

ORIGINAL INSTRUCTIONS

OPERATOR'S MANUAL

E18C

Mini Excavator

Part number 51557403

1st edition English

December 2018



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

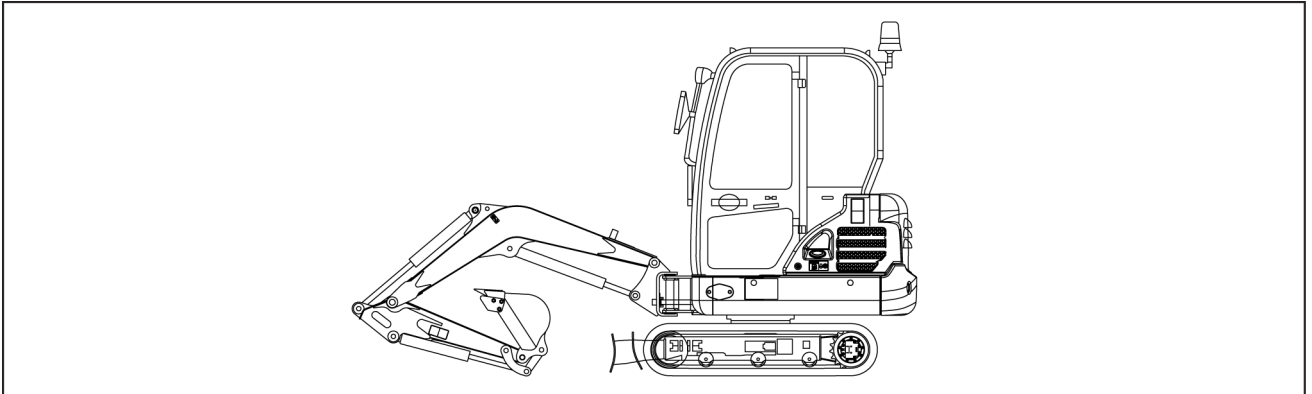


- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

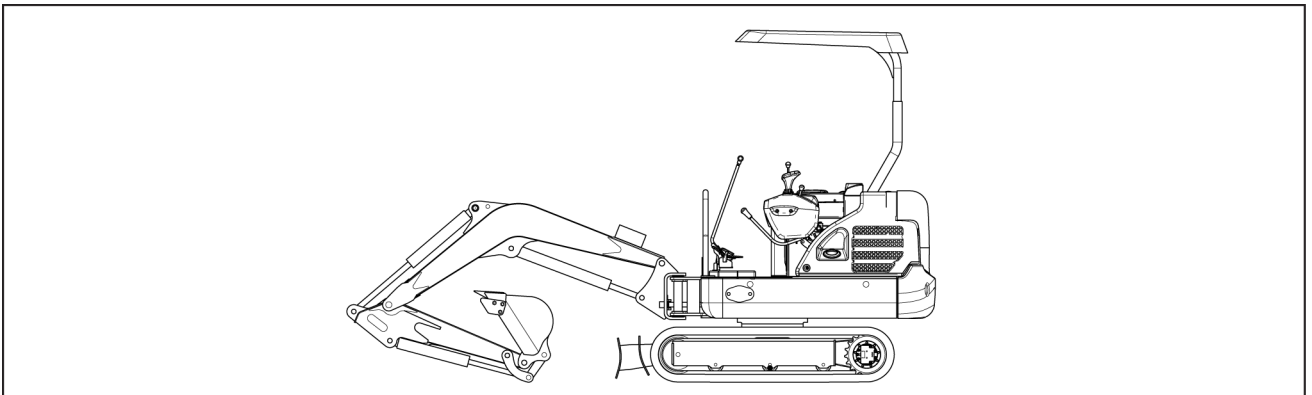
CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Product identification

Your machine is a hydraulic excavator. It consists of an undercarriage fitted with tracks and a swing bearing which supports the upper-structure frame. The upper-structure frame supports the attachment at the front end of the machine, plus the engine, hydraulics and the cab/canopy. When the operator works the controls, the engine-driven pump delivers hydraulic fluid to the control valves. The control valves distribute the hydraulic fluid to the various cylinders and hydraulic motors employed. A cooling system maintains the hydraulic fluid at normal operating temperature.



SMIL16MEX3242EA 1
Cab version



SMIL16MEX2263EA 2
Canopy version

When ordering parts, obtaining information, or seeking assistance, always supply your NEW HOLLAND CONSTRUCTION Dealer with the type and Product Identification Number (PIN) of your machine or accessories.

Write the following in the spaces below:

- Machine Type
- Machine PIN
- Machine year of manufacture
- Serial numbers of hydraulic and mechanical components

3. Fuel Line
4. Fuel Line Fittings
5. Clamps*
6. Pressure Relief Valves*
7. Control Valves*
8. Control Solenoids*
9. Electric Controls*
10. Vacuum Control Diaphragms*
11. Control Cables*
12. Control Linkages*
13. Purge Valves
14. Vapor Hoses
15. Liquid/Vapor Separator
16. Carbon canister
17. Canister Mounting Brackets
18. Carburetor Purge Port Connector

* Parts related to evaporation-emission-gas control system

Owner's Responsibility

*The owner of the engine is responsible for the performance of the required maintenance listed in this operation manual.

*In accordance with 40 CFR 1068.115, Mitsubishi Heavy Industries, Ltd. makes no warranties if the operator caused the problem through improper maintenance or use.

California Emission Control Warranty Statement: your Warranty Rights and Obligations

IMPORTANT

The following warranty applies to the engines that have been certified the emissions regulation of the California Air Resources Board (CARB).

The California Air Resources Board (CARB) is pleased to explain the emission control system warranty on you 2013 or later engine. In California, new off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Mitsubishi Heavy Industries, Ltd. must warrant the emission control system on your engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the fuel-injection system and the air induction system. Also included may be hoses, belts, connectors and other emission-related assemblies. Where a warrantable condition exists, Mitsubishi Heavy Industries, Ltd. will repair your off-road engine at no cost to you including diagnosis, parts, and labor.

Manufacturer's warranty coverage

The 2013 and later off-road engines are warranted for the warranty period (Same as warranty period of EPA Emission Warranty in this manual). If any emission-related part on your engine is defective, the part will be repaired or replaced by Mitsubishi Heavy Industries, Ltd.

Warranty coverage

- A. The warranty period shall begin on the date the engine or equipment is delivered to an ultimate purchaser. The use of alternate fuels shall not void the warranties on any engine certified to use such fuel.
- B. Mitsubishi Heavy Industries, Ltd. of each off-road compression-ignition engine shall warrant to the ultimate purchaser and each subsequent purchaser of the engine registered in the state of California that the engine is:

⚠ 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.

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.

⚠ 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.
- Be sure you know the position and function of each control. Incorrect operation of the controls can cause serious injuries.
- Check all controls and safety devices in a safe, open area before starting work.
- Keep away from dangerous areas such as ditches, overhangs, rocky areas, etc. Make a survey of the work-site and determine the possible dangers before using the machine.
- Before parking the machine, make sure that the ground is stable. Plan the work-site so that the ground is flat, hard and level.
- Before moving the machine to work in a new area, walk around to determine all possible causes of accidents there. Holes, obstacles, debris, and other danger risks in the working area can cause serious injury.
- Be ready to meet emergencies. Always carry a first aid kit and if possible, fire extinguisher (not supplied) within easy reach on board. Make sure the fire extinguisher is regularly serviced in conformance with the manufacturer's instructions.
- Check the fastening of the main components: counter-weight, swing bearing, and operator's compartment. In

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

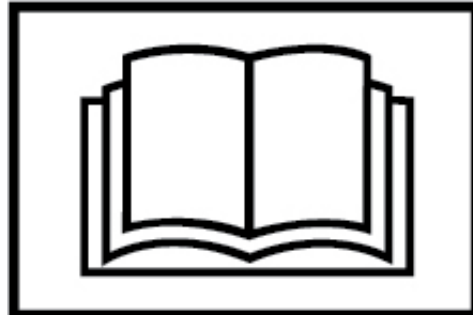
The following safety signs are on your machine as a guide for your safety and for the safety of those working with you. Walk around the machine and note the content and the location of all safety signs before you operate your machine.

