

Hollister-Whitney Elevator Corp.

**INSTALLATION, MAINTENANCE, AND
TROUBLESHOOTING INSTRUCTIONS**

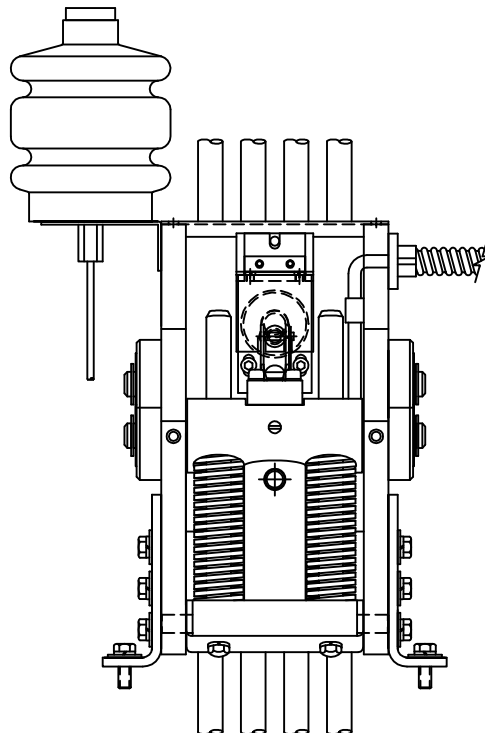
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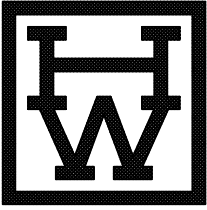
Model #618

Hollister-Whitney "Rope Gripper"™

(Patented)

CSA Certification File #88181





Hollister-Whitney Elevator Corporation

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Quincy, Illinois 62305
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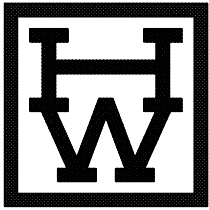
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CONTENTS:

1. Introductory letter (page 1 & 2)
2. Rope Gripper Ratings Chart
3. Bulletin 1130A - Model #618 (page 1 -10)
 - Instructions
 - Testing
 - Operation
 - Troubleshooting
3. CSA Certificate of Compliance
4. EC Type-Examination Certificate
5. Dimensional Drawing
6. Assembly Drawing with Parts List



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HOLLISTER-WHITNEY "ROPE GRIPPER™" MODEL #618

Our latest patented **"ROPE GRIPPER™"**, Model #618, is a compact economical model that has been designed to meet the European requirement for an up-direction overspeed protection device. It is designed for 1800# (816 kg) at 200 f.p.m. (1 m/s). Higher capacities are available with 2:1 roping.

When the elevator is operating, the jaws of the **"ROPE GRIPPER™"** are held open by power on the electric solenoid trigger mechanism allowing the elevator ropes to run freely through the **"ROPE GRIPPER™"**.

During an overspeed, a governor overspeed contact opens disconnecting power to the trigger solenoid releasing the trigger which allows the springs to extend, forcing the non-metallic brake linings of the jaws together, clamping the elevator ropes; thus stopping the elevator. The stop from the **"ROPE GRIPPER™"** is more gradual than the car safety, and depending on load, may approach the normal slow-down rate.

The governor overspeed switch, and a switch on the **"ROPE GRIPPER™"** disconnect and prevent power to the elevator motor and brake until the governor switch and **"ROPE GRIPPER™"** have been reset.

If unintended motion is implemented, the **"ROPE GRIPPER™"** will be activated when the car leaves the floor with the doors opened, stopping the car.

When an overspeed or unintended motion occurs, an elevator technician should be dispatched to correct the problem and reset the governor switch or the unintended motion circuits, and the **"ROPE GRIPPER™"**.

The **"ROPE GRIPPER™"** is reset by moving the valve handle up which closes the hydraulic valve, and allows manual pumping with the hand pump. This action will fully compress the springs and allows the solenoid trigger to latch. When fully loaded, turn the test switch to the on (normal "ON") position and move the valve handle down. This action opens the valve, allows the solenoid trigger to keep the **"ROPE GRIPPER™"** jaws opened, and closes the switch which allows the elevator to run (normal operation). The test position on the test switch disconnects the A.C. charging circuit, but tests the battery power which holds the trigger solenoid in the "latched" position. The "OFF" position of this switch activates the **"ROPE GRIPPER™"**.

(cont'd.)

(cont'd.)

The solenoid of the **"ROPE GRIPPER™"** is supplied with a 6 volt D.C. coil which is connected to the battery of an emergency power supply such as the emergency lighting battery. This keeps the **"ROPE GRIPPER™"** from activating during a power failure.

NOTE: It is important that the circuits for the **"ROPE GRIPPER™"** are designed not to disconnect the solenoid during a power failure. Another contact on the governor overspeed switch would be preferable. The current draw for 6 volts is approximately 0.18 amps. When supplied with a Hollister-Whitney battery pack, a 6V battery is used with a charging circuit of 120V A.C. and can prevent activation with a 24 hour power outage.

