

SERVICE MANUAL

CX5.80 / CX5.90 / CX5.90 Laterale
CX5.90 Hillside / CX6.80 / CX6.90
CX6.90 Laterale
Combine

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SERVICE MANUAL

CX5.80 FPT NEF 6 Stage V, CX5.80 FPT NEF 6 Stage V, CX5.90 FPT NEF 6 Stage V, CX5.90 FPT NEF 6 Tier 3, CX5.90 Hillside FPT NEF 6 Stage V, CX5.90 Laterale FPT NEF 6 Stage V, CX6.80 FPT NEF 6 Stage V, CX6.80 FPT NEF 6 Stage V, CX6.80 FPT NEF 6 Tier 3, CX6.90 FPT Cursor® 9 Stage V, CX6.90 FPT Cursor® 9 Stage V, CX6.90 FPT Cursor® 9 Tier 3, CX6.90 FPT Cursor® 9 Tier 3, CX6.90 Laterale FPT Cursor® 9 Stage V

Link Product / Engine

Product	Market Product	Engine
CX5.80 FPT NEF 6 Stage V	Europe	F4HGE613B*V009
CX5.80 FPT NEF 6 Stage V	Europe	F4HGE613B*V009
CX5.90 FPT NEF 6 Tier 3	Europe	F4HE9687G*J104
CX5.90 FPT NEF 6 Tier 3	Middle East Africa	F4HE9687G*J104
CX5.90 FPT NEF 6 Tier 3	Asia Pacific	F4HE9687G*J104
CX5.90 FPT NEF 6 Stage V	Europe	F4HGE613A*V005
CX5.90 Hillside FPT NEF 6 Stage V	Europe	F4HGE613A*V005
CX5.90 Laterale FPT NEF 6 Stage V	Middle East Africa	F4HGE613A*V005
CX5.90 Laterale FPT NEF 6 Stage V	Europe	F4HGE613A*V005
CX5.90 Laterale FPT NEF 6 Stage V	Asia Pacific	F4HGE613A*V005
CX6.80 FPT NEF 6 Tier 3	Asia Pacific	F4HE9687G*J104
CX6.80 FPT NEF 6 Tier 3	Middle East Africa	F4HE9687G*J104
CX6.80 FPT NEF 6 Tier 3	Europe	F4HE9687G*J104
CX6.80 FPT NEF 6 Stage V	Europe	F4HGE613A*V005
CX6.80 FPT NEF 6 Stage V	Europe	F4HGE613A*V005
CX6.90 FPT Cursor® 9 Tier 3	Europe	F2CE9684C*E030
CX6.90 FPT Cursor® 9 Tier 3	Asia Pacific	F2CE9684C*E030
CX6.90 FPT Cursor® 9 Tier 3	Middle East Africa	F2CE9684C*E030
CX6.90 FPT Cursor® 9 Tier 3	Asia Pacific	F2CE9684C*E030
CX6.90 FPT Cursor® 9 Stage V	Europe	F2CGE613A*V004
CX6.90 FPT Cursor® 9 Stage V	Europe	F2CGE613A*V004

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INTRODUCTION

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.

Safety rules - Ecology and the environment

Soil, air, and water quality is important for all industries and life in general. When legislation does not yet rule the treatment of some of the substances that advanced technology requires, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

Familiarize yourself with the relative legislation applicable to your country, and make sure that you understand this legislation. Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to the effect of these substances on man and nature and how to safely store, use, and dispose of these substances.

