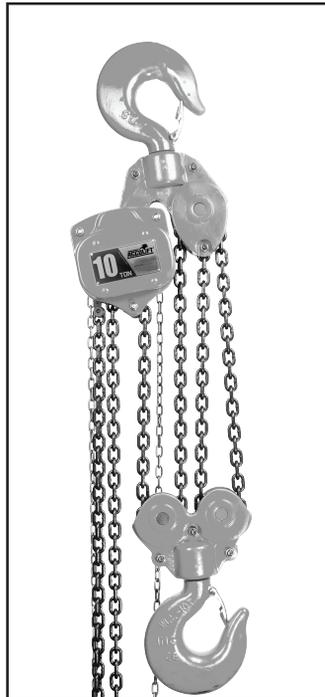


73141-1
MAR.2019

ACCOLIFT®

HAND CHAIN HOIST
1/2 - 20 TONS



www.accomhs.com

NOTICE

It is the responsibility of the owner/user to install, inspect, test, maintain, and operate these hand chain hoists in accordance with ASME B30.16, Safety Standard for Overhead Hoists.

These general instructions deal with the normal installation, operation and maintenance situations encountered with the hand chain hoists described herein. The instructions should not be interpreted to anticipate every possible contingency or to anticipate the final system or configuration that uses these hand chain hoists. Read and observe the instructions stated in the manual furnished with equipment to be used with these hand chain hoists.

These instructions include information for a variety of hand chain hoists. Therefore, all instructions and information may not apply to one specific hand chain hoist. Disregard those portions of the instructions that do not apply.

If the hand chain hoist owner/user requires additional information, or if any information in these instructions is not clear, contact Acco Material Handling Solutions, York, Pennsylvania or the distributor of the hand chain hoist. Do not install, inspect, test, maintain, or operate this hand chain hoist unless this information is fully understood.

⚠ WARNING

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

Only trained and qualified personnel shall operate and maintain this equipment.

Equipment described herein is not designed for, and should not be used for lifting, supporting, or transporting humans.

User should not use this hand chain hoist in conjunction with other equipment unless necessary and / or required safety devices applicable to the system are installed by the user.

Modifications to upgrade, rerate or otherwise alter these hand chain hoists shall be authorized only by the original equipment manufacturer or qualified professional engineer.

PRIOR TO INSTALLATION

Check for damage during shipment. Place claim with carrier if any damage is discovered. DO NOT install or use a damaged hand chain hoist.

Check and verify that structure or other equipment that will support the hand chain hoist has a rated load capacity equal to or greater than the rated load capacity of the hand chain hoist to be used.

OPERATION

Before initial operation of hoist :

1. Read and comply with all instructions and warnings furnished with or attached to hoist.
2. Check lubricant.
3. Check operation of brake.
4. Check that chain is properly seated in sheaves and that chain is not twisted, kinked, or damaged.

Before each shift:

1. Inspect hooks for nicks, gouges, cracks, and signs of pulling apart or twist.
2. Inspect hook latch for proper operation.
3. Check chain for kinks or twists.
4. Check operation of brake.
5. Replace warning label if missing or illegible.

Before operating :

1. Be certain all personnel are clear of the load to be lifted and moved.
2. Make sure load will clear stock piles, machinery, or other obstructions when hoisting and traveling the load.
3. Eliminate any twists or kinks in the load chain.



SAFETY PRECAUTIONS

1. READ these instructions and Safety Standard for Overhead Hoists before installing, operating, or maintaining this equipment.
2. DO NOT lift more than rated load.
3. DO NOT operate hoist when it is restricted from forming a straight line with the direction of loading.
4. DO NOT operate with twisted, kinked, or damaged chain.
5. DO NOT operate if chain is not seated in sheaves or sprockets.
6. DO NOT wrap chain around load or use chain as a sling.
7. DO NOT operate unless load is properly applied to the saddle or bowl of the hook.
8. DO NOT operate if load is applied to the tip of the hook.
9. DO NOT operate with damaged or missing hook latches.
10. DO NOT lift people.
11. DO NOT lift or move loads over people.
12. DO NOT operate with side-pulling or side-loading of load to hoist.
13. DO NOT operate a damaged or malfunctioning hoist.
14. DO NOT operate with other than hand power.
15. DO NOT remove, deface, or obscure warning label or labels on hoist.
16. DO NOT leave load suspended when hoist is unattended unless specific precautions have been instituted and are in place.
17. DO NOT lengthen load chain or repair damaged load chain.
18. DO NOT use chain as a ground for welding.
19. WARN personnel of approaching loads.

