

ORIGINAL INSTRUCTIONS

OPERATOR'S MANUAL

E57C

Mini Excavator

Part number 90436686

1st edition English

January 2021



CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

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



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

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Manual scope and required training level

Introduction to this manual

This manual gives information about the use of your NEW HOLLAND CONSTRUCTION machine as intended and under the conditions foreseen by NEW HOLLAND CONSTRUCTION during normal operation, routine service, and maintenance.

This manual does not contain all the information that relates to periodic service, conversions, and repairs that only trained service personnel can perform. Some of these activities may require appropriate facilities, technical skills, and/or tools that NEW HOLLAND CONSTRUCTION does not supply with the machine.

The manual contains the chapters as shown on the Contents pages. See the Index at the end of this manual to locate specific items about your NEW HOLLAND CONSTRUCTION machine.

Normal operation

Normal operation consists of the use of this machine for the purpose NEW HOLLAND CONSTRUCTION intends by an operator that:

- Is familiar with the machine and any mounted equipment or towed equipment
- Complies with the information on operation and safe practices as specified by NEW HOLLAND CONSTRUCTION in this manual and by the signs on the machine

Normal operation includes:

- Preparation and storage of the machine
- Addition and removal of ballast
- Connection and disconnection of mounted equipment and/or towed equipment
- Adjustment and configuration of the machine and equipment for the specific conditions of the job site, field, and/or crop
- Movement of components into and out of working positions

Routine service and maintenance

Routine service and maintenance consists of the daily activities necessary to maintain the proper machine function. The operator must:

- Be familiar with the machine characteristics
- Comply with the information on routine service and safe practices as specified by NEW HOLLAND CONSTRUCTION in this manual and by the signs on the machine

Routine service can include:

- Fueling

- Cleaning
- Washing
- Topping up fluid levels
- Greasing
- Replacing consumable items such as light bulbs

Periodic service, conversions, and repairs

Periodic service consists of activities that are necessary to maintain the expected life of the NEW HOLLAND CONSTRUCTION machine. These activities have defined intervals.

Trained service personnel familiar with the machine characteristics must perform these activities at the defined intervals. Trained service personnel must comply with the information on periodic service and safe practices as partly specified by NEW HOLLAND CONSTRUCTION in this manual and/or other company literature.

Periodic service includes:

- Oil change service for the engine, hydraulic circuits, or transmission
- Periodic exchange of other substances or components as required

Conversion activities rebuild the NEW HOLLAND CONSTRUCTION machine in a configuration that is appropriate for a specific job site, crop, and/or soil conditions. Conversion activities must be done:

- By trained service personnel familiar with the machine characteristics
- By trained service personnel that comply with the information on conversion as partly specified by NEW HOLLAND CONSTRUCTION in this manual, assembly instructions, and/or other company literature

Repair activities restore proper function to a NEW HOLLAND CONSTRUCTION machine after a failure or degradation of performance. Dismantling activities occur during the scrapping and/or dismantling of the machine.

Trained service personnel familiar with the machine characteristics must perform these activities. Trained service personnel must comply with the information for repair as specified by NEW HOLLAND CONSTRUCTION in the service manual.

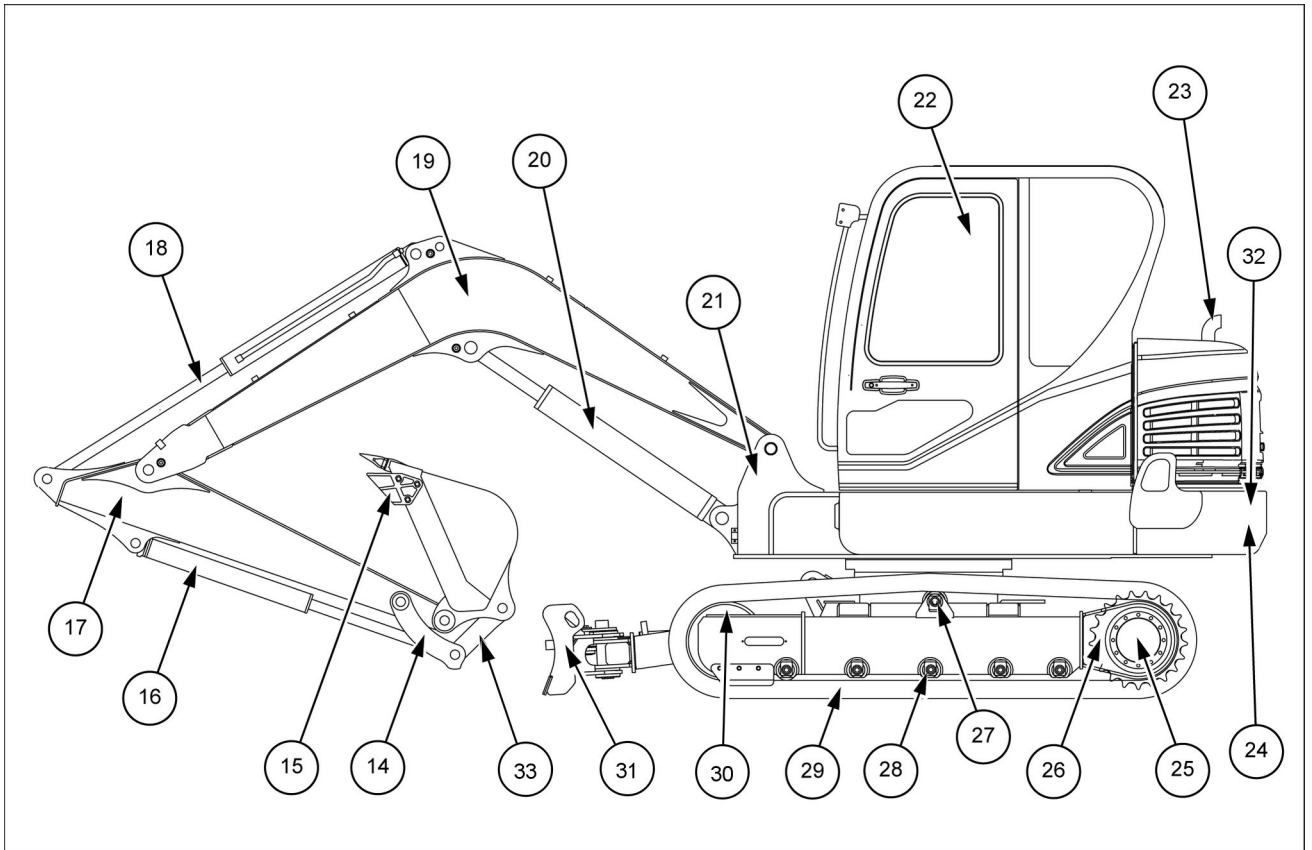
Before you operate

Read this manual before you start the engine or operate this NEW HOLLAND CONSTRUCTION machine.

Contact your NEW HOLLAND CONSTRUCTION dealer if:

- You do not understand any information in this manual
- You need more information

1 - GENERAL INFORMATION



SMIL20MEX0398FB 4

- | | |
|-------------------------|------------------------------|
| 14. Bucket control link | 24. Counterweight |
| 15. Side cutter | 25. Travel motor |
| 16. Bucket cylinder | 26. Sprocket |
| 17. Dipper | 27. Upper roller |
| 18. Dipper cylinder | 28. Lower roller |
| 19. Boom | 29. Track |
| 20. Boom cylinder | 30. Idler wheel |
| 21. Swing post | 31. Angle dozer blade |
| 22. Cab | 32. Additional counterweight |
| 23. Muffler | 33. Bucket control rod |

Maintain a three-point contact with steps, ladders, and handholds.

Never mount or dismount from a moving machine.

Working at heights

When the normal use and maintenance of the machine requires you to work at heights:

- Correctly use installed steps, ladders, and railings.
- Never use ladders, steps, or railings while the machine is moving.

Lifting and overhead loads

Never use loader buckets, forks, etc. or other lifting, handling, or digging equipment to lift persons.

Do not use raised equipment as a work platform.

Know the full area of movement of the machine and equipment and do not enter or permit anyone to enter the area of movement while the machine is in operation.

Never enter or permit anyone to enter the area underneath raised equipment. Equipment and/or loads can fall unexpectedly and crush persons underneath it.

Do not leave equipment in raised position while parked or during service, unless securely supported. Hydraulic cylinders must be mechanically locked or supported if they are left in a raised position for service or access.

Before using the machine

- Avoid loose fitting clothing, loose or uncovered long hair, jewelry or any other items which could get caught up in machinery.
- Different types of job will require different types of protective equipment. Items such as hard hats, safety shoes, heavy gloves, reflector type jackets, respirators, ear protection and eye protection may be required. Before starting a job, determine what protective equipment will be necessary. Use this equipment at all times.
- Do not attempt to operate this machine unless you have first read and perfectly understood the safety messages and instructions appearing in this manual.
- Operating the machine requires full attention and care on the part of the operator. Get to know the machine's possibilities and limitations and the working space required. There are areas of poor visibility in the working range of the machine. Have someone guide you for all areas where visibility is not adequate.
- Grease, oil, mud or (in winter) ice on the steps and access handles can cause accidents. Make sure they are kept clean at all times.
- Every day, inspect the machine to detect any signs of hydraulic fluid leakage. Tighten the connections or replace any defective components as necessary.
- Remove any obstructions which hinder visibility. Keep the windshield, rear view mirror and windows clean at all times.
- Make sure the windshield wiper works correctly.
- Make sure you are familiar with hand signals in daily use on the work-site so as to be able to obtain help with tight maneuvers or when carrying out operations where visibility is poor.
- Before undertaking any travel or working operations during hours of darkness, make sure the lighting and signaling equipment is fully operative.
- Before any travel operation, make sure that the doors and hoods are properly latched.
- Check that no tools or other items have been left on the machine (be it on the undercarriage or the upper-structure) or in the operator's compartment.
- The operator must be alone on the machine at all times. Do not allow anyone to stand on or around the machine.
- To get in or out of the cab, it is imperative that the upper-structure frame is in line with the undercarriage.
- When exiting or getting into the operator's compartment, always face the machine and use the steps and access handles.

Do not use the controls or accessories as hand-holds when you enter or exit the cab.

- Do not stand on surfaces that are not designated as steps or platforms.

Do not use the machine as a lift, ladder, or platform for working at heights.

Loader buckets, forks, etc. or other lifting, handling, or digging equipment and its load will change the center of gravity of the machine. This can cause the machine to tip on slopes or uneven ground.

Load items can fall off the loader bucket or lifting equipment and crush the operator. Care must be taken when lifting a load. Use proper lifting equipment.

Do not lift load higher than necessary. Lower loads to transport. Remember to leave appropriate clearance to the ground and other obstacles.

Equipment and associated loads can block visibility and cause an accident. Do not operate with insufficient visibility.

Safety signs

▲ WARNING

Avoid injury!

An illegible or missing decal can have far-reaching consequences. Inspect decals daily. Failure to comply could result in death or serious injury.

W0228A

▲ WARNING

Avoid injury!

Make sure decals are perfectly legible. Clean decals regularly. Replace all damaged, missing, painted over, or illegible decals. See your dealer for replacement decals. When replacing parts bearing decals, be sure to put new decals on each new part.

Failure to comply could result in death or serious injury.

W0229A

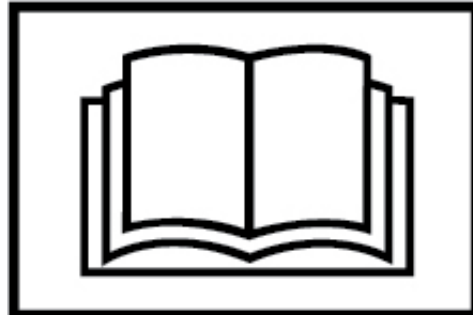
The following safety signs are on your machine as a guide for your safety and for the safety of those working with you. Walk around the machine and note the content and the location of all safety signs before you operate your machine.

Keep all safety signs clean and legible. Clean safety signs with a soft cloth, water, and gentle detergent.

NOTICE: do not use solvent, gasoline, or other harsh chemicals. Solvents, gasoline, and other harsh chemicals may damage or remove safety signs.

Replace all safety signs that are damaged, missing, painted over, or illegible. If a safety sign is on a part you or your NEW HOLLAND CONSTRUCTION dealer replaces, make sure that you or your NEW HOLLAND CONSTRUCTION dealer install the safety sign on the new part. See your NEW HOLLAND CONSTRUCTION dealer for replacement safety signs.

Safety signs that display the "Read operator's manual" symbol direct you to the operator's manual for further information regarding maintenance, adjustments, or procedures for particular areas of the machine. When a safety sign displays this symbol, consult the appropriate page of the operator's manual.



Safety signs that display the "Read service manual" symbol direct you to the service manual. If you doubt your ability to perform service operations, contact your NEW HOLLAND CONSTRUCTION dealer.



(15) Machine control pattern

⚠ WARNING

Avoid injury!

Inspect the work area or job site to make sure that machine operation can be done safely. Confirm that the lever operation is the same as indicated on the control pattern labels. If not, immediately change the machine control pattern or the label displayed to match the machine control pattern.

Failure to comply could result in death or serious injury.

