

SERVICE MANUAL

Boomer™ 54D CVT Tier 4B (final) Compact Tractor

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October 2016





SERVICE MANUAL

**Boomer™ 54D CVT TIER 4B (FINAL), Cab
Boomer™ 54D CVT TIER 4B (FINAL), ROPS**

Link Product / Engine

Product	Market Product	Engine
Boomer™ 54D CVT TIER 4B (FINAL), Cab	Europe	R 753 IE4
Boomer™ 54D CVT TIER 4B (FINAL), ROPS	Europe	R 753 IE4

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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 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.

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



SERVICE MANUAL

Engine

**Boomer™ 54D CVT TIER 4B (FINAL), Cab
Boomer™ 54D CVT TIER 4B (FINAL), ROPS**

Engine and crankcase - Remove : Separating the tractor at the engine - front transmission box

⚠ WARNING

Heavy object!
ALWAYS use a hoist or get assistance to lift the component.
Failure to comply could result in death or serious injury.

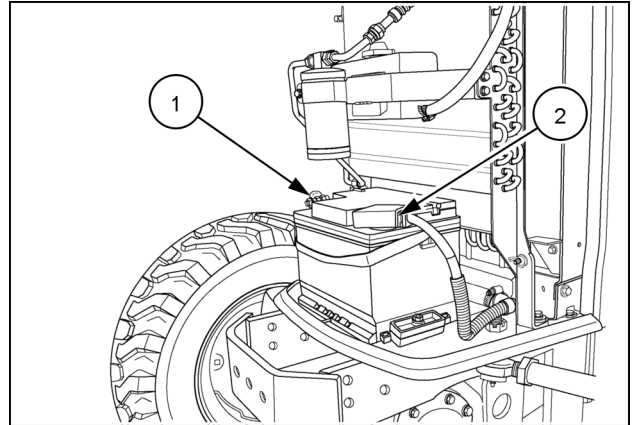
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NOTICE: Drain the engine coolant. The capacity of the cooling system is 9 L (2 US gal)

NOTICE: Drain the engine crankcase oil. The capacity of the crankcase is 6.3 L (2 US gal)

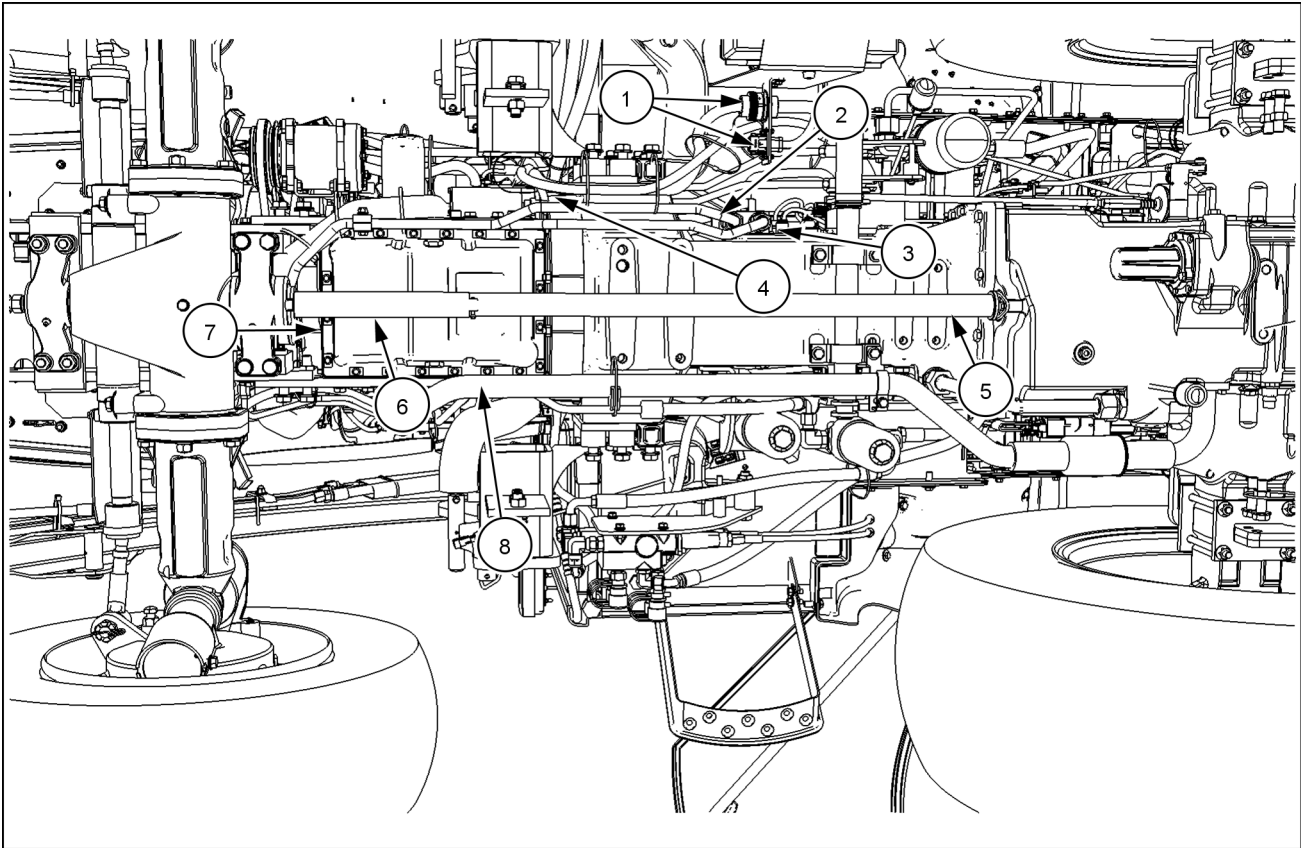
NOTE: To separate the tractor between the engine and the front transmission box, the hood and cab must be removed. To accomplish this, see "Platform" Section 90, for removal procedures.

