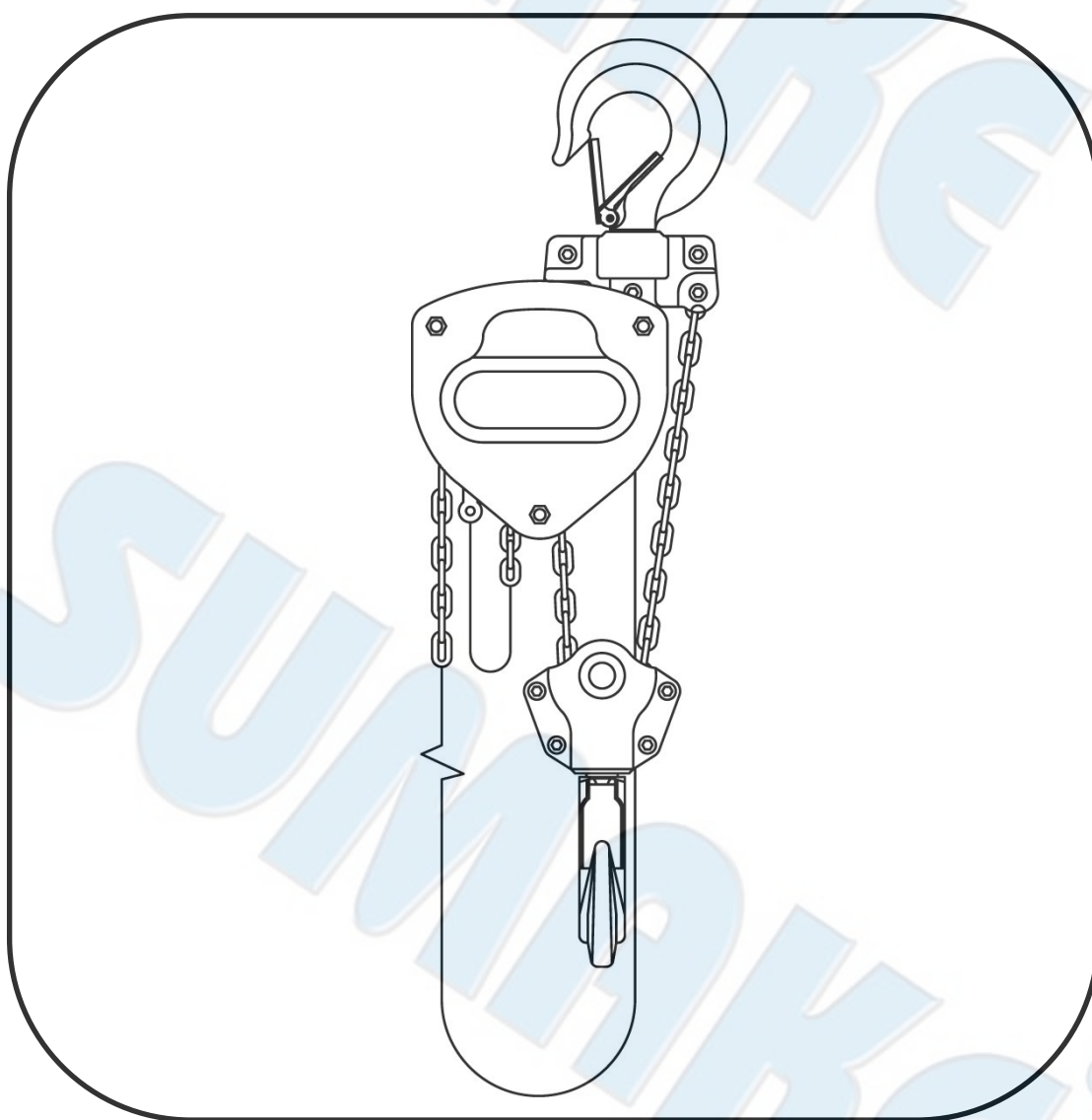


INSTRUCTION MANUAL

ITEM NO.: HCH-500 , HCH-1000
HCH-1500, HCH-2000
HCH-3000, HCH-5000

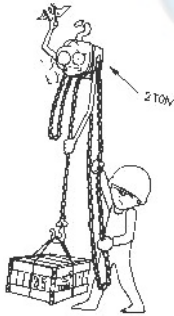
HEAVY DUTY CHAIN HOIST
0.5(1)(1.5)(2)(3)(5) TON



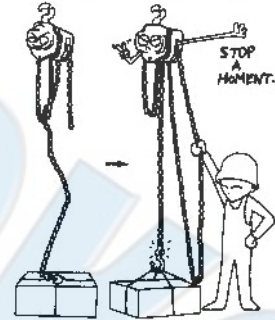
WARNING !

This hoist should not be installed, operated or maintained by any person who has not read all the contents of these general instructions. Failure to read and comply with these instructions or any one of the limitations noted herein can result in serious bodily injury and/or property damage.

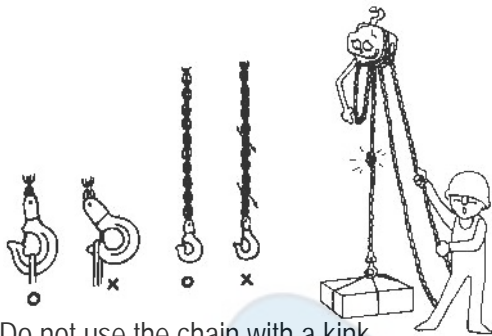
1. IMPORTANT REMARKS FOR OPERATORS INSPECTION



Do not overload your chain hoist



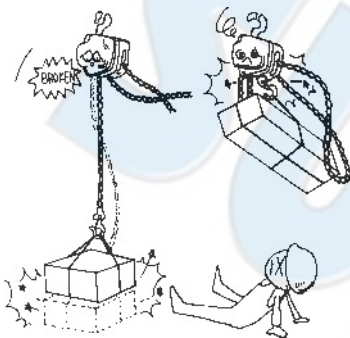
Do not give the load a sudden take-off. Take a breath when the load chain is just taut, and check for brake action by pulling up and down about 10cm above floor.



