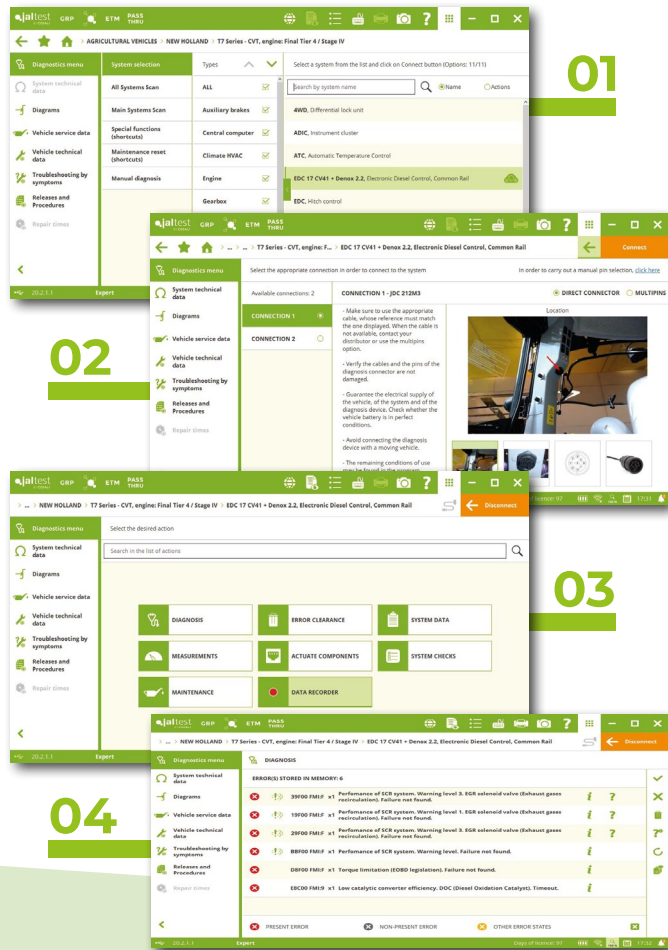


Startups counter restart and verification of the SCR system fault repair in New Holland T7



One of the most common problems that affect every kind of agricultural vehicle is the reduced engine power. If you detect a problem related to the engine or the exhaust gas treatment system, you must solve it before the vehicle can be used in normal working conditions. With Jaltest you can do diagnostics and solve the problem in an easy way, as we will find out in this case study.

We will see how we can solve different fault codes that cause reduced engine power in a New Holland T7 tractor with CVT transmission.

First of all, you will need to select the right electronic control unit. In this case study, the engine is "EDC 17 CV41 + Denox 2.2" (PIC 1). In the connection menu you can find detailed information about how to connect to the system (PIC 2).

Once connected, the first thing that you will see is the general diagnostics menu in which you will find every available action of the system: read & clear the fault codes, monitor live data, system checks, maintenance actions, etc. (PIC 3). If we read the fault codes, we will find out that the control unit has some fault codes related to the aftertreatment system what is causing a reduced engine power (PIC 4).

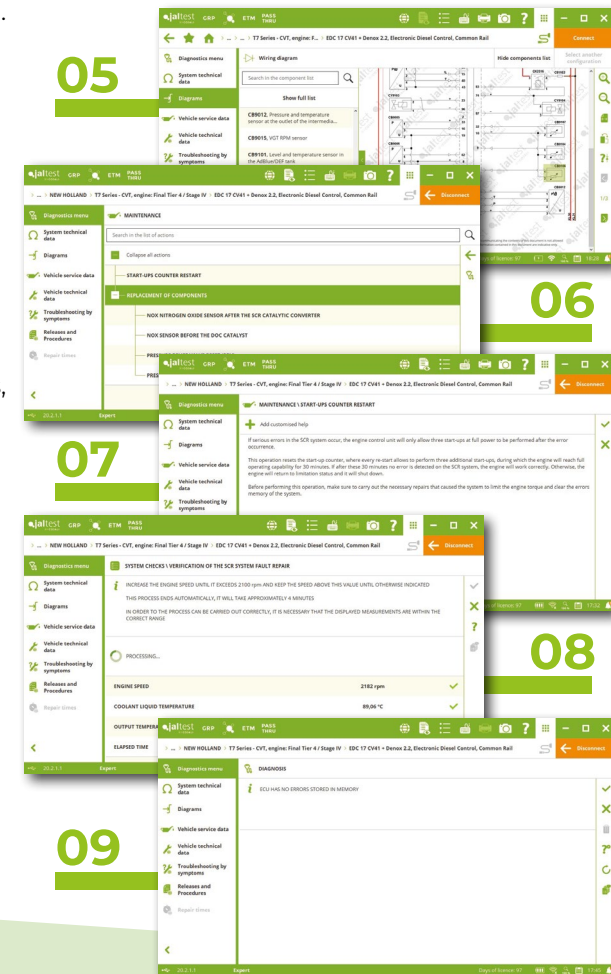
By using the additional information that Jaltest provides, such as wiring diagrams and component information, you will be able to check the components related to the fault codes and repair them or replace them. (PIC 5)