Helpful hints

- Avoid the use of cans or other inappropriate pressurized fuel delivery systems to fill tanks. Such delivery systems may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of these products contain substances that may be harmful to your health.
- Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
- Avoid spillage when you drain fluids such as used engine coolant mixtures, engine oil, hydraulic fluid, brake fluid, etc. Do not mix drained brake fluids or fuels with lubricants. Store all drained fluids safely until you can dispose of the fluids in a proper way that complies with all local legislation and available resources.
- Do not allow coolant mixtures to get into the soil. Collect and dispose of coolant mixtures properly.
- The air-conditioning system contains gases that should not be released into the atmosphere. Consult an air-conditioning specialist or use a special extractor to recharge the system properly.
- Repair any leaks or defects in the engine cooling system or hydraulic system immediately.
- Do not increase the pressure in a pressurized circuit as this may lead to a component failure.
- Protect hoses during welding. Penetrating weld splatter may burn a hole or weaken hoses, allowing the loss of oils, coolant, etc.

Battery recycling

Batteries and electric accumulators contain several substances that can have a harmful effect on the environment if the batteries are not properly recycled after use. Improper disposal of batteries can contaminate the soil, groundwater, and waterways. NEW HOLLAND strongly recommends that you return all used batteries to a NEW HOLLAND dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.



Mandatory battery recycling

NOTE: The following requirements are mandatory in Brazil.

Batteries are made of lead plates and a sulfuric acid solution. Because batteries contain heavy metals such as lead, CONAMA Resolution 401/2008 requires you to return all used batteries to the battery dealer when you replace any batteries. Do not dispose of batteries in your household garbage.

Points of sale are obliged to:

- Accept the return of your used batteries
- Store the returned batteries in a suitable location
- Send the returned batteries to the battery manufacturer for recycling

Safety rules

LEGAL OBLIGATIONS

This machine may be equipped with special guarding or other devices in compliance with local legislation. Some of these require active use by the operator. Therefore, check local legislations on the usage of this machine.

ACCIDENT PREVENTION

Most accidents or injuries that occur in workshops are the result of non compliance to simple and fundamental safety principles. For this reason, IN MOST CASES THESE ACCIDENTS CAN BE AVOIDED by applying the fundamental safety principles, acting with the necessary caution and care.

Accidents may occur with all types of machine, regardless of how well the machine in question was designed and built.

CAUTION

Unexpected machine movement!

- 1. Disengage all drives.**
 - 2. Engage parking brake.**
 - 3. Lower all attachments to the ground, or raise and engage all safety locks.**
 - 4. Shut off engine.**
 - 5. Remove key from key switch.**
 - 6. Switch off battery key, if installed.**
 - 7. Wait for all machine movement to stop.**
- Failure to comply could result in minor or moderate injury.**

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SAFETY REQUIREMENTS FOR FLUID POWER SYSTEMS AND COMPONENTS - HYDRAULICS (EUROPEAN STANDARD EN982)

- Flexible hose assemblies must not be constructed from hoses which have been previously used as part of a hose assembly.
- Do not weld hydraulic pipes: when flexible hoses or piping are damaged, replace them immediately.
- It is forbidden to modify a hydraulic accumulator by machining, welding or any other way.
- Before removing hydraulic accumulators for servicing, the liquid pressure in the accumulators must be reduced to zero.
- Pressure check on hydraulic accumulators must be carried out by a method recommended by the accumulator manufacturer.
- Take care not to exceed the maximum allowed pressure of the accumulator. After any check or adjustment, check for leakages or gas in the hoses or tubes.

SAFETY RULES

General guidelines

- Carefully follow specified repair and maintenance procedures.
- When appropriate, use P.P.E (Personal Protective Equipment)
- Do not wear rings, wristwatches, jewellery, unbuttoned or loose articles of clothing such as: ties, torn clothing, scarves, open jackets or shirts with open zips that may remain entangled in moving parts. It is advised to wear approved safety clothing, e.g.: non-slip footwear, gloves, safety goggles, helmets, etc.
- Do not carry out repair operations with someone sitting in the driver's seat, unless the person is a trained technician who is assisting with the operation in question.
- Do not operate the machine or use any of the implements from different positions, other than the driver's seat.
- Do not carry out operations on the machine with the engine running, unless specifically indicated.