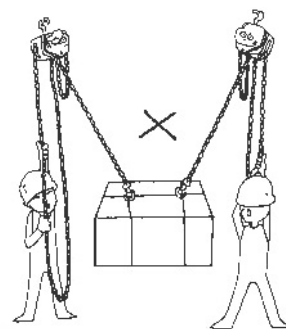
Do not use the chain with a kink.



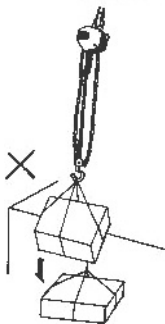
Do not drag load against floor.



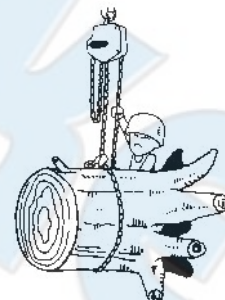
Do not raise to far or lower to fast.



Do not try to suspend a load with two hoists.



Never give a shock load to a hoist, even if the distance is very short.



Do not wrap the load chain around the load.

2. MAINTENANCE

After use, service the hoist before storing it.

Servicing and repairs should only be carried out by qualified, competent, and responsible people.

- (a) Clean the hoist thoroughly.
- (b) Keep the hoist well-lubricated. Oil the load chain and hook shank.
- (c) Store the hoist correctly against rain and moisture. When the hoist is installed outdoors, exceptional care should be taken regarding maintenance.

3. INSPECTION

Frequent inspections – Visual inspection by operator or other authorized person, and listening (while hoist operates) for unusual sounds which may indicate trouble.

Exception: Brakes require more than audio-visual inspection. Check frequently by operating hoist, with and without load, stopping at various positions to test holding power and observe amount of drift, if any.

To adjust brake: (see FIGURE 1)

- A. Fully-tightened position.
- B. Slack off slightly from position A, and insert the cutter pin.
- * replace brake disc if thickness is less than 0.08 inch.

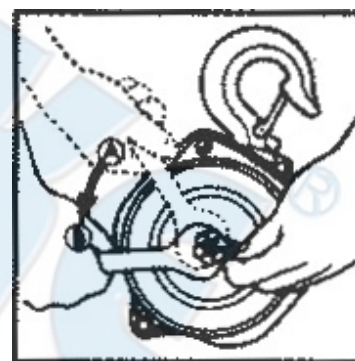


FIGURE 1

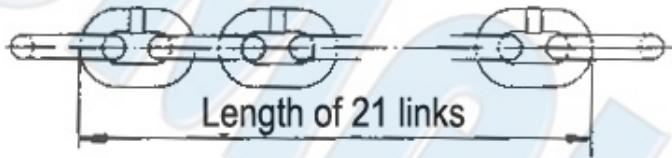
4. CHAIN AND HOOKS

The hooks and load chains are made of special alloy-steels and are precisely heat-treated. Never weld or heat-treat them again.

(a) Load Chain

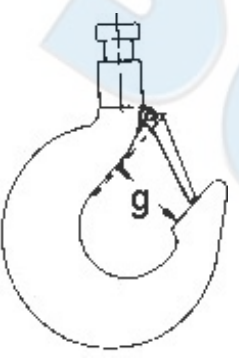
The load chains are exceptionally

Long-wearing, but wear is unavoidable and certain conditions will cause wear and corrosion that will lessen the strength. Load chains worn beyond the permissible limits shown in the Table 1 must be replaced at once.

TABLE 1 CHAIN DIMENSIONS		
		
Capacity Tons	Diameter Of Chain Wire	Maximum Allowable Gauge Length
1/2	6.3 mm	21 links = 16.6 inches
1	6.3 mm	21 links = 16.6 inches
2	8.0 mm	21 links = 21.0 inches
1-1/2, 3	7.1 mm	21 links = 18.4 inches
5	8.0 mm	21 links = 21.0 inches

(b) Hooks

The hook opening will elongate with overloads and incorrect hooking. When the hook opening is elongated beyond the permissible limits shown in the Table 2, it is dangerously deformed and must be replaced immediately.

TABLE 2-HOOK THROAT OPENING			
	Capacity Tons	Hook Throat Opening (inch)	
		New Hook g Equals	New When g Equals
	1/2	1-3/16	1-9/32
	1	1-5/16	1-13/32
	1-1/2	1-7/16	1-19/32
	2	1-11/16	1-27/32
	3	1-11/16	1-27/32
	5	2-1/4	2-15/32

5. ALIGNMENT OF GEARS DURING REASSEMBLY

All Capacities – FIGURE 2

Teeth between two marks at the gear spline (A) must be on horizontal centerline, one facing toward center and one facing outward, as shown. (Inner/Out relation)

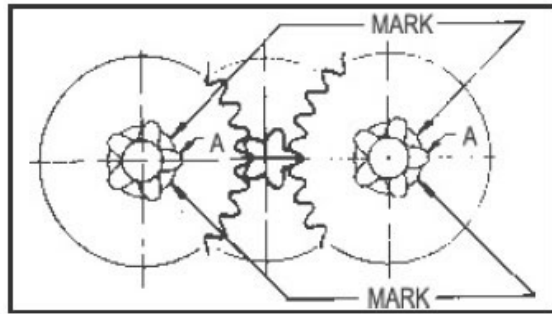


FIGURE 2

6. TEST CERTIFICATE

It is hereby certified that this product was manufactured under our single-unit control of quality and was passed with strict inspection in accordance with our inspection standards.

