

**FARMALL 85A
FARMALL 95A
FARMALL 105A
FARMALL 115A**
Tractor

SERVICE MANUAL

Part number 48194628

English

September 2017

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CASE II
AGRICULTURE

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INTRODUCTION

Safety rules

Pay attention to this symbol



This warning symbol points out important messages involving personal safety. Carefully read the safety rules contained herein and follow advised precautions to avoid potential hazards and safeguard your safety and personal integrity. In this manual you will find this symbol together with the following key-words:

WARNING – It gives warning about improper repair operations and deriving potential consequences affecting the service technician's personal safety.

DANGER – It gives specific warning about potential dangers for personal safety of the operator or other persons directly or indirectly involved.

To prevent accidents

Most accidents and personal injuries taking place in workshops are due from non-observance of some simple and essential prudential rule and safety precautions. For this reason, **IN MOST CASES THEY CAN BE AVOIDED**. It suffices to foresee possible causes and act consequently with necessary caution and care.

The possibility that an accident might occur with any type of machines should not be disregarded, no matter how well the machine in question was designed and built.

A wise and careful service technician is the best precautions against accidents.

Careful observance of this only basic precaution would be enough to avoid many severe accidents.

DANGER: Never carry out any cleaning, lubrication or maintenance operations when the engine is running.

Safety rules

Generalities

- Carefully follow specified repair and maintenance procedures.
- Do not wear rings, wristwatches, jewels, unbuttoned or flapping clothing such as ties, torn clothes, scarves, open jackets or shirts with open zips which could get hold into moving parts. We advise to use approved safety clothing such as anti-slipping footwear, gloves, safety goggles, helmets, etc.
- Never carry out any repair on the machine if someone is sitting on the operator's seat, except if they are certified operators to assist in the operation to be carried out.
- Never operate the machine or use attachments from a place other than sitting at 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.
- Disconnect the batteries and label all controls to warn that the tractor is being serviced. Block the machine and all equipment which should be raised.
- Never check or fill fuel tanks and accumulator batteries, nor use starting liquid if you are smoking or near open flames as such fluids are flammable.
- Brakes are inoperative when they are manually released for maintenance purposes. In such cases, the machine should be kept constantly under control using blocks or similar devices.
- The fuel filling gun should remain always in contact with the filler neck. Maintain this contact until the fuel stops flowing into the tank to avoid possible sparks due to static electricity buildup.
- Use exclusively specified towing points for towing the tractor. Connect parts carefully. Ensure that foreseen pins and/or locks are steadily fixed before applying traction. Do not stop near towing bars, cables or chains working under load.

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- To transfer a failed tractor, use a trailer or a low loading platform trolley if available.
- To load and unload the machine from the transportation mean, select a flat area providing a firm support to the trailer or truck wheels. Firmly tie the machine to the truck or trailer platform and block wheels as required by the forwarder.
- For electrical heaters, battery-chargers and similar equipment use exclusive auxiliary power supplies with a efficient ground to avoid electrical shock hazard.
- Always use lifting equipment and similar of appropriate capacity to lift or move heavy components.
- Pay special attention to bystanders.
- Never pour gasoline or diesel oil into open, wide and low containers.
- Never use gasoline, diesel oil or other flammable liquids as cleaning agents. Use nonflammable nontoxic proprietary solvents.
- Wear protection goggles with side guards when cleaning parts using compressed air.
- Do not exceed a pressure of **2.1 bar (30.45 psi)**, in accordance with local regulations.
- Do not run the engine in a closed building without proper ventilation.
- Do not smoke, use open flames, cause sparks in the nearby area when filling fuel or handling highly flammable liquids.
- Do not use flames as light sources when working on a machine or checking for leaks.
- Move with caution when working under a tractor, and also on or near a tractor. Wear proper safety accessories: helmets, goggles and special footwear.
- During checks which should be carried out with the engine running, ask an assistant to seat at the operator's seat and keep the service technician under visual control at any moment.
- In case of operations outside the workshop, drive the tractor to a flat area and block it. If working on an incline cannot be avoided, first block the tractor carefully. Move it to a flat area as soon as possible with a certain extent of safety.
- Ruined or plied cables and chains are unreliable. Do not use them for lifting or trailing. Always handle them wearing gloves of proper thickness.
- Chains should always be safely fastened. Ensure that fastening device is strong enough to hold the load foreseen. No persons should stop near the fastening point, trailing chains or cables.
- The working area should be always kept CLEAN and DRY. Immediately clean any spillage of water or oil.
- Do not pile up grease or oil soaked rags, as they constitute a great fire hazard. Always place them into a metal container. Before starting the tractor or its attachments, check, adjust and block the operator's seat. Also ensure that there are no persons within the tractor or attachment operating range.
- Do not keep into your pockets any object which might fall unobserved into the tractor's inner compartments.
- Whenever there is the possibility of being reached by ejected metal parts or similar, use protection eye mask or goggles with side guards, helmets, special footwear and heavy gloves.
- Wear suitable protection such as tinted eye protection, helmets, special clothing, gloves and footwear whenever it is necessary to carry out welding procedures. All persons standing in the vicinity of the welding process should wear tinted eye protection. NEVER LOOK AT THE WELDING ARC IF YOUR EYES ARE NOT SUITABLY PROTECTED.
- Metal cables with the use get frayed. Always wear adequate protections (heavy gloves, eye protection, etc.)
- Handle all parts with the greatest caution. Keep your hands and fingers far from gaps, moving gears and similar. Always use approved protective equipment, such as eye protection, heavy gloves and protective footwear.