INTRODUCTION

- Bring all hydraulic cylinders to the home positions (down, retracted, etc.) before engine shut down.
- Stop the engine and check that the hydraulic circuits are pressure-free before removing caps, covers, valves, etc.
- All repair and maintenance operations must be carried out using extreme care and attention.
- Service steps and platforms used in the workshop or elsewhere should be built according to the applicable standards and legislation.
- Disconnect the Power Take-Off (PTO) and label the controls to indicate that the machine is being serviced.
- Brakes are inoperative when manually released for repair or maintenance purposes. Use blocks or similar devices to secure the machine in these conditions.
- Only use specified towing points for towing the machine. Connect parts carefully. Make sure that all pins and/or locks are secured in position before applying traction. Never remain near the towing bars, cables or chains that are operating under load.
- When loading or unloading the machine from the trailer (or other means of transport), select a flat area capable of sustaining the trailer or truck wheels. Firmly secure the machine to the truck or trailer and lock the wheels in the position used by the carrier.
- Electric heaters, battery-chargers and similar equipment must only be powered by auxiliary power supplies with efficient ground insulation to avoid electrical shock hazards.
- Always use suitable hoisting or lifting devices when raising or moving heavy parts.
- Keep bystanders away.
- Never use gasoline, diesel oil or other inflammable liquids as cleaning agents. Use non-inflammable, non toxic commercially available solvents.
- Wear safety goggles with side guards when cleaning parts with compressed air.
- Never use open flames for lighting when working on the machine or checking for leaks.
- When carrying out checks with the engine running, request the assistance of an operator in the driver's seat. The operator must maintain visual contact with the service technician at all times.
- If operating outside the workshop, position the machine on a flat surface and lock in position. If working on a slope, lock the machine in position. Move to a flat area as soon as is safely possible.
- Maintenance and repair operations must be carried out in a clean and dry area. Clean up any water or oil spillage immediately.
- Do not create piles of oil or grease-soaked rags as they represent a serious fire hazard. Always store rags in a closed metal container.
- Before engaging the machine, make sure that there are no persons within the machine or implement range of action.
- Empty your pockets of all objects that may fall accidentally unobserved into the machine inner compartments.
- When metal parts are sticking out, use protective goggles or goggles with side guards, helmets, special footwear and gloves.
- When welding, use protective safety devices: tinted safety goggles, helmets, special overalls, gloves and footwear. All persons present in the area where welding is taking place must wear tinted goggles. **NEVER LOOK DIRECTLY AT THE WELDING ARC WITHOUT SUITABLE EYE PROTECTION.**



SERVICE MANUAL

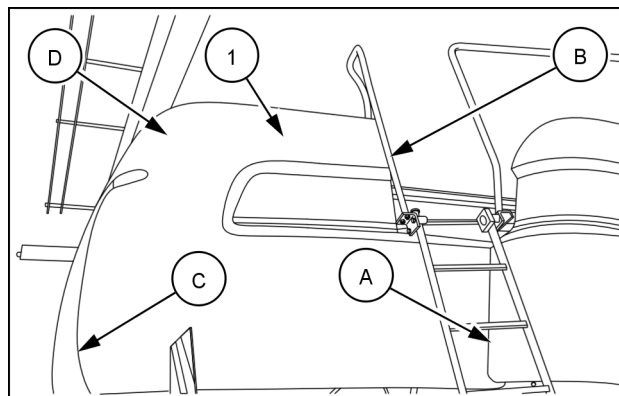
Engine

CX5.80 FPT NEF 6 Stage V, CX5.80 FPT NEF 6 Stage V, CX5.90 FPT NEF 6 Stage V, CX5.90 FPT NEF 6 Tier 3, CX5.90 Hillside FPT NEF 6 Stage V, CX5.90 Laterale FPT NEF 6 Stage V, CX6.80 FPT NEF 6 Stage V, CX6.80 FPT NEF 6 Stage V, CX6.80 FPT NEF 6 Tier 3, CX6.90 FPT Cursor® 9 Stage V, CX6.90 FPT Cursor® 9 Stage V, CX6.90 FPT Cursor® 9 Tier 3, CX6.90 FPT Cursor® 9 Tier 3, CX6.90 Laterale FPT Cursor® 9 Stage V