Once the tractor has been repaired, the control unit needs to be informed about it. In order to do that, you will need to perform a startup counter restart through a maintenance action (PIC 6). As the help shows, the electronic control unit will only allow three startups for 30 minutes at full

power. If no fault codes are detected during that time, the control unit will be informed that the fault codes have been solved (PIC 7).

After performing the action, you will need to perform the verification of the SCR system fault repair to check the right operation of the SCR system (PIC 8). After performing this action, you can see that the fault codes have been cleared from the memory (PIC 9).

You will save time and money with Jaltest!



For more information visit:
cojaliusa.com

click on images to enlarge

jaltest
DIAGNOSTICS

AGV AGRICULTURAL



01

GRP

VIN
INFO

OEM
RP1210

AGRICULTURAL VEHICLES > NEW HOLLAND > T7 Series - CVT, engine: Final Tier 4 / Stage IV

Diagnostics menu

System technical data

Diagrams

Vehicle service data

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

System selection

All Systems Scan

Main Systems Scan

Frequent Tests

Maintenance resets

Manual diagnosis

Types

ALL

Auxiliary brakes

Central computer

Climate HVAC

Engine

Hydraulic systems

Instrument cluster

Power take-off

Powertrain

Transmission

Select a system from the list and click on Connect button (Options: 11/11)

Search by system name

☒ Name ☐ Actions

4WD, Differential lock unit

ADIC, Instrument cluster

ATC, Automatic Temperature Control

EDC 17 CV41 + Denox 2.2, Electronic Diesel Control, Common Rail

EDC, Hitch control

ENG, Engine regulation interface

EPL, Parking lock unit

FPTO, Front power take-off

REHR, Remote Hydraulic Controller

RPTO, Rear power take-off

20.3.1.1 (303)

Expert

Days of license: 350

21:31

For more information visit:
cojaliusa.com





03

GRP

VIN
INFO

OEM
RP1210

> AGRICULTURAL VEHICLES > NEW HOLLAND > T7 Series - CVT, engine: Final Tier 4 / Stage IV > EDC 17 CV41 + Denox 2.2, Electronic Diesel Control, Common Rail

Disconnect

Diagnostics menu

Select the desired action

System technical data

Search in the list of actions

Diagrams

Vehicle service data

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

READ FAULT CODES

CLEAR FAULT CODES

SYSTEM DATA

MONITORING

ACTUATE COMPONENTS

SYSTEM CHECKS

PARAMETERS

MAINTENANCE

DATA RECORDER

20.3.1.1 (303)

Expert

Days of license: 350

21:34

For more information visit:
cojaliusa.com

GRP
VIN
INFO
OEM
RP1210

Disconnect

> AGRICULTURAL VEHICLES > NEW HOLLAND > T7 Series - CVT, engine: Final Tier 4 / Stage IV > EDC 17 CV41 + Denox 2.2, Electronic Diesel Control, Common Rail

Diagnostics menu
System technical data
Diagrams
Vehicle service data
Vehicle technical data
Troubleshooting by symptoms
Releases and Procedures (TSBs)
Component Replacement Guides
Repair times

READ FAULT CODES

FAULT CODE(S) STORED IN MEMORY: 10

✖	86500	x1 Fuel pressure - Fault in the pressure sensor / injection rail pressure signal.	i	?		✓
✖	A8D1	x1 Turbocharger. Faulty performance.	i	?	⚠	✗
✖	A8E2	x1 Injection system. Pressure leak. Power limitation.	i	?		?
✖	A868	x1 Inlet air temperature sensor. Short circuit to ground.	i	?	⚠	↺
✖	A8F0	x1 AdBlue/DEF pressure is too low.	i	?		📄
✖	A835	x1 NH3 Ammonia Sensor. Faulty performance.	i	?	⚠	
✖	8B0205	x1 Injector Cylinder 1. Current too low or open-circuit.	i	?	⚠	
✖	F80B07	x1 DPF (Diesel Particulate Filter). Differential Pressure. Unadjusted component.	i		⚠	

