

Tiger Chain Block Model No TCB



Main Features

- DNV GL Verification tested according to NORSOK R-002
- Range from 500kg – 30000kg
- 8t, 15t and 30t capacity units available
- Available with forged clevis adaptor components
- Rugged steel body construction
- Lightweight and portable
- Double cover protection for brake chamber
- Drop forged & heat treated alloy hooks
- High quality alloy calibrated load chain
- Safe reliable independent twin pawl mechanical brake
- Certified 2% light load protection
- Heat treated alloy steel triple spur gears and pinion shaft
- Operating temperature of -40°C to +50°C
- Proof tested to 1.5 times rated capacity
- Can be chained to meet your exact requirements
- Individual spares readily available
- Suitable for underground mining use
- Tested and certified for “fleeting” and “cross-hauling” applications up to 45°
- Overload protection available
- Also available with stainless steel load chain
- Meets or exceeds all international standards



Tiger TCB Heavy Duty Chain Block

The TCB is manufactured from the highest quality steel materials, offering a lightweight, compact and rugged construction, producing an exceptionally strong product resistant to impact damage. The exceptional short head room allows for easy installation where every centimetre must be achieved. Using only the highest quality materials precisely machined in our own factory, the TCB is the ideal block for long term use with less maintenance and servicing costs. These units meet and exceed all the requirements within BS EN 13157: 2004+A1:2009, ANSI/ASME B30.16, AS1418.2 and SANS 1594. The current TCB11 model is being superseded by the TCB14, retaining all the current features plus additional enhancements, as it becomes available.

Certification:

Each unit comes fully certified with a test certificate or an EC Declaration of Conformity stating compliance with the essential health and safety requirements of the Machinery Directive 2006/42/EC. This document clearly states the proof test at 1.5 times the rated capacity and the light load test of 2% of the rated capacity, which exceeds the requirements of the current applicable standard.

Adaptor Components:

Drop forged adaptor maintaining maximum strength. 360° Rotation and 180° Pivot for Maximum



Self-locking (safety) hook, clevis shackle, reeveable egg (master) link or sling hook fittings available.

Safety Brake:

The highly efficient independent twin pawl brake works instantly when the operation is stopped and securely holds the load. Loads are lowered under perfect control, allowing for precise operations. The TCB easily passes the "brake lock out test" as per BS 3243 with a 5% load of the rated capacity.

Double Cover Protection:

Both the hand chain wheel cover and the ratchet brake cover are designed to offer protection to the brake chamber in the harshest environments from foreign objects.



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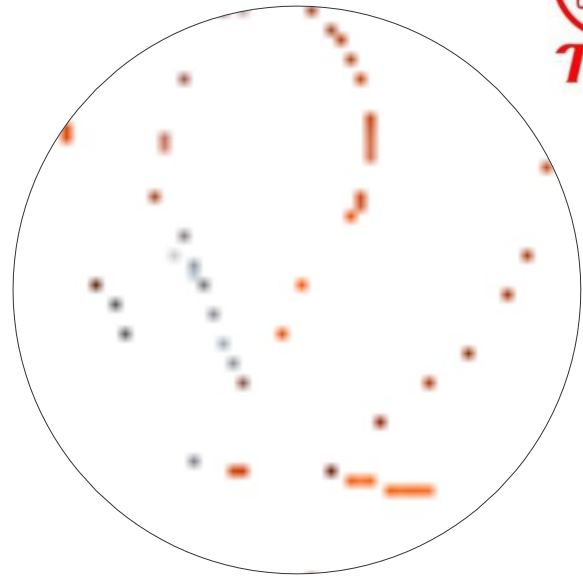
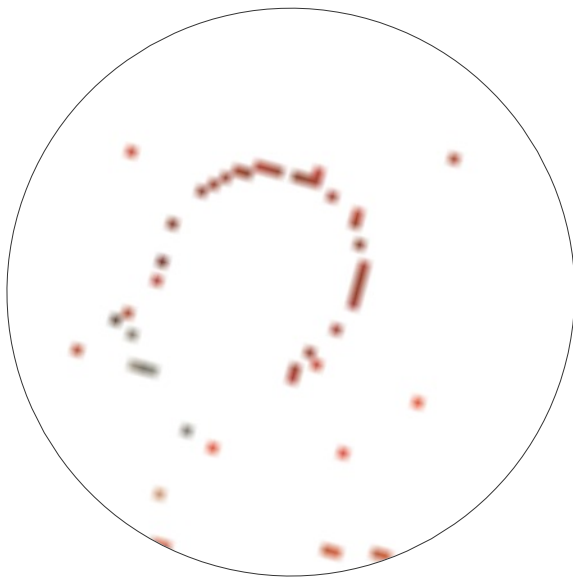
Lifting at Angles