Hollister-Whitney #618 "Rope Gripper"™ Ratings

(Patented)

CSA Certification File #88181

		"ROPE GRIPPER"™ MODEL			
		#618			
		MAX. OUT TO OUT OF CABLES:	3-3/8" (86 mm)		
		POWER SUPPLY:	1A, 120V ac, 1 PH, 60Hz.		
		CONTACT RATINGS:	6A, 250V ac, 0.15A, 250V dc		
1:1 ROPING	MAXIMUM RATINGS	RATED SPEED:	250 fpm (1.27 m/s)		
		"ROPE GRIPPER" TRIPPING SPEED:	303 fpm (1.54 m/s)		
		CAR RATED LOAD: (with 40 to 50% Counterweights)	1,800 lbs (816 kg)		
		CAR, CAR LOAD, COUNTERWEIGHT, HOIST AND COMPENSATION ROPE MASS	11,000 lbs (4,990 kg)		
		DOOR ZONE:	10 inches (254mm)±		
		MIN.	CAR RATED LOAD:	600 lbs (272 kg)	
	CAR & COUNTERWEIGHT MASS:		2,280 lbs (1,034 kg)		
	2:1 ROPING		MAXIMUM RATINGS	RATED SPEED:	175 fpm (.89 m/s)
				"ROPE GRIPPER" TRIPPING SPEED:	225 fpm (1.14 m/s)
		CAR RATED LOAD: (with 40 to 50% Counterweights)		3,600 lbs (1,633 kg)	
CAR, CAR LOAD, COUNTERWEIGHT, HOIST AND COMPENSATION ROPE MASS		22,000 lbs (9,979 kg)			
DOOR ZONE:		10 inches (254mm)±			
MIN.	CAR RATED LOAD:	1,200 lbs (544 kg)			
	CAR & COUNTERWEIGHT MASS:	4,560 lbs (2,068 kg)			
	SHIPPING WEIGHT:	90 lbs (41 kg)			

Hollister-Whitney "Rope Gripper™" Instructions
for Model #618
(Patented)

WARNING: WHENEVER WORKING ON THE "ROPE GRIPPER™" KEEP HANDS CLEAR.
FORCES CREATED CAN CRUSH FINGERS.

GRIPPER MOUNTING CHANNELS:

THE FRAMEWORK SUPPORTING THE "ROPE GRIPPER™" MUST WITHSTAND UPWARD AND DOWNWARD FORCES OF APPROX. 3,000 lbs. IT MUST ALSO PREVENT SLIDING AND BE SECURELY FASTENED TO THE MACHINE BEAMS. THE TRACTION MACHINE MUST ALSO BE PREVENTED FROM SLIDING.

INSTALLATION OF "ROPE GRIPPER™"

- Be sure security set screws are touching and holding the rotating shaft in the loaded position as shown.
- Remove both connecting arms by removing the four snap rings.
- Remove movable shoe assembly.
- Mount "Rope Gripper™" to mounting channels with 3/8" bolts through the mounting angles.
- Align the "Rope Gripper™" so that the stationary shoe lining barely touches the ropes from top to bottom and from side to side. Slight misalignment may cause uneven and excessive lining wear.
- Securely fasten "Rope Gripper™" angle bolts (5 bolts per side). Make sure they are very tight.
- Double check alignment making sure the ropes touch the stationary shoe lining evenly.
- Replace movable shoe assembly.
- Replace connecting arms with chamfered corners facing inside and secure the four snap rings.
- Wiring from "Rope Gripper™" to power pack unit is colorcoded:

Black -- RG3
Red -- RG4
Orange -- RG5
Blue -- RG6
Green -- Ground

- Connect terminals RG1, RG2, RG4, RG5, RG6 AND RG7 to elevator control. Check control diagram for proper connection.
- After wiring, turn on ("RUN") power pack unit test switch. Trigger solenoid on back of "Rope Gripper™" should energize. If it doesn't, check control wiring. When it energizes, loosen security set screws. If arms move backward, use hand pump. The hand pump is activated by moving the valve lever up. This action will fully compress the springs and allow the solenoid trigger to latch. When fully loaded, the valve handle is moved down. This action opens the valve, allows the solenoid "trigger" to keep the "Rope Gripper™" jaws opened, and closes the switch which allows the elevator to run (normal operation).
Security set screws must be completely removed or damage may result when activating "Rope Gripper™".
Set screws can be stored in bottom of power pack unit.
- Unit is now ready for test and lining wear in.

TEST:

- With the hand pump valve lever in "down" position and test switch on (RUN position), the "Rope Gripper™" should be in the ready position not clamping the ropes.
- Turn off the test switch (GRIP position). This activates the "Rope Gripper™" and clamps the ropes. Be sure, when clamping the ropes, that contacts on the "Rope Gripper™" stop or prevent power from being applied to the motor and machine brake.
- Re-set "Rope Gripper™" once again using hand pump with the valve lever in "up" position.

LINING WEAR IN:

Run the car in the slow speed from top to the bottom and wipe down the ropes removing dirt or excess oil and grease. WARNING: KEEP HANDS CLEAR. After cleaning the ropes in this manner, jump terminals RG5 to RG6 and run the car in slow speed from top to bottom with the test switch "OFF" in the GRIP position. The "Rope Gripper™" will clamp the ropes with a light pressure and the linings will begin to wear. As the linings wear, the rotating shaft will move backwards in its slot and will turn the corner and begin to move up the cam. Once the rotating shaft has turned the corner, stop the car and remove the jumper from RG5 to RG6. Note that the connecting arms move upward about 1/2" during the wear-in (Rotating shaft end).

TESTING ALL CIRCUITS:

The following three tests should be made while the car is running in slow speed.

Test both the up and down directions.

During each test the "Gripper™" should:

- A - Grab the ropes
- B - Stop the car
- C - Open the control safety circuits disconnecting power to the motor and machine brake.