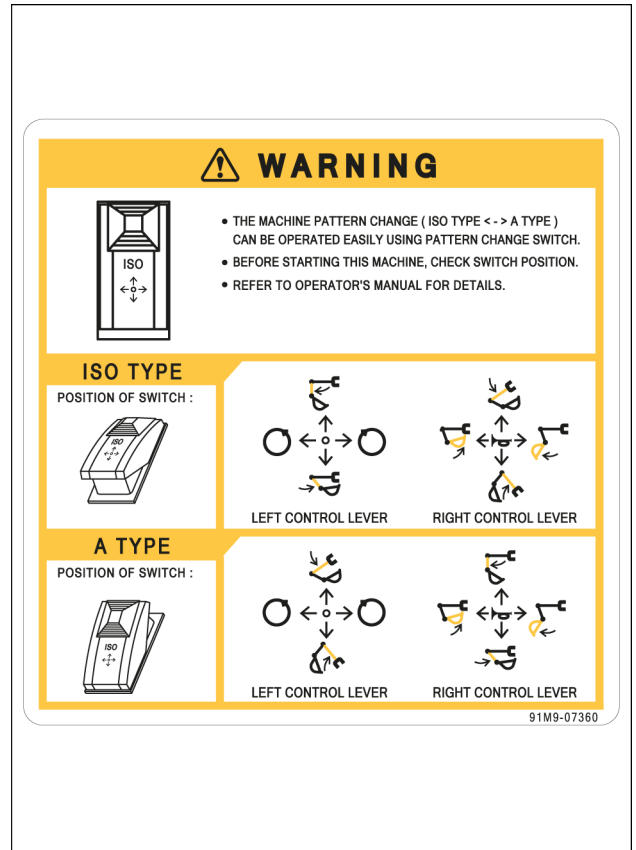
W1339A

The machine control pattern can easily be changed to the "ISO type" or to the "A type" by using pattern change switch. Before starting the machine, check the switch position.

Location: this sign is located on the right-hand side window of the cab.

Quantity: 1

Part number: 91M9-07360



SMIL19MEX0271BA 19

(16) Stay fix-cab

Location: this sign is located on the front window of the cab.

Quantity: 1

Part number: 91M9-07112

This sign warn the operator to be sure to support the stay when the window needs to be opened. The opened window may be closed by the external or natural force.



SMIL20MEX0672AA 20

3 - CONTROLS AND INSTRUMENTS

Access to operator's platform

Door and steps

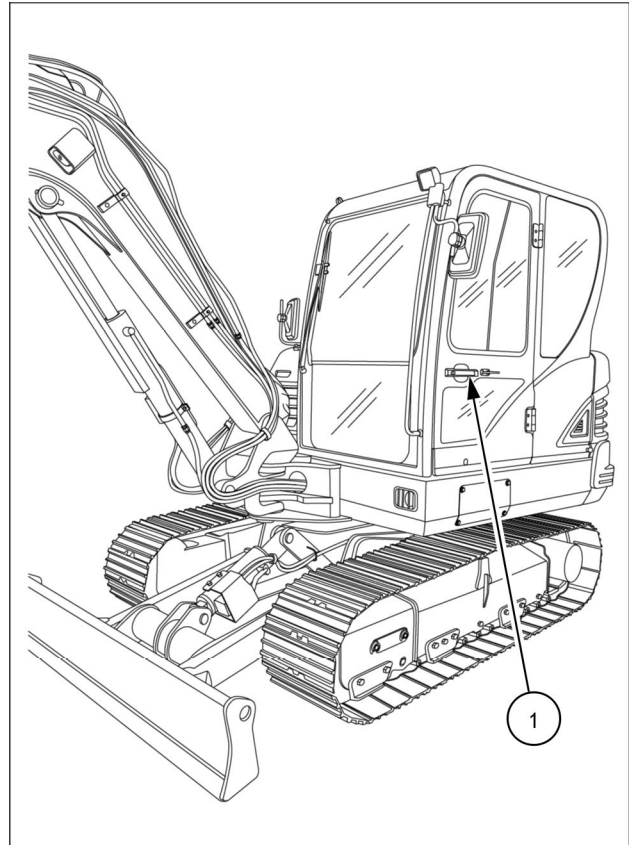
Cab door

⚠ CAUTION

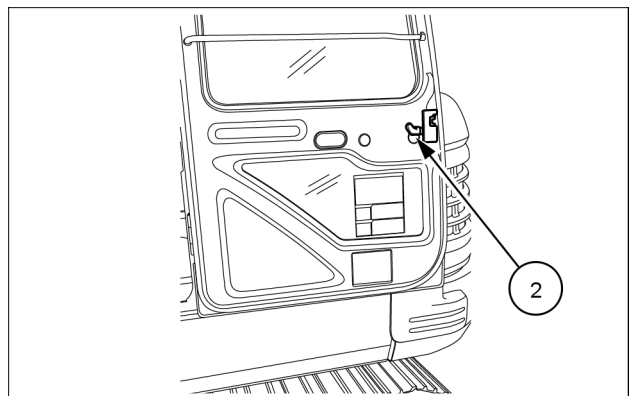
Pinch hazard!
Be careful not to get your hand, clothes, etc. caught in the door when closing it.
Failure to comply could result in minor or moderate injury.

C0046A

To open the door from outside the cab, use the handle (1) shown in Figure 1. To open the door from inside the cab, use the handle (2) shown in Figure 2.



SMIL16MEX0577BA 1



SMIL16MEX0578AA 2

Boom swing pedal

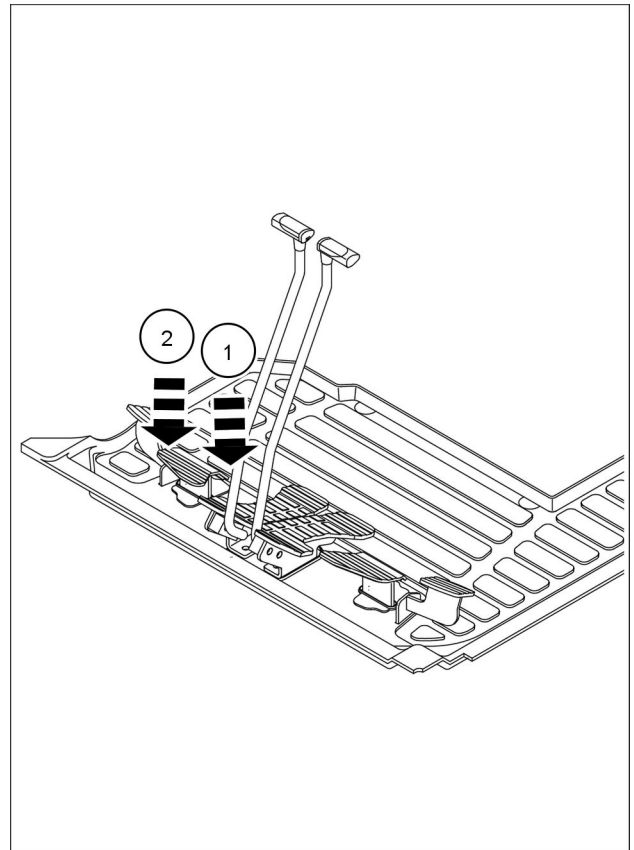
This pedal is used to swing the boom to the right-hand and left-hand direction.

Press the pedal to rearward **(1)** to swing the boom to the right-hand direction.

Press the pedal to forward **(2)** to swing the boom to the left-hand direction.

NOTICE: make particular attention when swing the boom to the left-hand side: the attachment may collide with the cab.

NOTICE: make sure to remove the boom swing locking pin before start working with the machine. Make sure to insert the boom swing locking pin when parking the machine.



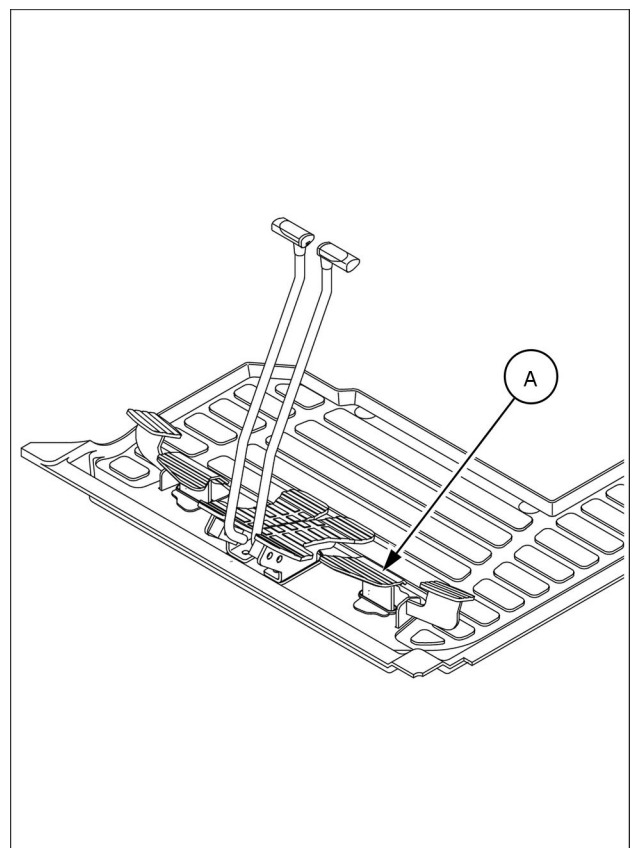
SMIL16MEX0495BA 15

Auxiliary pedal (if equipped)

The auxiliary pedal **(A)** allows to control the main auxiliary hydraulic circuit. This circuit is intended to operate attachments like hydraulic breakers or hydraulic clamshells.

The breaker can be also operated using the button located on the right-hand control lever.

NOTE: the breaker operates only when the breaker selection switch on the switch panel is selected.



SMIL16MEX0495BA 16

General

Area selection

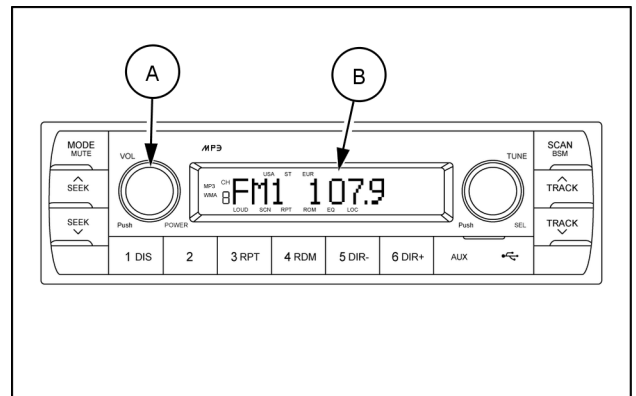
To select an area, press and hold related buttons at FM1 band for about 3 seconds.

- USA Area: press and hold MODE (3) and 1DIS (5) buttons for 3 s.
- Europe Area: press and hold MODE (3) and “2” buttons for 3 s.
- Asia Area: press and hold MODE (3) and “3RPT” buttons for 3 s.
- Latin Area: press and hold MODE (3) and “4RDM” buttons for 3 s.

(1) Power and volume knob

Power ON/OFF button

Press the power button (A) to turn the unit ON or OFF shortly. When the power is ON, the previous mode (last memory) will appear.



SMIL17MEX2806AA 2

Volume up / down control

Turn the volume up/down button (A) right-hand to increase the volume level. The level will be shown in VOLUME xx on the LCD screen (B).

Turn the volume up/down button (A) left-hand to decrease the volume level. After 5 s of volume indication, the LCD screen (B) will return to the previous mode.

Initial volume level set up

I-VOL is the volume level the unit will play at when next turned on. To adjust the I-VOL level, press and hold VOL button (A) for longer than 2 s.

The current volume level displays on the display panel.

Turn button (A) right-hand or left-hand to set the volume level as the I-VOL level.

Clock ON/OFF control

The CLOCK was default at off status.

To turn CLOCK ON, press and hold the button (A) for longer than 2 s to display I-VOL, then short press button (A) again, turn knob (A) while CLOCK OFF display, then the CLOCK ON will be displayed.

Due to time tolerance, the clock display on the Audio unit might have little difference.

Emergency exit hammer

⚠ WARNING

Avoid injury!

A safety sign indicates which window to use as an emergency exit. Remove this window only in an emergency. Do not place any object that could be an obstacle in case of evacuation in front of this window.

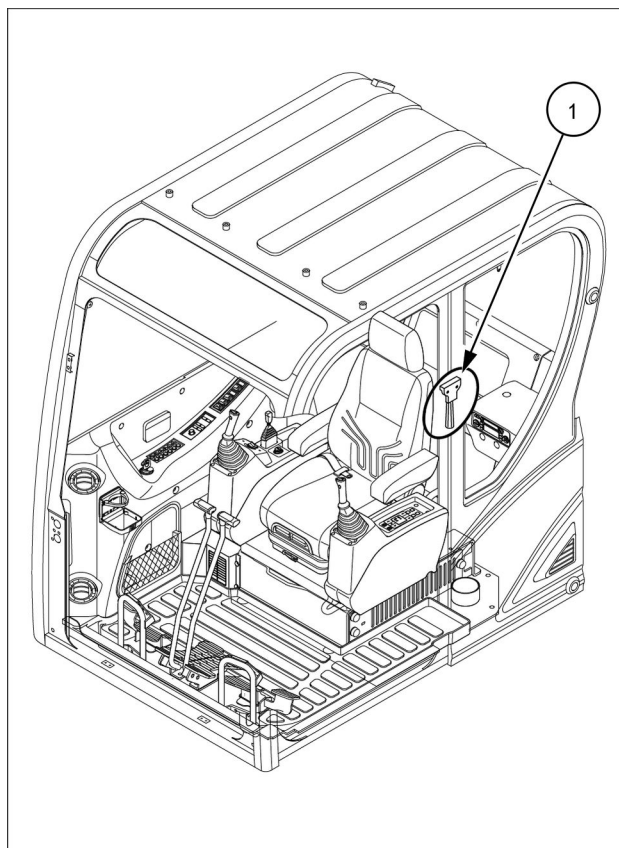
Failure to comply could result in death or serious injury.

