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Hydraulic Torque Wrench Maintenance Manual

This manual includes the operating procedures, warnings and precautions, and troubleshooting of the hydraulic torque wrench.

Before use, please read this manual carefully, fully understand its contents, and keep it properly.

The safe use of hydraulic torque wrench must be operated correctly and inspected regularly.

If any abnormal situation occurs during operation, please turn off the hydraulic pump power supply and consult the manufacturer's authorized agent.

Operation and Maintenance Manual for Hydraulic Torque Wrenches

This operation manual covers the operating procedures, warnings, precautions, and troubleshooting for the MXT and XLCT series hydraulic torque wrenches.

Please read this manual carefully before use, fully understand its contents, and keep it properly.

This manual is for end-user reference only.

1. Receipt Notice (Unpacking Inspection)

Carefully inspect the product appearance for damage or shipping defects.

Transport damage is not covered under warranty.

If shipping damage is found, file a claim with the freight carrier immediately.

The freight carrier shall be responsible for all repair and replacement costs resulting from transport damage.

Hydraulic torque wrenches are power tools. Before use, read all instructions, warnings, and precautions carefully, and follow safety measures to avoid personal injury or equipment damage during operation!

The manufacturer shall not be liable for damage caused by unsafe or improper operation.

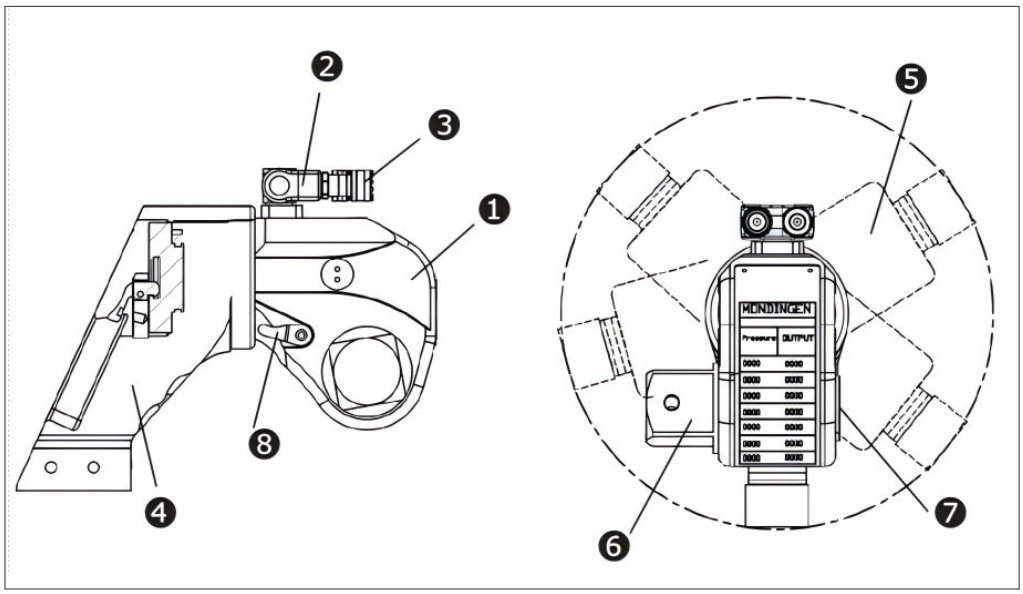
2. Product Description

MXT, XLCT, and RGH hydraulic torque wrenches are constructed from aluminum-titanium alloy and ultra-high-strength alloy materials.

They feature manual control and double-acting hydraulic design, enabling bolt connection tightening and loosening.

Widely used for high-torque bolt disassembly, torque is precisely adjustable with an error.

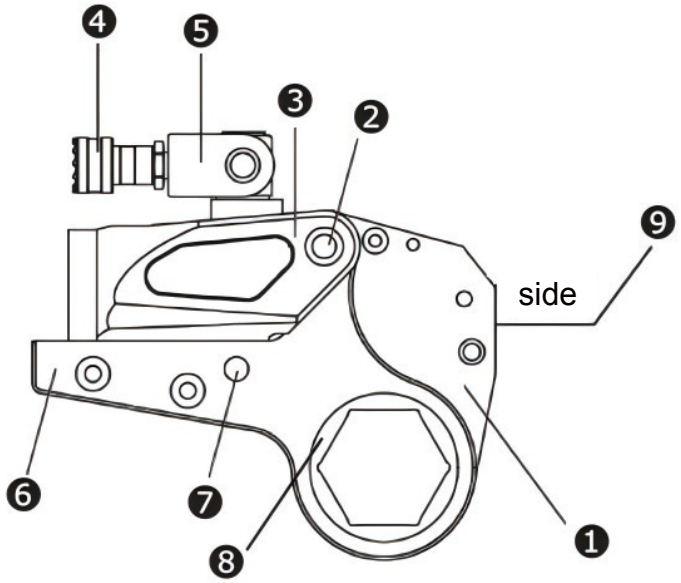
▼MXT Wrench

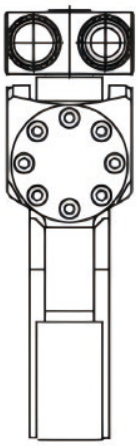


No.	Item Name
1	Wrench Body
2	360°×180° Swivel Joint
3	Quick Coupling
4	Reaction Arm
5	360° Fine-Tuning Reaction Arm
6	Square Drive Shaft
7	Locking Device
8	Quick Release Trigger

Hydraulic Wrench Operating Instructions

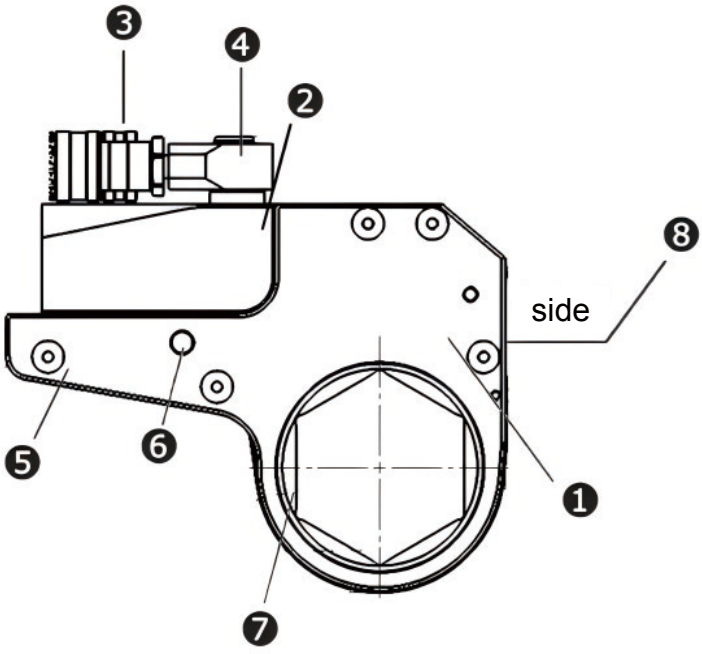
▼XLCT Wrench

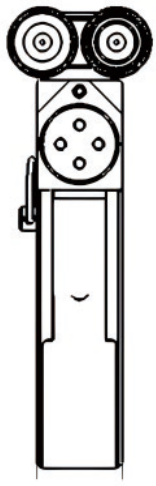




No.	Item Name
1	Working Head
2	Long Pin
3	Power Head
4	Quick Coupling
5	360°×180° Swivel Joint

▼MGH Wrench





No.	Item Name
1	Working Head
2	Power Head
3	Quick Coupling
4	360°×180° Swivel Joint
5	Reaction Baffle
6	Quick Combination Pin
7	Ratchet
8	Quick Release Trigger

WARNING To avoid personal injury and possible equipment damage, ensure that each hydraulic component can withstand a working pressure not exceeding 700 bar.
WARNING Do not exceed the rated load of the equipment.
Minimize the risk of overloading; use a pressure gauge in the system to display the operating load. The pressure gauge is a window to the conditions inside the system.
Do not exceed the maximum allowable torque when using the hydraulic torque wrench.
WARNING Replace worn parts with original factory parts as soon as possible.
CAUTION Avoid damaging the hydraulic hoses.
During use, avoid severe bending and twisting of the hydraulic hoses. Using bent or twisted hoses will generate excessive back pressure. Severe bending and twisting will damage the inside of the hoses, leading to premature scrapping.
Do not drop or press heavy objects on the hoses. Severe impact may cause damage to the internal metal wires, and the damaged hoses may burst when pressurized.
Do not use hydraulic hoses to drag or lift other hydraulic components (such as hydraulic pumps, hydraulic torque wrenches, valves, etc.).
WARNING To avoid equipment damage and personal injury, do not remove the guard plate on the wrench, do not modify the wrench and its accessories, and do not change the safety valve on the swivel joint.
CAUTION Incorrect connection may cause failures and dangers. Keep the quick coupling clean before connection, and screw on the dust cap after use.
CAUTION Do not use worn sockets and plugs. Do not use metric sockets to tighten imperial nuts and bolts, and vice versa.
WARNING Use original factory high-performance sockets.
WARNING Secure the socket drive head with a pin to prevent the socket from falling off.

二、Warning Signs

The warning signs are shown in the table below.

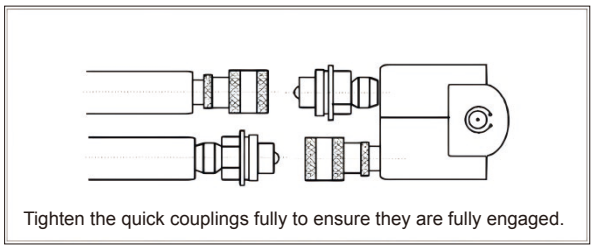
Warning Sign	Meaning	Paste Position
	No Hand Contact	Reaction Arm
	Drive Shaft: Tighten Right, Loosen Left	Working Head
	Secure Reaction Arm Before Use	Reaction Arm

► Recommended Bolt Preload Table

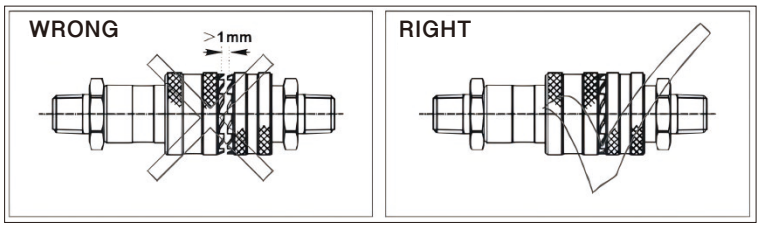
Strength Grade		4.8	6.8	8.8	10.9	12.9
Minimum Breaking Strength		392MPa	588MPa	784MPa	941MPa	1176MPa
Material		General Structural Steel	Mechanical Structural Steel	Chrome Molybdenum Alloy Steel	Nickel Chrome Molybdenum Alloy Steel	Nickel Chrome Molybdenum Alloy Steel
Bolt m	Nut mm	Torque	Torque	Torque	Torque	Torque
		KGM N·m	KGM N·m	KGM N·m	KGM N·m	KGM N·m
14	22	7 69	10 98	14 137	17 165	23 225
16	24	10 98	14 137	21 206	25 247	36 363
18	27	14 137	21 206	29 284	35 341	49 480
20	30	18 176	28 296	41 402	58 569	69 680
22	32	23 225	34 333	55 539	78 765	93 911
24	36	32 314	48 470	70 686	100 981	120 1176
27	41	45 441	65 637	105 1029	150 1472	180 1764
30	46	60 588	90 882	125 1225	200 1962	240 2352
33	50	75 735	115 1127	150 1470	210 2060	250 2450
36	55	100 980	150 1470	180 1764	250 2453	300 2940
39	60	120 1176	180 1764	220 2156	300 2943	370 3626
42	65	150 1519	240 2352	280 2744	390 3826	470 4606
45	70	180 1764	280 2744	320 3136	450 4415	550 5390
48	75	230 2254	350 3430	400 3920	570 5592	680 6664
52	80	280 2744	420 4116	480 4704	670 6573	850 8330
56	85	360 3528	530 5194	610 5978	860 8437	1050 10290
60	90	410 4018	610 5978	790 7742	1100 10791	1350 13230
64	95	510 4998	760 7448	900 8820	-	-
68	100	580 5684	850 8326	1100 10780	-	-
72	105	660 6468	1000 9800	1290 12642	-	-
76	110	750 7350	1100 10780	1500 14701	-	-
80	115	830 8143	1250 12250	1850 18130	-	-
85	120	900 8820	1400 13720	2250 22050	-	-
90	130	1080 10584	1650 16170	2500 24500	-	-
100	145	1400 13720	2050 20090	-	-	-
110	155	1670 16366	2550 24990	-	-	-
120	175	2030 19894	3050 29890	-	-	-

Note: The values in the table are in accordance with German industrial standards, measured when the bolt reaches 80% of its yield limit.
Recommended tightening torque: Value in table × 80%
Example: For M52, property class 8.8 bolt,
tightening torque = 4704 × 80% = 3763 N·m
Loosening torque is 1.5 to 2 times the tightening torque.
Example: With tightening torque 3763 N·m,
loosening torque = 3763 × 1.5 (or 2) = 5645 (7526) N·m

► Operation and Use

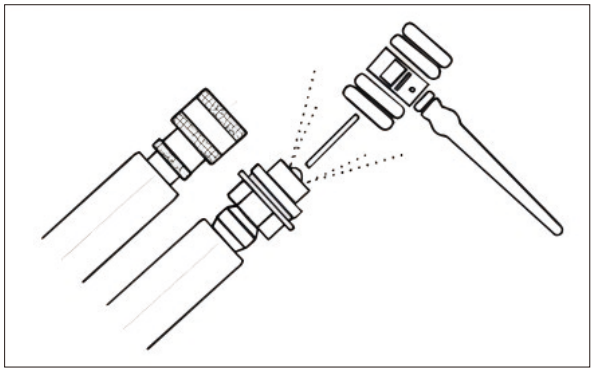

Tighten the quick couplings fully to ensure they are fully engaged.

