

ORIGINAL INSTRUCTIONS - according to Directive 2006/42/EC, Annex I 1.7.4.1

OPERATOR'S MANUAL

E175C

Crawler Excavator

Part number 84560754

1st edition English
February 2013



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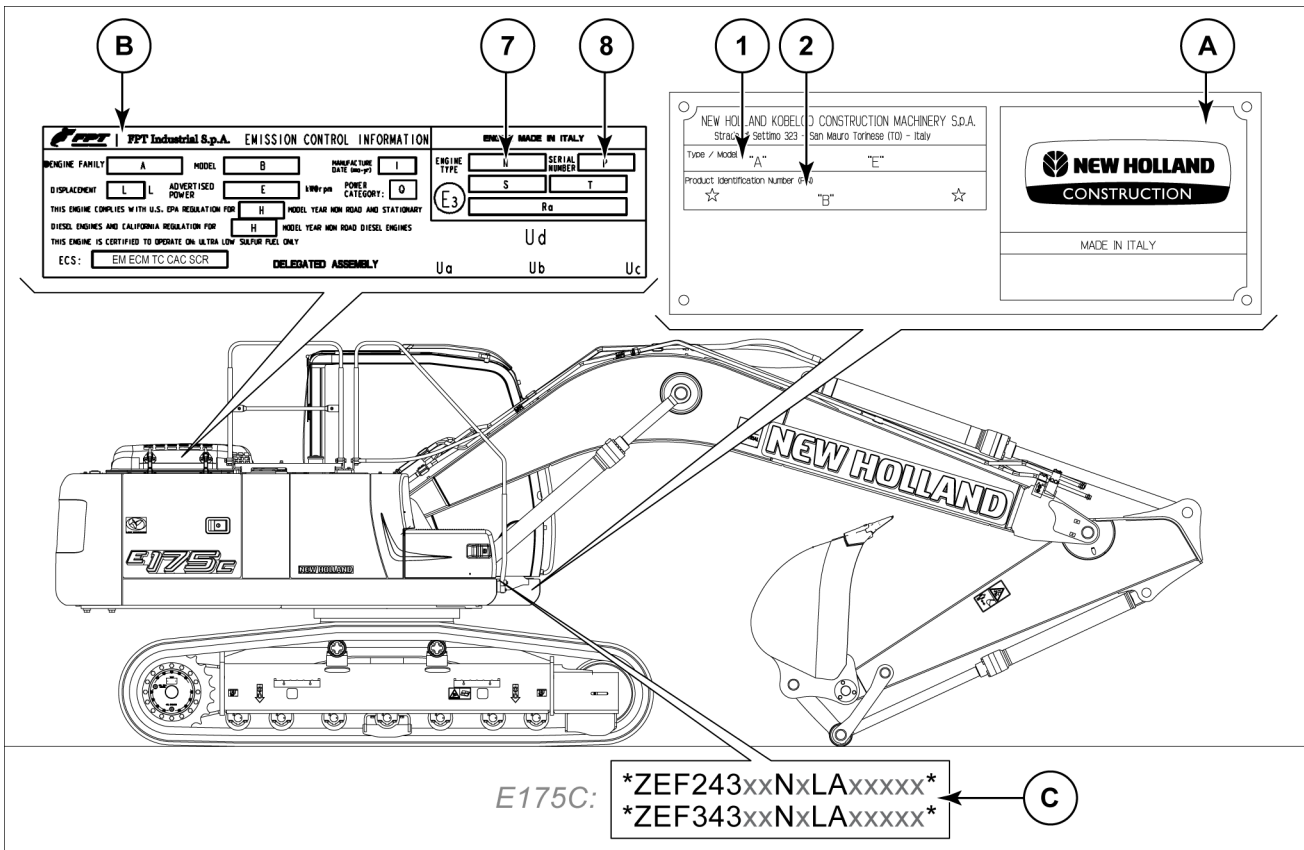
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IDENTIFICATION DATA (for Russian Federation, Middle East and Africa)



NHC0772 2

- A** Machine identification plate
- 1** Commercial name — Category
- 2** Product identification number
- B** Engine identification plate
- 7** Engine type
- 8** Engine serial number
- C** Product identification number (on frame)
Fourth digit: 2 for **ROPS** models — 3 for models without **ROPS**

AFTER SALES SERVICE

For maintenance work which cannot be easily carried out by the Owner, please contact your Dealer where you will find trained personnel, suitable tools and equipment, and genuine spare parts. Service personnel and technicians will be glad to provide you with all explanations and suggestions you may need and to carry out all required specialized repair work in case of machine unsatisfactory operation.

SPARE PARTS

To ensure a perfect performance of the machine, use exclusively genuine spare parts. To order them, it is necessary to specify:

- machine model and product identification number
- engine type and serial number
- part number of the component being ordered

Operator protective structure

Your machine is equipped with an operator protective structure, such as: a Roll Over Protective Structure (ROPS), Falling Objects Protective Structure (FOPS), or a cab with a ROPS. A ROPS may be a can frame or a two-posted or four-posted structure used for the protection of the operator to minimize the possibility of serious injury. The mounting structure and fasteners forming the mounting connection with the machine are part of the ROPS.

The protective structure is a special safety component of your machine.

DO NOT attach any device to the protective structure for pulling purposes. DO NOT drill holes to the protective structure.

The protective structure and interconnecting components are a certified system. Any damage, fire, corrosion, or modification will weaken the structure and reduce your protection. If this occurs, THE PROTECTIVE STRUCTURE MUST BE REPLACED so that it will provide the same protection as a new protective structure. Contact your dealer for protective structure inspection and replacement.

Air-conditioning system

The air-conditioning system is under high pressure. Do not disconnect any lines. The release of high pressure can cause serious injury.

After an accident, fire, tip over, or roll over, the following MUST be performed by a qualified technician before returning the machine to field or job-site operations:

- The protective structure MUST BE REPLACED.
- The mounting or suspension for the protective structure, operator's seat and suspension, seat belts and mounting components, and wiring within the operator's protective system MUST be carefully inspected for damage.
- All damaged parts MUST BE REPLACED.

DO NOT WELD, DRILL HOLES, ATTEMPT TO STRAIGHTEN, OR REPAIR THE PROTECTIVE STRUCTURE. MODIFICATION IN ANY WAY CAN REDUCE THE STRUCTURAL INTEGRITY OF THE STRUCTURE, WHICH COULD CAUSE DEATH OR SERIOUS INJURY IN THE EVENT OF FIRE, TIP OVER, ROLL OVER, COLLISION, OR ACCIDENT.

Seat belts are part of your protective system and must be worn at all times. The operator must be held to the seat inside the frame in order for the protective system to work.

