

SERVICE MANUAL

Boomer™ 33
Boomer™ 37
Tier 4B (final)
Compact Tractor

Part number 47941899

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March 2016

Replaces part number 47700453





SERVICE MANUAL

Boomer™ 33
Boomer™ 37 TIER 4B (FINAL), Cab
Boomer™ 37 TIER 4B (FINAL), ROPS

Link Product / Engine

Product	Market Product	Engine
Boomer™ 33	North America	N843T-F-24
Boomer™ 37 TIER 4B (FINAL), ROPS	North America	N843LT-F-27
Boomer™ 37 TIER 4B (FINAL), Cab	North America	N843LT-F-27

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INTRODUCTION

Foreword

Boomer™ 33	NA
Boomer™ 37	NA

This repair manual provides the technical information needed to properly service the NEW HOLLAND models Boomer 33 and 37 tractors. Use this manual in conjunction with the operator's manual for complete operation, adjustment, and maintenance information

On NEW HOLLAND equipment, left and right are determined by standing behind the unit, looking in the direction of travel.

NOTICE: Emissions sensors in the exhaust system and on the vehicle may be damaged by vibrations from use of impact wrenches or hammers during service work. Avoid using these tools when servicing components close to the sensors. Remove the sensors with care if use of these tools cannot be avoided.

Safety rules

Boomer™ 33	NA
Boomer™ 37	NA

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

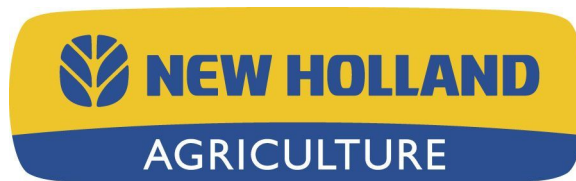
NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

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.