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) Service instructions

Canopy location: this sign is located the behind the operator's seat, on the canopy structure.

Cab location: this sign is located on interior side of the cab door.

Quantity: 1

Part number (for canopy version): 51543795

Part number (for cab version): 51543793

This sign describes the service locations and the service intervals.

NO.	DESCRIPTION	SERVICE INTERVALS(HOURS)						CAPACITY
		50	250	400	500	1000	2000	
1	HYDRAULIC OIL	●						100 L (26.4 US GAL)
2	RADIATOR COOLANT	●						2 L (0.5 US GAL)
3	FUEL FILTER	●						1 L (0.26 US GAL)
4	FUEL FILTER ELEMENT	●						1 L (0.26 US GAL)
5	TRACK TENSION	●						PSL 1
6	BEARING LUBRICATION & BRUSHING	●						PSL 1
7	BEARING LUBRICATION	●						PSL 1
8	SWING BEARING	●						PSL 1
9	BEARING LUBRICATION	●						PSL 1
10	TRACK TENSION	●						PSL 2
11	TRACK TENSION	●						PSL 2
12	BATTERY (VOLTAGE)	●						ED 4.2 (1.1)
13	BRUSHING	●						1
14	ENGINE OIL FILTER	●						1
15	FUEL FILTER ELEMENT	●						1
16	FUEL FILTER ELEMENT	●						1
17	RADIATOR OIL COOLER/FAN	●						2
18	AIR CLEANER ELEMENT (SAFETY)	●						1
19	AIR CLEANER ELEMENT (PRIMARY)	●						1
20	HYDRAULIC OIL RETURN FILTER	●						GO 3.5(1.6)
21	SWAY, REDUCTION GEAR CASE	●						1
22	HYDRAULIC OIL RETURN STRAINER	●						1
23	EXHAUST FILTER	●						2

SMIL18MEX0745AA 18

(16) Machine control pattern

⚠ WARNING

Unexpected machine movement!
Pilot controls have two different backhoe controls patterns; before operating the machine, check which control function is active.
Failure to comply could result in death or serious injury.

W0185A

The machine control pattern can easily be changed to the "ISO type" or to the "SAE type" by changing the position of the lever-pattern.

How to use:

- 1. Move the lever to the "ISO" or "SAE" position.

Location: this sign is located on left-hand side of the upper structure.

Quantity: 1

Part number: 48037422

This sign shows the location where a sling is attached to handle the excavator and the coupling location when the machine has to be transported on a trailer.

⚠ WARNING

- THE MACHINE CONTROL PATTERN CAN EASILY BE CHANGED TO THE "ISO TYPE" OR TO THE "SAE TYPE" BY CHANGING THE POSITION OF THE LEVER-PATTERN.
- BEFORE STARTING THIS MACHINE, CHECK THE LEVER PATTERN VALVE LOCATED LH SIDE COVER.

HOW TO USE:
 1. MOVE LEVER TO THE "ISO" OR "SAE" POSITION.

ISO TYPE

POSITION OF LEVER-PATTERN:

LEFT CONTROL LEVER RIGHT CONTROL LEVER

SAE TYPE

POSITION OF LEVER-PATTERN:

LEFT CONTROL LEVER RIGHT CONTROL LEVER

SMIL18MEX0739BA 19

(17) Frame general warning

Location: this sign is located on the right-hand side of the upper structure.

Quantity: 1

Part number: 48170842

This sign warns you to refill the recommended hydraulic oil up to the specified level.

When lift the excavator, ensure that the wire rope is proper size and keep correct hoisting method.

This sign indicates that you always need to read the operator's manual before using the machine.

Seat belt

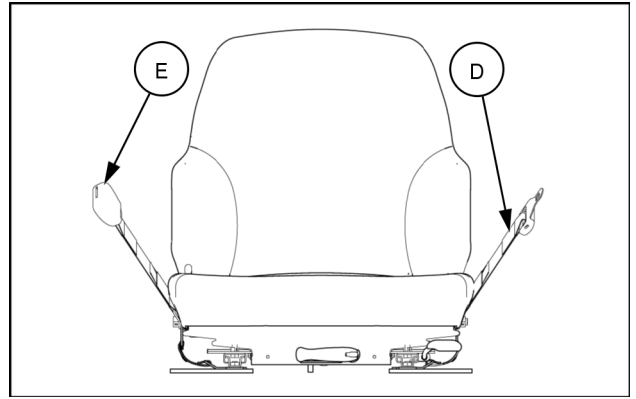
⚠ WARNING

Equipment failure could cause accident or injury!

Always fasten the seat belt securely before you operate the machine. Inspect seat belt parts for wear and damage. Replace any and all worn or damaged parts of the seat belt prior to operation.

Failure to comply could result in death or serious injury.

W0046C



SMIL16MEX0033AA 4

- Sit comfortably on the operator's seat.
- Pull out a long section of belt (**D**).
- Engage the belt in the fastening system (**E**).

NOTE: if the section of belt pulled out is not long enough, release it, so it rolls up and then pull it out again.

To release the seat belt press down the releasing lever of the fastening system (**E**).

NOTICE: the seat belt must be kept clean. Use only soap and water to clean the belt, do not use bleach or dyes.

Safety lock lever

⚠ WARNING

Unexpected machine movement!

When you must leave the operator's seat, always place the safety lever in the LOCKED position. If the safety lever is unlocked and the control lever is moved unexpectedly, a serious accident could result.

Failure to comply could result in death or serious injury.

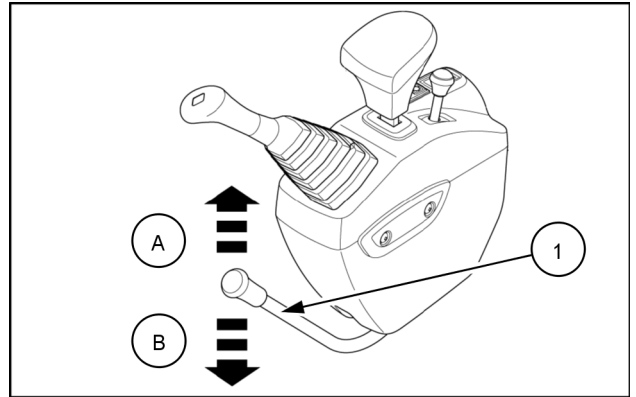
W1241A

The safety lever operates on two positions:

- A. Locked position: when the safety lever (1) is in locked position (A), all the functions are disabled.

NOTICE: never use the safety lock lever as a handhold when get in or out the machine.

- B. Unlocked position: when the safety lever (1) is in unlocked position (B), the machine is operative.

