



CAUTION



THIS WINCH IS NOT DESIGNED TO BE USED FOR HOISTING OR TRANSFER OF PEOPLE OR HOISTING LOADS OVER PEOPLE-OCCUPIED AREAS.

1. NEVER leave a weight hanging by the winch while the winch is unattended, as unauthorized persons may attempt to operate the winch, thereby creating an unsafe condition.
2. NEVER exceed maximum rated line pull (stamped on winch). Exceeding this rating could cause failure of the winch, serious injury to the operator, bystanders and damage to equipment.
3. ALWAYS keep winch maintained in accordance with this instruction sheet. REMEMBER: Worn parts cause unsafe conditions.
4. Winch components can be affected by chemicals, salts and rust and should be examined for unsafe conditions before operating.
5. NEVER alter the mechanics of the winch (Example: do not add to the handle length to make easier lifting.).
6. NEVER use two or more winch units to lift a load that is greater than the load rating of any single unit. A shifting load may place the entire load on one unit, causing sudden failure of equipment, property damage and serious injury.
7. Apply the load evenly. Do not jerk or bounce the load or allow the load to swing. Avoid violent motion and shock loads. This type of operation requires equipment with higher load ratings.
8. Each time a load is to be lifted, test winch for safe operation by lifting the load a few inches first.
9. ALWAYS keep hands away from load-bearing cables, ropes, sheaves, drums and pulleys while operating.

REMAIN CONSTANTLY AWARE THAT SAFE OPERATING IS YOUR RESPONSIBILITY.

OWNER'S MANUAL & PARTS LIST BRAKE WINCH

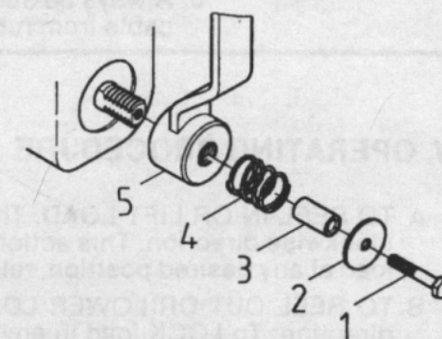
WARNING: THIS EQUIPMENT SHOULD NOT BE INSTALLED, OPERATED OR MAINTAINED BY ANY INDIVIDUAL WHO HAS NOT READ ALL THE CONTENTS OF THIS OWNER'S OPERATING MANUAL.



FAILURE TO READ AND APPLY THE INSTRUCTIONS AND WARNINGS CONTAINED HEREIN CAN RESULT IN SUDDEN FAILURE OF EQUIPMENT, PROPERTY DAMAGE AND SERIOUS INJURY.

I. ASSEMBLY INSTRUCTIONS

- A. HANDLE.** Insert handle (Item 5, Fig. 1) on threaded brake assembly shaft. Thread handle to point of engagement (touching) of brake pad.
- B. HANDLE RETAINER ASSEMBLY.** Insert bolt (Item 1, Fig. 1) through flotwasher (Item 2, Fig. 1), spacer (Item 3, Fig. 1), and spring (Item 4, Fig. 1) spring will fit over spacer. Recheck Fig. 1 to insure proper order of assembly. Install bolt containing assembled retainer parts (Fig. 1) into threaded end of brake shaft and tighten bolt securely.



IMPORTANT

Proper installation is important for maximum braking performance. Handle retainer assembly permits free action of brake and handle. No backing handle off shaft. No locking of handle away from brake. RECHECK ASSEMBLY BEFORE USE

Fig. 1: Handle Retainer Assembly

II. MOUNTING INSTRUCTIONS

- A.** This winch is designed to be attached to a mounting plate or structure capable of supporting the load that it is intended to pull (lift).
- B.** The winch should be mounted, using three 3/8" dia. S.A.E. Grade 5 bolts (not supplied). Two bolts should attach the winch to the mounting structure utilizing the outside rear holes or slots. The third bolt should be inserted through the winch frame and mounting structure in a manner to utilize the foremost remaining frame slot (hole) (Fig. 2).

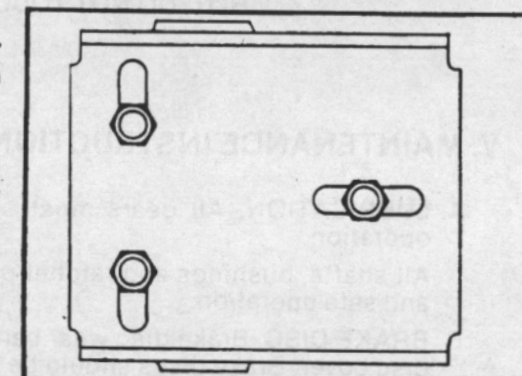


Fig. 2: Mounting Instruction

III. CABLE ASSEMBLY INSTRUCTIONS

- A. CABLE ATTACHMENT.** This winch is designed for up to 95 ft. 1/4" dia., 7 x 19 galvanized aircraft-quality cable.
 1. Feed cable onto top of drum (Item 7, Fig. 3). From inside drum, thread the cable through one round hole in the drum side, until it extends 1-1/2" past the two square holes.
 2. Clamp the cable to the outside of the drum with keeper parts (Items 8, 9, 10, Fig. 3). Be sure that carriage bolt heads are on the inside of winch drum.

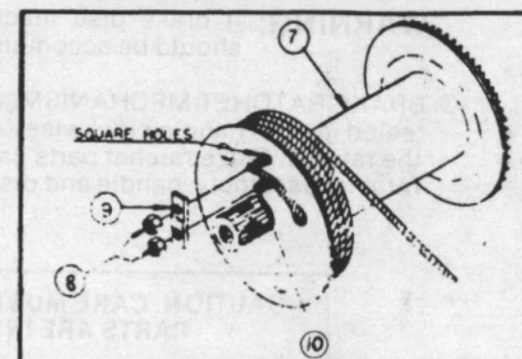


Fig. 3: Cable Installation

CAUTION:



1. Always be sure cable is strong enough to support the load to be lifted.
2. Always inspect cable and attachment hook before each use to insure they are not damaged.
3. Replace cable if worn, frayed or kinked. If cable or hook breaks, the cable can act like a whip and inflict serious injury to anyone in the path of its movement.
4. Never stand alongside winch cable, or guide the cable with your hands.
5. Never fully extend cable and ALWAYS keep three (3) complete wraps of cable around drum.
6. Always be sure cable is pulling straight off winch—not at an angle. This will prevent cable from rubbing against winch drum, avoiding cable damage.

IV. OPERATING PROCEDURE

- A. TO REEL IN OR LIFT LOAD. This winch is designed to lift a load (reel in) by turning the hand crank in a clockwise direction. This action will produce a clicking sound inside the winch mechanism. To LOCK the load at any desired position, release handle slowly.
- B. TO REEL OUT OR LOWER LOAD. To lower load (reel out), turn the hand crank in a counter-clockwise direction. To LOCK load in any desired position, turn handle crank clockwise until at least two (2) clicks (approximately 8" movement of handle) are heard inside the winch mechanism before releasing handle.

CAUTION: If hand slips off handle while turning counter-clockwise, the brake will prevent the handle from spinning rapidly backwards. NOTE: The brake is not fully locked until the handle is turned clockwise far enough to hear two (2) clicks of the ratchet.

WARNING: Sufficient load must be applied to the cable to overcome internal resistance and operate brake properly. NEVER CONTINUE TURNING THE HANDLE COUNTER-CLOCKWISE IF THE CABLE DOES NOT KEEP MOVING OUT. This will disengage the brake mechanism and can create an unsafe or hazardous condition.

The brake mechanism under continuous long periods of lift and lower movement will get HOT. DO NOT TOUCH BRAKE MECHANISM UNDER THESE CONDITIONS.

V. MAINTENANCE INSTRUCTIONS

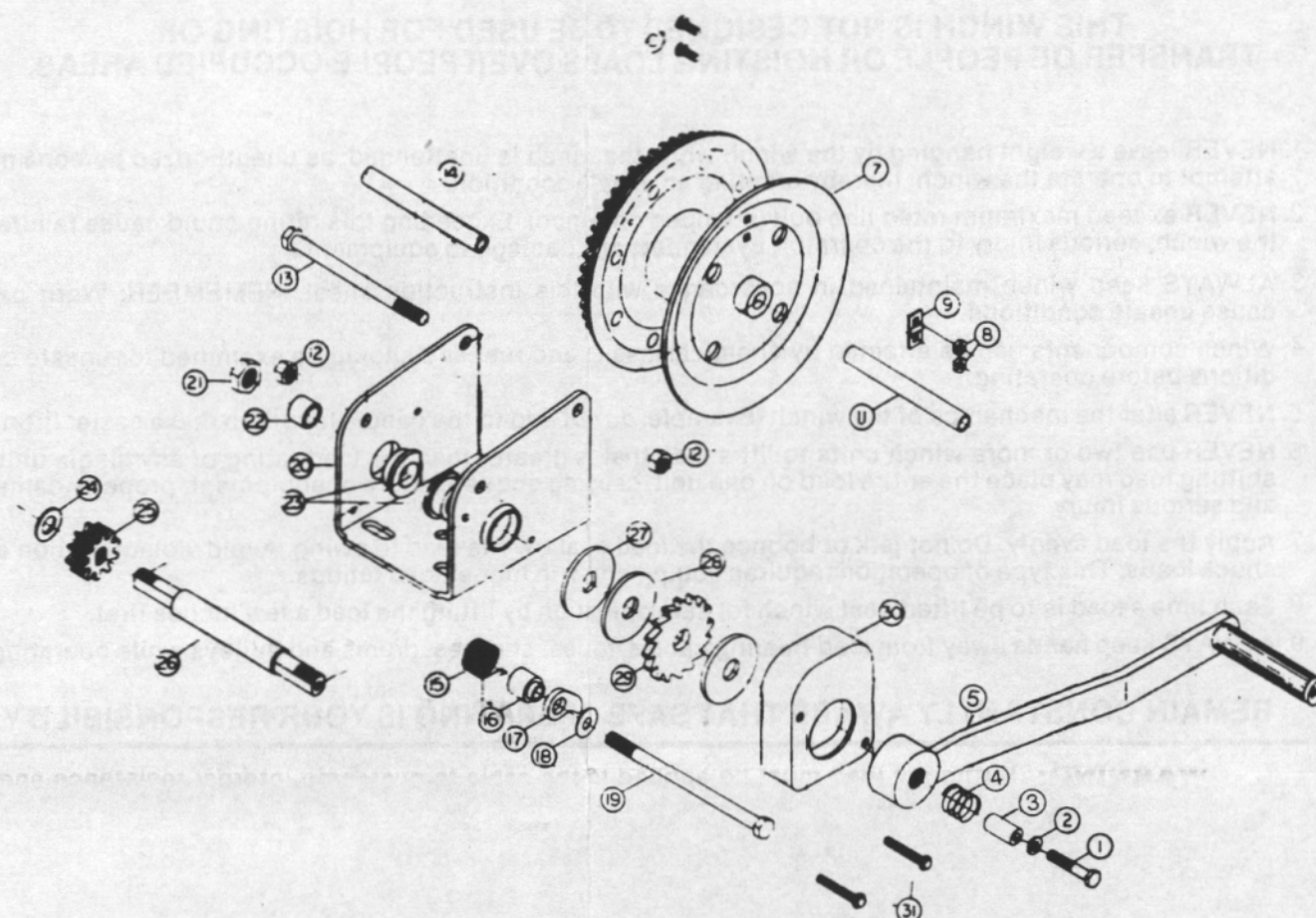
- A. LUBRICATION. All gears must be clean and lubricated (auto-type grease) to insure proper and safe operation.
- All shafts, bushings and ratchet parts must be clean and wet with oil (auto-type 10W-30) to insure proper and safe operation.
- B. BRAKE DISC. Brake disc wear can be inspected by removing handle retainer assembly, handle and brake disc cover. Brake discs should be replaced if the thickness is less than 1/16", cracked or broken. DO NOT USE OIL OR GREASE ON FIBRE BRAKE FACES.

WARNING: If brake disc mechanism operates intermittently or erratically, brake disc inspection should be accomplished.

- C. BRAKE RATCHET MECHANISM. Check ratchet operation by listening for "clicking sound" when cable is reeled in (turn handle clockwise). Also, when the cable is reeled out, there will NOT be a clicking sound of the ratchet. Brake ratchet parts can be inspected for worn parts and unsafe conditions by removing handle retainer assembly, handle and disc cover.

CAUTION: CARE MUST BE TAKEN DURING REASSEMBLY TO INSURE THAT ALL PARTS ARE INSTALLED CORRECTLY FOR PROPER OPERATION.

VI. PARTS LIST



ITEM NO.	DESCRIPTION
1	1/4-20x1 1/2 Hex Screw
2	1/4" Lockwasher
3	Handle Retainer Spacer
4	Spring
5	Handle
7	Reel Assembly
8	10-24 Hex Nut (2)
9	Cable Keeper
10	10-24x5/8 Carriage Bolt (2)
11	Front Frame Spacer
12	3/8 Locknut (2)
13	3/8x5 Reel Bolt
14	Back Frame Spacer
15	Pawl Spring
16	Pawl Spacer

ITEM NO.	DESCRIPTION
17	Pawl
18	Washer
19	3/8x6 Pawl Bolt
20	Frame
21	9/16 Locknut
22	Bearing
23	Bushing (2)
24	Washer
25	Pinion Gear (5)
26	Pinion Shaft
27	Brake Backup Plate
28	Brake Pad (2)
29	Ratchet
30	Cover
31	10-32x1 1/2 Cover Screw (2)