SERVICE MANUAL

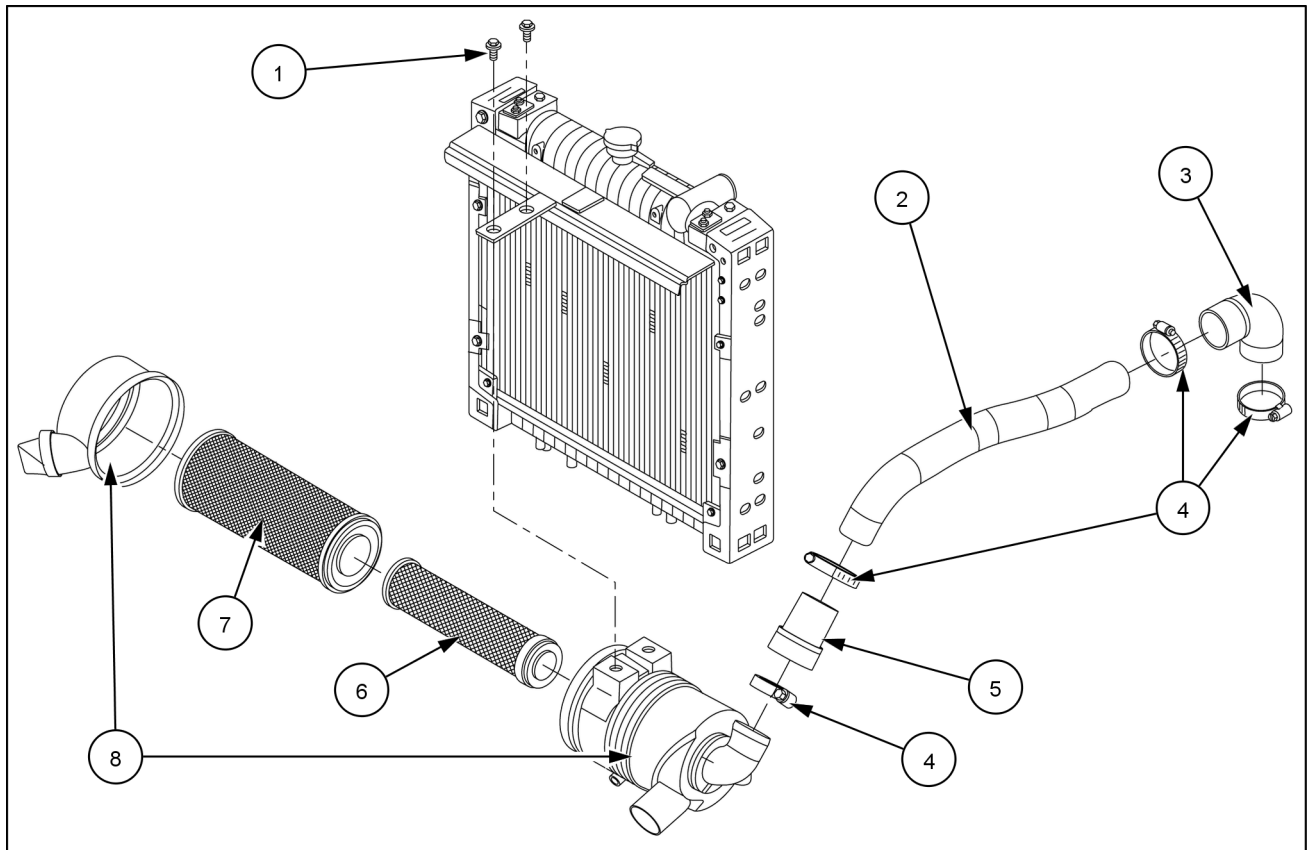
Engine

Boomer™ 33

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Engine and crankcase - Exploded view – Air cleaner



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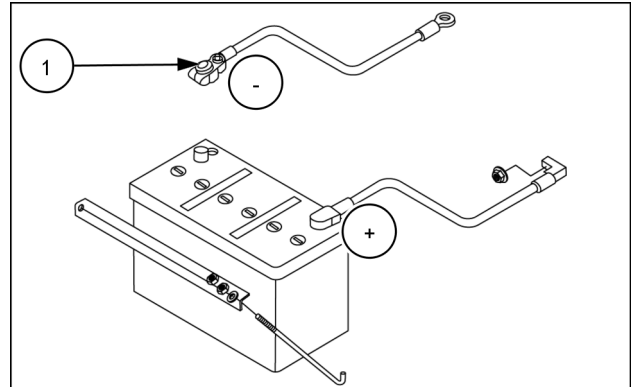
- (1) M8 x 20 Hex bolt
- (2) Air intake pipe
- (3) 90 ° Air intake hose
- (4) Hose clamps

- (5) Air intake adapter hose
- (6) Safety filter
- (7) Primary element
- (8) 6 in Air cleaner housing

Engine - Remove

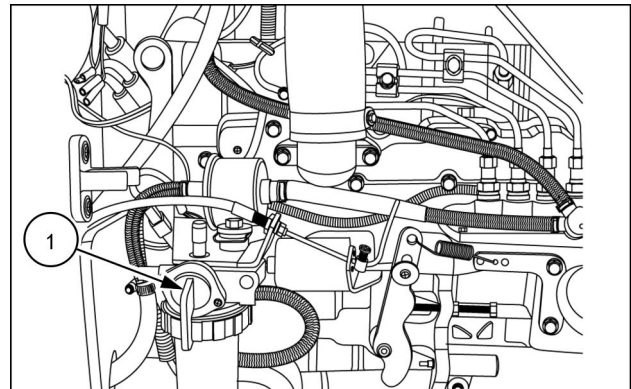
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1. Chock all four wheels so that the tractor cannot move.
2. Disconnect the negative (-) battery cable **(1)**.



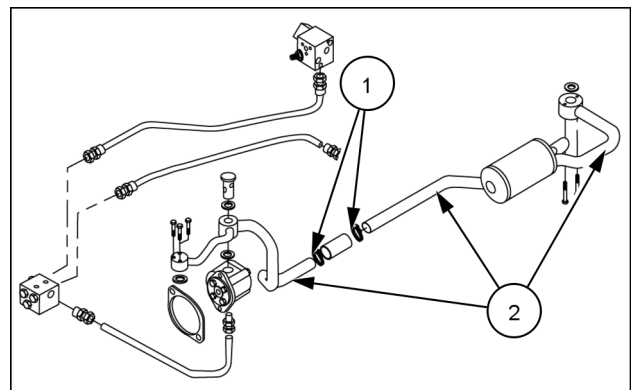
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3. Disconnect the headlight wire harness.
4. Remove the hood. (See **Hood - Remove (90.100)** **Hood - Remove (90.100)**.)
5. Disconnect the main and engine wire harnesses.
6. Turn off fuel supply at the filter **(1)**, and then disconnect fuel hose.



