



MANUAL CHAIN BLOCK

CAPACITIES : 0.5 TO 10 TONS

OPERATION AND PART MANUAL

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WARNING

The use of hoisting equipment presents the possibility of personal Injury Or property damage. Before using hoist, person who will ins tall, operate Or maintenance should read this manual carefully.
For safe performance, Please follow all instructions and recommendations contained herein.
Most important, please keep this manual for current and future usage.

(I)Installation

1.Unpacing :

After removing the chain block from its packing carton, carefully check to be sure there has been no damages during shipment.

2. Installation :

- (A) First to be sure the mounting Support, including trolley, should Be designed to withstand the loads and force imposed by chain block.
- (B) After mounting and before Placing in service, check the hoist for proper operation, as follows :
 - (1) It is important to examine the Load chain before use to ensure that there is no twist.
 - (2) The chain block is always Rigged to lift in a straight line from hook to hook.
 - (3) The upper and lower hooks Must always be free to swivel.
- (C) Test running under no load. Facing warning label to the hand wheel side (opposite of name plate), pull right hand chain to raise lower hook, then pull the Left hand chain to lower the lower hook.

(II) Operation

1. Safety rules for operation

- (A) Be sure that the attachments to both Upper and lower hooks are firmly Seated in the saddles of the hooks.
- (B) Sling should always seated inside

the safe latch.

- (C) Observe that the load chain hangs Straight from block to lower hook Without twisting.
- (D) First to raise the load only enough to clear the ground lever or support, and check to be sure that brake will hold the load.
- (E) Do not load the chain block Beyond the rated capacity.
- (F) Do not lift people or loads over people.
- (G) Do not operate chain block with other than manual power.
- (H) Do not operate damage or malfunctioning chain block.
- (I) Do not warp the load chain around the load.
- (J) Do not leave the load suspended in the air unattended.
- (K) Do not lower the hook to a point where the chain become taut between the sprocket and slack end pin.
- (L) Do not drag load against floor, block design for vertical lifting only.
- (M) Do not suspend a load with two hoist.
- (N) Do not tie knots in the load chain, nor should bolts be used to joint it.
- (O) Do not turn over lower hook of double fall model, it will arise twist of load chain.
- (P) Do not allow dirt and hard grease gather in the sprocket and hand wheel.
- Q) Do not lift load with the point of Hook.

2. Operation

WARNING

Since dealing with heavy load may involve unexpected danger, all the safety rules(ref. previous section) must be followed and the Operator must read and understood all the contents in this Manual.

After proper installation, the chain block is ready for normal operation. The Operator should be aware of following points while using the block.

- (A) The operator must have a clear and unobstructed view of entire working area before operating the chain block.
- (B) The operator must check that the Entire working area is safe and secure before operating the chain block.
- (C) The operator must be surd that the Length of load chain will allow the Load hook to rest on the lowest level on which the load rest.

(III) Inspection :

1. Daily Inspection

Before starting daily operation, check the following :

- (A) Brake mechanisms.
- (B) Lubrication of load chain.
- (C) Wear, damaged links or foreign Material of load chain.

- (D) Damage, crack, twist, latch, Engagement and latch operation Of hook.

Any deficiencies found need to be Corrected before putting the chain block into service.

2. Periodic Inspection

For normal service, the periodic inspections are to be performed yearly.

For heavy service, the periodic inspections are to be performed semiannually.

WARNING

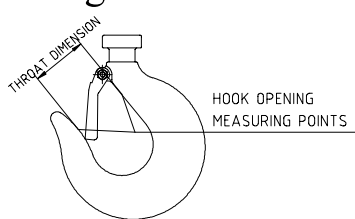
Only a qualify and appointed person should perform this inspection. The person who do the inspection should make records of apparent external conditions to provide the sasis for continuing evaluation.

It is necessary to disassemble the chain block for periodic inspections. The periodic inspections are to include the daily inspection items and the following.

(A) Hooks must replace when :

- (1) It is opened and make the latch to Disengage the tip.
- (2) Hook shows crack, deformation or Wear in excess of 5% of its original size.

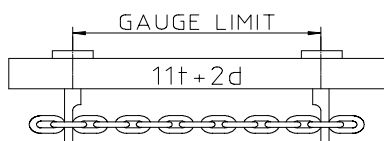
- (3) If opening dimension is greater than following chart. (Measure hook throat opening per following sketch shown below



Block Capacity	New Hook Throat Dimension	Hook Opening Limit Max. Allowable
0.5T	28mm	31mm
1.0T	36mm	40mm
1.6T	38mm	42mm
2.0T	40mm	44mm
3.0-3.2T	50mm	55mm
5.0T	60mm	66mm
7.5-10T	65mm	72mm

- (B)load chain should be well lubricated and remove excess .lubricant from chain.

