



HT Manual Tongs

Operation Manual

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General

The HT Style Manual Tongs are designed and manufactured in accordance with API 7K. The HT Style Tongs are designed for the making up and breaking out of tubulars including drill pipe and drill collars. A range of tubular sizes can be achieved by with interchangeable lug jaws and installing hinge jaws on available models.

HT Style Tongs are manufactured and designed for specific applications and functions and should only be used for its intended purpose. All personnel performing any installation, operation, maintenance, or repair should wear personal protection equipment suitable for the application. Any personnel using or in the vicinity of the equipment being used should be trained on tool operation, maintenance, and safety procedures.

Recommended Maintenance and Inspections

HT Style Tongs should be maintained on a routine basis and recommended maintenance and inspections are listed below.



****Keep hands away from any pinch points and always use approved safety methods**

Category I

Daily inspections while tool is in use shall be visually inspected for cracks, loose connections, worn or elongated parts, corrosion and signs of overloading. Any signs of equipment with excessive wear, cracks, overloading, or questionable condition should be removed from service for further examination performed by a person knowledgeable in the equipment or authorized repair center.

Category II

In addition to Cat I inspections

1. Observe and check proper latch engagement of lug jaws.
2. Check for worn hinge pins and hinge pin bores.
3. Check for worn, loose, or damaged parts.
4. Check for missing parts.
5. Check all pins are properly locked and secured.
6. Check all bolts, nuts, roll pins, snap rings, cotter pins, etc. ...
7. Brush and clean dies to check for wear.

Category III (6 Month)

In addition to Cat I & II inspection the Cat III requires NDT of critical areas, which may involve disassembly to access components to identify areas for allowable wear tolerances. Dimensional checks on the following items to be under maximum allowable wear tolerance.

1. Hinge Pins
2. Hinge Pin Holes
3. Latch Pins
4. Latch Pin Holes
5. Jaws
6. Latches
7. Hanger

Category IV (1 Year)

This inspection is a further inspection of the Cat III which requires disassembly to conduct NDT on all the primary-load-carrying components. This should be done in a facility suitably equipped to permit full inspection of all primary-load-carrying components. MPI shall be done on all major load bearing areas according to MPI

procedure using the critical area Drawings. The following are major load bearing components.

1. Lever and Tubing Tong Lever
2. Short Jaw
3. Long Jaw
4. Latch Jaw
5. Latch Lug Jaw
6. Manual Tong Hinge Jaw
7. Latch

Any corrections shall be made in accordance with manufacturer's recommendations at an authorized repair center.

