

# Bosch ESI[truck] Heavy Duty Truck Software Update

Version 2023/2

### www.boschdiagnostics.com

## Welcome

In version 2023/2, Bosch continues to expand the ESI[truck] diagnostic coverage and capabilites. A brief summary of all the content additions are on the following pages. All of the additonal features and functions are too complex to summarize in this newsletter, but we are confident you will be happy with the value the ESI[truck] Diagnostic system adds to your professional shop.

See the graphs beginning on the next page that highlight the ever-growing capabilities that you – our valued customers - support when you make the decision to renew your annual software license.

If you are interested in even more of the details behind all the great improvements, please visit <u>www.boschdiagnostics.com</u>, and navigate to the 3824A (ESI Truck) page. Click on the 'View Vehicle Coverage' link to navigate the user friendly interface and check detailed coverage.

# New 'ELS' Software Behavior

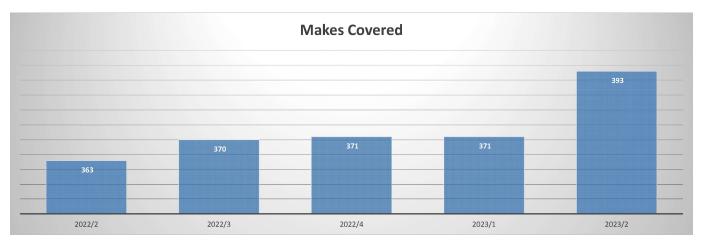
ELS stands for <u>E</u>xtended <u>L</u>icense <u>S</u>ubscription. We are excited to remind you that we have implemented functionality so your ESI Truck software will no longer stop functioning if you decide to not pay for the annual update.

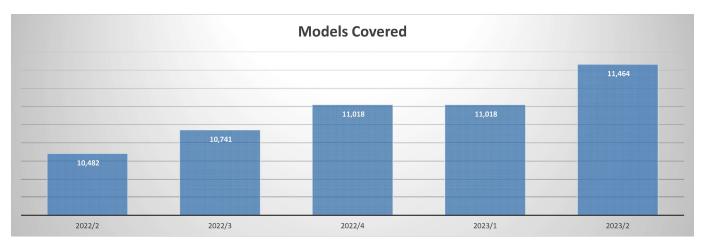
In order for the ELS behavior to 'kick in', you are required to have purchased (and registered) your new tool or annual renewal *on, or after August 1, 2021*.

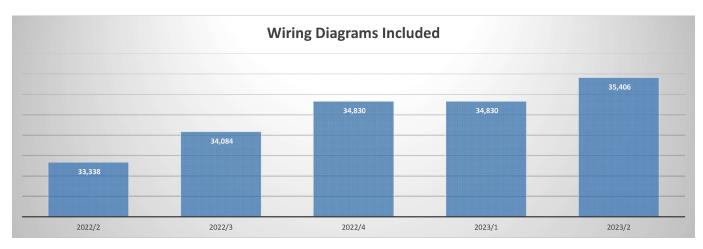
Of course, we believe you will still find sufficient value in our periodic updates and continue to purchase on an annual basis.

Please contact your distributor or Bosch support team if you have any questions.

