

# SERVICE MANUAL

**T5.110 Electro Command™**

**T5.120 Electro Command™**

**Tier 4B (final)**

**Tractor**

*PIN HLRT5120JHLO10006 and above*

**Part number 51487916**

1<sup>st</sup> edition English  
June 2018





## **SERVICE MANUAL**

**T5.110 Electro Command™ With 16x16 Semi-Powershift transmission**  
**T5.120 Electro Command™ With 16x16 Semi-Powershift transmission**  
**[HLRT5120JHLO10006 - ]**

## Link Product / Engine

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| Product                                                                                        | Market Product | Engine         |
|------------------------------------------------------------------------------------------------|----------------|----------------|
| T5.110 Electro Command™<br>With 16x16 Semi-Powershift<br>transmission                          | North America  | F5GFL413V*C001 |
| T5.120 Electro Command™ With<br>16x16 Semi-Powershift transmis-<br>sion [HLRT5120JHLO10006 - ] | North America  | F5GFL413U*C002 |

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# INTRODUCTION

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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.

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## 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

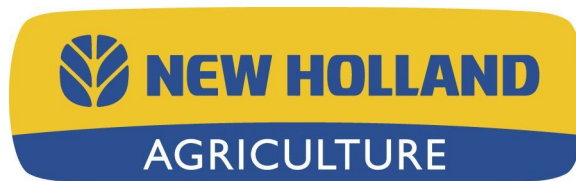
**NOTICE:** Notice indicates a situation that, if not avoided, could result in machine or property damage.

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.

