SERVICE MANUAL

T5.110 Electro Command™
T5.120 Electro Command™
Tractor

Part number 48038068
2nd edition English
October 2017
Replaces part number 47985319

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual | Publication 48038068
Order the manual at mid-west-tech.com >

Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

[10.216] Fuel tanks 10.2

[10.206] Fuel filters 10.3

[10.202] Air cleaners and lines 10.4

[10.254] Intake and exhaust manifolds and muffler 10.5

[10.500] Selective Catalytic Reduction (SCR) exhaust treatment 10.6

[10.501] Exhaust Gas Recirculation (EGR) exhaust treatment 10.7

[10.400] Engine cooling system 10.8

[10.414] Fan and drive 10.9

[10.310] Aftercooler 10.10

[10.304] Engine lubrication system 10.11

[10.218] Fuel injection system 10.12

Clutch 18

[18.100] Clutch mechanical release control 18.1

[18.112] Slip clutch or flywheel damper 18.2

Transmission 21

[21.111] Semi-Powershift transmission 21.1

[21.133] Semi-Powershift transmission external controls 21.2

[21.103] Semi-Powershift transmission hydraulic components 21.3

[21.152] Semi-Powershift transmission internal components 21.4

[21.160] Creeper 21.5

[21.109] Transmission cooler and lines 21.6

Four-Wheel Drive (4WD) system 23

[23.202] Electro-hydraulic control 23.1

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual... Order the manual at mid-west-tech.com >

[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

Power Take-Off (PTO) 31

[31.104] Rear electro-hydraulic control 31.1

[31.114] Two-speed rear Power Take-Off (PTO) 31.2

[31.116] Three-speed rear Power Take-Off (PTO) 31.3

[31.142] Front Power Take-Off (PTO) control 31.4

[31.146] Front Power Take-Off (PTO) 31.5

Brakes and controls 33

[33.202] Hydraulic service brakes 33.1

[33.110] Parking brake or parking lock 33.2

Hydraulic systems 35

[35.000] Hydraulic systems 35.1

[35.204] Remote control valves 35.2

[35.100] Main lift system 35.3

[35.160] Front hitch controls and lines 35.4

[35.162] Front hitch cylinders and lines 35.5

[35.116] Three-point hitch cylinder 35.6

[35.304] Combination pump units 35.7

Hitches, drawbars, and implement couplings 37

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual... Order the manual at mid-west-tech.com >

[37.100] Drawbars and towing hitches 37.1
[37.110] Rear three-point hitch 37.2
[37.120] Rear three-point hitch linkage 37.3
[37.162] Front hitch 37.4
[37.166] Front hitch linkage 37.5
Frames and ballasting 39
[39.140] Ballasts and supports 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
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
[55.100] Harnesses and connectors 55.1
[55.525] Cab engine controls 55.2
[55.015] Engine control system 55.3
[55.201] Engine starting system 55.4
[55.301] Alternator 55.5
[55.302] Battery 55.6
[55.011] Fuel tank system 55.7
[55.010] Fuel injection system 55.8

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual... Order the manual at mid-west-tech.com >

Wiring harnesses - Electrical schematic sheet 27 (55.100)
Wiring harnesses - Electrical schematic sheet 14 (55.100)
Wiring harnesses - Electrical schematic sheet 11 (55.100)

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual... Order the manual at mid-west-tech.com >

4509 - Electro Hydraulic Remote valve (EHR) front 1 - manually operated

Control Module: CCU

NOTE: *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

Possible failure modes:

1. Remote valve manually operated
2. Faulty central control unit (CCU) software
3. Faulty EHR valve

Solution:

1. Check for other EHR error code(s).
   A. Make a note of the error code(s), clear the error code(s) and test the system for normal operation.
   B. If the fault is still present, continue to step **2**
2. Calibrate the EHR lever.
   A. Perform the EHR lever calibration procedure and test the system for normal operation.
   B. If the fault is still present, download the correct level of software into the central control unit (CCU) and configure the EHR valve using the HJ menu. If the fault is still present remove, replace, and configure the EHR valve using the HJ menu.

