

SERVICE MANUAL

T7.175 / T7.190 / T7.210

T7.175 AutoCommand™ / T7.190 AutoCommand™

T7.210 AutoCommand™ / T7.225 AutoCommand™

Stage IV

Tractor

Part number 47936461

English

November 2015





SERVICE MANUAL

**T7.175 AutoCommand™ , T7.175 , T7.190 AutoCommand™ , T7.190 , T7.210
AutoCommand™ , T7.210 , T7.225 AutoCommand™**

Link Product / Engine

Product	Market Product	Engine
T7.175 AutoCommand™	Europe	F4DFE613P*B003
T7.190 AutoCommand™	Europe	F4DFE613N*B006
T7.210 AutoCommand™	Europe	F4DFE613M*B003
T7.225 AutoCommand™	Europe	F4DFE613K*B008
T7.175	Europe	F4DFE613P*B003
T7.190	Europe	F4DFE613N*B006
T7.210	Europe	F4DFE613M*B003

<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

Engine.....	10
[10.001] Engine and crankcase	10.1
[10.101] Cylinder heads	10.2
[10.216] Fuel tanks	10.3
[10.210] Lift pump and lines	10.4
[10.218] Fuel injection system.....	10.5
[10.202] Air cleaners and lines	10.6
[10.250] Turbocharger and lines.....	10.7
[10.254] Intake and exhaust manifolds and muffler	10.8
[10.500] Selective Catalytic Reduction (SCR) exhaust treatment.....	10.9
[10.400] Engine cooling system	10.10
[10.414] Fan and drive	10.11
[10.408] Oil cooler and lines.....	10.12
Clutch	18
[18.112] Slip clutch or flywheel damper	18.1
Transmission.....	21
[21.111] Semi-Powershift transmission	21.1
[21.133] Semi-Powershift transmission external controls	21.2
[21.103] Semi-Powershift transmission lubrication system.....	21.3
[21.152] Semi-Powershift transmission internal components	21.4
[21.113] Powershift transmission	21.5
[21.504] Continuously Variable Transmission (CVT)	21.6
[21.505] Continuously Variable Transmission (CVT) external controls.....	21.7
[21.506] Continuously Variable Transmission (CVT) lubrication system	21.8
[21.507] Continuously Variable Transmission (CVT) internal components.....	21.9
[21.160] Creeper	21.10

[21.166] Overdrive	21.11
Four-Wheel Drive (4WD) system	23
[23.202] Electro-hydraulic control	23.1
[23.314] Drive shaft	23.2
Front axle system	25
[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
Rear axle system	27
[27.100] Powered rear axle	27.1
[27.106] Rear bevel gear set and differential	27.2
[27.120] Planetary and final drives	27.3
[27.126] Spur gear and final drives	27.4
Power Take-Off (PTO)	31
[31.101] Rear mechanical control	31.1
[31.104] Rear electro-hydraulic control	31.2
[31.114] Two-speed rear Power Take-Off (PTO)	31.3
[31.116] Three-speed rear Power Take-Off (PTO)	31.4
[31.146] Front Power Take-Off (PTO)	31.5
Brakes and controls	33
[33.202] Hydraulic service brakes	33.1
[33.300] Pneumatic service brakes	33.2
[33.110] Parking brake or parking lock	33.3
[33.220] Trailer brake hydraulic control	33.4
[33.224] Trailer brake pneumatic control	33.5
Hydraulic systems	35

[35.000] Hydraulic systems.....	35.1
[35.300] Reservoir, cooler, and filters.....	35.2
[35.106] Variable displacement pump	35.3
[35.105] Charge pump.....	35.4
[35.220] Auxiliary hydraulic pump	35.5
[35.322] Regulated/Low pressure system.....	35.6
[35.204] Remote control valves	35.7
[35.114] Three-point hitch control valve	35.8
[35.160] Front hitch controls and lines	35.9
[35.162] Front hitch cylinders and lines	35.10
Pneumatic system	36
[36.100] Pneumatic system.....	36.1
Hitches, drawbars, and implement couplings.....	37
[37.110] Rear three-point hitch	37.1
[37.120] Rear three-point hitch linkage.....	37.2
[37.162] Front hitch.....	37.3
Frames and ballasting	39
[39.100] Frame	39.1
Steering.....	41
[41.101] Steering control	41.1
[41.106] Tie rods.....	41.2
[41.200] Hydraulic control components.....	41.3
[41.216] Cylinders	41.4
[41.432] Autoguidance steering	41.5
Wheels	44
[44.511] Front wheels.....	44.1
[44.520] Rear wheels.....	44.2
Cab climate control	50