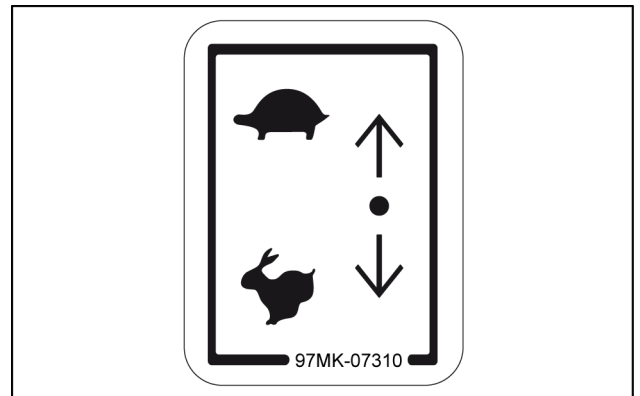


SMIL16MEX0030AB 1

Engine speed control lever

This lever is used to increase or decrease the rotation speed of engine (RPM).

See the relevant decal locate on the left hand console.

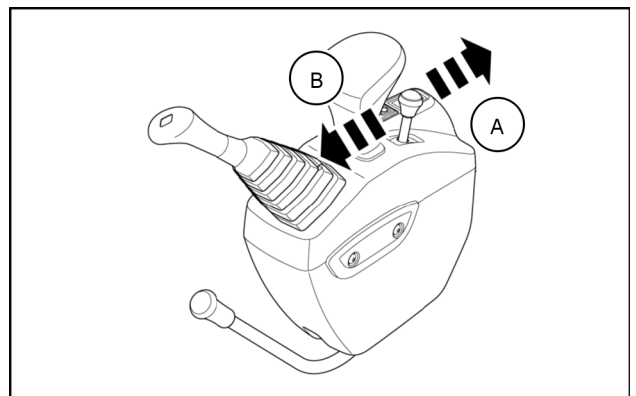


SMIL16MEX0913AA 1

Move the lever backward (A) to increase engine RPM.

Move the lever forward (B) to decrease engine RPM.

NOTE: when stop the engine, move the engine speed control lever completely forward (B) and turn the starter key OFF.



SMIL16MEX0031AB 2

Instrument cluster

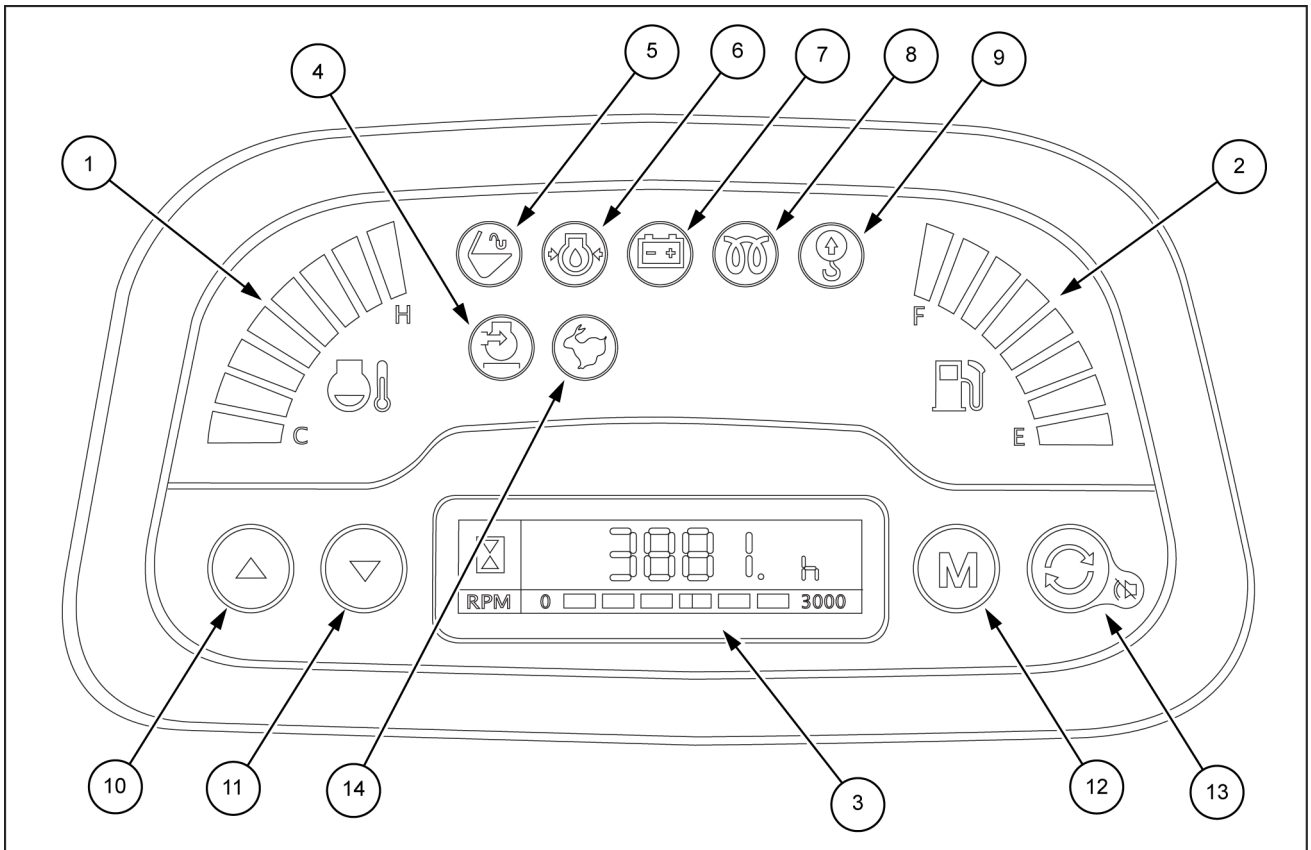
The instrument cluster consists of gauges and lights as shown below, to warn the operator in case of abnormal machine operation or conditions for the appropriate operation and inspection.

Gauges: indicate operating status of the machine.

Warning lights: indicate abnormality of the machine (red).

Pilot lights : indicate operating status of the machine.

NOTE: the cluster installed on this machine does not entirely guarantee the condition of the machine. Daily inspection should be performed. When the cluster provides a warning, immediately check the problem and perform the required action



SMIL16MEX1500FB 1

- | | |
|---|----------------------------------|
| 1. Engine coolant temperature gauge | 8. Engine pre-heat pilot light |
| 2. Fuel gauge | 9. Overload warning light |
| 3. Main display | 10. Up/left-hand button |
| 4. Air cleaner warning light | 11. Down/right-hand button |
| 5. Hydraulic quick coupler unlock pilot light | 12. Menu button |
| 6. Engine oil pressure warning light | 13. Enter and buzzer stop button |
| 7. Battery charging warning light | 14. High speed travel light |

NOTICE: do not use high pressure water on electric and electronic parts (such as cluster and right-hand side console).

BALANCE control

To adjust the left-hand/right-hand speaker balance, first select the BALANCE mode by pressing the SEL button **(A)** until the BAL indication appears on the LCD screen **(B)**.

Within **5 s** of choosing the BALANCE mode, turn the selection knob **(B)** right-hand/left-hand to adjust the BALANCE as desired. The balance position will be shown on the LCD screen **(B)** from BAL 10L (full left) to BAL 10R (full right). When the volume level between the left-hand and the right-hand speakers is equal, BAL L=R will be shown on the LCD screen **(B)**.

The LCD screen **(B)** will automatically return to the normal indication in **5 s** after the last adjustment or when another function is activated.

FADER control

To adjust the front/rear speaker balance, first select the FADER mode by pressing the SEL button **(A)** until the FAD indication appears on the LCD screen **(B)**.