Connection: The wrench and hydraulic pump are connected by double wire-braided hoses with a working pressure of 700 bar.
Each hose set is equipped with a female coupling and a male coupling at the ends to ensure correct connection between the hydraulic pump and the hydraulic torque wrench.
Do not arbitrarily change any bolts on the swivel joint. These are set by the manufacturer for safety purposes.
Adjustment may only be performed by professionally trained personnel.



When connecting quick couplings, ensure the clearance < 1 mm after engagement.
Only in this way can the check valves inside the couplings be fully opened to ensure unobstructed oil flow.

Otherwise, the steel balls inside the couplings will not contact each other, the check valves cannot open, and the oil circuit will be blocked.
This will trap pressure inside the couplings, causing the wrench to fail to operate and oil to discharge from the automatic relief port on the rotating body of the wrench.



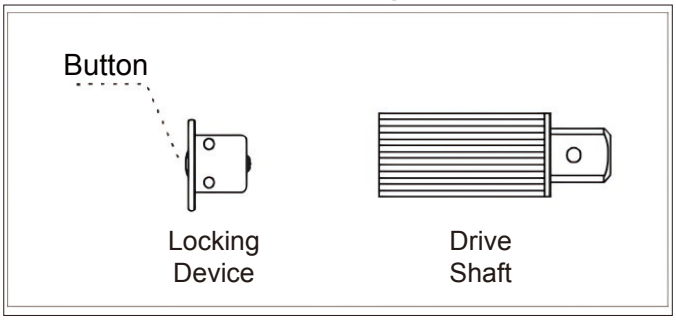
At this point, disconnect all hose couplings and check the steel balls inside all quick couplings, including those on the wrench.
Verify that the steel balls can be pressed by hand and have elasticity.

If the balls cannot be pressed, use a hammer to tap the steel balls inside the couplings to release the pressure.
Note: Hydraulic oil may spray out when tapping the steel balls. Although it is not dangerous, it may stain your clothes!

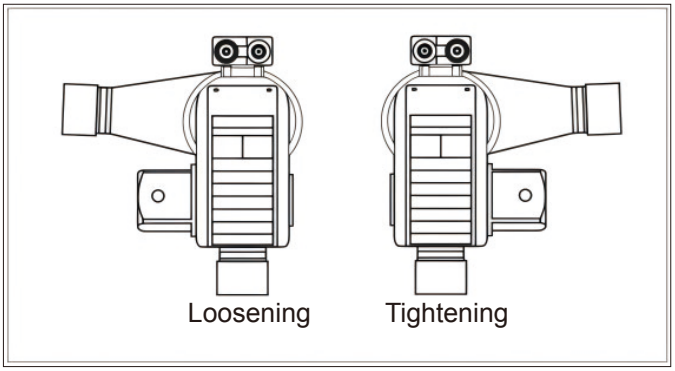
Repeat until the steel balls inside the couplings can be pressed manually. Then reconnect the couplings.

Hydraulic Wrench Operating Instructions

MXT Series
Drive Direction Change



Press the round button in the middle of the locking device and pull the drive shaft gently to disengage it from the lock. The drive shaft can then be pulled out.



Insert the drive shaft into the wrench, confirm the direction, and ensure it fully engages with the spline sleeve.
Then rotate the drive shaft to engage with the spline sleeve and the ratchet groove.
The drive shaft is driven to rotate by the ratchet.

Left to loosen, Right to tighten

Preparation
Determine whether to loosen or tighten the nut.
Press the locking device, remove the drive shaft, switch direction left or right according to the diagram, reinstall the locking device.
Pull down the arm clamp on the reaction arm, and install the reaction arm in a proper position.
For drive shaft direction during loosening/tightening, refer to the selection guide for MXT series hydraulic torque wrenches.

Connect the hydraulic pump
Connect the high-pressure outlet (H or A) of the hydraulic pump to the high-pressure inlet (H or A) of the hydraulic wrench,
and the low-pressure outlet (L or R) of the hydraulic pump to the low-pressure inlet (L or R) of the hydraulic wrench using high-pressure hoses respectively.
When connecting, fully insert the quick couplings on the hoses, then tighten the fixing nuts by hand.
Carefully check whether the hose connections are secure and whether there is oil in the hydraulic pump.
Plug the power cord of the hydraulic pump into the power supply.

WARNING
Do not operate with insufficient oil volume!

Test Run
Place the wrench on a clear surface and connect it correctly to the hydraulic pump with hoses.
Turn on the power switch of the hydraulic pump, press the self-locking button, start the pump, and check for normal operation.
Press the reset button on the remote control. The drive shaft will start rotating.
When a “click” is heard and the reset trigger trips, the wrench stops at the working position,
and the pressure gauge rises rapidly from “0” to the set pressure.
Release the reset button; the wrench will automatically return.
When another “click” is heard, the return is completed,
and the pressure gauge rises rapidly from “0” to 8 MPa.
Press the reset button again; the wrench rotates and a new cycle begins.
Repeat several times to run the wrench idle. Observe the rotation direction to confirm loosening or tightening.
Only when no abnormalities are found may the wrench be fitted onto the socket.

CAUTION
Turn off the power supply of the hydraulic pump immediately when the wrench is not in use!

OPERATION

Pressure Adjustment:

Press and hold the reset button on the remote control. When you hear a “click” from the wrench and the reset trigger trips, the wrench stops rotating at the working position, and the pressure gauge rises rapidly from “0”. Use your other hand to adjust the pressure regulating valve on the hydraulic pump until the gauge pointer reaches the required pressure.

Loosening:

Adjust the hydraulic pump pressure to the required value, referring to the notes in Table (1). Confirm the wrench rotation direction is set for loosening. Place the wrench on the nut, find and secure the reaction fulcrum, and repeat the operation in Step 3 of the test run until the nut is removed.

Tightening:

Torque Setting

First set the torque according to design requirements. If no design torque is specified, use the data in Table (1) Recommended Bolt Preload Table.

Calculation:

Set Torque = Value in Table × (80% ~ 90%)

Example: M48 bolt, class 8.8, recommended preload 3920 N·m

Set Torque = 3920 × 80% = 3136 N·m

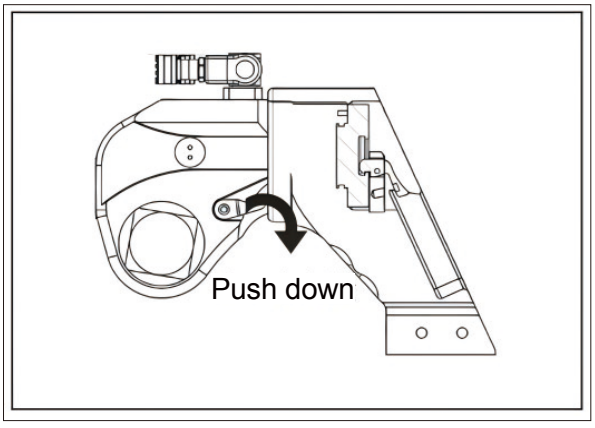
Hydraulic Pump Pressure Setting

Set the pump pressure according to the required torque and wrench model.

Example: For M48 class 8.8 bolt with set torque 3136 N·m using MXT-3 wrench, check the MXT-3 column to find the corresponding pressure is 49 MPa at 3158 N·m. Set the pump pressure to 49 MPa.

Operation

Confirm the wrench rotation direction is for tightening. Place the wrench on the nut and repeat the operation in Step 3 of the test run until the nut no longer moves.

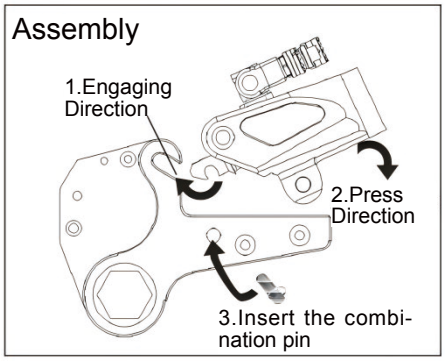


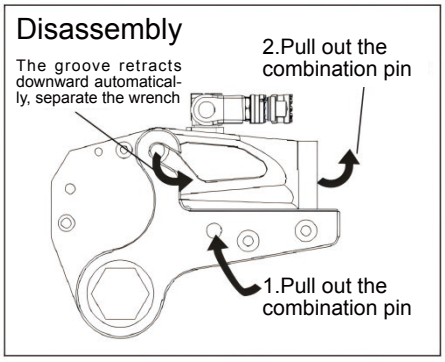
During operation, if the wrench gets stuck and cannot be removed after bolt tightening, do not strike it with a hammer.

Instead, press and hold the reset button on the remote control, then press and hold the quick release lever at the same time, and then release the reset button.

The wrench will automatically disengage and can be removed.

Alternatively, increase the hydraulic pump pressure slightly, tighten the bolt further, then release, and the wrench can be removed.



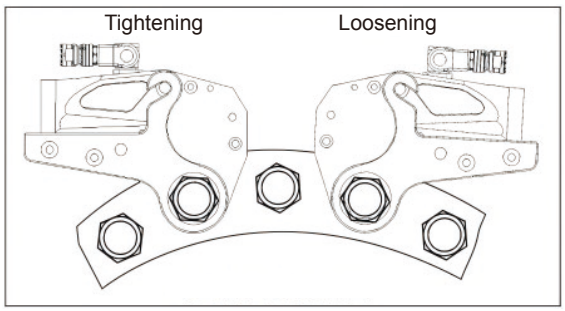


Insert the long pin of the power head into the groove of the working head, press down the power head, align the combination pin holes, and then insert the quick combination pin for positioning.

Pull out the quick combination pin, lift the power head upward, then separate the power head from the working head along the groove direction.

Hydraulic Wrench Operating Instructions

Direction Position



For hollow wrench operation:
Left to loosen, Right to tighten.
During operation, ensure the reaction arm or right-angle support rests firmly on a secure reaction fulcrum.

Preparation

Determine the size of the nut to be loosened (tightened), and select the appropriate power head, working head and reducing socket accessories.

Connect the Hydraulic Pump

Connect the high-pressure outlet (H or A) of the hydraulic pump to the high-pressure inlet (H or A) of the hydraulic wrench,
and the low-pressure outlet (L or R) of the hydraulic pump to the low-pressure inlet (L or R) of the hydraulic wrench
using high-pressure hoses respectively.

When connecting, fully insert the quick couplings on the hoses, then tighten the fixing nuts by hand.

Carefully check whether the hose connections are secure and whether there is oil in the hydraulic pump.

Plug the power cord of the hydraulic pump into the power supply.

WARNING

Do not operate without oil!

Test Run

Place the wrench on a clear surface and connect it correctly to the hydraulic pump with hoses.

Turn on the power switch of the hydraulic pump, press the self-locking button, start the pump, and check for normal operation.

Press the reset button on the remote control. The drive shaft will start rotating.

When a “click” is heard and the reset trigger trips, the wrench stops at the working position,
and the pressure gauge rises rapidly from “0” to the set pressure.

Release the reset button; the wrench will automatically return.