The TCB range of chain blocks has undergone a full and comprehensive testing regime that was drawn up by industry specialists and Tiger's mechanical engineers to provide evidence that these units can be safely used for "fleeting" and "cross-hauling" applications up to 45°. **Note:** All such operations should be carried out in accordance with manufacturer's instructions and fully risk assessed by a competent person.

Load Chains:

Tiger only use the highest quality alloy, calibrated load chains in Grade 80 (T) or 100 (V) conforming to EN818-7 and ISO 16872. Also available with stainless steel load chain.

Hooks:



Our hooks incorporate our latest Patent Pending (GB1420387.1) "EZ Check" feature which allows operators and inspection engineers to easily check to see if the hoist has been previously overloaded or shock loaded by simply measuring between the triangle of pop marks (see page 10).

Our drop forged and heat treated alloy hooks are furnished with heavy duty spring latch kits that fully engage into the recessed nose of the hook safeguarding the load when side loading of the latch occurs and offering maximum load security. The swivel hooks are attached to the yoke using high grade nuts & bolts allowing for complete inspection during any statutory inspection or written scheme maintenance. The entire hook fitting has been protected using OCP or stainless steel fixtures and fittings.

Recessed forgings offer full protection to the load chain anchor bolts on all our bottom hooks.

Grease:

High performance premium quality grease allows the TCB Blocks to be certified for use within a temperature range of -40°C to +50°C, far exceeding the requirements of current standards.



Chain end stops:

Will hold a load of at least 2.5 times the rated capacity when supporting the full load without restraint from other components e.g. brake or gearing. This prevents accidents, by acting as a stop when the lift length of the load chain is exceeded when lowered.

Mechanical Efficiency:

All major components are heat treated and precisely machined to ensure long term smooth operation. High gear ratios keep physical effort to a minimum.

Convertibility:

The TCB can be easily converted to have Load Limiters fitted. The top hook can be replaced by a competent person so the TCB can be directly fitted to our beam trolley range of the equivalent capacity achieving the lowest possible headroom.

Overload protection:

If the chain block is fitted with a slipping clutch overload mechanism then it is protected from overload. When the load limit is exceeded, the clutch in the chain wheel will slip, allowing the hand wheel to be rotated whilst not engaging the gear box. This prevents further lifting of the load, though lowering is still possible.

Performance:

The TCB has undergone a full test program that includes:

Type Testing

- Ultimate strength test, at least 4 times the Working Load Limit (WLL)
- Continuous cyclic testing of over 1500 cycles
- Chain end anchorage test, passing at least 2.5 times the WLL without any restriction of the brake or gears

Test on every hoist

- Proof loading at 1.5 times the rated capacity
- Light load testing at maximum of 2% rated capacity

Finish:

The TCB is finished in our high quality powder coat paint offering excellent corrosion protection.