Within **5 s** of choosing the FADER mode, turn the selection knob **(A)** right-hand/left-hand to adjust the FADER as desired. The fader position will be shown on the LCD screen **(B)** from FAD 10F (full front) to FAD 10R (full rear).

The LCD screen **(B)** will automatically return to the normal indication in **5 s** after the last adjustment or when another function is activated.

Equalizer (EQ) control

You can select an equalizer curve designed for four music types (CLASSIC, POP, ROCK, JAZZ) by pressing the button **(A)** until EQ is displayed on the LCD screen **(B)**. Turn the selection knob **(A)** right-hand/left-hand to select the desired equalizer curve.

Within **5 s** of choosing the EQ mode, turn the selection knob **(B)** to select an equalizer curve as desired.

When the EQ mode is activated, the BASS and TREBLE modes are not displayed.

Loud control

When listening to music at low volume levels, this feature will boost the bass and treble response.

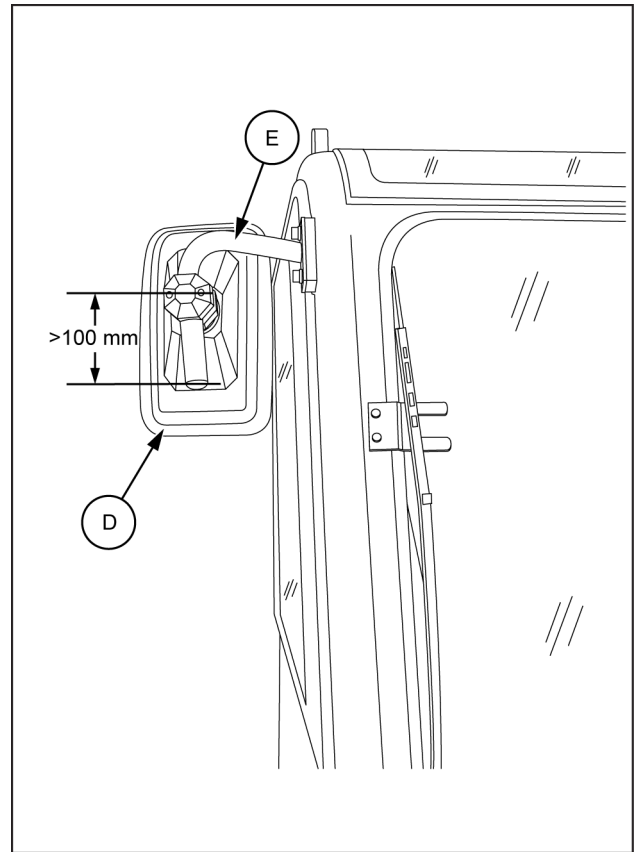
This action will compensate for the reduction in bass and treble performance experienced at low volume.

To select the loudness feature, press the button **(A)** until LOUD ON or LOUD OFF is displayed, then turn the selection knob **(A)** right-hand/left-hand to activate or deactivate loudness.

Right-hand side mirror (if equipped)

The mirror **(D)** must be mounted on the bracket **(E)** as shown in the figure aside.

Horizontally and vertically adjust the mirror location in order to maximize visibility. The mirror inclination depends on the height both of the seat and the operator.



SMIL16MEX2672BB 3

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

Operating the machine

⚠ 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

Hazard to bystanders!

Always know the location of all workers in your area. Warn them before you start working on the machine. Always keep all unauthorized bystanders clear of the area.

Failure to comply could result in death or serious injury.

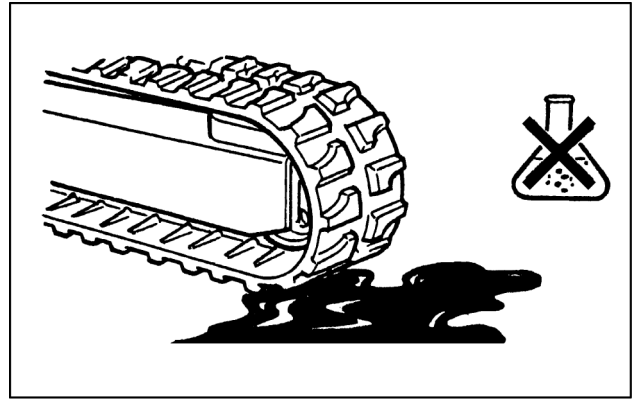
W0176A

- Before you operate the machine, take notice of the job site ground conditions and characteristics. Take notice of the local climate.
- Inspect the job site for potential risks before operating the machine. Holes on working site, obstructions and hazardous materials such as debris are subject to cause serious accident.
- Pay attention to location of pipes and cables before commencing work. Electric cables, gas pipes, water pipes and underground installations may cause serious injury. If the work takes place adjacent to high voltage power lines make sure to check the following work range:
Less than **57000 V**: **4 m (13.1 ft)**
57000 V or more: **5 m (16.4 ft)**
- Sit on the operator's seat, adjust it so as to be able to easily reach the console, and then fasten the seat belt.
- Check that the cab door is tightly secured at position of open or close.
- Sound the horn to warn other workers in the proximity of the machine.
- Start up the engine.
- Check all the indicator lights and gauges are operating properly.
- Push the safety lock lever forward.

NOTICE: *perform the following operations to avoid damage to the machine.*

- Do not use weight of the machine as an impact force for excavation.
- Do not use traveling force of the machine for excavation.
- Avoid abrupt change of swing direction when swinging the upper structure.
- Never hit or push objects with side of the bucket. Do not sweep ground with the bucket to level rubbles.
- Open and close the bucket for several times to loosen soil and mud when soil and mud are tightly packed in the bucket.
- After work, remove mud from the machine and clean it.

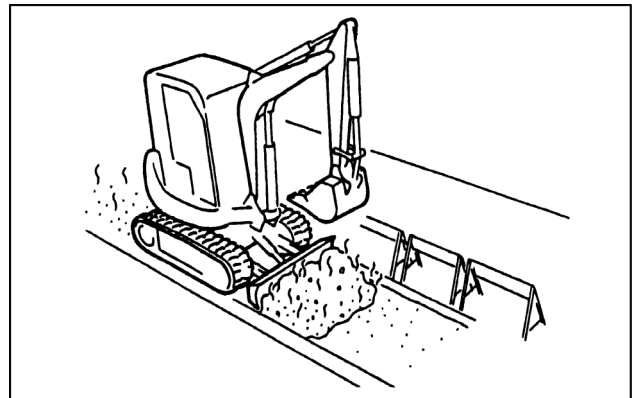
Do not let oil, fuel, solvents, etc., come in contact with rubber shoes. If this happens, wipe off tracks with a cloth immediately.



LEL11E0261AA 3

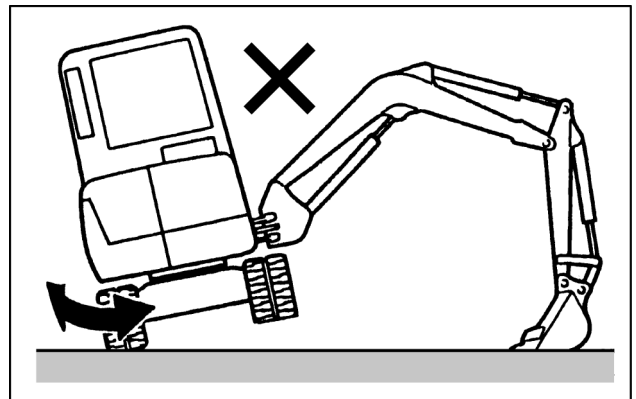
Do not enter such hot places as an open-air fire, or a steel plate left in the open sun.
Do not work in asphalt leveling.

