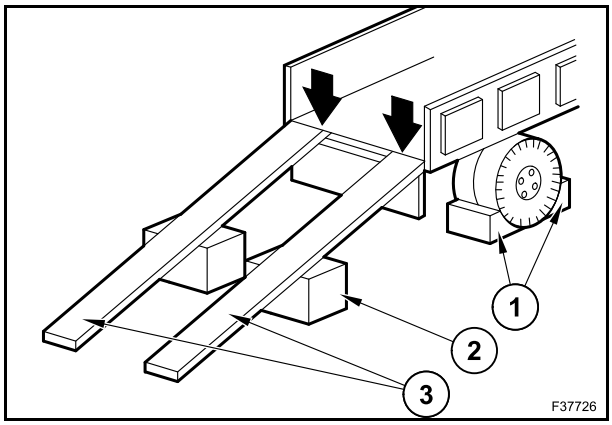
The loading and unloading ramp should be of sufficient width, length, and strength; also ensure that ramp angle is lower than 15°.



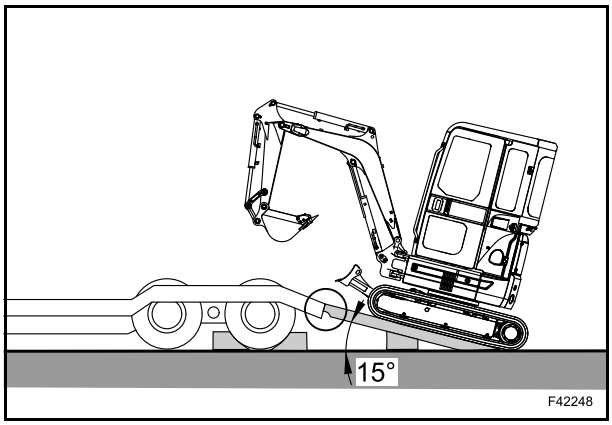
Make the ramp strong enough so that the machine does not turn over during the loading/unloading operations and the slope sides do not break. If necessary, provide some supporting posts to reinforce both side of the banking.

The height of the platform or ramp must correspond to that of the base of the truck/trailer.

1. Wedges
2. Blocks
3. Ramps



In order to load the machine with the attachment fitted, travel on the ramp slowly at forward run, keeping the attachment positioned ahead.