Diesel Exhaust Fluid (DEF)/AdBlue®/ARLA tank - Remove

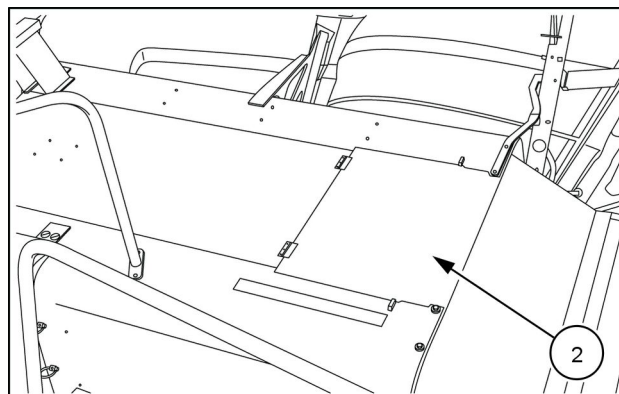
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CX5.90 FPT NEF 6 Stage V	WE
CX5.90 Hillside FPT NEF 6 Stage V	WE
CX5.90 Laterale FPT NEF 6 Stage V	APAC --- MEA --- WE
CX6.80 FPT NEF 6 Stage V	WE --- WE
CX6.90 FPT Cursor® 9 Stage V	WE --- WE
CX6.90 Laterale FPT Cursor® 9 Stage V	APAC --- MEA --- WE

NOTE: It is required to remove the rear right-hand side shield (1) to gain access to the DEF/AdBlue® tank. The shield (1) is secured to the machine frame at four locations (A), (B), (C) and (D).



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NOTE: Access to some of the hardware is through the straw walker inspection cover (2).



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⚠ CAUTION

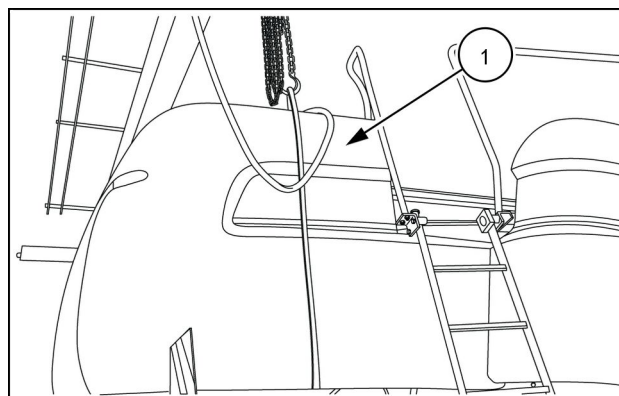
Heavy object!

The component is heavy. Use care not to drop the component when installing, removing, or handling.

Failure to comply could result in minor or moderate injury.

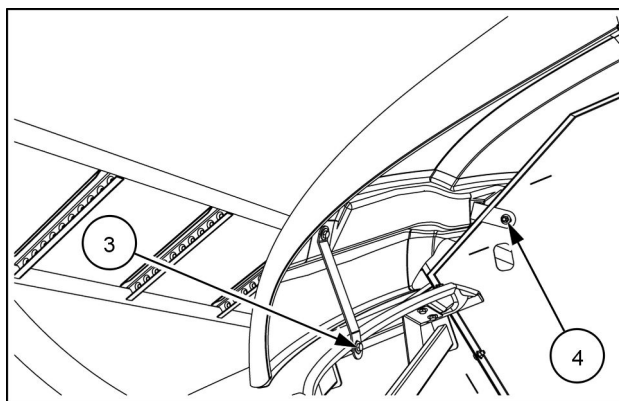
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1. Use a suitable hoist and secure the rear right-hand side shield (1).