When storing the machine for a long period (more than three months), keep it in a closed room where it will not be exposed to direct sunshine or rain.



LEL11E0262AA 4

When the machine travels only on one side of the track, and keeps the other side floating, the track may come off of the rollers or get damaged.



LEL11E0263AB 5

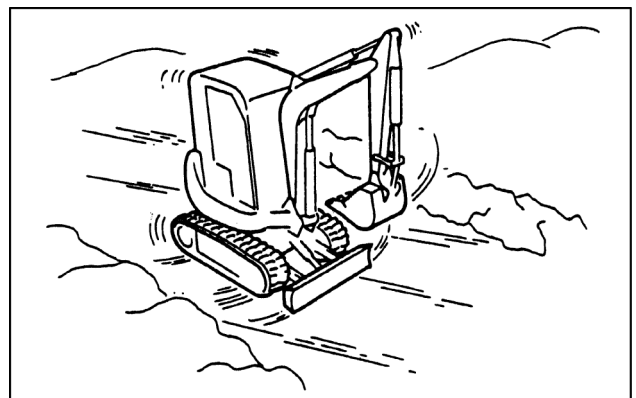
Precautions for use

Use care of the following when working.

Rubber tracks slip easily on icy surfaces.
Take the necessary safety precautions.

Avoid making a spin turn on concrete surfaces.

Avoid abrupt changes of direction as this will cause an early wear or damage of the rubber tracks.



LEL11E0264AA 6

Parking the unit

Parking the machine

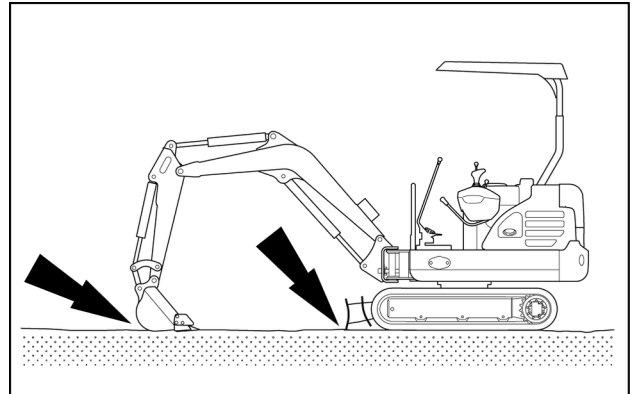
⚠ WARNING

Fall hazard!

Jumping on or off the machine could cause an injury. Always face the machine, use the handrails and steps, and get on or off slowly. Maintain a three-point contact to avoid falling: both hands on the handrails and one foot on the step, or one hand on the handrail and both feet on the steps. Failure to comply could result in death or serious injury.

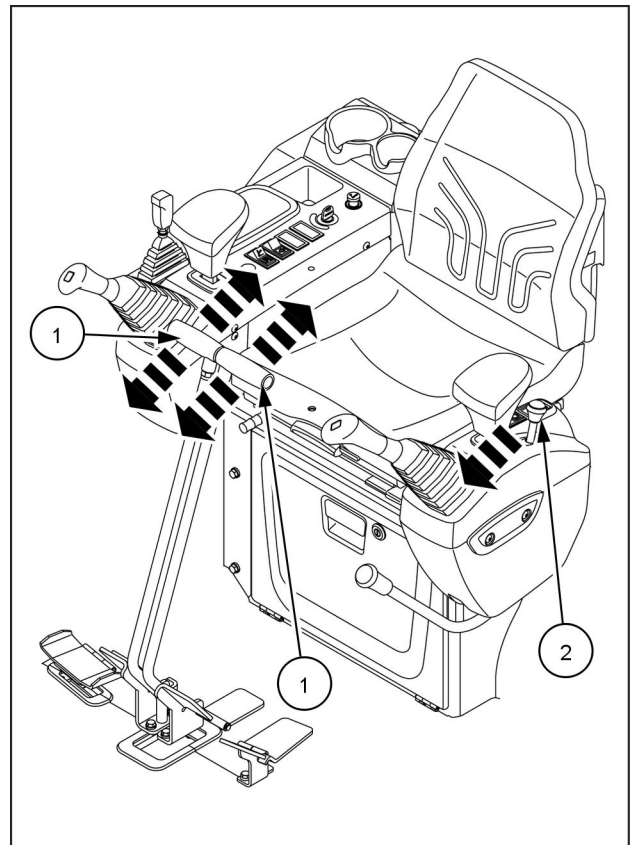
W0141A

- Always park the machine on a level and firm ground.
- Orient the upper structure frame parallel to the undercarriage. The front equipment shall be positioned on the same side of the blade, as indicated in the picture.
- Align the front equipment parallel to the upper structure.
- Lower the bucket to the ground.
- Lower the dozer blade to the ground.



SML16MEX3248AA 1

- Move both travel control levers (1) to the neutral position.
- Set the throttle lever (2) to LOW IDLING.



SML16MEX3264BA 2

6 - MAINTENANCE

General information

Basic instructions

⚠ WARNING

Improper operation or service of this machine can result in an accident.
If you do not understand a maintenance procedure, or doubt your ability to perform a maintenance procedure correctly, see your authorized dealer.
Failure to comply could result in death or serious injury.

W0157A

⚠ WARNING

Improper operation or service of this machine can result in an accident.
Raised equipment or machine movement without an operator can cause serious injury. Always do the following before performing any maintenance:
Park the machine on flat, level ground.
Lower the attachment to the ground.
Shut down the engine and remove the ignition key.
Lock the tracks.
Failure to comply could result in death or serious injury.

W0944D

⚠ WARNING

Falling object hazard!
Risk of injury from **FALLING ENGINE HOOD**. Latch the hood in the fully open position prior to working within the engine compartment.
Failure to comply could result in death or serious injury.

W1090B

NOTICE: be sure all the service operations in this section are carried out punctually at the intervals given, in order to ensure optimum performance levels and maximum safety when using the machine.

NOTICE: while any company can perform necessary maintenance or repairs on your equipment, NEW HOLLAND CONSTRUCTION strongly recommends that you use only authorized NEW HOLLAND CONSTRUCTION dealers and products that meet given specifications. Improperly or incorrectly performed maintenance and repair voids the equipment warranty and may affect service intervals.

- Respect the maintenance intervals by checking the hour meter every day. Before starting maintenance, park the machine on flat, firm ground, away from any obstacles, with the arm retracted and the bucket on the ground. Lower the dozer blade (if equipped) until it rests on the ground. Unless otherwise specified, all maintenance operations must be carried out with the engine stopped and the key removed from the starter switch. Wait for all circuits to cool down before starting work.
- Clean the grease fittings before lubrication. Clean around plugs and filler holes before adding fluid. No dust or dirt must enter the components or the circuits. Wear suitable clothing and remember to use the necessary safety equipment.
- When carrying out service work on the machine, place a "Do not operate" tag on the instrument panel. Never climb down from the operator's compartment leaving the engine running.
- Remove the necessary lower panels during maintenance of certain machine components. Make sure the lower panels are properly closed before operating the machine.

Any modification to the machine without prior authorization could cause serious injury. Do not make any modifications without authorization. Consult your NEW HOLLAND CONSTRUCTION Dealer.

NOTICE: if you use your machine in particularly harsh conditions (dusty or corrosive atmosphere, etc.), the servicing intervals should be reduced accordingly.

