

SERVICE MANUAL

WE170B / WE190B Wheeled Excavator

Part number 48017211

English
May 2016



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INTRODUCTION

Foreword - Important notice regarding equipment servicing

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given, and using, whenever possible, the special tools.

Anyone who performs repair and maintenance operations without complying with the procedures provided herein shall be responsible for any subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional, or local dealers, reject any responsibility for damages caused by parts and/or components not approved by the manufacturer, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer. In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages caused by parts and/or components not approved by the manufacturer.

The manufacturer reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication but are subject to change without notice.

In case of questions, refer to your NEW HOLLAND CONSTRUCTION Sales and Service Networks.

Safety rules

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

Personal safety

Carefully read this Manual before proceeding with maintenance, repairs, refuelling or other machine operations.

Repairs have to be carried out only by authorized and instructed staff; specific precautions have to be taken when grinding, welding or when using mallets or heavy hammers.

Not authorized persons are not allowed to repair or carry out maintenance on this machine. Do not carry out any work on the equipment without prior authorization.

Ask your employer about the safety instructions in force and safety equipment.

Nobody should be allowed in the cab during machine maintenance unless he is a qualified operator helping with the maintenance work.

If it is necessary to move the equipment to carry out repairs or maintenance, do not lift or lower the equipment from any other position than the operator's seat.

Never carry out any operation on the machine when the engine is running, except when specifically indicated.

Stop the engine and ensure that all pressure is relieved from hydraulic circuits before removing caps, covers, valves, etc.

All repair and maintenance operations should be carried out with the greatest care and attention.

Service stairs and platforms used in a workshop or in the field should be built in compliance with the safety rules in force.

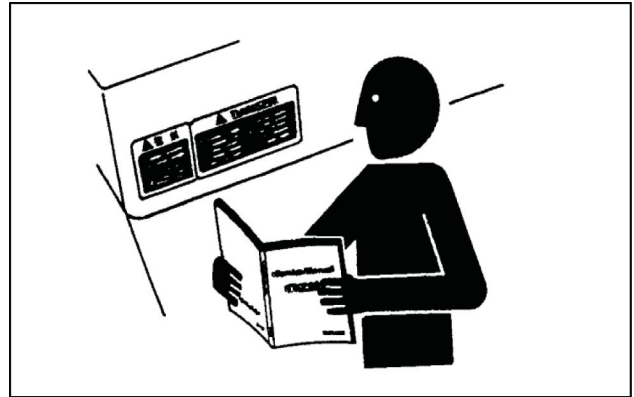
Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately.

⚠ DANGER

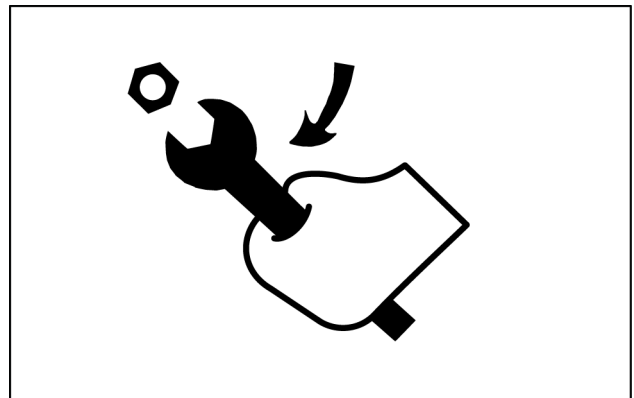
Unexpected movement!
Make sure parking brake is applied. Secure machine with wheel chocks.
Failure to comply will result in death or serious injury.

D0013A

Before performing any work on the machine, attach a maintenance in progress tag. This tag can be applied on the left-hand control lever, safety lever or cab door.



