OMS Software
Opta Management System

crane

Crane Electronics' system software package, OMS, features a fully encompassing range of functions to provide a complete company wide solution to all Torque related activities. This includes Tool and Joint management, Tool repair/maintenance histories, quality Torque auditing and production data, R&D data storage including Torque/Time/Angle trace analysis and Transducer/Readout calibrations. In addition, OMS allows the user to generate a series of bespoke reports and records.

Calibration and scheduled recalibration dates for production Tools and Auditing Devices are managed. This maintains not only an efficient and traceable record, but also provides the user with an effective management tool to view upcoming work. OMS allows the user to track the location of Tools by assigning them to processes (Joints). It also offers the facility to certify Tools, automatically collecting readings by connection to a Tool controller via Ethernet and comparing them to the master Calibration device.

Tool management within OMS enables the user to track both in house or 3rd party repair/maintenance records and associated costs for assembly and audit Tools.

OMS allows the user to configure Jobs and Rounds. Used in conjunction with any of the Crane Opta family of products this provides the perfect quality system for periodic sampling of both residual and dynamic Torque/Angle measurements.

A key and unique feature in OMS is the custom Report module. The user can select any field(s) within the database and create their own custom Reports, tying together data to produce bespoke management information. This powerful tool provides the user with unprecedented access to their data. It allows for cost and efficiency tracking of Tooling/Audit Devices, workload scheduling and traceable Calibration / certification records in addition to in depth data analysis.

Key features
✓ Single database to store Torque information from all departments
✓ Cross reference production, quality and tooling information
✓ All data completely traceable and secure
✓ Configurable by user profile
✓ Customisable forms with filtering
✓ User friendly operation with intuitive icons (click or touch)
✓ Multiple location and user log in
✓ Tool management including repair/maintenance history
✓ Management of production and audit Torque tools
  - Transducers, Wrenches & Readouts
✓ On-line or off-line certification of production & audit tools
✓ SQL database that can be installed on a server or local PC
✓ Synchronisation of offline databases
✓ Advanced report generator
✓ Data capture in real time
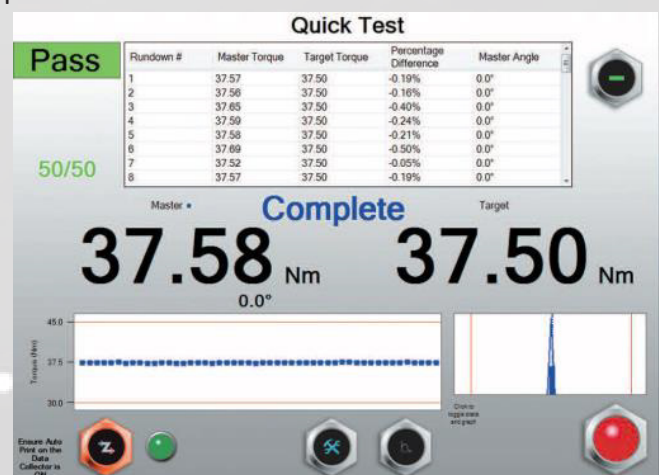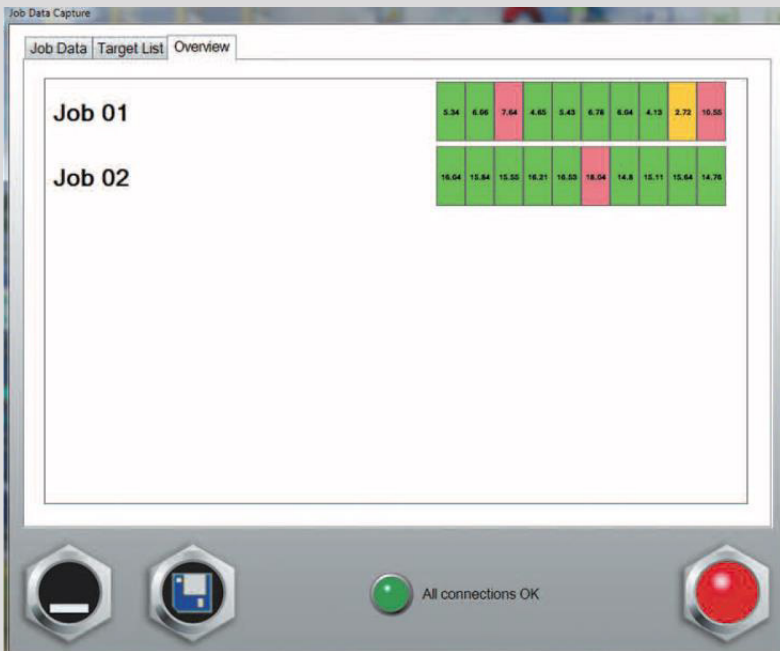
Job Data Capture

This module allows the user to capture Torque data from RF IQWrenches and to save it into the OMS database.

Multiple IQWrenches send their data via a wireless link to receivers that connect straight to a customer's Ethernet network.

The software service takes the data from the receivers and stores it against Jobs defined in the OMS database. The data can then be analysed using OMS reports or viewed directly.

Product Codes

Each OMS module can be ordered for the following numbers of seats – 1, 2-5 or 6-15. Follow the product code creator. Just fill in the blanks to create the code.

| OMSXX - [Seats] - [Module Type] |

Seats
0001 for 1 seat,
0005 for 2-5 seats,
0015 for 6-15 seats.

