USER FRIENDLY OPERATOR INTERFACE

7" monitor shows all machine geometrical data and working area, replacing all cockpit instruments. Complete diagnostics is a further feature.



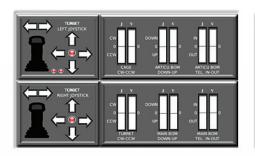
Operating data shown:

- Working radius and height
- Work area top view
- Warnings and alarms
- Boom angle and extension
- Jib angle and extension
- Maximum working limits
- Truck tilt level Basket load
- Engine and transmission data
- Diagnostic messages
- Water monitor conditions
- All Inputs and outputs
- Movement & Joystick condition
- Ladder steps allignment
- Optional camera page

Some interface pages:













The "Fire Global"

Fire-Fighting Machines Global Control System

Complete, Full performances, Full features system CAN-BUS State of the art solution Specially designed for all fire-fighting Access Ladder Platforms.

Fire Global System fully complies with EN 1777, EN13849 "SIL II Pld Safety" standards and EMC "Heavy Industrial Environment" of Machines Directive.

System also performs automatic truck self levelling and cage self levelling.

Fire Global System can be installed on all kind of machines to increase their performances





Fire Global system keeps all hydraulic and electric components of the machine under control.

Fire Global system performs: redundant out-reach control, on-line machine stability calculation and speed controlled by proportional valves depending on working conditions, load into basket, boom angle/extension, anticollision, wind speed,....

Fire-Fighting applications' unique software has been developed for truck stability and boom tilting moment calculation; online comparison allows machines to operate with variable extension of single outrigger jack.

Main CAN-BUS link also allows to get information from new generation engines, or any other installed electronic CAN-BUS unit and to manage them directly by means of the colour TFT display..



GENERAL CHARACTERISTICS

- Full machine electronic control.
- Double CAN BUS link: OPEN / J1939
- Complete diagnostic system
- Dynamic graphic TFT color monitor
- GPRS remote control / GPS localisation
- Data Logger & Preventive Maintenance

SAFETY FEATURES

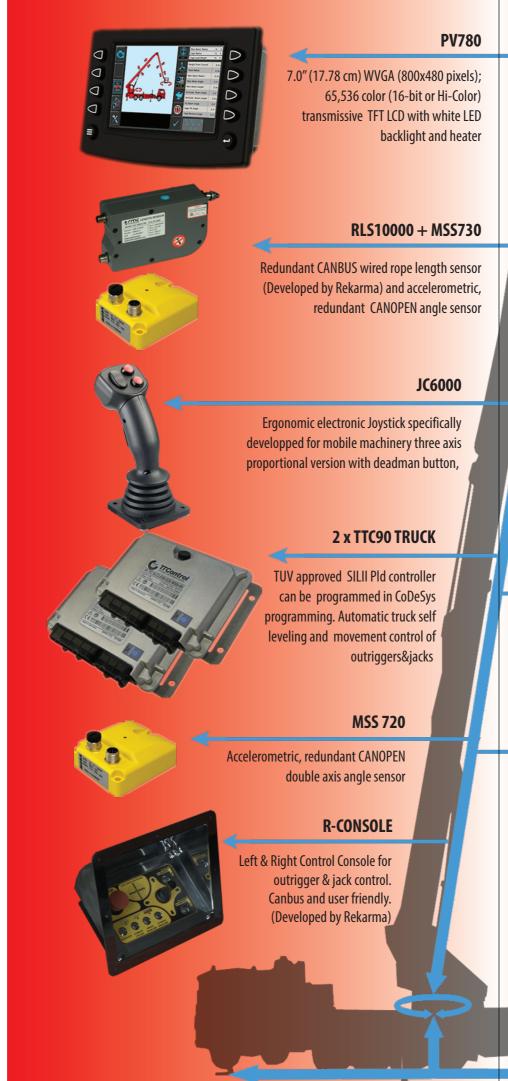
- Area limitation based on outrigger extentions
- Outreach limitation according to machine working diagram
- Cage load limitation
- Turret slewing limitation

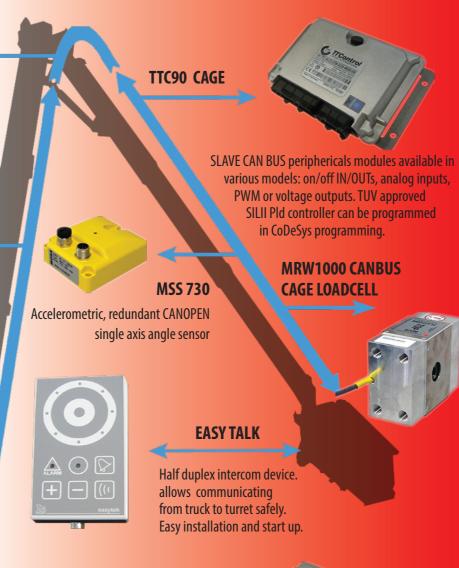
BOOM CONTROL

- Speed Reduction of each element depending on machine geometrical limits.
 Start/stop movement ramp control
- Automatic slow down from warning sign start, up to safety stop.
- Quick machine setup.
- Automatic machine closing to rest position.
- Ladder steps alignment control
- System can memorize machine geometrical position and warn to operator for reach to same position with arrows by screen. (Memo function)
- Fiber optics data transmission to cage.
 (Optional)

TRUCK CONTROL

- Automatic truck levelling on outriggers.
- Outriggers jacks position
- 360° stability calculation
- Outrigger and jacks movement control
- Outriggers control separate panel.





TTC90 TURRET

MASTER CAN BUS main unit equipped with multiple on/off - analog Inputs and multiple power on/off - PWM output TUV approved SILII Pld controller can be programmed in CoDeSys programming.



BMMH REDUNDANT ENCODER

Incremental or absolute encoders optical or magnetic, single or mutiturn versions incremental or CAN BUS outputs provided. Typical accuracy: 0,1-1° rated with IP65 housing and connector.



4 x DSM 500 Ultrasonic Length Sensor

Outriggers jacks extension detections ultrasonic high technology redundant 5m length sensors, IP65 housing, M12 connector.



CAGE CONTROL

- Automatic Cage self levelling
- Automatic warning at \pm 10° deviation
- Control of PWM proportional valves.
- Reduntant load limitation
- Cage collision to external obstacles by ultrasonic sensors.
- Optional cage display.
- Automatic work chart selection depending
 on cage weight. (1/2/3 person)
- Intercom analog comunication to turret.
- Cage automatic centering
- Cage extension valves control
- Water monitor control
- Speed reduction according to Wind speed

TURRET CONTROL

- Movements control through 2-3 axis proportional joysticks.
- Control of PWM proportional valves.
- Turtle/Rabbit speed mode selection
- Adjustable Turtle and Rabbit speed by display
- Turret slewing angle measurement and automatic centering

ENGINE CONTROL (Optional)

- Main engine and auxiliary engine connection by SAE J1939 line.
- Battery voltage indicator
- Engine oil control
- 220 / 380 V Electrical generator control
- Engine / transmission diagnostic codes and messages on monitor