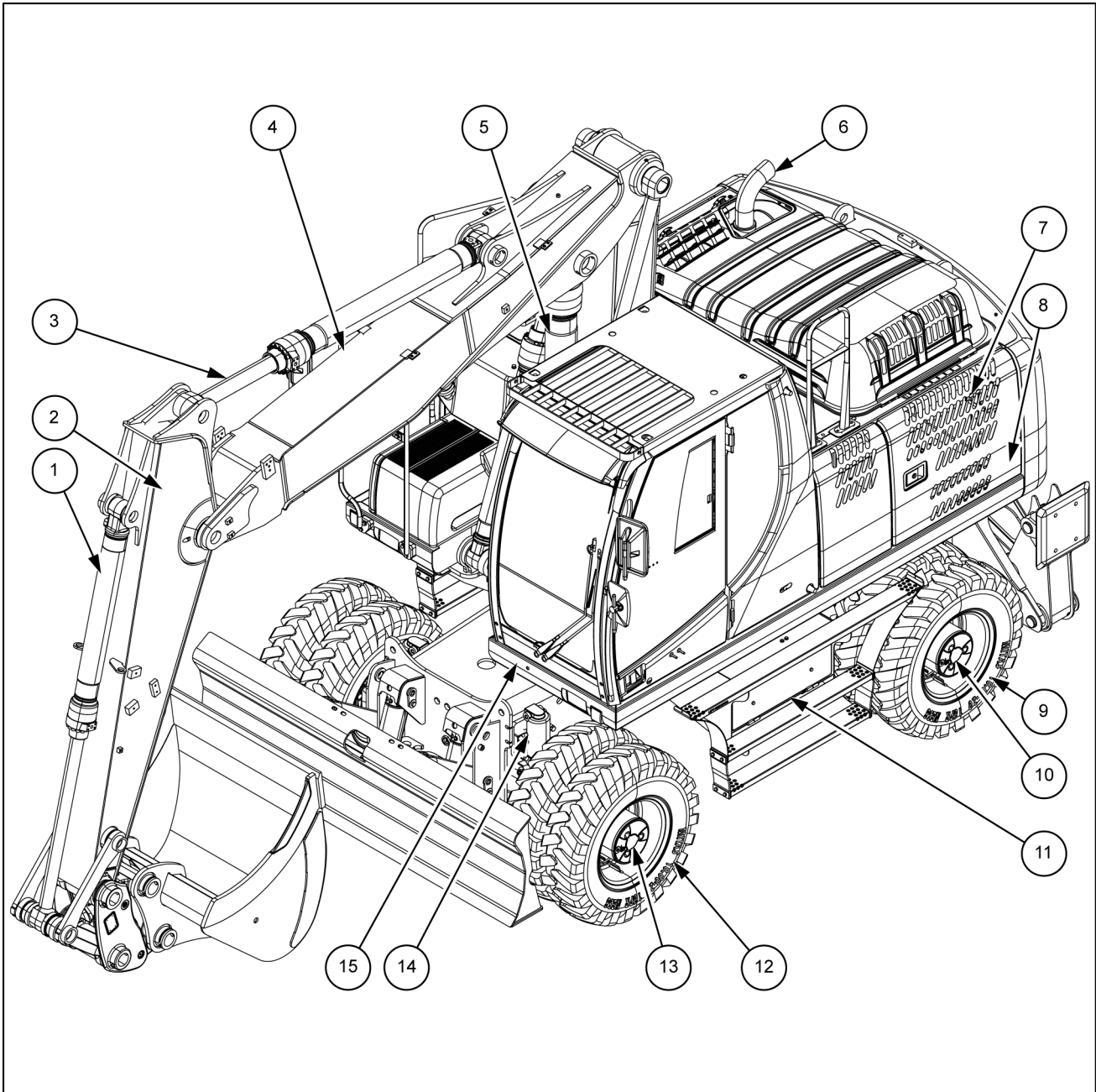
TULI12WEX2004AA 1



TULI12WEX2005AA 2

Product overview

Triple Articulation Version



SMIL13WEX0034GB 1

- | | |
|------------------------|-----------------------------------|
| 1 Bucket cylinder | 9 Rear wheels |
| 2 Dipper | 10 Rear rigid axle |
| 3 Dipper cylinder | 11 Stair and storage box |
| 4 Second boom | 12 Front wheels |
| 5 Positioning cylinder | 13 Front steering axle |
| 6 Muffler | 14 Axle floating locking cylinder |
| 7 Radiators | 15 Upper structure |
| 8 Batteries | |