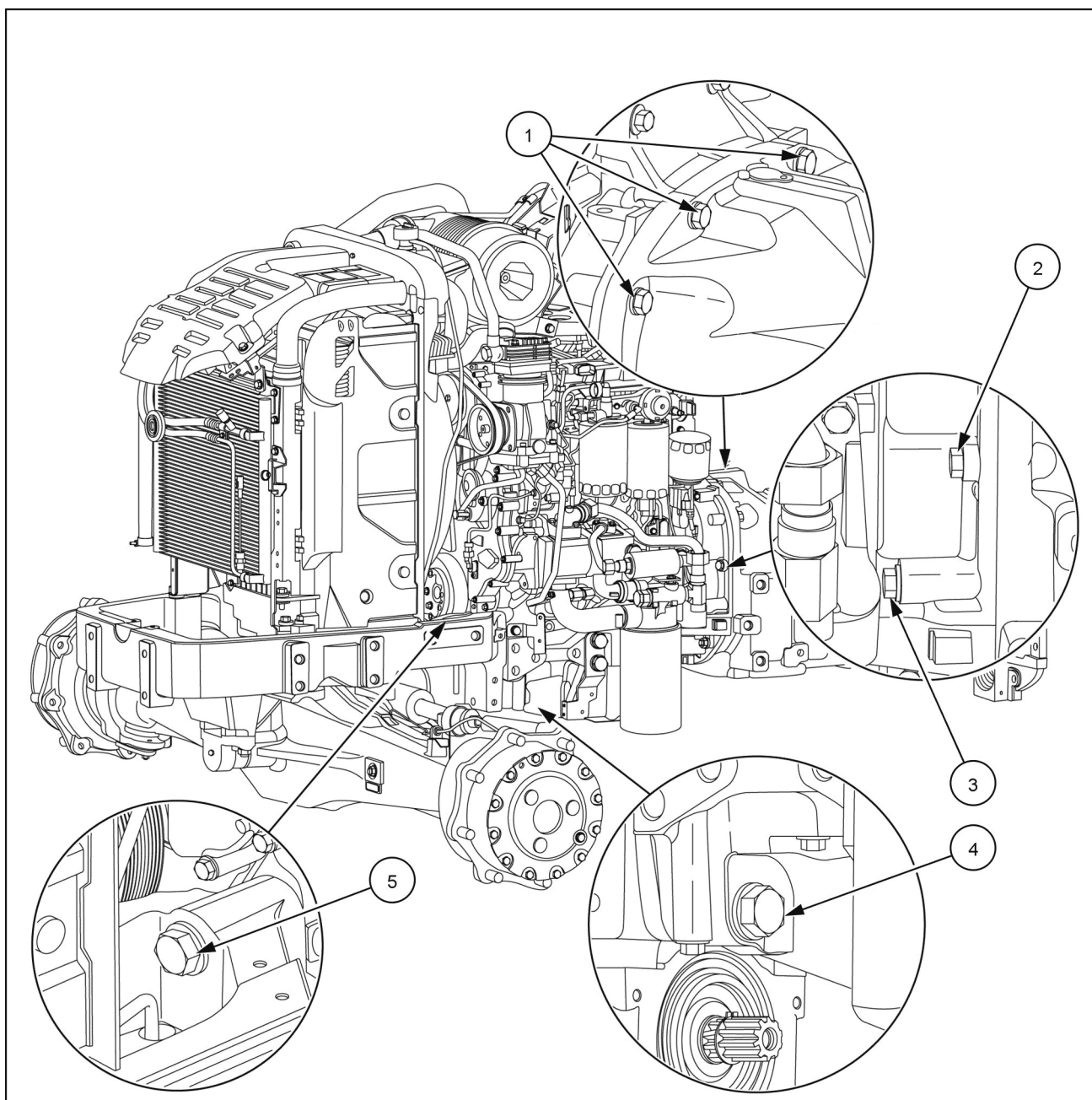


# **SERVICE MANUAL**

## **Engine**

**T5.110 Electro Command™ With 16x16 Semi-Powershift transmission**  
**T5.120 Electro Command™ With 16x16 Semi-Powershift transmission**  
**[HLRT5120JHLO10006 - ]**

## Engine - Torque



MOIL17TR00673GA 1

| Part to tighten                                      | Thread          | Tighten torque         |
|------------------------------------------------------|-----------------|------------------------|
| Bolt (5) securing the front axle to the engine block | M20 x 1.5 x 130 | 587 N·m (432.95 lb ft) |
| Bolt (4) securing the engine block to the front axle | M20 x 1.5 x 110 | 587 N·m (432.95 lb ft) |
| Bolt (1) securing the gearbox to the engine block    | M12 x 1.25 x 50 | 121 N·m (89.25 lb ft)  |
| Bolt (2) securing the engine block to the gearbox    | M12 x 1.25 x 50 | 121 N·m (89.25 lb ft)  |
| Bolt (3) securing the engine block to the gearbox    | M12 x 1.25 x 90 | 121 N·m (89.25 lb ft)  |

## Engine - Remove

### ⚠ WARNING

#### Heavy objects!

Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders. Failure to comply could result in death or serious injury.

W0398A

### ⚠ WARNING

#### Avoid injury!

Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.

Failure to comply could result in death or serious injury.

W0208A

#### Prior operation:

Hood - Remove (90.100).

Side panels - Remove (90.100).

Battery - Remove (55.302)

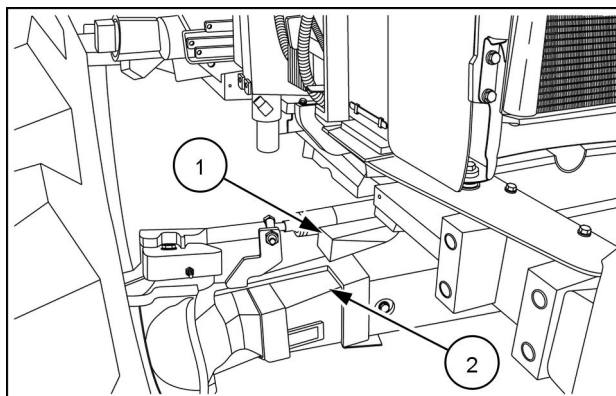
Fuel tank - Remove (10.216).

Air conditioning - Evacuate (50.200)

Selective Catalytic Reduction (SCR) muffler and catalyst - Remove (10.500) .

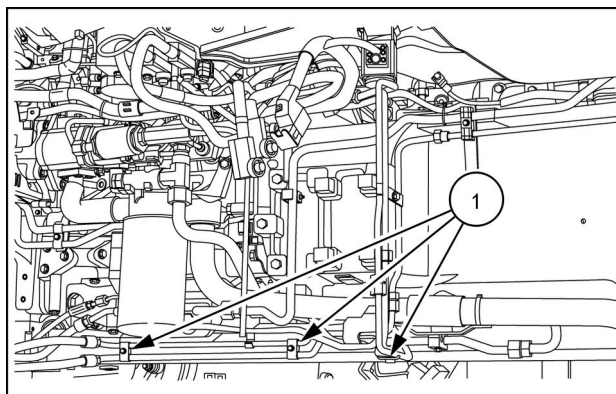
Fender - Remove (90.116)

1. Remove the front ballast (if present) as described in **Front ballast - Remove (39.140)**
2. Position wooden wedges (1) between the front axle and the front axle support (2) to prevent articulation.