Personal Protective Equipment (PPE)

Wear Personal Protective Equipment (PPE) such as hard hat, eye protection, heavy gloves, hearing protection, protective clothing, etc.

Do Not Operate tag

Before you start servicing the machine, attach a 'Do Not Operate' warning tag to the machine in an area that will be visible.

Hazardous chemicals

If you are exposed to or come in contact with hazardous chemicals you can be seriously injured. The fluids, lubricants, paints, adhesives, coolant, etc. required for the function of your machine can be hazardous. They may be attractive and harmful to domestic animals as well as humans.

Material Safety Data Sheets (MSDS) provide information about the chemical substances within a product, safe handling and storage procedures, first aid measures, and

The air-conditioning system contains gases that are harmful to the environment when released into the atmosphere. Do not attempt to service or repair the system.

Only trained service technicians can service, repair, or recharge the air-conditioning system.

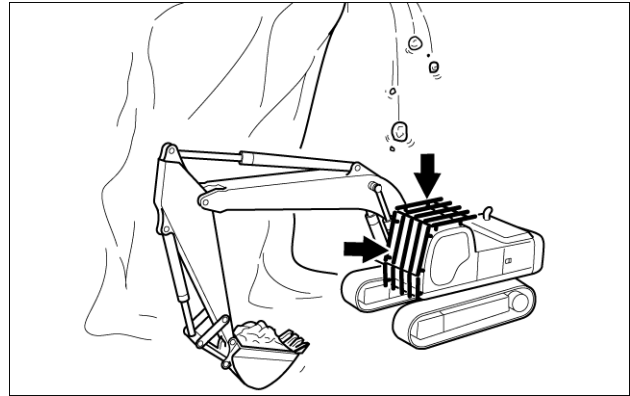
procedures to take in the event of a spill or accidental release. MSDS are available from your dealer.

Before you service your machine check the MSDS for each lubricant, fluid, etc. used in this machine. This information indicates the associated risks and will help you service the machine safely. Follow the information in the MSDS, and on manufacturer containers, as well as the information in this manual, when you service the machine.

⚠ Protection against the fall of rocks and landslides ⚠

The machine is equipped with a **ROPS** (Roll-Over Protective Structure) and **FOPS** (Falling Objects Protective Structure) for the cab protection.

- Do not install any cab lifting device to the protection structures.
- Do not weld, drill or modify protective structures. Any type of modification could weaken the structural integrity of the safety system, with serious consequences for the operator, in case of collision, falling objects or landslides.
- After an accident, do not try to straighten or repair protective structures. Contact a Dealer to verify the functionality, to repair or to completely or partially replace the protective structures.



SP0023 20

⚠ Dig with caution ⚠

Accidental severing of underground cables or gas lines may cause an explosion and/or fire, possibly resulting in serious injury or death.

- Before digging, check the location of cables, gas lines, and water lines.
- Keep the minimum distance required by law from cables, gas lines, and water lines. If a fiber optic cable should be accidentally severed, do not look into the end. Doing so may result in serious eye injury.
- Contact local authorities and/or the utility companies directly (electric power, gas, telephone, water, sewers, telecommunications, etc.) to obtain information about underground utility lines.

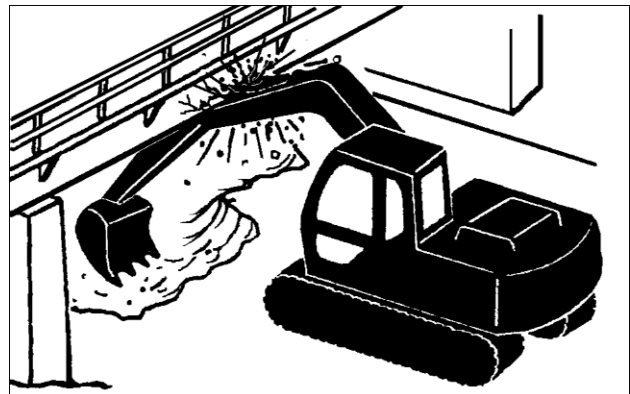


SP0024 21

⚠ Operate with caution ⚠

If the front attachment or any other part of the machine hits against an overhead obstacle, such as a bridge, both the machine and the overhead obstacle will be damaged, and personal injury may result as well.

- Take care to avoid hitting overhead obstacles with the boom or arm.

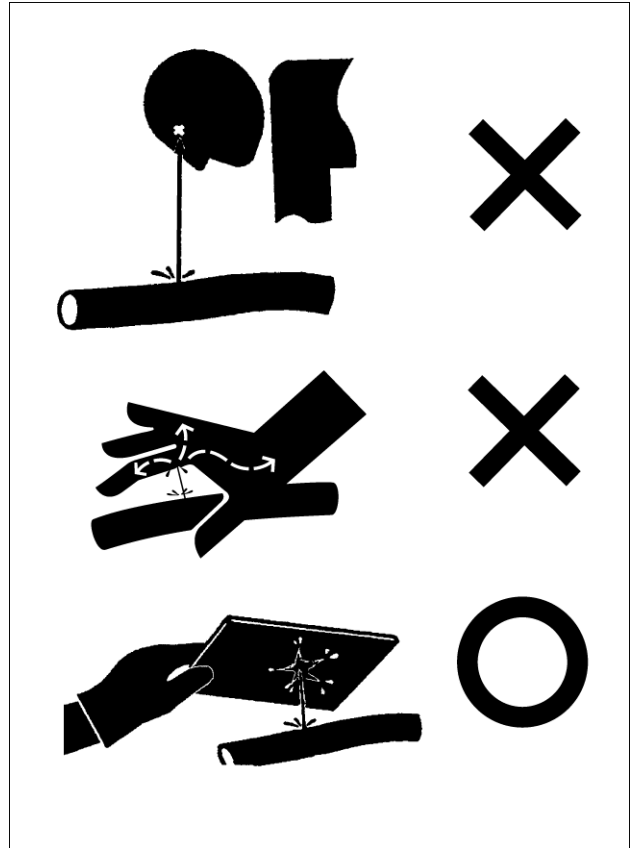


SP0025 22

⚠ Avoid high pressure fluids ⚠

Fluids such as diesel fuel or hydraulic oil under pressure can penetrate the skin or eyes causing serious injury, blindness or death.

- Avoid this hazard by relieving pressure before disconnecting hydraulic or other lines.
- Tighten all connections before applying pressure.
- Search for leaks with a piece of cardboard; take care to protect hands and body from high-pressure fluids. Wear a face shield or goggles for eye protection.
- In an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.



SP0046 53

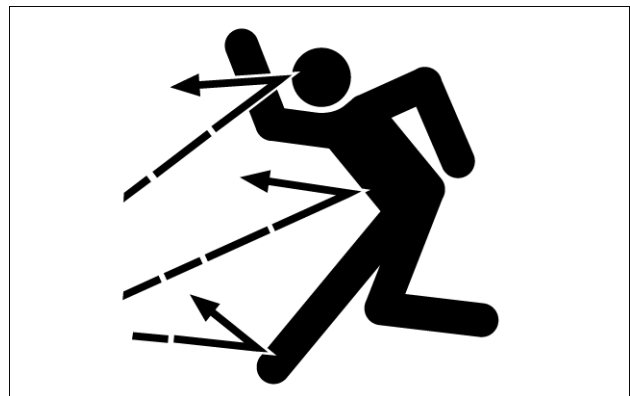
⚠ Prevent parts from flying off ⚠

Grease in the track adjuster is under high pressure. Failure to follow the precautions below may result in serious injury, blindness, or death.

- Never attempt to remove grease fittings or valve assembly.
- As pieces may fly off, be sure to keep body and face away from valve.

Travel reduction gears are under pressure.

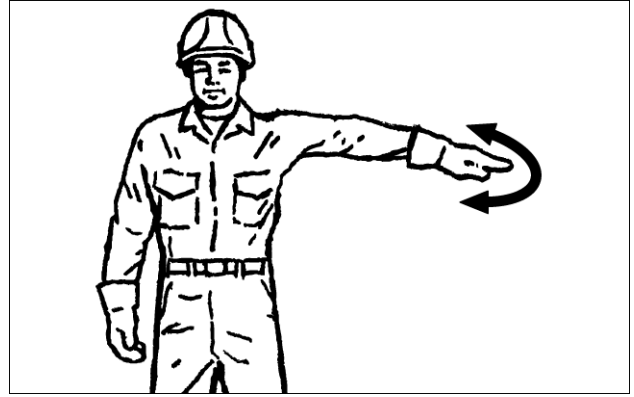
- As pieces may fly off, be sure to keep body and face away from air release plug to avoid injury. Reduction gear oil is hot. Wait for gear oil to cool down, then gradually loosen the air release plug to release pressure.



SP0047 54

Stop

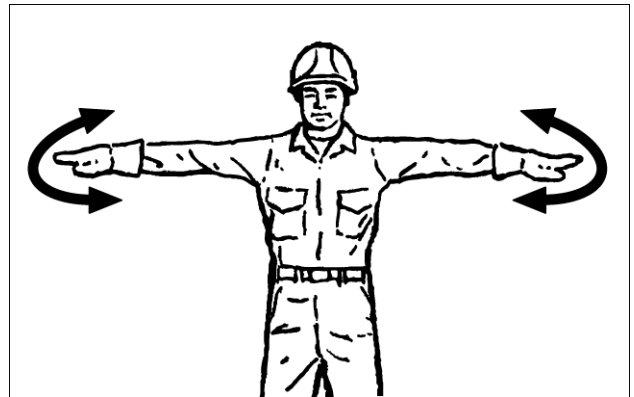
Face machine operator, raise left arm out horizontally from shoulder with hand open and facing down, move arm in a horizontal motion back and forth.



NH0101 21

Emergency stop

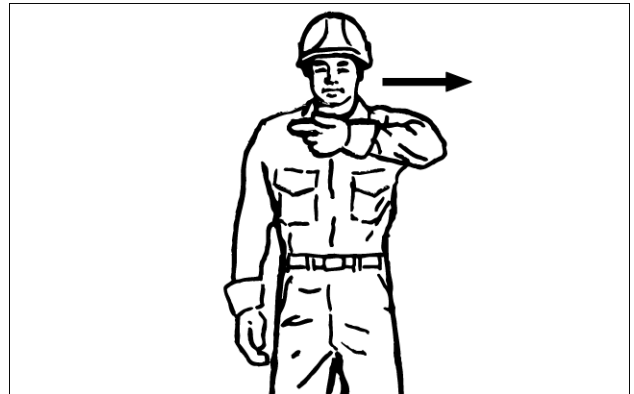
Face machine operator, raise both arms out horizontally from shoulders with hands open and facing down, move arms in a horizontal motion back and forth.



NH0102 22

Stop engine

Face machine operator, right arm at side, draw left thumb or index finger across throat.



NH0103 23

3 - CONTROLS/INSTRUMENTS

ACCESS TO OPERATOR'S PLATFORM

Cab

⚠ CAUTION

Fall hazard!

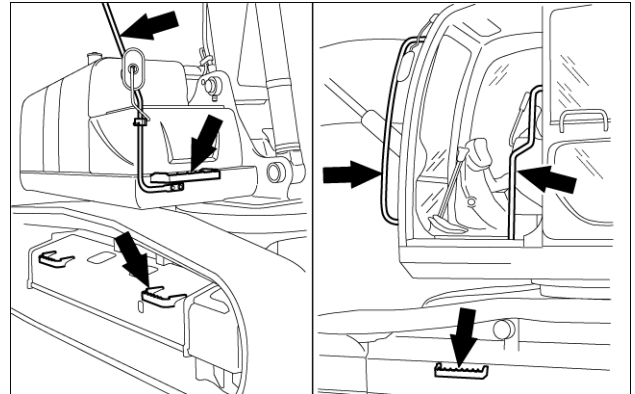
When entering or exiting the cab, never use the control levers as handholds. Always mount and dismount the machine in a safe way. Maintain a three-point contact with steps, ladders, and/or handholds.

Failure to comply could result in minor or moderate injury.

C0075B

Before getting on the machine:

- Keep the access to the machine clear of foreign objects and clean. Remove grease or mud from steps and handrails to minimize the risk of slipping.
- Check that the fasteners of steps and handrails are tightened and undamaged.
- Always face the machine and maintain a three point contact with the steps and handrails.



SP0008 1

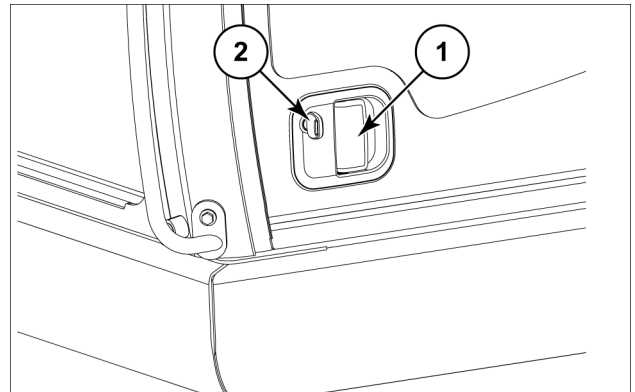
Opening the door from the outside

NOTE: the key supplied is used for starting and stopping the engine and for opening and closing the cab door, the radiator compartment panel, the hydraulic pump compartment panel, the tool compartment, the fuel tank cap and the engine hood.

If unlocked, pull the opening lever (1) outwards.

Closing the door from the outside

Close the door and turn the key in the lock (2).



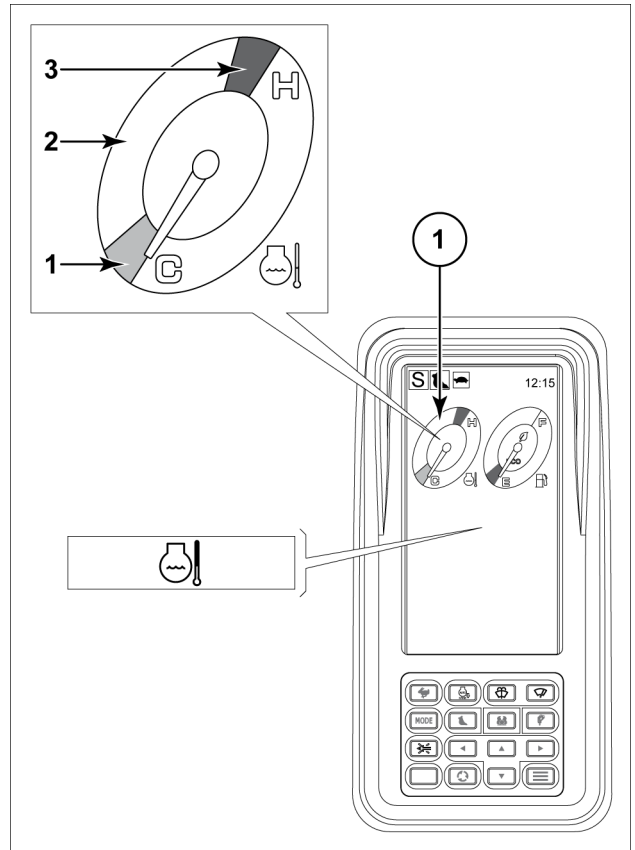
NHC0055 2

Engine coolant temperature meter

Meter (1) indicates the temperature of the engine coolant. The temperature is normal in the white range. If the indicator enters the red range, let the engine low idle until the water cools down and the indicator moves back into the white range.

1. BLUE: cold condition. Warm up the engine and hydraulic oil
2. WHITE: operating condition
3. RED: overheated

ATTENTION: if the indicator enters the red range, the relevant warning icon is displayed and the buzzer sounds at the same time. In this case, stop temporarily the operations and let the engine low idle. In the event the overheating continues, stop the engine, wait for a few minutes, then check the coolant level.

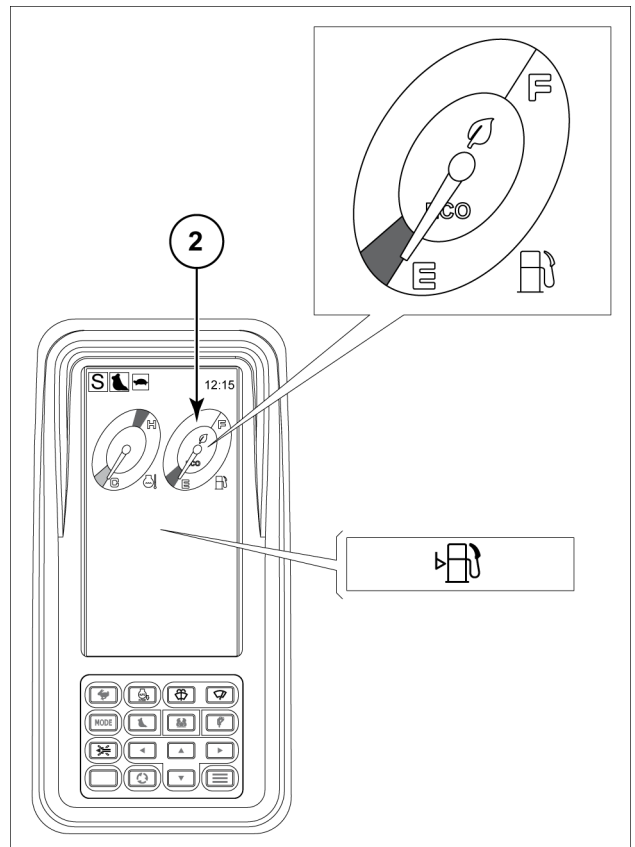


NHC0415 2

Fuel level meter

Meter (2) indicates the remaining amount of fuel. Refuel when the indicator is approaching to the E range.

ATTENTION: In the event the amount of fuel is insufficient, the relevant warning icon is displayed. Refill the fuel tank with diesel fuel only.



NHC0416 3

Windshield washer button

By pressing windshield washer button **(13)** the washer is activated as long as it is pressed. The wiper is automatically activated.

NOTE: make sure that the windshield washer liquid tank is filled prior to activating the wiper.

Windshield wiper button

By pressing wiper button **(14)** the front wiper is activated. It is possible to select two operating modes, indicated on the display of the monitor by the relevant icons:

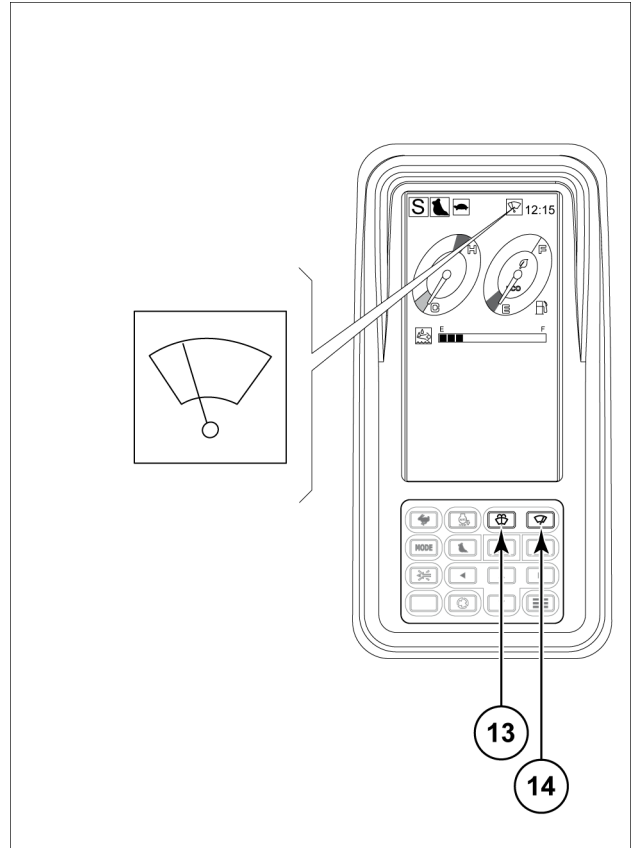


Intermittent. Press button **(14)** once.



Continuous. Press button **(14)** twice.

To deactivate the wiper, press button **(14)** until the icon on the monitor disappears.



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PAUSE BUTTON

During PLAY, press **PAU** button to pause. Press it again to resume play.

REPEAT BUTTON

When this button is pressed, **RPT ON** indication is displayed and play of the selected track will be continually repeated until the track repeat mode is cancelled by pressing **RPT** button again.

INTRO BUTTON (Preview all Tracks)

When this button is pressed, **INT ON** indication is displayed and the first several seconds of each track is played. Press again to stop intro and listen to track.

RANDOM BUTTON

When this button is pressed, **RDM ON** indication is displayed and each track is played in random instead of normal progression. To cancel random mode, press **RDM** button again.

USB PORT

Using **USB** cable to connect your portable digital **MP3** player.

HOW TO SELECT MP3/WMA FILES

Searching by Track:

- Press **A/PS**, then search track is activated.
- Turn knob **(2)** left or right, select first digit desired.
- Press knob **(3)**, then the first digit is fixed and second digit will flash.
- Turn knob **(2)** left or right, select 2'nd 3'rd respectively.
- Press **BD/ENT**, the song selected will start.

Searching by Character:

- Press **A/PS** twice, then character search mode is activated.
- Turn knob **(2)** left or right and select the desired letter.
- Press knob **(3)**, repeat steps above for 2'nd 3'rd character.
- The songs with the same character that you selected is displayed.
- Turn "VOL" knob to left or right, you can select the desired song.
- Press "BD/ENT", then the song selected will start.

Searching by File Name:

- Press "A/PS" 3 times, then folder search is activated.
- Turn "VOL" knob to left or right, you can select the desired folder.
- Press "BD/ENT", then the folder is fixed and the first file will be played.

FRONT AUX IN

AUX IN input jack allows easy connection of Portable Media.

MICROPHONE

For bluetooth handsfree conversation

RESET

Reset button is placed on the housing. The reset button is to be activated for the following reason:

- Initial installation of the unit when all wiring is completed.
- All the function button do not operate.
- Error symbol on the display.

Engine oil level

NOTICE: prior to checking the engine oil level, check that the machine is positioned on a flat surface.

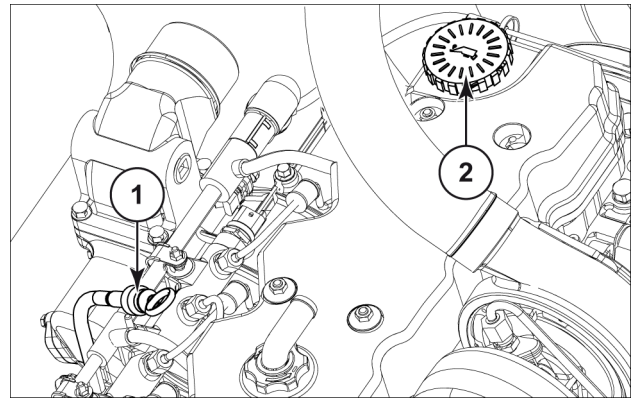
- Open the engine hood and lock it in open position.
- Pull out dipstick (1), clean it with a dry rag and reinsert it into its seat; pull it out again and check the level. This level shall be included between the **MIN** and **MAX** range located at the end of the dipstick.

NOTE: insert the dipstick slowly into its seat, so as to avoid that the pressure alters the level check.

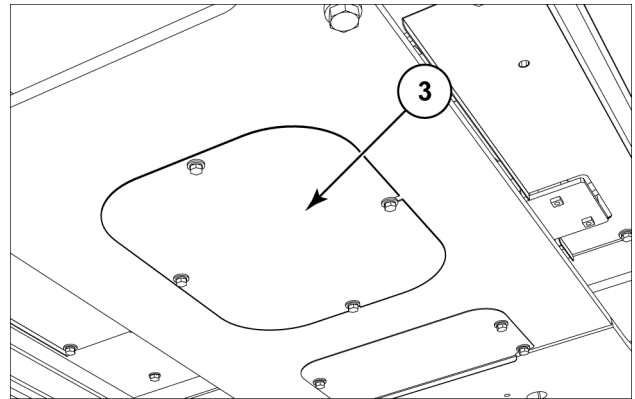
NOTE: in the event a low engine oil level is measured, remove the filler cap (2) and top-up the oil level, through the filler neck.

NOTICE: do not oil with different characteristics from the oil already in the engine (see "Fluids and lubricants" at the end of chapter MAINTENANCE).

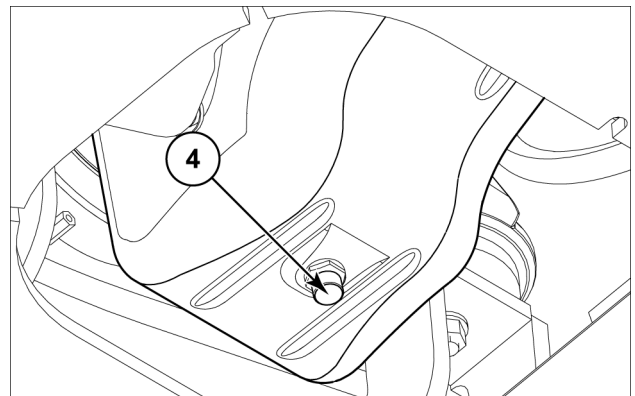
NOTE: if the level exceeds the mark **MAX** on the dipstick, get under the turret, remove the panel (3) in correspondence with the engine oil pan and drain the part of oil in excess through draining plug (4).



NHC0339 1



NHC0645 2



NHC0341 3

5 - TRANSPORT OPERATIONS

ROAD TRANSPORT

Transporting on a trailer

MACHINE PREPARATION

- Know the total weight, length, width and height of the machine to be transported. Refer to the chapter SPECIFICATIONS.
- Use only a trailer with a rated capacity sufficient to transport the machine. Make sure trailer has ramps or a ramp is available for loading the machine. Use ramps which have sufficient width, length, thickness and strength. The ramp slope should be **15°** or less.
- Investigate beforehand the conditions of the road to be traveled, weight and size limits, and special local traffic regulations.
- Obtain any permits required from proper government agencies for machine transportation.
- Position the trailer on firm and level ground. Put blocks to the tires of trailer to prevent machine from moving.
- Accurately clean the machine undercarriage and tracks to prevent mud or debris from skidding during transport.

LOADING THE MACHINE

▲ WARNING

Loss of control hazard!

Turn off the Auto Idle function when traveling downhill or when loading/unloading from a trailer.

Failure to comply could result in death or serious injury.

W0927A

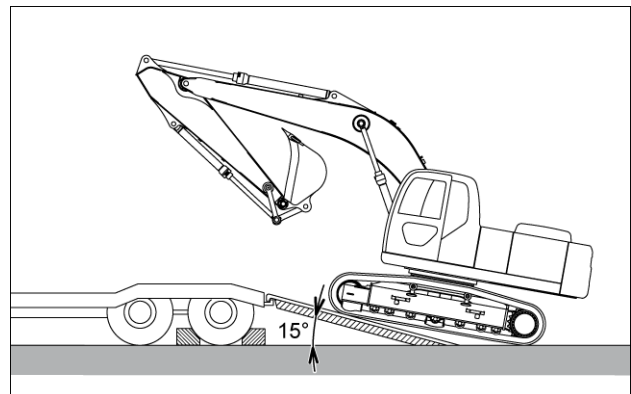
▲ WARNING

Loss of control hazard!

Avoid pressing the travel speed button while traveling. Avoid shifting to FAST speed when traveling downhill or when loading/unloading from a trailer.

Failure to comply could result in death or serious injury.

W0390A



NH0057 1

- From the instrument cluster, turn the Auto Idle function off and select the slow travel speed.
- Make sure to align the machine to ramp. Position the front attachment as shown in figure, lowered as much as possible in order not to interfere with the trailer. Slowly travel on the trailer ramp.

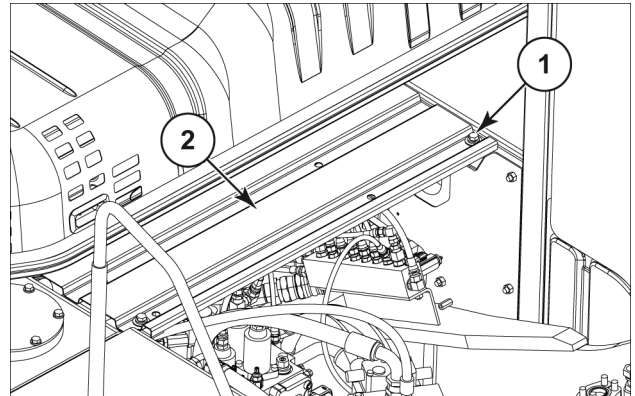
Emergency boom lowering

In the event the engine stops and it cannot be restarted, lower the boom and rest it on the ground, referring to the procedures listed here below:

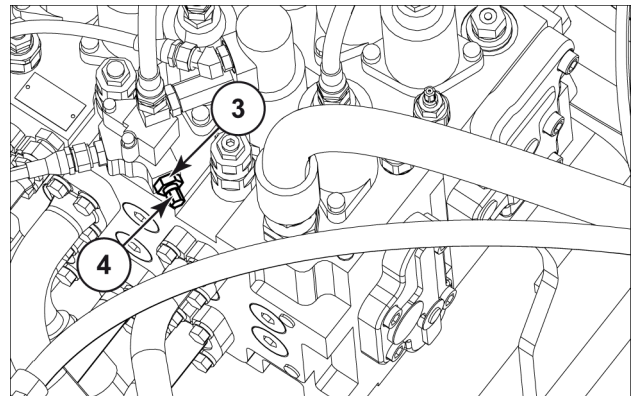
Machine without anti-drop valves

- Open the engine hood and lock it in open position.
- Remove the securing screws (1), located in correspondence with the control valve by using a **19 mm**. Then, remove guard (2).
- On the control valve, loosen locknut (3) and loosen discharge screw (4) to stroke end.
Locknut wrench: **19 mm**
Discharge screw wrench: **10 mm**
- Get into the cab and lower slowly the attachment to the ground, moving the right control lever forward. Reinstall guard (2) and contact the Dealer.

NOTE: the position of the starter key or the safety lever does not influence the procedure.



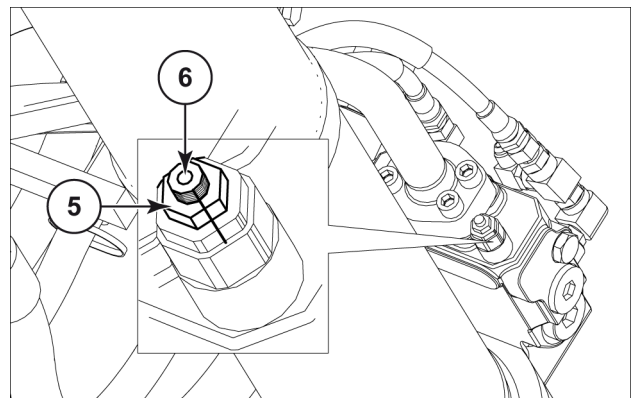
NHC0336 1



NHC0337 2

Machine with anti-drop valves

- Make a reference mark between: the valve body, locknut (5) and setting screw (6).
- Loosen locknut (5) then afterward, loosen slowly (from 3 to 3.5 turns) setting screw (6). It is sufficient to perform the procedure on one anti-drop valve only.
Locknut wrench: **13 mm**
Setting screw wrench: **4 mm**
- Perform the operations previously described for the "Machine without anti-drop valves".
- Lower the attachment to the ground, return locknut (5) and setting screw (6) in their initial positions then contact the Dealer.



NHC0338 3

Fuel tank

Draining condensation

⚠ WARNING

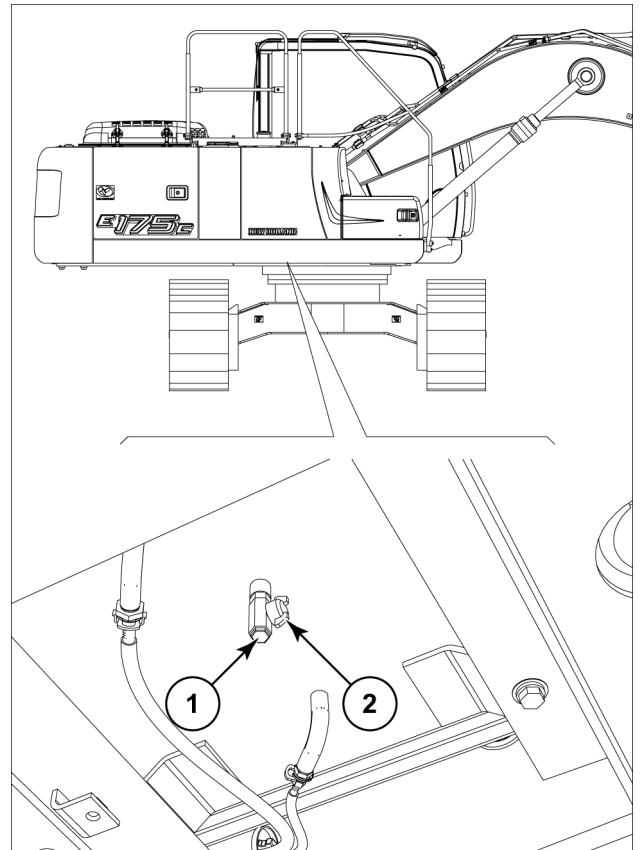
Fuel vapors are explosive and flammable. Do not smoke while handling fuel. Keep fuel away from flames or sparks. Shut off engine and remove key before servicing. Always work in a well-ventilated area. Clean up spilled fuel immediately. Failure to comply could result in death or serious injury.

W0904A

To drain the condensation inside the fuel tank, proceed as follows:

- Park the machine on a level surface and turn the upperstructure **90 °** to obtain easy access.
- Rest the bucket to the ground.
- Deactivate the Auto-Idle function, turn the engine speed throttle to **LO** position, stop the engine, extract the starter key and place the safety lever in **LOCK** position.
- Get under the turret in correspondence with the fuel tank and remove the guard.
- Remove plug **(1)** from draining valve. Slowly open the cock **(2)** and let condensation and deposits drain into a suitable container until only clean fuel comes out.
- Once the draining operation is over, close cock **(2)**, reinstall plug **(1)** and the guard.

NOTE: when the temperature is above **0 °C**, draining can be done before engine start-up. When working with temperatures below **0 °C**, the tank should be drained at the end of work, after engine stop, as water might freeze and not drain properly.



NHC0778 1

Every 500 hours

Cab air recirculation filter

Cleaning

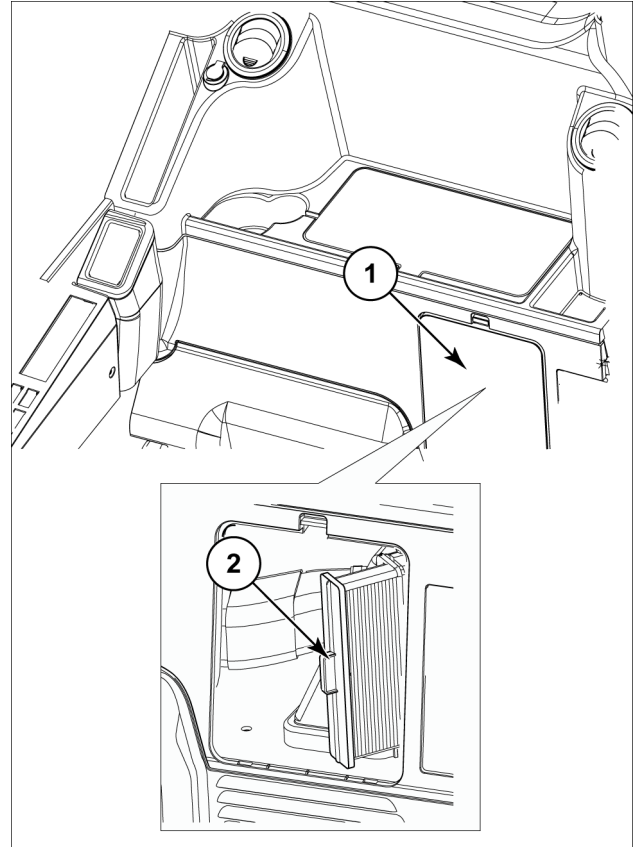
⚠ CAUTION

Eye injury hazard!
Wear protective goggles when using compressed air.
Failure to comply could result in minor or moderate injury.

C0035A

To clean the air recirculation filter, proceed as follows:

- Park the machine on a level surface.
- Rest the bucket to the ground.
- Deactivate the Auto-Idle function, turn the engine speed throttle to **LO** position, stop the engine, extract the starter key and place the safety lever in **LOCK** position.
- Move the operator's seat fully forward and lower the backrest (see page 3-4).
- Remove the lower panel (1).
- Extract the air recirculation filter (2) and check its condition. In case it is found dirty, proceed with its cleaning.
- Reposition the air recirculation filter (2) in its seat.
- Reinstall lower panel (1).
- Reposition the operator's seat.



NHC0268 1

NOTICE: clean the air recirculation filter exclusively with compressed air. Replace it every 10 cleaning operations or every 2 years.

NOTE: the normal maintenance interval requires the inspection every 500 hours. Under particular ambient conditions (very dusty area) it is recommended to reduce the interval.

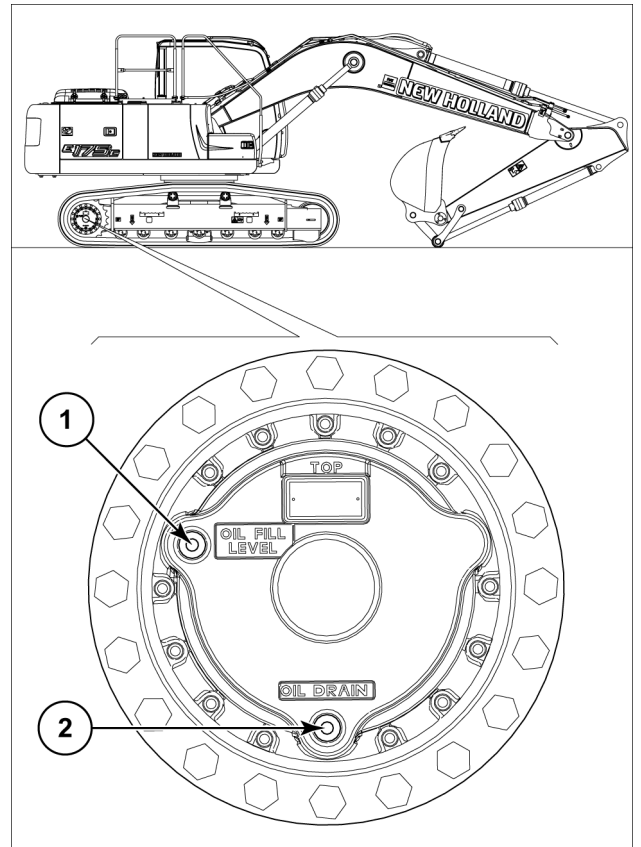
Travel reduction unit oil

Oil replacement

To replace the travel reduction unit oil, proceed as follows:

- Park the machine on a level surface. The reduction units should be positioned as to have the plugs **(1)**, **(2)** as shown. Observance of this position is essential to proper servicing.
- Rest the bucket to the ground.
- Deactivate the Auto-Idle function, turn the engine speed throttle to **LO** position, stop the engine, extract the starter key and place the safety lever in **LOCK** position.
- Slowly release the threaded plug **(1)** gradually relieving pressure from inside the reduction unit. After relieving pressure, fully remove the plug **(1)** from its seat. Loosen plug **(2)**, and take it out of its seat. Allow oil to drain in a suitable container.
- Tighten plug **(2)** and refill through the hole of plug **(1)** with the prescribed oil (see "Fluids and lubricants" at the end of this chapter) until it flows out. Oil flowing out indicates that the correct level is reached.
- Reinstall plugs **(1)**.