SERVICE MANUAL

Engine

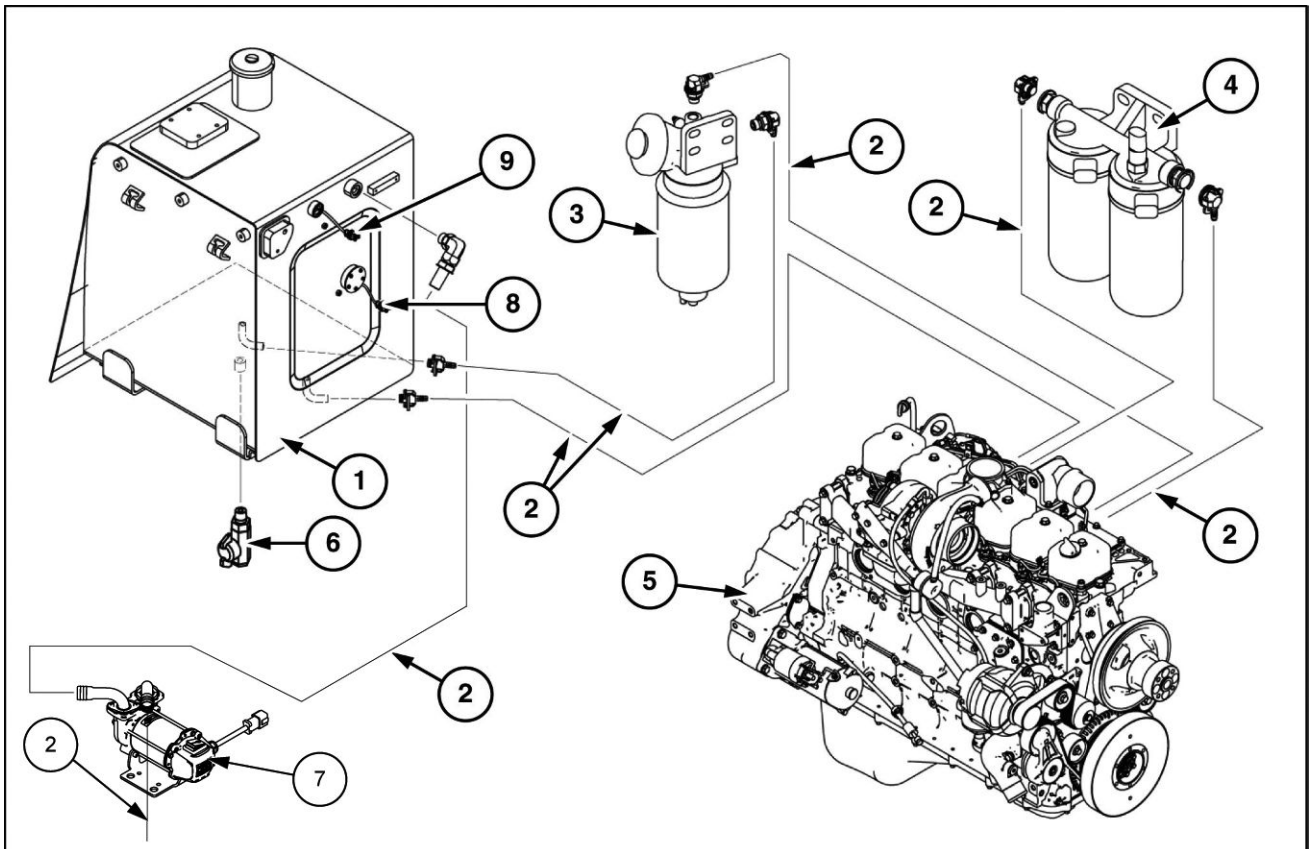
**WE170B
WE190B**

Fuel tanks - Exploded view

WE170B

LA

The fuel tank contains the fuel for the engine.