Operational Guidelines

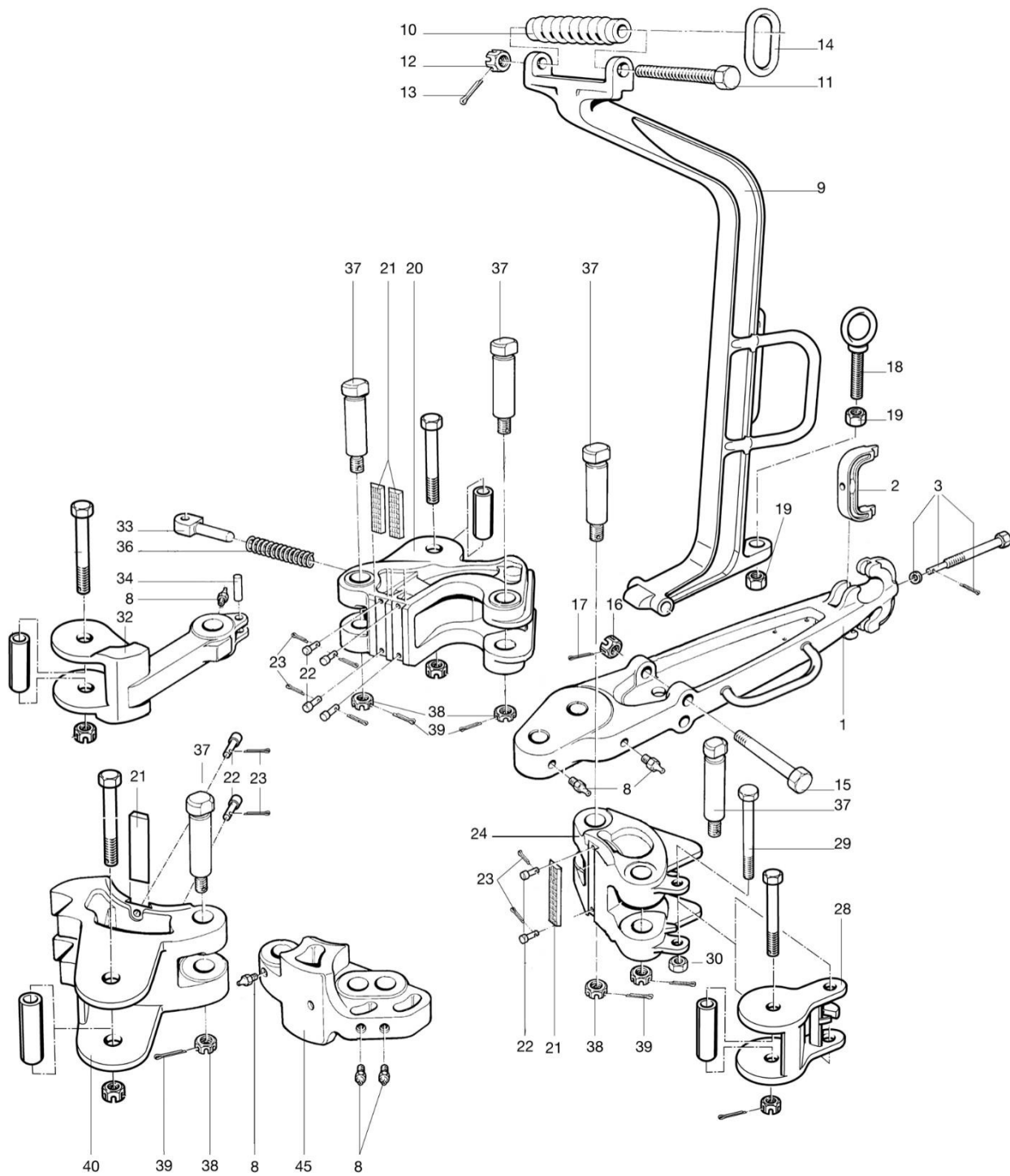
1. Ensure that the correct rated tongs and heads are used for the required tubulars.
2. Adjust tong to horizontal position before use.
3. Line from cathead and tong should form a 90-degree angle when connections are being torqued.
4. Attaching a torque measuring device is advised.
5. Be sure tong head pin is in the correct hole for correct latch position required.
6. Tubulars should be set in slips before using tongs on tubulars.
7. Be sure tongs are in correct positions of tool joints.
8. Backup or stationary tong should be put on first.
9. Keep arms and hands out of pinch points of tongs.
10. Hands should be in designated tong handles only.
11. Never stand directly in the path of rotating tongs during make-up or break-out.
12. Always be aware of snub lines.
13. Never stand on top of tongs when in use.
14. Tongs should be tied back and secured when not in use.

Main Technical Parameters

Style	Type	Part No. (Less Lug Jaw)	Lug Jaw Size (in)	Part No.	Torque Lbs/Ft*1,000
TI BJ Style	HT35	T200620-2	2 3/8 – 3.668	T200076-1	35
			2 7/8 – 4 1/4	T200077-1	35
			3 1/2 – 5 1/4	T200078-1	35
			5 1/4 – 7	T200079-1	35
			7 – 8 5/8	T200080-2	35
			9 5/8 – 10 3/4	T200081-2	35
	HT55	T200560	3 1/2 – 5	T200083-1	55
			5 – 6 3/4	T200084-1	55
			6 5/8 – 9	T200085-1	55
			9 -10 3/4	T200086-1	40
			11 3/4	T200087-1	40
			13 3/8	T200090-1	30
	HT65	T200540	3 1/2 - 8 1/4	T200546-1	65
			8 – 11 1/4	T200547-1	
			11 3/4 – 14 3/8	T200548-1	40
			16-17	T200549-1	
	HT-100	T200071	4 – 8 1/2	T200663-1	100
			8 1/2 - 12	T200664	
			12-15	T200665	75
			15 3/4	T200666	60
16 -17			T200667		