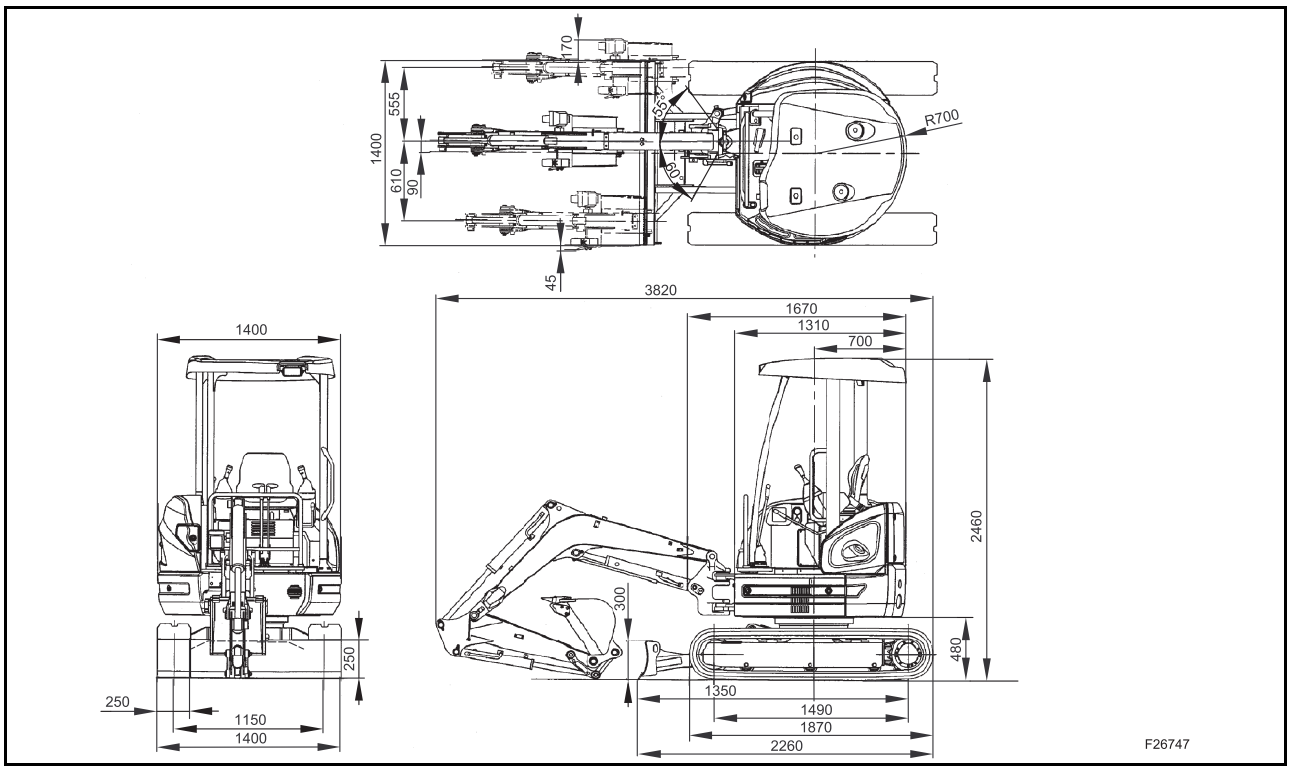


6.2 DIMENSIONS

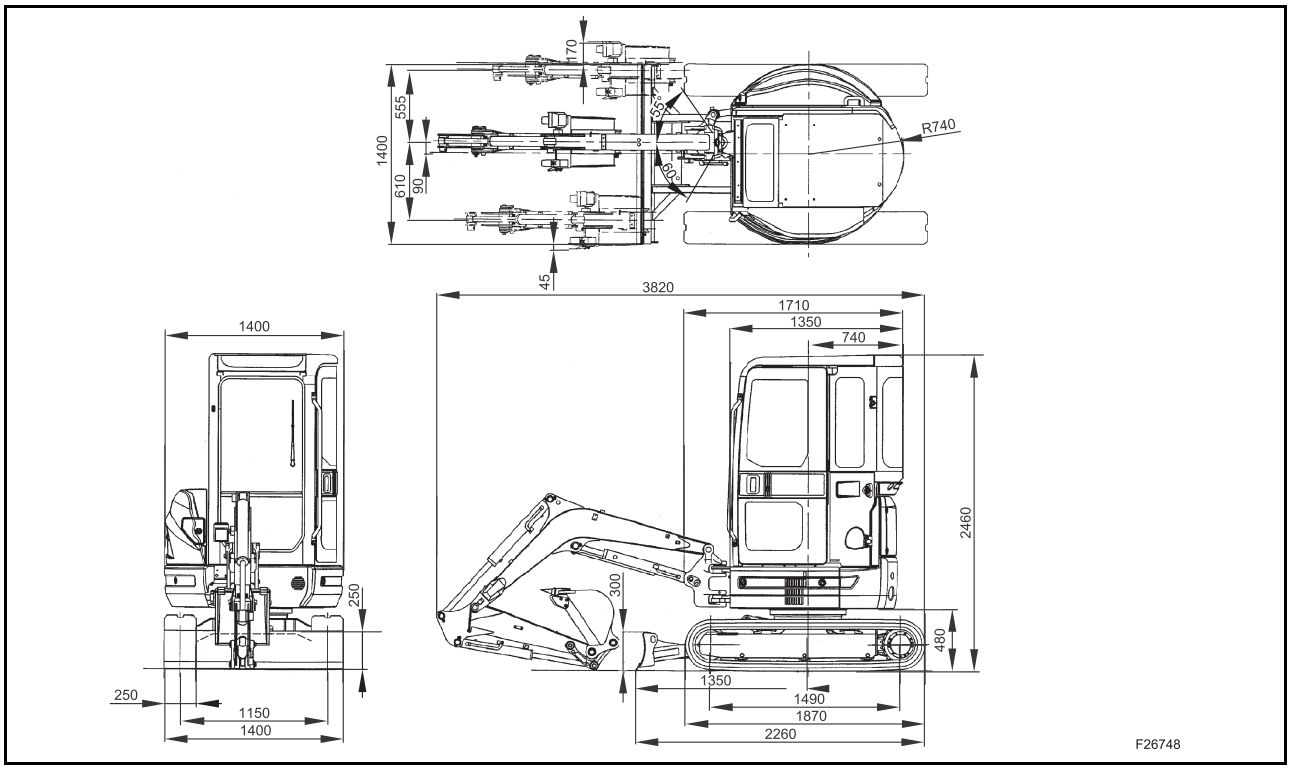
6.2.1 MACHINE DIMENSIONS (CX26B)

CANOPY

Unit: mm



CAB



6.5 MACHINE WEIGHTS

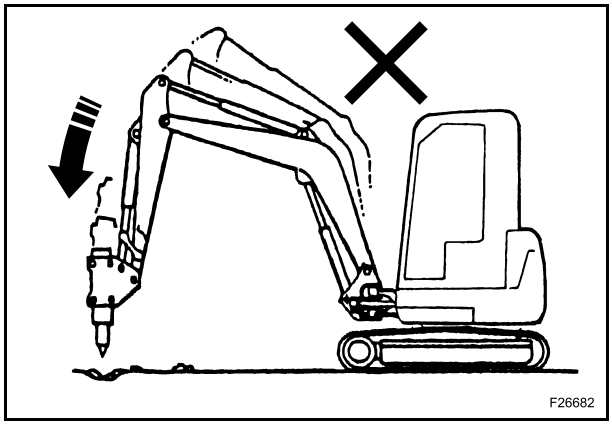
Models	Versions	Total weight kg (lb) ISO 6016*
CX26B	Canopy	2380 (5246)
CX26B	Cab	2700 (5952)
CX30B	Canopy	2700 (5952)
CX30B	Cab	2840 (6261)

