

### ZQ Series of Drill Pipe Power Tongs



ZQ Drill Pipe Power Tong is an ideal wellhead tool for oil drilling, widely applied in madding-up and breaking-out for well drilling and repairing on offshore and land. Open-throat design of the ZQ-series with high mobility allows escaping from drilling pipe freely .The tong is a combination of spinning tong and torque tong .It substitutes cathead, suspension tong and spinning rope in making-up and breaking-out. The Tongs are designed and manufactured according to API Spec7k “Specification for Drilling Equipment”.

#### Main Technical Parameters

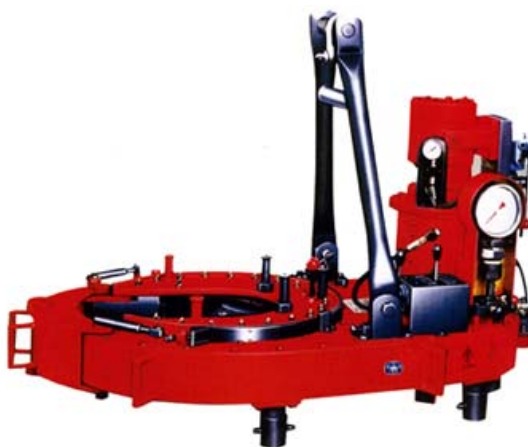
Model		ZQ203-125	ZQ203-100	ZQ203-100A	ZQ203-100B	ZQ162-50	ZQ127-25
Size Range	mm	127~203	121~203	121~203	121~203	85~162	65~127
	in	3 <sup>1</sup> / <sub>2</sub> coupling~ 8body	3 <sup>1</sup> / <sub>2</sub> coupling~ 8body	3 <sup>1</sup> / <sub>2</sub> coupling~ 8body	3 <sup>1</sup> / <sub>2</sub> coupling~ 8body	2 <sup>3</sup> / <sub>8</sub> coupling~ 5body	2 <sup>3</sup> / <sub>8</sub> coupling~ 3 <sup>1</sup> / <sub>2</sub> body
Max. Torque	kN·m	125	100	100	100	50	25
	ft·lbf	92200	73750	73750	73750	36880	18440
Speed of Tong Head Hi.	rpm	40	40	40	40	60	65
Speed of Tong Head Lo.	rpm	2.7	2.7	2.7	2.7	4.1	10.5
Working Air Pressure	Mpa	0.5~1					
	psi	72~144					
Hydraulic System Pressure Rating	Mpa	20	16.6	16.6	16.6	16	12
	psi	29000	2400	2400	2400	2320	1740
Hydraulic System Flow Rating	L/min	114	114	114	114	120	180
	gpm	30	30	30	30	32	48
Stroke of Shifting Cylinder	mm	1500	1500	1500	-	1000	1000
	in	59	59	59	-	39.4	39.4
Moving Distance of Tong	mm	-	-	-	0~1500	-	-
	in	-	-	-	0~59	-	-



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Lifting Distance of Tong	mm	-	-	0~485	0~800	-	-
	in	-	-	1~19	0~31.5	-	-
Overall Dimensions	mm	1785×1080×1360	1760×1000×1360	1760×1000×1630	1760×1650×2050	1570×800×1190	1110×790×820
	in	70×42×53	69×39×53	69×39×64	69×65×81	62×31×47	44×31×32
Weight	kg	2650	2400	2500	3250	1500	620
	lb	5840	5290	5510	7165	3310	1360

### TQ Series of Casing Tongs



TQ series of casing Tongs are widely used for making up or breaking out pipes or casings diameters of 4" ~133/8". The tong heads are designed open type and can freely clamp and escape from the casing, TQ Casing Tongs are safe, reliable, and easy to handle with high mobility. This series of tongs can be connected to computer controlling units and can serve as ideal well mechanical tool for surface operations in oil fields. National Invention Patent of the tong has been got. The tongs are designed and manufactured according to API Spec 7K "Specification for Drilling Equipment". TCS torque monitoring system can be matched with drill well Power Tongs, casing tong and oil pip power tong and can be well made-up.

#### Main Technical Parameters

Model		TQ178-16	TQ340-20A	TQ340-35	TQ178-16A	TQ340-35B	TQ340-50	
Size Range	mm	101.6~178	101.6~340	139.7~340	101.6~167	101.6~340	139.1~340	
	in	4~7	4~13 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub> ~13 <sup>3</sup> / <sub>8</sub>	4~7	4~13 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub> ~13 <sup>3</sup> / <sub>8</sub>	
Hydraulic System Max. Pressure	Mpa	18	16	18	18	18	17.2	
	psi	2610	2320	2610	2610	2610	2494	
Hydraulic System Rated Flow	L/min	114	114	114	114	114	120	
	gpm	30.1	30.1	30.1	30.1	30.1	31.7	
Max. Torque	Hi-gear	kN·m	2.4~3	3.7	2.5~3	2.4~3	4.0~5.0	3.2
		ft·lbf	1770~2200	2730	1844~2200	1770~2200	2950~3680	2360
	Mid-gear	kN·m	-	-	6.0~7.5	-	-	9.2
		ft·lbf	-	-	4420~5530	-	-	6785
	Low-gear	kN·m	16	20	35	15~18	32~35	50
		ft·lbf	-	-	-	-	-	-