1. Remove the negative (-) battery cable, **(1)**, and the positive (+) battery cable, **(2)**, from the battery.
2. Remove the engine hood. (See **Hood - Remove (90.100)**.)



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NOTE: See **Cab frame - Remove (90.150)** before proceeding.



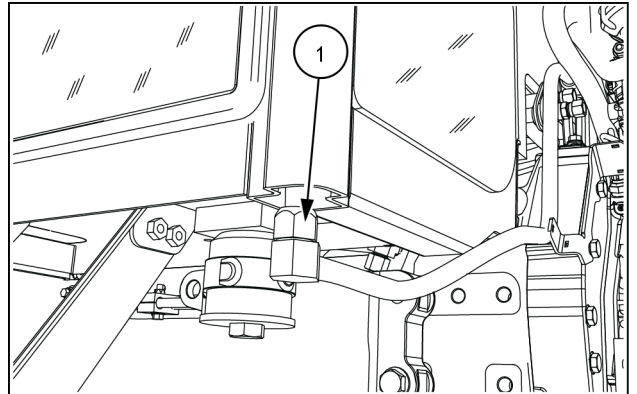
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Components located underneath the tractor that must be disconnected for engine removal

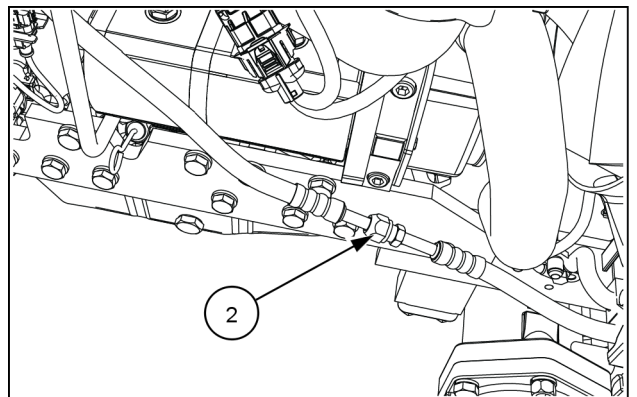
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|--------------------------------|------------------------------------|--|---------------------------------------|
| (1) Cab wiring harness | (3) Transmission cooler outlet | (5) Rear Front Wheel Drive (FWD) shaft shield | (7) FWD shaft |
| (2) Transmission cooler outlet | (4) Wiring harness at the firewall | (6) Front Front Wheel Drive (FWD) shaft shield | (8) Oil supply pipe to hydraulic pump |

3. Evacuate the air conditioning system. (See **Air conditioning - Service instruction - Evacuating the Refrigerant (50.200)**.)
4. Disconnect the air conditioning refrigerant lines, see figure 3, (1) and figure 4, (2).

NOTE: Location (1) should have been disconnected at the cab removal.