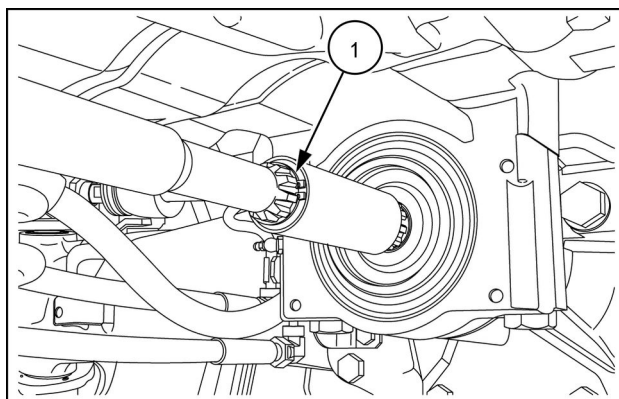
MOIL15TR01239AA 1

3. Release the steering cylinder control lines of the fastening clamps (1) to allow the front transmission drive shaft and its protection to be extracted.



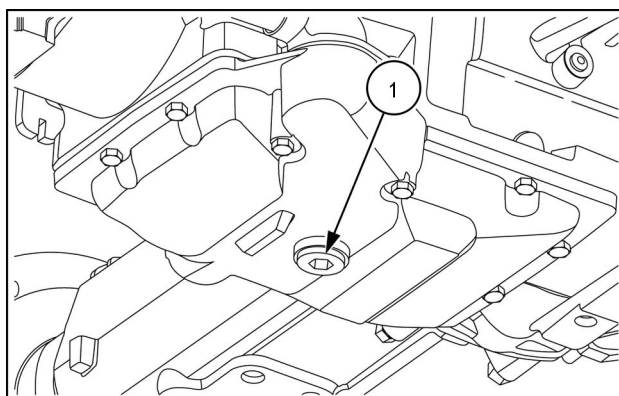
MOIL17TR01408AA 2

4. Remove the front transmission drive shaft (1) as described in **Front drive shaft - Remove (23.314)**.



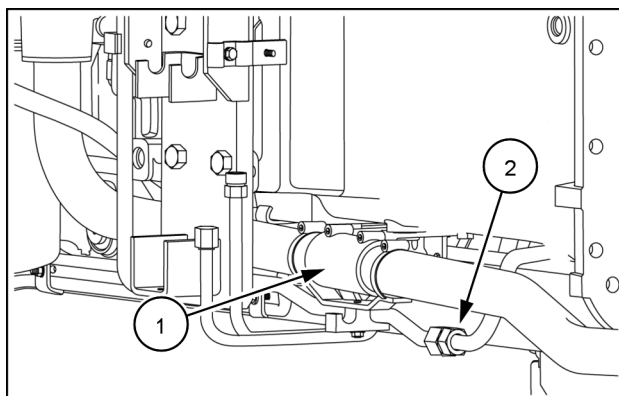
MOIL15TR01371AA 3

5. Position a container for transmission oil recovery under the transmission casing near the plug (1).
6. Remove the plug (1) and drain the transmission oil.



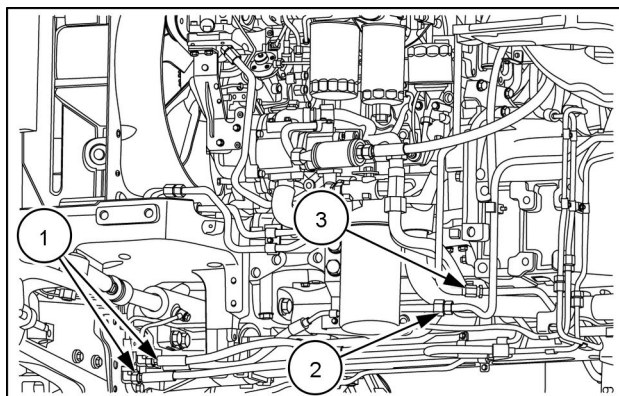
MOIL15TR01232AA 4

7. Disconnect the inlet pipe (1) of the filter loosening the 2 front retaining clamps.
8. Disconnect the hydraulic fitting (2) of the heat exchanger pipe.