Module Type

A U D I T D
Audit Devices on Applications

T O O L M M
Tool Maintenance Management

C E R T T T
Tool Certification for Transducerised Tools

C E R T S T
Tool Certification for Standard Tooling

R E P O R T
Customised Reporting Engine

D W C A L S
Dead Weight Calibrations

J O B D A T A
Job Data capture
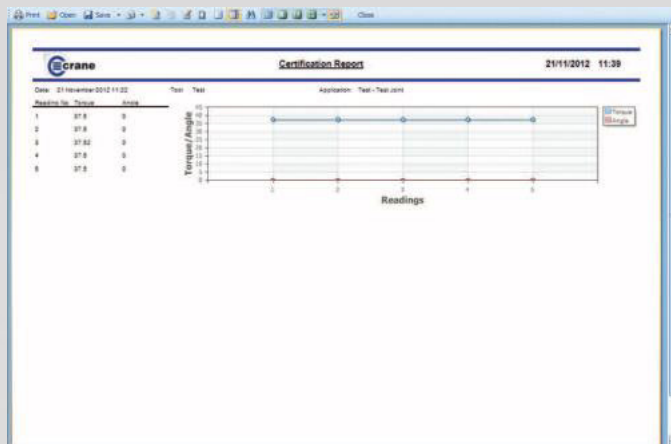
Customised Reporting Engine

One of the most powerful aspects of OMS is the Customised Reporting Engine. This functionality allows the user to select any fields from within the database in order to generate a Report exactly to their requirements. A user friendly interface also allows logic to be applied to the selected fields for filtering and sorting purposes.

The one time through process of configuring a Report takes the selected fields and automatically passes them to a reporting program in order to format and represent on the page as required. Reports can be run as needed or automatically run depending on the user preference.

Once run, the Report can be saved in all common formats including Excel, Word, PDF, JPEG and many more.

Users can choose from a list of supplied predefined Reports as is, modify them to their own requirements or generate a completely new Report.

The reporting engine transforms a Tool, Joint and Audit Device management/administration system into a unique, cost and efficiency saving package, providing unprecedented access to data in a completely flexible framework.

Dead Weight Calibrations

OMS also allows the user to calibrate their own measurement devices. Calibrations or verifications can be done with either a loader arm and reference transducer or a dead weight and beam rig. In both cases OMS can be configured to provide a user defined step by step guide throughout the process. All measurements are fully traceable with a complete list of equipment used. When using a dead weight and beam rig, automatic calculations are made to provide the user with best fit combinations to ensure correct measurements are taken.

Used in conjunction with the appropriate equipment and environmental control systems the Calibration software is fully in accordance with ISO17025 procedures.

Audit Devices on Applications

The Audit Devices on applications module allows the user to configure Jobs and Rounds to be used in conjunction with all current Crane Readouts, Data Collectors and Wrenches in the Opta family. Jobs and Rounds are primarily used as a system to collect periodic sampling of Torque and Angle readings for quality analysis.

To configure a Job the user simply selects an application (Joint) and configures the additional settings to meet their measurement requirements including; measurement type, number of readings, units of measure and any other data required to be collected in the form of comments. Multiple Jobs can be defined for a given application which allows data to be easily searched, reported on and cross referenced.

For example:- daily, weekly or monthly audits as well as containment and process buy-off data, each having different auditing requirements are all associated with the same application.

By configuring Rounds, Jobs can be organised into a specific order whereby the measurement device automatically informs the user and loads the next operation.

Both Jobs and Rounds can be scheduled against a custom calendar making it easy for the user to ensure measurements are taken in a regular and timely manner in accordance with their quality system requirements.

Tool Maintenance Management

The Tool Maintenance Management module allows the user to perform and document both scheduled preventative maintenance and breakdown repairs.

Whether these activities are done in house by a tool crib or sent out to a 3rd party vendor, OMS can track all the relevant information.

For in house maintenance and repairs, OMS can be configured with a full parts list including their individual default price and labour component. Parts are associated with their specific model(s) of Tools making it simple and easy to use and can be exported/imported through Excel for updates as required. In addition, the OMS username is stored against the maintenance/repair Record for both traceability and to assign the correct labour cost.

When tools are sent to 3rd party vendors, OMS can track shipping details, quote numbers and costing.

Not only does the Tool Maintenance Management module offer secure and effective administration of the tooling function, when used in conjunction with the Custom Reporting module it also provides an extremely powerful tool to analyse all aspects of its cost including:- Tool durability, effectiveness on a given application and full cost of ownership. This information is vital for improving efficiencies, ensuring the correct Tool is selected and that its maintenance scheduling is set at the appropriate interval.

Tool Certification for Transducerised Tools

For users wishing to certify or validate Transducerised Tooling, OMS can also be configured to communicate directly with Tool controllers. When doing so, Tool readings for Torque and Angle are automatically uploaded into the database via TCP/IP network interface and compared against the master values.

Alternatively, for Tool controllers that do not have a communication interface, OMS can be configured to automatically prompt the user to enter readings manually.

Tool Certification for Standard Tooling

The Tool Certification for Standard Tooling module allows the user to take dynamic Torque and Angle measurements on either TorqueStar Opta or for maximum benefit the new tJRS Opta.

When used in "online" mode, OMS takes control of the measurement device and automatically configures it for the Tool being certified, removing the need for user input on that device. With the use of a switching unit the correct transducer can also be automatically selected.

Measurements are compared to a target value and plotted on a graph with an accompanying distribution curve and running statistics.

OMS also features an "offline" mode that allows the user to download Tool certifications to a mobile Data Collector for use remotely from the PC. This caters for hard to reach Tool locations or fixtured spindles. In off-line mode the user can also choose to download certifications/validations to an IQWrench2 Opta for in process testing using residual measurements.

Certifications can be scheduled for a specific time interval providing an easy to read status of all Tooling.

As with all OMS records, the data is securely stored and available for on screen viewing or hard copy printouts. Use of a label printer allows the user to attach the tool certification status directly onto the Tool.

Ecrane

Complete torque management systems from Crane Electronics

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