

# SERVICE MANUAL

**Boomer™ 41**  
**Boomer™ 47**  
**Tier 4B (final)**  
Compact Tractor

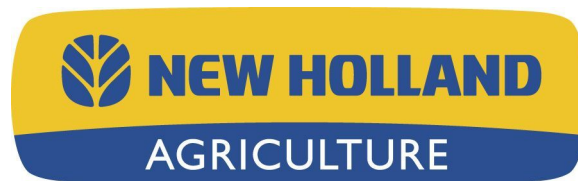
**Part number 47941902**

2<sup>nd</sup> edition English

March 2016

*Replaces part number 47700457*





## **SERVICE MANUAL**

**Boomer™ 41 TIER 4B (FINAL), ROPS**  
**Boomer™ 41 TIER 4B (FINAL), Cab**  
**Boomer™ 47 TIER 4B (FINAL), ROPS**  
**Boomer™ 47 TIER 4B (FINAL), Cab**

# Link Product / Engine

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<b>Product</b>	<b>Market Product</b>	<b>Engine</b>
Boomer™ 41 TIER 4B (FINAL), ROPS	North America	N844L-F-30
Boomer™ 41 TIER 4B (FINAL), Cab	North America	N844L-F-30
Boomer™ 47 TIER 4B (FINAL), ROPS	North America	N844L-F-34
Boomer™ 47 TIER 4B (FINAL), Cab	North America	N844L-F-34

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# INTRODUCTION

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## Foreword

Boomer™ 41	NA
Boomer™ 47	NA

This repair manual provides the technical information needed to properly service the NEW HOLLAND models Boomer 41 and 47 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™ 41	NA
Boomer™ 47	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™ 41 TIER 4B (FINAL), ROPS**

**Boomer™ 41 TIER 4B (FINAL), Cab**

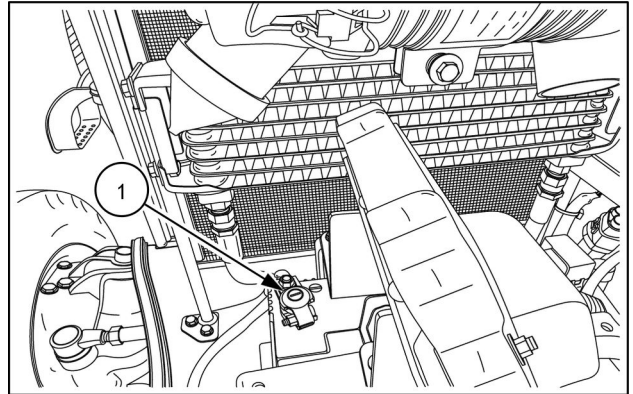
**Boomer™ 47 TIER 4B (FINAL), ROPS**

**Boomer™ 47 TIER 4B (FINAL), Cab**

## Engine - Remove

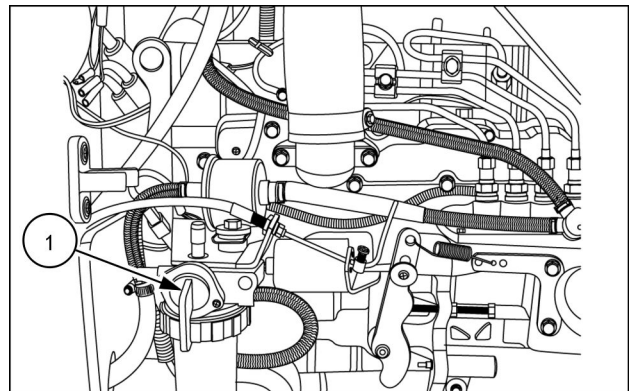
Boomer™ 41 TIER 4B (FINAL), ROPS	NA
Boomer™ 47 TIER 4B (FINAL), ROPS	NA

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



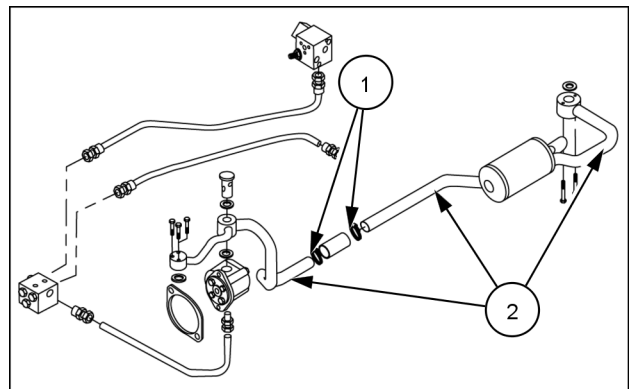
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3. Disconnect headlight wire harness.
4. See **Hood - Remove (90.100)**.
5. Disconnect the main and engine wire harnesses.
6. Turn off fuel supply at the filter **(1)**, and then disconnect fuel hose.