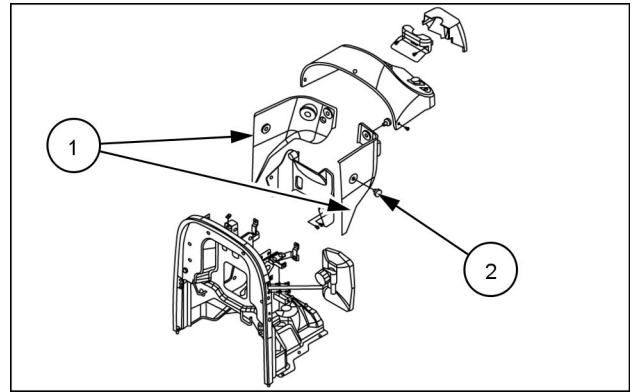
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7. Position a drain pan to collect drain oil and unfasten clamps **(1)**.
8. Disassemble the suction tube assembly **(2)**.



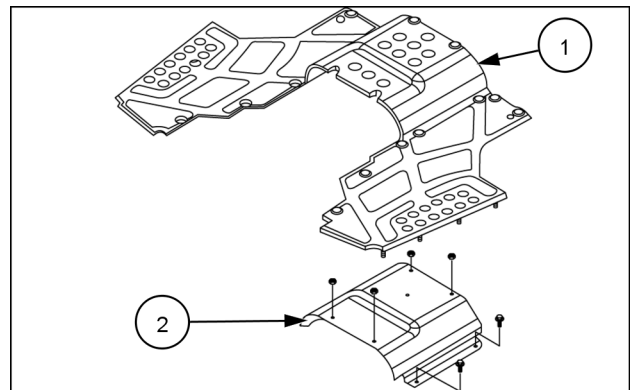
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9. Unfasten the knobs **(2)** on both rear cover halves **(1)** and remove.



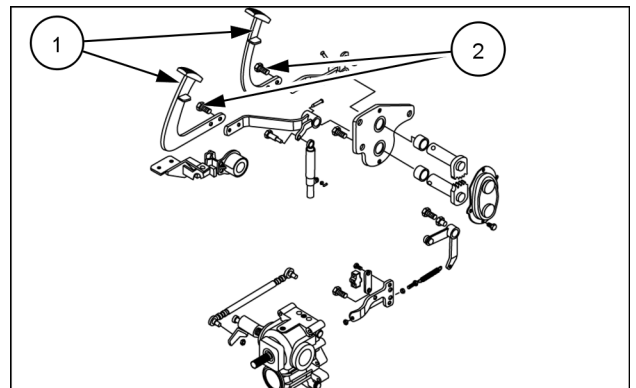
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10. Remove mat **(1)**.
11. Unscrew the M8 nuts and bolts and remove cover **(2)**.



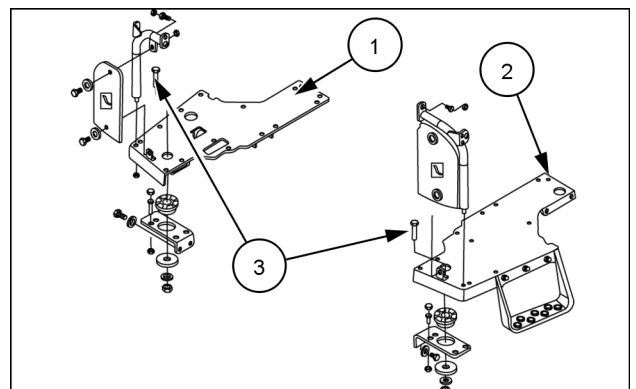
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12. Unfasten bolts **(2)** and remove pedals **(1)**.



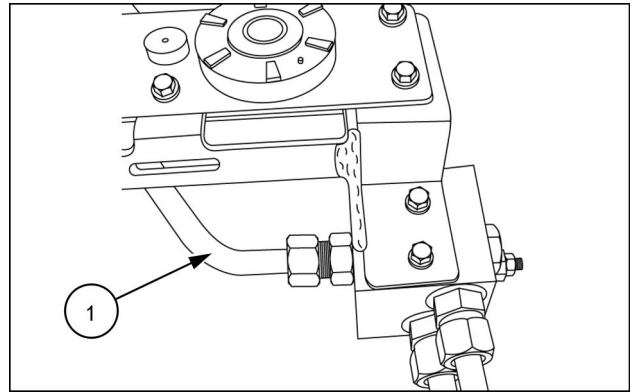
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13. Unfasten seven M8 and one M24 bolts **(3)**.
14. Remove the right-hand step **(1)** and left-hand step **(2)**.