SMIL16WEX0042FB 1

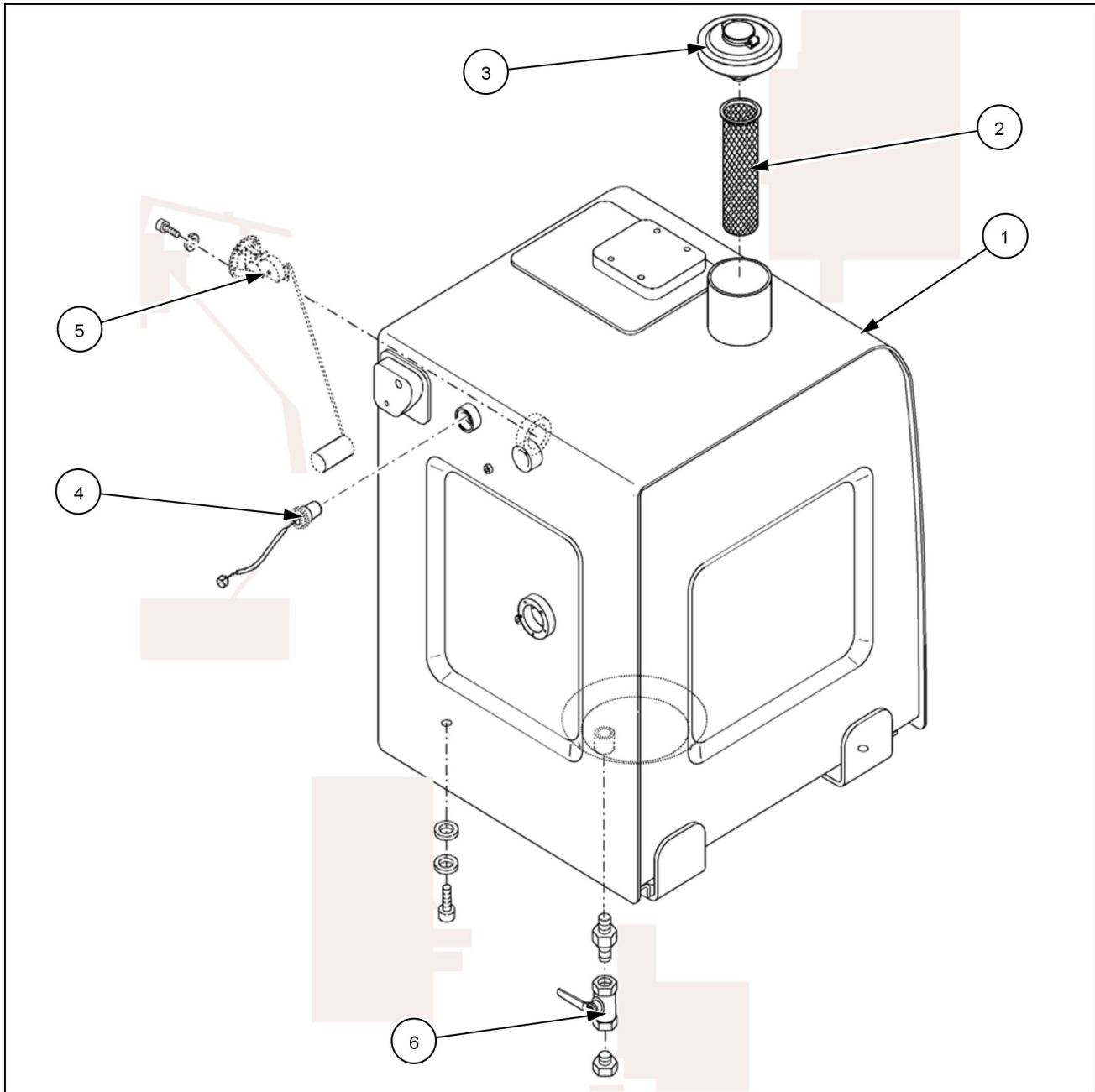
- | | |
|--------------------|---------------------------|
| 1. Fuel tank | 6. Drain cock |
| 2. Flexible hose | 7. Fuel transfer pump |
| 3. Water separator | 8. Fuel level sensor |
| 4. Fuel filters | 9. Refuelling pump sensor |
| 5. Diesel engine | |