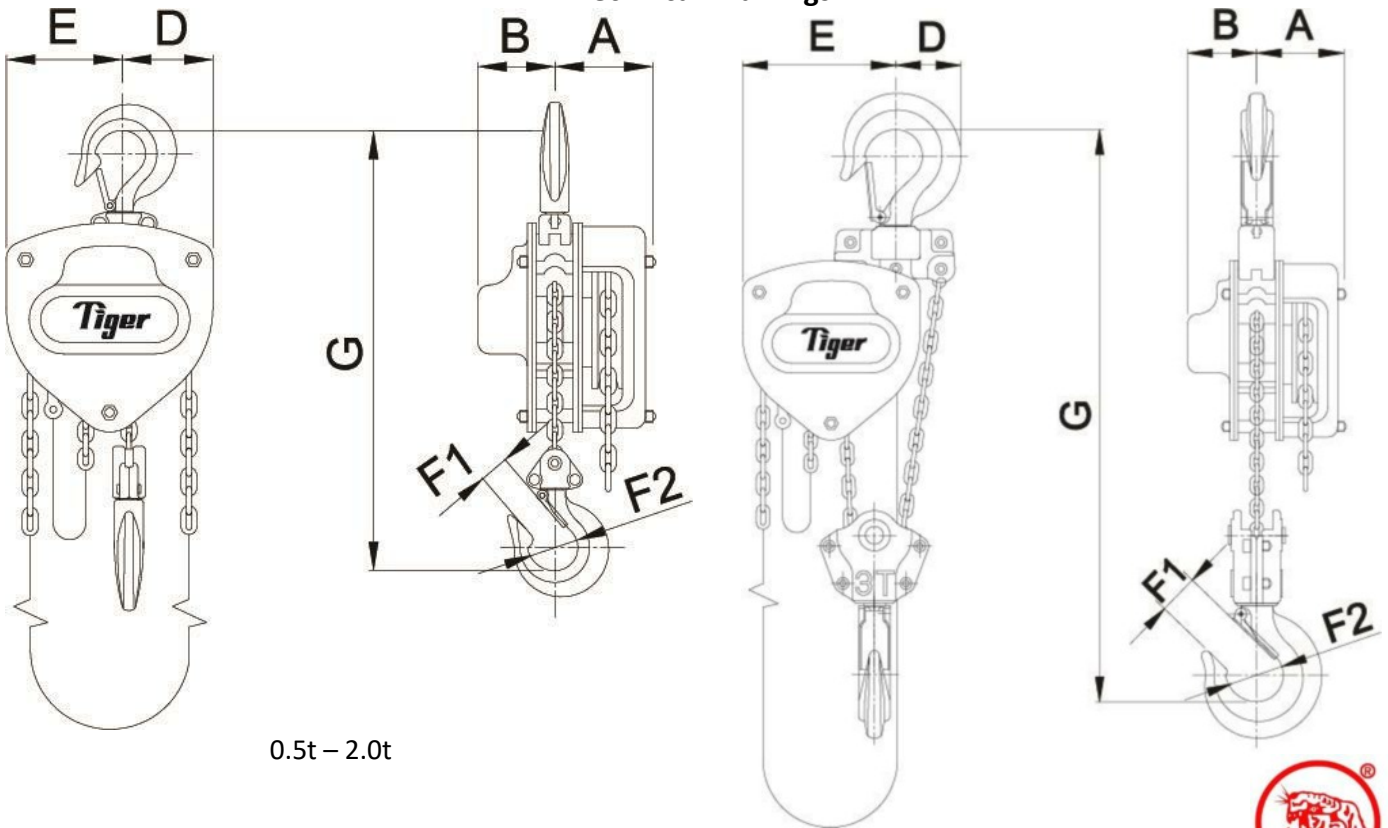


Technical Data

Product Code	Capacity (tonne)	Effort (kg)	Dimensions (mm)							Load Chain		Standard HOL (m)	Mass @ std HOL (kg)	Mass for extra metre HOL (kg)
			A	B	D	E	F1	F2	G	Diameter (mm)	No. of falls			
CB-0050	0.5	21	93	66	52	78	24	38	305	ø6.3	1	3	10.8	1.86
CB-0100	1.0	25	93	66	63	87	28	45	340	ø6.3	1	3	11.8	1.86
CB-0150	1.5	32	98	73	78	102	34	51	385	ø7.1	1	3	16.2	2.10
CB-0200	2.0	34	101	79	87	113	35	53	420	ø8.0	1	3	20.0	2.39
CB-020L	2.0	42	98	73	78	102	35	53	399	ø7.1	1	3	16.7	2.10
CB-0300	3.0	38	109	84	98	157	36	56	550	ø10.0	1	3	30.6	3.17