Parts List HT 65 Manual Tong

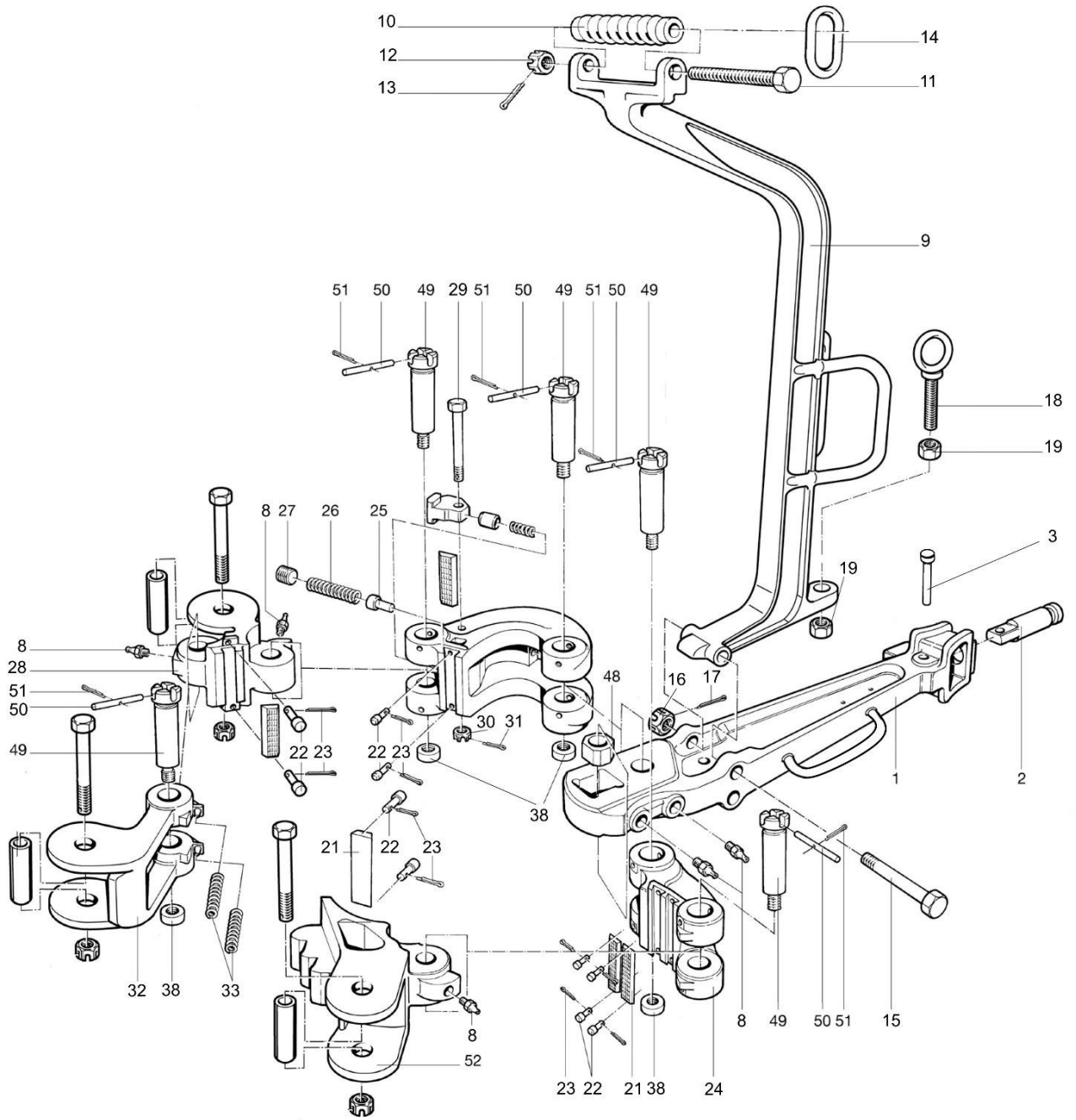
Item	P. N.	Description	Qty	Item	P. N.	Description	Qty
1	T200541	Lever	1	24	T200543-1	Short Jaw	1
2	T24529	Tong Line Retainer	1	28	T25864-HT	Short Jaw Handle	1
3	T24249	Tong Line Retainer Bolt	1	29	T50012-52	Bolt	
8	T53201	Grease Fitting		30	T50212	Nut	
9	T203344-36	Hanger	1	31	T50912	Lock Washer	
10	T12586NE	Balancing Screw	1	32	T200544-1	Latch	
11	T939099-596	Balancing Screw Bolt	1	33	T24526	Latch Spring plunger	
12	T50512	Balancing Screw Bolt Nut	1	34	T24530	Plunger Pin	
13	T51402-16	Cotter Pin		36	T24525	Latch spring	
14	T12863	Suspension Ring	1	37	T25860	Hinge Pin	
15	T939099-546	Hanger Bolt	1	38	T24528	Hinge Pin Nut	
16	T50512	Hanger Bolt Nut	1	39	T939667-71	Cotter Pin	
17	T51402-16	Cotter Pin		45	T200545-1	Hinge Jaw	
18	T203438-1	Hanger Adjustment Screw	1				
19	T50314	Hanger Jam Nut	2		Table for Lug Jaw Assembly Sizes		
20	T200542-1	Long Jaw	1	40	T200546-1	Lug Jaw Assembly 3-1/2" – 8-1/4"	1
21	16402-2	Die	21		T200547-1	Lug Jaw Assembly 8" – 11-1/4"	1
22	T17194	Retaining Pin	22		T200548-1	Lug Jaw Assembly 11-3/4" – 14-3/8"	1
23	T939672-16	Cotter Pin	23		T200549-1	Lug Jaw Assembly 16" – 17"	1