Fuel tanks - Exploded view

WE190B

LA

The fuel tank contains the fuel for the engine.



SML15WEX0008GA 1

- | | |
|----------------------|---------------------------|
| 1. Fuel tank | 4. Refuelling pump sensor |
| 2. Filter | 5. Fuel level sensor |
| 3. Lockable fuel cap | 6. Drain cock |

Fuel tank - Drain fluid

Draining condensation

⚠ WARNING

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

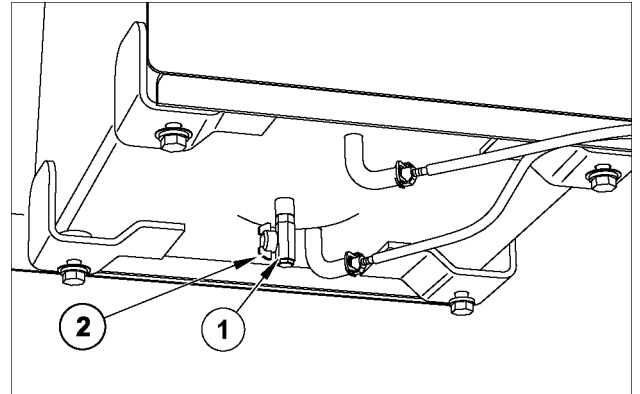
Failure to comply could result in death or serious injury.

W0904A

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

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

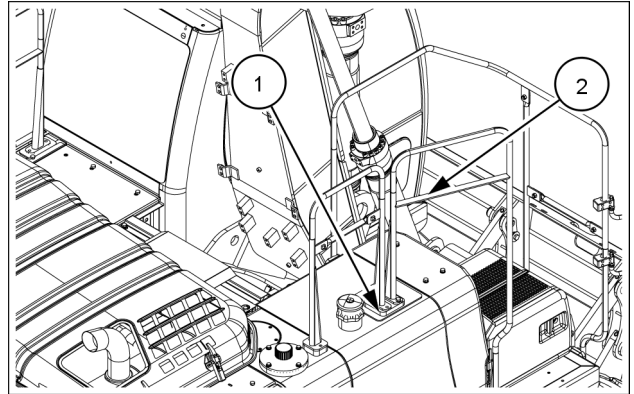
NOTE: when the temperature is above 0 °C, draining can be done before engine start-up. When working with temperatures below 0 °C, the tank should be drained at the end of work, after engine stop, as water might freeze and not drain properly.