CB-030T	3.0	34	98	73	60	148	36	56	465	ø7.1	2	3	23.3	3.20
CB-0500	5.0	37	101	79	122	209	49	70	575	ø8.0	3	3	37.8	5.17
CB-0800	8.0	37	101	79	140	238	51	78	745	ø8.0	4	3	64.0	6.56
CB-1000	10.0	40	109	84	153	263	54	87	660	ø10.0	3	3	64.0	7.54
CB-1500	15.0	41	109	84	225	378	59	81	840	ø10.0	5	3	128.5	11.85
CB-2000	20.0	43	161	90	148	360	81	110	1050	ø10.0	6	3	178.7	14.20
CB-200T	20.0	43	161	161	383	383	81	110	1050	ø10.0	6	3	210.4	15.20
CB-3000	30.0	42	220	220	388	388	91	135	1200	ø10.0	10	3	306.9	23.80

See page 9 for more hook information

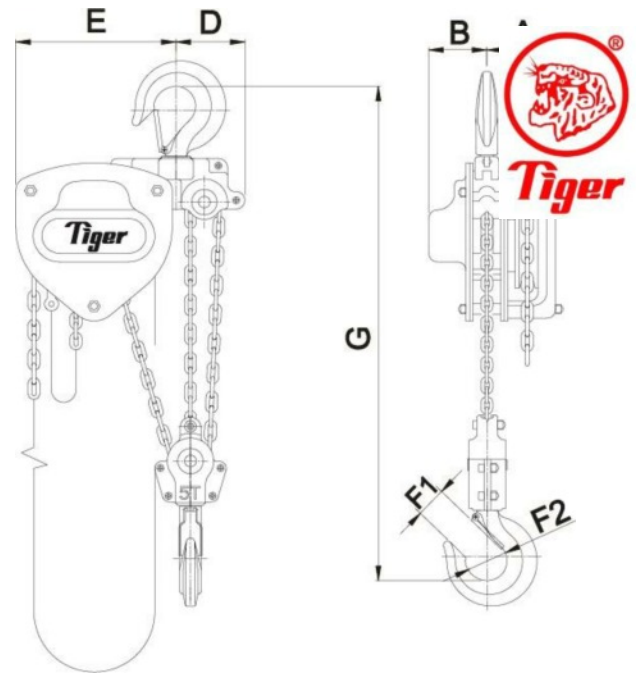
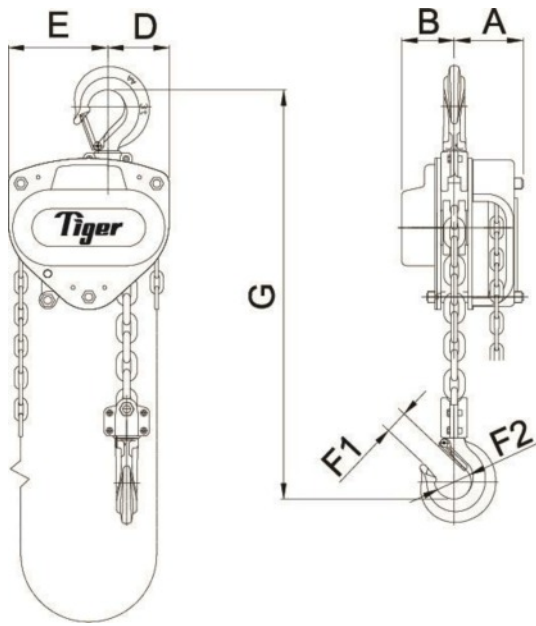
Technical Drawings