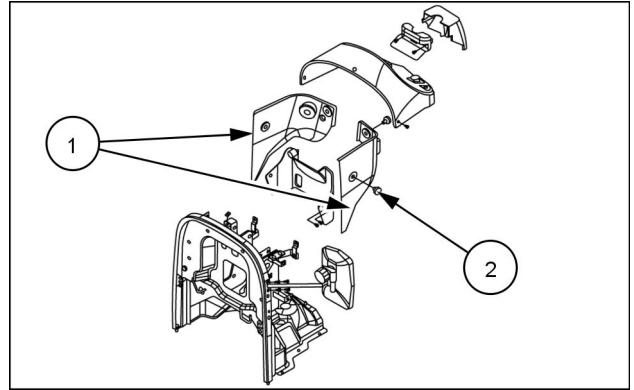
93102239 2

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



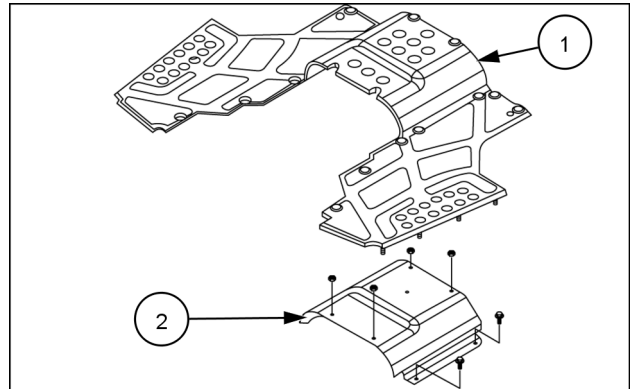
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9. Remove the knobs **(2)** on both rear cover halves **(1)** and remove.



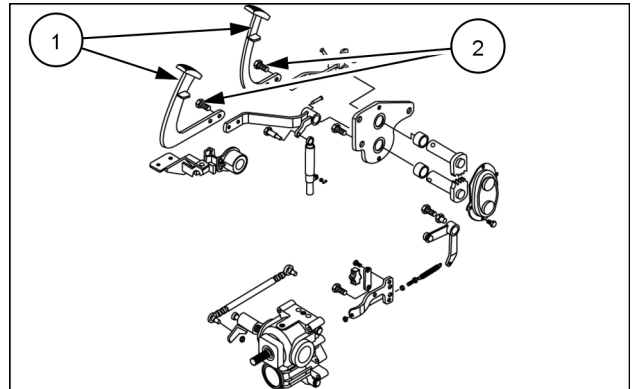
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10. Remove the mat **(1)**.  
11. Remove the M8 nuts and bolts and remove cover **(2)**.



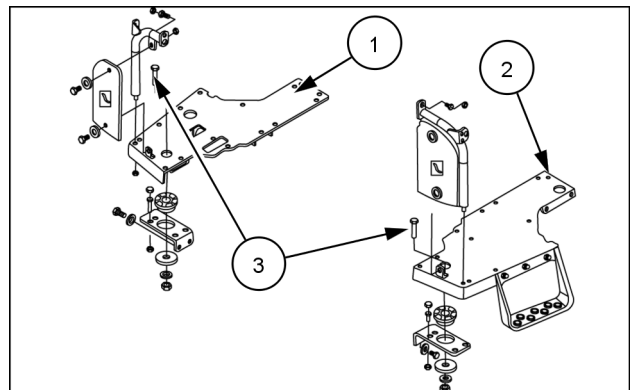
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12. Remove the bolts **(2)** and remove the pedals **(1)**.