- 1.- Turn off the power pack test switch and observe A, B, and C above.
- 2.- Manually open the governor overspeed switch and observe A and B. Item C above is caused by the governor.
- 3.- With the car outside of the door zone, open the door or open the door lock circuit. If our suggested circuits have been followed, the "Rope Gripper™" will not apply. Power to the motor and brake should be disconnected and the brake should stop the car. See test procedure for unintended motion.

See test procedure for compliance with various codes.

IMPORTANT:

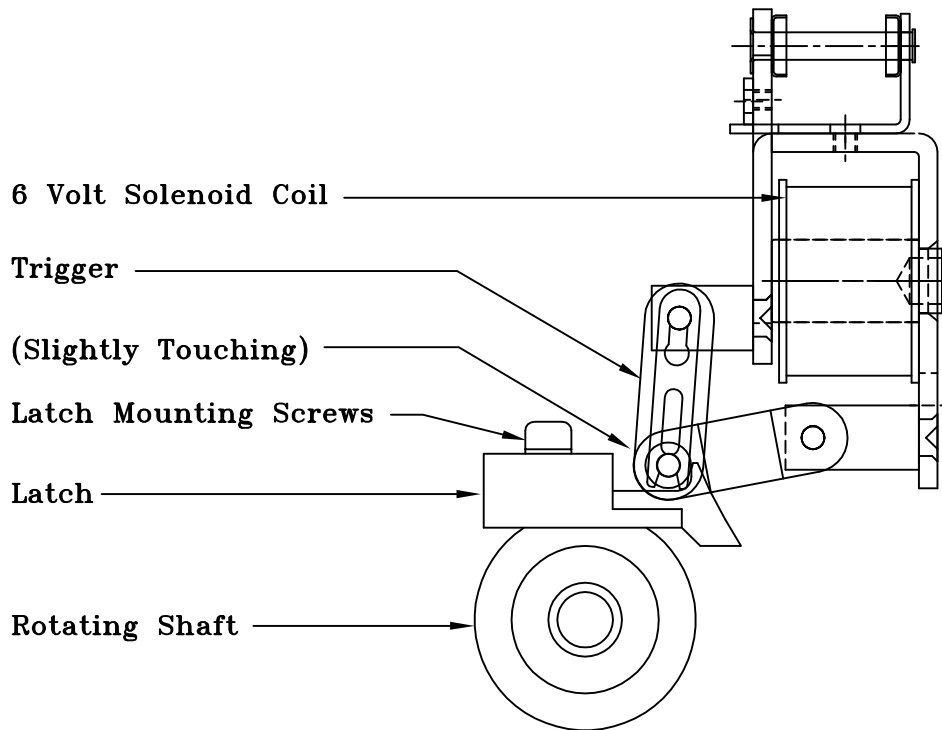
WHEN ROTATING SHAFT IS WITHIN 1/4" OF THE END OF THE SLOT, THE "ROPE GRIPPER™" LINING MUST BE RE-ADJUSTED, AND/OR THE LINING REPLACED.

ADJUSTING AND MAINTENANCE:

LINING REPLACEMENT - As the lining wears, the rotating shaft will move towards the end of the cam.

Lining wear is unlikely, however, should it occur shim spacers should be added between the blocks and the movable shoe. This should bring the rotating shaft toward the bottom of the cam. Check to ensure that the rotating shaft will at least turn the corner and move up the cam 1/2". When the grooves in the lining have worn to approximately 3/16" deep, new linings should be installed.

First, reload the "Rope Gripper™" using manual operation. Once in the loaded position the security set screws should be installed and tightened so they touch the rotating shaft. For new linings follow the procedure under "Installation of Gripper". The existing lining can be used by removing the bolts that hold the blocks to the movable shoe, placing lining wear shim spacers under the blocks and reinstalling and tightening the bolts. With the movable shoe connected, carefully remove the security set screws. Use hand pump if necessary so that the rotating shaft does not move backward when removing the security set screws. The "Rope Gripper™" is now ready for operation with the rotating shaft in position near the bottom of the cam.
When needed, be sure new linings are installed as soon as possible.



TRIGGER MECHANISM

FLUID LEVEL:

During normal operation ("Rope Gripper™" not activated), the fluid level in the reservoir boot may be checked. Remove the reservoir cap to check that the bellows is approximately one half to three quarters full of SHC 524 Mobil Synthetic Hydraulic Oil. Before re-capping the reservoir, first push down on the bellows to let some air out.