0.5t – 2.0t

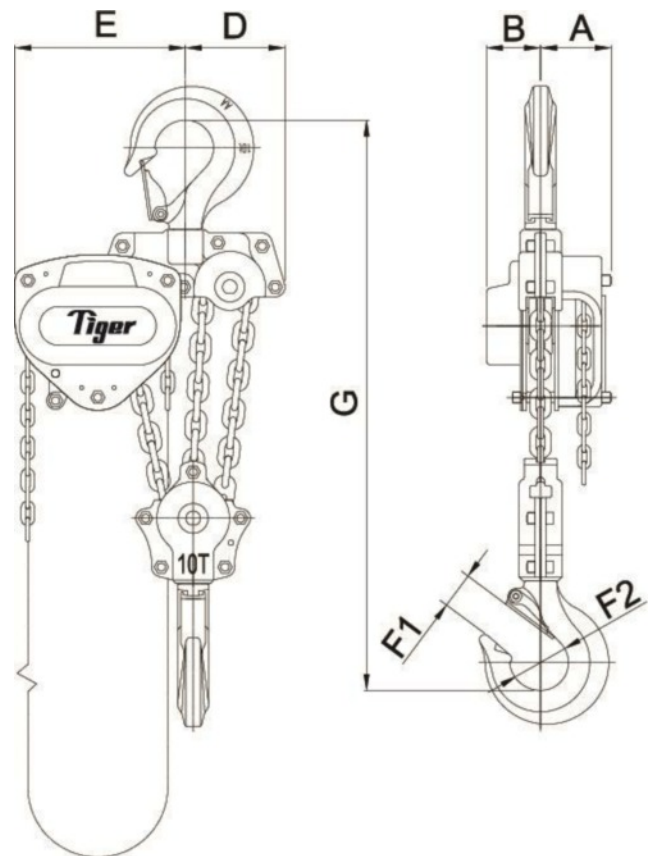
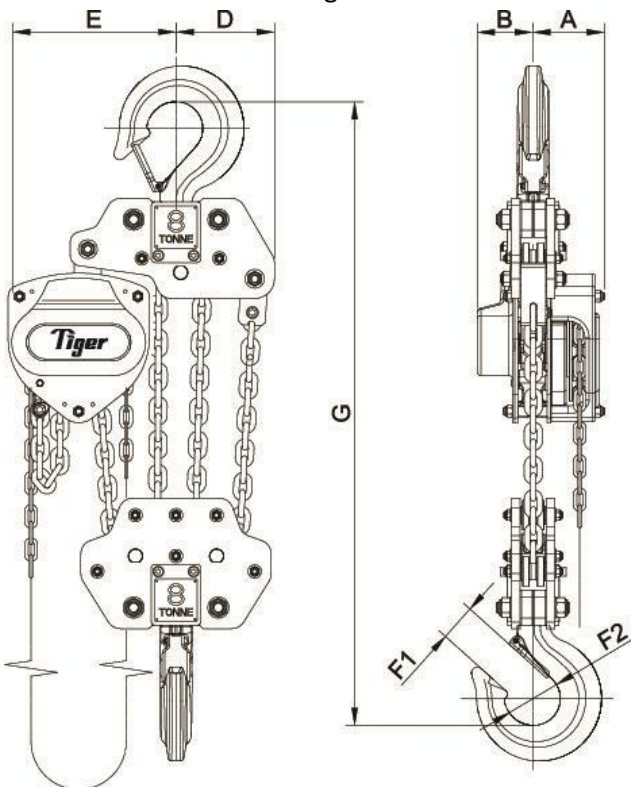