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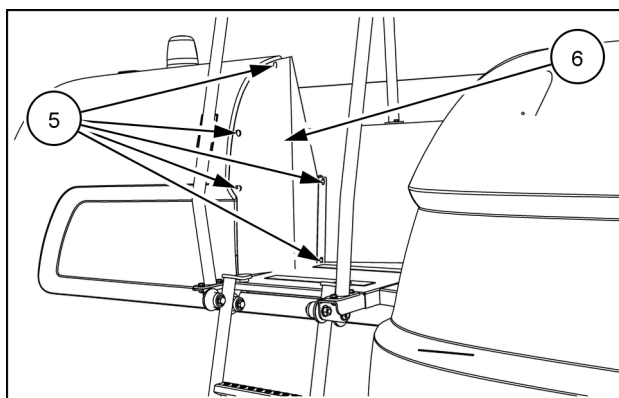
2. Remove the hardware (3) and (4) from the rear right-hand side shield at the location (A) (see figure 1).



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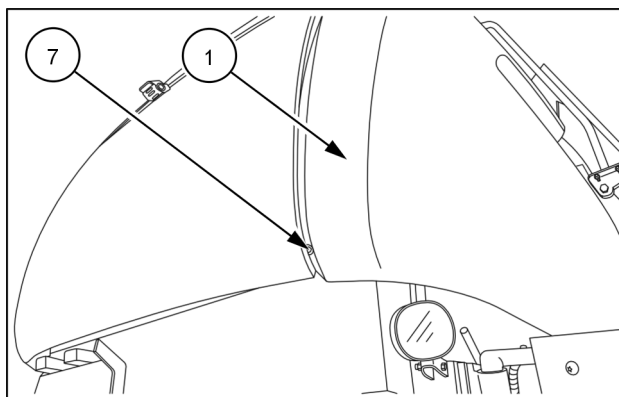
3. Remove the hardware (5) and the cover plate (6) at the location (B) (see figure 1).

NOTE: Get access to the hardware (5) through the cover (2) (see figure 2).



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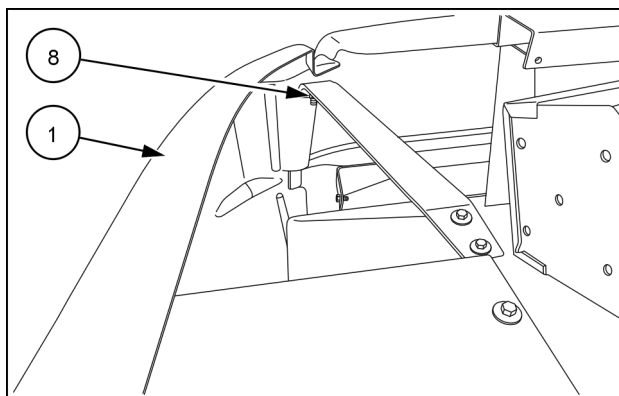
4. Remove the hardware (7) from the rear right-hand side shield (1) at the location (C) (see figure 1).



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5. Remove the hardware (8) from the rear right-hand side shield (1) at the location (D) (see figure 1).