MOIL17II00390AA 5

9. Remove the steering cylinder control lines disconnecting the hydraulic fittings (1).
10. Disconnect the hydraulic fitting (2) of the oil pipe.
11. Uncouple the differential lock fitting (3).



MOIL17TR01698AA 6



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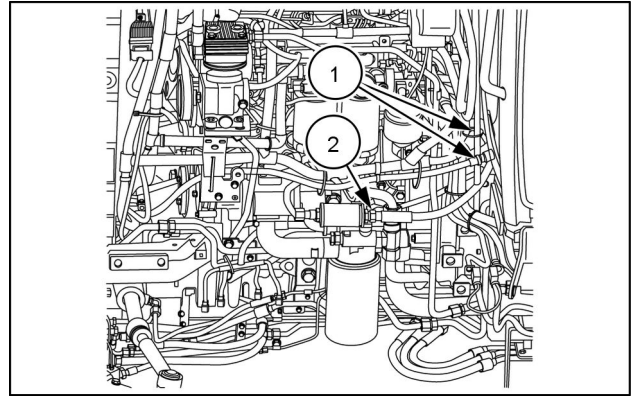


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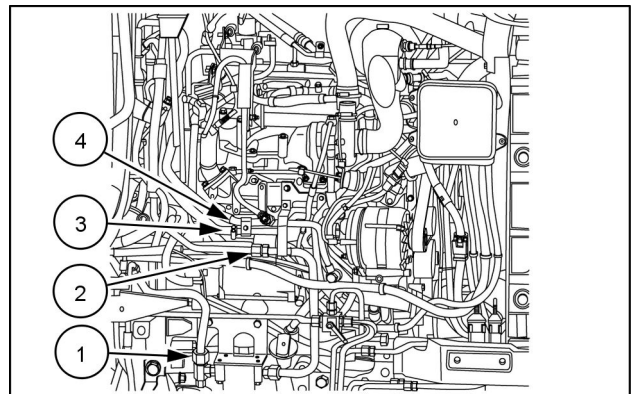
**Thank you so much for reading.**

12. Uncouple the two electrical connectors **(1)** and the cab steering pump pipe **(2)**.



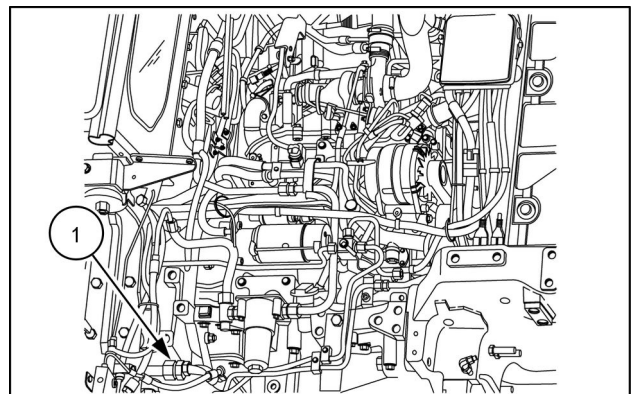
MOIL17TR01410AA 7

13. Disconnect the hydraulic connections **(1)** and **(2)** of the lines to the hydraulic steering control valve.
14. Disconnect the two heating system pipes **(3)** and the protection screws **(4)** to disconnect the cables from the battery to the starter motor.



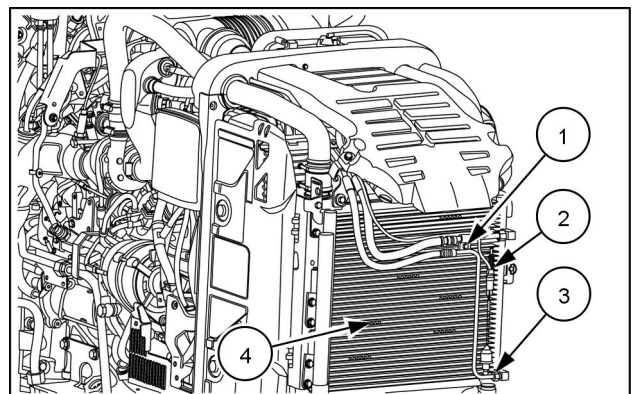
MOIL17TR01412AA 8

15. Uncouple the oil delivery fitting **(1)** to the control valves.



MOIL17TR01413AA 9

16. Disconnect the hydraulic fitting **(3)** on the capacitor **(4)** and loosen the screw **(1)** of the retaining clamp.
17. Disconnect the sensor wiring **(2)**.



MOIL17TR01665AA 10