Start up

- Never run the engine in confined spaces which are not equipped with adequate ventilation for exhaust gas extraction.
- Never bring your head, body, arms, legs, feet, hands, fingers near fans or rotating belts.



SERVICE MANUAL

Engine

Farmall® 105A

Farmall® 115A

Farmall® 85A

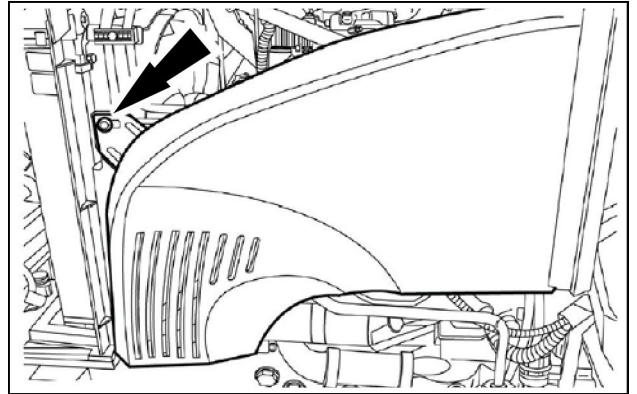
Farmall® 95A

Diesel Particulate Filters (DPF) - Remove

1. Raise the bonnet, disconnect the headlights connector from the engine cable. Remove the hood. See **Trailer brake pneumatic control - Remove (33.224)**.

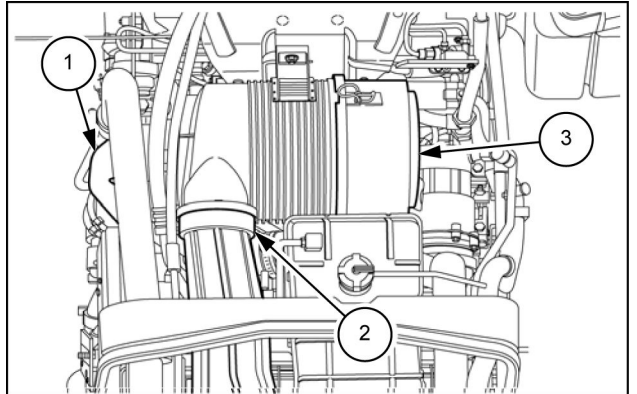
NOTE: Remove the hinge from the support leaving this under the bonnet.

2. Remove the side panels on both sides.



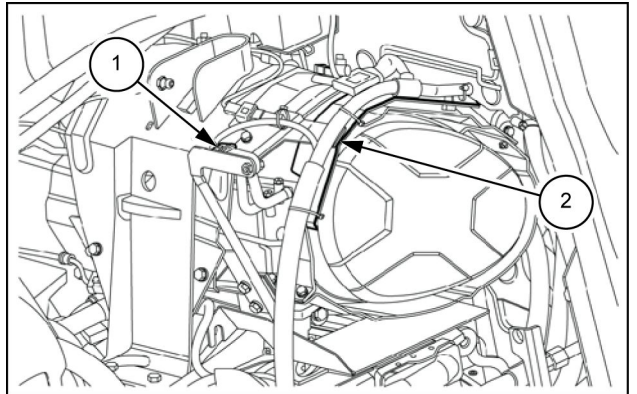
ANIL15TRO1943AB 1

3. Loosen the clamp of the connection pipe (1) between the air cleaner (3) and turbine, unscrew the retaining screws of the air intake pipe (2) then slide it towards the front so that it comes out of the filter inlet. Then, after disconnecting the clogged filter sensor connection, remove the filter from the bonnet support.