W1435A

Only in case of emergency, use the installed safety hammer (1) for breaking the windshield of the cab, and then exit carefully.

Consult your NEW HOLLAND CONSTRUCTION dealer for windshield installation.

NOTICE: do not break the windshield of the cab except when it is absolutely necessary, such as to escape in an emergency.



SMIL16MEX0500BA 1

(3) Engine coolant temperature gauge

The engine coolant temperature gauge indicates the temperature of the coolant.

Black range **(A)**: between **40 – 115 °C (104 – 239 °F)**

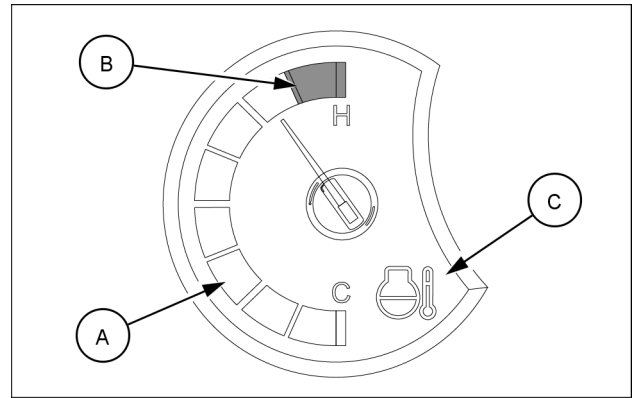
Red range **(B)**: above **115 °C (239 °F)**

If the indicator is in the red range **(B)** or light **(C)** turns ON in red, stop the engine and check the engine cooling system.

When the red range **(B)** or light **(C)** turns ON in red, do not stop abruptly the engine, but run the engine at medium speed to allow it to cool gradually, then stop the engine.

NOTICE: if the engine is stopped without cooled down running, the temperature of engine parts will rise suddenly, and this can cause severe engine trouble.

NOTICE: if the gauge indicates the red range or light turns ON in red even though the machine is on the normal condition, consult your NEW HOLLAND CONSTRUCTION dealer.



SMIL16MEX0614AA 5

(4) Hydraulic oil temperature gauge

The hydraulic oil temperature gauge indicates the temperature of the hydraulic oil.

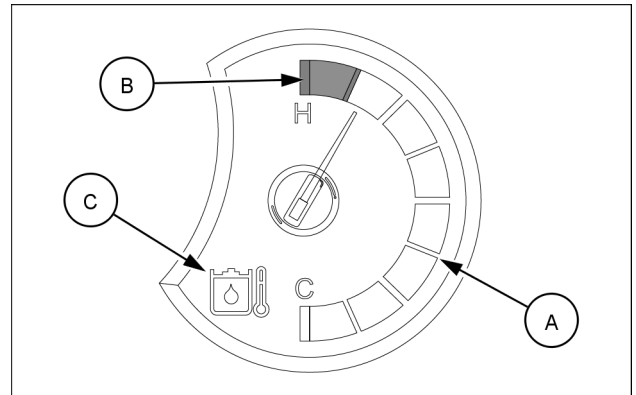
Black range **(A)**: between **40 – 105 °C (104 – 221 °F)**

Red range **(B)**: above **105 °C (221 °F)**

If the indicator is in the red range **(B)** or light **(C)** turns ON in red, reduce the load on the system.

If the gauge stays in the red range, stop the machine and check the cause of the problem.

NOTICE: if the gauge indicates the red range or light turns ON in red even though the machine is on the normal condition, consult your NEW HOLLAND CONSTRUCTION dealer.



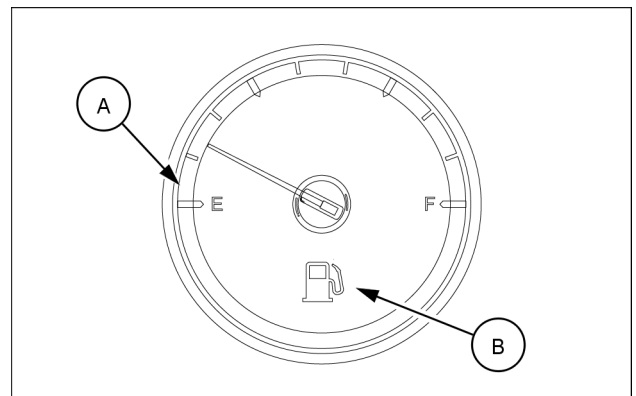
SMIL16MEX0615AA 6

(5) Fuel level gauge

The fuel gauge indicates the amount of fuel in the fuel tank.

Fill the fuel when the red range **(A)** or light **(B)** turns ON in red.

NOTICE: if the gauge indicates the red range or the light turns ON in red even though the machine is on the normal condition, consult your NEW HOLLAND CONSTRUCTION dealer.



SMIL16MEX0616AA 7

(2) Selection knob

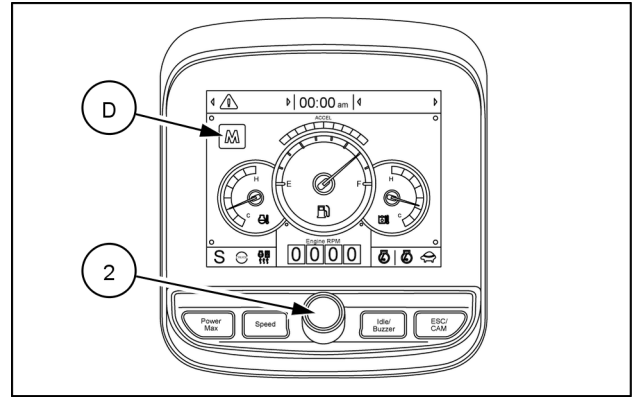
This knob is used to select or change the menu and the input value.

Knob pushing (or main menu quick touch button **(D)** pushing)

- Long (more than **2 s**): return to the operation screen
- Medium (**0.5 – 2 s**): return to the previous screen
- Short (less than **0.5 s**): select menu

Knob rotation

- Clockwise turning: down direction/Increase input value
- Counterclockwise turning: Up direction/Decrease input value



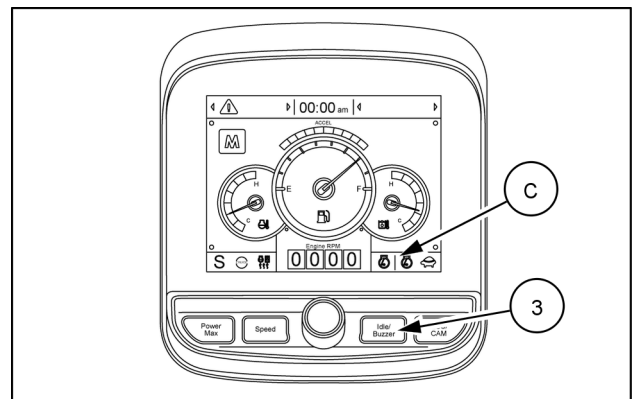
SMIL16MEX3097AA 30

(3) Auto idle/Buzzer stop switch

This switch has two functions:

1. Press the switch to activate or deactivate the auto idle function **(C)**.
2. Press the switch to stop the buzzer when sounds.



NOTE: the buzzer sounds if the machine has a problem. Pushing the switch, the buzzer stops but the warning light relevant to the problem continues to blink, until the problem is solved.

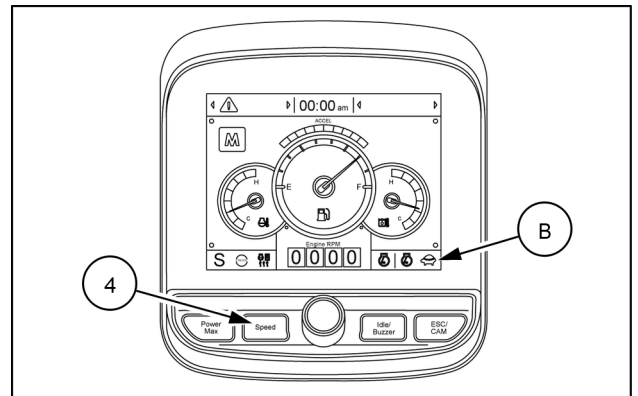


SMIL16MEX3097AA 31

(4) Travel speed switch

Press this switch to select the travel speed mode (the relevant travel speed light **(B)** turns ON).

- : low speed, **2.2 km/h (1.4 mph)**
- : high speed, **4.2 km/h (2.6 mph)**



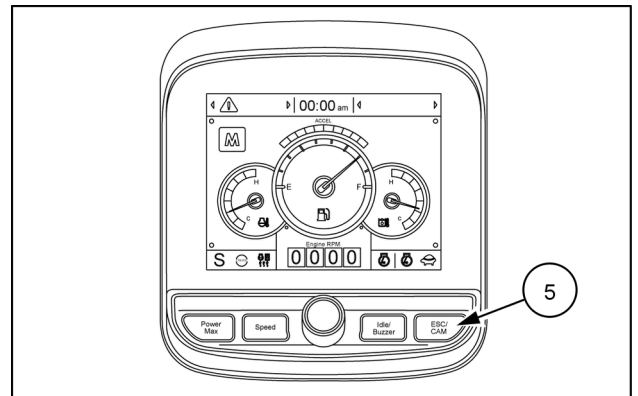
SMIL16MEX3097AA 32

(5) Escape (previous menu)/Rear camera

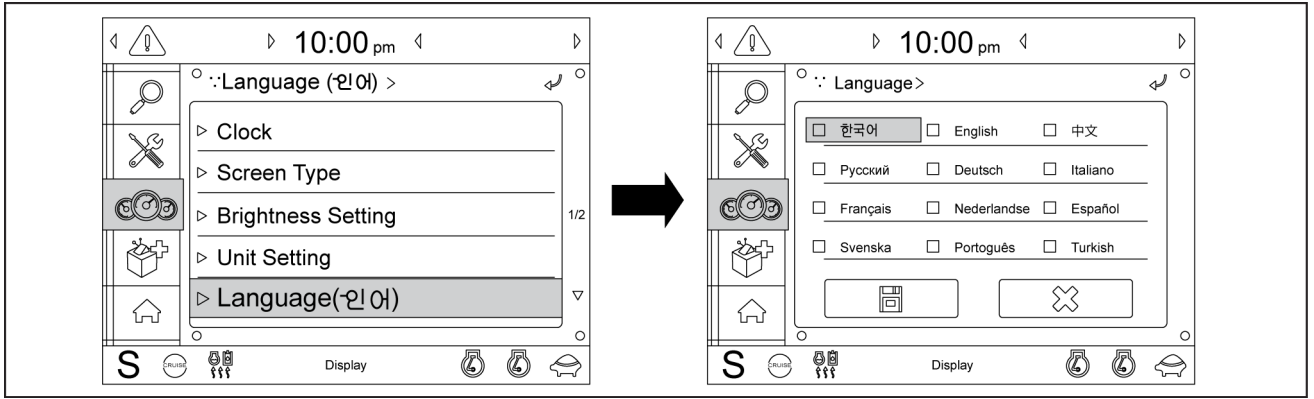
Press this switch to return to the previous menu or to return from sub menu screen to main menu screen.

In the operation screen, push this switch to display the view of the camera (if equipped).

NOTE: if the camera is not installed, the switch is used only as escape function.