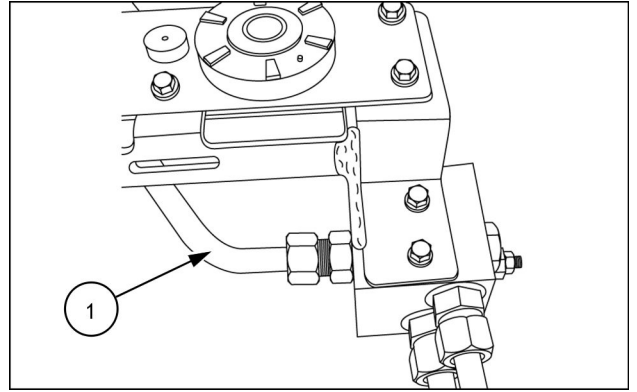
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13. Remove the seven M8 and one M24 bolts **(3)**.  
14. Remove right-hand step **(1)** and left-hand step **(2)**.



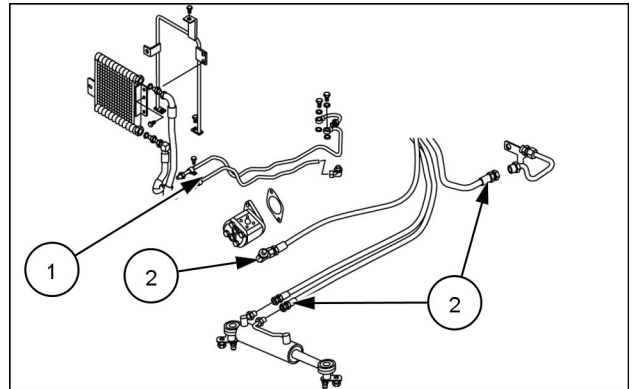
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15. Disconnect the front high pressure tube (1).



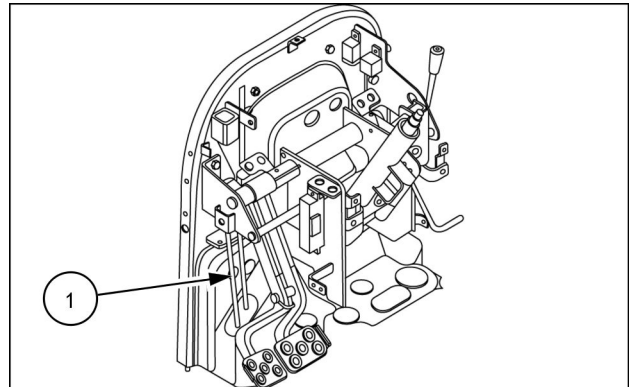
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16. Disconnect steering hoses (2) and tubes (1).



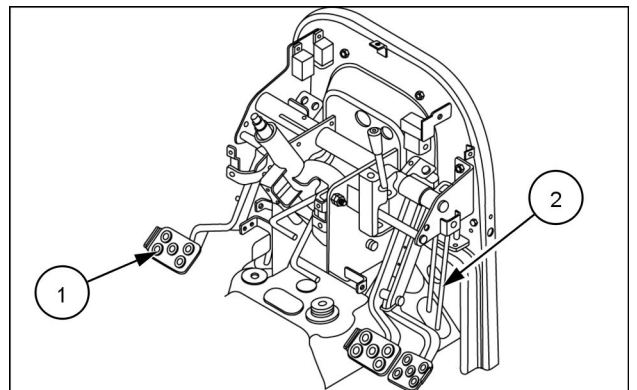
93102246 9

17. Disconnect brake the rod (1), Hydrostatic Transmission (HST) or gear transmission.



93102247 10

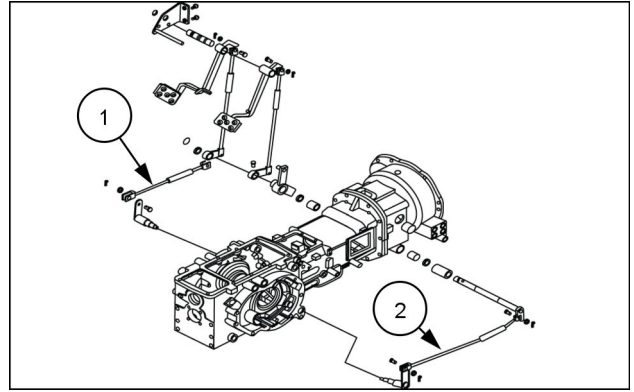
18. Disconnect brake rod (2) on the right-hand side and clutch rod on the left-hand side; gear transmission only.