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3.0t single fall

5.0t

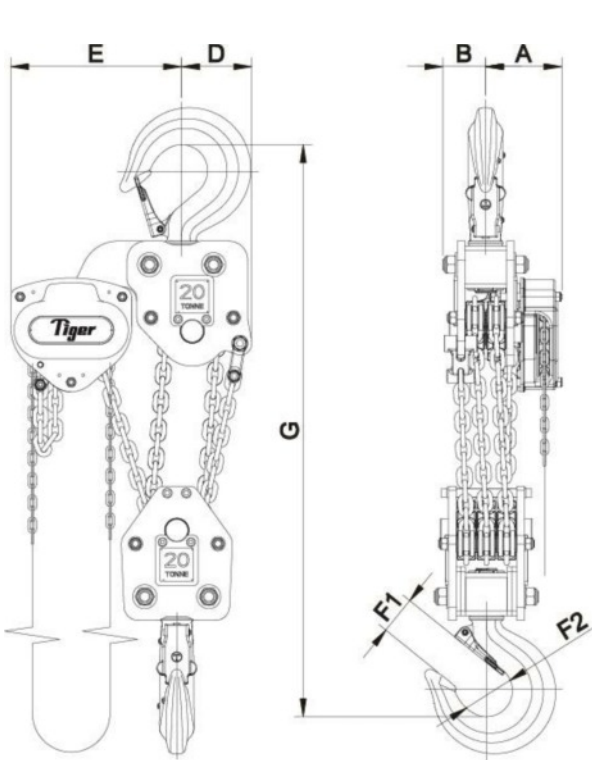
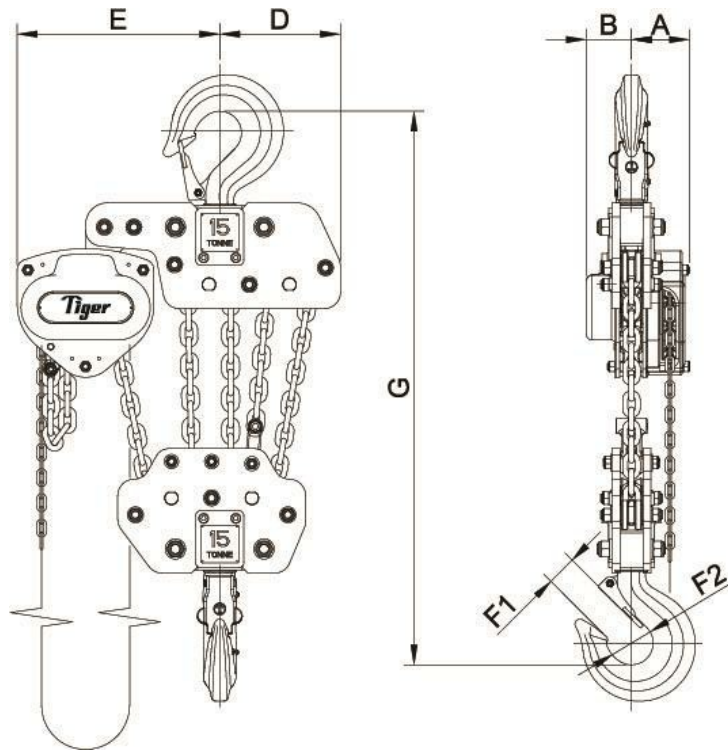