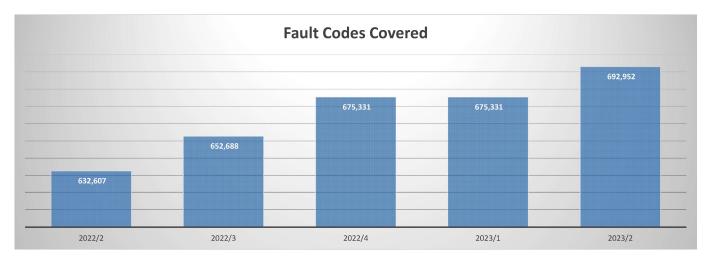
# Expanding Coverage

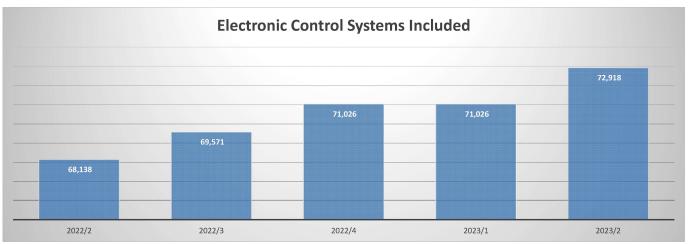


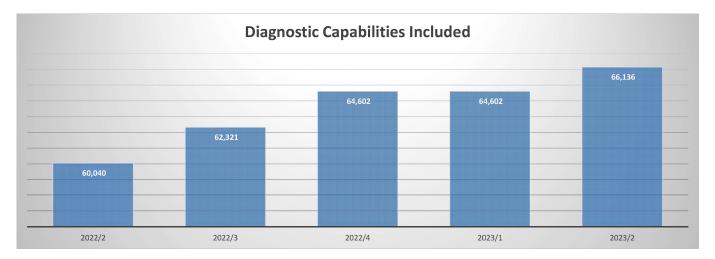




# **Expanding Coverage (continued)**







# **Additional Vehicle Coverage & Highlights**

### Heavy – Duty Truck

New content has been added for the following Heavy Duty Systems:

#### ► <u>ALLISON</u>

- Allison 6th Gen of transmissions, service routines for oil change and clutch wear, GIF System Display.
- Allison 5th Gen of transmissions, new parameter groups such as PTO, retarder, maintenance settings, ECU information, etc., GIF System Display.
- $_{\odot}$  More than 30 Troubleshooting guides by symptom for 1000/2000 & 3000/4000 models.

#### BENDIX

- New EAC electronic air control unit including air filter cartridge reset procedure and technical information.
- New TABS-8 trailer ABS brakes.
- SafetyDirect (SDP) system configuration parameters.

#### CUMMINS

- All systems
  - Extended coverage in all CUMMINS systems, especially for GHG21 systems with more than 500 new references and variants added. Furthermore, CUMMINS includes a new GIF System Display to simplify the Cylinder cut-out interpretation.
- GHG 21 systems
  - o B6.7 & L9 CM2450 engine control system, injector reset, copy to ECU, copy to Bosch.
  - X11 CM2670 engine control system, DPF & SCR regeneration, injector reset, DEF pump check, etc.
  - GHG 17 CM2350 SYSTEMS
    - B6.7 & L9 & X12/X15 engine control system, DEF metering cleaning, procedure to clean the DEF metering module using Bosch Tools in Denoxtronic2.2 variants.
    - Procedures such as 'Valve adjustment' that applies to many engine types or 'Distribution phasing' for most common CUMMINS systems.

#### DETROIT DIESEL-MBE

- o DDEC13/16/20 EPA13 GHG21 vehicles
  - New references and variants, especially for 2022/2023 vehicles.
- Procedures such as 'Valve adjustment' that applies to many engine types or 'Distribution phasing' for most common DETROIT DIESEL-MBE systems

#### FREIGHTLINER

- Technical data in SD Series and wiring diagrams that include the body builder connectors and their electrical connections in Century Class, Columbia, Econic & MT45/55.
- ▶ INTERNATIONAL
  - Technical data in DuraStar, WorkStar, LoneStar, TerraStar, TranStar & PayStar Series and wiring diagrams that include the body builder connectors and their electrical connections in LoneStar Series
- KENWORTH
  - Wiring diagrams that include the body builder connectors and their electrical connections in T470, T680, T880, W900 & W990.
- ▶ <u>NAVISTAR</u>
  - SCR engines:
    - N9/10 & N13 engine control system, DEF metering cleaning, procedure to clean the DEF metering module using Bosch Tools.
    - o A26 GHG21 engine control system, engine technical data & valve adjustment procedure.

- ► <u>PACCAR</u>
  - GHG 21 vehicles:
    - VECU-2, HVAC, DD, DCP and DCD modules, activations to check lights, windscreen washer, HVAC actuators and other peripherical components.
    - PCI-2 engine control system, NOx sensor system checks, cylinder compression, high-pressure system test, operation data, reset of the injector rail pressure control valve, engine technical data.
  - Procedures such as 'Valve adjustment' that applies to many engine types or 'Distribution phasing' for PACCAR MX engines.

#### VOLVO & MACK

- New FAS & FAS GW electro-hydraulic steering system.
- VECU 5 vehicle control system, parameter modification and maintenance routines such as air filter cartridge reset or PTO settings

### **Off-Highway Software**

NOTE – these features are only available if you have purchased the Off-Highway add-on module for the Bosch ESI Truck. To learn more about this additional capability, visit <u>www.boschdiagnostics.com</u> or see your tool distributor.
Online Repair (Troubleshooting) module is free of charge during the promotional period **until the end of 2022**.