When another “click” is heard, the return is completed,
and the pressure gauge rises rapidly from “0” to 8 MPa.

Press the reset button again; the wrench rotates and a new cycle begins.

Repeat several times to run the wrench idle. Observe the rotation direction to confirm loosening or tightening.

Only when no abnormalities are found may the wrench be fitted onto the nut.

CAUTION

Turn off the power supply of the hydraulic pump immediately when the wrench is not in use!

Operation

Pressure Adjustment

Press and hold the reset button on the remote control. When you hear a “click” from the wrench and the reset trigger trips, the wrench stops rotating at the working position, and the pressure gauge rises rapidly from “0”.

Use your other hand to adjust the pressure regulating valve on the hydraulic pump until the gauge pointer reaches the required pressure.

Loosening

Adjust the hydraulic pump pressure to the required value, referring to the notes in Table.

Confirm the wrench rotation direction is set for loosening.
Place the wrench on the nut, find and secure the reaction fulcrum, and repeat the operation in Step 3 of the test run until the nut is removed.

Tightening

1.Torque Setting

First set the torque according to design requirements. If no design torque is specified, use the data in Table Recommended Bolt Preload Table.
Calculation:
Set Torque = Value in Table × (80% ~ 90%)
Example: M48 bolt, class 8.8, recommended preload 3920 N·m
Set Torque = 3920 × 80% = 3136 N·m

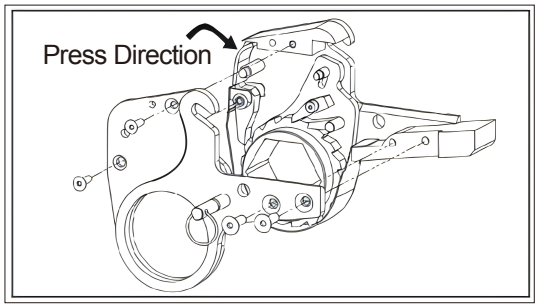
2.Hydraulic Pump Pressure Setting

Set the pump pressure according to the required torque and wrench model.
Example: For M48 class 8.8 bolt with set torque 3136 N·m using XLCT-4/S75 wrench,
check the (70-80) column of XLCT-4 to find the corresponding pressure is 34 MPa at 3144 N·m.
Set the pump pressure to 34 MPa.

3.Confirm the wrench rotation direction is for tightening.

Place the wrench on the nut and repeat the operation in Step 3 of the test run until the nut no longer moves.

When the wrench is locked and cannot be removed during use:



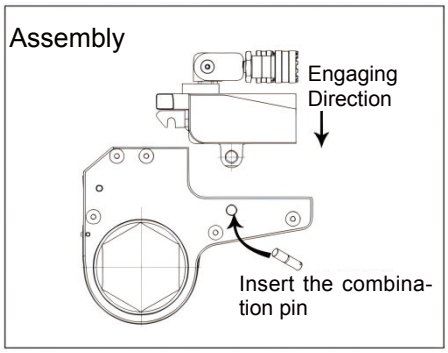
During operation, if the wrench gets stuck and cannot be removed after tightening the bolt, **do not hit it with a hammer.

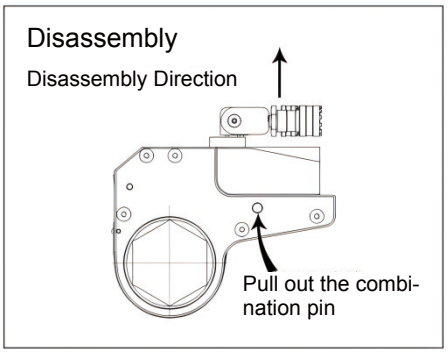
Press and hold the reset button on the remote control, and press and hold the quick release lever at the same time. Then release the reset button; the wrench will disengage automatically and can be removed.

RGH Series

Assembly and Disassembly of Working Head and Power Head

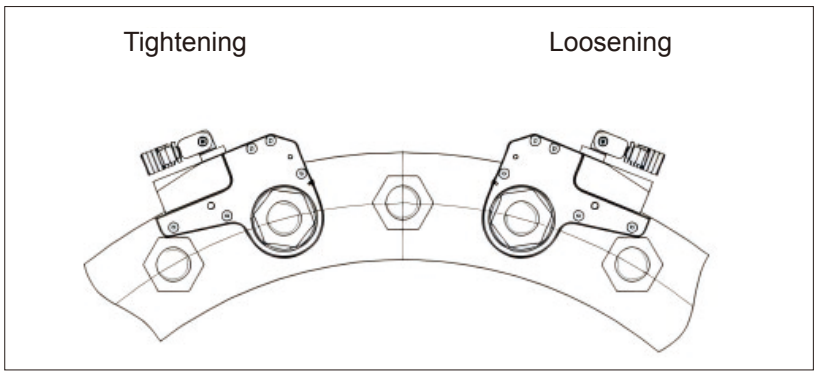
Align the long pin on the power head with the groove on the working head, press down the power head, align the combination pin holes, and insert the quick combination pin for positioning.
Pull out the quick combination pin, lift the power head upward, and separate the power head from the working head.





Hydraulic Wrench Operating Instructions

Direction Position



The hollow wrench also follows left to loosen, right to tighten during operation. When moving during operation, ensure the reaction arm or right-angle support rests firmly on a secure reaction fulcrum.

Preparation

Determine the size of the nut to be loosened (tightened), and select the appropriate power head, working head and reducing socket accessories.

Connect the Hydraulic Pump

Connect the high-pressure outlet (H or A) of the hydraulic pump to the high-pressure inlet (H or A) of the hydraulic wrench,
and the low-pressure outlet (L or R) of the hydraulic pump to the low-pressure inlet (L or R) of the hydraulic wrench using high-pressure hoses respectively.
When connecting, fully insert the quick couplings on the hoses, then tighten the fixing nuts by hand.
Carefully check whether the hose connections are secure and whether there is oil in the hydraulic pump.
Plug the power cord of the hydraulic pump into the power supply.

WARNING

Do not operate without oil!

Test Run

Place the wrench on a clear surface and connect it correctly to the hydraulic pump with hoses.
Turn on the power switch of the hydraulic pump, press the self-locking button, start the pump, and check for normal operation.
Press the reset button on the remote control. The drive shaft will start rotating.
When a “click” is heard and the reset trigger trips, the wrench stops at the working position.The pressure gauge rises rapidly from “0” to the set pressure. Release the reset button, and the wrench will return automatically.
When another “click” is heard, the automatic return is completed, and the pressure gauge rises rapidly from “0” to 8 MPa.
Press the reset button again; the wrench rotates and a new cycle begins.
Repeat this several times to run the wrench idle. Observe the rotation direction to confirm loosening or tightening.
Only when no abnormalities are found may the wrench be placed on the nut.

CAUTION

Turn off the power supply of the hydraulic pump immediately when the wrench is not in use!

Operation

Pressure Adjustment

Press and hold the reset button on the remote control. When a “click” is heard from the wrench and the reset trigger trips, the wrench stops rotating at the working position, and the pressure gauge rises rapidly from “0”.
Use your other hand to adjust the pressure regulating valve on the hydraulic pump until the gauge pointer reaches the required pressure.

Loosening

Adjust the hydraulic pump pressure to the required value, referring to the notes in Table (1).

Confirm the wrench rotation direction is for loosening.

Place the wrench on the nut, find and secure the reaction fulcrum, and repeat the operation in Step 3 of the test run until the nut is removed.

Tightening

Torque Setting

First set the torque according to design requirements. If no design torque is available, use the data in Table (1) Recommended Bolt Preload Table.

Calculation:

Set Torque = Value in Table × (80% ~ 90%)

Example: M48 bolt, class 8.8, recommended preload 3920 N·m

Set Torque = 3920 × 80% = 3136 N·m

Hydraulic Pump Pressure Setting

Set the pump pressure according to the required torque and wrench model.

Example: For M48 class 8.8 bolt with set torque 3136 N·m using XLCT-4/S75 wrench,

check the (70-80) column of XLCT-4 to find the corresponding pressure is 34 MPa at 3144 N·m.

Set the pump pressure to 34 MPa.

Operation

Confirm the wrench rotation direction is for tightening.

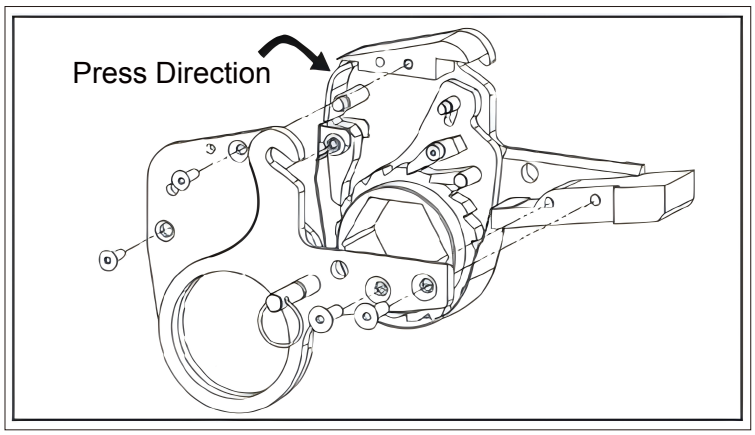
Place the wrench on the nut and repeat the operation in Step 3 of the test run until the nut no longer moves.

If the wrench gets stuck during use:

During operation, if the wrench gets stuck and cannot be removed after tightening the bolt, do not strike it with a hammer.

Press and hold the reset button on the remote control, and press and hold the quick release lever at the same time.

Then release the reset button; the wrench will disengage automatically and can be removed.



6.MXT Hydraulic Torque Wrench

Model			MXT-05	MXT-07	MXT-1	MXT-3	MXT-5	MXT-8	MXT-10	MXT-15	MXT-20	MXT-25	MXT-35	MXT-50
Mpa	bar	psi	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m
7	70	1015	54	112	183	451	752	1078	1551	2063	2666	3472	4866	7200
8	80	1160	61	128	209	515	860	1232	1773	2357	3047	3968	5561	8229
9	90	1305	69	144	236	580	967	1386	1994	2652	3428	4464	6256	9257
10	100	1450	77	160	262	644	1075	1540	2216	2946	3809	4960	6952	10286
11	110	1595	85	176	288	709	1182	1694	2438	3241	4190	5456	7647	11314
12	120	1740	92	192	314	773	1290	1848	2659	3536	4571	5952	8342	12343
13	130	1885	100	208	341	838	1397	2002	2881	3831	4952	6448	9037	13371
14	140	2030	108	224	367	902	1505	2156	3103	4125	5332	6945	9733	14400
15	150	2175	115	240	393	967	1612	2310	3324	4420	5713	7441	10428	15429
16	160	2320	123	256	419	1031	1720	2464	3546	4714	6094	7937	11123	16457
17	170	2465	131	272	446	1096	1828	2618	3768	5009	6475	8433	11818	17486
18	180	2610	138	288	472	1160	1935	2772	3989	5304	6856	8929	12514	18514
19	190	2755	146	304	498	1225	2043	2926	4211	5599	7237	9425	13209	19543
20	200	2900	154	320	524	1289	2150	3080	4433	5893	7618	9921	13904	20571
21	210	3045	161	336	551	1353	2258	3234	4654	6188	7999	10417	14599	21600
22	220	3190	169	352	577	1418	2365	3388	4876	6482	8380	10913	15295	22629
23	230	3335	177	368	603	1482	2473	3542	5098	6777	8761	11409	15990	23657
24	240	3480	184	384	629	1547	2580	3696	5319	7072	9142	11905	16685	24686
25	250	3625	192	400	656	1611	2688	3850	5541	7367	9523	12401	17380	25714
26	260	3770	200	416	682	1676	2796	4004	5763	7661	9903	12898	18076	26743
27	270	3915	208	432	708	1740	2903	4158	5984	7956	10284	13394	18771	27771
28	280	4060	215	448	734	1805	3011	4312	6206	8250	10665	13890	19466	28800
29	290	4205	223	464	761	1869	3118	4466	6428	8545	11046	14386	20161	29829
30	300	4350	231	480	787	1934	3226	4620	6649	8840	11427	14882	20856	30857
31	310	4495	238	496	813	1998	3333	4774	6871	9135	11808	15378	21552	31886
32	320	4640	246	512	839	2063	3441	4928	7093	9429	12189	15874	22247	32914
33	330	4785	254	528	866	2127	3548	5082	7314	9724	12570	16370	22942	33943
34	340	4930	261	544	892	2191	3656	5236	7536	10018	12951	16866	23637	34971
35	350	5075	269	560	918	2256	3764	5390	7758	10313	13332	17362	24333	36000
36	360	5220	277	576	944	2320	3871	5544	7979	10608	13713	17858	25028	37029
37	370	5365	284	592	971	2385	3979	5698	8201	10903	14094	18354	25723	38057
38	380	5510	292	608	997	2449	4086	5852	8423	11197	14475	18850	26418	39086
39	390	5655	300	624	1023	2514	4194	6006	8644	11492	14855	19347	27114	40114
40	400	5800	307	640	1049	2578	4301	6160	8866	11786	15236	19843	27809	41143
41	410	5945	315	656	1076	2643	4409	6314	9088	12082	15617	20339	28504	42171
42	420	6090	323	672	1102	2707	4516	6468	9309	12376	15998	20835	29199	43200
43	430	6235	330	688	1128	2772	4624	6622	9531	12671	16379	21331	29895	44229
44	440	6380	338	704	1154	2836	4732	6776	9753	12965	16760	21827	30590	45257
45	450	6525	346	720	1181	2900	4839	6930	9974	13260	17141	22323	31285	46286
46	460	6670	354	736	1207	2965	4947	7084	10196	13554	17522	22819	31980	47314
47	470	6815	361	752	1233	3029	5054	7238	10418	13850	17903	23315	32676	48343
48	480	6960	369	768	1259	3094	5162	7392	10639	14144	18284	23811	33371	49371
49	490	7105	377	784	1286	3158	5269	7546	10861	14439	18665	24307	34066	50400
50	500	7250	384	800	1312	3223	5377	7700	11083	14733	19046	24803	34761	51429
51	510	7395	392	816	1338	3287	5484	7854	11304	15028	19427	25299	35456	52457
52	520	7540	400	832	1364	3352	5592	8008	11526	15322	19807	25796	36152	53486
53	530	7685	407	848	1391	3416	5700	8162	11748	15618	20188	26292	36847	54514
54	540	7830	415	864	1417	3481	5807	8316	11969	15912	20569	26788	37542	55543
55	550	7975	423	880	1443	3545	5915	8470	12191	16207	20950	27284	38237	56571
56	560	8120	430	896	1469	3610	6022	8624	12413	16501	21331	27780	38933	57600
57	570	8265	438	912	1496	3674	6130	8778	12634	16796	21712	28276	39628	58629
58	580	8410	446	928	1522	3737	6237	8932	12856	17090	22093	28772	40323	59657
59	590	8555	453	944	1548	3803	6345	9086	13078	17386	22474	29268	41018	60686
60	600	8700	461	960	1574	3867	6452	9240	13299	17680	22855	29764	41714	61714
61	610	8845	469	976	1601	3932	6560	9394	13521	17975	23236	30260	42409	62743