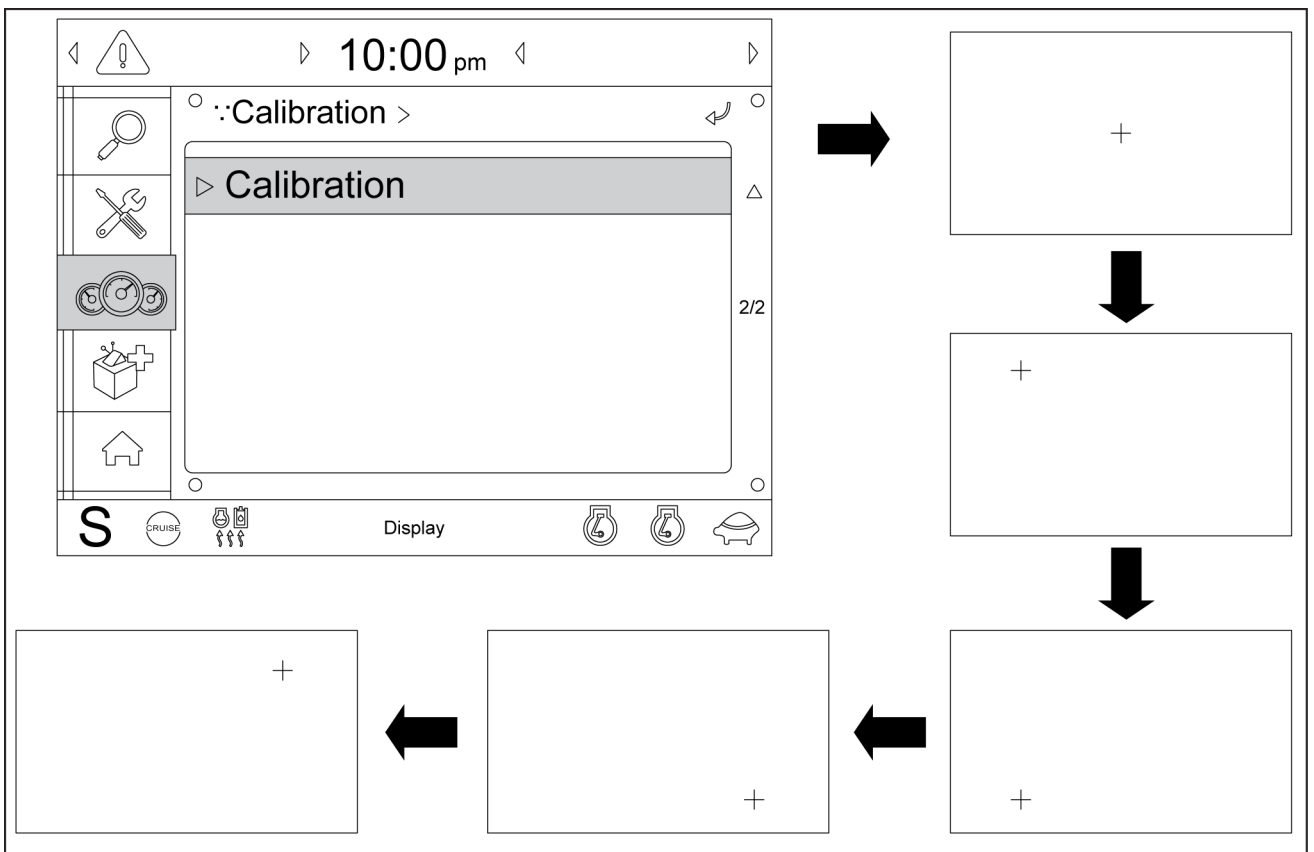
SMIL16MEX3097AA 33



SMIL16MEX0539EA 51

(E) Language

User can select preferable language and all displays are changed to the selected language.



SMIL16MEX0540FA 52

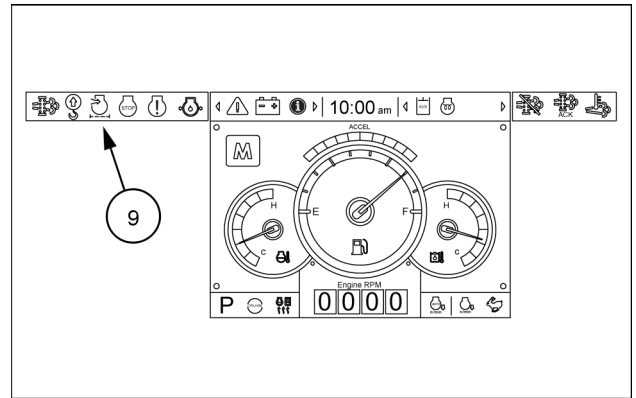
(F) Calibration

When touch awareness goes wrong, use this function. Fall in the next step if you touch the middle point of cross with fingernail. If you touch total five points as shown, the setting is completed.

(9) Air cleaner warning light

This light turns ON when the filter of air cleaner is clogged. Full-screen warning pop-up is shown to warn you.

Check and clean the filter or replace it.

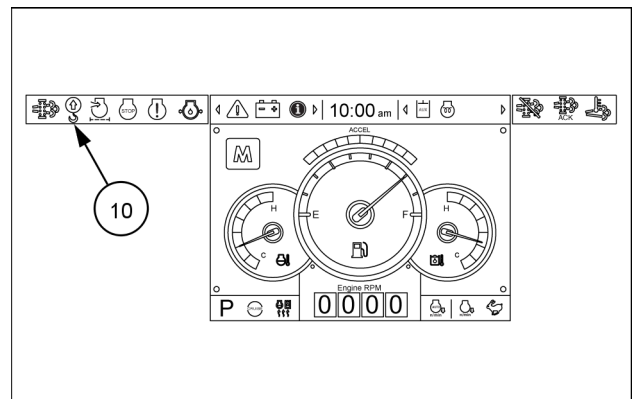


SMIL19MEX0629FA 77

(10) Overload warning light (Optional)

When the machine is overload, the overload warning light turns ON if the overload switch is ON position. Full-screen warning pop-up is shown to warn you.

Reduce the machine load.



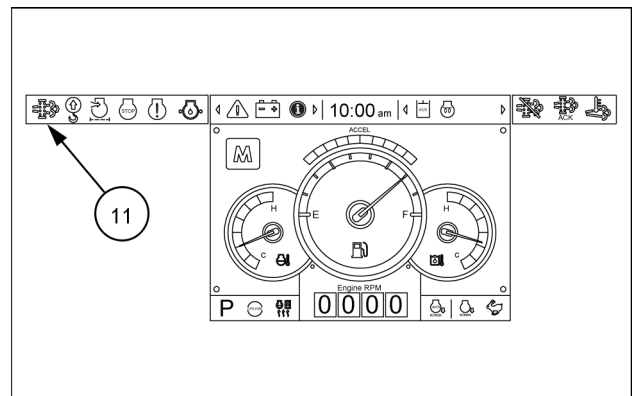
SMIL19MEX0629FA 78

(11) Diesel Particulate Filter (DPF) warning light

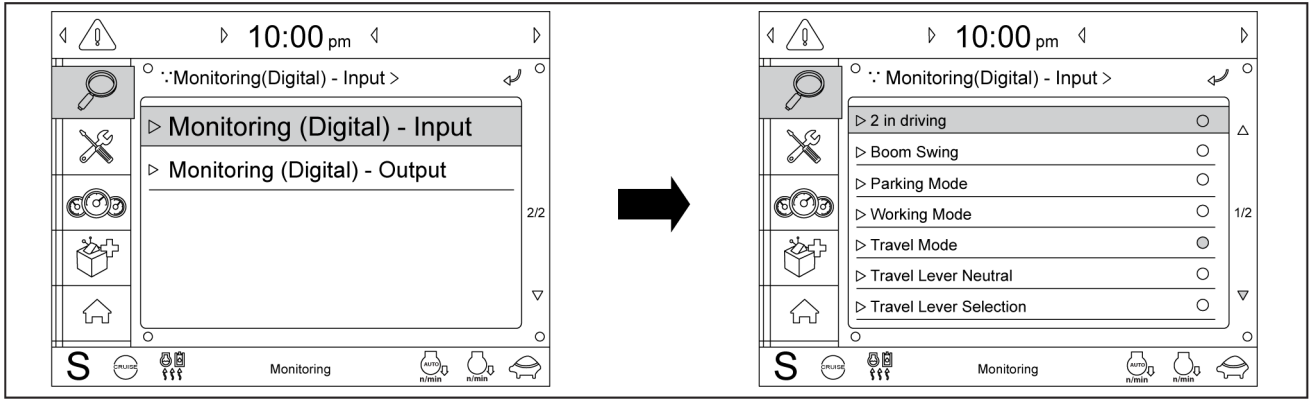
This light turns ON or blinks when the regeneration is needed, as described in the following table. Full-screen warning pop-up is shown to warn you.

The consequences of delaying regeneration are:

- Poor performance caused by increasing exhaust gas pressure
- Higher fuel consumption
- Shorter filter lifetime



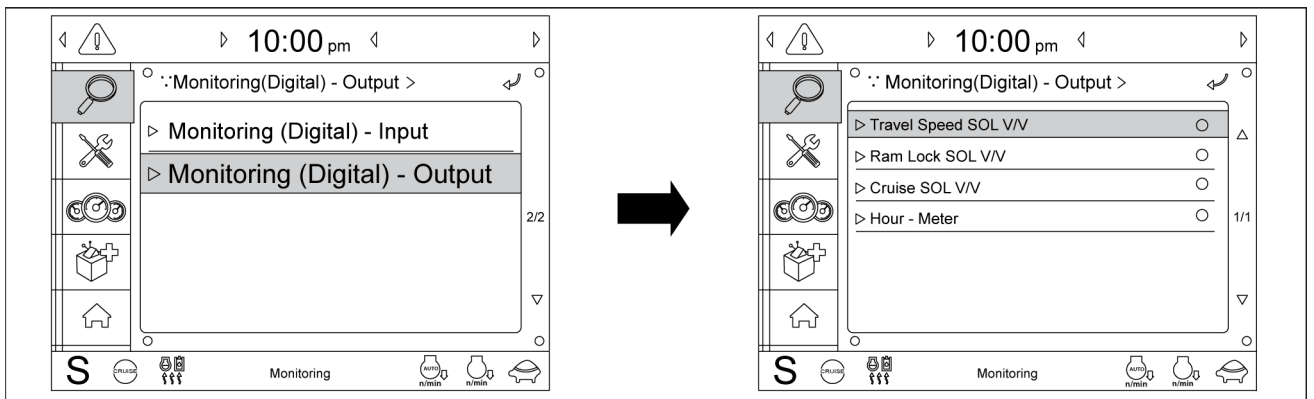
SMIL19MEX0629FA 79



SMIL19MEX0578EA 99

(E) Monitoring (Digital)

The switch status can be confirmed by this menu. A blue light confirms the selection of the activated switches.



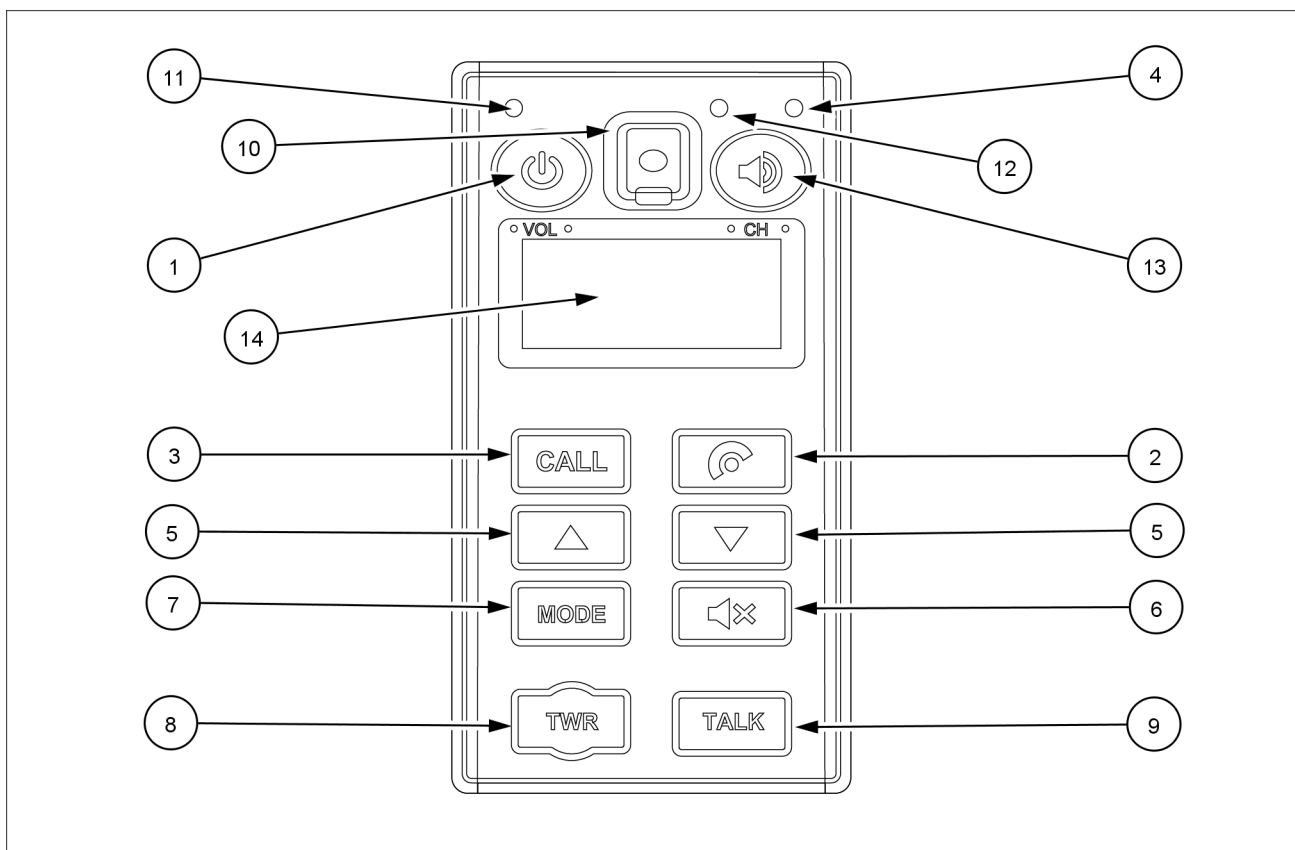
SMIL19MEX0579EA 100

(F) Monitoring (Digital)

The output status can be confirmed by this menu. A blue light confirms the selection of the output status.

Remote controller

The remote controller allows to dial a call or to have a conversation without holding your handset.