Capacity Tons	S.W.L. (kgs)	Teat Load (kgs)
1/2	500	750
1	1000	1500
1-1/2	1500	2250
2	2000	3000
3	3000	4500
5	5000	7500



EC DECLARATION OF CONFORMITY

We: **SUMAKE INDUSTRIAL CO., LTD.**

4F, No. 351, Yangguang St., Neihu District, Taipei City, Taiwan

declare in sole responsibility that the equipment

Equipment : **HEAVY DUTY CHAIN HOIST 0.5(1)(1.5)(2)(3)(5) TON**

Model/ Serial No. : **HCH-500(1000)(1500)(2000)(3000)(5000)**

to which this declaration applies, complies with these normative documents:

- Machinery Directive: 2006/42/EC

and conforms to the following EN standard,

- EN ISO 12100: 2010
- EN 13157:2004+A1:2009

Name and Signature/Position

Mike Su – Managing Director

Date and Place

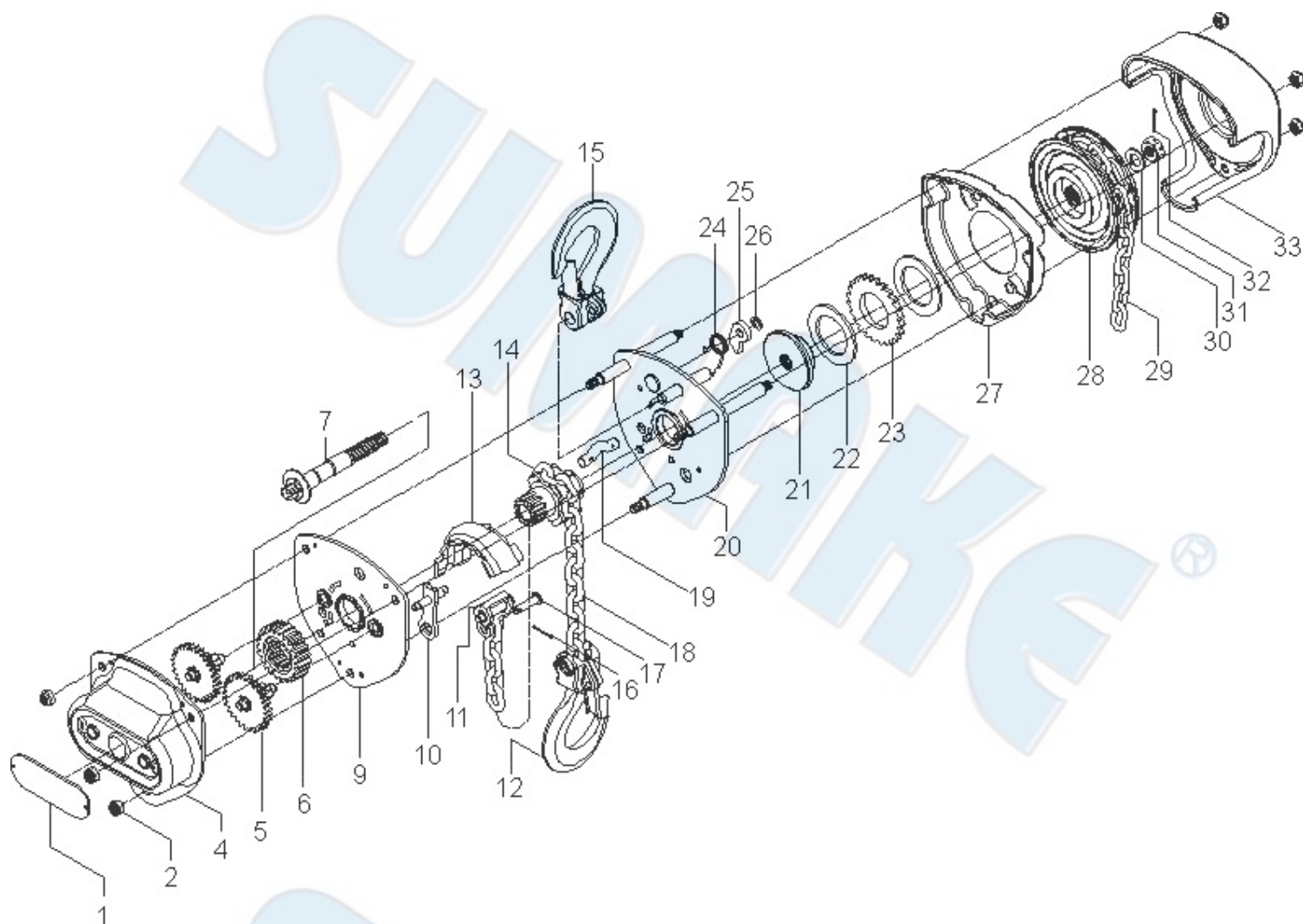
2014/6/30

Taipei, Taiwan

HCH-500(1000)(1500)(2000)(3000)(5000)-D-1409B-W6F

HCH-500

HEAVY DUTY CHAIN HOIST (0.5 TON)