62	620	8990	477	992	1627	3996	6668	9548	13743	18269	23617	30756	43104	63771
63	630	9135	484	1008	1653	4061	6775	9702	13964	18564	23998	31252	43799	64800
64	640	9280	492	1024	1679	4125	6883	9856	14186	18858	24378	31749	44495	65829
65	650	9425	500	1040	1706	4190	6990	10010	14408	19154	24759	32245	45190	66857
66	660	9570	507	1056	1732	4254	7098	10164	14629	19448	25140	32741	45885	67886
67	670	9715	515	1072	1758	4319	7205	10318	14851	19743	25521	33237	46580	68914
68	680	9860	523	1088	1784	4383	7313	10472	15073	20037	25902	33733	47276	69943
69	690	10005	530	1104	1811	4448	7420	10626	15294	20332	26283	34229	47971	70971
70	700	10150	538	1120	1837	4512	7528	10780	15516	20627	26664	34725	48666	72000

7.XLCT Hydraulic Torque Wrench Pressure-Torque Comparison Table

Model			XLCT-2		XLCT-4		XLCT-8		XLCT-14	XLCT-30	
Width Across Flats of Nut			15-55	60	34-65	70-80	41-95	100-105	50-117	110-155	160-175
Mpa	bar	psi	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m
7	70	1015	232	241	585	647	1094	1177	1852	4188	4459
8	80	1160	265	275	669	739	1250	1345	2117	4786	5096
9	90	1305	299	310	752	832	1407	1513	2381	5385	5733
10	100	1450	332	344	836	924	1563	1682	2646	5983	6370
11	110	1595	365	379	920	1017	1719	1850	2910	6581	7007
12	120	1740	398	413	1003	1109	1876	2018	3175	7180	7644
13	130	1885	432	448	1087	1202	2032	2186	3440	7778	8281
14	140	2030	465	482	1171	1294	2188	2354	3704	8376	8918
15	150	2175	498	517	1255	1387	2344	2523	3969	8975	9555
16	160	2320	531	551	1338	1479	2501	2691	4233	9573	10192
17	170	2465	565	586	1422	1572	2657	2859	4498	10171	10829
18	180	2610	598	620	1506	1664	2813	3027	4762	10769	11467
19	190	2755	631	655	1589	1757	2970	3195	5027	11368	12104
20	200	2900	665	689	1673	1849	3126	3364	5292	11966	12741
21	210	3045	698	724	1757	1942	3282	3532	5556	12564	13378
22	220	3190	731	758	1840	2043	3439	3700	5821	13163	14015
23	230	3335	764	793	1924	2127	3595	3868	6085	13761	14652
24	240	3480	798	827	2008	2219	3751	4037	6350	14359	15289
25	250	3625	831	862	2092	2312	3907	4205	6615	14958	15926
26	260	3770	864	896	2175	2404	4064	4373	6879	15556	16563
27	270	3915	897	931	2259	2497	4220	4541	7144	16154	17200
28	280	4060	931	965	2343	2589	4376	4709	7408	16753	17837
29	290	4205	964	1000	2426	2682	4533	4878	7673	17351	18474
30	300	4350	997	1034	2510	2774	4689	5046	7938	17949	19111
31	310	4495	1030	1069	2594	2867	4845	5214	8202	18548	19748
32	320	4640	1064	1103	2677	2959	5002	5382	8467	19146	20385
33	330	4785	1097	1138	2761	3052	5158	5550	8731	19744	21022
34	340	4930	1130	1172	2845	3144	5314	5719	8996	20343	21659
35	350	5075	1164	1207	2929	3237	5470	5887	9260	20941	22296
36	360	5220	1197	1241	3012	3329	5627	6055	9525	21539	22933
37	370	5365	1230	1276	3096	3422	5783	6223	9790	22138	23570
38	380	5510	1263	1310	3180	3514	5939	6391	10054	22736	24207
39	390	5655	1297	1345	3263	3607	6096	6560	10319	23334	24845
40	400	5800	1330	1379	3347	3699	6252	6728	10583	23932	25482
41	410	5945	1363	1414	3431	3792	6408	6896	10848	24531	26119
42	420	6090	1396	1448	3514	3884	6565	7064	11113	25129	26756
43	430	6235	1430	1483	3598	3977	6721	7232	11377	25727	27393
44	440	6380	1463	1517	3682	4069	6877	7401	11642	26326	28030
45	450	6525	1496	1552	3766	4162	7033	7569	11906	26924	28667
46	460	6670	1530	1586	3849	4254	7190	7737	12171	27522	29304
47	470	6815	1563	1621	3933	4347	9346	7905	12435	28121	29941
48	480	6960	1596	1655	4017	4439	7502	8073	12700	28719	30578
49	490	7105	1629	1690	4100	4532	7659	8242	12965	29317	31215
50	500	7250	1663	1724	4184	4624	7815	8410	13229	29916	31852
51	510	7395	1696	1759	4268	4717	7971	8578	13494	30514	32489
52	520	7540	1729	1793	4351	4809	8128	8746	13758	31112	33126

53	530	7685	1762	1828	4435	4902	8284	8914	14023	31711	33763
54	540	7830	1796	1862	4519	4994	8440	9083	14288	32309	34400
55	550	7975	1829	1897	4603	5087	8596	9251	14552	32907	35037
56	560	8120	1862	1931	4686	5179	8753	9419	14817	33506	35674
57	570	8265	1895	1966	4770	5272	8909	9587	15081	34104	36311
58	580	8410	1929	2000	4854	5364	9065	9756	15346	34702	36948
59	590	8555	1962	2035	4937	5457	9222	9924	15611	35301	37585
60	600	8700	1995	2069	5021	5549	9378	10092	15875	35899	38223
61	610	8845	2029	2104	5105	5642	9534	10260	16140	36497	38860
62	620	8990	2062	2138	5188	5734	9691	10428	16404	37095	39497
63	630	9135	2095	2173	5272	5827	9847	10597	16669	37694	40134
64	640	9280	2128	2207	5356	5919	10003	10765	16933	38292	40771
65	650	9425	2162	2242	5440	6012	10159	10933	17198	38890	41408
66	660	9570	2195	2276	5523	6104	10316	11101	17463	39489	42045
67	670	9715	2228	2311	5607	6197	10472	11269	17727	40087	42682
68	680	9860	2261	2345	5691	6289	10628	11438	17992	40685	43319
69	690	10005	2295	2380	5774	6382	10785	11606	18256	41284	43956
70	700	10150	2328	2414	5858	6474	10941	11774	18521	41882	44593

8.RGH Hydraulic Torque Wrench Pressure-Torque Comparison Table

Model			RGH-2		RGH-3		RGH-4				RGH-8			RGH-14	RGH-22
Width Across Flats of Nut			19 ~ 55	60	27 ~ 46	50 ~ 70	34 ~ 36	41	46 ~ 65	70 ~ 80	41 ~ 50	55 ~ 95	100 ~ 105	50 ~ 117	75 ~ 135
Mpa	bar	psi	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m
7	70	1015	223	232	314	314	586	586	586	647	1094	1094	1177	1852	3041
8	80	1160	255	265	359	359	669	669	669	740	1250	1250	1346	2116	3475
9	90	1305	287	299	404	404	753	753	753	832	1407	1407	1514	2381	3910
10	100	1450	319	332	449	449	837	837	837	925	1563	1563	1682	2646	4344
11	110	1595	351	365	494	494	921	921	921	1017	1719	1719	1850	2910	4778
12	120	1740	383	398	539	539	1004	1004	1004	1110	1876	1876	2018	3175	5213
13	130	1885	415	432	584	584	1088	1088	1088	1202	2032	2032	2187	3439	5647
14	140	2030	447	465	629	629	1172	1172	1172	1295	2188	2188	2355	3704	6082
15	150	2175	479	498	673	673	1255	1255	1255	1387	2345	2345	2523	3969	6516
16	160	2320	511	531	718	718	1339	1339	1339	1480	2501	2501	2691	4233	6950
17	170	2465	543	565	763	763	1423	1423	1423	1572	2657	2657	2859	4498	7385
18	180	2610	575	598	808	808	1506	1506	1506	1665	2813	2813	3028	4762	7819
19	190	2755	607	631	853	853	1590	1590	1590	1757	2970	2970	3196	5027	8254
20	200	2900	639	665	898	898	1674	1674	1674	1850	3126	3126	3364	5291	8688
21	210	3045	670	698	943	943	1757	1757	1757	1942	3282	3282	3532	5556	9122
22	220	3190	702	731	988	988	1841	1841	1841	2034	3439	3439	3700	5821	9557
23	230	3335	734	764	1033	1033	1925	1925	1925	2127	3595	3595	3869	6085	9991
24	240	3480	766	798	1078	1078	2008	2008	2008	2219	3751	3751	4037	6350	10426
25	250	3625	798	831	1123	1123	2092	2092	2092	2312	3908	3908	4205	6614	10860
26	260	3770	830	864	1167	1167	2176	2176	2176	2404	4064	4064	4373	6879	11294
27	270	3915	862	897	1212	1212	2260	2260	2260	2497	4220	4220	4541	7144	11729
28	280	4060	894	931	1257	1257	2343	2343	2343	2589	4376	4376	4710	7408	12163
29	290	4205	926	964	1302	1302	2427	2427	2427	2682	4533	4533	4878	7673	12598
30	300	4350	958	997	1347	1347	2511	2511	2511	2774	4689	4689	5046	7937	13032
31	310	4495	990	1030	1392	1392		2594	2594	2867	4845	4845	5214	8202	13466
32	320	4640	1022	1064	1437	1437	-	2678	2678	2959	5002	5002	5382	8467	13901
33	330	4785	1054	1097	1482	1482	-	2762	2762	3052	5158	5158	5551	8731	14335
34	340	4930	1086	1130	1527	1527	-	2845	2845	3144	5314	5314	5719	8996	14770
35	350	5075	1117	1164	1572	1572	-	2929	2929	3237	5471	5471	5887	9260	15204
36	360	5220	1149	1197	1616	1616	-	3013	3013	3329	5627	5627	6055	9525	15638
37	370	5365	1181	1230	1661	1661	-	3096	3096	3422	5783	5783	6223	9790	16073
38	380	5510	1213	1263	1706	1706	-	3180	3180	3514	5939	5939	6392	10054	16507
39	390	5655	1245	1297	1751	1751	-	3264	3264	3607	6096	6096	6560	10319	16942
40	400	5800	1277	1330	1796	1796	-	3347	3347	3699	6252	6252	6728	10583	17376
41	410	5945	1309	1363	1841	1841	-	3431	3431	3792	-	6408	6896	10848	17810
42	420	6090	1341	1396	1886	1886	-	3515	3515	3884	-	6565	7064	11112	18245
43	430	6235	1373	1430	1931	1931	-	3598	3598	3977	-	6721	7233	11377	18679
44	440	6380	1405	1463	1976	1976	-	3682	3682	4069	-	6877	7401	11642	19114