		ft·lbf	11800	14750	25800	11060~13280	23600~25800	36880
RPM	Hi-gear	rpm	54~97	50~80	60~86	54~79	50~67	70.5
	Mid-gear	rpm	-	-	21~30	-	-	24.2
	Low-gear	rpm	9~13.1	6~14	2.6~5.3	8.5~12	7~10	5.4
Overall Dimension		mm	1540×760×740	1520×850×670	1540×900×860	1500×760×680	1560×900×850	1540×892×908
		in	61×30×29	60×34×26	61×36×34	59×30×27	61×35×33.5	60×35×33
Weight		kg	580	560	780	570	780	880
		lb	1280	1234	1720	1250	1720	1940

### CTS Torque Monitoring System



CTS Torque Monitoring System can be matched with drill pipe power tong, casing power tong and spinning machine for ensuring make-up perfectly, it is an integrated control with data acquisition, data processing and data management. It records job times, date, time, torque and etc. automatically, display graph of torque-turns, torque-time and print out finally.

### TB Casing Back-up Tong



TB casing back-up tong is a patented product, used to perform casing operation by combining with casing power tong and can ensure connection quality and eliminate deformation of main tong under large torque. The back-up tong



features safety, reliability, labor-saving and high efficiency. There are two control styles: pneumatic and hydraulic. The back-up tong is supplied with a torque sensor to measure precisely the connection torque. The back-up tong is designed and manufactured according to industrial standard SY/T5074 API Spec 7K “Specification for Drilling Equipment”.

The picture shows the combination of the casing tong with the backup tong. The following table is the specification for backup tong. Refer to TQ casing tong for the master tong.

**Main Technical Parameters**

Model		TB194--16	TB365-35	TBH178-16S	TB365-35Y
Size range	mm	120.6~194	127~365	140~178	127~365
	in	4~7 coupling	4~13 coupling	5~7	4~13 coupling
Air pressure	MPa	0.5~0.9	0.5~0.9	0.5~0.9	—
	psi	72~130	72~130	72~130	
Hydraulic pressure rating	MPa	—	—	—	18
	psi				2610
Maximum bearing torque	kN·m	16	35	16	35
	Ft·lbf	11800	25810	11800	25810
Size	mm	1310×780×390	1510×945×405	1080×1080×350	1350×950×350
	in	51.6×30.7×15.4	59.4×37.2×16	42.5×42.5×13.8	53.1×37.4×13.8
Weight	kg	360	480	1320	520
	lb	790	1060	2910	1140

**XYQ Series of Tubing Power Tongs**



XYQ series tubing power tong is used for quick make-up /break-out in well service operations .The tong is equipped with hydraulic backup tong and use inner curved cam to clamp.



**Main Technical Parameters**

Model		XYQ3B/3C	XYQ6B	XYQ12
Pipe Size Range of Master Tong	mm	φ 60~89	φ 73~114	φ 60~140
	in	2 <sup>3</sup> / <sub>8</sub> "~3 <sup>1</sup> / <sub>2</sub> "	2 <sup>7</sup> / <sub>8</sub> "~4 <sup>1</sup> / <sub>2</sub> "	2 <sup>3</sup> / <sub>8</sub> "~5 <sup>1</sup> / <sub>2</sub> "
Pipe Size Range of Backup Tong	mm	φ 60~114	φ 89~141.5	φ 73~156
	in	2 <sup>3</sup> / <sub>8</sub> "~4 <sup>1</sup> / <sub>2</sub> "	3 <sup>1</sup> / <sub>2</sub> "~5 <sup>1</sup> / <sub>8</sub> "	2 <sup>7</sup> / <sub>8</sub> "~6 <sup>1</sup> / <sub>8</sub> "
High Gear Rated Torque	kN·m	1.1	1.5	2.6
	lbf·ft	811	1106	1918
Low Gear Rated Torque	kN·m	3	6	13
	lbf·ft	2213	4425	9588
High Gear Rated Speed	r/min	100	85	68
Low Gear Rated Speed	r/min	30	20	13
Rated Operation Pressure	Mpa	10	11	12
	psi	1450	1595	1740
Max. Flow	L/min	80	100	120
	gpm	21	26	32
Dimension	mm	650×430×550	750×500×600	1042×582×839
	in	25.6"×16.9"×21.7"	29.5"×19.7"×23.6"	41.0"×22.9"×33.0"
Weight ( Including Backup Tong)	kg	158	220	471
	lb	348	485	1038

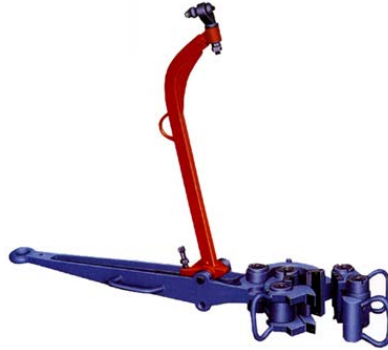
**Casing Tong**

Type Q340-762/35(133/8~30 in ) Casing Tong is capable of making up or breaking out the screws of casing and casing couplings in drilling operation.