- (1) Measuring load chain and hand chain wear per following chart :



	Chain dia	No. of link to measure	New chain length (mm)	Max length allowance for service (mm)
0.5T	5.0	11	175	180
1.0T	6.3	11	221	227
1.6T	7.1	11	245	251
2.0T	8.0	11	280	287
3.0T	7.1	11	245	251
3.2-10T	10.0	11	350	360
Hand Chain	5.0	15	373	382

- (2) In case the wear is within the limit, sometimes it is possible to reverse load chain, end for end, and allow a new section to take the wear.

- (3) Each hand chain only allow one unwedded connecting link.

- (C) Check hook block, chain guide, stripper, dead end bolt, slack end pin, shaft, gears.

- (D) Inspect ratchet and pawl.

- (E) Check loosening bolts, nuts, pins, or rivit.

Warning

After reassembling, and before putting into service, a non-destructive type test is recommended.

Warning

Any deficiencies found are to be corrected before hoist is return to service. Always use the chain block Manufacturer's recommended parts when repairing.

- (IV) Lubrication, care and repair :

1. Lubrication

- (A) Always well lubricated load chain with any available lubricant.

- (B) Do not put any grease or lubricant over brake surface.

(C) When chain block is under periodic inspection or repair, following locations should be lubricated by using shell alvania epo grease or equivalent.

- (1) gear
- (2) chain guide
- (3) load sheave
- (4) hook collar
- (5) hook block
- (6) ratchet teeth only
- (7) pawl and stud
- (8) thread of hand wheel
- (9) dead end bolt