### **Agricultural Vehicles Additional Coverage**

New content has been added in the following Agricultural Vehicle Systems:

- New brands & models
  - New brands
    - o BOURGOIN
    - OMC
    - o OXBO
    - FLORY (Self-propelled implements)
    - JACOBSEN (Professional mowers)
    - THOMAS (Conveyor belts)
    - New models
      - o ARBOS
        - 4090E, engine: Interim Tier 4/Stage IIIB
        - 7220, engine: Tier 5/Stage IV
        - 7260, engine: Tier 5/Stage IV
      - o CLAAS
        - Jaguar Series (502) forage harvester.
      - CASE iH
        - Steiger AFS Series CVT, engine: Tier 5/Stage V
      - DEUTZ-FAHR
        - Agrokid 210/220/230
        - Agroplus F Keyline
        - 5 DV/DS/DF TTV Series
        - 5 G TB Series
        - 5 Series
      - o KUBOTA
        - LX Series
      - MASSEY FERGUSON

- 3300 F Series
- 4200 Series
- 6700 R Series
- o VALTRA
  - A 800 R
  - A 990 R
  - A 63F
  - A 144 HiTech

These is just some of the most relevant new features enhanced and released in this new version. Please, contact us, use the DEMO mode, or read the VTC table to have a complete detail of the systems' coverage.

In general, new maintenance of AdBlue/DEF module cleaning in Deutz EMR4 – EDC 17CV52, EMR5 – EDC MD1, Sisu EEM4F – EDC 17 CV41 and FPT EDC 17 CV41 + Denox 2.2 engine control systems. In addition, the MVCU maintenance control system, of brands such as CLAAS, DEUTZ-FAHR, HÜRLIMANN, LAMBORHINI and SAME, extends its coverage with advanced functions such as the calibration of the hydrostatic unit or the slope sensor.

The ACM aftertreatment system, installed in models of brands such as CLAAS, DEUTZ-FAHR or FENDT, extends its coverage and advanced diagnostics functionalities such as the regeneration of the diesel oxidation catalyst or the system parameter setting.

#### ► <u>CASE IH</u>

- REHR spool valve control system, spool valve coding for Tier 5/Stage V models.
- o TCM transmission system, system parameter setting.
- $\circ$   $\;$  Troubleshooting guides by fault code in several brand systems.
- $\circ$  New troubleshooting guides by fault codes in the ENG engine regulation interface.
- New System Display in the QSC 8.3 CM850 engine control system for Axial-Flow 5088/6088/7088/2566/2688/2799 models.

#### CHALLENGER

- New Chassis Controller Hitch hydraulic lift system.
- New Auxiliar Husco Valves auxiliary hydraulic system.
- New MCM central computer system.
- C-18, J1939 engine control system, ash cleaning regeneration.
- EEM4F EDC 17 CV41 engine control system, AdBlue/DEF module cleaning. In addition, new wiring diagram configurations.
- ► <u>CLAAS</u>
  - MVCU maintenance control system, checks of the forward and reverse clutches and the main clutch.
  - EMR2 EDC engine control system, signal activation.
  - o ACM aftertreatment system, activation of the AdBlue/DEF system heaters.
  - New CEBIS electronic module.
  - o C4.4 / C6.6, J1939 engine control system, activation of the exhaust gas pressure regulator.
  - 1204F, J1939 engine control system, activation of the fuel pump relay.
- DEUTZ-FAHR
  - New CLUSTER instrument cluster.
  - EMR4 EDC 17 CV56 engine control system, AdBlue/DEF system checks.
- ► <u>FENDT</u>
  - EOL 7 vehicle configuration control system in 400 Vario Series, engine: Tier 3/Stage III A and 700 Vario Series, engine: Tier 2/Stage II models.
  - New wiring diagram configurations of Sisu engine control systems in 900 Vario MT Series Final Tier 4/Stage IV and 1100 MT Series Final Tier 4/Stage IV models.
  - EEM4F EDC 17 CV41 Master/Slave engine control system, component activation.
  - $\circ$  ACM aftertreatment system.
  - New wiring diagram configurations available for the EEM4/EEM4F EDC 17 CV54/EDC 17 CV41 system.
- ▶ <u>HÜRLIMANN</u>

• MVCU maintenance control system in XS/XV Series and XF Series models.