✖ ACTIVE FAULT
✖ NON-ACTIVE FAULT
✖ OTHER FAULT STATES

20.3.1.1 (303)
Expert
Days of license: 350
21:34

For more information visit:
cojaliusa.com

jaltest GRP VIN INFO OEM RP1210

> AGRICULTURAL VEHICLES > NEW HOLLAND > T7 Series - CVT, engine: Final Tier 4 / Stage IV > EDC 17 CV41 + Denox 2.2, Electronic Diesel Control, Common Rail

Disconnect

Diagnosics menu **Wiring diagram** Hide components list Select another configuration

System technical data Search in the component list

Diagrams Show full list

Vehicle service data

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

CB9101, Level and temperature sensor in the AdBlue/DEF tank

CB9103, Viscous clutch with electromagnetic control

CB9104, SCR Temperature sensor of the exhaust gases after the catalytic converter

CB9105, Air humidity and temperature sensor

CB9106, Temperature sensor for the exhaust gases before the DOC

CB9107, SCR Temperature sensor of the exhaust gases before of the catalytic con...

CB9112, Pressure sensor before the fuel filter

CK2005, Relay of the fuel pre-filter heater

CK2516, Engine preheater power relay

CS9000

KL30 KL15 KL31

This document was written by Cojali USA Inc. Transferring, copying, using or communicating the contents of this document is not allowed without the written consent of Cojali USA Inc. The data, messages and information contained in this document are indicative only.

20.3.1.1 (303) Expert Days of license: 350 21:36

For more information visit:
cojaliusa.com

GRP
VIN INFO
OEM RP1210

> AGRICULTURAL VEHICLES > NEW HOLLAND > T7 Series - CVT, engine: Final Tier 4 / Stage IV > EDC 17 CV41 + Denox 2.2, Electronic Diesel Control, Common Rail

Disconnect

Diagnostics menu

MAINTENANCE

System technical data

Diagrams

Vehicle service data

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

Collapse all actions

STARTUPS COUNTER RESTART

REPLACEMENT OF COMPONENTS

NOX NITROGEN OXIDE SENSOR AFTER THE SCR CATALYTIC CONVERTER

NOX SENSOR BEFORE THE DOC CATALYST

PRESSURE RELIEF VALVE RESET (PRV)

PRESSURE REGULATOR OF THE FUEL HIGH-PRESSURE PUMP

20.3.1.1 (303)
Expert
Days of license: 350

 21:37

For more information visit:
cojaliusa.com

GRP
VIN INFO
OEM RP1210

Disconnect

Diagnostics menu

System technical data

Diagrams

Vehicle service data

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

MAINTENANCE \ STARTUPS COUNTER RESTART

Add customized help

If serious faults in the SCR system occur, the engine control unit will only allow three startups at full power to be performed after the fault occurrence.

This operation resets the startup counter, where every re-start allows to perform three additional startups, during which the engine will reach full operating capability for 30 minutes. If after these 30 minutes no error is detected on the SCR system, the engine will work correctly. Otherwise, the engine will return to limitation status and it will shut down.

Before performing this operation, make sure to carry out the necessary repairs that caused the system to limit the engine torque and clear the faults memory of the system.

✓

✗

20.3.1.1 (303)
Expert

Days of license: 350

21:39

For more information visit:
cojaliusa.com

GRP
VIN INFO
OEM RP1210

> AGRICULTURAL VEHICLES > NEW HOLLAND > T7 Series - CVT, engine: Final Tier 4 / Stage IV > EDC 17 CV41 + Denox 2.2, Electronic Diesel Control, Common Rail

Diagnostics menu

System technical data

Diagrams

Vehicle service data

Vehicle technical data

Troubleshooting by symptoms

Releases and Procedures (TSBs)

Component Replacement Guides

Repair times

SYSTEM CHECKS \ VERIFICATION OF THE SCR SYSTEM FAULT REPAIR

INCREASE THE ENGINE SPEED UNTIL IT EXCEEDS 2100 rpm AND KEEP THE SPEED ABOVE THIS VALUE UNTIL OTHERWISE INDICATED
THIS PROCESS ENDS AUTOMATICALLY, IT WILL TAKE APPROXIMATELY 4 MINUTES
IN ORDER TO THE PROCESS CAN BE CARRIED OUT CORRECTLY, IT IS NECESSARY THAT THE DISPLAYED MEASUREMENTS ARE WITHIN THE CORRECT RANGE

PROCESSING...