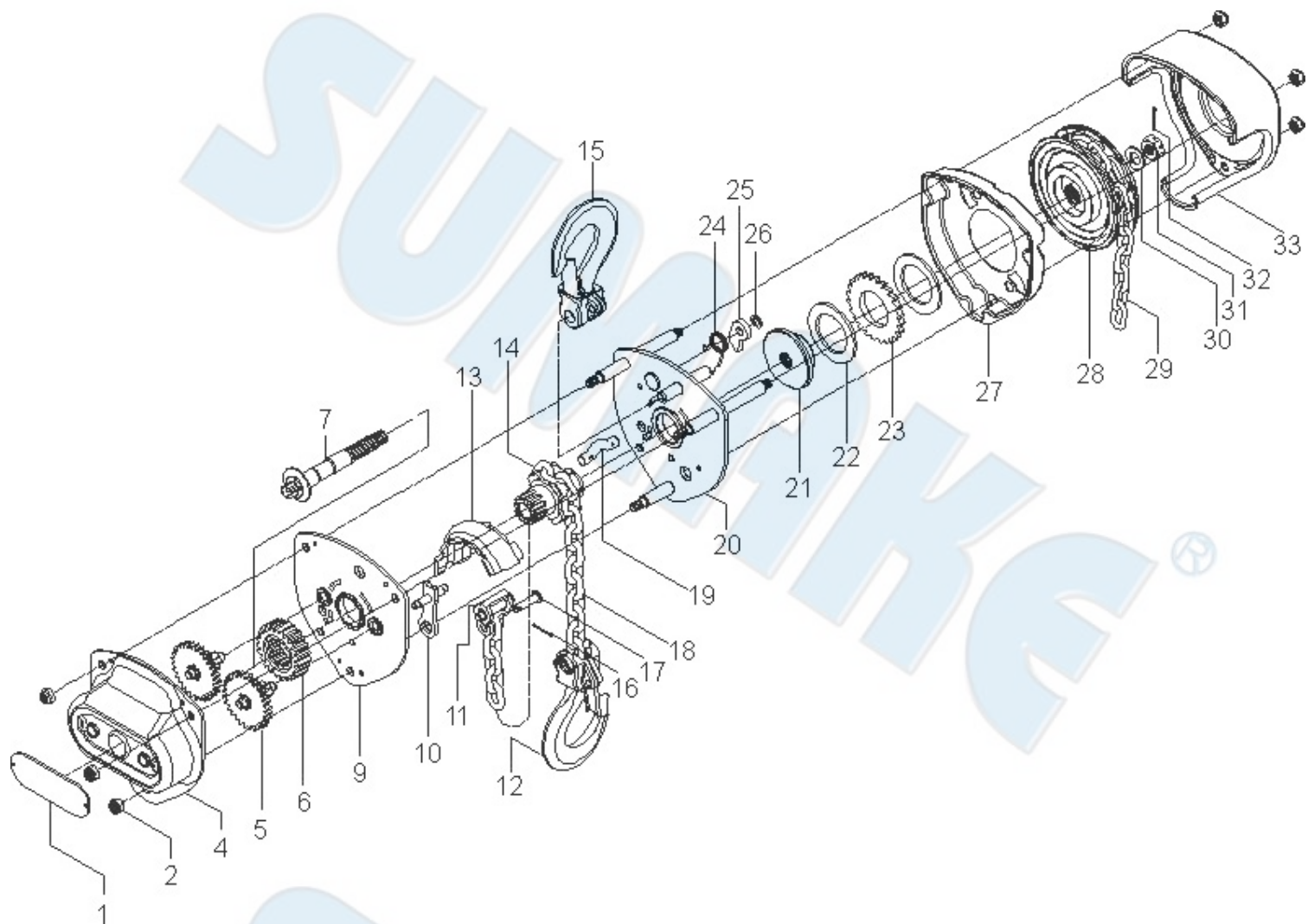


PARTS LIST

No.	Parts No.	Description	Q'ty
1	HCH500-01	Label	1
2	HCH500-02	Nut	6
4	HCH500-04	Gear Cover	1
5	HCH500-05	Pinion (With Pinion Gear)	1
6	HCH500-06	Load Gear	1
7	HCH500-07	Pinion Shaft With Washer	1
9	HCH500-09	Gear-Side Plate	1
10	HCH500-10	Stripper	1
11	HCH500-11	Load Chain Anchoring	1
12	HCH500-12	Bottom Hook Assembly	1
13	HCH500-13	Load Chain Guide	1
14	HCH500-14	Load Sheave	1
15	HCH500-15	Top Hook Assembly	1
16	HCH500-16	Cutter Pin	1
17	HCH500-17	Chain-End-Fixing Pin	1
18	HCH500-18	Load Chain	1

No.	Parts No.	Description	Q'ty
19	HCH500-19	Load Chain Guide Pin	1
20	HCH500-20	Wheel-Side Plate Assembly	1
21	HCH500-21	Disc Hub	2
22	HCH500-22	Brake Disc	1
23	HCH500-23	Ratchet Gear	1
24	HCH500-24	Pawl Spring	1
25	HCH500-25	Pawl	1
26	HCH500-26	Snap Ring For Pawl Pin	1
27	HCH500-27	Ratchet Gear Cover	1
28	HCH500-28	Handwheel	1
29	HCH500-29	Hand Chain	1
30	HCH500-30	Washer for Pinion Shaft Nut	1
31	HCH500-31	Check Nut	1
32	HCH500-32	Cutter Pin For Check Nut	1
33	HCH500-33	Handwheel Cover	1