INSPECTION AND MAINTENANCE

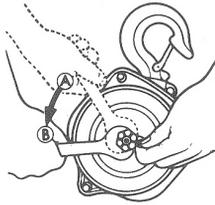
Prior to initial use, all new, altered, and repaired hoists shall be inspected in accordance with Table 2. Thereafter, inspections shall be conducted at intervals shown in Table 1. Items to be inspected are indicated in Table 2 by F (frequent) or P (periodic).

Refer to ASME B30.16 for additional information on inspection, test, and maintenance.

TABLE 1 - FREQUENCY OF INSPECTION

SERVICE*	FREQUENT INSPECTION	PERIODIC INSPECTION
Normal	Monthly	Annually
Heavy	Weekly to Monthly	Semi-Annually
Severe	Daily to Weekly	Quarterly

FIGURE 1



Frequent Inspections - Visual inspection by the operator or other authorized person. This inspection includes listening for unusual sounds while the hoist is operated that may indicate deficiencies.

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

TO ADJUST BRAKE (refer to Figure 1):

1. Fully tighten nut to position A.
2. Slack off nut from position A to position B and insert adjusting spring.

NOTE : Replace brake disc if thickness is less than 0.08 inch.

Periodic Inspections - Audio-visual inspection as for Frequent Inspections, with some disassembly to allow a more detailed inspection if external conditions indicate the need.

TABLE 2 - INSPECTION CHART

In chart, F indicates Frequent Inspection, P indicates Periodic Inspection

LOCATION	CHECK FOR	F	P	LOCATION	CHECK FOR	F	P
Braking mechanism (See Page 4)	Slipping under load	✓		Hook Retaining Members (Pins, Bolts, Nuts)	Not tight or secure		✓
	Hard to release	✓					
Brake Parts				Hook Latch	Damaged; does not close	✓	
	Brake Discs	Glazing				✓	
Pawl; Ratchet Pawl Spring	Oil contamination		✓	Suspension Members (Sheaves, hand- wheels, chain attachments, suspension bolts or pins)	Excessive wear		✓
	Excessive wear		✓		Distortion		✓
	Corrosion; stretch		✓		Cracks	✓	✓
Load Chain (See Page 7)	Stretch		✓	Bearing; Shafts	Excessive wear		✓
	Excessive wear	✓	✓		Distortion		✓
	Twist		✓		Cracks		✓
	Broken, cracked, or damaged links		✓		Inadequate lubrication	✓	✓
	Deposits of foreign material		✓		Distortion		✓
	Inadequate lubrication		✓		Cracks		✓
Hooks (See below)	Chemical damage		✓	Gears	Inadequate lubrication	✓	✓
	Cracks		✓		Distortion		✓
	Deformation		✓		Broken or worn teeth		✓
	5%, not to exceed 0.25 inch in excess of normal throat opening		✓		Cracks		✓
	Any twist from plane of unbent hook		✓	Inadequate lubrication	✓	✓	
	Cracks (dye penetrant, magnetic particle, or other suitable detection method)		✓	Load Block; Suspension Hsg.	Distortion	✓	✓
				Cracks		✓	✓
				Trolley; Supporting Structure	Possible inability to continue supporting imposed loads		✓
			Bolts, Nuts, Rivets	Not tight or secure		✓	
			WARNING Label	Removed or illegible	✓	✓	

HOOKS

Refer to ASME B30.10, Safety Standard for Hooks. Inspect hooks and measure hook throat opening at least once a month. Between regular inspections check visually daily for deformation, distortion, twisting, damage, and missing or damaged hook latches.

Inspect as follows :

1. Measure hook throat opening from metal to metal of the hook as shown by dimension N1 in Figure 2. DO NOT measure from latch to metal. Hook must be replaced when throat opening measurement has increased 5%, not to exceed 0.25 inch over the original throat opening dimension of a new hook, as follows:

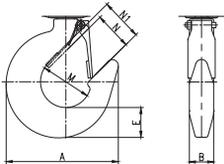


FIGURE 2

CAPACITY Ton	STANDARD HOOK DIMENSION												For maintenance (replacement required)
	A		B		E		M		N		N1		maximum throat opening N1x105% and N+0.25"
	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	
1/2	73	2.874	16	0.63	20	0.787	36	1.417	27.5	1.083	31	1.22	1.28
1	86	3.386	20	0.787	24	0.945	40	1.575	28.5	1.122	33	1.299	1.36
2	113	4.449	24	0.945	30	1.181	50	1.969	35	1.378	41	1.614	1.69
3	133	5.236	28	1.102	42	1.654	54	2.126	41	1.614	45	1.772	1.86
5	152	5.984	36	1.417	46	1.811	61	2.402	44	1.732	50	1.969	2.07
7 1/2	185	7.283	42	1.654	66	2.598	71	2.795	43	1.693	49	1.929	2.03
10	236	9.291	62	2.441	90	3.543	80	3.15	51.5	2.028	66	2.598	2.73
15	270	10.63	65	2.559	90	3.543	110	4.331	60	2.362	90	3.543	3.72
20	323	12.72	79	3.11	118	4.646	120	4.724	85	3.346	94	3.701	3.89

2. Measure hook depth at load bearing point (base, bowl, or saddle) of the hook. Hook must be replaced when wear at load bearing point is 10% of the original depth of the hook load bearing point.
3. Any bend or twist of the hook from the plane of the unbent hook requires replacement of the hook.
4. A hook latch, when required, that is missing shall be replaced.
5. A hook latch, when required, that is inoperative shall be repaired or replaced.
6. A hook with a hook latch that does not close the throat opening of the hook shall be removed from service or moused until the latch is replaced or repaired.
7. Hooks having damage from chemicals, corrosion, or deformation shall be repaired or replaced. Damage in the form of cracks, nicks, and gouges may be repaired by a designated person by grinding longitudinally, following the contour of the hook, provided no dimension of the hook is reduced by more than 10% of the original dimension of a new hook. If the repair reduces the dimension of the hook by more than 10% of the original dimension of a new hook, the hook shall be replaced.

NOTICE

ANY HOOK THAT REQUIRES REPLACEMENT BECAUSE OF EXCESSIVE BENDS, TWISTS, OR THROAT OPENING INDICATES ABUSE OR OVERLOADING OF THE HOIST. THEREFORE, OTHER LOAD-SUPPORTING COMPONENTS OF THE HOIST SHOULD BE INSPECTED FOR POSSIBLE DAMAGE WHEN SUCH CONDITIONS ARE FOUND.

⚠ CAUTION

NEVER REPAIR HOOKS BY WELDING OR RESHAPING. HEAT APPLIED TO THE HOOK WILL ALTER THE ORIGINAL HEAT TREATMENT OF THE HOOK MATERIAL AND REDUCE THE STRENGTH OF THE HOOK.

NEVER WELD HANDLES OR OTHER ATTACHMENTS TO THE HOOK. HEAT APPLIED TO THE HOOK WILL ALTER THE ORIGINAL HEAT TREATMENT OF THE HOOK MATERIAL AND REDUCE THE STRENGTH OF THE HOOK.

CHAIN

Inspect chain at least once a month. Between regular inspections, check visually daily for nicks gouges, weld splatter, corrosion, or distorted links. Inspect chain thoroughly if it does not feed smoothly over load sheaves.

Inspect as follows:

1. Clean chain with solvent before inspection.
2. Test hoist with load and observe operation of chain over load sheaves.
3. Slacken chain and inspect contact points for excessive wear. Refer to Figure 3.
4. Using caliper-type gauge, measure inside length of 11 links. Refer to Figure 4.
Replace chain if measurement exceeds maximum allowable gauge length as follows:

FIGURE 3



FIGURE 4

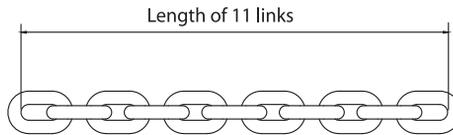


FIGURE 5

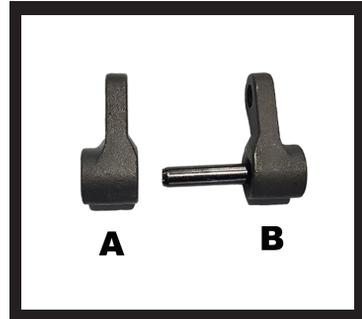


CAPACITY TON	CHAIN WIRE DIAMETER		MAXIMUM ALLOWABLE GAUGE LENGTH
	mm	inch	
1/2	6.3	0.25	11 links = 8.52 inches
1	6.3	0.25	11 links = 8.52 inches
2	7.9	0.31	11 links = 10.26 inches
3	7.1	0.28	11 links = 9.36 inches
5	9.0	0.35	11 links = 12.04 inches
7 1/2	9.0	0.35	11 links = 12.04 inches
10	9.0	0.35	11 links = 12.04 inches
15	9.0	0.35	11 links = 12.04 inches
20	9.0	0.35	11 links = 12.04 inches