Hydraulic Wrench Operating Instructions

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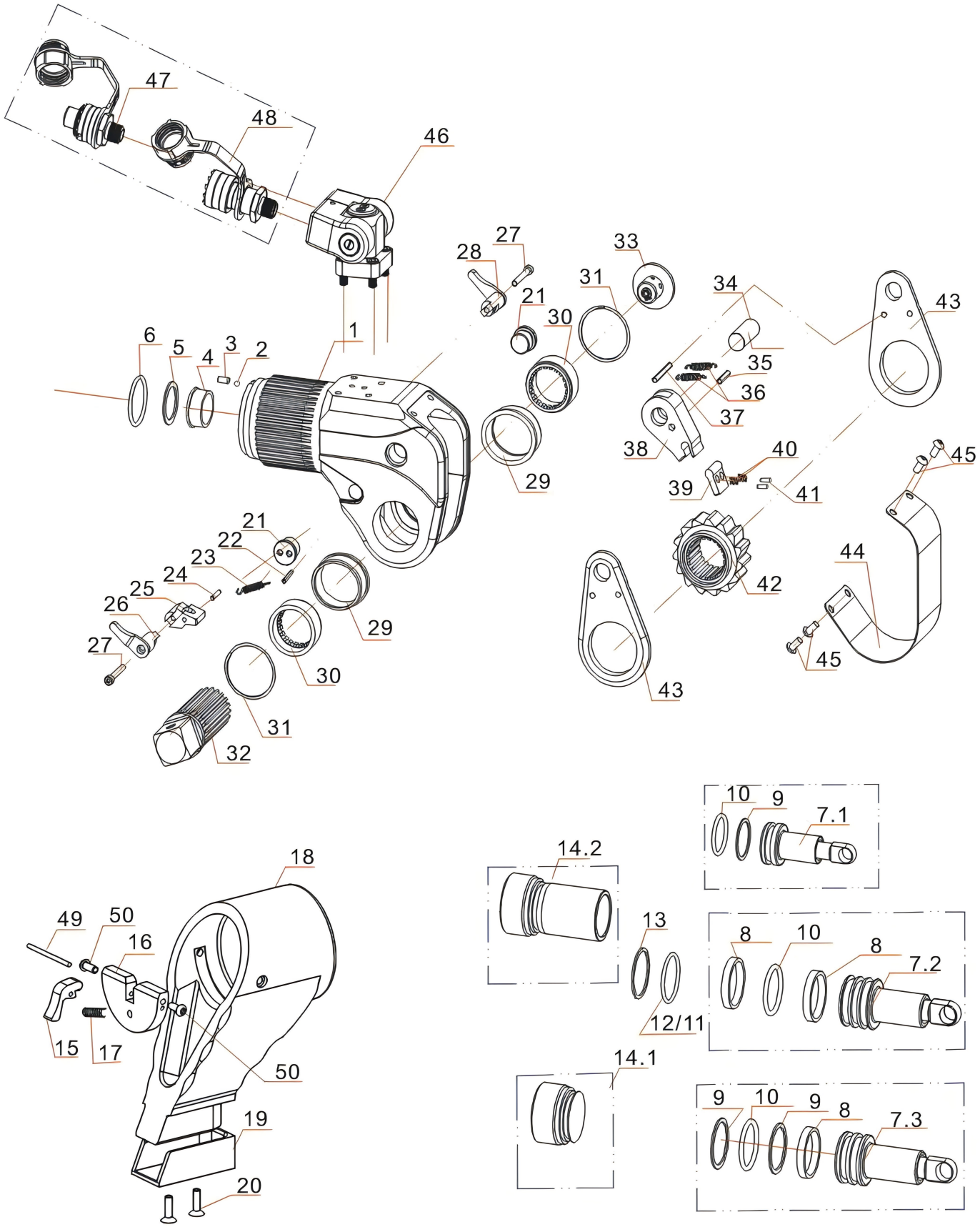
Model			RGH-2		RGH-3		RGH-4				RGH-8			RGH-14	RGH-22
Width Across Flats of Nut			19 ～ 55	60	27 ～ 46	50 ～ 70	34 ～ 36	41	46 ～ 65	70 ～ 80	41 ～ 50	55 ～ 95	100 ～ 105	50 ～ 117	75 ～ 135
Mpa	bar	psi	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m	N.m
45	450	6525	1437	1496	2021	2021	-	3766	3766	4162	-	7034	7569	11906	19548
46	460	6670	1469	1530	2065	2065	-	3850	3850	4254	-	7190	7737	12171	19982
47	470	6815	1501	1563	2110	2110	-	3933	3933	4347	-	7346	7905	12435	20417
48	480	6960	1533	1596	2155	2155	-	4017	4017	4439	-	7502	8074	12700	20851
49	490	7105	1564	1629	2200	2200	-	4101	4101	4532	-	7659	8242	12965	21286
50	500	7250	1596	1663	2245	2245	-	4184	4184	4624	-	7815	8410	13229	21720
51	510	7395	1628	1696	-	2290	-	4268	4268	4717	-	7971	8578	13494	22154
52	520	7540	1660	1729	-	2335	-	4352	4352	4809	-	8128	8746	13758	22589
53	530	7685	1692	1762	-	2380	-	4435	4435	4902	-	8284	8915	14023	23023
54	540	7830	1724	1796	-	2425	-	4519	4519	4994	-	8440	9083	14288	23458
55	550	7975	1756	1829	-	2470	-	4603	4603	5087	-	8597	9251	14552	23892
56	560	8120	1788	1862	-	2514	-	4686	4686	5179	-	8753	9419	14817	24326
57	570	8265	1820	1895	-	2559	-	4770	4770	5272	-	8909	9587	15081	24761
58	580	8410	1852	1929	-	2604	-	4854	4854	5364	-	9065	9756	15346	25195
59	590	8555	1884	1962	-	2649	-	4937	4937	5457	-	9222	9924	15611	25630
60	600	8700	1916	1995	-	2694	-	5021	5021	5549	-	9378	10092	15875	26064
61	610	8845	1948	2029	-	2739	-	-	5105	5642	-	9534	10260	16140	26498
62	620	8990	1980	2062	-	2784	-	-	5189	5734	-	9691	10428	16404	26933
63	630	9135	2011	2095	-	2829	-	-	5272	5827	-	9847	10597	16669	27367
64	640	9280	2043	2128	-	2874	-	-	5356	5919	-	10003	10765	16933	27802
65	650	9425	2075	2162	-	2919	-	-	5440	6012	-	10160	10933	17198	28236
66	660	9570	2107	2195	-	2963	-	-	5523	6104	-	10316	11101	17463	28670
67	670	9715	2139	2228	-	3008	-	-	5607	6197	-	10472	11269	17727	29105
68	680	9860	2171	2261	-	3053	-	-	5691	6289	-	10628	11438	17992	29539
69	690	10005	2203	2295	-	3098	-	-	5774	6382	-	10785	11606	18256	29974
70	700	10150	2235	2328	-	3143	-	-	5858	6474	-	10941	11774	18521	30408

▼MXT Series Assembly Drawing



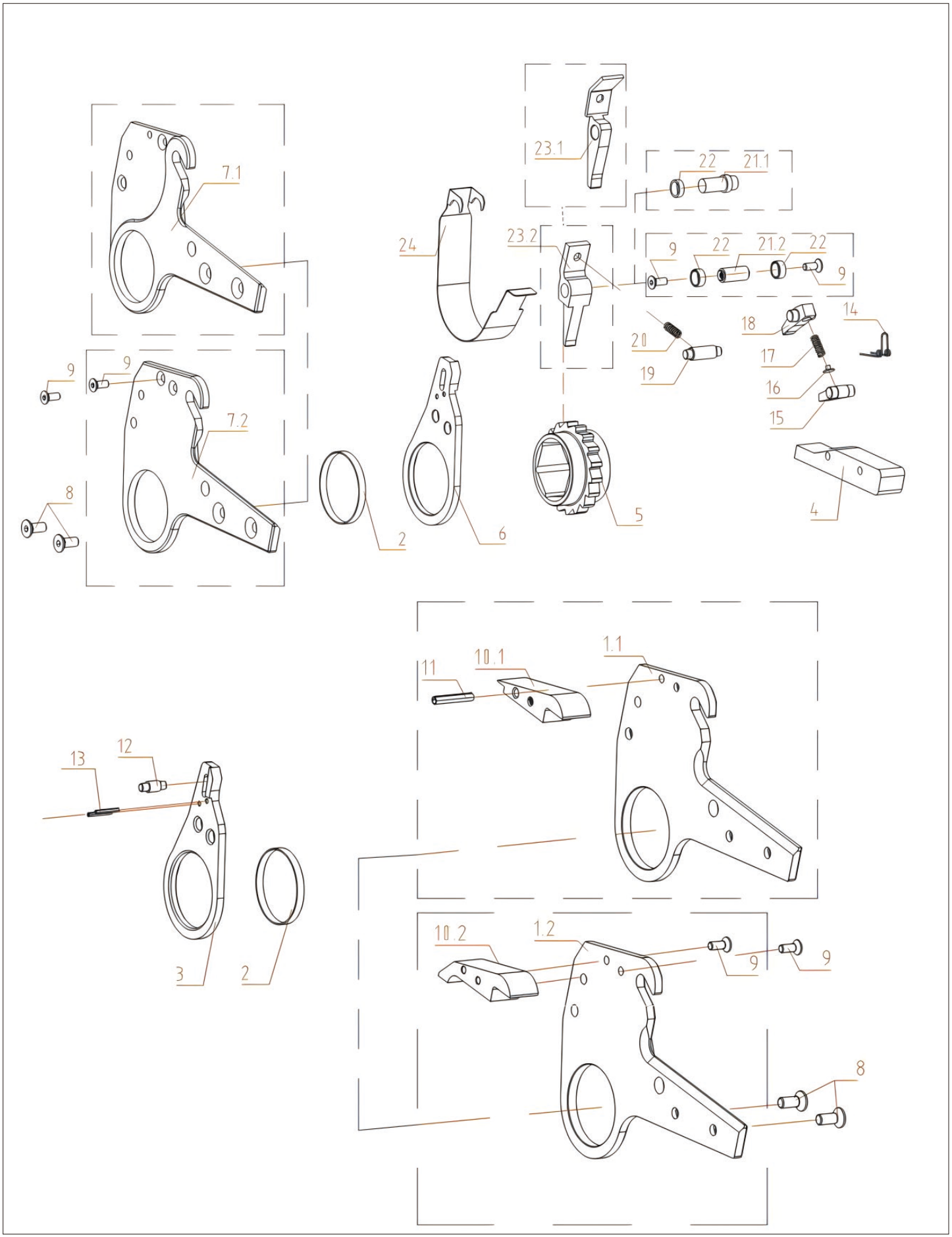
NOTE:

- Clause 7.1 applies only to Type 07; Clause 7.2 applies to Types 20、25、35 and 50; Clause 7.3 applies to Types 1、3、 5、 8、 10 and 15.
- Component No.7# is an indivisible part of the piston assembly.