6. Remove the rear right-hand side shield (1).



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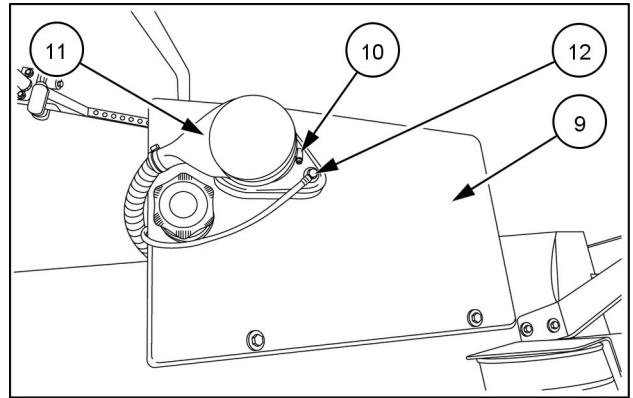
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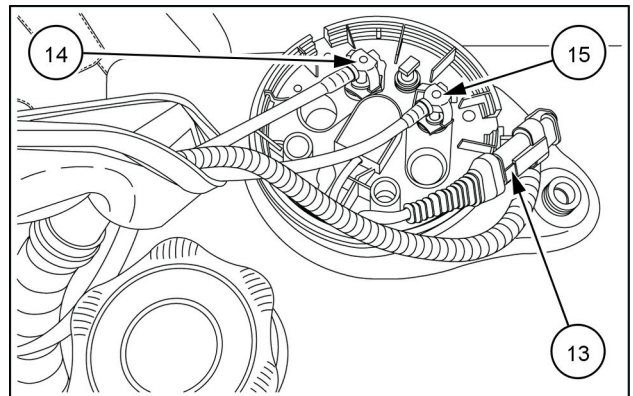
Thank you so much for reading

7. On the **DEF/AdBlue®** tank (9), loosen the clamp (10) and remove the cover (11).
8. Disconnect the **DEF/AdBlue®** line (12).



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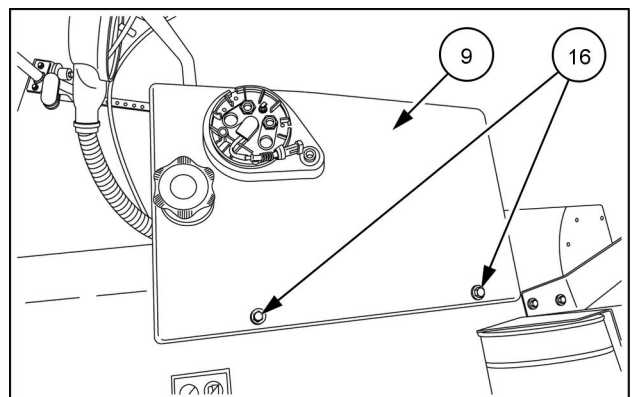
9. Disconnect the electrical connector (13).
10. Mark and disconnect the **DEF/AdBlue®** lines (14) and (15).



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11. On the **DEF/AdBlue®** tank (9), remove the hardware (16).

NOTE: Get access to the hardware (16) through the straw walker inspection cover (2) (see figure 2).



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⚠ CAUTION

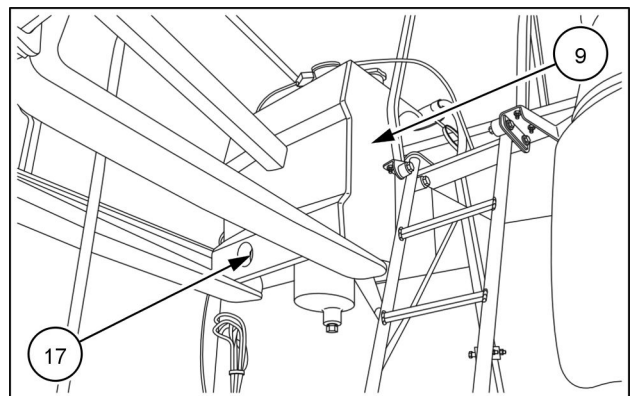
Heavy object!

The component is heavy. Use care not to drop the component when installing, removing, or handling.

Failure to comply could result in minor or moderate injury.

C0095A

12. Secure the **DEF/AdBlue®** tank (9) with a suitable fork-lift and slings.
13. Support the **DEF/AdBlue®** tank (9) and remove the hardware (17).
14. Slowly remove the **DEF/AdBlue®** tank (9) from the machine frame.



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