

# SERVICE MANUAL

**T8.320 / T8.350 / T8.380 / T8.410 / T8.435**  
**Continuously Variable Transmission (CVT)**

**Tractor**

*PIN ZERE08100 and above*

Part number 47794970

1<sup>st</sup> edition English  
November 2014





## **SERVICE MANUAL**

**T8.320 696110728 CVT TIER 4B [ZERE08100 - ]**  
**T8.350 696110738 CVT TIER 4B [ZERE08100 - ]**  
**T8.380 696110748 CVT TIER 4B [ZERE08100 - ]**  
**T8.410 696110758 CVT TIER 4B [ZERE08100 - ]**  
**T8.435 696110768 CVT TIER 4B [ZERE08100 - ]**

# Link Product / Engine

---

<b>Product</b>	<b>Market Product</b>	<b>Engine</b>
T8.320 696110728 CVT TIER 4B [ZERE08100 - ]	Europe	F2CFE613G*B001
T8.350 696110738 CVT TIER 4B [ZERE08100 - ]	Europe	F2CFE614G*B002
T8.380 696110748 CVT TIER 4B [ZERE08100 - ]	Europe	F2CFE614D*B002
T8.410 696110758 CVT TIER 4B [ZERE08100 - ]	Europe	F2CFE614C*B002
T8.435 696110768 CVT TIER 4B [ZERE08100 - ]	Europe	F2CFE614A*B002

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**

# Contents

---

## INTRODUCTION

<b>Engine</b> .....	<b>10</b>
[10.001] Engine and crankcase .....	10.1
[10.101] Cylinder heads .....	10.2
[10.202] Air cleaners and lines .....	10.3
[10.216] Fuel tanks .....	10.4
[10.218] Fuel injection system.....	10.5
[10.304] Engine lubrication system.....	10.6
[10.310] Aftercooler.....	10.7
[10.400] Engine cooling system .....	10.8
[10.414] Fan and drive .....	10.9
[10.500] Selective Catalytic Reduction (SCR) exhaust treatment.....	10.10
<b>Power coupling</b> .....	<b>19</b>
[19.100] Drive shaft.....	19.1
[19.110] Flywheel damper .....	19.2
[19.120] Drive shaft shield assembly .....	19.3
<b>Transmission</b> .....	<b>21</b>
[21.504] Continuously Variable Transmission (CVT) .....	21.1
[21.505] Continuously Variable Transmission (CVT) external controls.....	21.2
[21.506] Continuously Variable Transmission (CVT) lubrication system .....	21.3
[21.507] Continuously Variable Transmission (CVT) internal components.....	21.4
[21.900] Hydraulic pump drive.....	21.5
<b>Four-Wheel Drive (4WD) system</b> .....	<b>23</b>
[23.202] Electro-hydraulic control .....	23.1
[23.314] Drive shaft.....	23.2
<b>Front axle system</b> .....	<b>25</b>

[25.100] Powered front axle .....	25.1
[25.102] Front bevel gear set and differential .....	25.2
[25.108] Final drive hub, steering knuckles, and shafts .....	25.3
[25.122] Axle suspension control.....	25.4
<b>Rear axle system.....</b>	<b>27</b>
[27.100] Powered rear axle.....	27.1
[27.106] Rear bevel gear set and differential.....	27.2
<b>Power Take-Off (PTO).....</b>	<b>31</b>
[31.104] Rear electro-hydraulic control.....	31.1
[31.110] One-speed rear Power Take-Off (PTO) .....	31.2
[31.114] Two-speed rear Power Take-Off (PTO) .....	31.3
[31.146] Front Power Take-Off (PTO) .....	31.4
<b>Brakes and controls .....</b>	<b>33</b>
[33.110] Parking brake or parking lock .....	33.1
[33.202] Hydraulic service brakes .....	33.2
[33.220] Trailer brake hydraulic control.....	33.3
[33.224] Trailer brake pneumatic control .....	33.4
[33.240] Emergency brake .....	33.5
<b>Hydraulic systems.....</b>	<b>35</b>
[35.000] Hydraulic systems.....	35.1
[35.102] Pump control valves.....	35.2
[35.106] Variable displacement pump .....	35.3
[35.114] Three-point hitch control valve .....	35.4
[35.124] Three-point hitch hydraulic adjustment .....	35.5
[35.204] Remote control valves .....	35.6
[35.300] Reservoir, cooler, and filters.....	35.7
[35.304] Combination pump units .....	35.8
<b>Hitches, drawbars, and implement couplings.....</b>	<b>37</b>