#### ▶ JOHN DEERE

- New TIQ transmission system.
- ECU HPCR (Level 40 Tier 4F/5 Stage IV/V) engine control system, cylinder cut-out, compression test and cylinder performance test.
- o PTR transmission system, system parameter setting.
- o Dynamic System Display in the QSX 15 CM2350 engine control system.
- o IHU header control system.
- CSM modular switch panel.
- o CAB cab module.
- o PDU cab display.
- MHC electronic module.
- PSC steering controller.
- VCU central computer.
- Troubleshooting guides by fault code in several brand systems.
- New guide to access the menu of harvester calibrations in the PSC system of CH300 Series, CH500 Series and CH600 Series models.
- In addition, technical data, wiring diagram configurations and component location images have been included in several systems of the brand.

#### ▶ MASSEY FERGUSON

- New EEM4 EDC 17 C63 engine control system.
- MFA armrest control system, joystick calibration.
- ▶ <u>NEW HOLLAND</u>
  - o ADIC instrument cluster, system parameter setting.
  - o RPTO front power take-off system, system parameter setting.
  - $\circ$   $\;$  TCM transmission system, system parameter setting.
  - $\circ$   $\;$  ENG engine regulation interface, system parameter setting.
  - New EDC 17 CV41 Vector engine control system.
  - Troubleshooting guides by fault code in several brand systems.
  - In addition, new technical data available for ACM, ADIC and DEC systems in the T6 Series DCT, engine: Final Tier 4/Stage IV model.

#### ► <u>SAME</u>

- MVCU maintenance control system in Frutteto S/V Series, Frutteto Series, Explorer TB Series and Frutteto CVT Series models.
- o EMR4 EDC 17 CV52 engine control system, AdBlue/DEF module cleaning

#### ► <u>STEYR</u>

- EDC 17 CV41 + Denox 2.2 engine control system, AdBlue/DEF module cleaning.
- o Troubleshooting guides by fault code in several brand systems.

#### ▶ <u>VERSATILE</u>

- TC-PST transmission system, FAS suspension system and B4.5/6-7 CM2350 engine control system in the 175 Tractor model.
- Troubleshooting guides by fault code in several brand systems.

As in tractors and harvest equipment, Deutz EMR4 – EDC 17CV52, EMR5 – EDC MD1, Sisu EEM4F – EDC 17 CV41 and FPT EDC 17 CV41 + Denox 2.2 engine control systems include the AdBlue/DEF module cleaning in models of brands such as AGRIFAC, CASE iH, HOLMER, PELLENC or STORTI.

Improved wiring diagrams and technical data in the ECU HPCR (Level 34 – Tier 4F/5 – Stage IV/V) system of brands such as COE, ENERGREEN, STRAUTMANN or WEISS MCNAIR.

The EMS V4 engine control system, installed in models of brands such as SITREX-AGM TATOMA or VERVAET, extends its coverage with the EGR solenoid valve activation and the exhaust gas recirculation check.

### **Construction Vehicles Additional Coverage**

New content has been added in the following Construction and Off-Highway Vehicle Systems:

- ▶ <u>New brands</u>
  - o BERGMANN
  - EUROTRAC
  - FUCHS
  - o TAYLOR
  - TEREX FINLAY
  - THWAITES
  - VENIERI
- New models in the following brands
  - o DEMAG
    - New models, 1 family and 4 models included.
  - o JCB
    - New models included
  - o KOMATSU
    - New models for Serie 7 rigid dumpers.
  - o LIEBHERR
    - New Serie Compact excavators
  - o SANY
    - New models included
  - o SCANIA
    - New models, 17 Stage V models included.
  - o YANMAR
    - New models included

#### AHLMANN

o Deutz EMR4 ED17 CV52 engine control system, check of the AdBlue/DEF module cleaning.

#### ► <u>CASE CE</u>

- $\circ$   $\,$  New wiring diagram configurations in 1000M, 2000M and 800C models.
- New wiring diagram configurations in SR 130 Series, SR 175 Series, SR 210 Series, SR 240 Series, SR 270 Series and 221F models.