[50.100] Heating	50.1
[50.104] Ventilation	50.2
[50.200] Air conditioning	50.3
Electrical systems	55
[55.000] Electrical system	55.1
[55.100] Harnesses and connectors	55.2
[55.015] Engine control system	55.3
[55.301] Alternator	55.4
[55.302] Battery	55.5
[55.011] Fuel tank system	55.6
[55.010] Fuel injection system	55.7
[55.988] Selective Catalytic Reduction (SCR) electrical system	55.8
[55.640] Electronic modules	55.9
[55.513] Cab transmission controls	55.10
[55.020] Transmission speed sensors	55.11
[55.021] Transmission pressure sensors	55.12
[55.022] Transmission temperature sensors	55.13
[55.023] Transmission position sensors	55.14
[55.610] Ground speed control	55.15
[55.045] Front axle control system	55.16
[55.048] Rear Power Take-Off (PTO) control system	55.17
[55.030] Service brake electrical system	55.18
[55.031] Parking brake electrical system	55.19
[55.512] Cab controls	55.20
[55.035] Remote control valve electric control	55.21
[55.051] Cab Heating, Ventilation, and Air-Conditioning (HVAC) controls	55.22
[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system	55.23
[55.047] Steering control system	55.24

[55.130] Rear three-point hitch electronic control system	55.25
[55.911] Global Positioning System (GPS)	55.26
[55.510] Cab or platform harnesses and connectors	55.27
[55.408] Warning indicators, alarms, and instruments	55.28
[55.DTC] FAULT CODES	55.29
Platform, cab, bodywork, and decals	90
[90.150] Cab	90.1
[90.100] Engine hood and panels	90.2
[90.116] Fenders and guards	90.3



INTRODUCTION

Contents

INTRODUCTION

Foreword - Important notice regarding equipment servicing	3
Foreword - How to use and navigate through this manual	4
Safety rules	9
Safety rules - Ecology and the environment	13
Basic instructions	14
Torque	16
Conversion factors	18
Hydraulic contamination	19
Consumables Lubrications and coolants	20
Capacities	23

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.

Foreword - How to use and navigate through this manual

This manual has been produced by a new technical information system. This new system is designed to deliver technical information electronically through web delivery (eTIM), DVD, and paper manuals. A coding system called SAP has been developed to link the technical information to other Product Support functions, e.g., Warranty.

Technical information is written to support the maintenance and service of the functions or systems on a customer's machine. When a customer has a concern on their machine it is usually because a function or system on their machine is not working at all, is not working efficiently, or is not responding correctly to their commands. When you refer to the technical information in this manual to resolve that customer's concern, you will find all the information classified using the SAP coding, according to the functions or systems on that machine. Once you have located the technical information for that function or system, you will then find all the mechanical, electrical or hydraulic devices, components, assemblies, and sub assemblies for that function or system. You will also find all the types of information that have been written for that function or system: the technical data (specifications), the functional data (how it works), the diagnostic data (fault codes and troubleshooting), and the service data (remove, install adjust, etc.).

By integrating SAP coding into technical information, you will be able to search and retrieve just the right piece of technical information you need to resolve that customer's concern on his machine. This is made possible by attaching 3 categories to each piece of technical information during the authoring process.

The first category is the Location, the second category is the Information Type and the third category is the Product:

- LOCATION - the component or function on the machine, that the piece of technical information is going to describe (e.g., Fuel tank).
- INFORMATION TYPE - the piece of technical information that has been written for a particular component or function on the machine (e.g., Capacity would be a type of Technical Data describing the amount of fuel held by the fuel tank).
- PRODUCT - the model for which the piece of technical information is written.

Every piece of technical information will have those three categories attached to it. You will be able to use any combination of those categories to find the right piece of technical information you need to resolve that customer's concern on their machine.