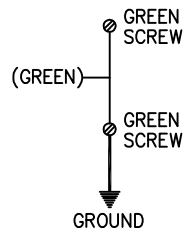
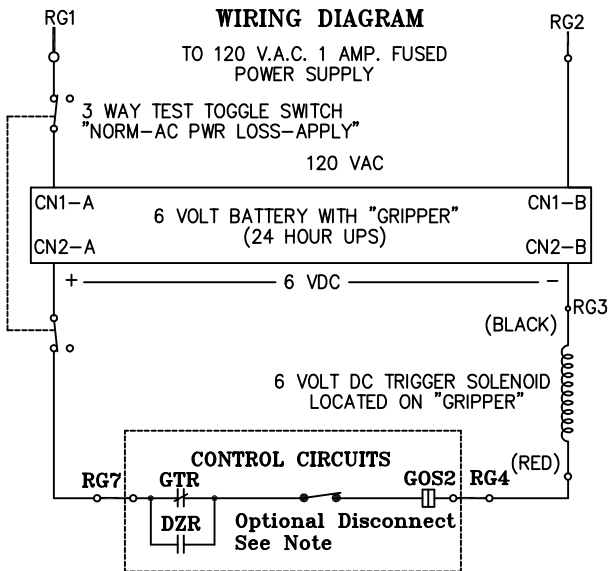
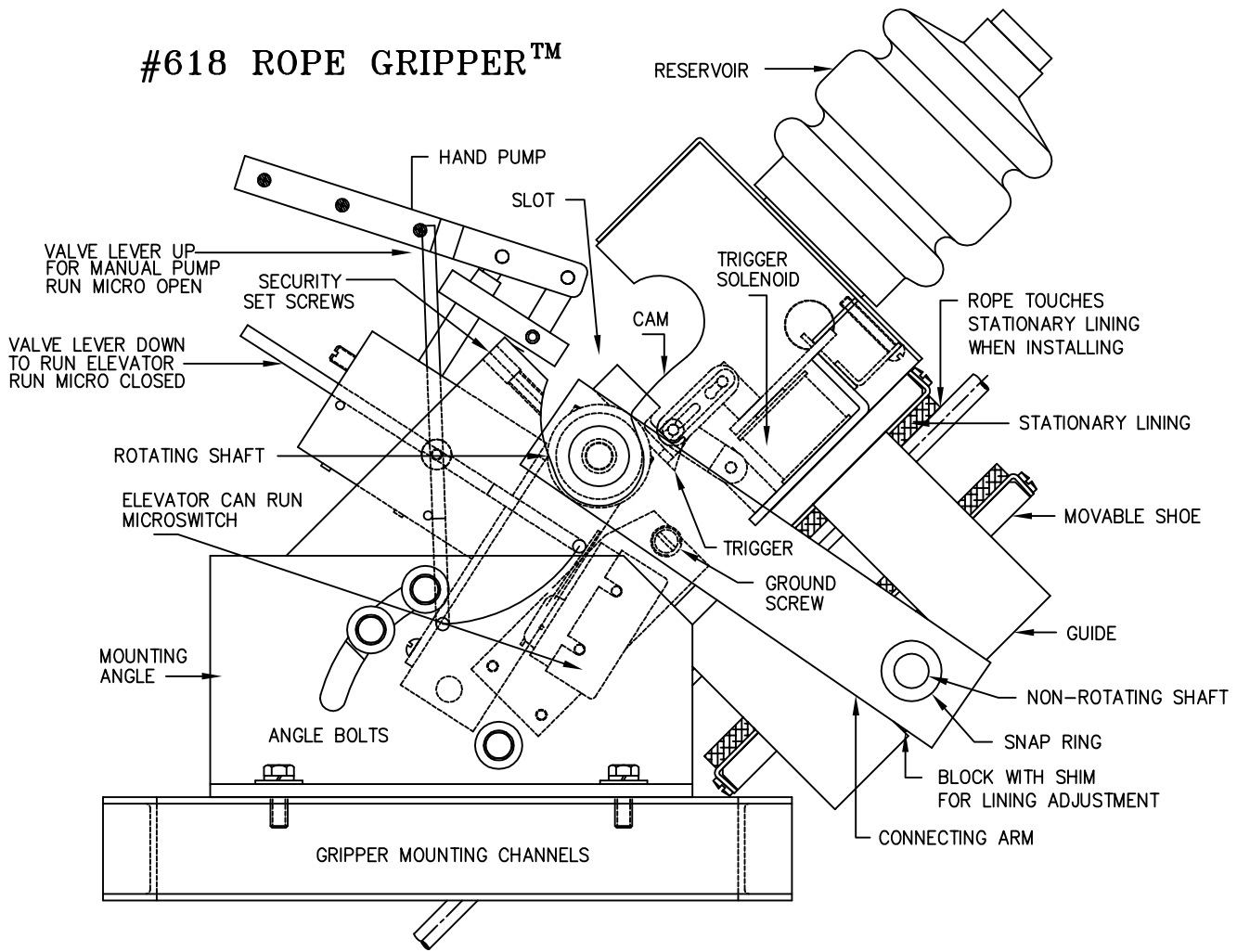
WIRE ROPE LUBRICATION:

Proper lubrication of the ropes will not affect "Rope Gripper™" operation. Use a high friction lubricant such as Nylube Cable Care # 65 or American Oil Vitalife # 600. Do not over lubricate.

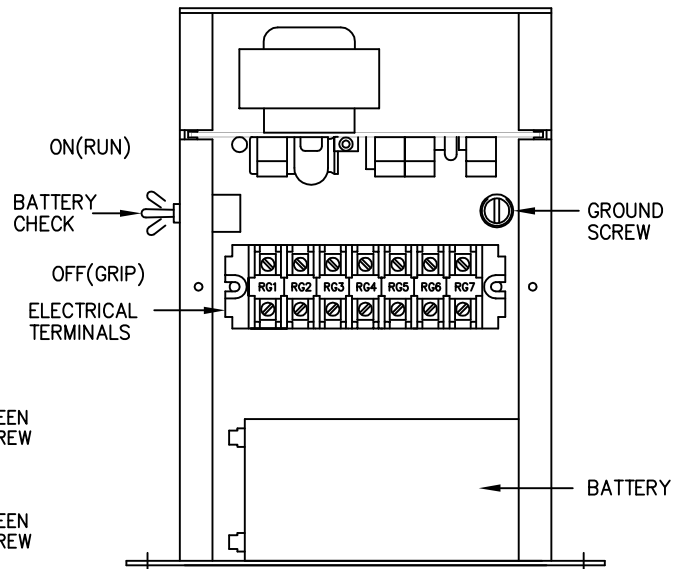
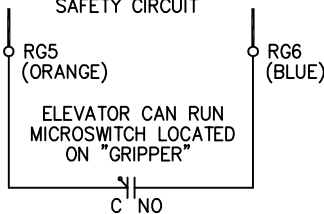
GRIPPER LUBRICATION:

Apply a thin layer of a general purpose grease lubricant to the cam surface, the trigger and latch mechanism, and the four movable shoe guides.