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual... Order the manual at mid-west-tech.com >

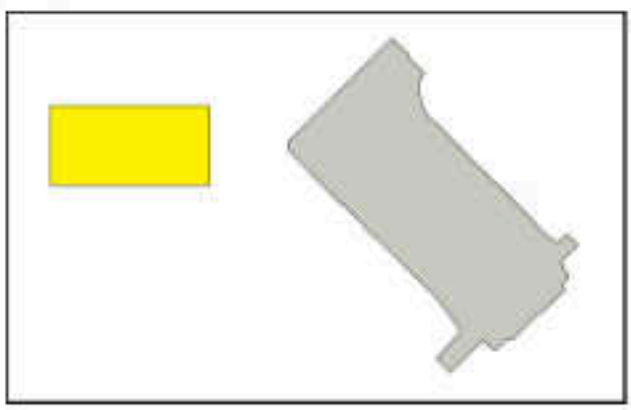
Gears - Service instruction - Disassembling indications



MOL15TR01902FA 1

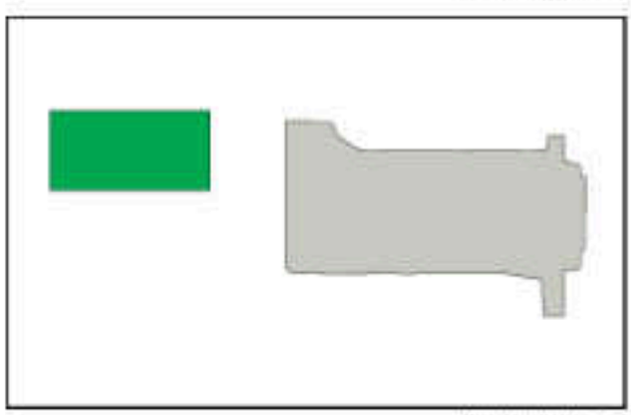
Gearbox- Section view

Position the transmission housing, as shown in the figure, to remove the components of the front section.



MOL15TR01903AA 2

Position the transmission housing, as shown in the figure, to remove the components of the central section (part 1).



MOL15TR01904AA 3

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual... Order the manual at mid-west-tech.com >

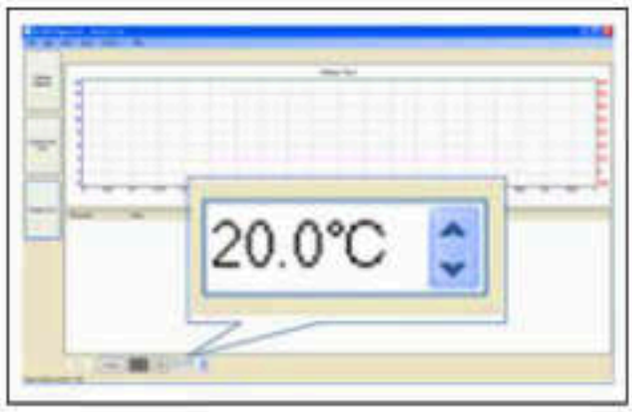
3. In the main screen DATAR Diagnostics, select the battery test icon **(1)**.



M04.15TR02945AA 2

4. In the battery test screen, click the up and down arrows of the temperature display on the bottom left and set the battery temperature measured with a thermometer in contact with it.

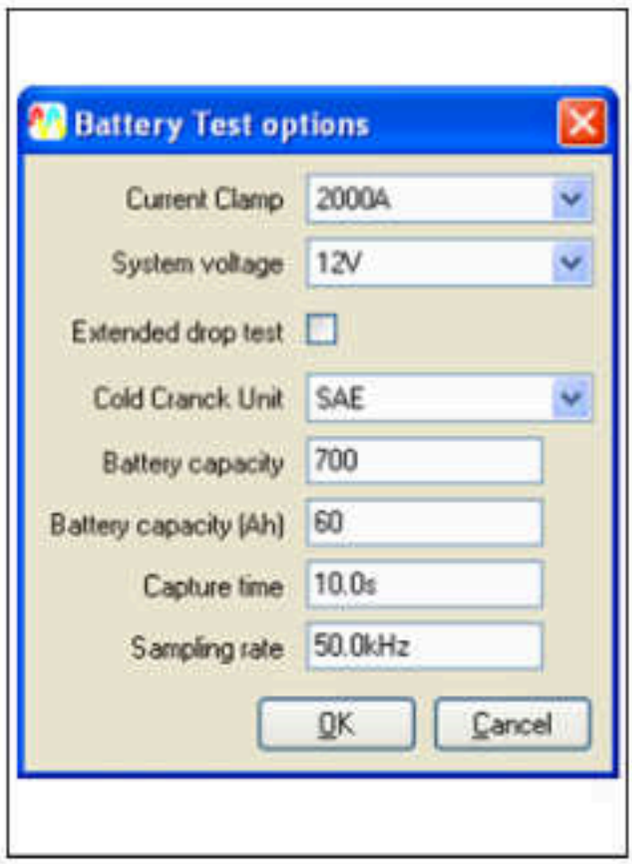
NOTE: *Make sure that the battery temperature is set correctly before starting the test.*