2. Case

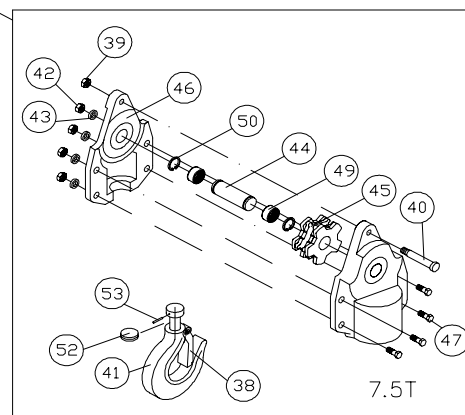
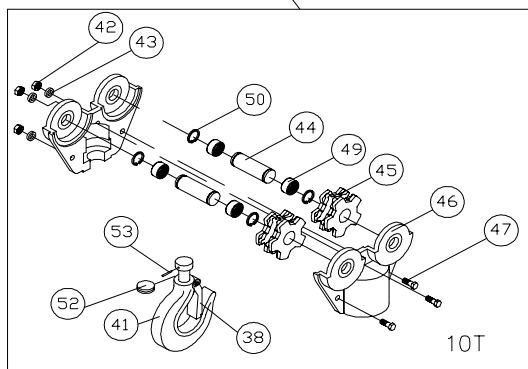
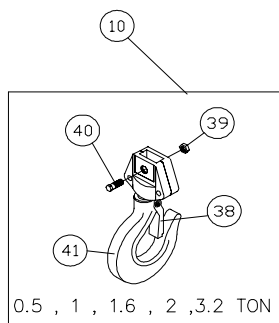
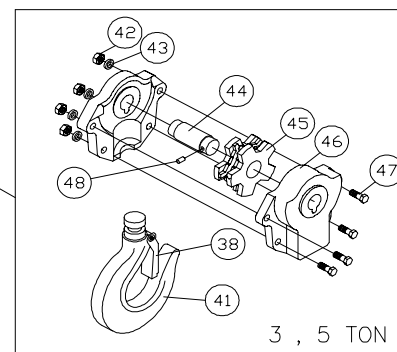
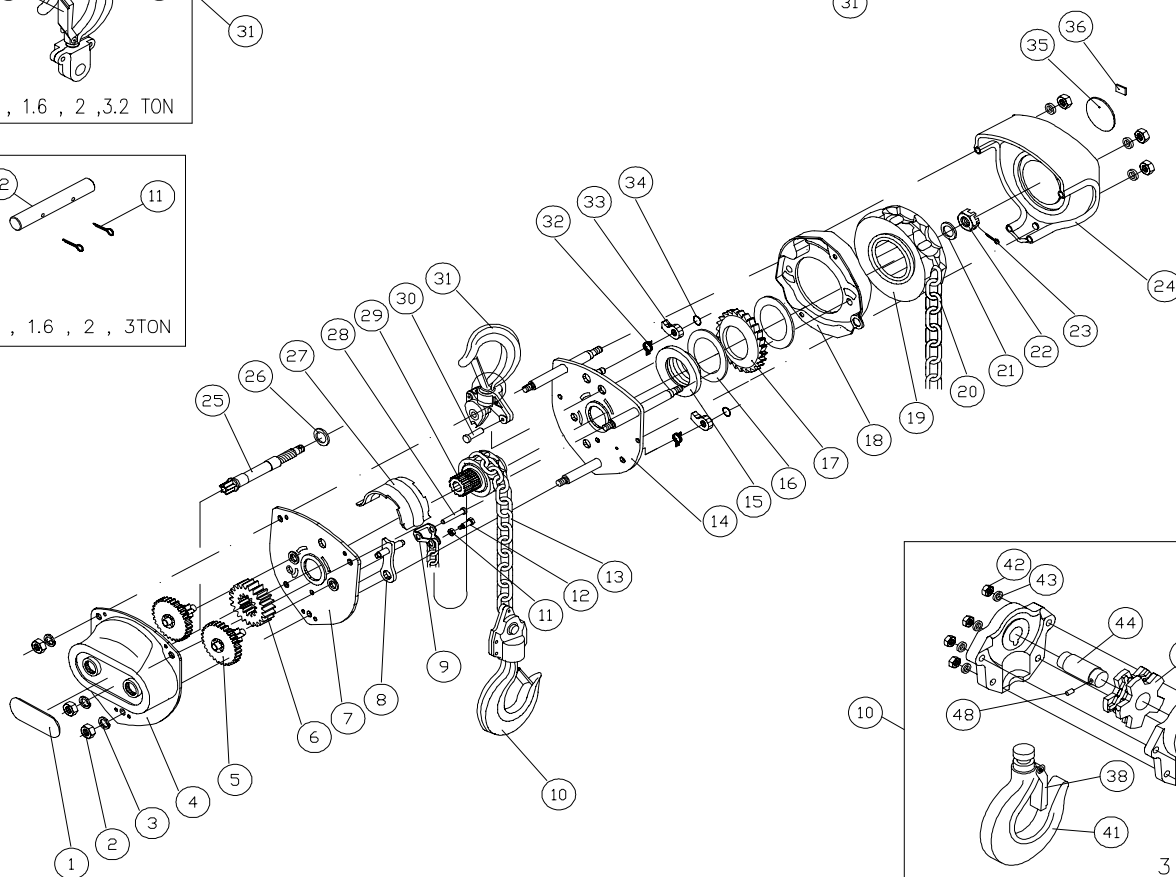
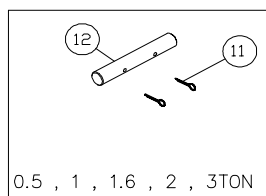
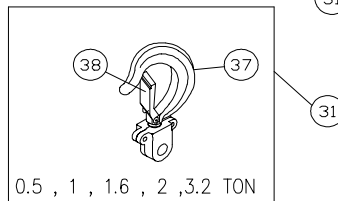
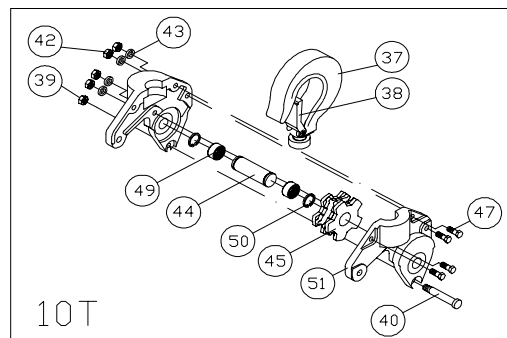
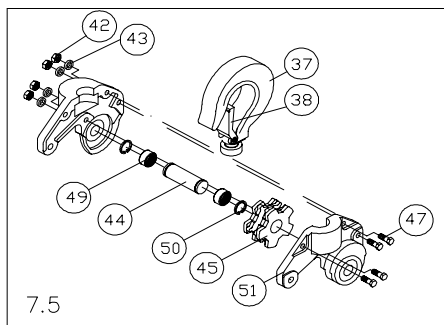
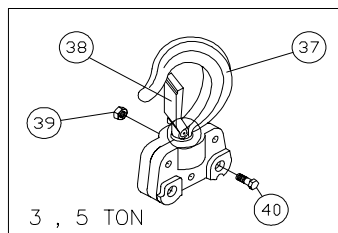
- (A) Do not drop the chain block.
- (B) Protect chain block from weather, water, heat and mud, etc??
- (C) If chain block need more than ordinary effort to operate, it is iikely to be defective or overloaded.
- (D) If load chain is jumping, not working smoothly, you should unload and do necessary inspection and maintenance or repair.
- (E) Always keep chain block clean after used.