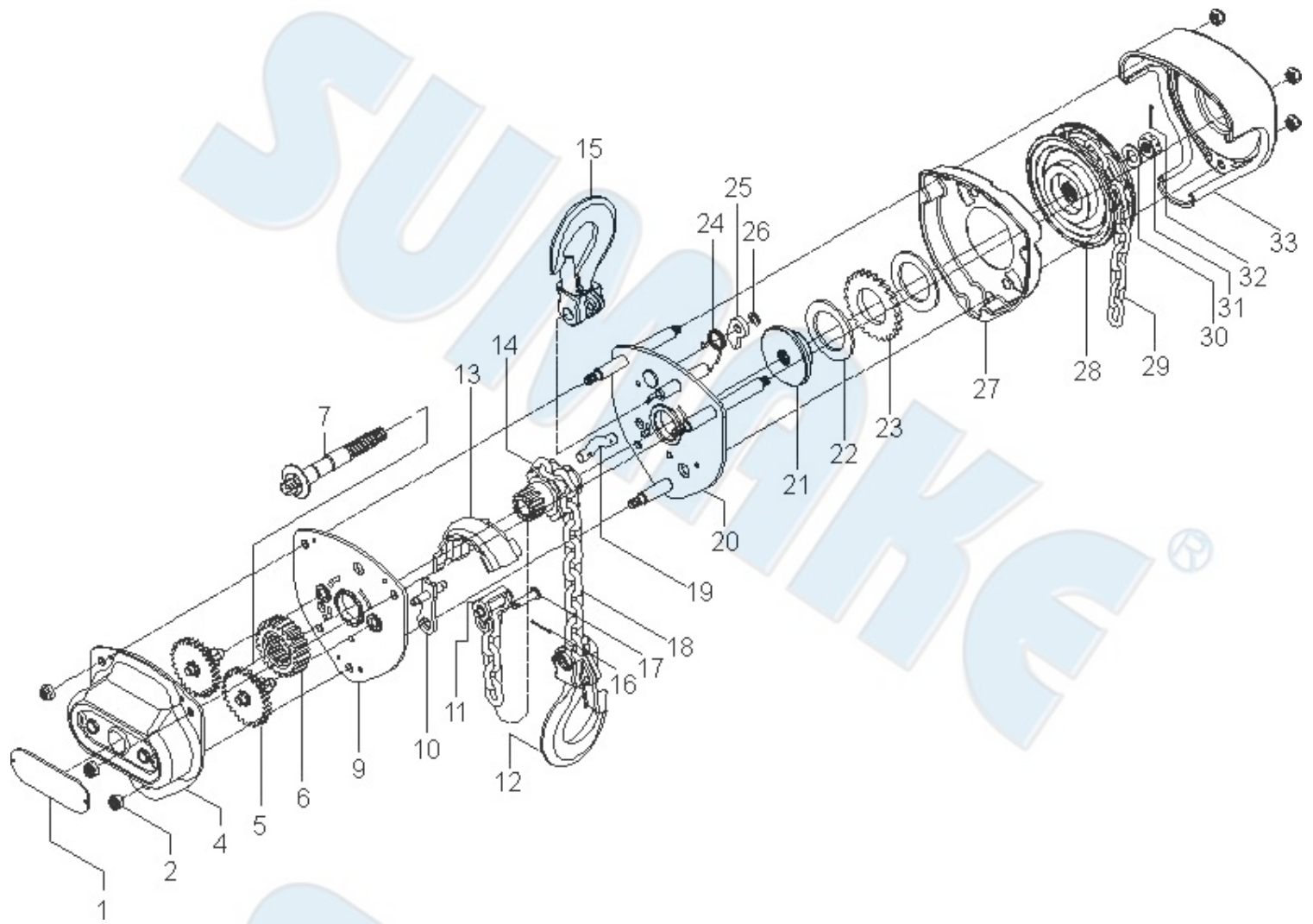
HCH-1000 HEAVY DUTY CHAIN HOIST (1 TON)



PARTS LIST

No.	Parts No.	Description	Q'ty	No.	Parts No.	Description	Q'ty
1	HCH1000-01	Label	1	19	HCH1000-19	Load Chain Guide Pin	1
2	HCH1000-02	Nut	6	20	HCH1000-20	Wheel-Side Plate Assembly	1
4	HCH1000-04	Gear Cover	1	21	HCH1000-21	Disc Hub	2
5	HCH1000-05	Pinion (With Pinion Gear)	1	22	HCH1000-22	Brake Disc	1
6	HCH1000-06	Load Gear	1	23	HCH1000-23	Ratchet Gear	1
7	HCH1000-07	Pinion Shaft With Washer	1	24	HCH1000-24	Pawl Spring	1
9	HCH1000-09	Gear-Side Plate	1	25	HCH1000-25	Pawl	1
10	HCH1000-10	Stripper	1	26	HCH1000-26	Snap Ring For Pawl Pin	1
11	HCH1000-11	Load Chain Anchoring	1	27	HCH1000-27	Ratchet Gear Cover	1
12	HCH1000-12	Bottom Hook Assembly	1	28	HCH1000-28	Handwheel	1
13	HCH1000-13	Load Chain Guide	1	29	HCH1000-29	Hand Chain	1
14	HCH1000-14	Load Sheave	1	30	HCH1000-30	Washer for Pinion Shaft Nut	1
15	HCH1000-15	Top Hook Assembly	1	31	HCH1000-31	Check Nut	1
16	HCH1000-16	Cutter Pin	1	32	HCH1000-32	Cutter Pin For Check Nut	1
17	HCH1000-17	Chain-End-Fixing Pin	1	33	HCH1000-33	Handwheel Cover	1
18	HCH1000-18	Load Chain	1				

HCH-1500 HEAVY DUTY CHAIN HOIST (1.5 TON)