▼ Detailed List of MXT Series Parts

		MXT-07	MXT-1	MXT-3	MXT-5	MXT-8	MXT-10	MXT-15	MXT-20	MXT-25	MXT-35	MXT-50
Item No.	Description	Qty.	Qty.	Qty.	Qty.	Qty.	Qty.	Qty.	Qty.	Qty.	Qty.	Qty.
1	Body	1	1	1	1	1	1	1	1	1	1	1
2	Steel Ball					1	1	1	1	1	1	1
3	(Plug) Screw	1	1	1	1	1	1	1	1	1	1	1
4	(Body) Copper Bushing			1	1	1	1	1	1	1	1	1
5	Retaining Ring	1	1									
6	Body O-Ring / U-Ring	1	1	1	1	1	1	1	1	1	1	1
7.1	Piston Assembly	1										
7.2	Piston Assembly							1	1	1	1	1
7.3	Piston Assembly		1	1	1	1	1					
8	Piston Wear Ring		1	1	1	1	1	2	2	2	2	2
9	Piston Circlip	1	1	1	2	2	2					
10	Piston O-Ring / Piston Glyd Ring	1	1	1	1	1	1	1	1	1	1	1
11	Cylinder Liner O-Ring			1	1							
12	Cylinder Liner O-Ring	1	1	1	1	1	1	1	1	1	1	1
13	Cylinder Liner Circlip		1	1	1	1	1	1	1	1	1	1
14.1	Cylinder Liner	1	1	1	1	1	1	1	1	1	1	1
14.2	Cylinder Liner			1	1							
15	Locating Hook	1	1	1	1	1	1	1	1	1	1	1
16	Locating Block	1	1	1	1	1	1	1	1	1	1	1
17	Reaction Arm Spring	1	1	1	1	1	1	1	1	1	1	1
18	Reaction Arm	1	1	1	1	1	1	1	1	1	1	1
19	Horseshoe	1	1	1	1	1	1	1	1	1	1	1
20	Horseshoe Capscrew	1	2	2	2	2	2	2	2	2	2	2
21	Capscrew	2	2	2	2	2	2	2	2	2	2	2
22	Cylindrical Pin	1	1	1	1	1	1	1	1	1	1	1
23	Anti-reverse Pawl Tension Spring	1	1	1	1	1	1	1	1	1	1	1
24	Anti-reverse Pawl Pin	1	1	1	1	1	1	1	1	1	1	1
25	Anti-reverse Pawl	1	1	1	1	1	1	1	1	1	1	1
26	Left Reset Trigger	1	1	1	1	1	1	1	1	1	1	1
27	Reset Trigger Capscrew	2	2	2	2	2	2	2	2	2	2	2
28	Right Reset Trigger	1	1	1	1	1	1	1	1	1	1	1
29	Steel Bushing	2	2	2	2	2	2	2	2	2	2	
30	Free Spline Sleeve	2	2	2	2	2	2	2	2	2	2	2
31	Circlip	2	2	2	2	2	2	2	2	2	2	2
32	Drive Shaft	1	1	1	1	1	1	1	1	1	1	1
33	Locking Device	1	1	1	1	1	1	1	1	1	1	1
34	Pin	1	1	1	1	1	1	1	1	1	1	1
35	Large Pawl Pin	1	1	1	1	1	1	1	1	1	1	1
36	Large Pawl Spring	2	2	2	2	2	2	2	2	2	2	2
37	Drive Plate Pin	1	1	1	1	1	1	1	1	1	1	1
38	Large Pawl	1	1	1	1	1	1	1	1	1	1	1
39	Small Pawl	1	1	1	1	1	1	1	1	1	1	1
40	Small Pawl Spring	1	2	1	2	2	1	1	1	1	1	1
41	Small Pawl Spring Pin	1					1	1	1	1	1	1
42	Ratchet Wheel	1	1	1	1	1	1	1	1	1	1	1
43	Drive Plate	2	2	2	2	2	2	2	2	2	2	2
44	Cover Plate	1	1	1	1	1	1	1	1	1	1	1
45	Cover Plate Capscrew	4	4	4	4	4	4	4	4	4	4	4
46	Swivel Manifold	1	1	1	1	1	1	1	1	1	1	1
47	Male Adaptor	1	1	1	1	1	1	1	1	1	1	1
48	Female Adaptor	1	1	1	1	1	1	1	1	1	1	1
49	Locating Pin	1	1	1	1	1	1	1	1	1	1	1
50	Locating Capscrew	2	2	2	2	2	2	2	2	2	2	2

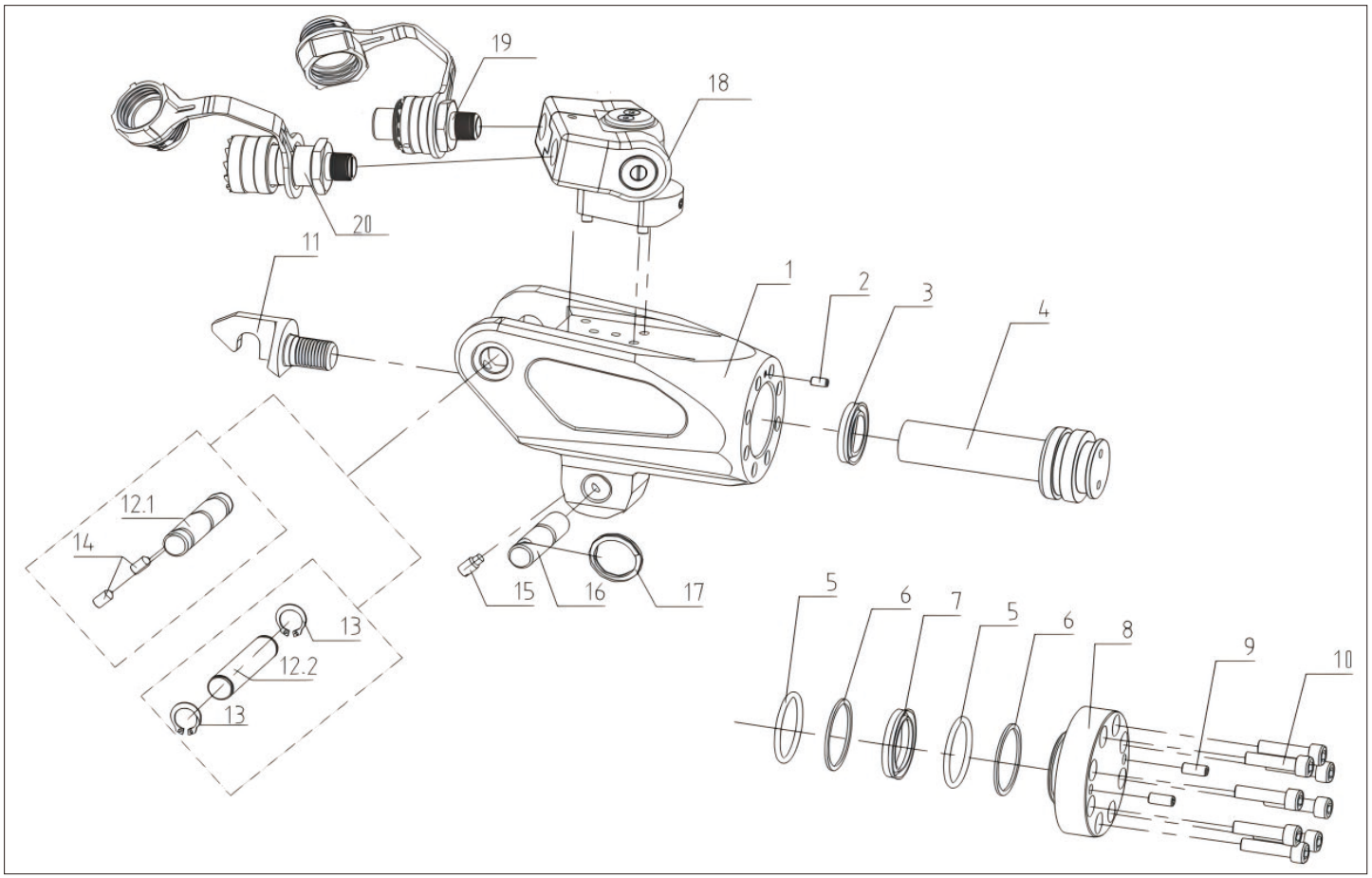
▼XLCT Series Assembly Drawing



▼XLCT Series Working Head Parts List

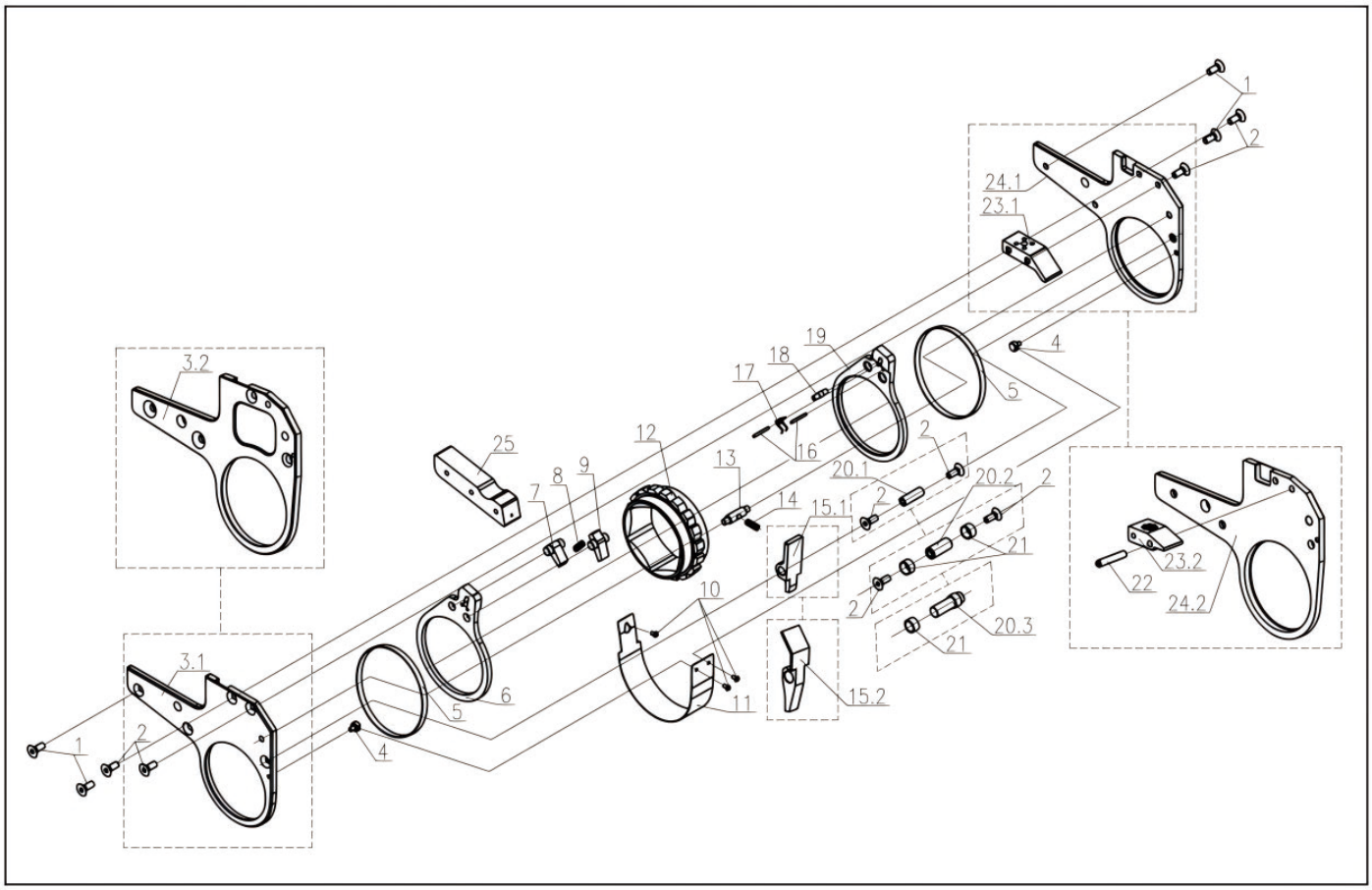
		XLCT-2-S	XLCT-4-S	XLCT-8-S	XLCT-14-S	XLCT-30-S
Item No.	Name	Qty	Qty	Qty	Qty	Qty
1.1	Left Wall Plate		1	1	1	1
1.2		1				
2	Copper Strip				2	2
3	Left Drive Plate	1	1	1	1	1
4	Reaction Support Plate	1	1	1	1	1
5	Ratchet	1	1	1	1	1
6	Right Drive Plate	1	1	1	1	1
7.1	Right Wall Plate		1	1	1	1
7.2		1				
8	Screw (for Reaction Support Plate)	4	4	4	4	4
9	Screw (for Bushing & Connecting Plate)	4	4	4	2	2
10.1	Connecting Plate		1	1	1	1
10.2		1				
11	Elastic Pin (for Connecting Plate)		1	1	1	1
12	Drive Pin (for Drive Plate)	1	1	1	1	1
13	Elastic Pin (for Drive Plate)	2	2	2	2	2
14	Torsion Spring	1	1	1	1	1
15	Short Pawl	1	1	1	1	1
16	Spring Washer	1				
17	Compression Spring (for Large Pawl)	1	1	1	1	1
18	Long Pawl	1	1	1	1	1
19	Pin Shaft (for Wall Plate)	1	1	1	1	1
20	Compression Spring (for Backstop Pawl)	1	1	1	1	1
21.1	Rotating Shaft	1			1	1
21.2			1	1		
22	Bushing	1	2	2	1	1
23.1	Backstop Pawl		1	1	1	1
23.2		1				
24	Cover Plate	1	1	1	1	1