That information could be:

- the procedure for how to remove the cylinder head
- a table of specifications for a hydraulic pump
- a fault code
- a troubleshooting table
- a special tool



SERVICE MANUAL

Engine

**T7.175 AutoCommand™ , T7.175 , T7.190 AutoCommand™ , T7.190 , T7.210
AutoCommand™ , T7.210 , T7.225 AutoCommand™**

Contents

Engine - 10

[10.001] Engine and crankcase	10.1
[10.101] Cylinder heads	10.2
[10.216] Fuel tanks	10.3
[10.210] Lift pump and lines	10.4
[10.218] Fuel injection system.....	10.5
[10.202] Air cleaners and lines	10.6
[10.250] Turbocharger and lines.....	10.7
[10.254] Intake and exhaust manifolds and muffler	10.8
[10.500] Selective Catalytic Reduction (SCR) exhaust treatment.....	10.9
[10.400] Engine cooling system	10.10
[10.414] Fan and drive	10.11
[10.408] Oil cooler and lines.....	10.12



Engine - 10

Engine and crankcase - 001

**T7.175 AutoCommand™ , T7.175 , T7.190 AutoCommand™ , T7.190 , T7.210
AutoCommand™ , T7.210 , T7.225 AutoCommand™**

Contents

Engine - 10

Engine and crankcase - 001

SERVICE

Engine

Disconnect	3
T7.175 AutoCommand™ --- WE, T7.175 --- WE, T7.190 AutoCommand™ --- WE, T7.190 --- WE, T7.210 AutoCommand™ --- WE, T7.210 --- WE	
Connect	20
T7.175 AutoCommand™ --- WE, T7.175 --- WE, T7.190 AutoCommand™ --- WE, T7.190 --- WE, T7.210 AutoCommand™ --- WE, T7.210 --- WE	
Remove	37
T7.175 AutoCommand™ --- WE, T7.175 --- WE, T7.190 AutoCommand™ --- WE, T7.190 --- WE, T7.210 AutoCommand™ --- WE, T7.210 --- WE	
Install	50
T7.175 AutoCommand™ --- WE, T7.175 --- WE, T7.190 AutoCommand™ --- WE, T7.190 --- WE, T7.210 AutoCommand™ --- WE, T7.210 --- WE	



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

Engine - Disconnect

T7.175 AutoCommand™	WE
T7.175	WE
T7.190 AutoCommand™	WE
T7.190	WE
T7.210 AutoCommand™	WE
T7.210	WE

Prior operation:

Discharge the Air conditioning system, for further information refer to **Air conditioning - Discharging (50.200)**

Prior operation:

Drain the engine cooling system, for further information refer to **Engine cooling system - Drain fluid (10.400)**

Prior operation:

Remove the Selective Catalytic Reduction (SCR) muffler, for further information refer to **Selective Catalytic Reduction (SCR) muffler and catalyst - Remove (10.500)**

Prior operation:

Remove the left-hand fuel tank, for further information refer to **Fuel tank - Remove (10.216)**

Prior operation:

Disconnect the battery, for further information refer to **Battery - Disconnect (55.302)**

⚠ 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

1. ⚠ WARNING

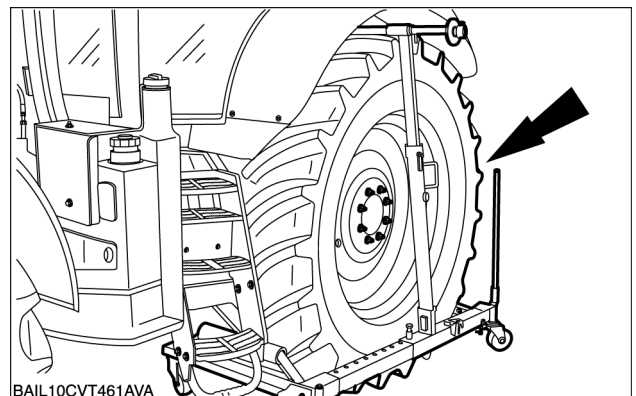
Crushing hazard!

The wheels on this vehicle are very heavy. Always use a wheel remover or chain hoists to remove and install the wheels. Use an assistant as required.

Failure to comply could result in death or serious injury.

W0149A

Install the left-hand rear wheel.



BAIL10CVT461AVA

BAIL10CVT461AVA 1

<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>