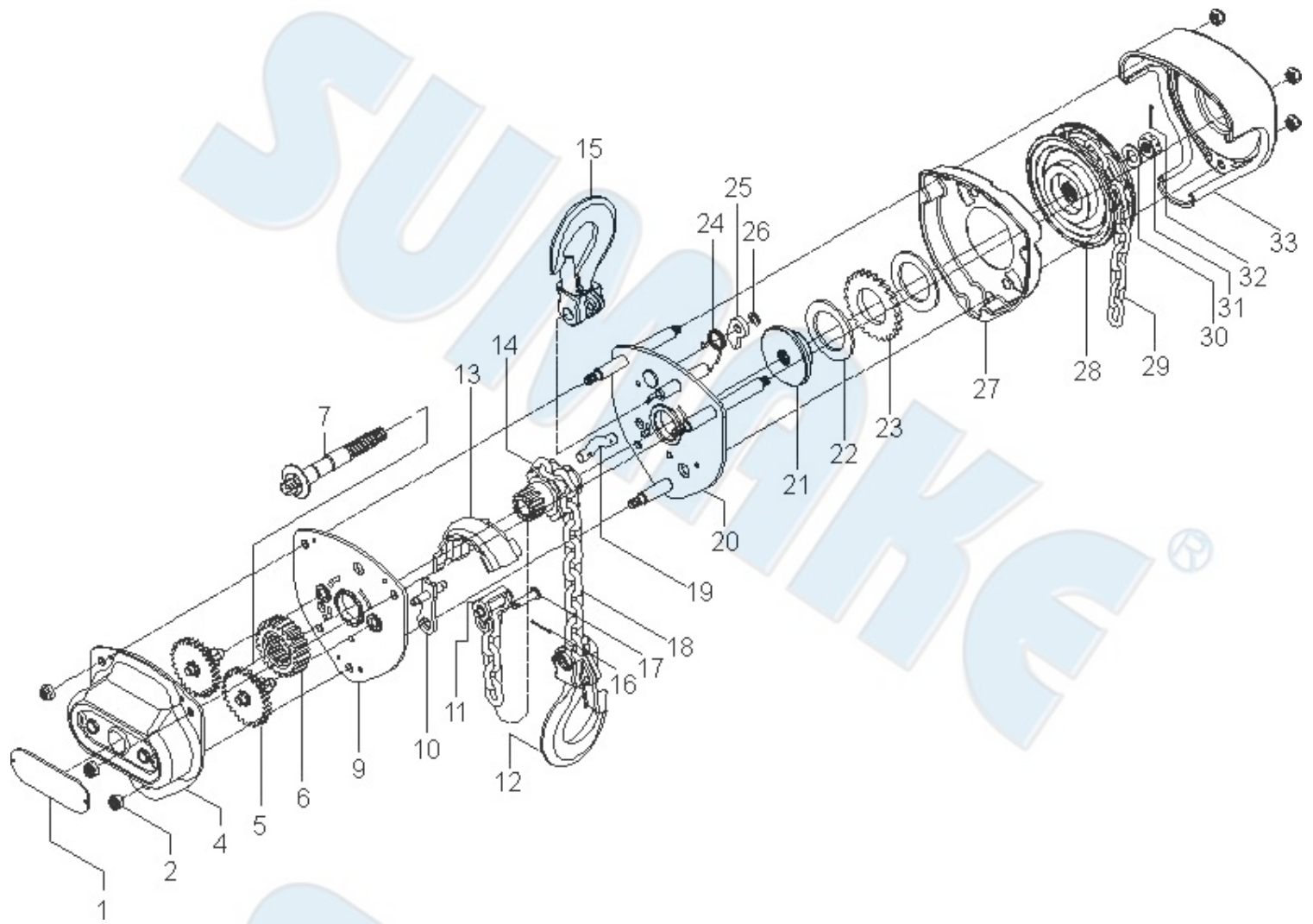


PARTS LIST

No.	Parts No.	Description	Q'ty
1	HCH1500-01	Label	1
2	HCH1500-02	Nut	6
4	HCH1500-04	Gear Cover	1
5	HCH1500-05	Pinion (With Pinion Gear)	1
6	HCH1500-06	Load Gear	1
7	HCH1500-07	Pinion Shaft With Washer	1
9	HCH1500-09	Gear-Side Plate	1
10	HCH1500-10	Stripper	1
11	HCH1500-11	Load Chain Anchoring	1
12	HCH1500-12	Bottom Hook Assembly	1
13	HCH1500-13	Load Chain Guide	1
14	HCH1500-14	Load Sheave	1
15	HCH1500-15	Top Hook Assembly	1
16	HCH1500-16	Cutter Pin	1
17	HCH1500-17	Chain-End-Fixing Pin	1
18	HCH1500-18	Load Chain	1

No.	Parts No.	Description	Q'ty
19	HCH1500-19	Load Chain Guide Pin	1
20	HCH1500-20	Wheel-Side Plate Assembly	1
21	HCH1500-21	Disc Hub	2
22	HCH1500-22	Brake Disc	1
23	HCH1500-23	Ratchet Gear	1
24	HCH1500-24	Pawl Spring	1
25	HCH1500-25	Pawl	1
26	HCH1500-26	Snap Ring For Pawl Pin	1
27	HCH1500-27	Ratchet Gear Cover	1
28	HCH1500-28	Handwheel	1
29	HCH1500-29	Hand Chain	1
30	HCH1500-30	Washer for Pinion Shaft Nut	1
31	HCH1500-31	Check Nut	1
32	HCH1500-32	Cutter Pin For Check Nut	1
33	HCH1500-33	Handwheel Cover	1

HCH-2000 HEAVY DUTY CHAIN HOIST (2 TON)

