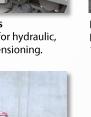
# **Bolting Technology**

#### **Bolting Tools For Nearly All Applications On Cranes & Construction Machines**



**ITH Bolt Tensioning Cylinders** M16 to M800 (3/8" to 31 1/2") for hydraulic, friction-free and torsion-free tensioning.



Extraction tool "Puller"-cylinder for pulling out conus bolts on cranes.



**ITH Hydraulic Torque Wrenches** Four types for torques from 250 Nm to 130.000 Nm, single-hose and dual-hose.



ITH Nut Runners Elektric, battery-powered and pneumatic for torques from 200 Nm to 14.000 Nm.



**ITH Hydraulic Nuts** for example for counter weight installation.



**Digital Measurement & Documentation** Easy to use application software for documentation of all relevant application data.

Close To Our Customers Worldwide: Service And Support

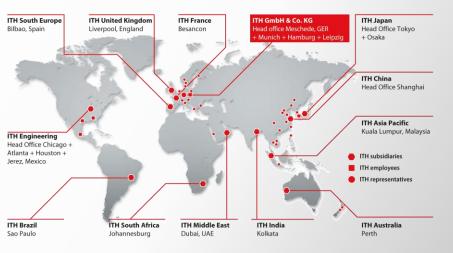
Contact us by phone or by email – we would be happy to give support or visit you for an on-site ITH bolting tool demonstration.

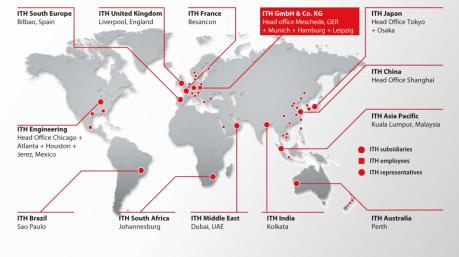
ITH Bolting Technology is the worldwide leading system supplier and offers Bolting Tools, Engineering, Fasteners and Service.

With more than 200 international patents ITH is an important driver of innovation in the market for bolting technology.

More than 40 global respresantations guarantee fast service and the "ITH Customer Focus".

Visit our website for more information or to find the local person in charge in your country.























# Bolting Technology

#### **ITH-Nut Runners Overview**

Tested and certified by LIEBHERR LIEBHERR document TI 726/2018

LIEBHERR crane system and nominal size:	Details:	ITH Bolting Tool:	Equipment:	Order no.*:
16HC175 (120HC) / M 36	Calibrated on crane tower corner connection M36x390 12.9	ITH Battery Nur Runner Type ADS	Reaction support arm (Liebherr specific); Power Wrench Socket 1 1/2" – A/F 55; Quick Charging Station, 2 x 18V Li-Ion Batterys	86.00106
16HC175 (120HC) / M36 17HC200 (170HC) / M45 21HC290 (256HC) / M45	Calibrated on crane tower corner connection M36x390 12.9 and M45x440 12.9	ITH Nut Runner Type EDS	Reaction support arm (Liebherr specific); Power Wrench Socket 1 1/2" – A/F 70; Power Wrench Socket 1 1/2" – A/F 55	86.00107
16HC175 (120HC) / M36 17HC200 (170HC) / M45 21HC290 (256HC) / M45	Calibrated on crane tower corner connection M36x390 12.9 and M45x440 12.9	ITH Nur Runner type EDSW (angle-version)	Reaction support arm (Liebherr specific); Power Wrench Socket 1 1/2" - SW70; Power Wrench Socket 1 1/2" - SW55	86.00117

<sup>\*</sup>Given order numbers refer to the Liebherr specific calibration of the bolting tool. Complete toolkits include supports which are designed to match Liebherr crane tower corner connections M36 /M45, similar to pictures shown below.

#### **Complete Toolkits**





### **ITH-Nut Runner Applications**



ITH Battery Nut Runner type ADS 400 on a crane tower corner bolt connection including Liebherr-design support arm.



ITH Electric Nut Runner type EDSw on a crane tower corner bolt

## ITH Hydraulic Torque Wrench Type CX for Cranes

LIEBHERR crane system and nominal size:	Details:	ITH Bolting Tool:	Equipment:	Order no.*:
Diverse crane types, M36 and M45	Liebherr-specific reaction arm	ITH Hydraulic Torque Wrench Type CX 8	Liebherr-specific reaction arm; Special Square drive socket 1 1/2"; Standard socket long 1 1/2" - A/F 70; Standard socket long 1-1/2" - A/F 55	86.00123

## **Complete Toolkit**



### **Application**



ITH Hydraulic Torque Wrench type CX 8 with high pressure pump Hydro-DAX V18 and reaction arm designed for Liebherr crane tower corner bolt connections.