#### CATERPILLAR

- C-7.1 (on SAE J1939) engine control system among others, exhaust and intake system check, maintenance for the ash cleaning regeneration and high-pressure pump calibration of the fuel system.
- EHCU I (on CDL) hydraulic control system for wheel loaders, implement system calibrations.
- TTT (on CDL) hydraulic control system for D6R dozer, automatic calibration of the adjustment solenoid valves of the brake pressure.
- $\circ$   $\;$  New wiring diagram configurations in D11, D9, D6 dozers.
- New C-2.2 (on SAE J1939) engine control system.
- New MCM (on CDL) central computer for 400 Series backhoe loaders.
- Caterpillar C-4.4 and C-6.6 (on SAE J1939) engine control systems, actuations of the exhaust gas pressure regulator and the fuel pump relay.
- Caterpillar C-3.6 (on SAE J1939) engine control system, maintenance for the recovery process of the exhaust gas aftertreatment system.

#### ► <u>CUMMINS</u>

- More than 500 references of CUMMINS systems have been included. In these systems, the display format of parameters has also been improved.
- B4.5/6.7 CM2350, QSB4.5/6.7 CM2350, QSF3.8 CM2350 and L9 CM2350 engine control systems, among others. New advanced diagnostics functions such as the cylinder cut-out and the parameter setting.
- New equipment technical data, engine types, technical releases and procedures in X15, X12, B4.5/6.7, L9 and QSB6.7 engines, among others.

#### ► <u>DEMAG</u>

- o Deutz EMR2 EDC engine control system, actuations of the output signals of the control unit.
- ► DIECI
  - Perkins 904J (on SAE J1939) engine control system, maintenance for the recovery process of the exhaust gas aftertreatment system.
- DOOSAN
  - Doosan DL06/DL08 EDC17 CV41 engine control system that includes the maintenance for the SCR catalytic converter regeneration and the System Display of the fuel system.

#### ▶ <u>HITACHI</u>

• MC central computer system for ZX – 5 Series excavators, implement parameter setting.

#### ► <u>JCB</u>

• ECM 430 Diesel Max engine control system, injector coding.

#### ▶ JOHN DEERE

- New VC2 central computer for motor graders.
- New HVC hydraulic control system for motor graders.
- New AVC hydraulic control system for motor graders.
- New VCU central computer for L Series wheel loaders.
- TCU transmission for Serie J wheel loaders, transmission calibration.
- VCU central computer for Serie K wheel loaders, implement calibrations.
- MC central computer system for excavators, implement parameter setting.
- JSR system for skid-steer loaders, system measurement.
- o JSL system for skid-steer loaders, system measurements.
- $\circ$  TCU transmission for wheel loaders, transmission calibration.
- $\circ$   $\;$  New wiring diagram configurations in K Series and L Series wheel loaders.
- Equipment technical data and new engine types in 330G, 331G, 332G and 333G models of skid-steer loaders.
- Troubleshooting guides for Yanmar 4TNV94FHT and 4TNV94CHT engines.

#### ▶ <u>LIEBHERR</u>

- New Master 4 central computer for excavators.
- $\circ$  Liebherr UPCR engine control system, System Display of the fuel system.
- o Deutz EMR2 EDC engine control system, actuations of the output signals of the control unit.

#### POWERSCREEN

- Caterpillar C-4.4 and C-6.6 (on SAE J1939) engine control systems, actuations of the exhaust gas pressure regulator and the fuel pump relay.
- Caterpillar C-7.1 (on SAE J1939) engine control system, exhaust and intake system check, maintenance for the ash cleaning regeneration and high-pressure pump calibration of the fuel system.
- SANDVIK
  - Perkins 904J (on SAE J1939) engine control system, maintenance for the recovery process of the exhaust gas aftertreatment system.

- IC instrument cluster for excavators.
- GPMECU 1 central computer for L Series (XY H) wheel loader, check of the quick hitch system.
- GPMECU 2 central computer for L Series (XY H) wheel loader, setting parameters of the steering system solenoid valves.
- GPMECU 3 central computer for L Series (XY H) wheel loader, setting parameters of the steering system joystick.

#### ▶ <u>VM MOTORI</u>

- Stage IV/Euro 6 EDC R754/R756 engine control system, actuations, histograms and operation data.

Overall, extended diagnostics coverage for engine control systems. There are new functionalities in the Deutz EMR4 ED17 CV52 system in the SCARAB brand, in the JCB ECM 430 Diesel Max system in the BUCHER brand and in the VM EDC R754/R756 system for Stage IV/Euro 6 engines in the AEBI brand.

### Thank you for being a loyal Bosch Customer.

# *Visit <u>www.boschdiagnostics.com</u>* and see your preferred Bosch Distributor for more information.

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