3. Repair

Warning

Only your dealer's appointed qualified person is allowed to do the repair of chain block.

(V) EXPLODED VIEW:



(VI) BILL OF MATERIAL :

KEY NO.	PART NO.	PART NAME	QTY REQ
1	B1903	NAME PLATE	1
2	B1421	HEX NUT	6
3	B1441	SPRING LOCK WASHER	6
4	B1201	GEAR COVER WITH BUSHINGS	1
5	B1202	2nd GEAR ASSEMBLY	2
6	B1203	4th GEAR	1
7	B1204	GEAR SIDE PLATE WITH BUSHINGS	1
8	B1205	STRIPPER ASSEMBLY	1
9	B1206	LOAD CHAIN SLACK END ANCHORAGE	1
10	B1207	LOWER HOOK ASSEMBLY	1
11	B1422	NYLON LOCK NUT	1
	B1471	CUTTER PIN	2
12	B1401	DEAD END BOLT	1
	B1208	SLACK END ANCHORAGE PIN	1
13	B1901	LOAD CHAIN	1
14	B1209	BRAKE SIDE PLATE WITH BUSHINGS	1
15	B1210	HUB	1
16	B1211	FRICTION WASHER	2
17	B1212	RATCHET	1
18	B1213	RATCHET COVER	1
19	B1214	HAND WHEEL	1
20	B1902	HAND CHAIN	1
21	B1442	FLAT WASHER	1
22	B1423	CASTLE NUT	1
23	B1472	CUTTER PIN	1
24	B1215	HAND WHEEL COVER	1
25	B1216	1st GEAR	1
26	B1217	FLAT WASHER	1

KEY NO.	PART NO.	PART NAME	QTY REQ
27	B1218	CHAIN GUIDE	1
28	B1219	SLACK END ANCHORAGE PIN	1
29	B1220	LOAD SHEAVE	1
30	B1221	UPPER HOOK PIN	1
31	B1222	UPPER HOOK ASSEMBLY	1
32	B1223	PAWL SPRING	2
33	B1224	PAWL	2
34	B1461	SNAP RING	2
35	B1904	WARING LABEL	1
36	B1905	CLASS LABEL	1
37	B1225	TOP HOOK	1
38	B1226	SAFETY LATCH ASSEMBLY	1
39	B1424	NYLON LOCK NUT	1
40	B1402	DEAD END BOLT	1
41	B1227	BOTTOM HOOK	1
42	B1425	HEX NUT	4/7/8
43	B1443	SPRING LOCK WASHER	4/7/8
44	B1228	SHEAVE SHAPE	1/2/3
45	B1229	SHEAVE WHEEL	1/2/3
46	B1230	LOWER HOOK BLOCK HALF	2
47	B1403	HEX RECESS BOLT	4/7/8
48	B1473	SPRING PIN	1
49	B1231	NEEDLE BEARING	4/6
50	B1462	SNAP RING	4/6
51	B1232	UPPER HOOK BLOCK HALF	2
52	B1233	NEEDLE BEARING	1
53	B1474	SPRING PIN	1

CE = C = **DECLARATION OF CONFORMITY**

Cheng Day Machinery Works Co., Ltd.
173, Wen Chiu Road, Ta Chia Chen, Taichung,
Taiwan, R.O.C.

We declare under our sole responsibility that the products :

Manual chain block : UB Series : UB-050,100,160,200,300,320,500,750,1000

Plain Trolley : PT Series : PT-050,100,200,300,500,750,1000

Geared Trolley : GT Series : GT-050,100,200,300,500,750,1000

Working load limit : for 0.5t to 10t

to which this declaration relates is in conformity with the following Machinery Directive and Standard.

Machinery Directive 2006/42/EC

EN ISO 12100:2010 y EN 13157:2004/A1:2009

Issued by TÜV SÜD Product Service GmbH Ridlerstraße 65, 80339 München
Germany

Test report no. : 615202001401

The technical construction file of this unit is and will remain available on
manufacturer's premises for any inspection purposes.

Cheng Day Machinery Works Co., Ltd.



I. D. Pan
Manager
Quality Assurance Dept.