NOTICE: take particular care to replace all filters regularly. Clean filters mean longer engine running life.

Releasing pressure in the hydraulic system

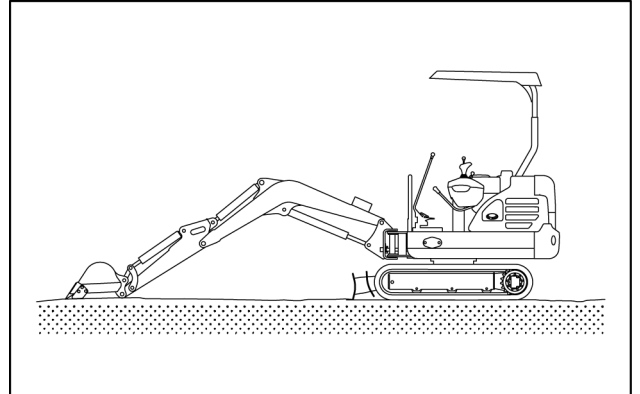
⚠ WARNING

Pressurized system!

**System is still under pressure. Release pressure according to instructions in this manual.
Failure to comply could result in death or serious injury.**

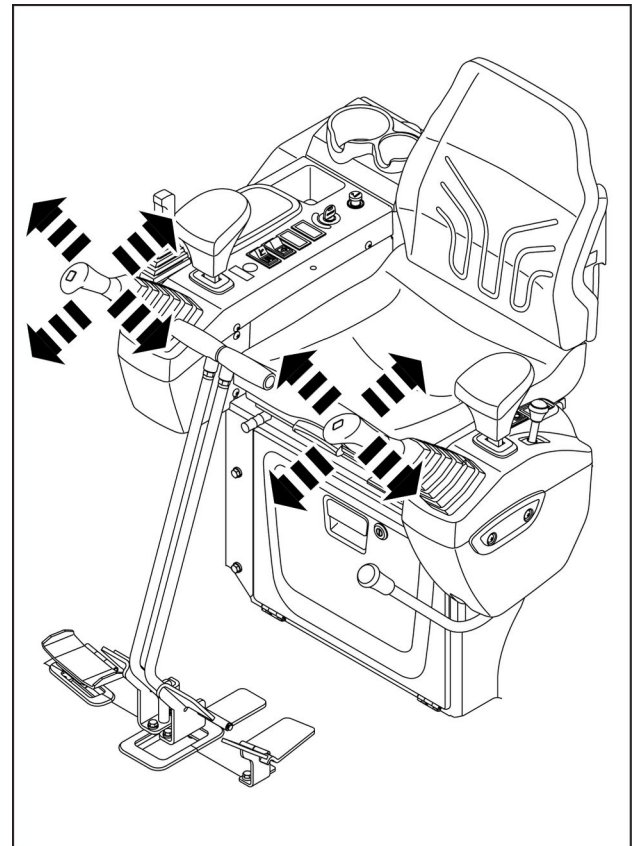
W1044A

1. Place the machine on a flat and level ground. Lower the attachment to the ground and stop the engine.
2. Switch the starter key to the ON position.
3. Put the safety lever in UNLOCK position (forward position).



SMIL17MEX0007AA 1

3. Operate the control levers from right-hand to left-hand and front to rear a dozen times approximately.



SMIL16MEX3264BA 2

Engine coolant level

⚠ WARNING

Hazardous chemicals!

Coolant can be toxic. Avoid contact with skin, eyes, and clothing. Antidotes:

EXTERNAL - Rinse thoroughly with water. Remove soiled clothing.

INTERNAL - Rinse the mouth with water. **DO NOT** induce vomiting. Seek immediate medical attention.

EYES - Flush with water. Seek immediate medical attention.

Failure to comply could result in death or serious injury.

W0282A

⚠ CAUTION

Burn hazard!

Take care if removing the filler cap while the system is hot. Before removing the cap: completely cover the cap using a thick cloth, and slowly open the filler cap to allow the pressure to escape. Do not add cold water to a hot coolant reservoir.

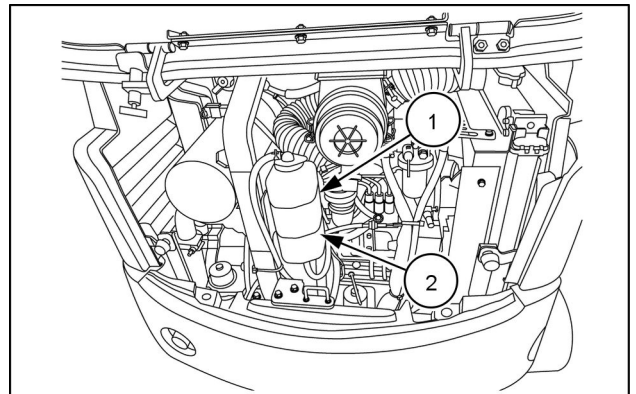
Failure to comply could result in minor or moderate injury.

C0031A

Check the coolant level in the reserve tank every **10 h** or every day

Fluid: **NEW HOLLAND AMBRA ACTIFULL™ OT EXTENDED LIFE COOLANT**

1. Park the machine on a flat and level place. Stop the engine, and remove the starter key.
2. Open the engine access door.
3. Check that the level of reserve tank is between the **FULL (1)** mark and the **LOW (2)** mark.



SMIL17MEX0009AA 1

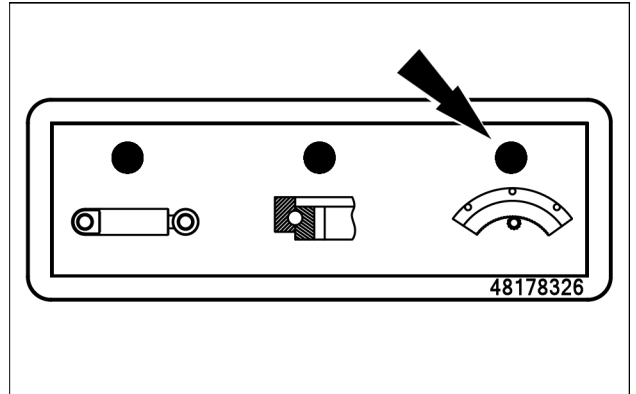
Swing ring gear

Grease the swing ring gear every **50 h**.

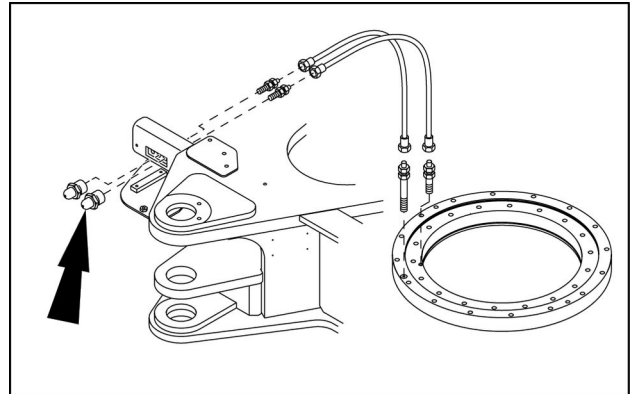
Lubricant: **NEW HOLLAND AMBRA GR-9 MULTI-PURPOSE GREASE**

Swing ring gear: one grease fitting

Using a grease gun, inject grease of the specified type in the grease point shown in figure.