Rubber belt	* The weight is measured with this configuration
Long arm	
Standard counterweight	
Small bucket (33 kg) (72 lb)	
Fuel (22 kg) (48 lb)	
Operator (75 kg) (165 lb)	

Models	Versions	Additional weights kg (lb)		
		Differential of rubber-steel crawler	Differential of long-short arm	Additional counterweight
CX26B	Canopy	130 (286)	-20 (-44)	172 (379)
CX26B	Cab	130 (286)	-20 (-44)	—
CX30B	Canopy	140 (308)	-20 (-44)	172 (379)
CX30B	Cab	140 (308)	-20 (-44)	172 (379)

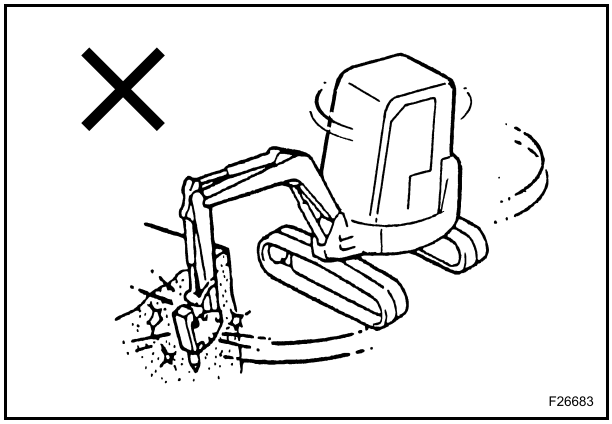
DO NOT USE THE FORCE OF GRAVITY

Do not use the force of gravity by letting the attachment drop onto the material. This will cause extensive damage to the attachment and machine structure.



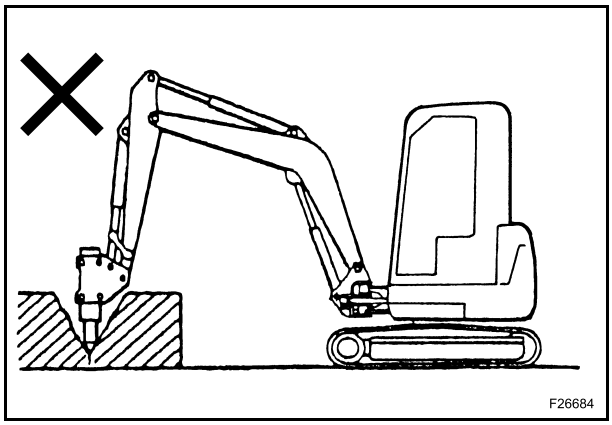
DO NOT USE THE ROTATION / SWING FORCE

Do not use the rotation/swing force of the machine for pushing objects. This will cause premature failure of the attachment and other machine components.



DO NOT PRY WITH HYDRAULIC BREAKER

Do not use the breaker to pry open and break rocks or concrete. This may damage the hydraulic breaker, and also boom, arm and cylinder.



	PROBLEM	POSSIBLE CAUSE	REMEDY
TRAVEL	Machine does not travel smoothly.	Too much crawler tension.	Adjust crawler tension.
		Dirty or clogged crawlers.	Clean crawlers.
		Brake valve is not working.	Repair or replace.
		Travel reduction unit is damaged.	Repair or replace.
		The control valve is not working.	Repair or replace.
		Travel motor damaged.	Repair or replace.
		Main relief valve pressure is set incorrectly.	Adjust or replace.
		Damaged swivel joint.	Repair or replace.
TRAVEL	Travelling power is insufficient.	Hydraulic pump is damaged.	Repair or replace.
		Poor engine performance.	Repair or replace.
		Main relief valve pressure is set incorrectly.	Adjust or replace.
		Low hydraulic oil level.	Fill to proper level.
		The hydraulic motor (travel) is not working.	Repair or replace.
		Brake valve is not working.	Repair or replace.
		Seal in swivel joint is scored or oil is leaking.	Repair or replace.
	Machine does not travel in a straight line.	Unequal tensions on crawlers.	Adjust tension.
		Set pressures of main relief valves unbalanced.	Adjusting.
		One of the travel motors loses power.	Repair or replace.
		Unbalanced oil flow from the control valve.	Repair or replace.
		Unbalanced discharge from hydraulic pump.	Repair or replace.
		Unbalanced flow from brake valve.	Repair or replace.
		Unbalanced flow between right swivel joints.	Repair or replace.
HYDRAULIC SYSTEM	Temperature rise of the hydraulic oil.	Oil cooler core clogged.	Cleaning.
		Engine fan belt slipping.	Adjust or replace.
		Low hydraulic oil level.	Fill oil to specified level.
		Wrong type hydraulic oil used.	Replace with correct oil.
		Hydraulic pump is not working.	Repair or replace.