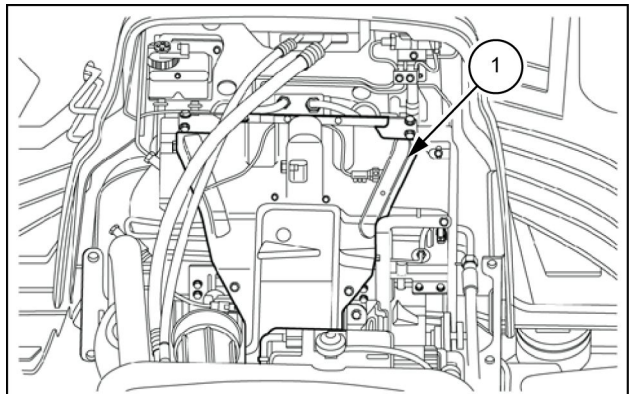
ANIL15TRO2012AB 2

4. Disconnect the connectors on the pressure differential sensor (1), on the two temperature sensors, and on the lambda sensor. Loosen the system heat shield (2). Position everything on the left-hand side of the engine.



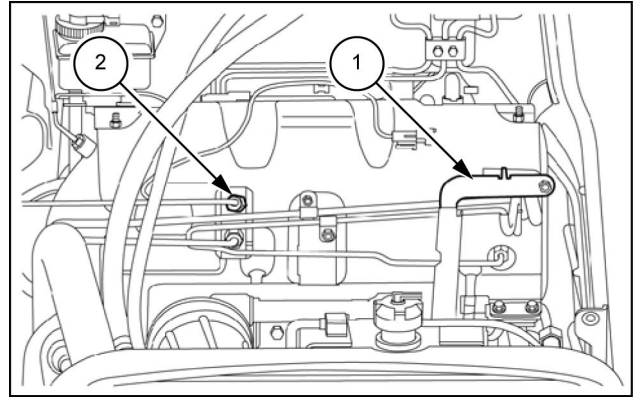
ANIL15TRO2016AB 3

5. Remove the bonnet support (1).



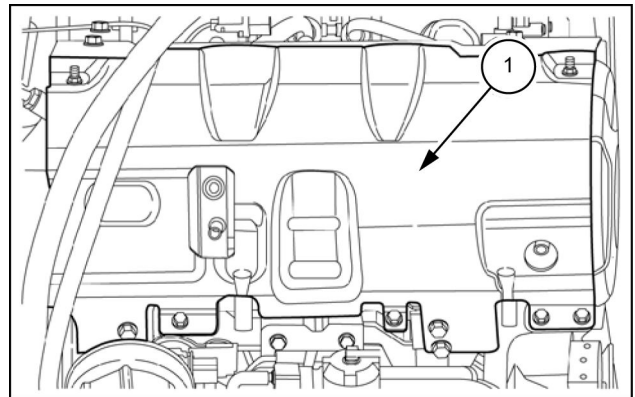
ANIL15TRO2010AB 4

6. Unscrew the pressure differential unit (1) with its pipes, brackets, clamps and sensor.
7. Unscrew the temperature sensor (2).



ANIL15TRO1996AB 5

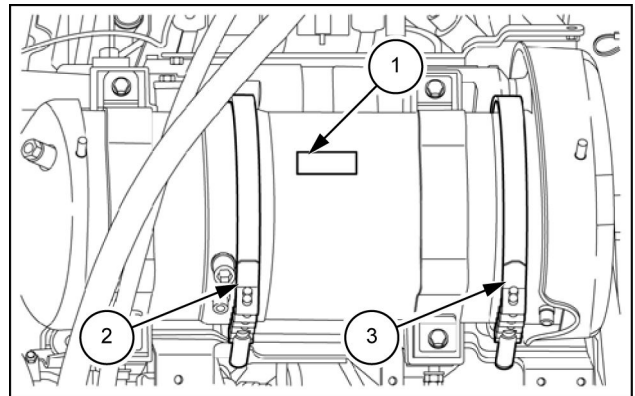
8. Unscrew the filter's upper heat shield (1), the lower one stays in position.



ANIL15TRO1997AB 6

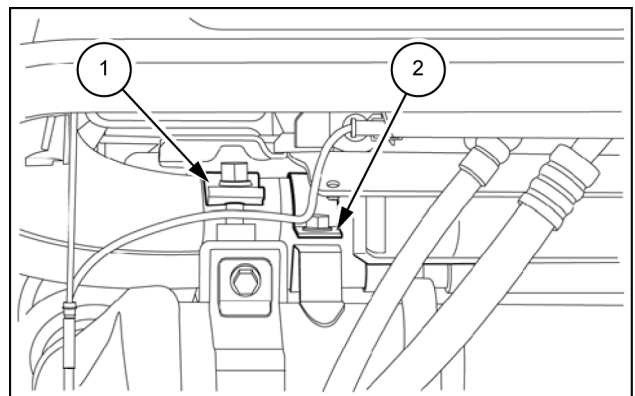
9. Mark the filter as shown in the figure.