#618 ROPE GRIPPER™



TO ELEVATOR CONTROLLER
CONNECT IN SERIES WITH
SAFETY CIRCUIT



POWER PACK UNIT

Hollister-Whitney "Rope Gripper™"

TEST PROCEDURE FOR COMPLIANCE WITH CAN/CSA B44, ASME A17.1-2000, & EN81 SAFETY CODE FOR ELEVATORS

1. POWER INTERRUPTION TEST:

Run the car in slow speed and turn off the toggle switch (GRIP position) on the side of the power pack unit.

This will activate the "Rope Gripper™" causing it to clamp the ropes and stop the car. When the "Rope Gripper™" is activated, the "ELEVATOR CAN RUN" microswitch will open and signal the controls to interrupt power to the driving motor and machine brake.

2. ASCENDING CAR OVERSPEED TEST:

With an empty car, overspeed the car in the up direction while keeping the machine brake open. The governor overspeed switch will activate the "Rope Gripper™". The "Rope Gripper™" will stop the car before the counterweight strikes the buffer or at least reduce the car speed to the speed for which the buffer is designed. If it is impractical to overspeed the car, run the car up empty at high speed with the machine brake held open and manually trip the governor overspeed switch. The "Rope Gripper™" will cause the car to slow down and stop. The governor can then be tested to make sure the governor switch opens at the correct overspeed setting.

3. UNCONTROLLED LOW SPEED TEST (SUGGESTED BUT NOT REQUIRED BY EN81 CODE): (DO NOT ALLOW ANYONE TO ENTER THE ELEVATOR DURING THIS TEST).

With the car level at any floor and the door open, open the machine brake.

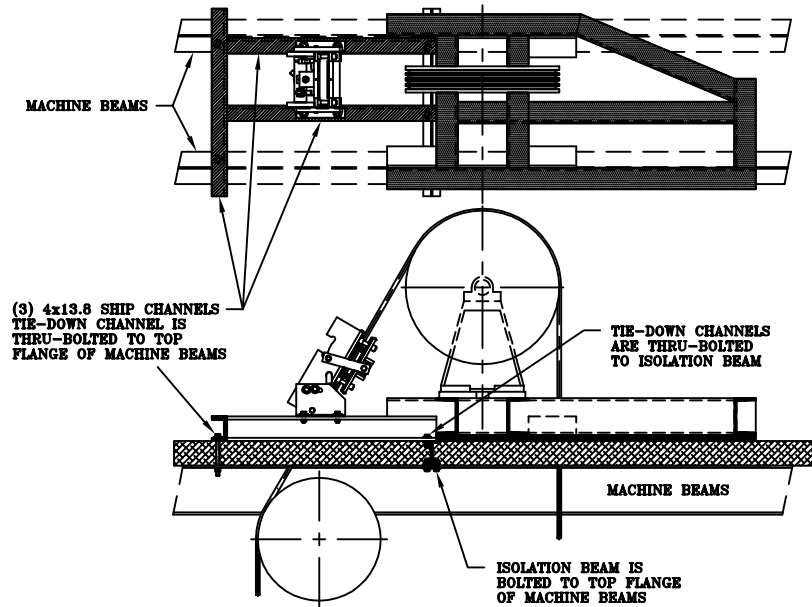
(With empty car the elevator moves up, with full load the elevator moves down.)

The "Rope Gripper™" should apply and stop the car within 1220 mm (48").

