

HSZ SERIES

0.5-20TON CHAIN BLOCK



INSTRUCTION MANUAL

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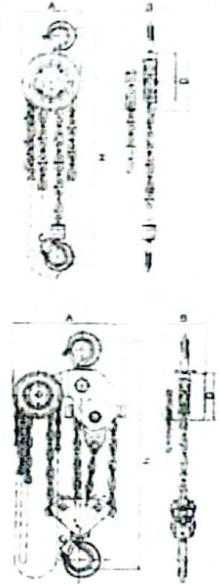
1. APPLICATION

The HSZ 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		HSZ 1/2	HSZ1	HSZ1 1/2	HSZ2	HSZ3	HSZ5	HSZ10	HSZ20
Capacity	t	0.5	1	1.5	2	3	5	10	20
Standard lift	m	2.5	2.5	2.5	2.5	3	3	3	3
Running test load	t	0.63	1.25	2	2.5	4	6.3	12.5	25
Headroom(drawn closeup) H min	mm	270	270	368	444	486	616	700	1000
Effort required to lift max. load	n	225	309	343	314	343	383	392	392
NO.of colums ofload chain		1	1	1	2	2	2	4	8
Load chain dia.	mm	6	6	8	8	8	10	10	10
Dimensions	A	120	142	178	142	178	210	358	580
	B	108	122	139	122	139	162	162	189
	C	24	28	34	34	38	48	64	82
	D	120	142	178	142	178	210	210	210
Net Weight	kg	9.5	10	16	14	24	36	68	155
Gross Weight	kg	12	13	20	17	28	45	83	193
Extra Weight per meter of extra lift	kg	1.7	1.7	2.3	2.5	3.7	5.3	9.7	19.4



3. FEATURES

Five prominent features in design and in service are inherent in HSZ 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 HSZ 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 hold up itself on load, and the pawl is meshed with the ratchet disc by force of the spring, thus ensuring brake to work safely.

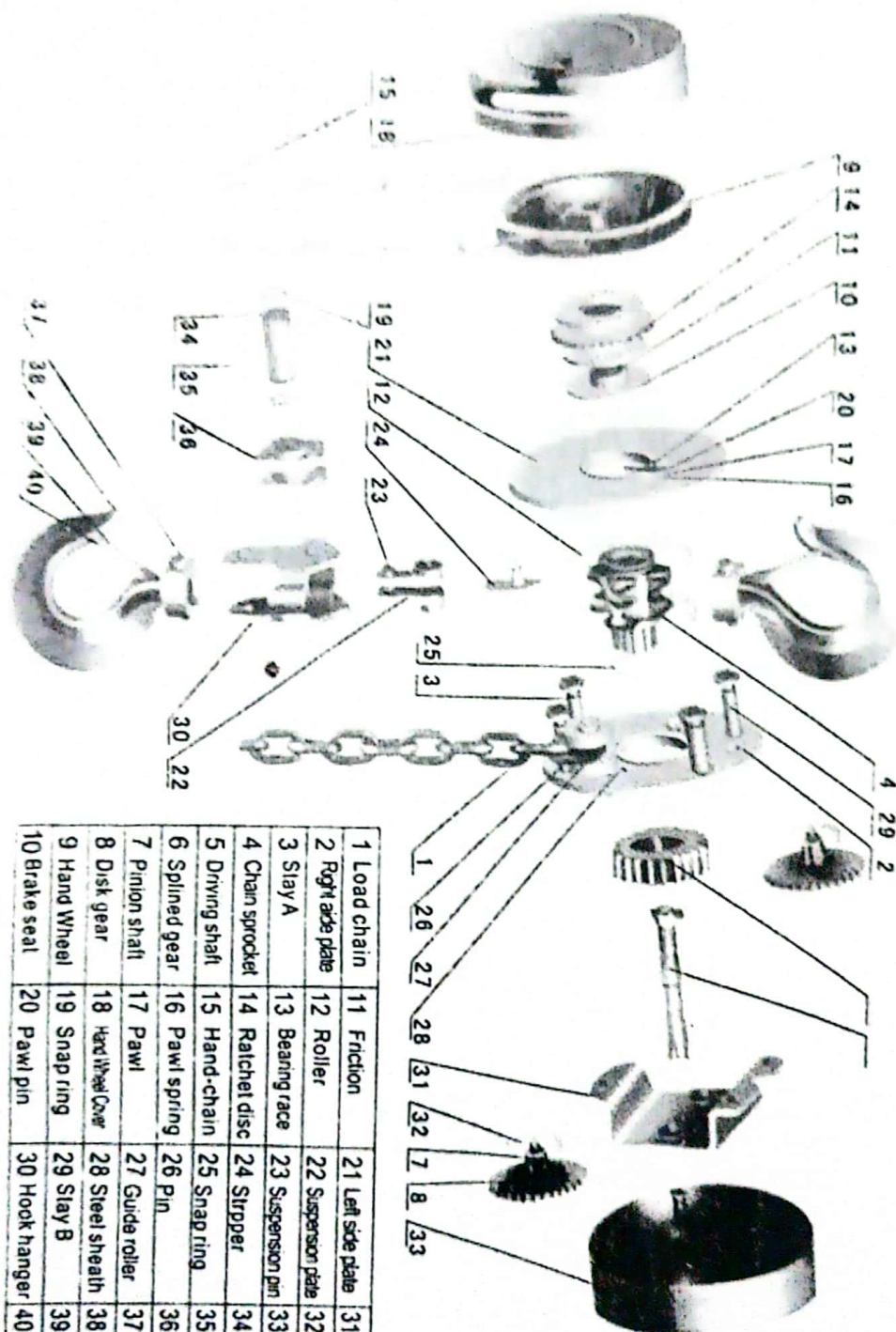
5. CAUTIONS

- (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 safely.
- (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 Load chain	11 Friction	21 Left side plate	31 Bent plate
2 Right side plate	12 Roller	22 Suspension plate	32 Roller
3 Slay A	13 Bearing race	23 Suspension pin	33 Sheet cover
4 Chain sprocket	14 Ratchet disc	24 Stripper	34 Shaft
5 Driving shaft	15 Hand-chain	25 Snap ring	35 Needle
6 Splayed gear	16 Pawl spring	26 Pin	36 Idle sheave
7 Pinion shaft	17 Pawl	27 Guide roller	37 Hook holder
8 Disk gear	18 Hand Wheel Cover	28 Steel sheath	38 Hook
9 Hand Wheel	19 Snap ring	29 Slay B	39 Latch Kit
10 Brake seal	20 Pawl pin	30 Hook hanger	40 Double-spring

CERTIFICATE OF QUALITY

ARTICLE: HSZ 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: _____