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Parts List HT 55 Manual Tong

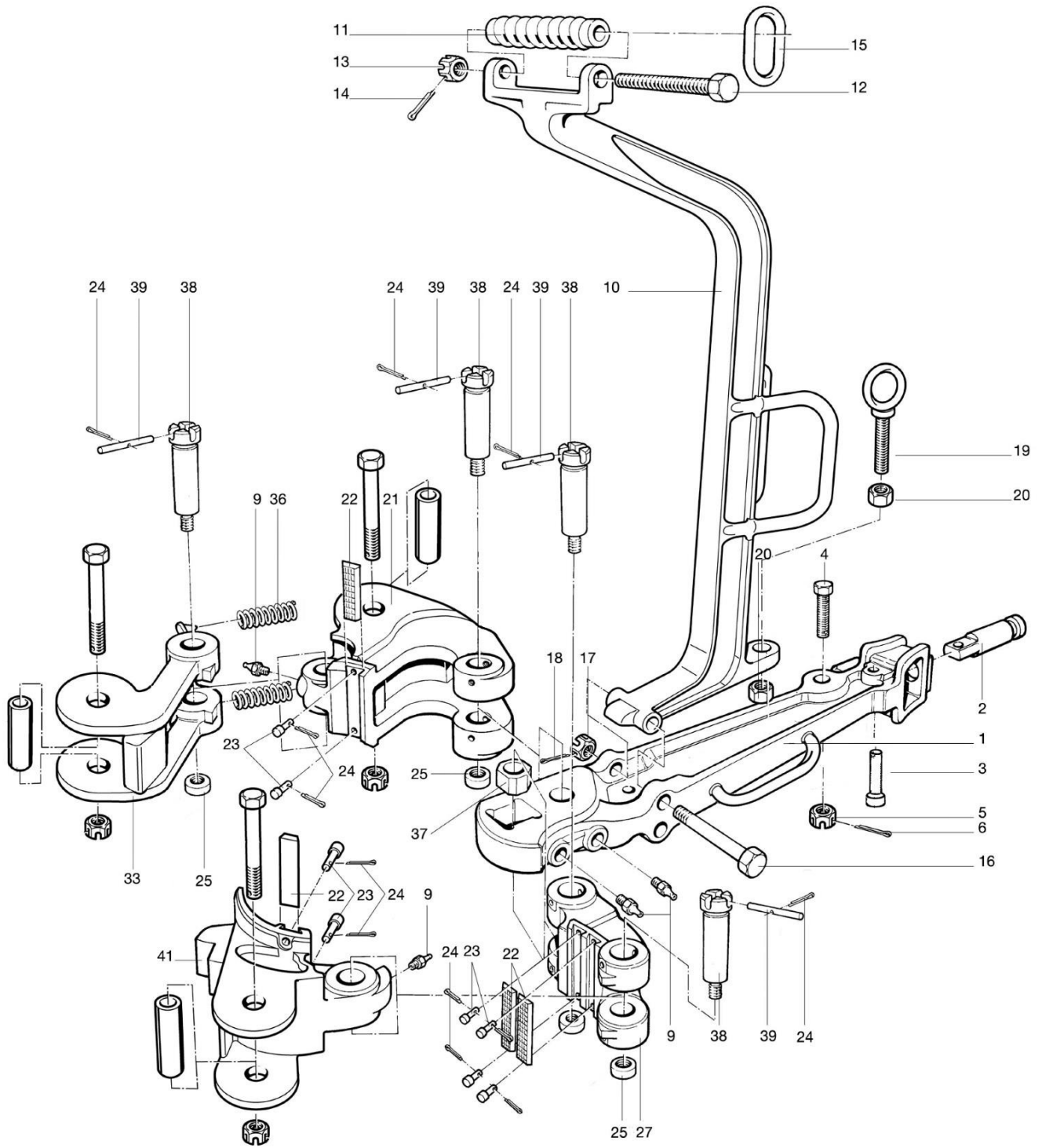
Item	P. N.	Description	Qty	Item	P. N.	Description	Qty
1	T200561	Lever 48"	1	24	T200543-1	Short Jaw	1
	T200562	Lever 42"	1	25	T200571	Booster Plunger	1
2	T24529	Tong Line Retainer	1	26	T11229	Booster Plunger Spring	1
3	T24249	Tong Line Retainer Bolt	1	27	T53000-16	Booster Plunger Ret. Plug	1
8	T53201	Grease Fitting		28		Latch Jaw	1
9	T203344-36	Hanger	1	29	T11191	Adjustable Stop Bolt	
10	T12586NE	Balancing Screw	1	30	T8150	Nut	
11	T939099-596	Balancing Screw Bolt	1	31	T51402-14	Cotter Pin	
12	T50512	Balancing Screw Bolt Nut	1	32	T200544-1	Latch	
13	T51402-16	Cotter Pin		33	T24525	Latch Spring	
14	T12863	Suspension Ring	1	38	T24528	Hinge Pin Nut	
15	T939099-546	Hanger Bolt	1	49	T25860	Hinge Pin	
16	T50512	Hanger Bolt Nut	1	50	T11199	Dowel Pin	
17	T51402-16	Cotter Pin		51	T939667-71	Cotter Pin	
18	T203438-1	Hanger Adjustment Screw	1				
19	T50314	Hanger Jam Nut	2		Table for Lug Jaw Assembly Sizes		
20	T200542-1	Long Jaw	1	52	T200546-1	Lug Jaw Assembly 3-1/2" – 8-1/4"	1
21	16402-2	Die			T200547-1	Lug Jaw Assembly 8" – 11-1/4"	1
22	T17194	Retaining Pin			T200548-1	Lug Jaw Assembly 11-3/4" – 14-3/8"	1
23	T939672-16	Cotter Pin			T200549-1	Lug Jaw Assembly 16" – 17"	1