SMIL16MEX0512FA 1

- | | |
|--------------------------------|-----------------------------------------|
| (1) Power and volume knob | (8) Radio calling mode button |
| (2) Mode/Audio button | (9) TALK button |
| (3) CALL button | (10) Radio hands-free jack |
| (4) Hands-free jack microphone | (11) External speaker microphone (null) |
| (5) SEEK button | (12) External speaker LED (null) |
| (6) MUTE button | (13) External speaker switch (null) |
| (7) MODE button | (14) Display |

Overhead controls

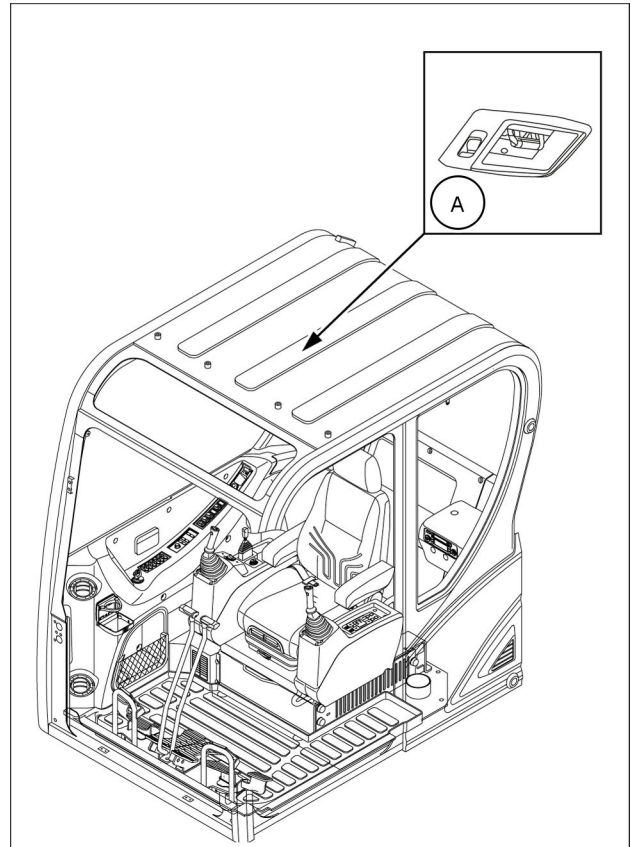
Cab internal lighting

The room light (**A**) is located on the roof of the cabin.

The room light selection switch is equipped to select either one of the following status:

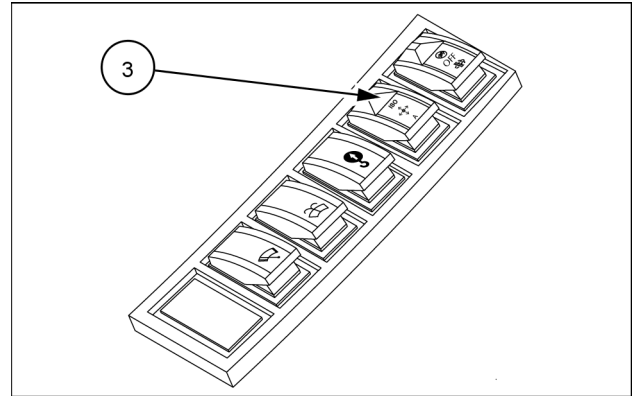
- OFF: the light is turned off always.
- DOOR: the light is turned on always.
- ON: the light is turned on always.

NOTICE: make sure that the cab internal lighting is turned off after using it. Leaving it turned on may drain out the battery.



SMIL16MEX1119BA 1

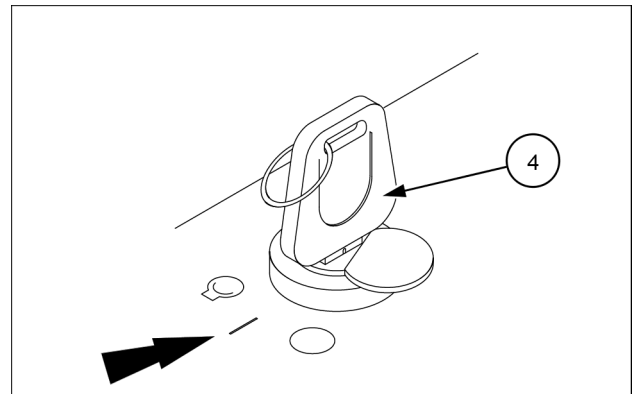
7. Check the pattern change switch position (3).



SMIL19MEX0272AA 9

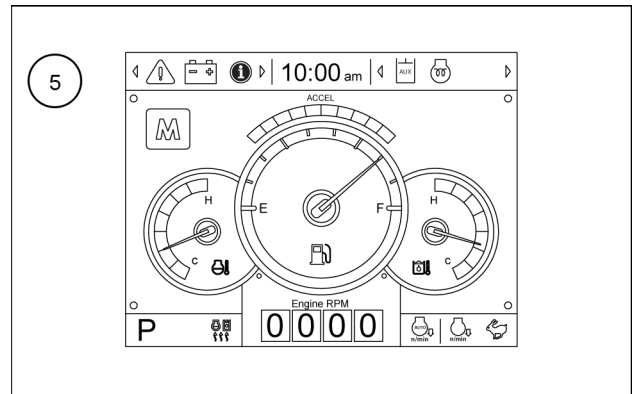
8. Turn the starter key (4) to the ON position, and check that the buzzer sounds for four seconds.
9. If the ESL mode is set to enable, enter the password to start the engine (refer to page 4-1).

NOTE: if the password has failed 5 times, please wait 30 minutes before re-attempting to enter the password.



SMIL16MEX0507AA 10

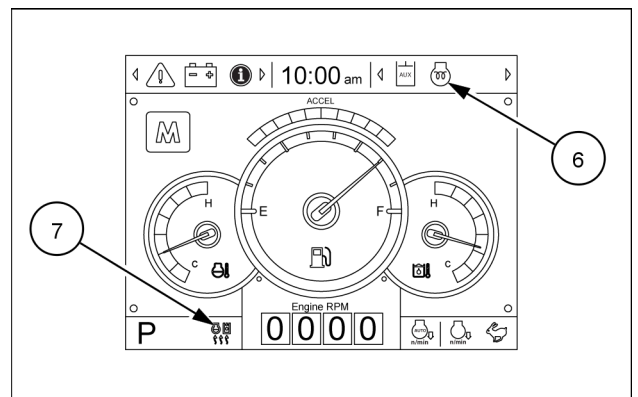
10. After initialization of the instrument cluster, the operating screen (5) is displayed on the display.
11. If the ambient temperature is below 10 °C (50 °F), the engine preheat light and the warming up pilot light are automatically operative once the starter key is in ON position.



SMIL19MEX0631AA 11

12. Sound the horn with the button on the left-hand control lever to warn that the machine is starting up.
13. Turn the starter key to START position when the engine preheat light (6) disappears. The engine running takes approximately 1 s to stabilize after it has been cranked up. Release the starter key as soon as the engine is running regularly.

NOTE: the warming up pilot light (7) turns on if the coolant is below 30 °C (86 °F).



SMIL19MEX0631AA 12

NOTICE: the cranking up of the engine may be difficult in severe winter climates. If the engine does not start after 10 s of operation of the starter motor, turn the key to OFF position and wait 2 min before attempting a new cranking.

NOTICE: when the engine is started in severe winter climates, moisture vapor may be temporarily generated resulting in a whitened smoke.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

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



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

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Caution while using rubber crawlers

Proper usage

The rubber tracks offer excellent features which steel tracks do not possess.

However, if they are used the same way as the steel tracks, then their advantages cannot be fully exploited. Operation of the machine varies upon working site and conditions.

Although the rubber track offers many advantages thanks to the properties of its material, it also has disadvantages in terms of strength. As a consequence, it is necessary to be familiar with the characteristics of this kind of track.

	Rubber belt
Less vibration	⊗
Smooth operation	⊗
Low noise	⊗
Harmless for paved road	⊗
Easy handling	⊗
Resistant	△
Large traction force	⊗
⊗: Excellent ○: Good △: Normal	

Rubber track warranty

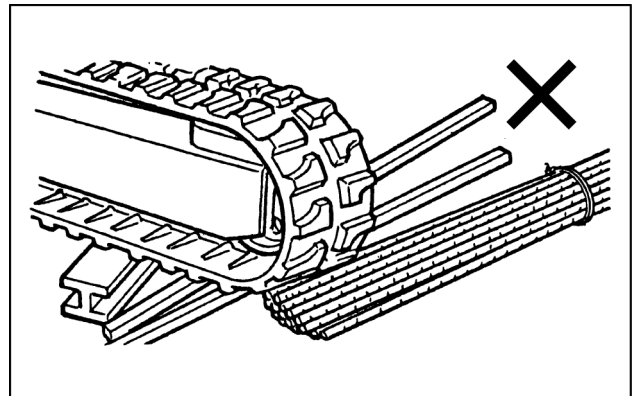
The warranty does not cover such damages to the rubber tracks resulting from improper working or if their tension is inaccurate.

Forbidden operations

Do not carry out the following operations:

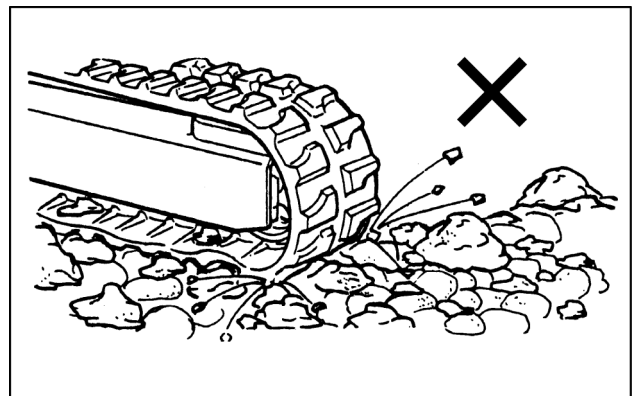
Do not travel nor work on following surfaces:

- Gravel.
- Rugged and solid rock bed.
- Reinforced concrete.
- Steel plate edges.



LELI11E0259AA 1

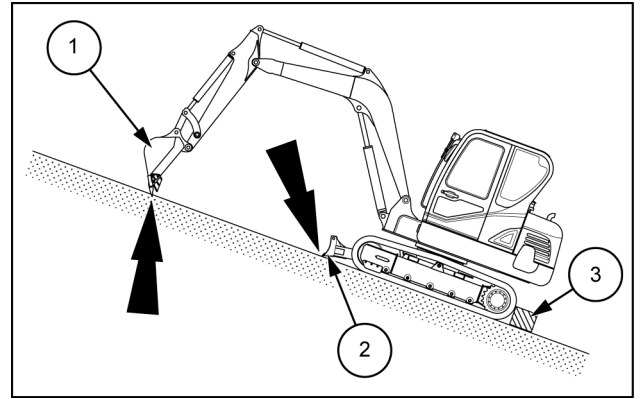
Do not operate and/or travel in such places as river beds where there are lots of stones of different sizes. Rocks may get caught into the grooves of the rubber tracks, thus damaging the track or causing it to come off. The life of rubber track is shorter, if it skids or rubs against the soil.



LELI11E0260AA 2

If the engine stops when traveling along a slope, immediately lower and indent the bucket **(1)** and the dozer blade **(2)** into the ground. Release all the controls, set the safety lever to the LOCK position, set the engine speed throttle to the low idle position, and then start the engine again.

If the engine does not start, remove the starter key, and place the "Do not operate" tag on the machine controls. Get off the operator's compartment, and close the cab door. Block both crawlers by means of wedges **(3)**, and if possible insert the boom swing locking pin. Define a safe area of at least **3 m (9.8 ft)** around the machine, cleaning this area from obstacles and bystanders. Call the NEW HOLLAND CONSTRUCTION dealer for assistance.



SMIL16MEX3171AB 14

Recovery transport

Towing the machine

⚠ WARNING

Misuse hazard!

Towing is a delicate maneuver that is always carried out at the risk of the user. The manufacturer's warranty does not apply to incidents or accidents that occur during towing. Where possible, carry out the repairs at the site.

Failure to comply could result in death or serious injury.

W0286A

⚠ WARNING

Hazard to bystanders!

The operator must be the only person on the machine when towing. Make sure that nobody else is on the machine or within its working range.

Failure to comply could result in death or serious injury.

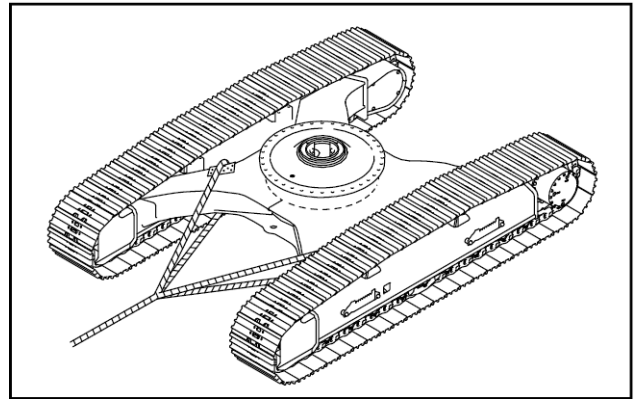
W0259A

As far as possible try to carry out repairs on spot or consult your NEW HOLLAND CONSTRUCTION Dealer.

NOTICE: *the machine must be towed very slowly, over a short distance and only if it is really unavoidable. Always tow the machine in alignment with the undercarriage.*

If the machine is stuck, it must be towed as follows:

1. Make sure that it can be towed without risk of further damage.
2. Make sure that the shackles, chains and tackle are in perfect condition and strong enough to move the load.
3. Attach the shackles, chains and tackle to the undercarriage taking care to protect any protruding angles.
4. Pull the machine without jerking, very slowly and in alignment with the undercarriage.