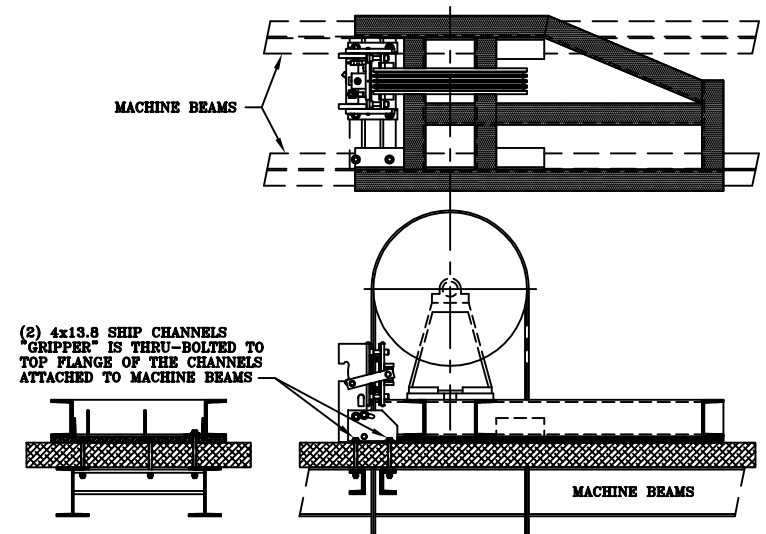
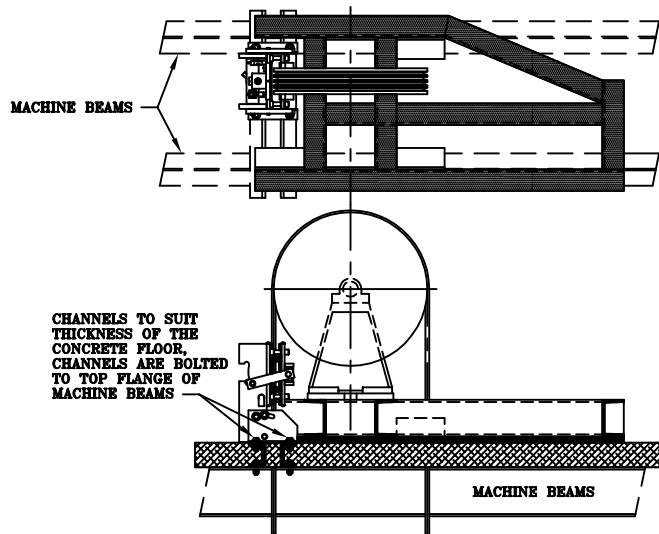
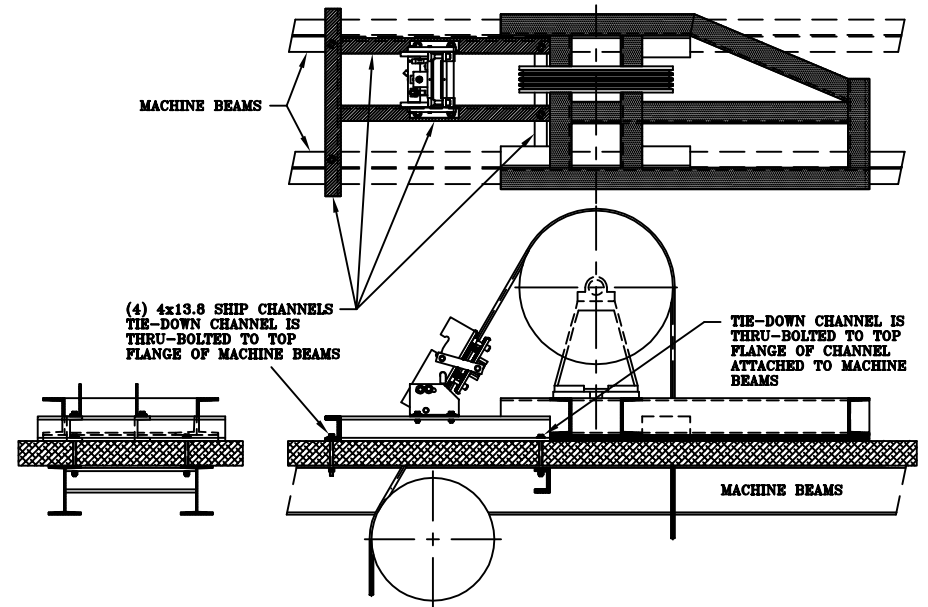
If the car doesn't move when the machine brake is opened, the brake drum or disc can be turned to start the car.

Typical Hollister-Whitney "Rope Gripper™" Mounting

Typical Mounting Arrangement for Overhead Machines
- New Installations -



Typical Mounting Arrangement for Overhead Machines
- Existing Installations -



Hollister-Whitney "Rope Gripper™" Suggested Controller Circuits for Model #618 (Patented)

SUGGESTED CIRCUITS:

The #618 "ROPE GRIPPER™" was designed for codes which require an up direction overspeed protection device, but do not require an unintended motion device (leaving the floor with the doors opened). However, due to the small cost of adding unintended circuitry, we urge you to do so for the added safety. With the suggested circuits, if overspeed should occur in either direction during a power outage (by pulling the disconnect or a power failure) overspeed will still activate the "Rope Gripper™". If power to the elevator is lost, however, unintended motion is not detected. (see note)

Our suggested controller circuits will activate the "ROPE GRIPPER™" and stop the car in either direction with overspeed or unintended motion when the car leaves the floor with opened doors. The controls must be built to conform to all local, city, state, country, and federal codes, etc.

GOS (not shown), the governor overspeed switch is mechanically operated, opening at approximately 10% overspeed whether or not there is power to the elevator control. After overspeed this switch and the "ROPE GRIPPER™" must be manually reset which will then allow elevator operation.

GOS1-(not shown)- The overspeed switch contact on the governor which opens with overspeed in either direction. This contact is wired to the elevator control and when overspeed occurs it causes the control to remove power from the motor and brake.

GOS2- A second overspeed switch contact which operates in conjunction with GOS1. On overspeed, this contact opens disconnecting the "ROPE GRIPPER™" solenoid, causing the "ROPE GRIPPER™" to activate, clamping the ropes and stopping the car.

DZC Description- (Door Zone Control)

The DZR relay is the door zone relay which is energized in the door zone. Maximum zone for the "ROPE GRIPPER™" is 10" from floor level. A shorter zone activates the "ROPE GRIPPER™" sooner. We suggest using a force guided relay with a normally open contact in the door opening circuits. When leaving the zone the relay de-energizes. A normally close contact should be checked when out of the zone and the car should not restart from the next floor, if DZR did not drop.

If both DZR and GTR are energized when a power failure occurs, GTR must drop faster than DZR to prevent a false activation of the "ROPE GRIPPER™". A 0.1 second delay of DZR dropping should be sufficient.

GTC- Description (Gripper Trip Control)

The GTR relay should energize when the car is in the door zone and the car door is not closed. (This circuit could be momentary to assure the holding circuits are operating properly.) GTR should then hold and remain energized until and only if the door is closed while in the door zone. If the car leaves the door zone with the car door opened, GTR remains energized and the "ROPE GRIPPER™" activates, gripping the ropes and stopping the elevator.

If for any reason the doors open while between the floors, GTR remains de-energized and false "ROPE GRIPPER™" activation is prevented.

(cont'd.)

To monitor the GTR relay, we suggest using a force guided relay where a GTR normally open contact is used to allow door closure and a GTR normally closed contact allows normal elevator operation when the doors are closed.

Reset - When activated by unintended motion, the GTR relay must be dropped and the "ROPE GRIPPER™" manually reset. GTR can be de-energized by a separate momentary switch or by momentarily pulling and resetting the main line disconnect.

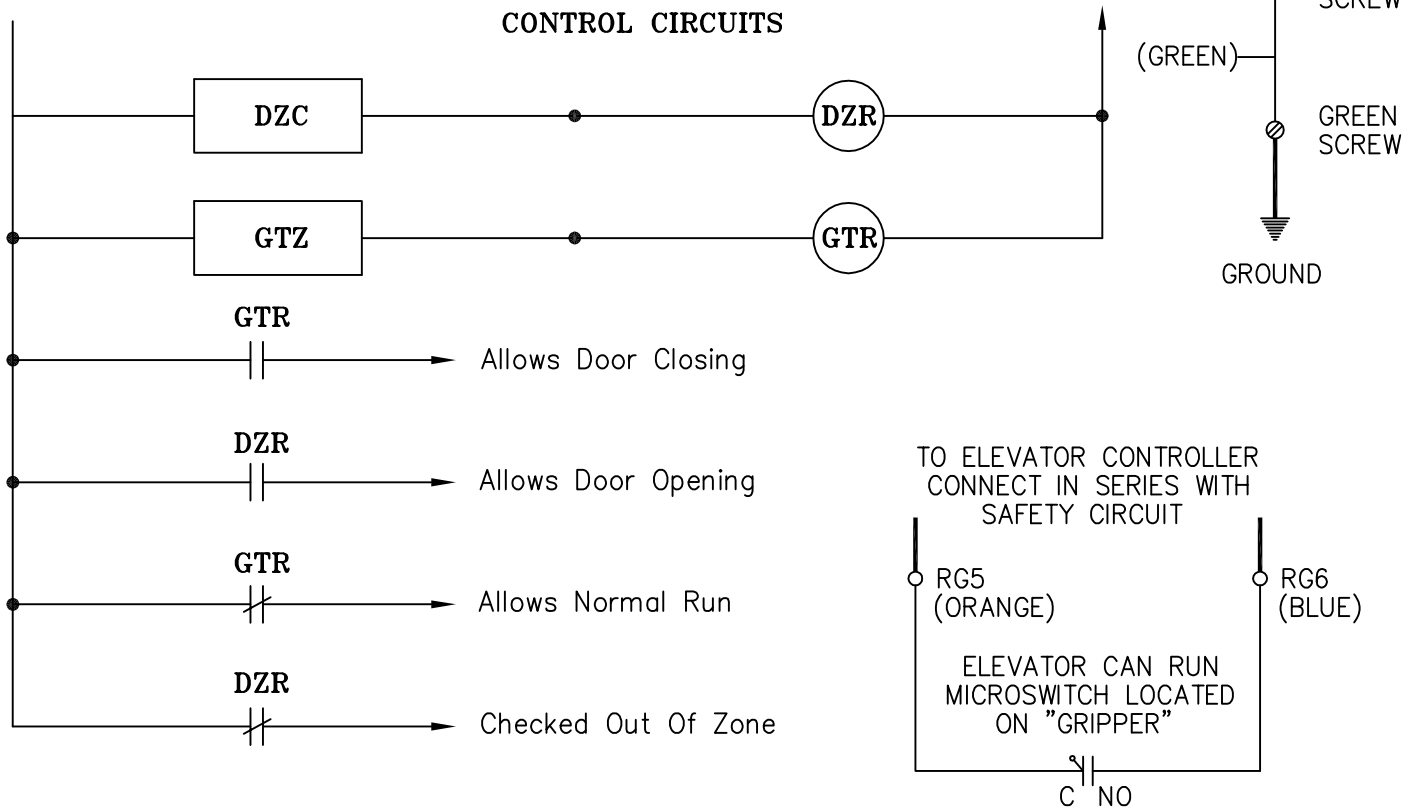
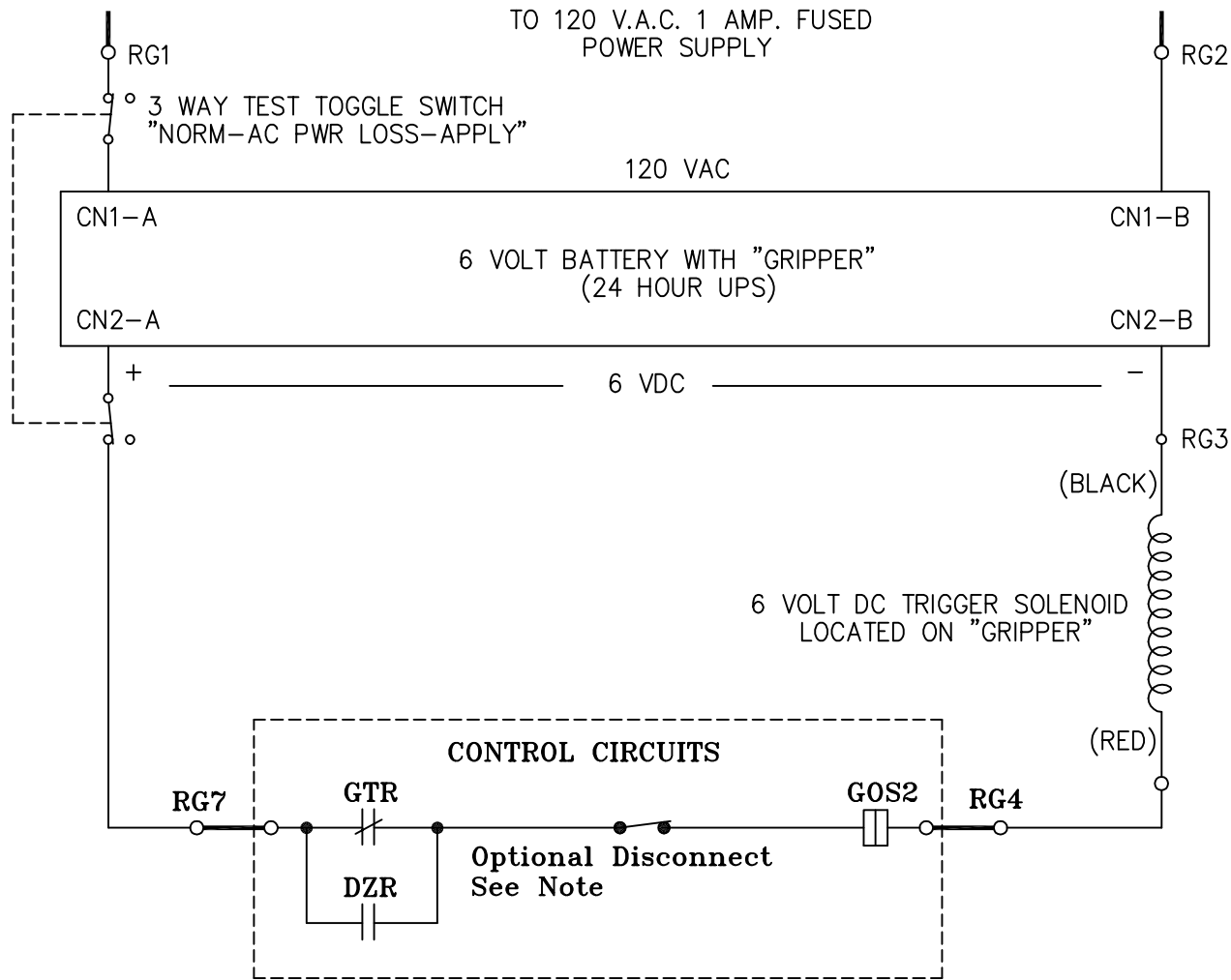
NOTE: Extra pole on main line disconnect or a separate "ROPE GRIPPER™" switch next to the disconnect.