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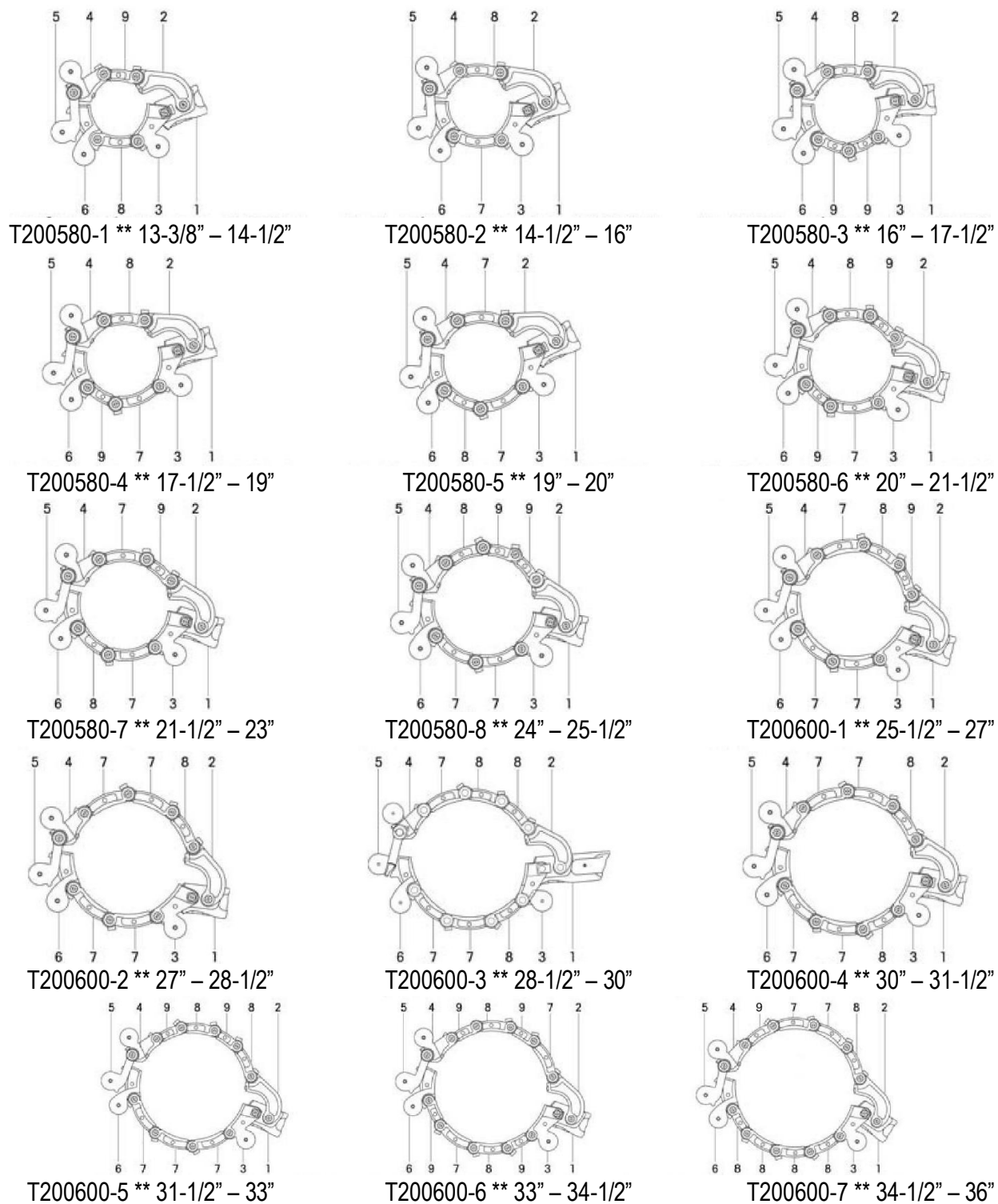
Parts List HT 35 Manual Tong

Item	P. N.	Description	Qty	Item	P. N.	Description	Qty
1	T200621	Long Lever	1	21	T200623-1	Long Jaw	1
	T200622	Short Lever	1	22	16401-2 16401-6	Die	4
2	T200633	Tong Line Pin	1	23	T17194	Retainer Pin	1
3	T25468	Tong Line Pin Retainer	1	24	T51406-6	Cotter Pin	1
4	T50012-56-C8	Safety Line Bolt	1	25	T11522	Hinge Pin Nut	4
5	T50012-C	Safety Line Bolt Nut	1	27	T11513-5	Short Jaw 2-3/8"-7"	1
6	T51402-16	Cotter Pin	1		T11513-1	Short Jaw 7-5/8"-10-3/4"	1
9	T53201	Grease Fitting	4	33	T200626-1	Latch Assembly	1
10	T200630-1	Hanger	1	36	T9561	Latch Spring	2
11	T12586NE	Balancing Screw	1	37	T11523	Hinge Pin Block	1
12	T939099-596	Balancing Screw Bolt	1	38	T11521-1	Hinge Pin Threaded	4
13	T50512	Balancing Screw Bolt Nut	1	39	T11199	Dowel Pin	1
14	T51402-16	Cotter Pin	1	Table for Hinge and Lug Jaw Assemblies			
15	T12863	Suspension Ring	1	41	T200076-1	Lug Jaw Assembly 2-3/8"-3.668"	1
16	T939097-516	Hanger Bolt	1		T200077-1	Lug Jaw Assembly 2-7/8"-4-1/4"	1
17	T940985-8	Hanger Bolt Nut	1		T200078-1	Lug Jaw Assembly 3-1/2"-5-1/4"	1
18	T51402-14	Cotter Pin	1		T200079-1	Lug Jaw Assembly 5-1/4"-7"	1
19	T203438-1	Hanger Adjustment Screw	1		T200080-2	Hinge & Lug Jaw Assembly 7"-8-5/8"	1
20	T50314-C	Hanger Jam Nut	2		T200081-2	Hinge & Lug Jaw Assembly 9-5/8"-10-3/4"	1