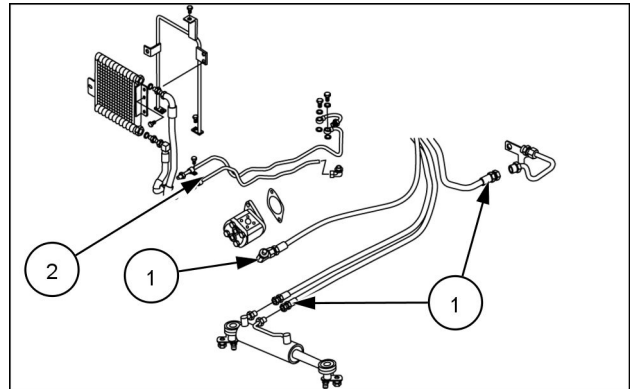
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15. Disconnect the front high pressure tube **(1)**.



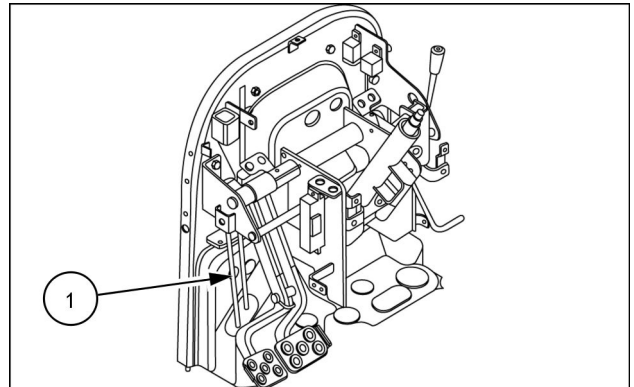
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16. Disconnect the steering hoses **(1)** and tubes **(2)**.



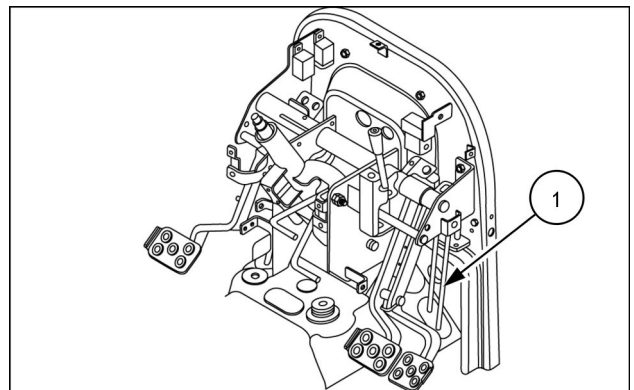
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17. Disconnect the brake rod **(1)**; Hydrostatic or gear transmission.



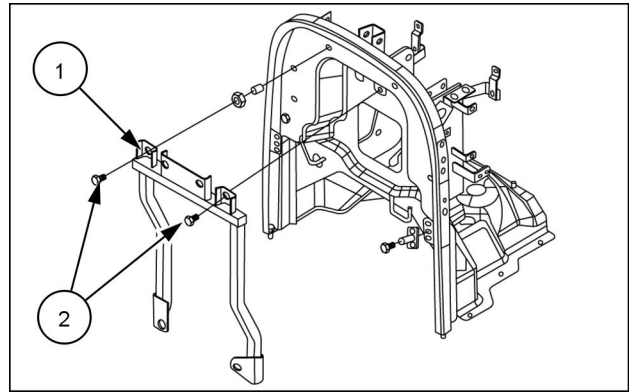
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18. Disconnect the brake rod **(1)** on the right-hand side and clutch rod on the left-hand side; gear transmission only.



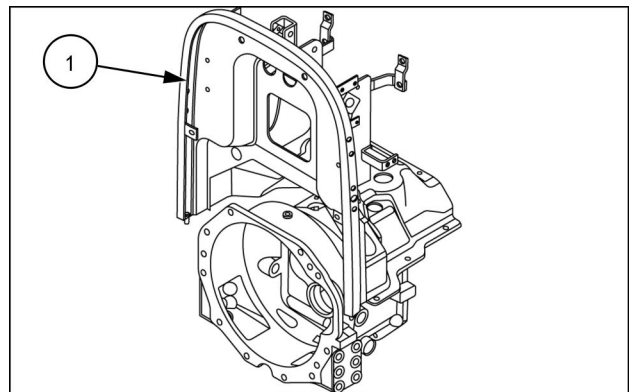
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19. Unfasten bolts (2) securing the frame (1) to the fire-wall.
20. Remove the frame (2).