N00436M 1

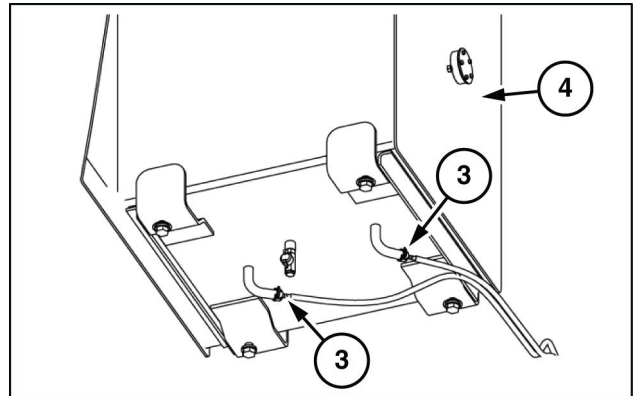
Fuel tank - Remove

1. Park the machine on a level and firm surface.
2. Engage the parking brake.
3. Lock the upper structure.
4. Stop the engine.
5. Empty the fuel tank.
Fuel tank capacity is **274 L (60 UK gal)**.
6. Remove the screws and the washers (1) and remove the handrails (2).



SMIL13WEX0051AA 1

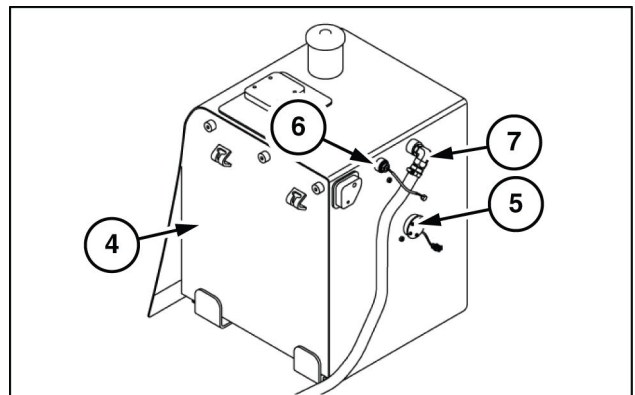
7. Under the upper structure, disconnect the delivery and return hoses (3) from fuel tank (4).



TUL12WEX2158AB 2

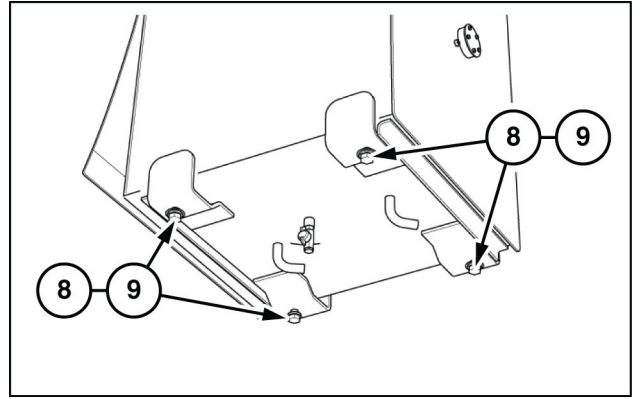
8. Gain access to the upper part of fuel tank (4) and disconnect the connector of fuel level sensor (5), the connector of refueling pump sensor (6) and the refueling hose (7).

NOTICE: Fuel tank weights **122 kg (269 lb)**. Use suitable tools to lift the fuel tank.



TUL12WEX2159AB 3

- Suitably sling the fuel tank.
Remove the four attaching screws **(8)** and the four washers **(9)** from the bottom of fuel tank. Remove the fuel tank.



TULI12WEX2160AB 4



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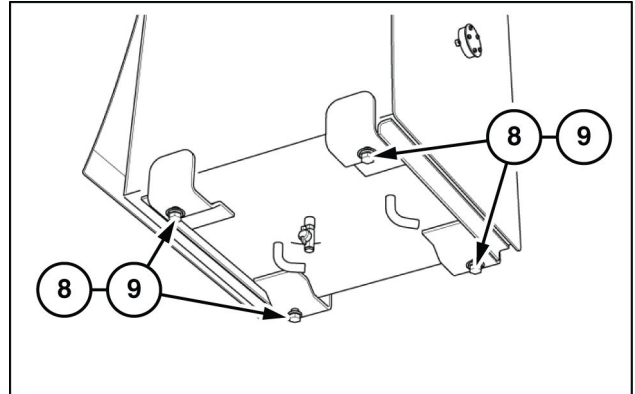
Thank you so much for reading