SML13CEX2731AA 1

Fuel

Use only No. 2-D Ultra-Low Sulfur Diesel (S15) that meets **ASTM D975** specifications.

Using other types of fuel may lead to stalled engine output or deterioration in fuel economy.

NOTICE: *the warranty shall be invalid if any serious defect is caused by usage of any other fuel. Using fuel other than recommended may cause damage to the fuel injection pump, injector, and other fuel supply system or the engine. NEW HOLLAND CONSTRUCTION may not be responsible to any of such damages.*

If the temperature drops below the fuel cloud point, output deficiency or engine start problems may occur due to wax crystals.

During cold weather, lower than **-7 °C (19.4 °F)**, it is temporarily acceptable to use a mixture of No. 1-D (S15) and No. 2-D (S15).

NOTICE: *if operating in severe winter climate, consult the fuel supplier or the NEW HOLLAND CONSTRUCTION dealer for specific diesel fuel to be used.*

The diesel fuel to be used on the machine shall:

- be free from dust particles, even minute ones.
- have the proper viscosity.
- have a high cetane number.
- present great fluidity at low temperatures.
- have low sulfur content.
- have very little residual carbon.

NOTICE: *never use a mix of diesel fuel and old engine oil. The fuel injection system and the exhaust after treatment system will be severely damaged.*

NOTICE: *consult the fuel supplier or the NEW HOLLAND CONSTRUCTION dealer regarding appropriate use of fuel additives.*

NOTICE: *in order to prevent condensation during cold weather, fill the fuel tank to full after completing the day's work.*

Fuel storage:

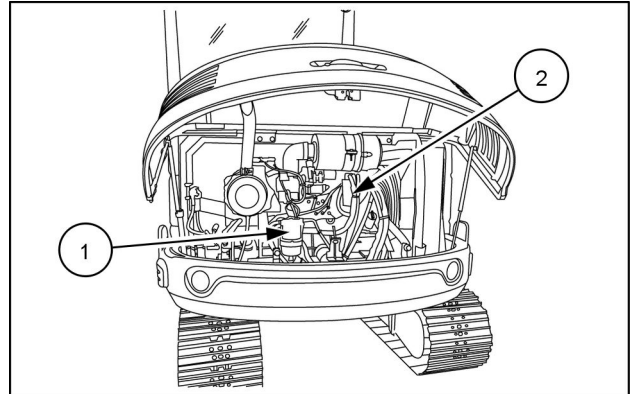
Long storage can lead to the accumulation of impurities and condensation in the fuel. Engine trouble can often be traced to the presence of water in the fuel. The storage tank must be placed outside and the temperature of the fuel should be kept as low as possible. Drain off water and impurities regularly.

Fuel system bleeding

In the following cases, drainage from the fuel system is required:

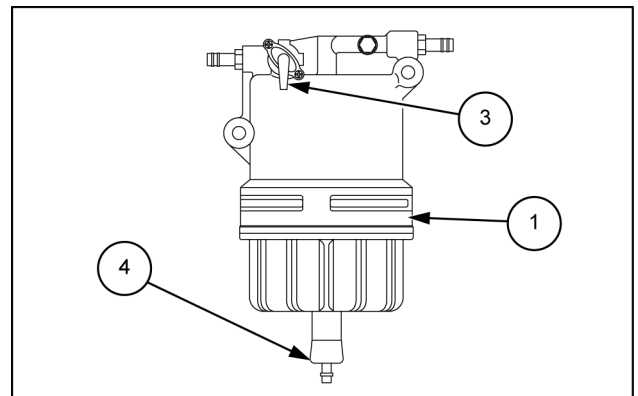
- The tank has become empty completely.
- The fuel filter is replaced.
- The components of the fuel system are removed for service or repair.
- The machine has been stored for longer than one month.

1. Locate the water separator **(1)** and the fuel filter **(2)** inside the engine compartment.
2. Fill the fuel tank with suitable fuel.



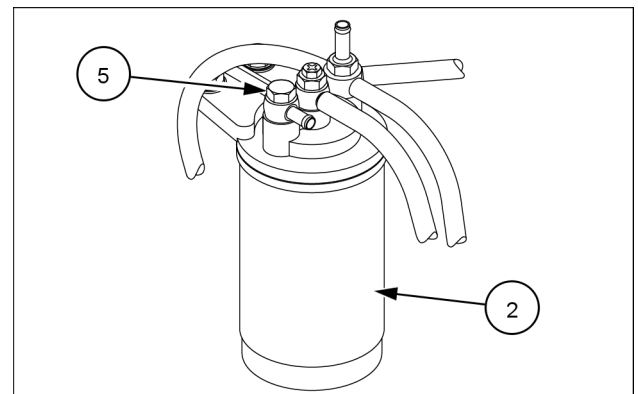
SMIL16MEX0599AA 1

3. Open the cock **(3)** located on the water separator **(1)**.
4. Loosen the air vent plug **(4)** located on the water separator **(1)**.



SMIL16MEX3172AB 2

5. Loosen the air vent plug **(5)** located on the fuel filter **(2)**.
6. Tighten the air vent plugs **(4)** and **(5)** when bubbles do not come up any more.



SMIL16MEX0625AA 3

Hydraulic oil level

⚠ WARNING

Burn hazard!

Before performing any service on the hydraulic system, you must allow it to cool. Hydraulic fluid temperature should not exceed 40 °C (104 °F).

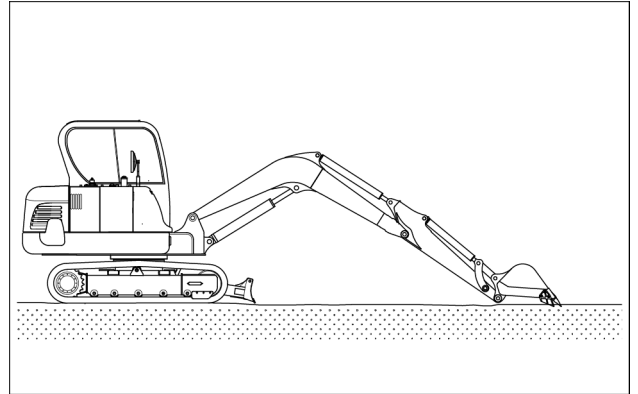
Failure to comply could result in death or serious injury.

W0241A

Check the hydraulic oil level every **10 h** or every day

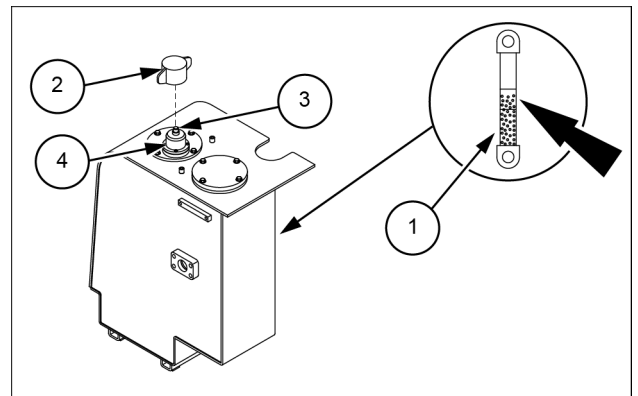
Fluid: **PREMIUM HYDRAULIC OIL HV46 MULTI-GRADE ANTIWEAR**

1. Park the machine on a flat and level place, and arrange the attachment as shown in the figure. Stop the engine, and remove the starter key.



SMIL16MEX0560AA 1

2. Open the engine hood to access the level gauge of the hydraulic oil tank.
The oil level is normal if between the red lines of the level gauge (1).
3. If the hydraulic oil level is not in the correct range proceed as follows:
 - Release all pressure in the hydraulic tank. Refer to page 6-12.
 - Clean the cap (2) and the area around the cap.
 - Loosen the cap (2) and relieve the pressure in the tank by pushing the top of the air breather (3).
 - Remove the breather (4) on the top of the hydraulic oil tank and fill the oil to the specified level.
 - Install the breather (4). Tighten the breather (4) to **11.3 – 16.9 N·m (8.3 – 12.5 lb ft)**
 - Tighten the cap (2).



SMIL16MEX0598AB 2

NOTICE: make sure that no contaminant (water, sand etc.) enters the reservoir during filling.

4. Start the engine after filling and operate the work equipment several times.
5. Check the oil level after engine stops. Close the engine hood.

Swing reduction gear

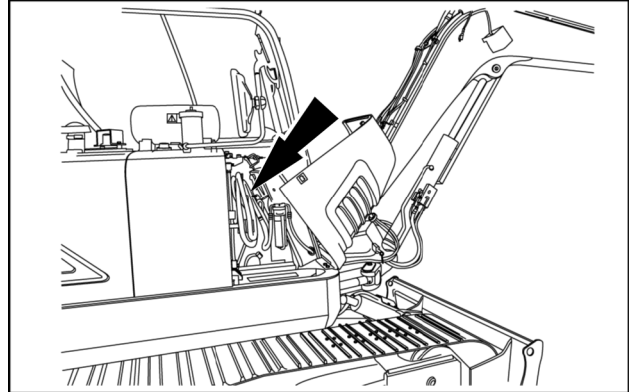
Check the swing reduction unit oil every **50 h** or every week.

Replace the swing reduction unit oil every **1000 h**.

Lubricant: **HYPOID GEAR OIL EXTREME PRESSURE 80W-90**

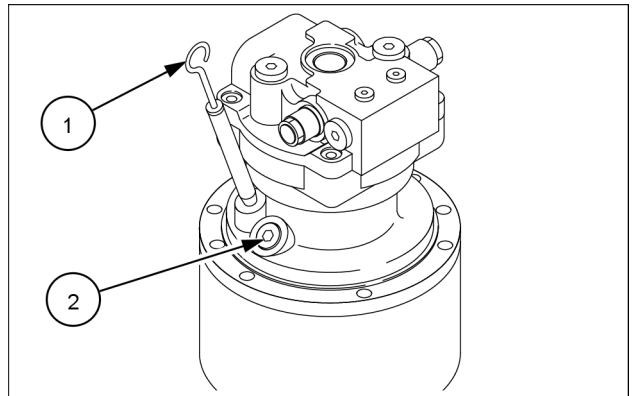
Quantity: **1.5 L (0.4 US gal)**.

1. Park the machine on a flat and level place. Stop the engine, and remove the starter key.
2. Open the right-hand hood to access to the swing reduction gear.



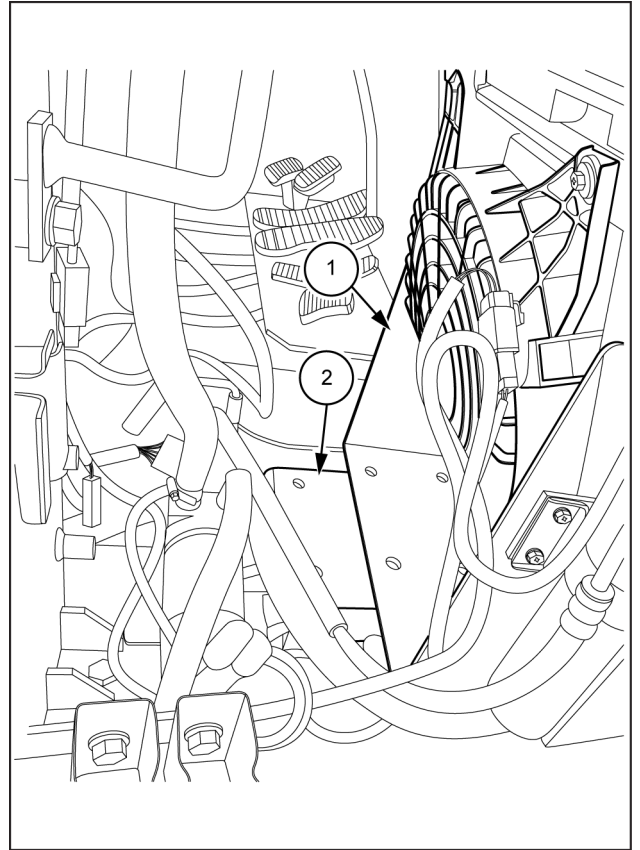
SML16MEX0957AA 1

3. Remove the oil gauge **(1)** and clean it.
4. Insert the oil gauge **(1)**, remove it again to check the oil level.
5. To fill the oil, remove the oil fill plug **(2)**.
6. Fill the oil if necessary, install the oil fill plug **(2)**.
7. After waiting for **10 min**, check the oil level again with the oil gauge **(1)**.