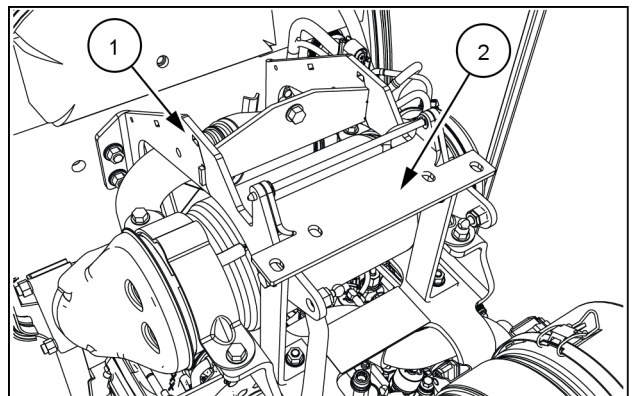


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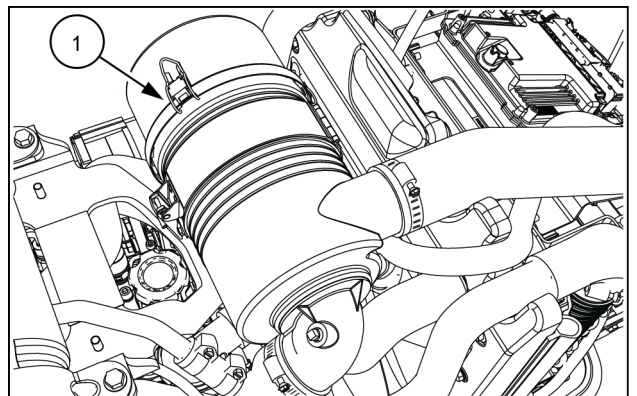
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5. Remove the hood mounting bracket (1), and hinge (2).



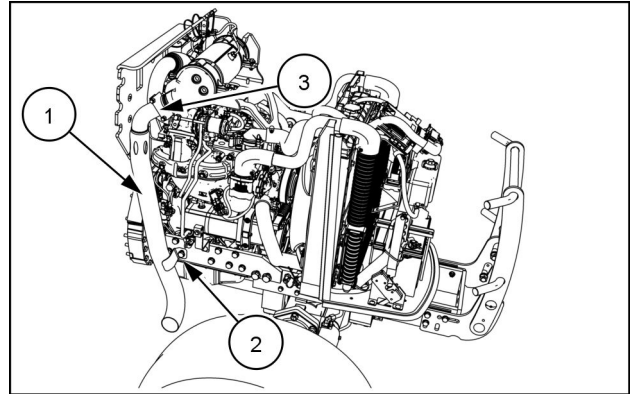
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6. Remove the air cleaner (1), see **Air cleaner - Remove (10.202)**.



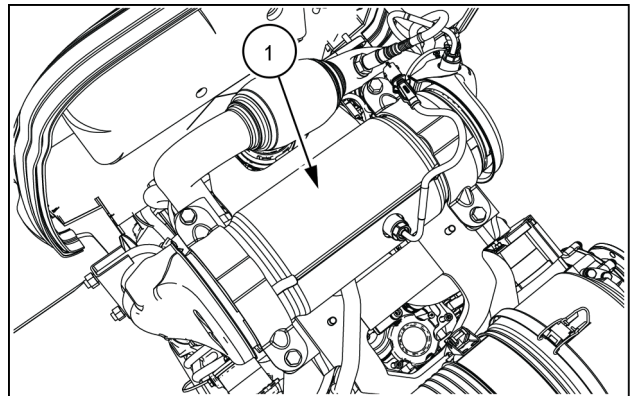
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7. Remove the exhaust pipe (1).
8. Remove the M12 x 40, 10.9 bolt (2).
9. Remove the clamp (3).



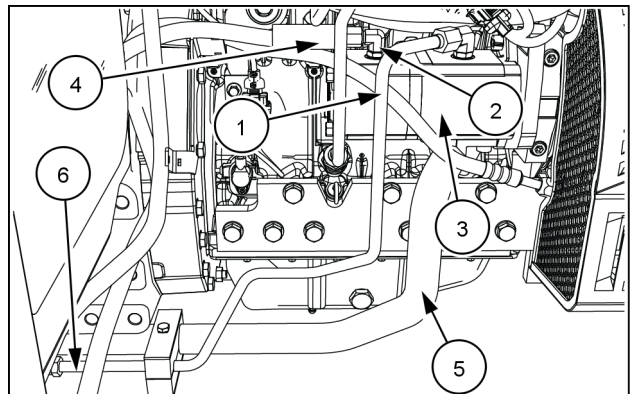
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10. Remove the Particulate Matter Catalyst (PM CAT) (1), see **Particulate Matter (PM) catalyst - Remove (10.501)**



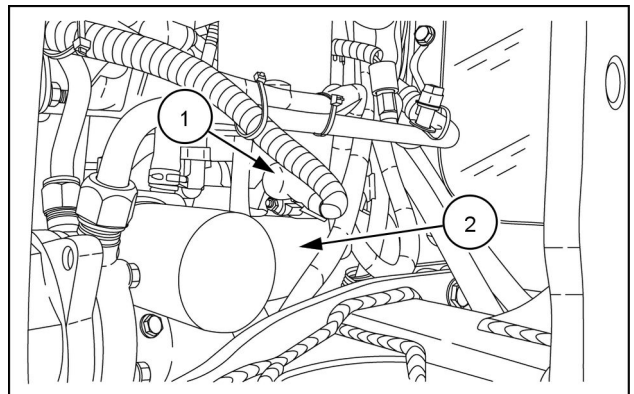
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11. Disconnect the power steering return hose, (1), from the hydraulic system inlet tube, (2). Remove the hydraulic system inlet tube, (2), from the hydraulic pump, (3).
12. Remove the hydraulic system oil supply tube, (5), to the hydraulic pump, (3).
13. Disconnect the steering lines (6).