SMIL17MEX2657AA 1

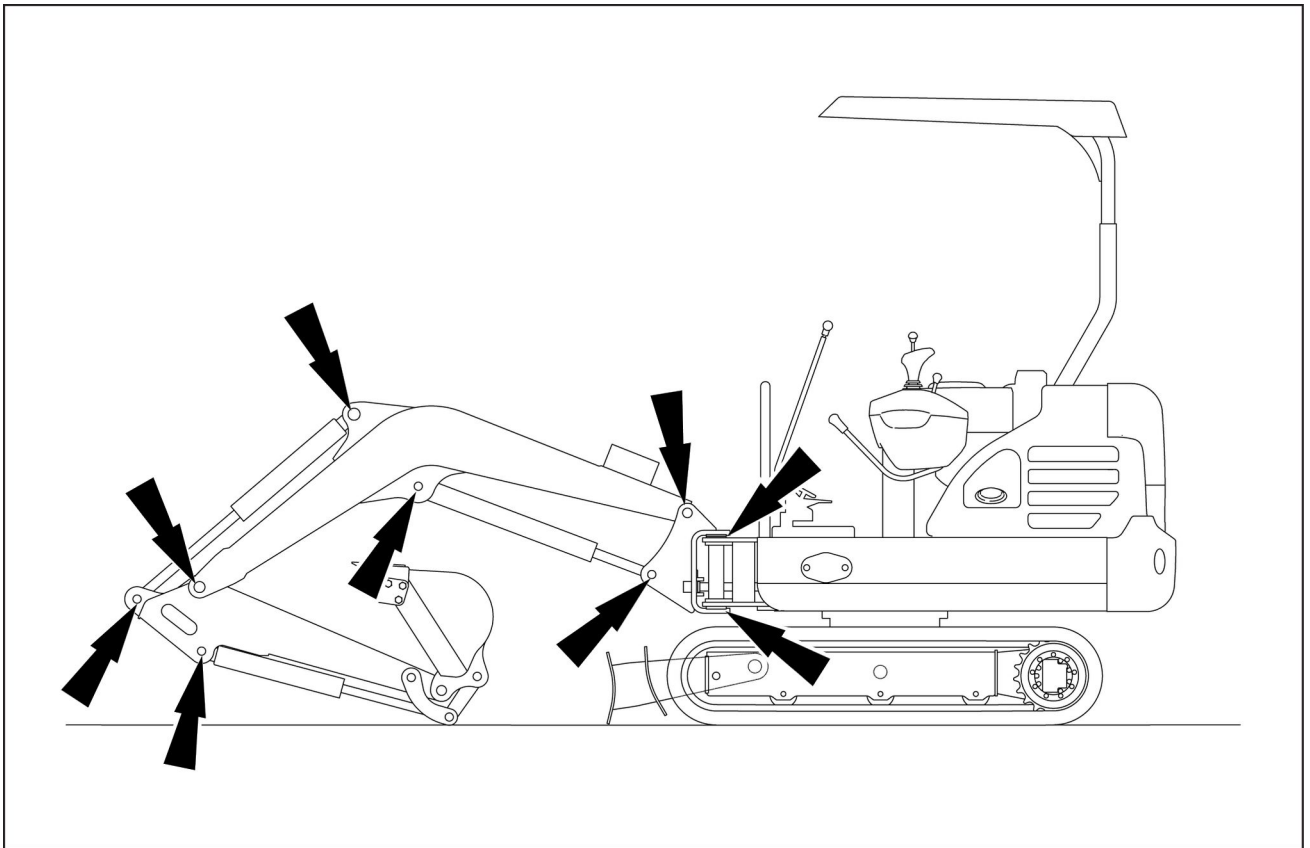


SMIL18MEX0754AA 2

Grease points (Boom and arm)

Grease the boom, the arm, and the boom swing post every **50 h** (after the break-in period).

Lubricant: **NEW HOLLAND AMBRA GR 75 MD**



SMIL17MEX0013FA 1

Boom cylinder (head and rod side): two grease fittings

Arm cylinder pin (head and rod side): two grease fittings

Boom connection pin: one grease fittings

Boom and arm connection pin: one grease fitting

Boom swing post - upper frame connection: two grease fittings

Bucket cylinder pin (head side): one grease fitting

NOTICE: if you operate the machine in water or mud, you must lubricate the boom, the arm and the swing system every **10 h**.

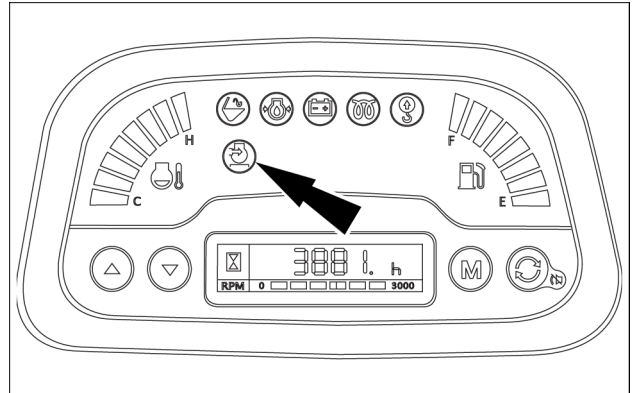
Air cleaner

⚠ 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.

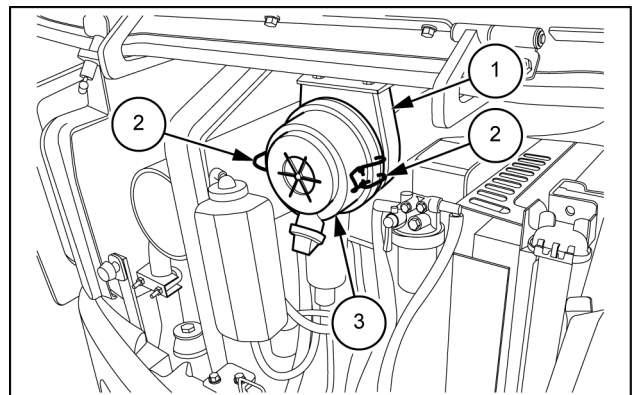
C0049A

Clean the air filter every **500 h** or when the “air cleaner warning light” appears on the instrument cluster.



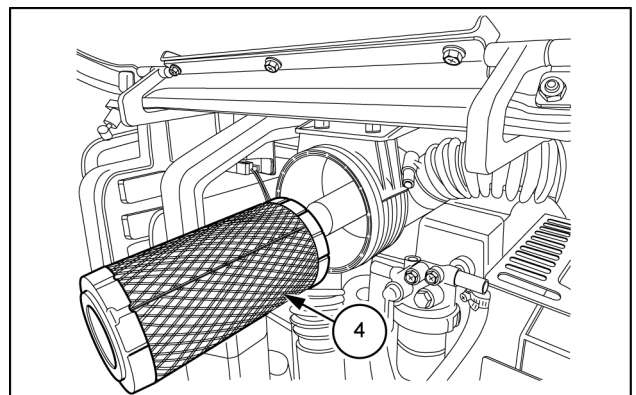
SMIL16MEX0382AA 1

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



SMIL16MEX2721AB 2

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



SMIL16MEX2722AB 3

Every 5000 hours

Hydraulic oil

⚠ 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

⚠ WARNING

Pressurized system!

Never attempt to drain fluids or remove filters when the engine is running. Turn off the engine and relieve all pressure from pressurized systems before servicing the machine.

Failure to comply could result in death or serious injury.

W0905A

⚠ WARNING

Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.

Failure to comply could result in death or serious injury.