ENGINE SPEED	553 rpm	
COOLANT LIQUID TEMPERATURE	194 °F	
OUTPUT TEMPERATURE ON THE CATALYST (SCR)	170.6 °F	
ELAPSED TIME	384097 s	

20.3.1.1 (303)
Expert

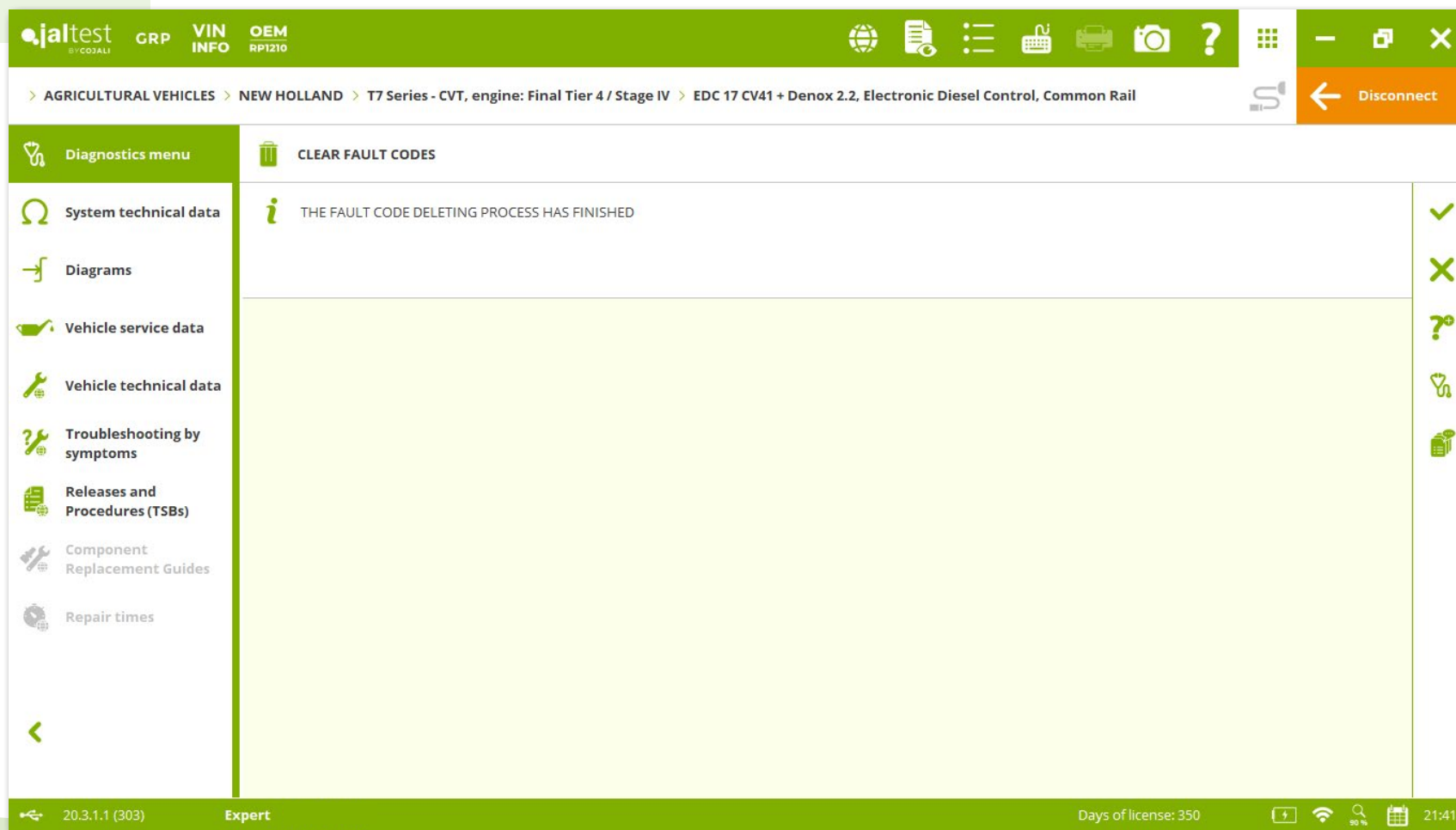
Days of license: 350

21:40

For more information visit:
cojaliusa.com



09



For more information visit:
cojaliusa.com