NOTE: The right-hand marking must include the first part of the filter, the central part of the filter (1), and the clamp that joins them (2). The left-hand marking will include the central part, the left-hand part, and the clamp (3).



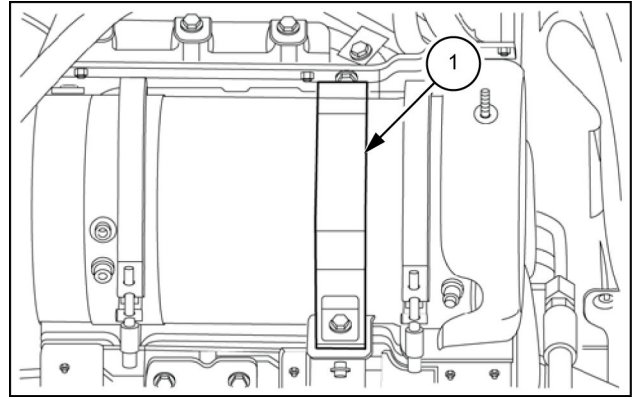
ANIL15TRO1998AB 7

10. Loosen the clamp (1) joining the muffler to the DPF outlet pipe. The clamp (2) that keeps the outlet tube of the filter parallel to the first section of the filter.



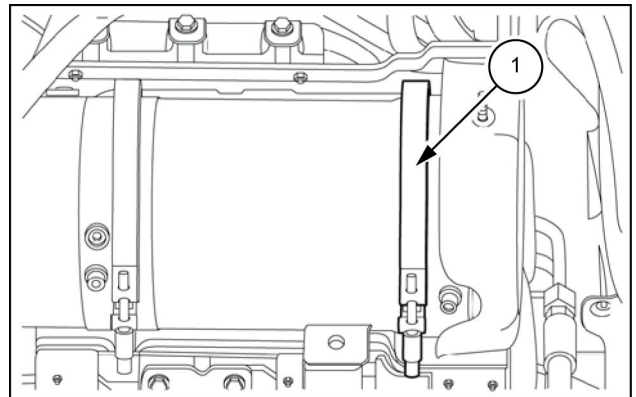
ANIL15TRO1999AB 8

11. Remove the left-hand clamp (1) fastening the filter to the machine.



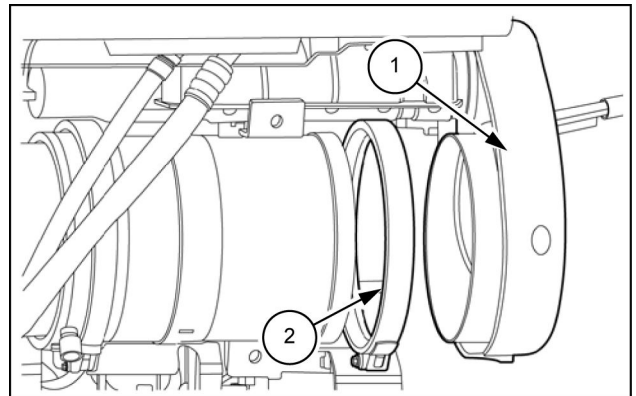
ANIL15TRO2000AB 9

12. Loosen the left-hand clamp (1) fastening the middle and left parts of the filter.



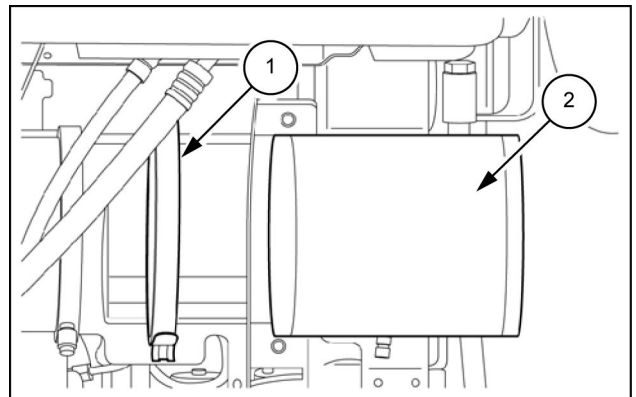
ANIL15TRO2001AB 10

13. Remove the left-hand part of the filter (1), with the clamp (2), retrieving the copper seal.



ANIL15TRO2002AB 11

14. Then, after you have loosened the right-hand clamp (1), remove the central part of the filter (2).



ANIL15TRO2003AB 12



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