W0178A

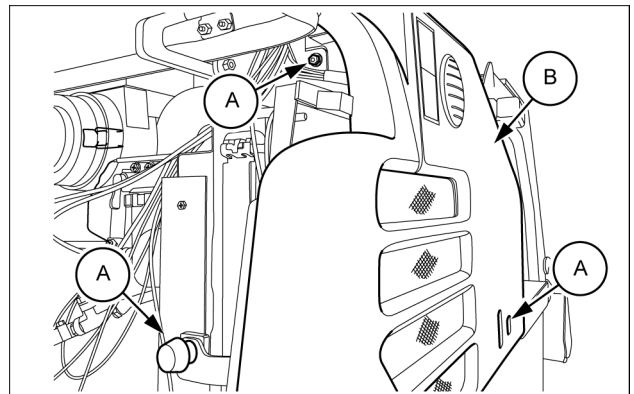
Replace the hydraulic oil every **5000 h**

Fluid: NEW HOLLAND AMBRA HYDRAULIC LL 46

Quantity: **20 L (5.3 US gal)**

NOTICE: when using the hydraulic breaker, reduce the interval of the hydraulic oil replacement. Refer to page 9-8.

1. Lower the bucket on the ground pulling the arm and bucket cylinder to the maximum cylinder extension.
2. Release all the pressure in the hydraulic tank. Refer to page 6-11.
3. Open and secure the engine access door, remove the three bolts (A) and then the right-hand side panel (B) in order to gain access to the hydraulic oil tank.



SMIL17MEX0010AB 1

Starting up the machine after storage

⚠ WARNING

Unexpected machine movement!

Before starting the engine, make sure all controls are in the neutral position.

Failure to comply could result in death or serious injury.

W0311A

⚠ WARNING

Inhalation hazard! Risk to operators and bystanders.

Avoid running the engine in confined areas. Make sure there is adequate ventilation at all times.

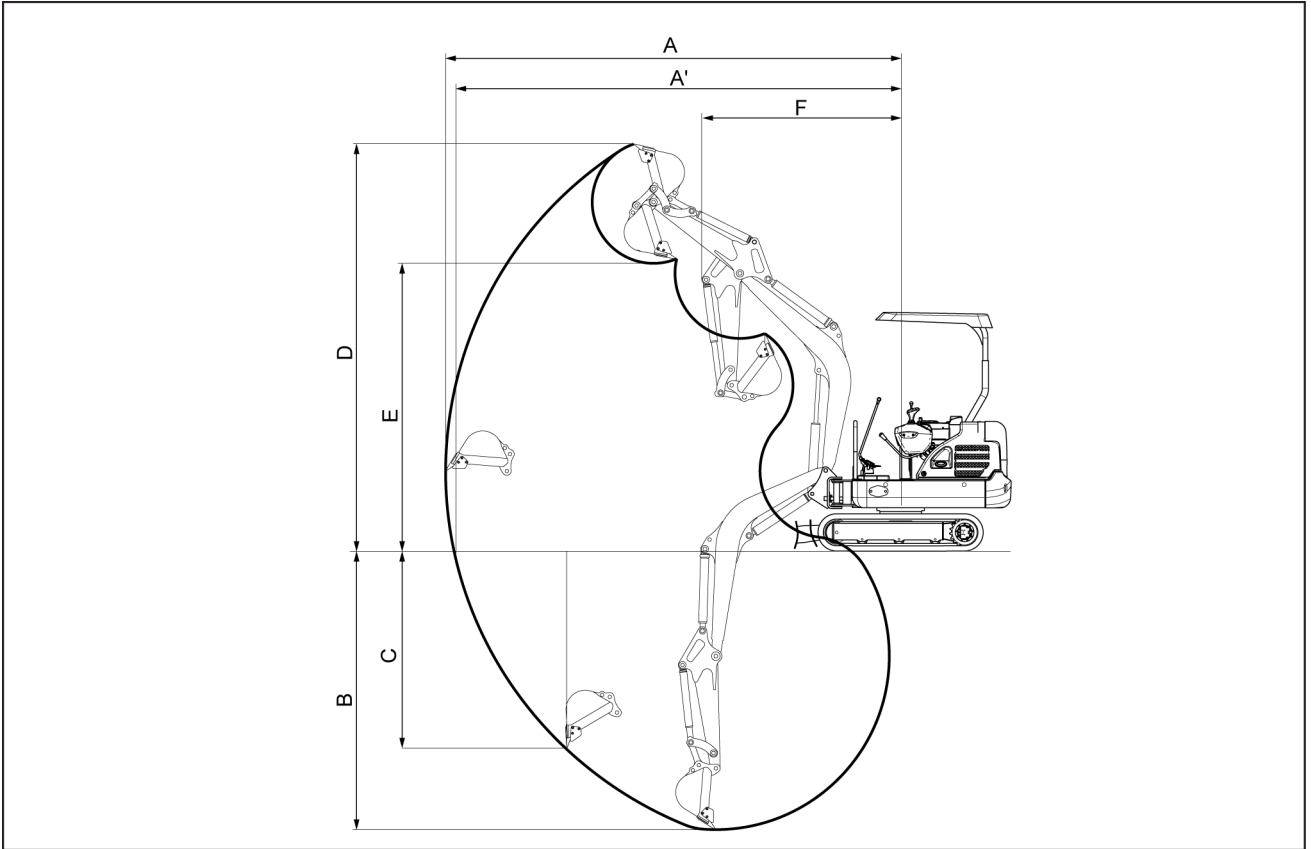
Failure to comply could result in death or serious injury.

W0156A

1. Drain the fuel tank and clean the fuel filter. Replace the filter element as required.
2. Fill the fuel tank with suitable fuel.
3. Install the batteries or reconnect the cable to the negative (-) terminal.
4. Grease the machine thoroughly.
5. Check the condition of the fan drive belt and replace it if necessary.
6. Check the condition of the air conditioning drive belt and replace it if necessary (if equipped).
7. Check the cooling system level and add more coolant if necessary.
8. Check the hydraulic fluid level, and supply it as necessary.
9. Check the gear oil level of the travel reduction gear and that of the swing reduction gear, and supply it as necessary.
10. Clean the cylinder rod.
11. Remove the lid of the air cleaner inlet and that of the exhaust pipe.
12. When starting the engine after long-term storage (one month or more), you need to check whether the turbocharger has run out of an oil film and make preparations for starting the engine. Be sure to consult our authorized service shop. For details of work, refer to the attached engine manual.
13. Remove the "Do not operate" label, and start the engine following the engine starting procedure.
14. Check all the indicators and lights carefully.

NOTICE: *check the machine and the engine for leaks or for any parts that are broken, defective or missing.*

Working range



SMIL17MEX0036FA 3

(A) Maximum digging reach		3970 mm (156.3 in)
(A') Maximum digging reach on ground		3880 mm (152.8 in)
(B) Maximum digging depth		2250 mm (88.6 in)
(C) Maximum vertical wall digging depth		1785 mm (70.3 in)
(D) Maximum digging height		3670 mm (144.5 in)
(E) Maximum dumping height		2550 mm (100.4 in)
(F) Minimum swing radius		1615 mm (63.6 in)
Boom swing radius (left-hand/right-hand)		60° / 60°
Bucket digging force	SAE	13.1 kN (2945.0 lb)
	ISO	15.1 kN (3394.6 lb)
Arm crowd force	SAE	9 kN (2023.3 lb)
	ISO	9.4 kN (2113.2 lb)

Boom length: **1.8 m (70.9 in)**

Arm length: **0.96 m (37.8 in)**

With boom swing post

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