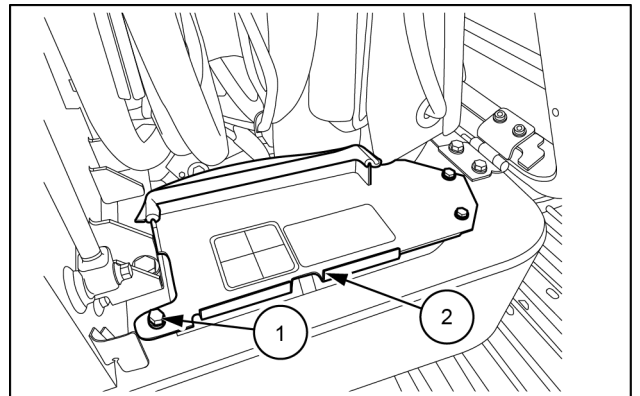
SML16MEX0605AA 2

7. Install the conditioning condenser (1) to the bracket (2) and then tighten the screws.



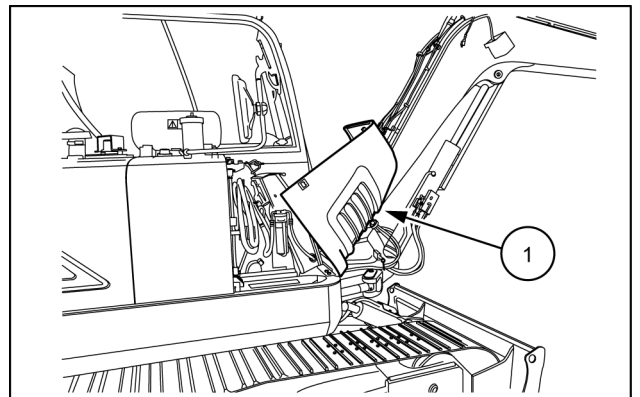
SMIL16MEX3506BB 5

8. Install the battery panel (2) and then use a wrench [17 mm] to tighten the four bolts (1).



SMIL16MEX3508AB 6

9. Close the right-hand side hood (1).
10. Set the battery disconnect switch to the ON position.



SMIL16MEX3507AB 7

Air cleaner


⚠ CAUTION

Flying debris!

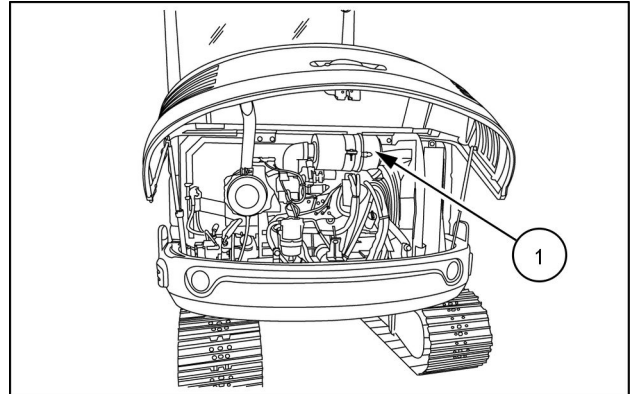
Compressed air can propel dirt, rust, etc. into the air. Wear eye and face protection when using compressed air.

Failure to comply could result in minor or moderate injury.

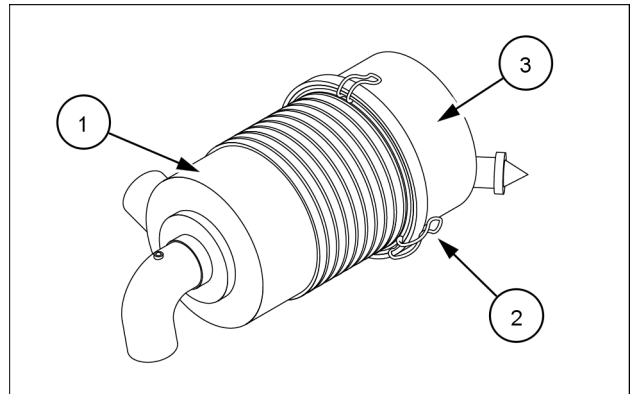
C0049A

Clean the air filter every **500 h** or when the “air cleaner warning light”  appears on the instrument cluster. Replace the primary air filter element and the secondary air filter element every **2000 h**.

1. Open the engine hood to access to the air cleaner (1).
2. Release the fasteners (2) and remove the cover (3) of the air cleaner.



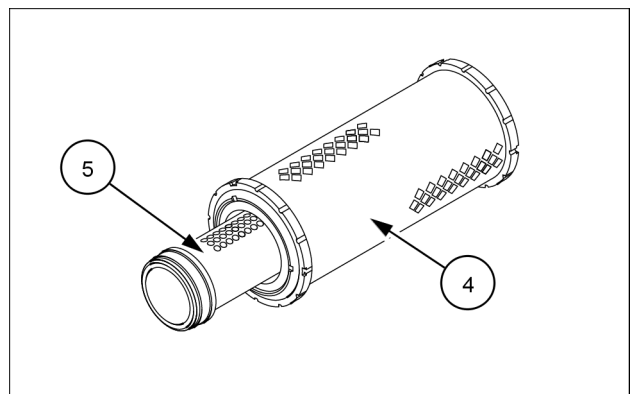
SMIL16MEX0599AA 1



SMIL16MEX0624AA 2

3. Remove the primary element (4).
4. Clean the primary element (4).

NOTE: the primary element (4) can be cleaned. The secondary element (5) cannot be cleaned and must be changed.



SMIL16MEX0433AA 3

Travel reduction gears

Replace the travel reduction gears oil every **1000 h** (after the break-in period).

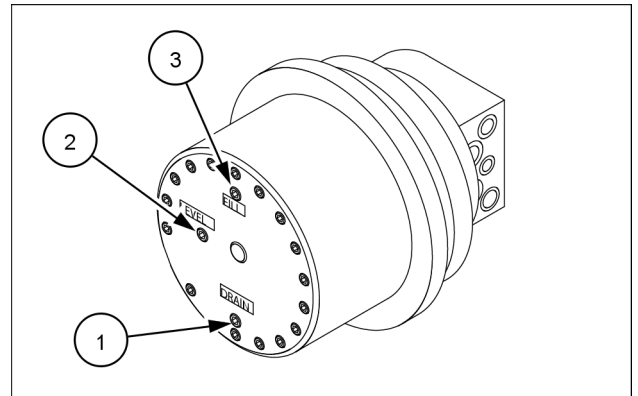
Lubricant: **HYPOID GEAR OIL EXTREME PRESSURE 80W-90**

Quantity: **1.2 L (0.3 US gal)** (per travel reduction gear)

1. Park the machine on flat, horizontal ground.
2. Move the machine so that the drain plug **(1)** comes down to the lowest position.
3. Stop the engine, and remove the starter key.
4. Place a container with a capacity of **2 L (0.53 US gal)** under the travel reduction gear.
5. Remove the level plug **(2)**.
6. Remove the drain plug **(1)**.

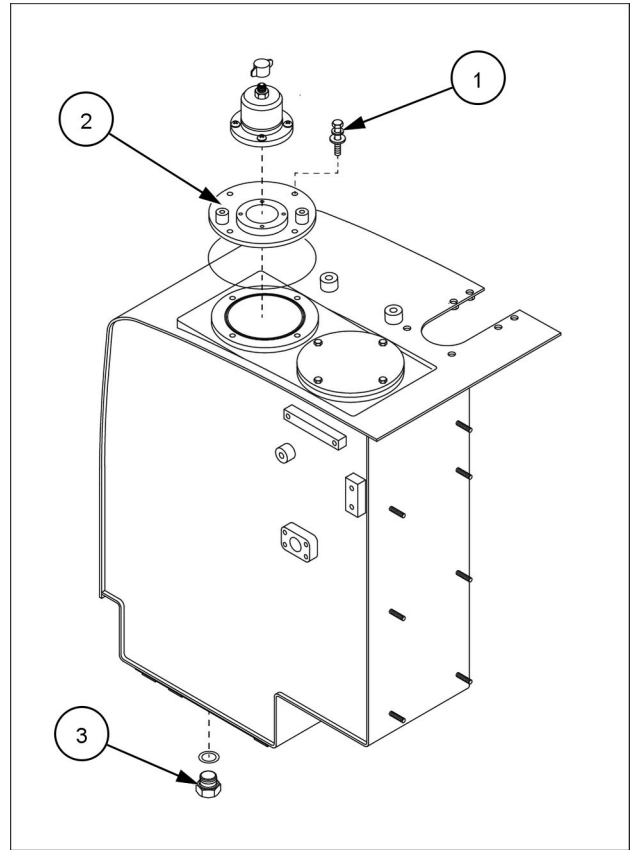
NOTE: check the condition of the drained oil. If there are pieces of metal or foreign objects in the oil, consult the **NEW HOLLAND CONSTRUCTION** dealer.

7. Replace the O-ring seal of the drain plug **(1)**.
8. Insert the drain plug **(1)** with seal tape wrapped around it.
9. Add oil through fill port **(3)** until the oil comes up to the bottom edge of the port **(2)**.
10. Replace the O-ring seal of the level plug **(2)** and the O-ring seal of the fill plug **(3)**. Insert the level plug **(2)** with seal tape wrapped around it, then do the same for the fill plug **(3)**.
11. Repeat steps **2** to **10** for the other travel reduction gear.
12. Run the machine slowly to check that there are no leaks.



SMIL16MEX0637AA 1

3. Remove the bolts (1) to remove the cover (2).
4. Place a container with a capacity of minimum **70 L (18.5 US gal)** under the drain plug. Loosen the drain plug (3) at the bottom of the hydraulic oil tank.
5. When the hydraulic oil is drained, clean the hydraulic oil suction filter, refer to page **6-72**.
6. Install the drain plug (3).
7. Tighten the drain plug (3) on the hydraulic oil tank.
8. Add new hydraulic oil to the tank.
9. Install the cover (2) and tighten the bolts (1) to **54.2 – 81.3 N·m (40 – 60 lb ft)**.
10. Using a solvent, clean the periphery of the air bleed plug at top of the hydraulic pump. Loosen the air bleed plug. If any fluid comes out, remove the plug, and fill the pump with new clean hydraulic fluid.
11. Tighten the air bleed plug on the hydraulic pump.
12. Start the engine, and run it with no load for about **5 min**.
13. Move each control several times to remove all air from the system.
14. Park the machine at the specified position, and then stop the engine.
15. Check the oil level of the hydraulic tank, refill it with oil as necessary. Check that there are no bubbles in the hydraulic tank.
16. Loosen the air bleed plug on the pump, and check that air free fluid comes out from the bleed port.



SMIL16MEX0630BA 1

Air-conditioning system

⚠ WARNING

Avoid chemical burns!

Wear protective goggles and non-permeable gloves when working with the fluorescent dye and leak testing an air-conditioning system.

Failure to comply could result in death or serious injury.

W0918A

⚠ WARNING

Maintenance hazard!

Never try to service the air-conditioning system yourself. Contact your dealer for service.

Failure to comply could result in death or serious injury.

W0268A

⚠ WARNING

Explosion hazard!

Air-conditioning refrigerant boils at -26 °C (-15 °F)!

-NEVER expose any part of the air-conditioning system to a direct flame or excessive heat.

-NEVER disconnect or disassemble any part of the air-conditioning system.

Discharging refrigerant gas into the atmosphere is illegal in many countries.

Failure to comply could result in death or serious injury.

W0340B

⚠ WARNING

Avoid injury!

Avoid breathing air-conditioning refrigerant, lubricant vapor or mist. If accidental system discharge occurs, ventilate the work area before resuming service.

Failure to comply could result in death or serious injury.

W1000B

⚠ WARNING

Avoid chemical burns!

Wear protective goggles and non-permeable gloves when working with the fluorescent dye and leak testing an air-conditioning system.

Failure to comply could result in death or serious injury.

W0918A

Check and charge when necessary the air-conditioning system

Safety regulations

The device for discharging and charging refrigerant is exclusively for professionally trained operators who must be familiar with refrigerating systems, refrigerant gases and the damage that the pressurised equipment can cause.

Before connecting the station to the system, make sure that all valves are closed.

Before disconnecting the station, check that the cycle has completed and that all valves are closed, this prevents refrigerant gas escaping into the atmosphere.

The station must operate in a well-ventilated area.

Do not tamper the safety valve and the control system settings.

Do not use cylinders or other containers which are not type-approved or equipped with safety valves.

Other systems - Troubleshooting

NOTE: this chapter describes the easy diagnostic methods for generic problems and the remedies for them. If you cannot find the cause of a problem or solve a problem, consult the NEW HOLLAND CONSTRUCTION dealer.

Problem	Possible Cause	Correction
Track slip out of place. Excessive wear of the sprocket	Incorrect tension of track	Adjust tension of track
Bucket either rises slowly or not at all	Low oil level	Add oil to specified level
Slow speed of travel, swing, boom, arm and bucket	Low oil level	Add oil to specified level
Unusual noise emitted from pump	Hydraulic tank strainer clogged or dirty	Clean the hydraulic tank strainer
Excessive oil temperature rise of hydraulic oil	Dirty oil cooler	Clean the oil cooler
	Incorrect fan belt tension	Adjust fan belt tension
	Low oil level	Add oil to specified level

Klac type buckets

NOTICE: all attachment shown on this manual are exclusive to the North American Market. To all other markets contact your authorized NEW HOLLAND CONSTRUCTION dealer, before purchasing an attachment.

NOTE: contact your authorized NEW HOLLAND CONSTRUCTION dealer, before purchasing an attachment.

The data shown below are referred to working operation with the dozer blade up and the **235 kg (518.1 lb)** counterweight.

For cab configuration:

- **1.60 m (62.99 in)** arm, minimum lift value: **620 kg (1367 lb)**.
- **1.90 m (74.80 in)** arm, minimum lift value: **580 kg (1279 lb)**.

