



Cummins Engine KTA38

CMR Group offers :

- The expert advice of the inventor of the « precabling systems » concept (first patent in 1972).
- A know-how based on over 40 years experience in the development and production of measuring systems, tested and referenced by the biggest engine manufacturers.
- A complete control of the measuring channel by a recognized specialist, from the simple sensor to the complete supervision.
- A guarantee of quality and reliability backed up by the ISO 9001 certification.
- A range of products approved by the main classification societies.
- The possibility of developments of tailor made solution for all your applications.
- The assurance of logistics and services available world wide thanks to an international presence.

Guascor Engine FGLD480



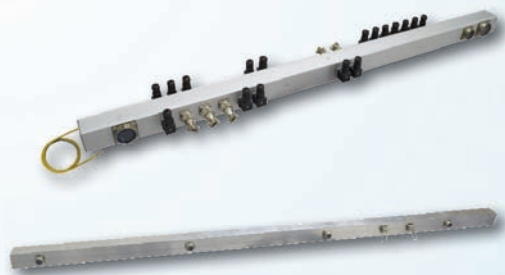
Wärtsilä 220 engine

Applications

- Connection of sensors used for monitoring diesel and gas engines
- Transmission of measuring signals
- Transmission of power supply to ignition coils for gas engines

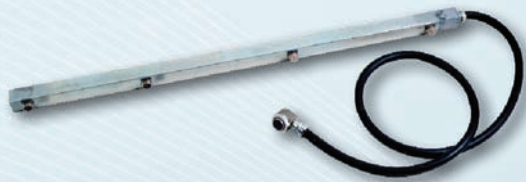
Precabling Systems

« Classical » thermometric and pyrometric pipes CT, CPT, CTT



- Simplified engine cabling
- Reduced costs of cabling
- Installation and replacement of sensors in minimum time
- Impossibility of inversion when connecting sensor
- Standardization of sensors (cable length) and optimization of spare parts stocks.

Inside crankcase thermometric pipes * CTC



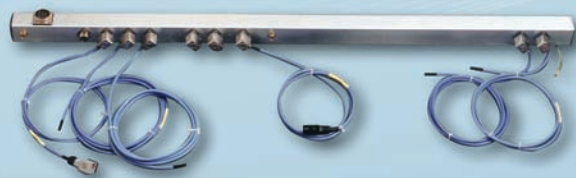
- Perfectly waterproof for fixing inside crankcase (for example for bearings temperature measurement transmission)
- Economy on sensor cables (which do not need to go outside the casing)
- Outputs by a single fitthrough of the crankcase
- Engine esthetics maintained due to absence of external cabling.

Ignition pipes and Measurement Ignition pipes * CAL and CAC



- Installation of ignition coils (gas engines) and pulse transmission.
- A concept mix : ignition pipe + "classical" pipe (CMR patent)
- Pipes carrying high voltage for supplying ignition coils and low-level signal (measurement)

Complex pipes * and multiservice pipes CAW and CPW



- Complex pipes carrying out the functions of a measurement and ignition pipe and those of a multi-service pipe.
- Pipes allowing for the transmission of all low voltage and low-level signals.

*Also have all the advantages of the "classical" pipes

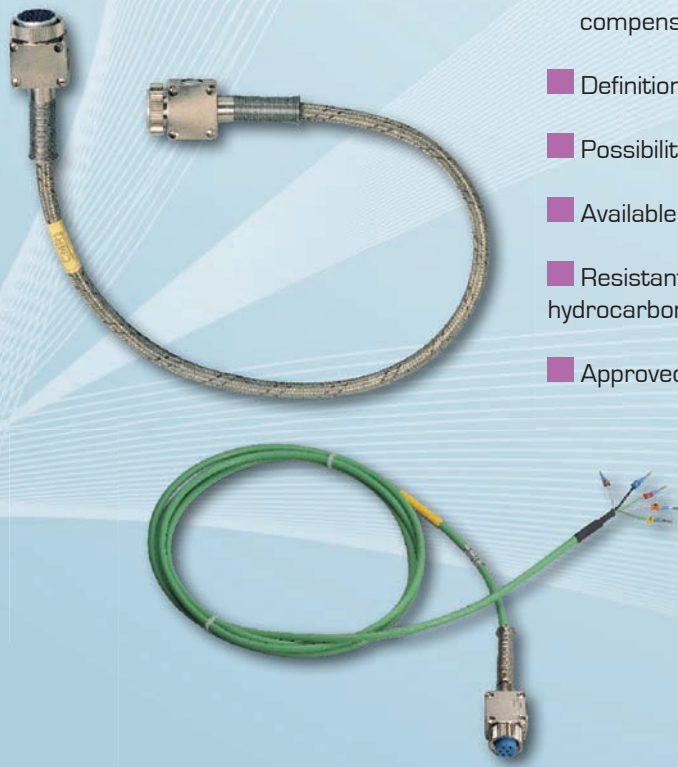
Precabling Systems

Non rigid pipes HARNESS



- The economical solution for transmitting the different measurements of an engine in a precabled situation.
- Industrial easy assembly plug and play harnesses allowing fast fitting and reduced production tack times to increase capacity.

Cables



- Various functions : telemetry, extension or compensation
- Definitions on CMR specifications
- Possibility of all types of conductor
- Available with or without connector
- Resistant to vibrations, high temperatures, hydrocarbon...
- Approved by the main classification societies.