[37.110] Rear three-point hitch .....	37.1
[37.162] Front hitch .....	37.2
<b>Steering .....</b>	<b>41</b>
[41.101] Steering control .....	41.1
[41.200] Hydraulic control components .....	41.2
[41.206] Pump .....	41.3
[41.432] Autoguidance steering .....	41.4
[41.910] Auxiliary steering .....	41.5
<b>Wheels .....</b>	<b>44</b>
[44.520] Rear wheels .....	44.1
<b>Cab climate control .....</b>	<b>50</b>
[50.100] Heating .....	50.1
[50.200] Air conditioning .....	50.2
[50.300] Cab pressurizing system .....	50.3
<b>Electrical systems .....</b>	<b>55</b>
[55.010] Fuel injection system .....	55.1
[55.012] Engine cooling system .....	55.2
[55.014] Engine intake and exhaust system .....	55.3
[55.024] Transmission control system .....	55.4
[55.045] Front axle control system .....	55.5
[55.046] Rear axle control system .....	55.6
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system .....	55.7
[55.051] Cab Heating, Ventilation, and Air-Conditioning (HVAC) controls .....	55.8
[55.100] Harnesses and connectors .....	55.9
[55.130] Rear three-point hitch electronic control system .....	55.10
[55.201] Engine starting system .....	55.11
[55.301] Alternator .....	55.12
[55.302] Battery .....	55.13

[55.510] Cab or platform harnesses and connectors.....	55.14
[55.512] Cab controls.....	55.15
[55.513] Cab transmission controls.....	55.16
[55.518] Wiper and washer system.....	55.17
[55.640] Electronic modules.....	55.18
[55.988] Selective Catalytic Reduction (SCR) electrical system .....	55.19
[55.DTC] FAULT CODES.....	55.20
<b>Platform, cab, bodywork, and decals.....</b>	<b>90</b>
[90.100] Engine hood and panels .....	90.1
[90.102] Engine shields, hood latches, and trims .....	90.2
[90.124] Pneumatically-adjusted operator seat.....	90.3
[90.150] Cab.....	90.4
[90.151] Cab interior.....	90.5
[90.160] Cab interior trim and panels.....	90.6



# INTRODUCTION

# Contents

---

## INTRODUCTION

Foreword - Important notice regarding equipment servicing .....	3
Safety rules .....	4
Safety rules - General maintenance safety .....	5
Safety rules - Personal Protective Equipment (PPE) .....	6
Safety rules - Do Not Operate tag .....	7
Safety rules - Ecology and the environment .....	8
Torque - Minimum tightening torques for normal assembly .....	9
Capacities .....	14
Capacities .....	15

---

## **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 information in this manual is up-to-date at the date of the publication. It is the policy of the manufacturer for continuous improvement. Some information could not be updated due to modifications of a technical or commercial type, or changes to the laws and regulations of different countries.

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.