Klac type buckets application as function of the arm

General purpose buckets			Arm	
Capacity ISO 7451 (Heaped)	Width	Mass	1.12 m (44.09 in)	1.35 m (53.15 in)
0.085 m³ (0.111 yd³)	305 mm (12.01 in)	100 kg (220.5 lb)	•	•
0.102 m³ (0.133 yd³)	457 mm (17.99 in)	116 kg (255.7 lb)	•	•
0.142 m³ (0.186 yd³)	610 mm (24.02 in)	140 kg (308.6 lb)	•	•
0.221 m³ (0.289 yd³)	914 mm (35.98 in)	185 kg (407.9 lb)	•	▲ (*)

- Density of material up to 1.6 t/m³
- ▲ Density of material from 1.4 t/m³ to 1.6 t/m³
- Density of material from 1.2 t/m³ to 1.4 t/m³
- ◆ Density of material under 1.2 t/m³

(*) With this bucket, to improve digging performance and stability it is recommended to use increased counterweight.

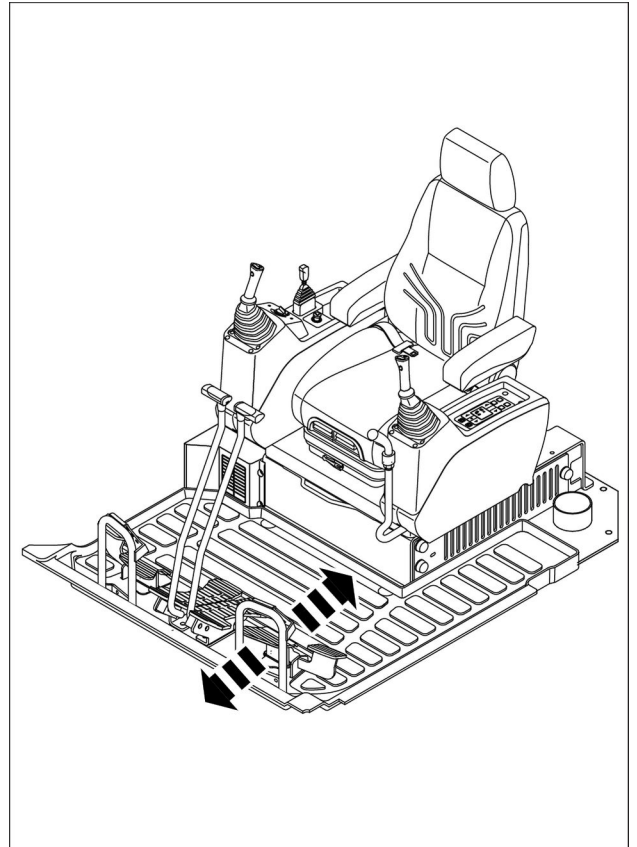
(**) With this bucket, to improve digging performance and stability it is mandatory to use increased counterweight.

NOTICE: pay particular attention when swinging the boom to the left-hand side: the attachment may contact the cab.

Operating controls

If the auxiliary pedal is equipped, press the front side and rear side of pedal to full stroke to operate a double-acting hydraulic attachment:

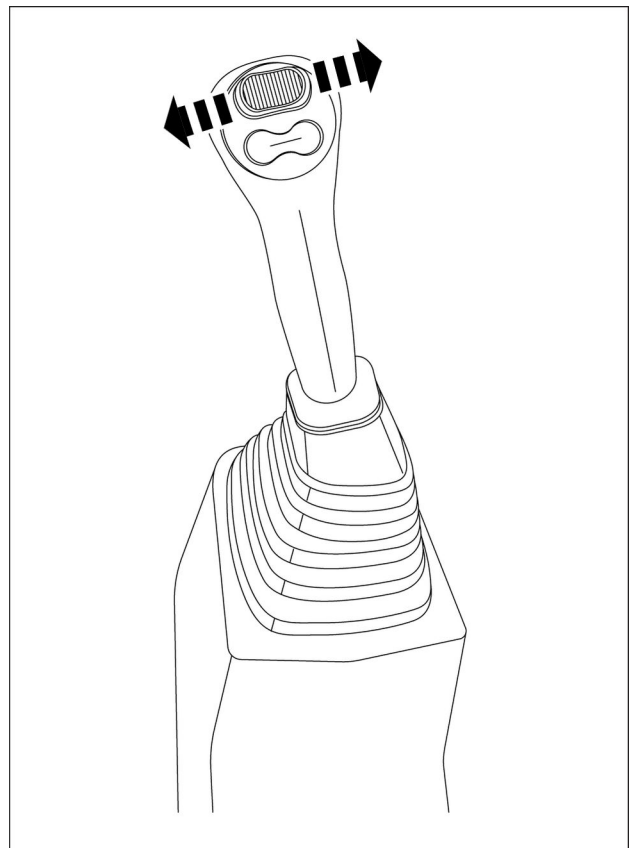
- Pedal downward: Release
- Pedal upward: Clamp



SMIL16MEX0558BA 6

If the proportional switch on the right-hand control lever is equipped you can operate the proportional switch as follows:

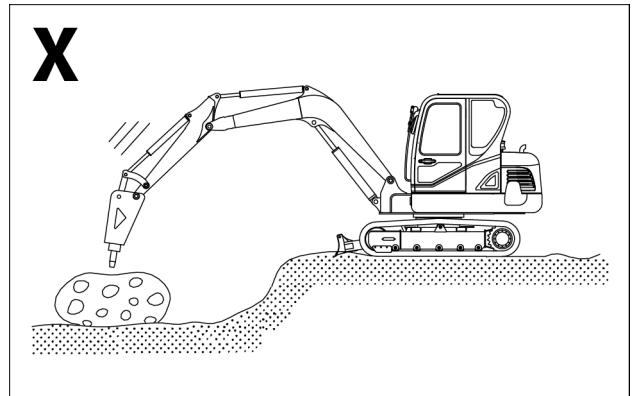
- Left-hand switching: Release
- Right-hand switching: Clamp



SMIL19MEX0297BA 7

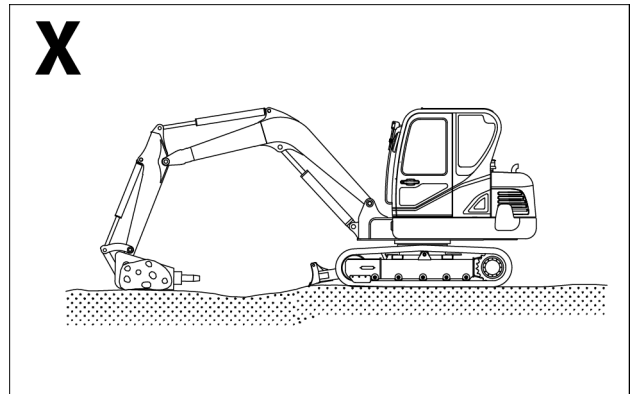
Precautions while operating the hydraulic breaker

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



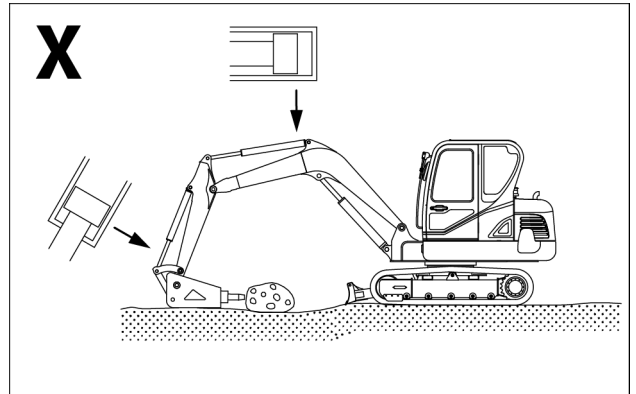
SMIL16MEX0563AA 25

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



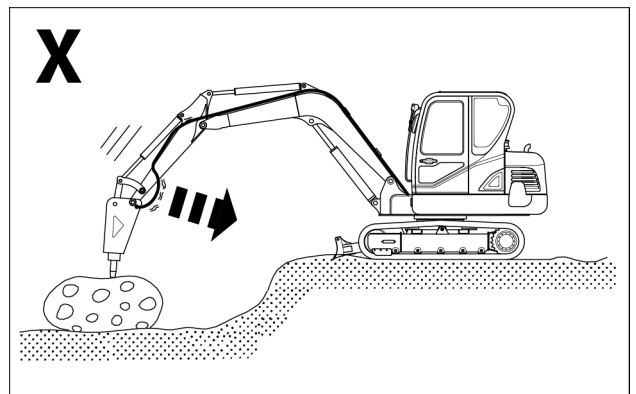
SMIL16MEX0564AA 26

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



SMIL16MEX0565AA 27

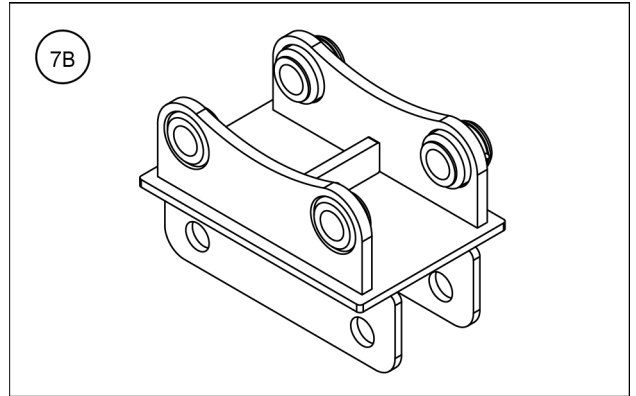
Stop working if hydraulic hoses look abnormally bent. Contact your authorized Dealer.



SMIL16MEX0566AA 28

Adapter plate (7B)	
Model	Unit weight
Mounting adapter	55 kg (121 lb)

NOTE: for pin grabber mechanical and hydraulic coupler applications only.



SMIL18MEX0084AA 54

Quick coupling system - Mechanical pin-grabber type

⚠ WARNING

Crushing hazard!

Never put your hands inside the quick coupler mechanism. Turn off the engine and wait for all movement to stop.

Failure to comply could result in death or serious injury.

W1542A

⚠ WARNING

Hazard to bystanders!

ALWAYS make sure the work area is clear of bystanders and domestic animals before starting this procedure. Know the full area of movement of the machine. Do not permit anyone to enter the area of movement during this procedure.

Failure to comply could result in death or serious injury.

W0245A

NOTICE: the quick coupler extends the length of the arm. Make sure to check the operating range of the coupled attachment in order to avoid risk of striking the cab or the machine frame.

NOTICE: never operate with a quick coupled hydraulic breaker for an extended period of time, in order to reduce the risk of premature wear, failures or breakage of the quick coupler. Never use the breaker as a lever, as this subjects the quick coupler cylinder to stress.

NOTICE: be sure to read and understand the quick coupler Operator's Manual for proper installation, usage and maintenance.

Attachment engagement

⚠ WARNING

Misuse hazard!

Follow the operating instructions in this chapter. Any other practice that has not received the prior approval of the manufacturer is considered to be strictly forbidden.

Failure to comply could result in death or serious injury.

W0281A

⚠ WARNING

Crushing hazard!

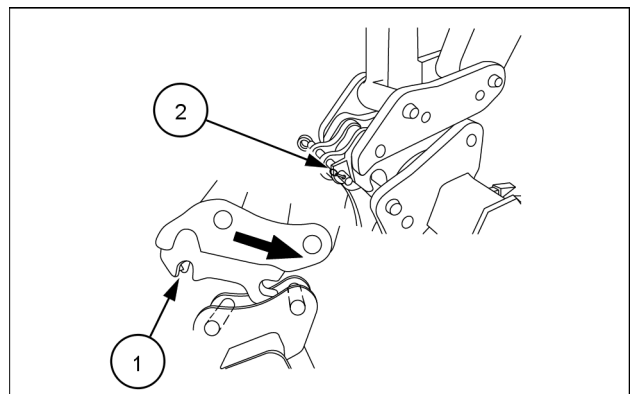
This operation may be dangerous. You are advised to wear suitable clothing and respect all relevant safety messages.

Failure to comply could result in death or serious injury.

W0283A

To engage the attachment to the quick coupling system:

1. Ensure locking hook is open (1) and locking pin (2) is in released position.
2. Position the front hooks of the coupler over the front pin of the attachment.



SMIL17MEX2844AA 1

Attachment disengagement

⚠ WARNING

Misuse hazard!

Follow the operating instructions in this chapter. Any other practice that has not received the prior approval of the manufacturer is considered to be strictly forbidden.

Failure to comply could result in death or serious injury.

W0281A

⚠ WARNING

Impact and crushing hazard!

The attachment can swing from one side during the removal procedure. Keep clear of the attachment, including the swing area.

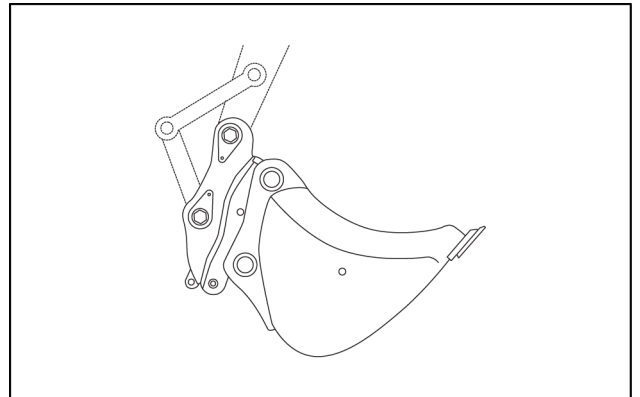
Failure to comply could result in death or serious injury.

W1492A

NOTE: Before to disengaging the attachment, Fully extend bucket crowd cylinder.

To disengage the attachment from the quick coupling system:

1. Fully extend the bucket cylinder.



SMIL17MEX2829AA 12

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

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



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

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL