

MAINTENANCE AND CALIBRATION



TORQUE WRENCHES

CAL0	Hand torque wrenches, preset
CAL1	Hand torque wrenches, ≤ 400 Nm
CAL1.1	Hand torque wrenches 401-1000 Nm
CAL2	Hand torque wrenches 1000-1499 Nm
CAL2.1	Hand torque wrenches >1500 Nm
CALD	Digital torque wrenches



SMALL PNEUMATIC TORQUE WRENCHES

CAL8	Clutch levers, preset / calibrated to a single value
TASHUOLTO	Pneumatic nutrunners with clutch shut-off/stall, full service
TASVHUOLTO	Pneumatic nutrunners with clutch shut-off/stall, basic service



HYDRAULIC TORQUE WRENCHES

CAL5	Calibration of a hydraulic torque wrench, 0-50,000 Nm
CAL5.1	Calibration of a hydraulic torque wrench, over 50,000 Nm
HYHUOLTO	Hydraulic wrenches, full service, models up to 15 000 Nm
HYHUOLTOXL	Hydraulic wrenches, full service, models 15 000 Nm and up
HYVHUOLTO	Hydraulic wrenches, basic service up to 15 000 Nm models
HYVHUOLTOXL	Hydraulic wrenches, basic service from 15 000 Nm models
HYRHUOLTO	Ratchet link service



ELECTRIC AND BATTERY-POWERED TORQUE WRENCHES

CAL7	Calibration of an electric torque wrench, 0-5,000 Nm
CAL7.1	Calibration of an electric torque wrench, over 5,000 Nm
SVHUOLTO	Electric tools, full service
SVVHUOLTO	Electric tools, basic service
DCHUOLTO	DC electric wrench full service
DCVHUOLTO	DC electric wrench basic service
FWHUOLTO	Controller or DC tool firmware upgrade



LARGE PNEUMATIC TORQUE WRENCHES

CAL4	Calibration of a high-pressure pneumatic torque wrench, 0-7,000 Nm
CAL4.1	Calibration of a large pneumatic torque wrench, over 7,000 Nm
CAL4.2	Pneumatic torque tools, set / calib. to one value
PTHUOLTO	Pneumatic tools, full service
PTIHUOLTO	Pneumatic tools, basic service



PNEUMATIC AND BATTERY-POWERED IMPULSE WRENCHES

CAL9	Impulse tools, preset
PULSHUOLTO	Impulse tools, full service
PULSVHUOLTO	Impulse tools, basic service

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OFFSETS

OLHUOLTO	Offset service
OLRHUOLTO	Offset link only service
CAL3	Offset link calibration



PNEUMATIC FOOT PUMPS

JPHUOLTO	Hydraulic footpump service
CALGAU	Calibration of a foot pump pressure gauge, up to 1,000 bar



TORQUE MULTIPLIERS

CAL3	Torque multiplier calibration
HTHUOLTO	Torque multiplier service



HYDRAULIC HAND PUMPS

KPHUOLTO	Maintenance of a hydraulic hand pump, 0–2,500 bar
CALGAU	Hand pump pressure gauge calibration, up to 1,000 bar
CALGAUHP	Hand pump pressure gauge calibration, 1,001–2,500 bar



ELECTRIC AND PNEUMATIC HYDRAULIC MACHINES

YKSHUOLTO	Full service of an electric/pneumatic hydraulic unit
YKSVHUOLTO	Basic maintenance of an electric/pneumatic hydraulic unit
CALGAU	Pump pressure gauge calibration, up to 1,000 bar
CALGAUHP	Pump pressure gauge calibration, 1,001–2,500 bar



HYDRAULIC CYLINDERS AND SPREADERS

SYHUOLT01	Service of hydraulic cylinder, range 0–25 t, incl. pressure test
SYHUOLT02	Service of hydraulic cylinder, range 26–100 t, incl. pressure test
SYHUOLT03	Service of hydraulic cylinder, range 101–249 t, incl. pressure test
SYHUOLT04	Service of hydraulic cylinder, 250t and above, incl. pressure test
SYTEST1	Pressure test of hydraulic cylinder range 0–25 t
SYTEST2	Pressure test of hydraulic cylinder range 26–100t
SYTEST3	Pressure test of hydraulic cylinder range 101–249t
SYTEST4	Pressure test of hydraulic cylinder range 250t and above

