



OMS

Torque Management Software



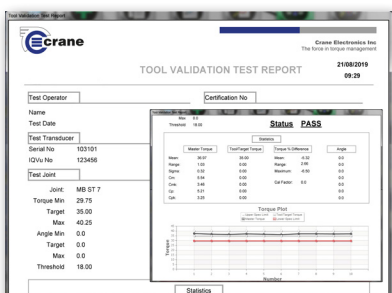
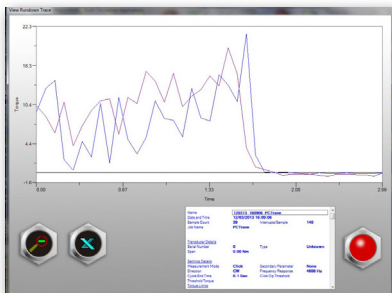
OMS torque management software features a fully encompassing range of functions to provide a complete, company-wide solution to all torque related activities.

OMS includes a number of features and functions such as tool and joint management, tool repair/maintenance histories, quality audit and production data management, R&D data storage including torque / time / angle trace analysis and transducer / readout calibrations as well as user generate, bespoke reports and records.

Scheduled calibration dates for production tools and auditing devices can also be managed to maintain efficiency and traceability but also to provide user with an effective management tool to view upcoming work.

OMS allows the user to configure 'Jobs and Rounds' and used in conjunction with Crane products, this provides the perfect quality system for periodic sampling of both residual and dynamic torque/angle measurements.

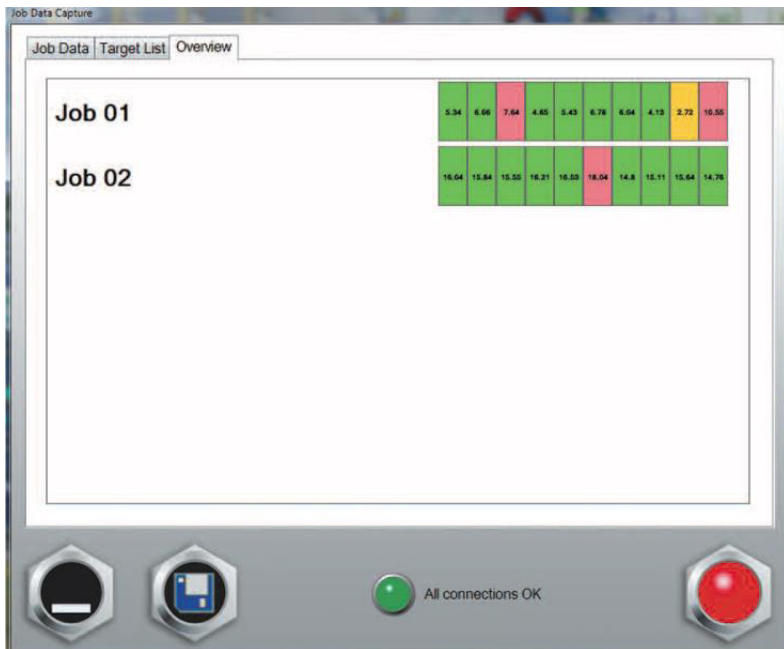
This powerful software program provides the user with unprecedented access to their assembly and quality data. It allows for cost and efficiency tracking of tooling/audit devices, workload scheduling and traceable calibration and certification records, in addition to in depth data analysis and reports.



Key Features

- Single database to store torque information from all departments
- Cross reference production, quality and tooling information
- All data is completely traceable and secure
- Configurable by user profile
- Customisable forms with filtering
- User friendly operation with intuitive icons (click or touch)
- Tool management including repair/maintenance history, calibrations etc.
- Management of production and audit torque tools - transducers, wrenches & readouts
- Online or offline certification of production & audit tools
- SQL database that can be installed on a server or local PC
- Synchronisation of offline databases
- Advanced report generator with bespoke reports available