**Main Technical Parameters**

Pipe Size		Torque Max. ( kN·m)
mm	in	
340~368	13 <sup>3</sup> / <sub>8</sub> ~14 <sup>1</sup> / <sub>2</sub>	35
368~406	14 <sup>1</sup> / <sub>2</sub> ~16	
406~445	16~17 <sup>1</sup> / <sub>2</sub>	
445~483	17 <sup>1</sup> / <sub>2</sub> ~19	
483~508	19~20	
508~546	20~21 <sup>1</sup> / <sub>2</sub>	
546~584	21 <sup>1</sup> / <sub>2</sub> ~23	
610~648	24~25 <sup>1</sup> / <sub>2</sub>	
648~686	25 <sup>1</sup> / <sub>2</sub> ~27	
686~724	27~28 <sup>1</sup> / <sub>2</sub>	
724~762	28 <sup>1</sup> / <sub>2</sub> ~30	

### Manual Tong



This tool used to fasten or remove the screws of drill tool and casing in well drilling operation .The handling size of this type tong can be adjusted by changing latch lug jaws.

#### Main Technical Parameters

No. of Latch Lug Jaws	Handle O.D.		Torque Max. (kN·m)
	in	mm	
1"	2 <sup>3</sup> / <sub>8</sub> ~4 <sup>1</sup> / <sub>2</sub>	60.3~114.3	35
2"	4 <sup>1</sup> / <sub>2</sub> ~6 <sup>1</sup> / <sub>2</sub>	114.4~165.1	
3"	6 <sup>1</sup> / <sub>2</sub> ~8 <sup>5</sup> / <sub>8</sub>	165.1~219.1	
4"	8 <sup>5</sup> / <sub>8</sub> ~10 <sup>3</sup> / <sub>4</sub>	244.5~273.1	

### B Type Manual Tong



Type Q86-324/75 (33/8~123/4in) manual tong is an essential tool in oil drilling operation to fasten or remove the screws of drill pipe and casing joint or coupling. It can be adjusted by changing latch lug jaws and latch steps.

**Main Technical Parameters**

No. of Latch Lug Jaws	Handle Shoulder	Handle O.D. mm (in)	Torque Max. (kN·m)
5a	1	86~150( $3\frac{3}{8}$ ~ $4\frac{1}{8}$ )	55
	2	105~133( $4\frac{1}{8}$ ~ $5\frac{1}{4}$ )	
5b	1	108~133( $4\frac{1}{4}$ ~ $5\frac{1}{5}$ )	75
	2	127~146( $5$ ~ $5\frac{3}{4}$ )	
	3	152~171( $6$ ~ $6\frac{3}{4}$ )	
5b-1	1	133~146( $5$ ~ $6$ )	75, 55
	2	146~168( $6$ ~ $7$ )	
	3	168~208( $7$ ~ $8$ )	
5c	1	186~187( $6\frac{5}{8}$ ~ $7\frac{3}{8}$ )	55
	2	187~203( $7\frac{3}{8}$ ~ $8$ )	
	3	216~219( $8\frac{1}{2}$ ~ $9\frac{5}{8}$ )	
5d	1	216~244( $10\frac{5}{8}$ ~ $10\frac{3}{4}$ )	55
	2	270~273( $3\frac{3}{8}$ ~ $4\frac{1}{8}$ )	
5e	1	298( $11\frac{3}{4}$ )	55
	2	324( $12\frac{3}{4}$ )	

**BD Type Manual Tongs**



Type Q3 1/2-17/90 manual tong is used for making up or breaking out the screws of drill tools and casing joint or coupling .It can be adjusted by changing lug jaws latch and latch steps .

**Main Technical Parameters**

No. of Latch Lug Jaws	No. of Hinge Pin Hole	Handle O.D mm (in)	Torque Max. (kN·m)	Weight (kg)
1"	1	89~152( $3\frac{1}{2}$ ~ $6$ )	90	370
	2	114~178( $4\frac{1}{2}$ ~ $7$ )		
	3	140~210( $5\frac{1}{2}$ ~ $8\frac{1}{4}$ )		
2"	1	203~244( $8$ ~ $9\frac{5}{8}$ )	90	
	2	244~286( $9\frac{5}{8}$ ~ $11\frac{1}{4}$ )		
3"	1	298~324( $11\frac{3}{4}$ ~ $12\frac{3}{4}$ )	55	
	2	340~365( $13\frac{3}{8}$ ~ $14\frac{3}{8}$ )		
4"	2	406~432( $16$ ~ $17$ )	55	