TRUCK PUMP CONTROL SYSTEM

Marketing, 2016.10
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TRUCK PUMP CONTROL SYSTEM
WHY ADVANCED CONTROL SYSTEM

Smartronic

ONLY FOR CLOSED LOOP PUMPING UNIT
CIFA Electronic pumping system main functions:

- Main cylinders speed regulated by ramps to increase pumping efficiency
- Very soft electronic Power cut-off calculated to strongly reduce pumping vibrations
- Electronic management of S-Valve depending on actual pumping unit pressure
- Change pistons function: allows to easy move the cylinders in the change pistons position
TRUCK PUMP CONTROL SYSTEM
WHY ADVANCED CONTROL SYSTEM

DIAGNOSTICS

- Information about failure
- Fault component localization
- Subpart involved
- Machine parameters status
Rear panel main focus:

All electromechanical components (buttons) removed from the panel
Clear information about machine commands and status through LED
Possibility to easy develop new functions
Easy cleaning
TRUCK PUMP CONTROL SYSTEM
WHY ADVANCED CONTROL SYSTEM

2017 UPGRADES

FUEL SAVING. Auto rpm for the automatic adjustment of rpm, depending on the performance required by the operator

Working ramps kit for the pumping unit, developed to reduce noise and vibration of the machine and Pressure limiter to control the pumping pressure
REMOTE CONTROL HETRONIC WITH DISPLAY 4.3” FROM JAN. 2017
AVAILABLE ONLY FOR CLOSED LOOP PUMPING UNIT

Allows at the operator to check main parameters of truck mounted pump directly by the display on remote control

REMOTE CONTROL HBC WITH DISPLAY AVAILABLE FROM JUNE 2017
TRUCK PUMP CONTROL SYSTEM
WHY ASC ADVANCED STABILITY CONTROL

STABILISATION CONTROLS
TRUCK PUMP CONTROL SYSTEM
WHY ASC ADVANCED STABILITY CONTROL

LAYOUT

CAN OPEN

DISPLAY
TFT LCD 7” color display

MAIN CONTROLLER
Bosch-Rexroth RC28-14/30
32bit tri-core microcontroller

SENSORS
Linear sensor
Angle and planarity sensor
Pressure transducer
Cable reel
ASC Advanced Stability Control
(according to EN 12001:2012)

For all partial outrigger extensions

Depending on the real outrigger position, ASC allows only safe boom movement
ASC Advanced Stability Control
(according to EN 12001:2012)

Main components

**Transponder sensor** increases the safety level of machine because the outriggers movement is allowed only when the boom is in on rest position.

**Main Controller**
Bosch-Rexroth RC28-14/30
32bit tri-core microcontroller
ASC Advanced Stability Control
(according to EN 12001:2012)

Working area (100% + 50%)

Using outrigger linear sensors, ASC allows a wider working area, with the same stabilization and boom position.

ASC

OTHER CONTROL SYSTEM
ASC Advanced Stability Control
(according to EN 12001:2012)

Working area (100% + 30%)

Using outrigger linear sensors, ASC allows a wider working area, with the same stabilization and boom position.
TRUCK PUMP CONTROL SYSTEM
WHY SMARTRONIC

CARBOTECH Series
FOR CLOSED LOOP PUMPING UNIT

Smartronic™
GOLD

STANDARD FEATURES

PUMPING UNIT CONTROL
FAULT COMPONENT LOCALIZATION
MACHINE PARAMETERS STATUS
CAP SENSE REAR PANEL
ASC ADVANCED STABILITY CONTROL

STEELTECH Series
FOR CLOSED LOOP PUMPING UNIT

Smartronic
SILVER

STANDARD FEATURES

PUMPING UNIT CONTROL
FAULT COMPONENT LOCALIZATION
MACHINE PARAMETERS STATUS
CAP SENSE REAR PANEL
OPTION
ASC ADVANCED STABILITY CONTROL
TRUCK PUMP CONTROL SYSTEM
SMARTRONIC vs EASYTRONIC

FOR CLOSED LOOP
PUMPING UNIT

FOR OPEN LOOP
PUMPING UNIT

Smartronic

Easytronic
TRUCK PUMP CONTROL SYSTEM
WHY CONTROL SYSTEM

Easytronic

FOR OPEN LOOP PUMPING UNIT
TRUCK PUMP CONTROL SYSTEM
WHY CONTROL SYSTEM

PUMPING UNIT MANAGEMENT
The system manage the pumping unit optimizing the performance

COUNTERS
The system collects and shows main data

DIAGNOSTICS
The system provides a detailed analysis of the working phase
TRUCK PUMP CONTROL SYSTEM
WHY LSC LIGHT STABILITY CONTROL

STABILISATION CONTROLS
LSC Light Stability Control
(according to EN 12001:2012)

- outrigger cord sensor
- outrigger linear sensor
- rotation safety limit switch *
- rotation safety limit switch *
- boom rotation sensor (encoder)
- transponder

* used only in case of encoder failure

This transponder sensor increases the safety level of the machine because the outriggers' movement is allowed only when the boom is in its rest position.
LSC Light Stability Control
(according to EN 12001:2012)

The system works when 2, 3 or 4 outriggers are fully open
LSC Light Stability Control
(according to EN 12001:2012)

4 outriggers fully open: it's allowed to move the boom on both sides by 270°
TRUCK PUMP CONTROL SYSTEM
WHY CONTROL SYSTEM

LSC Light Stability Control
(according to EN 12001:2012)

2 outriggers fully open: it’s **allowed** to move the boom in the following configuration

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**ok !**

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TRUCK PUMP CONTROL SYSTEM
EASYTRONIC

CLASSIC Series
STEELTECH Series

AVAILABLE

FOR OPEN LOOP PUMPING UNIT
AVAILABLE FROM JUNE 2017

Easytronic

STANDARD FEATURES

PUMPING UNIT MANAGEMENT
COUNTERS
DIAGNOSTICS
OPTION

LSC LIGHT STABILITY CONTROL
TRUCK PUMP CONTROL SYSTEM
SMARTRONIC ASC Vs EASYTRONIC LSC

ASC

Example boom configuration

LSC

ADVANCED CONTROL
INCREASE WORKING AREA

LIGHT CONTROL
TRUCK PUMP CONTROL SYSTEM
ASC Vs LSC stabilisation system

ASC

ADVANCED CONTROL
INCREASE WORKING AREA

LSC

LIGHT CONTROL

Example boom configuration