OMS Software



Job Data Capture

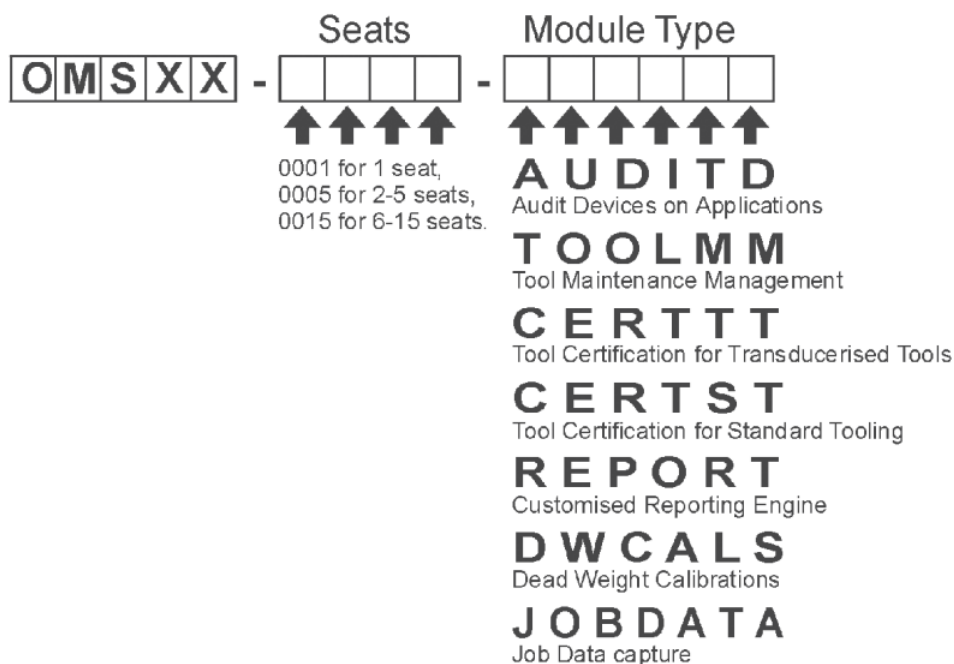
This module allows the user to capture torque data from RF IQWrenches and to save it into the OMS database.

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.





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.

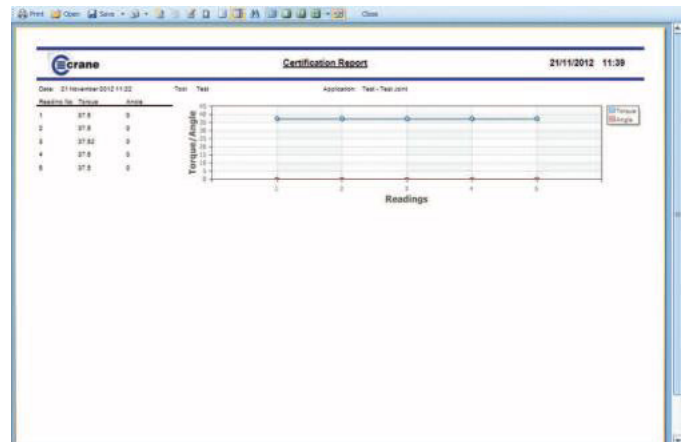
Users can choose from a list of supplied predefined reports as is, modify them to their own requirements or generate a completely new Report.

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 ISO 17025 procedures.



The screenshot shows the 'Select Report Fields' configuration window. The report name is 'Cert With Graph'. The fields selected for the report are:

- Tool Application CertVal - ID Number - A=X
- Tool Application CertVal - Tool Identification
- Tool Application CertVal - Application Identification
- Tool Application CertVal - CertVal Date - V=X and V=Y
- Tool Application CertVal Rundc - Rundown Number
- Tool Application CertVal Rundc - Master Torque
- Tool Application CertVal Rundc - Master Angle

At the bottom, there are options for 'Label Report' and 'Advanced Report', and two large red and green buttons.

The screenshot shows the 'Edit Routine' configuration window. The routine name is 'Test Calibration Routine'. The routine type is 'Dead Weight' and the measured property is 'Torque'. The applied discrepancy limit is 10%.