ATTENTION: The above operation should be carried out on both travel motors.



NHC0779 1

8 - SPECIFICATIONS

General specifications

ENGINE	
Make	FPT
Model	445TA/MLF
Rated output power at 2200 RPM (ISO 14396)	93 kW
Number of cylinders	4
Total displacement	4485 cm³
Bore x Stroke	104 mm x 132 mm

ELECTRICAL SYSTEM	
Voltage	24 V
Battery	2 x 12 V
Battery capacity	100 Ah
Alternator	70 A
Starter motor	4 kW

HYDRAULIC SYSTEM	
PUMP	
Maximum displacement	2 x 80 cm³
Maximum flow rate	2 x 176 l/min
Maximum input horsepower at 2200 RPM	91.9 kW
MAXIMUM OPERATING PRESSURE	
Attachment	34.3 MPa
Travel	34.3 MPa
Swing	29 MPa
Power Boost	37.8 MPa
CYLINDERS (Bore x Stroke)	
Boom	110 mm x 1170 mm
Arm	125 mm x 1290 mm
Bucket	105 mm x 1025 mm

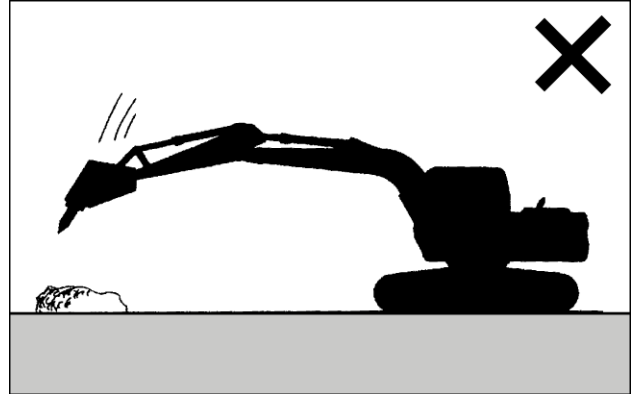
TRAVEL	
Hydraulic motors	Axial piston type
Parking brake	Oil disk brake
Reduction unit	2 stage planetary gear unit
Maximum climbable gradient	70 %
TRAVEL SPEED	
Slow	2.9 km/h
Fast	4.9 km/h

SWING	
Hydraulic motor	Axial piston type
Parking brake	Oil disk brake
Reduction unit	2 stage planetary gear unit
Bullgear	Grease-bath
SWING SPEED	11.5 RPM

Breaker

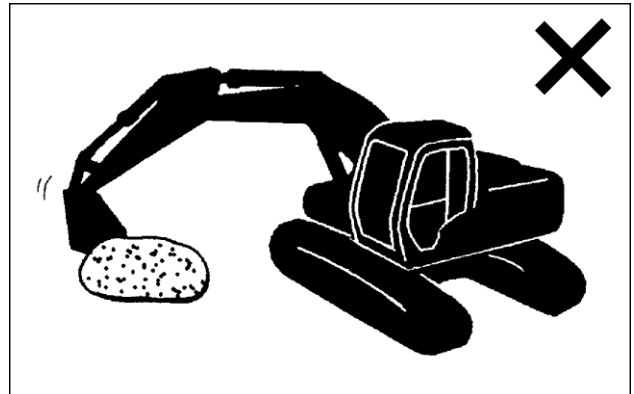
NOTE: If it is required to install a hydraulic breaker to the excavator, select a breaker model that meets the requirements of stability, pressure and oil quantity of the excavator hydraulic system. Contact your authorized Dealer to select a type of hydraulic breaker suitable for this machine.

1. Avoid hitting objects with breaker. The breaker is heavier than the bucket and lowers faster. This may cause damages to the breaker, attachment, and upperstructure. Always lower the breaker slowly until the chisel point touches the object to be broken before starting breaker operation.



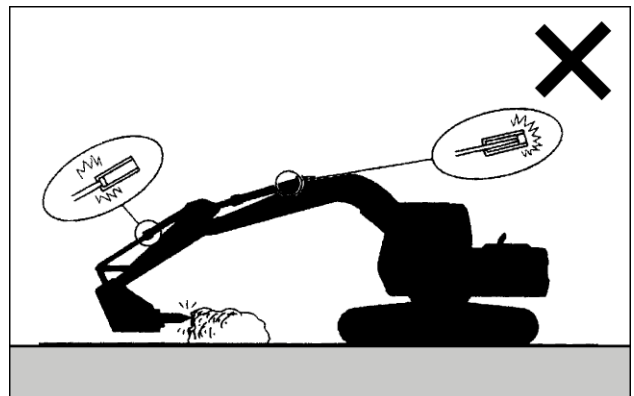
NH0195 1

2. Do not use the hydraulic breaker and/or swing function to push objects as damages to the attachment may result.



NH0196 2

3. Do not operate the breaker with the excavator cylinders fully extended or retracted to avoid attachment and/or cylinder damage.



NH0197 3

Biodegradable hydraulic oil

PANOLIN HLP SYNTH 46

ATTENTION: *if the machine was filled with biodegradable hydraulic oil **PANOLIN HLP SYNTH 46**, take note that this oil cannot be mixed with mineral hydraulic oil.*

BIODEGRADABLE OIL SAMPLING

- The sampling of oil for analysis must occur every **500** hours, using the kit and the relevant instructions provided by the Dealer. The sample must be shipped by the Customer to **PANOLIN AG.**, that shall provide the required tests. It is the Dealer's responsibility to inform the Customer in the event the oil lacks the required characteristics for continuing its use.

ATTENTION: *in case special attachments are used (hydraulic breaker etc.) the oil analysis must be performed every **250** hours.*

ATTENTION: *oil should be changed if the Dealer informs the Customer that oil is outside operating limits. Failure to observe this measure will invalidate the warranty and may cause damages to the machine.*

BIODEGRADABLE OIL CHANGE

- The biodegradable oil change must be performed every **2000** hours.

ATTENTION: *if the machine was bought filled with mineral hydraulic oil and you want to change to biodegradable hydraulic oil, this operation must be carried out by the Dealer personnel. In fact, it is necessary to thoroughly drain mineral oil and flush the entire hydraulic system. Remember that mineral hydraulic oil must not be mixed with biodegradable hydraulic oil.*

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