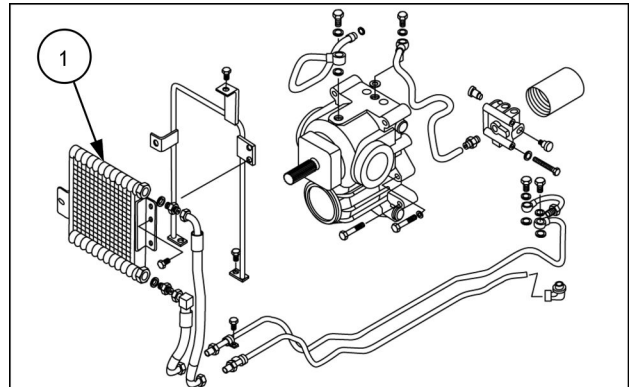
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21. Use a hoist to carefully remove the firewall (1).



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22. Disconnect and remove the oil cooler (1) and related parts, as shown in figure 14.

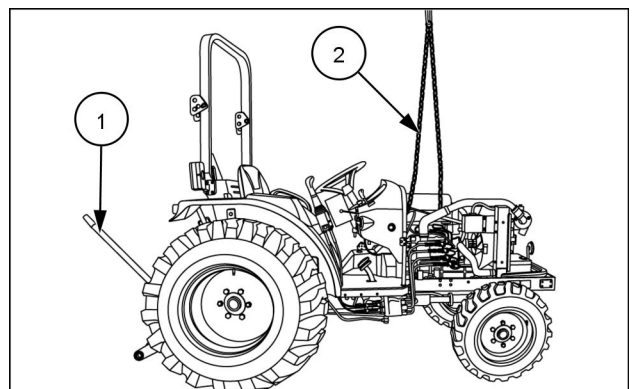


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23. Attach a chain sling (2) to the two hoist eyes on the engine.

NOTE: One is located on the left-hand side above the exhaust manifold, the other on the right-hand side to the rear of the injector rail.

24. Attach a suitable hoist to the chain sling and secure the tractor for separation.
25. Roll a floor jack (1) under the tractor from the rear of the tractor, and place under the clutch housing. Raise the jack enough to support the drive train.



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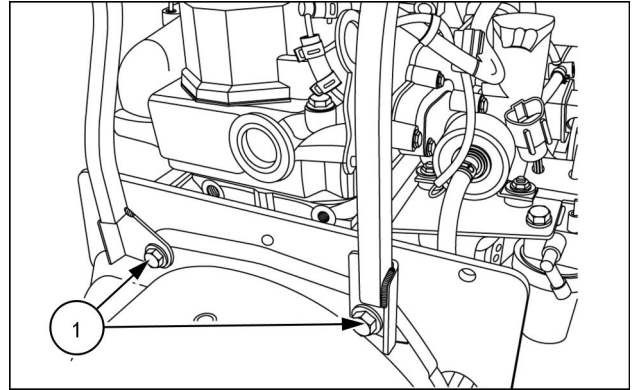
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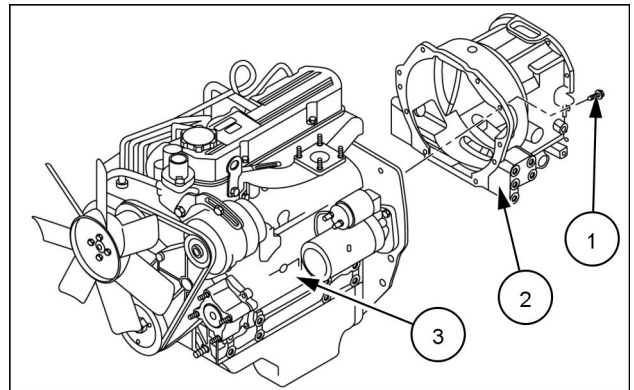
26. Unfasten eight M12 bolts (1) holding the engine (3) and transmission (2), while checking front wheel drive shaft for separation from the transmission.

NOTE: The hoist and/or the floor jack may need to be raised or lowered to allow the separation of the engine from the clutch housing.

27. Use the floor jack for support and carefully roll the drive train away from the engine.



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