Action	Torque (% of FSO)	Required Angle	% Tolerance	Time (Secs)	Comment
Log Equipment					
Torque Right	10		5.0		Stage 1/4
Time Delay				30	
Torque Right	25		5.0		Stage 2/4
Time Delay				30	
Torque Right	50		5.0		Stage 3/4
Time Delay				30	
Torque Right	100		5.0		Stage 4/4

Pass Fail Criteria: Average Torque Left Difference <= ±5%

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

The screenshot shows the 'Edit Job' window with tabs for 'Job Details', 'TMAC Settings', and 'Extra Information'. The 'Job Details' tab is active, displaying the following configuration:

- Application: 0008 - motor to bkt
- Samples: 5
- Subgroups: 7
- Name: motor to bkt
- Description: (empty)
- Transducer Selection: Any appropriate
- Measurement Mode: Peak
- Dynamic or Static: Static
- Secondary Parameter: None
- Direction: CW
- Frequency Response: 542 Hz
- Cycle End Time: 1.0 Sec
- Adapter Type: None
- Job Comment Length: 0
- Subgroup Comment Length: 0
- Subgroup Reference Length: 0
- Pass/Fail Criteria: Inside Specification Limits
- Audit Interval: (checkbox)
- Obsolete: (checkbox)

The screenshot shows the 'Parts List' window with tabs for 'Parts List' and 'Extra Information'. The 'Parts List' tab is active, displaying a table of parts and their costs:

Part Number	Part Description	Qty	Cost	Hours
ABD-002	Filter	1	23.45	2.00
ACD-0234	Gromit	3	40.35	3.00

Below the table, there are checkboxes for 'Scheduled' (checked) and 'Completed'. At the bottom right, there is a summary table:

Total Quantity	4
Total Parts Cost	63.80
Total Hours	5.00
Total Labour Cost	87.50
Total Cost	151.30



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.

Item	Product Code	Product
Audit Devices On Applications	OMSXX-0001-AUDITD	OMS Software
Audit Devices On Applications 2 To 5 Seats	OMSXX-0005-AUDITD	OMS Software
Audit Devices On Applications 6 To 15 Seats	OMSXX-0015-AUDITD	OMS Software
Customized Reporting Engine	OMSXX-0001-REPORT	OMS Software
Customized Reporting Engine 2 To 5 Seats	OMSXX-0005-REPORT	OMS Software
Customized Reporting Engine 6 To 15 Seats	OMSXX-0015-REPORT	OMS Software
Tool Maintenance Management	OMSXX-0001-TOOLMM	OMS Software
Tool Maintenance Management 2 To 5 Seats	OMSXX-0005-TOOLMM	OMS Software
Tool Maintenance Management 6 To 15 Seats	OMSXX-0015-TOOLMM	OMS Software
Tool Certification For Transducerised Tools	OMSXX-0001-CERTTT	OMS Software
Tool Certification For Transducerised Tools 2 To 5 Seats	OMSXX-0005-CERTTT	OMS Software
Tool Certification For Transducerised Tools 6 To 15 Seats	OMSXX-0015-CERTTT	OMS Software
Tool Certification For Standard Tooling	OMSXX-0001-CERTST	OMS Software
Tool Certification For Standard Tooling 2 To 5 Seats	OMSXX-0005-CERTST	OMS Software
Tool Certification For Standard Tooling 6 To 15 Seats	OMSXX-0015-CERTST	OMS Software
Dead Weight Calibrations	OMSXX-0001-DWCALS	OMS Software
Dead Weight Calibrations 2 To 5 Seats	OMSXX-0005-DWCALS	OMS Software
Dead Weight Calibrations 6 To 15 Seats	OMSXX-0015-DWCALS	OMS Software

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 both 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 tJRS joint test bench.

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.

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.

Tool Details | Extra Information

C Number: [] Manufacturer: Acme Model Number: ACD-3241

Test: []

Serial Number: 13242 Category: Right Angle (Peak) Power: Hand Tool

Minimum Torque: 0 Maximum Torque: 100 Torque Units: Nm Maximum Speed: 1000

Transducer Direction: CW Frequency Response: 542 Hz Cycle End Time: 0.5 Sec

Service Status: Linked to Application as Primary

Transducerised
 Tang
 Non-Torque Tool

Unavailable

Crib Controllers

TMEM100

Manufacturer: cleco IP Address: 192.168.0.20

Port Number: 25 Keep Alive Interval (secs): 5000

Protocol: Open Protocol

For pricing, availability or further technical information about OMS software, please contact us online at www.crane-electronics.com or alternatively, email us at sales@crane-electronics.com.

The force in torque management

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