# **SERVICE MANUAL**

## **Engine**

**T8.320 696110728 CVT TIER 4B [ZERE08100 - ]**  
**T8.350 696110738 CVT TIER 4B [ZERE08100 - ]**  
**T8.380 696110748 CVT TIER 4B [ZERE08100 - ]**  
**T8.410 696110758 CVT TIER 4B [ZERE08100 - ]**  
**T8.435 696110768 CVT TIER 4B [ZERE08100 - ]**

# Contents

---

## Engine - 10

[10.001] Engine and crankcase .....	10.1
[10.101] Cylinder heads .....	10.2
[10.202] Air cleaners and lines .....	10.3
[10.216] Fuel tanks .....	10.4
[10.218] Fuel injection system.....	10.5
[10.304] Engine lubrication system.....	10.6
[10.310] Aftercooler.....	10.7
[10.400] Engine cooling system .....	10.8
[10.414] Fan and drive .....	10.9
[10.500] Selective Catalytic Reduction (SCR) exhaust treatment.....	10.10



## **Engine - 10**

### **Engine and crankcase - 001**

**T8.320 696110728 CVT TIER 4B [ZERE08100 - ]**  
**T8.350 696110738 CVT TIER 4B [ZERE08100 - ]**  
**T8.380 696110748 CVT TIER 4B [ZERE08100 - ]**  
**T8.410 696110758 CVT TIER 4B [ZERE08100 - ]**  
**T8.435 696110768 CVT TIER 4B [ZERE08100 - ]**

# Contents

---

## Engine - 10

### Engine and crankcase - 001

#### SERVICE

##### Engine

Remove .....	3
Install .....	12

## Engine - Remove

**Prior operation:**

Disconnect the batteries — **Battery - Disconnect (55.302)**

**Prior operation:**

Remove the hood — **Hood - Remove (90.100)**

**Prior operation:**

**Side shield - Remove (90.102)**

**Prior operation:**

Recover the refrigerant — **Air conditioning - Recover (50.200)**

**Prior operation:**

Drain the coolant — **Engine cooling system - Emptying (10.400)**

**Prior operation:**

**Engine cooling system - Remove (10.400)**

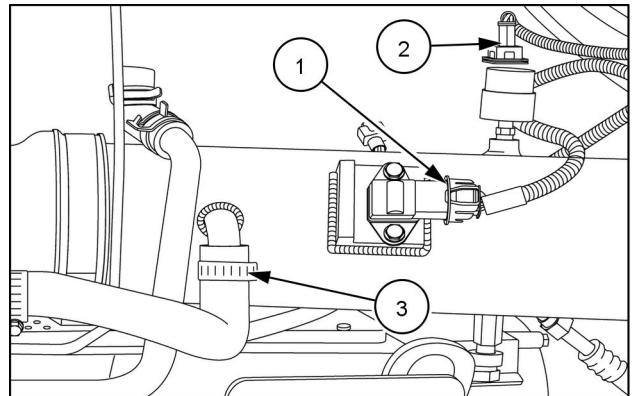
**Prior operation:**

**Diesel Oxidation Catalyst (DOC) - Remove (10.500)**

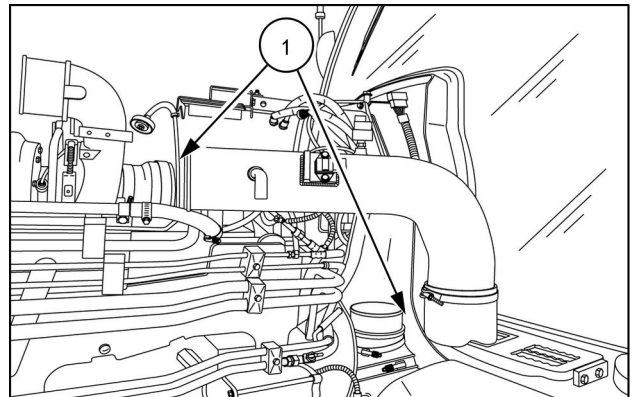
**NOTE:** Clean all fittings before disconnecting.

**NOTE:** Cap or plug all lines and ports when disconnecting hydraulic components.

1. Disconnect the harness connector to the humidity sensor (1) and the air restriction sensor (2). Disengage the hose clamp (3) and disconnect the hose from the air intake tube.



