

HSC SERIES

OPERATING INSTRUCTIONS



CHAIN BLOCKS

CHAIN BLOCK

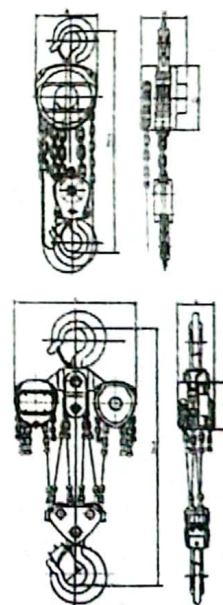
1. APPLICATION

The HSC series chain block is a **portable lifting device** easily operated by hand chain. It is suitable for use in factories, mines, farms, construction sites, wharves, docks and warehouses for installation of **equipment**, as well as for loading and unloading goods. It is specially advantageous for lifting work in open air grounds and places where no electric power supply is available.

The chain block can be **attached to a trolley** of any type as a traveling chain block. It is suitable to monorail overhead conveying system, hand traveling crane and jib crane.

2. MAIN TECHNICAL PARAMETER

Model		HSC 1/2	HSC1	HSC1 1/2	HSC2	HSC3	HSC5	HSC10	
Capacity	t	0.5	1	1.5	2	3	5	10	
Standard lift	m	2.5	2.5	2.5	2.5	3	3	3	
Running test load	t	0.75	1.5	2.25	3	4.5	6.25	12.5	
Headroom(drawn closeup) H min	mm	258	274	347	396	486	616	700	
Effort required to life max. load	n	221	304	343	314	343	382	392	
NO.of colums ofload chain		1	1	1	2	2	2	4	
Load chain dia.	mm	6	6	8	6	8	10	10	
Dimensions	mm	A	125	147	183	147	183	215	360.5
		B	111	126	141	126	141	163	163
		C	24	28	34	34	38	48	64
		D	134	154	192	154	192	224	224
Net Weight	kg	8	10	16	14	24	36	68	
Gross Weight	kg	10	13	20	17	28	45	83	
Extra Weight per meter of extra lift	kg	1.7	1.7	2.3	2.5	3.7	5.3	9.7	



3. FEATURES

Five prominent features in design and in service are inherent in HSC Series Chain Block:

- (1) **Safety in operation and easy maintenance**
- (2) **High efficiency and small hand pull**
- (3) **Light weight and easy handling**
- (4) **Fine appearance with small size**
- (5) **Durability in use**

4. OPERATION

The HSC Series Chain Block is designed with a transmission mechanism of symmetrically arranged two-stop spur gears. The main principle of operation is as follows:

On pulling the hand chain, the hand wheel rotates in clockwise direction, presses the friction plates and ratchet disc tightly against the brake seat and causes these parts to rotate in unison, the driving gear shaft turns the disk gear, pinion shaft and spline gear to rotate hence the load chain sprocket which is mounted on the splined gear actuates the load chain to lift (or pull) the load smoothly and stably.

The brake used is a ratchet disc with a set of single-acting friction plates. It holds up itself on load, and the pawl is meshed with the ratchet disc by force of the spring, thus ensuring brake to work safely.

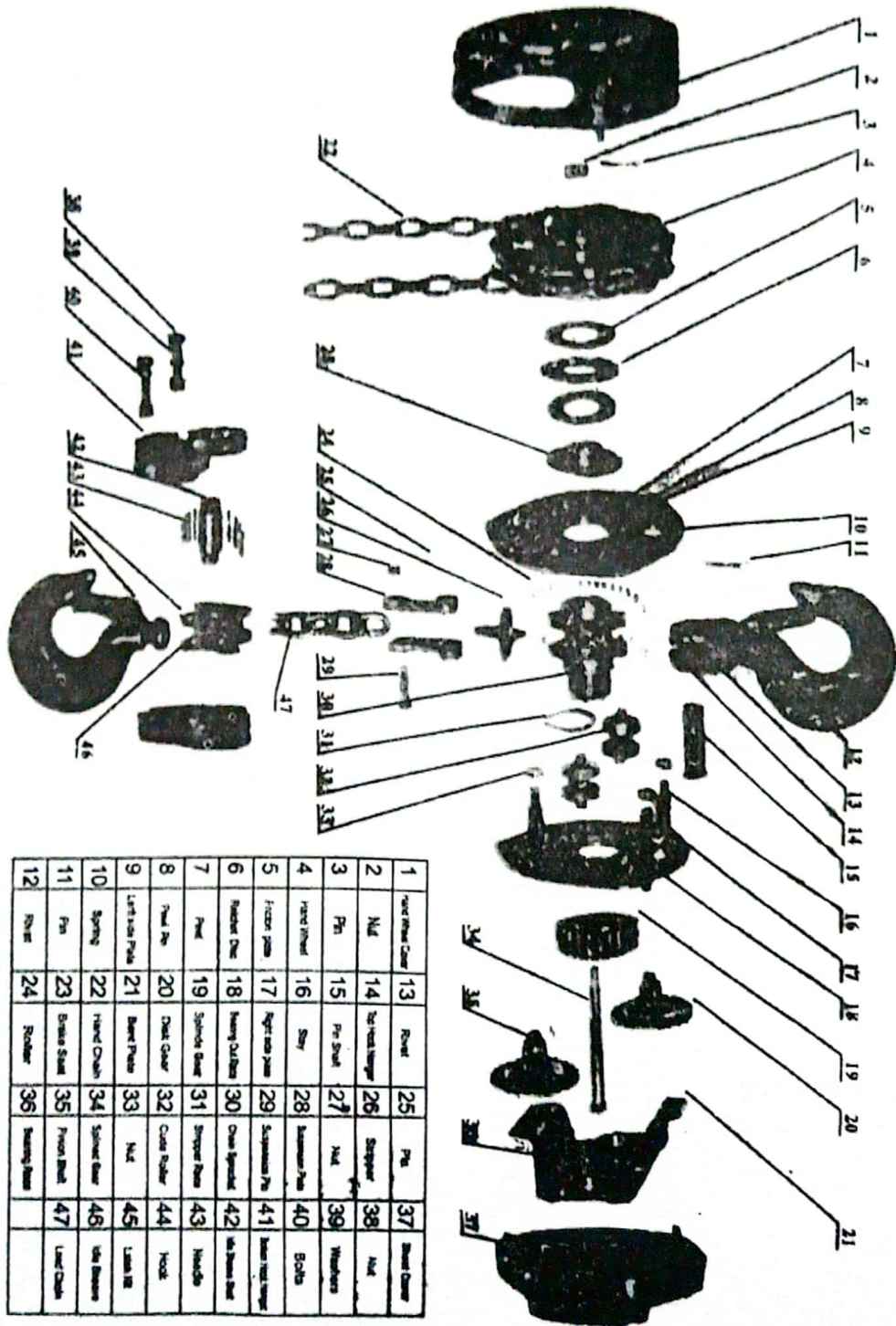
5. CAUTIONS

- (1) Overload is strictly prohibited.
- (2) Prohibit other power but manpower from operating chain block.
- (3) Make sure that the chain block, the lubrication of transmitting part and load chain. Idle motion is in good condition.
- (4) Before lifting, inspect the hooks to see whether they are securely attached. Load suspension at hook tie is not permissible. The load chain should be kept vertically straight without any twist so as to ensure safety.
- (5) During operation, the operator should stand in the plane of the handwheel. To lift the load, pull the hand chain to rotate the handwheel in clockwise direction. When pulling the hand chain in the reverse direction, the load will be lowered down smoothly.
- (6) For the sake of safety passing or working under a lifting load is strictly forbidden.
- (7) While lifting or lowering a load, the hand chain should be pulled steadily so as to prevent it from jerking or tangling.
- (8) Stop operation immediately in case the chain pulls force exceeds that of normal operation. Proceed inspection as follows:
 - (a) If there is anything entangled with the load.
 - (b) Whether there is any trouble with the parts of the block.
 - (c) Whether the load weight is over the rated capacity of the block.

6. MAINTENANCE

- (1) Clean off the dirt on the chain block, lubricate its parts with grease after use and store it in a dry place.
- (2) Maintenance and inspection should be made by a skilled hand. Never allow any layman to disassemble or to assemble the block.
- (3) Align the "0" marks of the two gears while assembling.
- (4) While assembling the brake mechanism care should be taken to mesh the slanting teeth of the ratchet disc and pawl. Make sure that the spring and pawl work sensitively and reliably. Then turn the plates on the brake seat. Turning it counter clockwise, there should be clearances between the disc and plates.
- (5) After cleaning and repair the block should be subjected to no load test and load test. A chain block can be put into operation after it has been tested and found under reliable and in good condition.
- (6) Keep clean the friction surface of the brake. Brake mechanism should be inspected regularly for prevention of faulty braking and falling the load.

7. PARTS ILLUSTRATION



1	Hand roller cover	13	Roller	25	Pin	37	Sheet cover
2	Nut	14	Top roller support	26	Stopper pin	38	Nut
3	Pin	15	Pin shaft	27	Nut	39	Washers
4	Hand roller	16	Shy	28	Support pin	40	Bolts
5	Friction gear	17	Agitation gear	29	Suspension pin	41	Base roller support
6	Roller drive	18	Timing pulley	30	Drive sprocket	42	Drive roller
7	Pin	19	Support roller	31	Support roller	43	Handle
8	Roller pin	20	Drive roller	32	Cover roller	44	Hook
9	Locking pin	21	Base plate	33	Nut	45	Lock pin
10	Spring	22	Hand chain	34	Support bar	46	Use rollers
11	Pin	23	Drive shaft	35	Pinion shaft	47	Lock chain
12	Roller	24	Roller	36	Support bar		

CERTIFICATE OF QUALITY

ARTICLE: HSC SERIES CHAIN BLOCK

PRODUCT No.: _____

CAPACITY: _____ ton

HEIGHT OF LIFT: _____ m

RESULTS: _____

1. Function of hoist has been found normal during trial operation under 25% overload.
2. Component parts have been inspected and found in conformity with technical requirements.

INSPECTOR DATE: _____

INSPECTOR: _____