8.0t

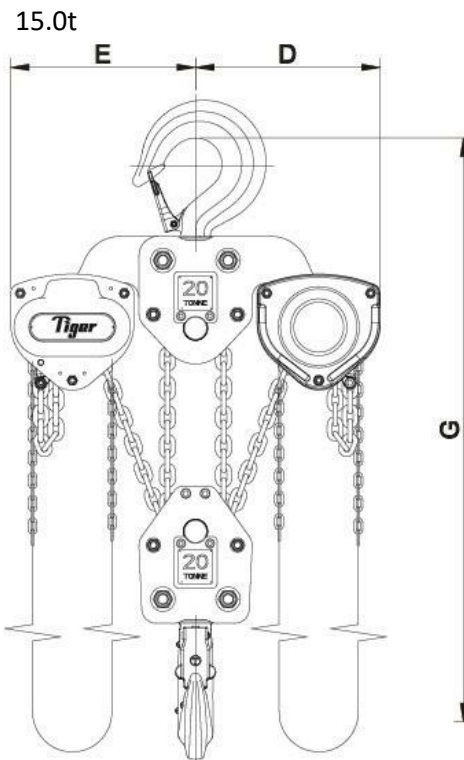
10.0t



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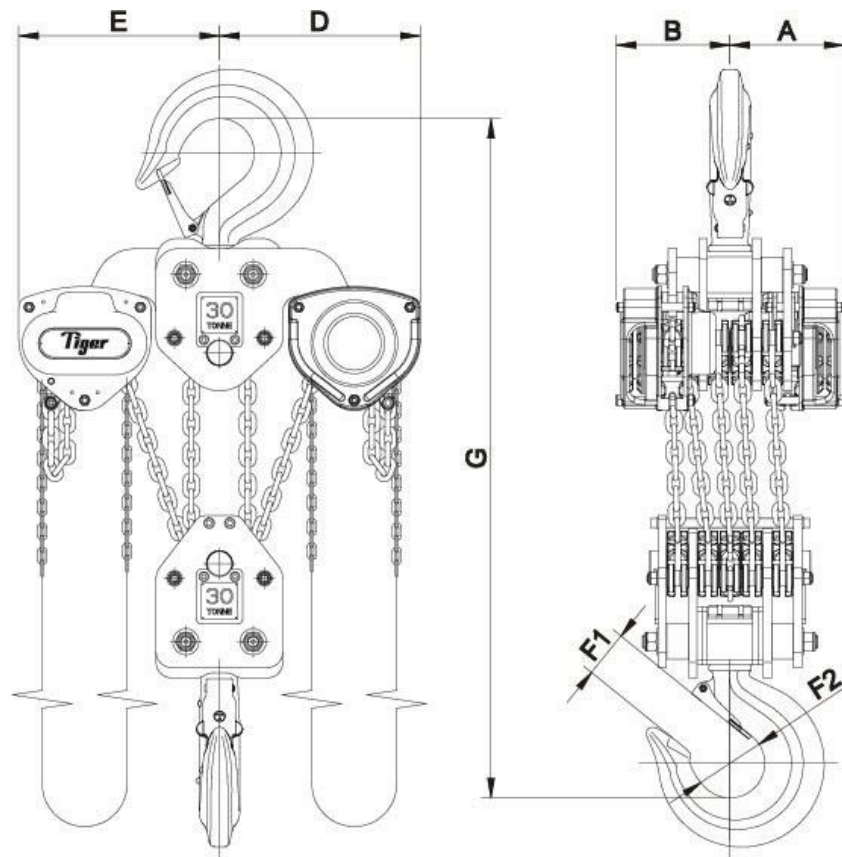


20.0t



20.0t twin head





30.0t



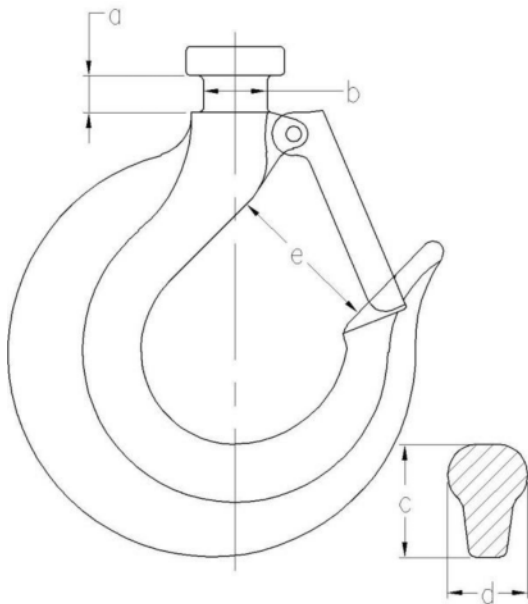
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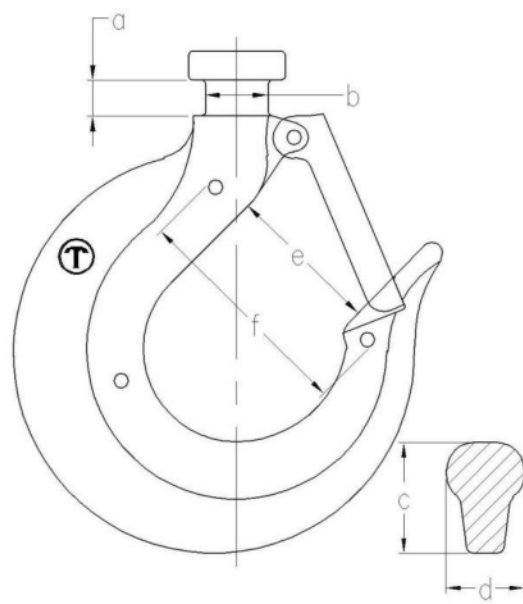