2. Disconnect the clamps (1) from each end of the air intake tube and remove the tube.





**Suggest:**

**If the above button click is invalid.**

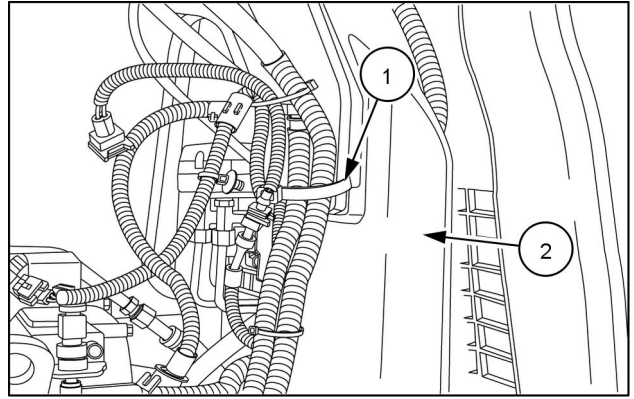
**Please download this document**

**first, and then click the above link**

**to download the complete manual.**

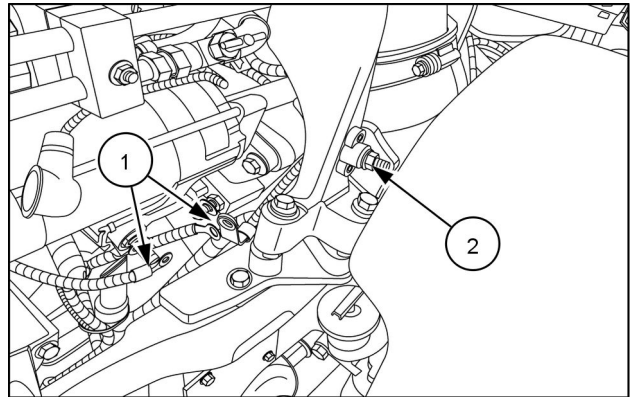
**Thank you so much for reading**

3. Cut the wire tie (1) securing the harness to the hood support (2).



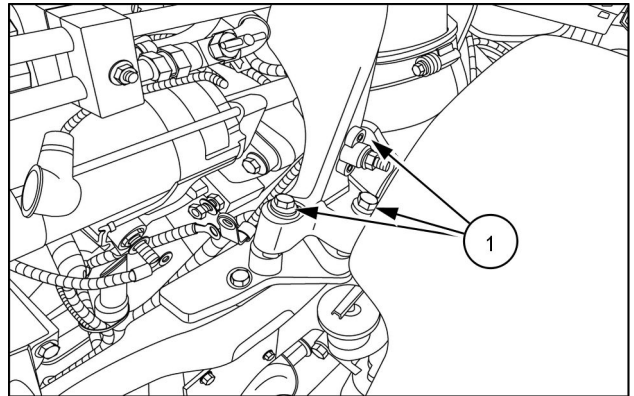
RAIL13TR04204AA 3

4. Disconnect the starter cables (1) and the auxiliary wire (2).



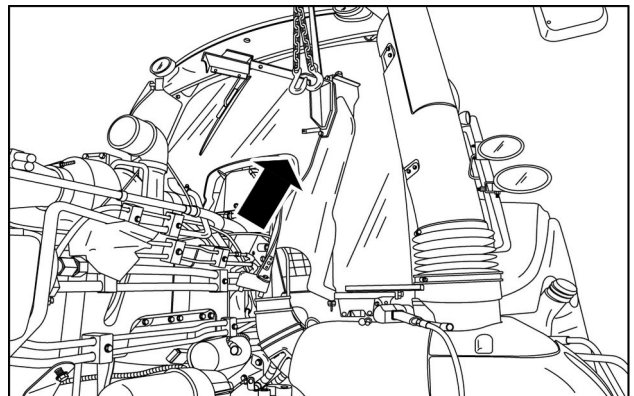
RAIL13TR04209AA 4

5. Remove the three bolts (1) securing the hood support to the frame.



RAIL13TR04209AA 5

6. Remove the hood support.



RAIL13TR04212AA 6

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**