M04.15TR02946AA 3

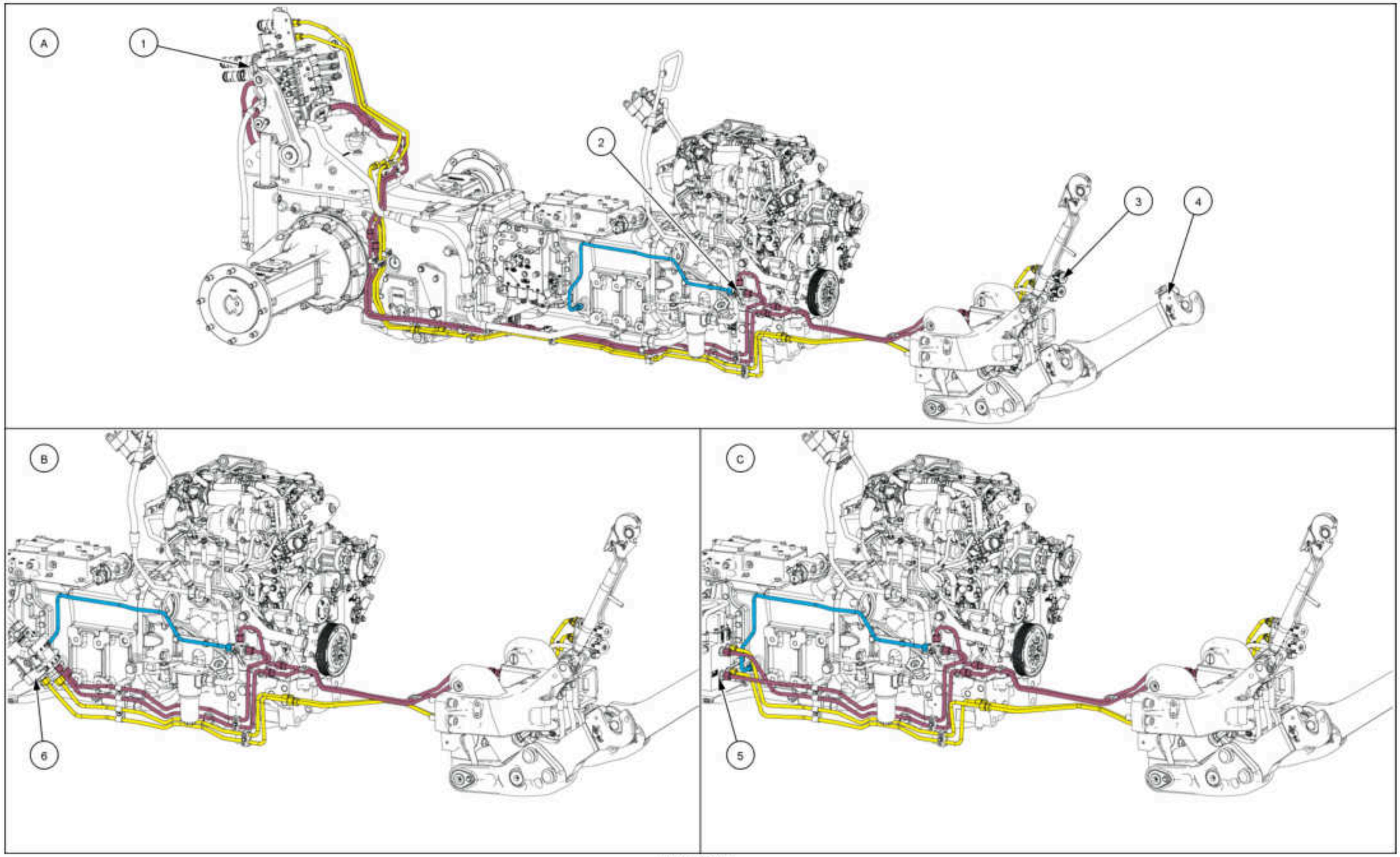
5. Select the 'Battery Test' option from the 'Options' drop down menu and make sure that the following settings are correct:
   - Current clamp = **2000 A**
   - System voltage = **12 V**
   - Untick the box: Extended drop test
   - Capture time = **10 s**
   - Sampling rate = 50 KHz
6. Make sure to add the correct information related to the battery in the following fields:
   - Cold Crank Unit
   - Battery capacity
   - Battery (Ah)

NOTE: *For batteries fitted in production set the 'Cold Crank Unit' to SAE.*



M04.15TR02943BA 4

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual... Order the manual at mid-west-tech.com >



M01L16TR02321JA 1

MidWestTech | New Holland T5.110, T5.120 Electro Command Tractor Service Manual | Publication 48038068
Order the manual at mid-west-tech.com >