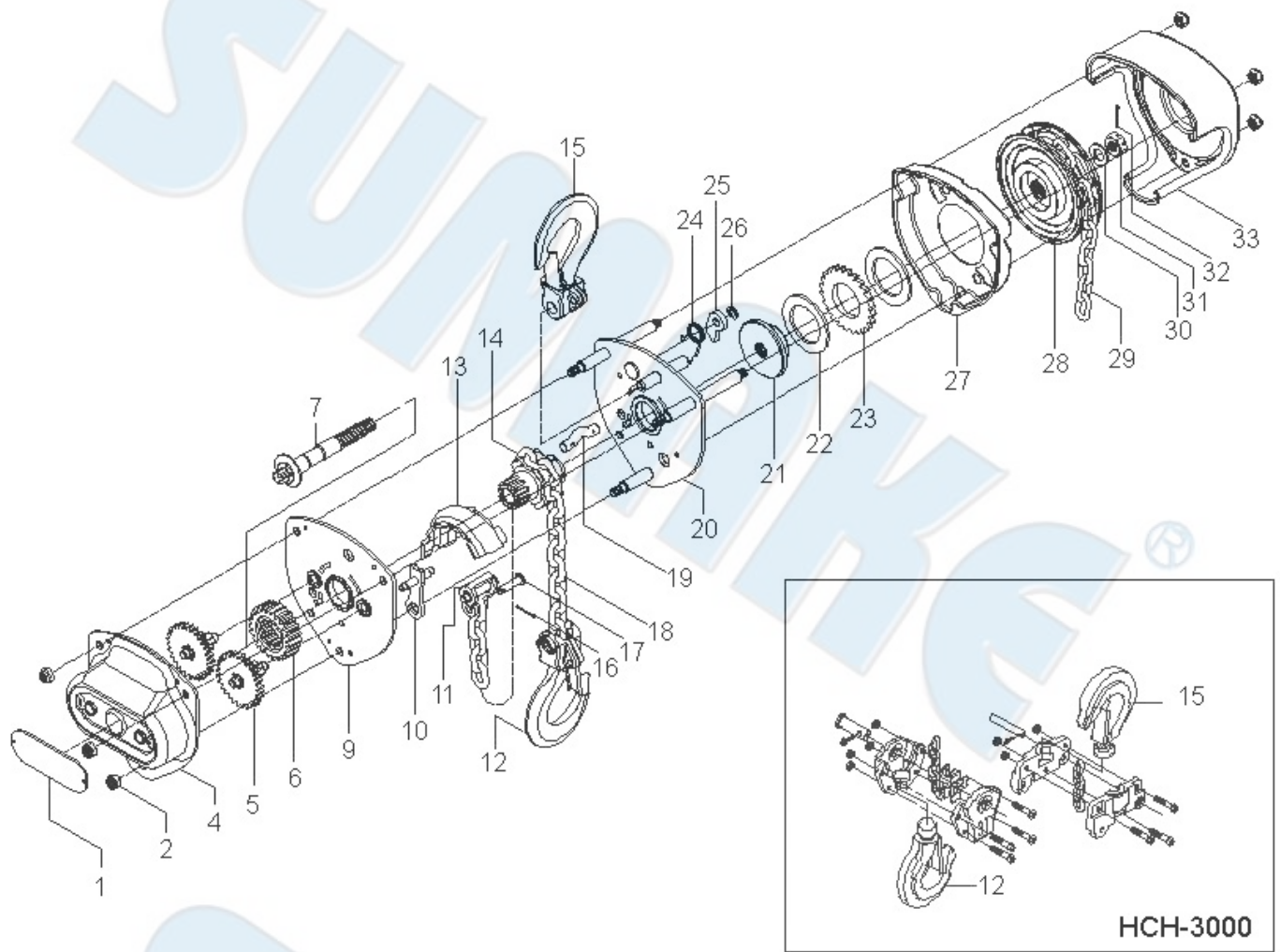


PARTS LIST

No.	Parts No.	Description	Q'ty
1	HCH2000-01	Label	1
2	HCH2000-02	Nut	6
4	HCH2000-04	Gear Cover	1
5	HCH2000-05	Pinion (With Pinion Gear)	1
6	HCH2000-06	Load Gear	1
7	HCH2000-07	Pinion Shaft With Washer	1
9	HCH2000-09	Gear-Side Plate	1
10	HCH2000-10	Stripper	1
11	HCH2000-11	Load Chain Anchoring	1
12	HCH2000-12	Bottom Hook Assembly	1
13	HCH2000-13	Load Chain Guide	1
14	HCH2000-14	Load Sheave	1
15	HCH2000-15	Top Hook Assembly	1
16	HCH2000-16	Cutter Pin	1
17	HCH2000-17	Chain-End-Fixing Pin	1
18	HCH2000-18	Load Chain	1

No.	Parts No.	Description	Q'ty
19	HCH2000-19	Load Chain Guide Pin	1
20	HCH2000-20	Wheel-Side Plate Assembly	1
21	HCH2000-21	Disc Hub	2
22	HCH2000-22	Brake Disc	1
23	HCH2000-23	Ratchet Gear	1
24	HCH2000-24	Pawl Spring	1
25	HCH2000-25	Pawl	1
26	HCH2000-26	Snap Ring For Pawl Pin	1
27	HCH2000-27	Ratchet Gear Cover	1
28	HCH2000-28	Handwheel	1
29	HCH2000-29	Hand Chain	1
30	HCH2000-30	Washer for Pinion Shaft Nut	1
31	HCH2000-31	Check Nut	1
32	HCH2000-32	Cutter Pin For Check Nut	1
33	HCH2000-33	Handwheel Cover	1

HCH-3000 HEAVY DUTY CHAIN HOIST (3 TON)