93102248 11

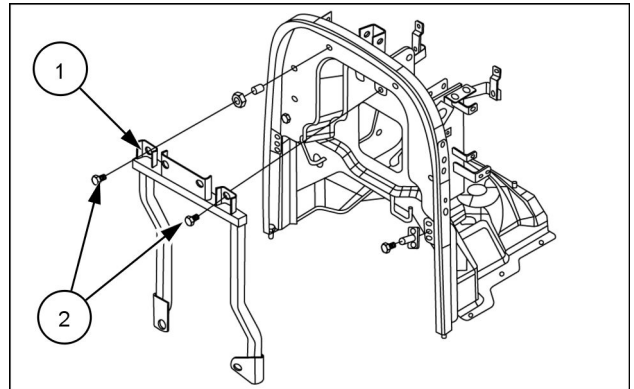
(1) Clutch pedal

1. Disassemble the brake rods linkage **(1)** and **(2)** as shown.



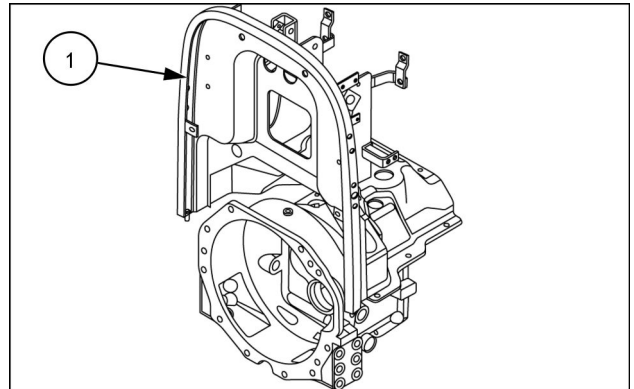
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2. Remove bolts **(2)** securing the frame **(1)** to the fire wall, and remove frame.



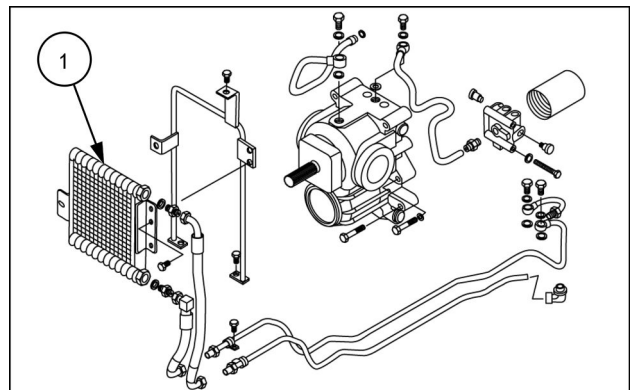
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3. Remove the fire wall **(1)** with the aid of a hoist.



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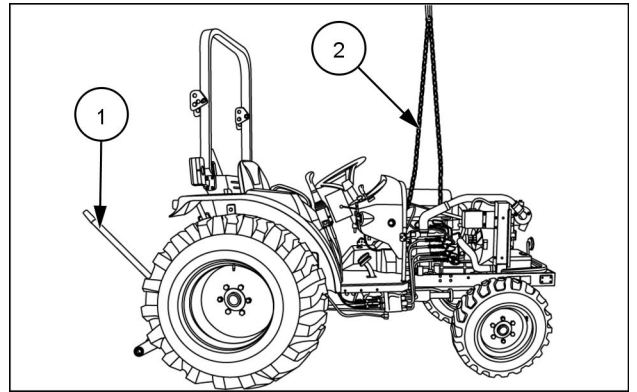
4. Disconnect and remove the oil cooler **(1)** and related parts, as shown in figure 15.



93102253 15

### Secure the tractor for separation:

1. Attach a chain sling (2) to the two hoist eyes on the engine: One located on the left-hand side above the exhaust manifold, the other on the right-hand side to the rear of the injector rail.
2. Attach a suitable hoist to the chain sling.
3. 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.