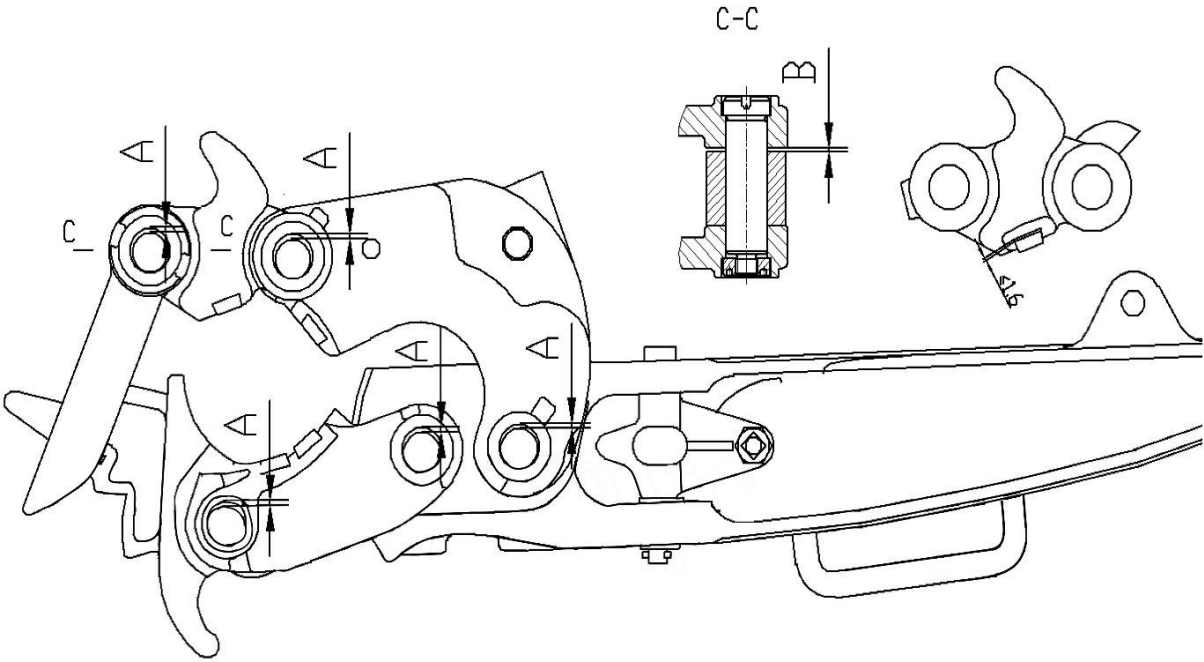


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Extension Head Chart



Wear Data HT Tongs



Units: Inches [mm]

MODEL	HT35	HT55	HT65	HT100
Max. Clearance Pin and Hole A	0.030 [0.76]	0.030 [0.76]	0.035 [0.89]	0.035 [0.89]
Hinge Pin Diameter	1.498 [38.05]	1.750 [44.45]	1.872 [47.55]	1.996 [50.70]
Hinge Pin Hole Diameter	1.503 [38.18]	1.753 [44.52]	1.875 [47.63]	2.004 [50.90]
Max. Hinge Pin Hole Diameter	1.519 [38.58]	1.769 [44.92]	1.891 [48.03]	2.375 [60.32]
Max. Clearance B	0.035 [0.89]	0.035 [0.89]	0.035 [0.89]	0.035 [0.89]