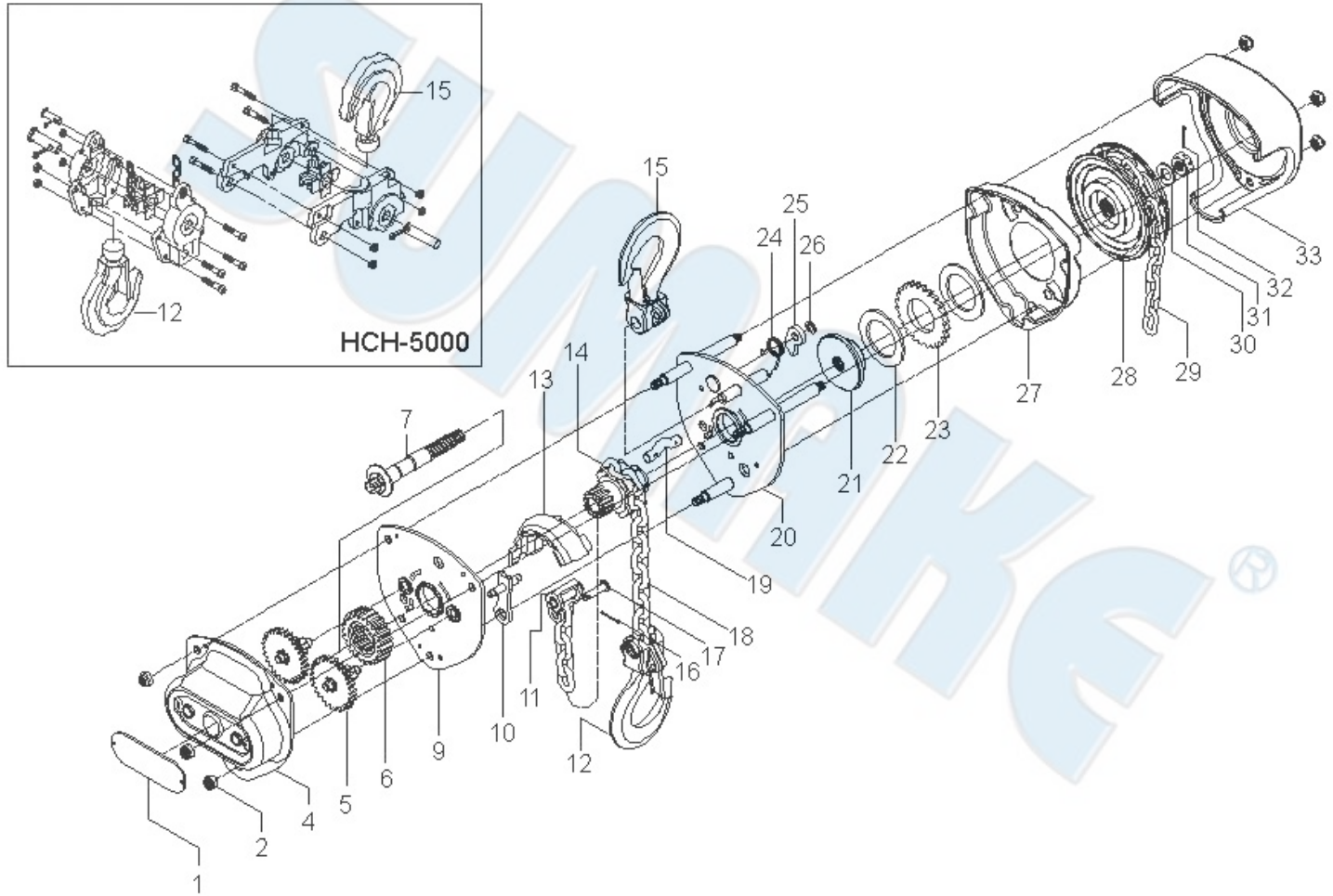


PARTS LIST

No.	Parts No.	Description	Q'ty
1	HCH3000-01	Label	1
2	HCH3000-02	Nut	6
4	HCH3000-04	Gear Cover	1
5	HCH3000-05	Pinion (With Pinion Gear)	1
6	HCH3000-06	Load Gear	1
7	HCH3000-07	Pinion Shaft With Washer	1
9	HCH3000-09	Gear-Side Plate	1
10	HCH3000-10	Stripper	1
11	HCH3000-11	Load Chain Anchoring	1
12	HCH3000-12	Bottom Hook Assembly	1
13	HCH3000-13	Load Chain Guide	1
14	HCH3000-14	Load Sheave	1
15	HCH3000-15	Top Hook Assembly	1
16	HCH3000-16	Cutter Pin	1
17	HCH3000-17	Chain-End-Fixing Pin	1
18	HCH3000-18	Load Chain	1

No.	Parts No.	Description	Q'ty
19	HCH3000-19	Load Chain Guide Pin	1
20	HCH3000-20	Wheel-Side Plate Assembly	1
21	HCH3000-21	Disc Hub	2
22	HCH3000-22	Brake Disc	1
23	HCH3000-23	Ratchet Gear	1
24	HCH3000-24	Pawl Spring	1
25	HCH3000-25	Pawl	1
26	HCH3000-26	Snap Ring For Pawl Pin	1
27	HCH3000-27	Ratchet Gear Cover	1
28	HCH3000-28	Handwheel	1
29	HCH3000-29	Hand Chain	1
30	HCH3000-30	Washer for Pinion Shaft Nut	1
31	HCH3000-31	Check Nut	1
32	HCH3000-32	Cutter Pin For Check Nut	1
33	HCH3000-33	Handwheel Cover	1

HCH-5000 HEAVY DUTY CHAIN HOIST (5 TON)



PARTS LIST

No.	Parts No.	Description	Q'ty
1	HCH5000-01	Label	1
2	HCH5000-02	Nut	6
4	HCH5000-04	Gear Cover	1
5	HCH5000-05	Pinion (With Pinion Gear)	1
6	HCH5000-06	Load Gear	1
7	HCH5000-07	Pinion Shaft With Washer	1
9	HCH5000-09	Gear-Side Plate	1
10	HCH5000-10	Stripper	1
11	HCH5000-11	Load Chain Anchoring	1
12	HCH5000-12	Bottom Hook Assembly	1
13	HCH5000-13	Load Chain Guide	1
14	HCH5000-14	Load Sheave	1
15	HCH5000-15	Top Hook Assembly	1
16	HCH5000-16	Cutter Pin	1
17	HCH5000-17	Chain-End-Fixing Pin	1
18	HCH5000-18	Load Chain	1

No.	Parts No.	Description	Q'ty
19	HCH5000-19	Load Chain Guide Pin	1
20	HCH5000-20	Wheel-Side Plate Assembly	1
21	HCH5000-21	Disc Hub	2
22	HCH5000-22	Brake Disc	1
23	HCH5000-23	Ratchet Gear	1
24	HCH5000-24	Pawl Spring	1
25	HCH5000-25	Pawl	1
26	HCH5000-26	Snap Ring For Pawl Pin	1
27	HCH5000-27	Ratchet Gear Cover	1
28	HCH5000-28	Handwheel	1
29	HCH5000-29	Hand Chain	1
30	HCH5000-30	Washer for Pinion Shaft Nut	1
31	HCH5000-31	Check Nut	1
32	HCH5000-32	Cutter Pin For Check Nut	1
33	HCH5000-33	Handwheel Cover	1

NOTE

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