Hook Technical Data

Capacity (Tonnes)	Collar measurements (mm)		Hook thickness at point shown in diagram (mm)		Hook throat Opening (mm)	"EZ Check" measurement (mm)
	a	b	c	d		
0.5	8	13.5	19	15	29	47
1.0	8	13.5	23	17	34	52
1.5	10	15.5	26	21	39	59
2.0	10	17.5	30	22	42	64
3.0	12.5	20	37	32	42	76
5.0	19	30	43	36	58	86
8.0	21.7	33	50	43	60	110
10.0	20	33	52	48	70	121
15.0	-	36	67	60	67	130
20.0	-	48	77	72	90	162
30.0	-	56	94	78	102	177



Traditional Tiger Hooks

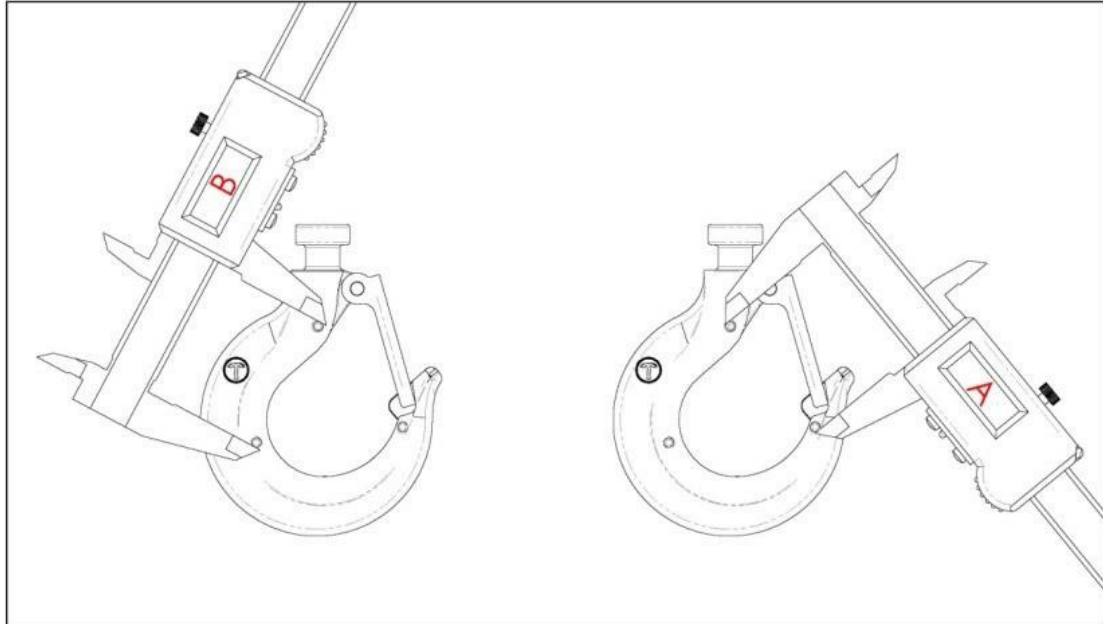


Tiger Hooks with new "EZ Check"
3 point marking system



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Newer models of the TCB are fitted with the patent pending Tiger "EZ check" 3 point marking system. With this system a quick check that the A and B measurements are the same (as shown in the diagram below) will indicate if the hooks have stretched. If $A \leq B$ the hook is fine; If $A > B$ the hook needs to be replaced:



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Picture Gallery



Our 15t chain block



Our 30t chain block



One off bespoke units can be made to meet your specific requirements



Our 20t twin head unit



Our light-weight single head 20t unit



Our 8t unit

Due to our policy of continual product development, dimensions, weights and specifications may change without prior notice. Please check with your Tiger sales team when ordering.

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