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HYDRAULIC HOSES

LETHUOLTO Hydraulic hoses, testing and checking 0–2,500 bar



ROTARY TORQUE SENSORS

CALANT4.CW Rotary transducers 1501 - 7000 Nm - calibration, clockwise

CALANT4.CW+CCW Rotary transducers 1501 - 7000 Nm - calibration, clockwise and anti-clockwise



HYDRAULIC TENSIONERS

HTTHUOLT01 Tensioner full service and pressure testing M20-M52, incl. seal change

HTTHUOLT02 Tensioner full service and pressure testing M56-M130, incl. seal change

VETHUOLTO Multi-stud hydraulic tensioners

HTTVHUOLT01 Tensioner inspection and pressure testing M20-M52

HTTVHUOLT02 Tensioner inspection and pressure testing M56-M130



TORQUE TRANSDUCERS

STATIC AND FLANGED TRANSDUCERS

CALANT1.CW Standard transducers up to 1,500 Nm – calibration clockwise

CALANT1.CW+CCW Standard transducers up to 1,500 Nm – calibration in both clockwise and anti-clockwise directions

CALANT2.CW Standard transducers 1,501–7,000 Nm – calibration clockwise*

CALANT2.CW+CCW Standard torque transducers 1,501–7,000 Nm – calibration for clockwise and anti-clockwise rotation*

CALANT3.CW Standard transducers 7,001–100,000 Nm – calibration clockwise*

CALANT3.CW+CCW Standard torque transducers 7,001–100,000 Nm – calibration for clockwise and anti-clockwise rotation*

CALANT8 Extended transducers calibration

CALUUSI Set-up costs for a new transducer model

*) Over 1 500 Nm torque transducers will be calibrated in Norbar Torque Ltd accredited laboratory (UKAS0256)



PRESSURE GAUGES

CALGAU Pressure gauge calibration ≤ 1000 bar

CALGAUHP Pressure gauge calibration 1001- 2500 bar

CALGAUHP.2 Pressure gauge calibration 2501-4200 bar

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TRUCHECK TORQUE MEASURING DEVICES

CALANT5.CW	TruCheck – all models – traceable calibration, clockwise
CALANT5.CW+CCW	TruCheck – all models – traceable calibration, clockwise and anti-clockwise
CALANT1.CW	TruCheck – all models – accredited calibration, clockwise
CALANT1.CW+CCW	TruCheck – all models – accredited calibration, clockwise and anti-clockwise



ETS AND TWA TORQUE MEASURING DEVICES

CALANT7.CW	All ETS/TWA models – clockwise calibration
CALANT7.CW+CCW	All ETS/TWA models – calibration in a clockwise and anti-clockwise direction***

***) CCW calibration for TWA models only.



PRO-TEST TORQUE MEASURING INSTRUMENTS

CALANT1.CW	Pro-test: all models up to 1,500 Nm - calibration in a clockwise
CALANT1.CW+CCW	Pro-test: all models up to 1,500 Nm - calibration, clockwise and anti-clockwise



DISPLAY DEVICES

CALDIS1.CW	Pro-Log/TTT display unit – calibration, clockwise
CALDIS1.CW+CCW	Pro-Log/TTT display unit – calibration, clockwise and anti-clockwise
CALDIS2.CW	T-Box 1/T-Box XL display unit – calibration, clockwise
CALDIS2.CW+CCW	T-Box 1/T-Box XL display unit – calibration, clockwise and anti-clockwise
CALDIS3	T-Box/T-Box XL display unit – software update
CALDIS4.CW	T-Box 2 display unit – calibration, clockwise
CALDIS4.CW+CCW	T-Box 2 display unit – calibration, clockwise and anti-clockwise



TST TORQUE MEASURING DEVICES

CALANT6.CW	All TST models – calibration, clockwise (incl. display + sensor)
CALANT6.CW+CCW	All TST models – calibration, clockwise and anti-clockwise (incl. display + sensor)
CALANT1.CW	All TST models, sensor only – calibration, clockwise
CALANT1.CW+CCW	All TST models, sensor only – calibration, clockwise and anti-clockwise