▼XLCT Series Power Head Assembly Drawing and Parts List



		XLCT-2	XLCT-4	XLCT-8	XLCT-14	XLCT-30
No.	Name	Qty	Qty	Qty	Qty	Qty
1	Body	1	1	1	1	1
2	Plug (Body)	1		1	1	1
3	U-Seal (Body)	1	1	1	1	1
4	Piston Rod	1	1	1	1	1
5	O-Ring (Piston)	1	1	1	1	1
	O-Ring (Cylinder Head)	1	1	1	1	1
6	Retaining Ring (Piston Rod)		1	1	1	1
	Retaining Ring (Cylinder Head)	1	1	1	1	1
7	U-Seal (Piston)	1	1	1	1	1
8	Cylinder Head	1	1	1	1	1
9	Ejecting Screw (Cylinder Head)	2	2	2	2	2
10	Screw (Body)	8	8	8	8	8
11	Hook Head	1	1	1	1	1
12.1	Long Pin Shaft				1	1
12.2		1	1	1		
13	Retaining Ring (Long Pin Shaft)	2	2	2		
14	Screw (Long Pin Shaft)				2	2
15	Ball Set Screw	1	1	1	1	1
16	Combination Pin	1	1	1	1	1
17	Key Ring	1	1	1	1	1
18	Swivel Joint	1	1	1	1	1
19	Male Connector	1	1	1	1	1
20	Female Connector	1	1	1	1	1

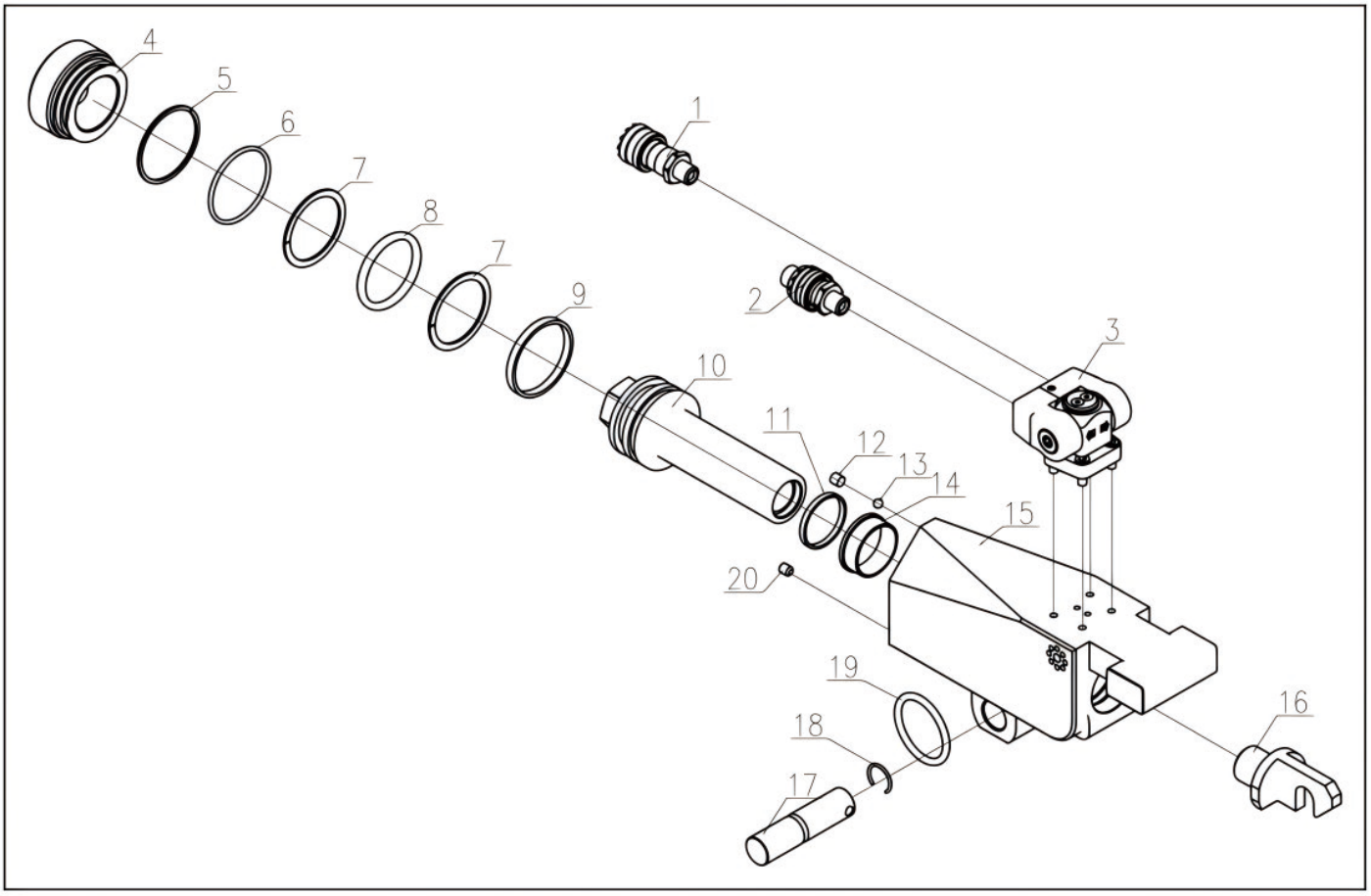
▼RGH Series Working Head Assembly Drawing Parts List



		RGH-3	RGH-4	RGH-8	RGH-14	RGH-22
No.	Name	Qty	Qty	Qty	Qty	Qty
1	Reaction Support Plate Screw	4	4	4	4	4
2	Rotating Shaft & Connecting Plate Screw	6	6	4	2	6
3.1	Left Wall Plate	1	1			1
3.2				1	1	
4	Step Pin	2	2	2	2	2
5	Copper Strip	2	2	2	2	2
6	Left Drive Plate	1	1	1	1	1
7	Short Pawl	1	1	1	1	1
8	Compression Spring	1	1	1	1	1
9	Long Pawl	1	1	1	1	1
10	Cover Plate Screw	3	3	3	3	3
11	Cover Plate	1	1	1	1	1
12	Ratchet	1	1	1	1	1
13	Pin Shaft	1	1	1	1	1
14	Compression Spring	1	1	1	1	1
15.1	Backstop Pawl	1				1
15.2			1	1	1	
16	Drive Plate Elastic Pin	2	2	2	2	2

17	Torsion Spring	1	1	1	1	1
18	Drive Pin	1	1	1	1	1
19	Right Drive Plate	1	1	1	1	1
20.1	Rotating Shaft	1				1
20.2			1			
20.3				1	1	
21	Bushing		2	1	1	
22	Connecting Plate Elastic Pin			1	1	
23.1	Connecting Plate	1	1			1
23.2				1	1	
24.1	Right Wall Plate	1	1			1
24.2				1	1	
25	Reaction Support Plate	1	1	1	1	1

▼RGH Series Power Head Assembly Drawing and Parts List



		RGH-3	RGH-4	RGH-8	RGH-14	RGH-22
No.	Name	Qty	Qty	Qty	Qty	Qty
1	Female Connector	1	1	1	1	1
2	Male Connector	1	1	1	1	1
3	Rotating Body Assembly	1	1	1	1	1
4	Cylinder Head	1	1	1	1	1
5	Cylinder Head Retaining Ring	1	1	1	1	1
6	Cylinder Head O-Ring	1	1	1	1	1
7	Piston Retaining Ring	1	1	1	1	2
8	Piston Rod O-Ring	1	1	1	1	1
9	Wear Ring or U-Seal		1	1	1	1
10	Piston Rod	1	1	1	1	1
11	Body U-Seal	1	1	1	1	1
12	Body Plug	1	1	1	1	1
13	Steel Ball	1	1			
14	Copper Bushing	1	1	1	1	1
15	Body	1	1	1	1	1
16	Hook Head	1	1	1	1	1
17	Pin Shaft	1	1	1	1	1
18	Steel Wire Retaining Ring	1				
19	Key Ring	1	1	1	1	1
20	Ball Set Screw		1	1	1	1

► Troubleshooting

Fault	Possible Cause	Remedy
Piston fails to extend	Quick coupling not fully connected	Check quick coupling and ensure full connection
	Defective quick coupling	Replace defective quick coupling
	Defective remote control	Replace button or controller
	Dirt in directional control valve of hydraulic pump	Disassemble pump and clean directional control valve
Piston fails to retract	Incorrect hose connection	Ensure high-pressure port of pump connects to high-pressure port of tool, and low-pressure port to low-pressure port
	Return line not properly connected	Connect return line safely and correctly
	Damaged drive pin or spring	Replace spring or drive pin
Cylinder cannot build pressure while pump pressure is normal	Leaking piston seal	Replace defective seals
	Defective connector	Replace defective connector
Pump cannot build pressure while cylinder pressure is normal	Defective pressure regulating valve	Check, adjust or replace pressure regulating valve
	Low voltage	Ensure current, voltage and other values meet pump requirements
	Defective pressure gauge	Replace pressure gauge
	Insufficient oil	Check and fill with sufficient hydraulic oil
	Clogged filter	Check, clean or replace filter
Nut rotates during return	Ratchet and backstop pawl not engaged	Replace backstop pawl or pawl compression spring

► Daily Maintenance and Transportation of Hydraulic Wrenches

I. Maintenance of Hydraulic Wrenches

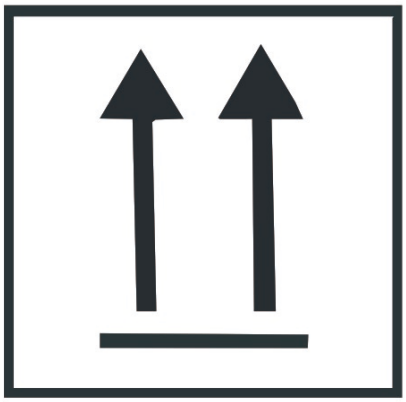
Before and after use, check all screws on the wrench for looseness. Tighten any loose screws immediately. Failure to do so may result in screw loss and cause serious equipment damage.
All moving parts inside the wrench should be regularly lubricated with high-grade NLGI #2 molybdenum disulfide grease. Under harsh working conditions, cleaning and lubrication must be performed frequently.
Keep quick connectors clean. Install dust caps after operation. Do not allow dust to enter the hydraulic system, as this may cause internal valve failure and equipment damage.
Connect all equipment, switch the directional control valve, and pressurize to check for abnormalities.
Check piping or equipment for oil leakage. If leakage occurs, identify the cause and repair it immediately.
Internal components of the wrench are interrelated. Failure of one part will inevitably cause wear to other parts. Therefore, regular inspection, timely maintenance and replacement are required.