Fuel tank - Install

1. Position the fuel tank on upper structure frame.

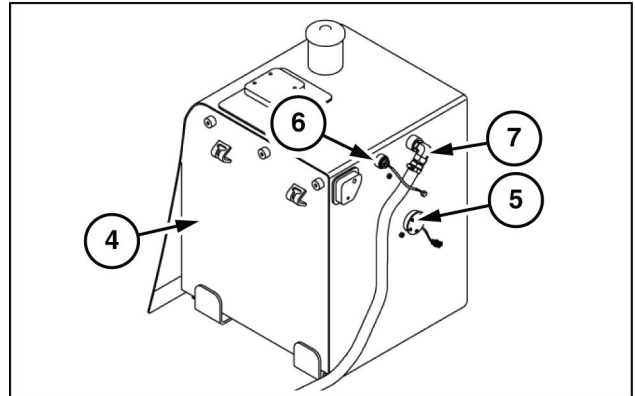
NOTICE: Fuel tank weights **122 kg (269 lb)**. Use suitable tools to lift the fuel tank.

2. Apply **LOCTITE® 262™** on screws **(8)**.
3. Install the four washers **(9)** and the four attaching screws **(8)**.
4. Tighten the screws **(8)** to the tightening torque of **216 N·m (159 lb ft)**.



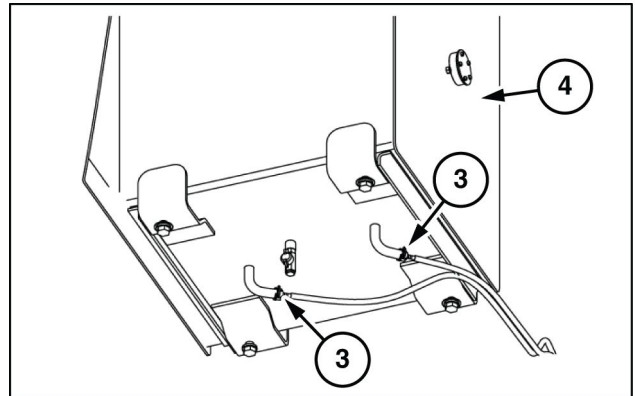
TULI12WEX2160AB 1

5. Gain access the upper part of fuel tank **(4)** and connect the fuel level sensor **(5)**, the connector of refueling pump sensor **(6)** and the refueling hose **(7)**. Tighten the hose to the torque of **6.86 N·m (5 lb ft)**.



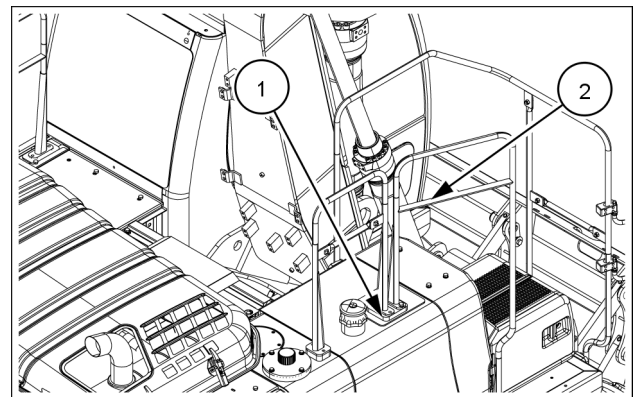
TULI12WEX2159AB 2

6. Connect the delivery and return hoses **(3)** to fuel tank **(4)**.



TULI12WEX2161AB 3

7. Install the handrails **(2)** and attach them with the screws and the washers **(1)**.



SMIL13WEX0051AA 4

8. Refuel the fuel tank.
Fuel tank capacity is **274 L (60 UK gal)**.

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