FIGURE 6



FIGURE 7



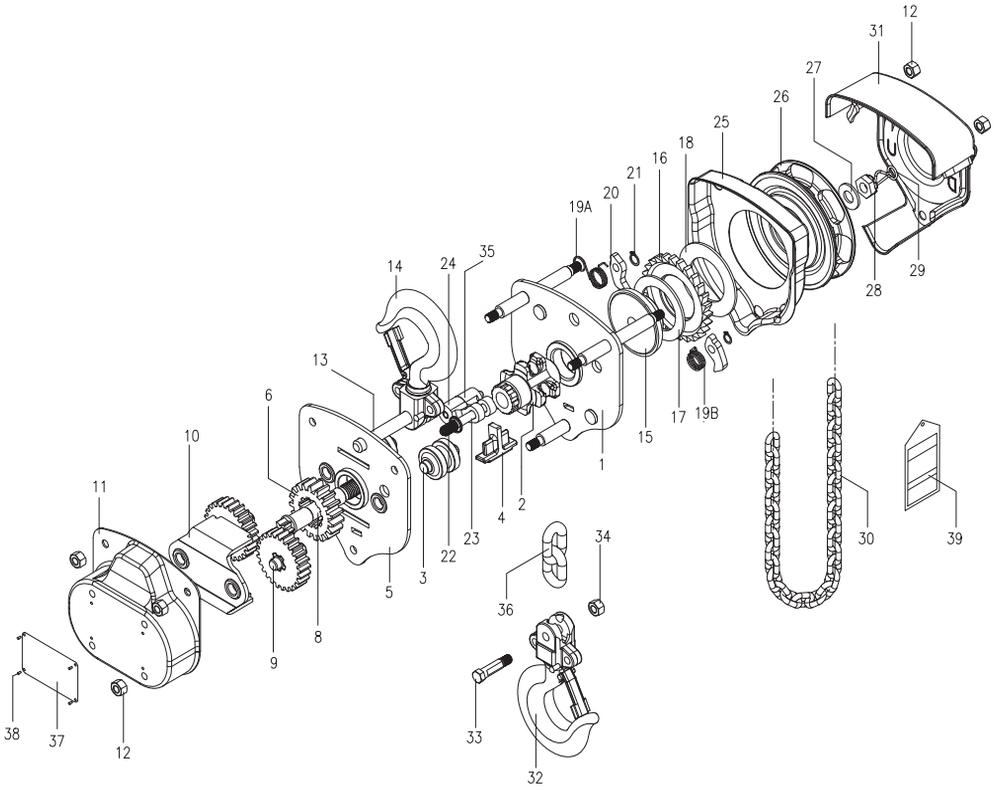
To install end anchor when replacing load chain:

1. Slip End Anchor Pin through end link of chain (Refer to Figure 5).
2. Assemble Part A of End Anchor to Part B (Refer to Figure 7).
3. Assemble End Anchor between Sideplates I and II.
 - a. Insert End Pin through holes in End Anchor parts A and B.
 - b. Eliminate any twist in chain.
 - c. Insert end of End Pin into End Spring, and assemble into Sideplate I (Refer to Figure 6).
 - d. Depress spring with pin until opposite end of pin will slide into hole in Sideplate I.
 - e. Check that pin is securely fastened.

LUBRICATION

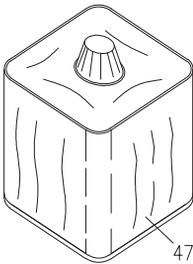
Apply NLGI No. 2 grease to gears as required.
Lubricate load chain with AGMA No. 2 oil.

CHAIN BLOCK EXPLODED VIEW (1/2 - 20 TON)

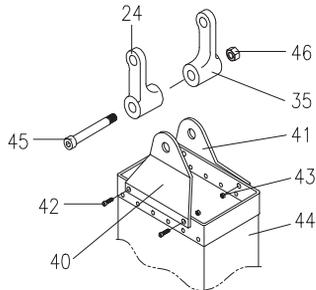


(Optional parts)

Weather Cover



Chain Container (1/2, 1, 2, 3 & 5 Ton)



Item	Description	1/2T	1T	2T	3T	5T	7 1/2T	10T	15T	20T
1	SIDE PLATE I	73140-001		73140-201	73140-301	73140-401				
2	LOAD SHEAVE	73140-002		73140-202	73140-302	73140-402				
3	CHAIN GUIDE	73140-003		73140-203	73140-003	73140-203				
4	CHAIN STRIPPER	73140-004		73140-204	73140-004	73140-204				
5	SIDE PLATE II	73140-005		73140-205	73140-305	73140-405				
6	1ST GEAR	73140-006		73140-206	73140-306	73140-406				
8	PINION SHAFT	73140-008		73140-208	73140-008	73140-208				
9	2ND & 3RD GEAR	73140-009		73140-209	73140-309	73140-409				
10	SUPPORT PLATE	73140-010		73140-210	73140-310	73140-410				
11	GEAR COVER	73140-011		73140-211	73140-311	73140-411				
12	U-NUT	73140-012		73140-212	73140-012	73140-212				
13	TOP HOOK PIN	73140-013		73140-213	73140-013	73140-413				
14	TOP HOOK ASSEMBLY	73140-014	73140-114	73140-214	73140-314	73140-414	72140-514	73140-614	73140-714	73140-814
14-01	HOOK	N/A	N/A	N/A	73140-314H	73140-414H	72140-514H	73140-614H	73140-714H	73140-814H
14-02	TOP FRAME A	N/A	N/A	N/A	73140-314A	73140-414A	72140-514A	73140-614A	73140-714A	73140-814A
14-03	TOP FRAME B	N/A	N/A	N/A	73140-314B	73140-414B	72140-514B	73140-614B	73140-714A	73140-814A
14-05	U-NUT	N/A	N/A	N/A	73140-314C	73140-414C	73140-514C			
14-07	SPRING WASHER	N/A	N/A	N/A	N/A	N/A	N/A	N/A	73140-714D	73140-814D
14-08	NUT	N/A	N/A	N/A	73140-314E	73140-414E				
14-11	HEX BOLT	N/A	N/A	N/A	73140-314F	73140-414F				
14-12	HEX WRENCH BOLT	N/A	N/A	N/A	73140-314G	73140-314G	73140-514G	73140-714G		
14-13	SAFETY LATCH SPRING	N/A	N/A	N/A	73140-314S	73140-314S	73140-514S		73140-714S	73140-814S
14-14	SAFETY LATCH(c)	N/A	N/A	N/A	73140-314L	73140-414L	73140-514L		73140-714L	73140-814L
14-15	HEX BOLT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	73140-714M	73140-814M
14-16	HEX NUT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	73140-714N	73140-814N
14-17	SPRING WASHER	N/A	N/A	N/A	N/A	N/A	N/A	N/A	73140-714P	73140-814P
15	HUB	73140-015		73140-215	73140-015	73140-215				
16	RATCHET GEAR	73140-016		73140-216	73140-016	73140-216				
17	DISC A	73140-017		73140-217	73140-017	73140-217				
18	DISC B	73140-018		73140-218	73140-018	73140-218				
19A	PAWL SPRING A	73140-019A		73140-219A	73140-319A	73140-419A				
19B	PAWL SPRING B	73140-019B		73140-219B	73140-019B	73140-219B				
20	PAWL	73140-020		73140-220	73140-020	73140-220				
21	SNAP RING	73140-021		73140-221	73140-021	73140-221				
22	END SPRING					73140-022				
23	END ANCHOR PIN	73140-023		73140-223	73140-023	73140-223				
24	END ANCHOR A(b)	73140-024		73140-224	73140-024	73140-224				
25	BRAKE COVER	73140-025		73140-225	73140-325	73140-425				
26	CHAIN WHEEL(OVER LOAD)	73140-026	73140-126	73140-226	73140-326	73140-426				
27	WHEEL WASHER					73140-027				
28	PINION NUT					73140-028				
29	COTTER PIN					73140-029				
30	HAND CHAIN					70011-7				
31	WHEEL COVER	73140-031		73140-231	73140-331	73140-431				
32	BOTTOM HOOK ASSEMBLY	73140-032	73140-132	73140-232	73140-332	73140-432	73140-532	73140-632	73140-732	73140-832
32-01	BOTTOM FRAME	N/A	N/A	N/A	73140-332A	73140-432A	73140-532A	73140-632A	73140-732A	73140-832A
32-02	AXLE	N/A	N/A	N/A	73140-332B	73140-432B				
32-03	SHEAVE	N/A	N/A	N/A	73140-332C	73140-432C				
32-04	NEDDLE BEARING	N/A	N/A	N/A	73140-332D	73140-432D				
33	HOOK BOLT	73140-033		73140-233	73140-333	73140-433			N/A	N/A
34	U-NUT	73140-034		73140-234	73140-034	73140-434			N/A	N/A
35	END ANCHOR B(b)	73140-035		73140-235	73140-035	73140-235				
36	LOAD CHAIN	70011-1		70011-3	70011-5	70011-6				
37	LABEL (a)	73140-037	73140-137	73140-237	73140-337	73140-437	73140-537	73140-637	73140-737	73140-837
38	RIVET					73140-038				
39	WARNING LABEL(A)					68083				
OPTION(CHAIN BOX PART)										
24	END ANCHOR A	73140-024A		73140-224A	73140-024A	73140-224A				
35	END ANCHOR B	73140-035B		73140-235B	73140-035B	73140-235B				
40	CONTAINER HANGER A	73140-040		73140-240	73140-040	73140-240				
41	CONTAINER HANGER B	73140-041		73140-241	73140-041	73140-241				
42	HEX WRENCH BOLT					73140-042				
43	U-NUT					73140-043				
44	CHAIN CONTAINER ASS'Y	73140-044		73140-244		73140-444	73140-644			
45	HANGER BOLT	73140-045		73140-245	73140-045	73140-245				
46	U-NUT	73140-046		73140-246	73140-046	73140-246				
47	WEATHER COVER	73140-047		73140-247	73140-047	73140-447		73140-647	73140-747	73140-847