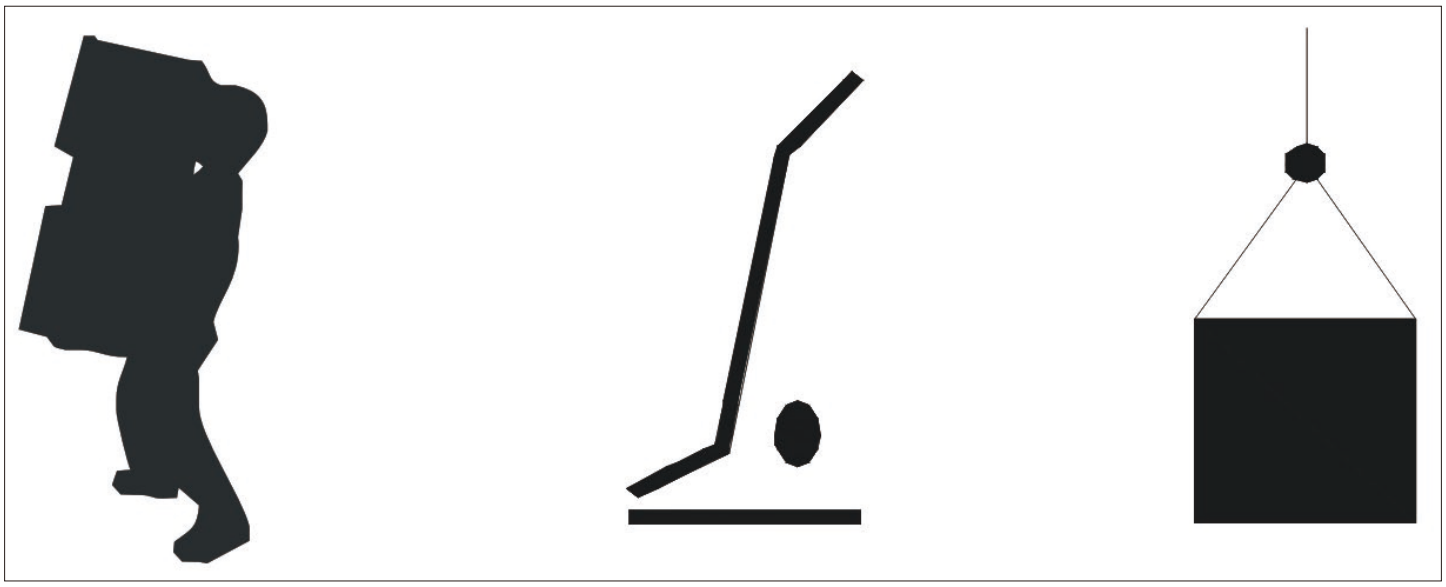
II. Noise / Vibration Statement

Operating noise level of hydraulic wrench: ≤ 70 dB

III. Transportation Information

Handle with care during handling.
Keep the product upright during shipment.
The product is usually transported by hand, trolley or crane.





► Hydraulic Wrench Specifications

Model	Torque (N.m)	Bolt Size (mm)	Drive Square (inch)	Model	Torque (N.m)	Bolt Size (mm)	Drive Square (inch)
MXT-07	112-1120	14-30	3/4	MXT-15	2063-20627	39-80	2-1/2
MXT-1	183-1837	16-36	3/4	MXT-20	2666-26664	42-90	2-1/2
MXT-3	451-4512	22-48	1	MXT-25	3472-34725	48-100	2-1/2
MXT-5	752-7528	27-56	1-1/2	MXT-35	4866-48666	64-120	2-1/2
MXT-8	1078-10780	30-64	1-1/2	MXT-50	7200-72000	72-125	2-1/2
MXT-10	1551-15516	36-72	1-1/2	MXT-05	54-538	10-20	1/2

Model	Torque (N.m)	Bolt Size (mm)	Drive Square (inch)	Model	Torque (N.m)	Bolt Size (mm)	Drive Square (inch)
XLCT-2/S19	232-2328	19		XLCT-8/S105	1177-11774	100-105	
XLCT-2/S22	232-2328	19-22		XLCT-14/S50	1852-18521	50	
XLCT-2/S27	232-2328	19-27		XLCT-14/S55	1852-18521	50-55	
XLCT-2/S30	232-2328	19-30		XLCT-14/S60	1852-18521	50-60	
XLCT-2/S32	232-2328	19-32		XLCT-14/S65	1852-18521	50-65	
XLCT-2/S34	232-2328	19-34		XLCT-14/S70	1852-18521	50-70	
XLCT-2/S36	232-2328	19-36		XLCT-14/S75	1852-18521	50-75	
XLCT-2/S41	232-2328	19-41		XLCT-14/S80	1852-18521	50-80	
XLCT-2/S46	232-2328	19-46		XLCT-14/S85	1852-18521	50-85	
XLCT-2/S50	232-2328	19-50		XLCT-14/S90	1852-18521	50-90	
XLCT-2/S55	232-2328	19-55		XLCT-14/S95	1852-18521	50-95	
XLCT-2/S60	241-2414	19-60		XLCT-14/S100	1852-18521	50-100	
XLCT-4/S34	585-5858	34		XLCT-14/S105	1852-18521	50-105	
XLCT-4/S36	585-5858	34-36		XLCT-14/S110	1852-18521	50-110	
XLCT-4/S41	585-5858	34-41		XLCT-14/S115	1852-18521	50-115	
XLCT-4/S46	585-5858	34-46		XLCT-14/S117	1852-18521	50-117	
XLCT-4/S50	585-5858	34-50		XLCT-30/S85	4188-41882	85	
XLCT-4/S55	585-5858	34-55		XLCT-30/S90	4188-41882	85-90	
XLCT-4/S60	585-5858	34-60		XLCT-30/S95	4188-41882	85-95	
XLCT-4/S65	585-5858	34-65		XLCT-30/S100	4188-41882	85-100	
XLCT-4/S70	647-6474	34-70		XLCT-30/S105	4188-41882	85-105	
XLCT-4/S75	647-6474	34-75		XLCT-30/S110	4188-41882	85-110	
XLCT-4/S80	647-6474	34-80		XLCT-30/S115	4188-41882	85-115	
XLCT-8/S41	1097-10941	41		XLCT-30/S117	4188-41882	85-117	
XLCT-8/S46	1097-10941	41-46		XLCT-30/S120	4188-41882	85-120	
XLCT-8/S50	1097-10941	41-50		XLCT-30/S125	4188-41882	85-125	
XLCT-8/S55	1097-10941	41-55		XLCT-30/S130	4188-41882	85-130	
XLCT-8/S60	1097-10941	41-60		XLCT-30/S135	4188-41882	85-135	
XLCT-8/S65	1097-10941	41-65		XLCT-30/S140	4188-41882	85-140	
XLCT-8/S70	1097-10941	41-70		XLCT-30/S145	4188-41882	85-145	
XLCT-8/S75	1097-10941	41-75		XLCT-30/S150	4188-41882	85-150	
XLCT-8/S80	1097-10941	41-80		XLCT-30/S155	4188-41882	85-155	
XLCT-8/S85	1097-10941	41-85		XLCT-30/S160	4459-44593	85-160	
XLCT-8/S90	1097-10941	41-90		XLCT-30/S165	4459-44593	85-165	
XLCT-8/S95	1097-10941	41-95		XLCT-30/S170	4459-44593	85-170	
XLCT-8/S100	1177-11774	100-105		XLCT-30/S175	4459-44593	85-175	

Model	Torque (N.m)	Bolt Size (mm)	Drive Square (inch)	Model	Torque (N.m)	Bolt Size (mm)	Drive Square (inch)
RGH-3/S27	314-2245	27		RGH-8/S90	1094-10941	41-90	
RGH-3/S30	314-2245	27-30		RGH-8/S95	1094-10941	41-95	
RGH-3/S32	314-2245	27-32		RGH-8/S100	1177-11774	41-100	
RGH-3/S34	314-2245	27-34		RGH-8/S105	1177-11774	41-105	
RGH-3/S36	314-2245	27-36		RGH-14/S50	1852-18521	50	

RGH-3/S41	314-2245	27-41	RGH-14/S55	1852-18521	50-55
RGH-3/S46	314-2245	27-46	RGH-14/S60	1852-18521	50-60
RGH-3/S50	314-3143	27-50	RGH-14/S65	1852-18521	50-65
RGH-3/S55	314-3143	27-55	RGH-14/S70	1852-18521	50-70
RGH-3/S60	314-3143	27-60	RGH-14/S75	1852-18521	50-75
RGH-3/S65	314-3143	27-65	RGH-14/S80	1852-18521	50-80
RGH-3/S70	314-3143	27-70	RGH-14/S85	1852-18521	50-85
RGH-4/S34	586-2511	34	RGH-14/S90	1852-18521	50-90
RGH-4/S36	586-2511	34-36	RGH-14/S95	1852-18521	50-95
RGH-4/S41	586-5021	34-41	RGH-14/S100	1852-18521	50-100
RGH-4/S46	586-5858	34-46	RGH-14/S105	1852-18521	50-105
RGH-4/S50	586-5858	34-50	RGH-14/S110	1852-18521	50-110
RGH-4/S55	586-5858	34-55	RGH-14/S115	1852-18521	50-115
RGH-4/S60	586-5858	34-60	RGH-14/S117	1852-18521	50-117
RGH-4/S65	586-5858	34-65	RGH-22/S75	3041-30408	75
RGH-4/S70	647-6474	34-70	RGH-22/S80	3041-30408	75-80
RGH-4/S75	647-6474	34-75	RGH-22/S85	3041-30408	75-85
RGH-4/S80	647-6474	34-80	RGH-22/S90	3041-30408	75-90
RGH-8/S41	1094-6252	41	RGH-22/S95	3041-30408	75-95
RGH-8/S46	1094-6252	41-46	RGH-22/S100	3041-30408	75-100
RGH-8/S50	1094-6252	41-50	RGH-22/S105	3041-30408	75-105
RGH-8/S55	1094-10941	41-55	RGH-22/S110	3041-30408	75-110
RGH-8/S60	1094-10941	41-60	RGH-22/S115	3041-30408	75-115
RGH-8/S65	1094-10941	41-65	RGH-22/S117	3041-30408	75-117
RGH-8/S70	1094-10941	41-70	RGH-22/S120	3041-30408	75-120
RGH-8/S75	1094-10941	41-75	RGH-22/S125	3041-30408	75-125
RGH-8/S80	1094-10941	41-80	RGH-22/S130	3041-30408	75-130
RGH-8/S85	1094-10941	41-85	RGH-22/S135	3041-30408	75-135

► International Unit Conversion Table

Category	SI Unit	Conversion Factor	Non-SI Unit	Conversion Factor	SI Unit
Length	Millimeter (mm)	× 0.03937	Inch	× 25.4	Millimeter
Length	Centimeter (cm)	× 0.3937	Inch	× 2.54	Centimeter
Length	Meter (m)	× 1.0936	Yard	× 0.9144	Meter
Length	Kilometer (km)	× 0.6214	Mile	× 1.609	Kilometer
Area	Square Millimeter (mm^2)	× 0.00155	Square Inch	× 645.16	Square Millimeter
Area	Square Centimeter (cm^2)	× 0.155	Square Inch	× 6.4516	Square Centimeter
Area	Square Meter (m^2)	× 10.764	Square Foot	× 0.0929	Square Meter
Area	Square Meter (m^2)	× 1.196	Square Yard	× 0.8361	Square Meter
Area	Hectare (ha)	× 2.471	Acre	× 0.4047	Hectare
Area	Square Kilometer (km^2)	× 0.3861	Square Mile	× 2.59	Square Kilometer
Volume	Cubic Centimeter (cm^3)	× 0.061	Cubic Inch	× 16.387	Cubic Centimeter
Volume	Liter (L)	× 61.024	Cubic Inch	× 0.01639	Liter
Volume	Milliliter (mL)	× 0.0338	Fluid Ounce	× 29.57	Milliliter
Volume	Liter (L)	× 1.0567	Quart	× 0.9463	Liter
Volume	Liter (L)	× 0.2642	Gallon	× 3.785	Liter
Volume	Cubic Meter (m^3)	× 1.308	Cubic Yard	× 0.7646	Cubic Meter
Mass	Gram (g)	× 0.0353	Ounce	× 28.35	Gram
Mass	Kilogram (kg)	× 2.205	Pound	× 0.4536	Kilogram
Mass	Metric Ton (t)	× 1.102	Short Ton	× 0.9072	Ton
Force	Newton (N)	× 0.2248	Pound-force	× 4.448	Newton
Force	Kilonewton (kN)	× 224.8	Pound-force	× 0.004448	Kilonewton
Torque	Newton Meter (N·m)	× 8.851	Pound-force Inch	× 0.1129	Newton Meter
Torque	Newton Meter (N·m)	× 0.7376	Pound-force Foot	× 1.3558	Newton Meter
Pressure	Kilopascal (kPa)	× 0.145	PSI	× 6.895	Kilopascal
Pressure	Megapascal (MPa)	× 145	PSI	× 0.006895	Megapascal
Pressure	Bar	× 14.504	PSI	× 0.06895	Bar
Power	Kilowatt (kW)	× 1.341	Horsepower	× 0.7457	Kilowatt
Power	Watt (W)	× 0.737	Inch-pound / s	× 1.355	Watt
Temperature	—	—	°C = (°F − 32) ÷ 1.8	—	°F = (°C × 1.8) + 32