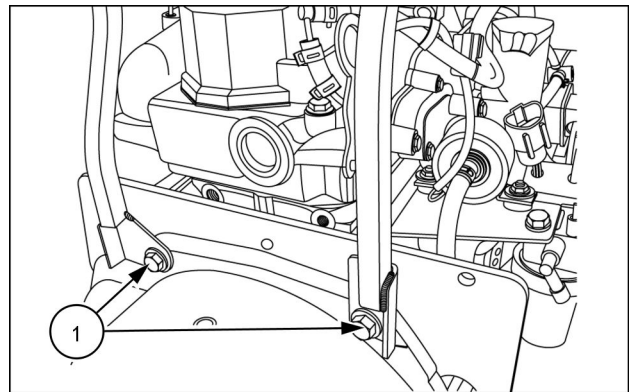


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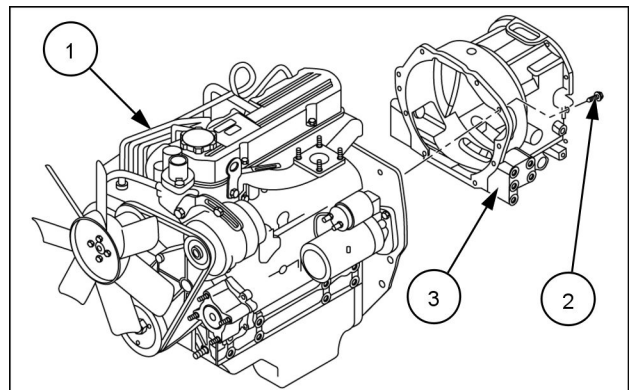
4. Remove eight M12 bolts (2) holding the engine (1) and transmission (3), while checking front wheel drive shaft for separation from the transmission.

**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.

5. Carefully roll the drive train away from the engine, using the floor jack for support.



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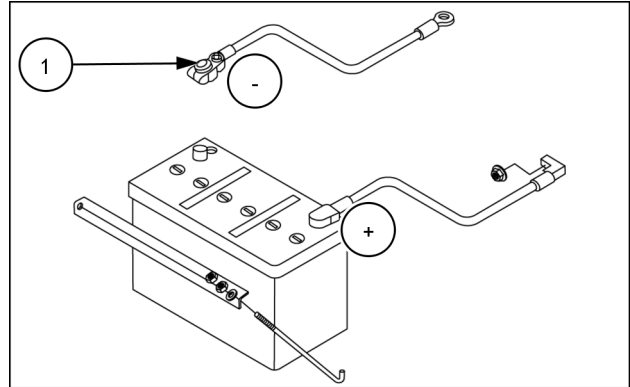
**Thank you so much for reading**

## Engine - Remove

Boomer™ 41 TIER 4B (FINAL), Cab	NA
Boomer™ 47 TIER 4B (FINAL), Cab	NA

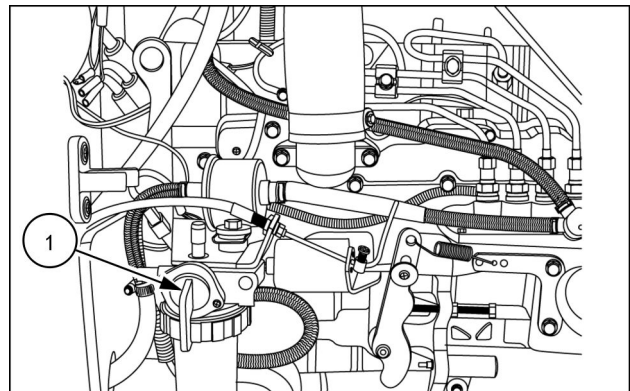
**NOTICE:** Prior to engine removal, the air conditioning system must be evacuated. ( See **Air conditioning - Service instruction - Evacuating the Refrigerant (50.200)**, and the A/C lines must be disconnected.

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



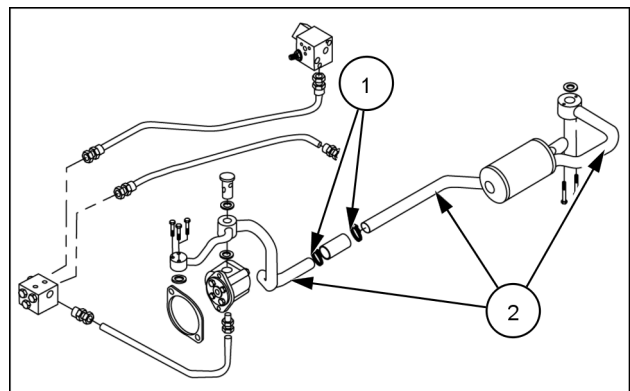
93102237 1

3. Disconnect the headlight wire harness.
4. See **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.



93102239 2

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



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