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14. Disconnect the wire harness, (1), from the starter, (2).



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Suggest:

If the above button click is invalid.

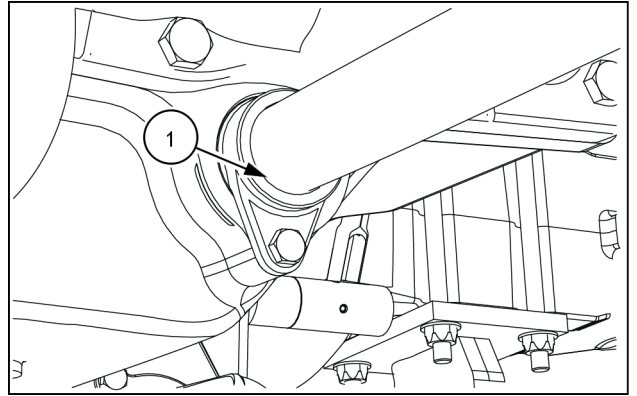
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to download the complete manual.

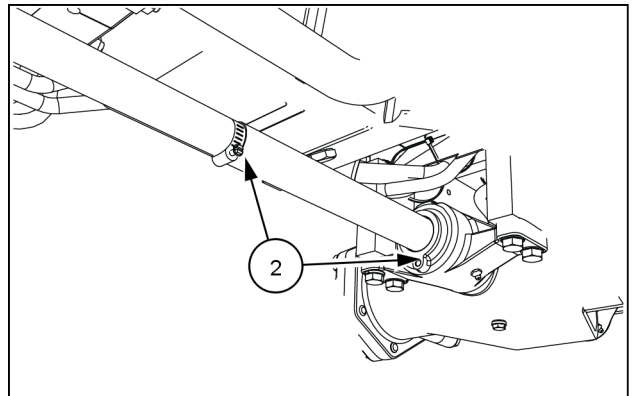
Thank you so much for reading

15. Remove the Front Wheel Drive (FWD) driveshaft shield at the FWD axle **(1)**.



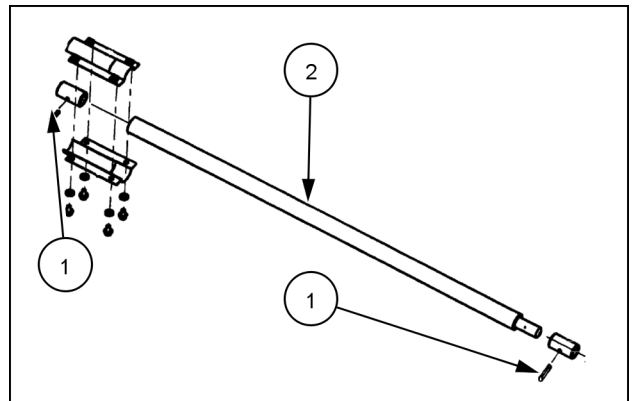
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16. Remove the FWD driveshaft shield at the transmission **(2)**.



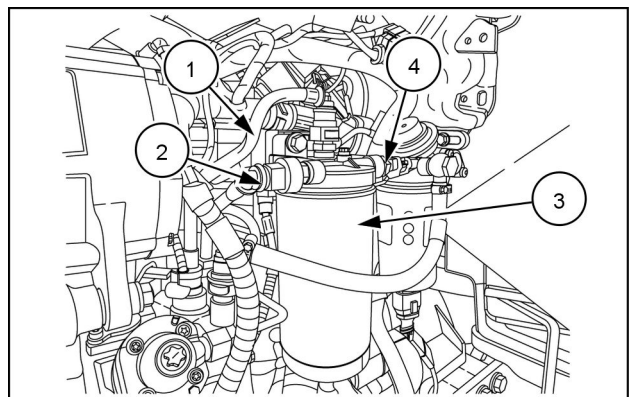
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17. Remove the roll pins, **(1)**, from the front and rear of the FWD driveshaft, **(2)**, and remove the driveshaft from the tractor.



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18. Remove the fuel supply, **(1)**, and return, **(2)**, lines from the fuel filter, **(3)**.



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