



# PLARAD<sup>®</sup>

Torque & Tension Systems

Bolting tools for  
crane assembly  
**Liebherr EC & HC cranes**

**PLARAD**  
approved by  
**LIEBHERR**

# Overview

Tower system previous name	Tower system new name	Connection	Width across flat	Tightening torques
71 EC		M 39 - 10.9	A/F 60	3 040 Nm
120 / 132 HC 140 / 154 HC	16 HC 175	M 36 - 12.9	A/F 55	2 900 Nm
170 HC	17 HC 200	M 45 - 12.9	A/F 70	5 830 Nm
256 / 290 HC	21 HC 290	M 45 - 12.9	A/F 70	5 830 Nm
200 IC		Taper pin connection 65 mm	A/F 46	800 Nm
355 / 390 HC		Taper pin connection 80 mm	A/F 55	800 Nm
	24 HC 420	Taper pin connection 80 mm	A/F 55	800 Nm
500 / 550 HC	24 HC 630	Taper pin connection 80 mm	A/F 55	800 Nm
	24 HC 1000 24 HC 1250	Taper pin connection 80 mm	A/F 55	800 Nm
1000 HC		Taper pin connection 80 mm and Taper pin connection 100 mm	A/F 55 and A/F 70	800 Nm
1250 HC		Taper pin connection 80 mm	A/F 55	800 Nm
3150 HC 4000 HC		Taper pin connection 100 mm	A/F 70	800 Nm

Note: The sockets and reaction arms listed in the above table are specially designed for Liebherr.  
\* theoretical values



Tower section assembly with battery nut runner



Bolt preparation  
(Liebherr information sheet TI 723/2018)



Tower section assembly with MX-EC



Turntable assembly with MX-EC



Release torques	Products	Accessories	Power packs
4 600 Nm*	FSX 560 F/SW 55 LH – Hydraulic torque wrench alternatively DA-48 LH und DE-80 LH Nutrunner	In/out socket A/F 55/60 alternatively 1½" socket A/F 60 LH	all
4 400 Nm*	FSX 560 F/SW 55 LH – Hydraulic torque wrench alternatively DA-48 LH und DE-80 LH Nutrunner	In/out socket A/F 55/55 alternatively 1½" socket A/F 55 LH	all
8 800 Nm*	MX-EC 95 TS/LH – Hydraulic torque wrench FSX 12055 F/LH – Hydraulic torque wrench alternatively DE-80 LH Nutrunner	1½" socket A/F 70 LH In/out socket A/F 55/70 alternatively 1½" socket A/F 70 LH	all
8 800 Nm*	MX-EC 95 TS/LH – Hydraulic torque wrench FSX 12055 F/LH – Hydraulic torque wrench alternatively DE-80 LH Nutrunner	1½" socket A/F 70 LH In/out socket A/F 55/70 alternatively 1½" socket A/F 70 LH	all
1 200 Nm*	Assembly: DA-20 Battery nutrunner Dismantling: Bolt tensioner	1" socket A/F 46 + reaction arm Basic equipment M 30 + accessories M 20	XB 1 Hydraulic power pack
1 200 Nm*	Assembly: DA-20 Battery nutrunner Dismantling: Bolt tensioner	1" socket A/F 55 + reaction arm Basic equipment M 30	XB 1 Hydraulic power pack
1 200 Nm*	Assembly: DA-20 Battery nutrunner Dismantling: Bolt tensioner	1" socket A/F 55 + reaction arm Basic equipment M 30	XB 1 Hydraulic power pack
1 200 Nm*	Assembly: DA-20 Battery nutrunner Dismantling: Bolt tensioner	1" socket A/F 55 + reaction arm Basic equipment M 30	XB 1 Hydraulic power pack
1 200 Nm*	Assembly: DA-20 Battery nutrunner Dismantling: Bolt tensioner	1" socket A/F 55 + reaction arm 1" socket A/F 70 Basic equipment M 30 + accessories M 36	XB 1 Hydraulic power pack
1 200 Nm*	Assembly: DA-20 Battery nutrunner Dismantling: Bolt tensioner	1" socket A/F 55 + reaction arm Basic equipment M 30	XB 1 Hydraulic power pack
1 200 Nm*	Assembly: DA-20 Battery nutrunner Dismantling: Bolt tensioner	1" socket A/F 70 + reaction arm Basic equipment M 30 + accessories M 36	XB 1 Hydraulic power pack

Please refer to Liebherr information sheet TI 723/2018



Tower section assembly with FSX



Connection to the crane's own power supply is possible



Assembly of taper pin connection with battery nut runner



Dismantling of taper pin connection with bolt tensioner



## Bolting tools for crane assembly



Liebherr EC cranes



... a successful connection!

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