NOTE:

- (a) Not shown. Attached to load block. Replace if missing or not legible.
- (b) Not Shown. Refer to Figure 7.
- (c) Not Shown. Replace if missing, damaged, or inoperative.

NOTICE

TO ORDER PARTS: Provide product name and serial number, hand chain hoist capacity, part number, part description, and quantity required. Use only Acco authorized replacement parts in the service and maintenance of this hand chain hoist.

GENERAL CONDITIONS OF WARRANTY

WARRANTIES: The Seller warrants to the original using Buyer thereof that the goods sold under this Agreement are free from defects in workmanship and materials for a period of two years from the date of shipment to the original using Buyer. No other express warranties are given and no affirmation of Seller or Seller's agents, by word or action, shall constitute a warranty. No warranty is made for components and accessories made by others when such items are warranted by their respective manufacturers.

Installation or operation of the equipment in any manner other than as recommended by Seller, shall void the warranty.

Any variations in details between the goods furnished herein and those covered in Buyer's specifications are due to standards of manufacture not to be construed as exceptions to the specifications.

DISCLAIMER OF IMPLIED WARRANTIES:

(a) SELLER MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO THE GOODS SOLD UNDER THIS AGREEMENT.

(b) This sale is made WITHOUT ANY WARRANTY BY SELLER THAT THE GOODS ARE SUITABLE FOR ANY PARTICULAR PURPOSE..

(c) Buyer hereby waives all other warranties, guarantees, obligations, liabilities, rights, and remedies arising by law or otherwise including any obligation or liability of the Seller arising from tort, and Buyer shall indemnify Seller from any liability, loss, damage, or claim arising from Buyer's tortious use of the goods sold hereby.

REMEDIES:

(a) Under no conditions shall any goods be returned to Seller without it's prior written consent.

(b) The Buyer's sole and exclusive remedy for breach of any warranty is limited to Seller furnishing, at it's expense, duplicate or repaired parts F.O.B. Seller's plant with installation at Buyer's expense if discovery of a claimed defect occurs during the allowable warranty period, and if Seller's inspection determines a defect exists.

(c) The quantity of material shown by invoice shall in all cases govern settlement for shortages, unless notice of shortage, appropriately documented, is given to the carrier and the Seller upon delivery by the Carrier.

(d) Claims for errors, deficiencies or imperfections shall be deemed waived by the Buyer unless Seller is notified in writing of the basis of such claims within 10 days after discovery of claimed defect and such discovery occurs within the warranted period.

(e) Neither Buyer nor User shall be entitled under this Agreement to recover from Seller any incidental or consequential damages of any nature including but not limited to the cost of any labor expended by others in connection with the goods sold hereby by reason of any alleged nonconformity or breach of warranty on the part of the Seller, nor costs of material or account thereof, nor any lost profits whether determinable or speculative.

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