If a brake failure should occur, it is likely that the elevator is constantly releveling. Pulling the disconnect would then allow the car to leave the floor with the doors opened. When an extra pole on the disconnect is provided, this option would disconnect power to the "ROPE GRIPPER™" solenoid, activating the "ROPE GRIPPER™" and stopping the car. However, each time the disconnect is pulled, the "ROPE GRIPPER™" would activate and then have to be manually reset. It would not require reset after a power failure. If this feature is not used, we would suggest a label be placed on the disconnect switch.

IMPORTANT: The code requires that the "ROPE GRIPPER™" be manually reset if it is triggered by fault. It is intended that a qualified technician inspect for and correct any malfunction before the car is placed back into service. A dangerous situation can be produced if a "ROPE GRIPPER™" is manually reset without first correcting the cause of the fault. eg: If there has been a brake failure that has not been corrected, when the "ROPE GRIPPER™" is reset, it is very likely that the car will fall either up or down.

WARNING - DO NOT PULL DISCONNECT IF CAR IS RELEVELING. FIRST TURN GRIPPER SWITCH OFF, STOPPING THE CAR, AND THEN PULL DISCONNECT.

MODEL #618 SUGGESTED CIRCUITS



JAN 24 2005

Certificate of Compliance

HOLLISTER-WHITNEY
ELEVATOR CORP.

Certificate: 1002290 (LR 88181-2)

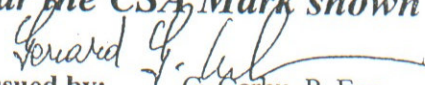
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Project: 1547818

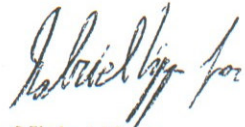
Date Issued: January 13, 2005

Issued to: Hollister-Whitney Elevator Corp.
P.O. Box 4025
2603 N. 24th St.
Quincy, IL 62305
USA
Attention: Mr. Frank Musholt,
Treasurer
FAX: (217) 222-0493

The products listed below are eligible to bear the CSA Mark shown


Issued by: G. Cerbu, P. Eng.




Authorized by: Nick Alfano
Operations Manager

PRODUCTS

CLASS 2411 01 - ELEVATOR EQUIPMENT

CLASS 2411 81 - ELEVATOR EQUIPMENT- Certified to US Standards

"Rope Gripper", Models 600, 601, 605 and 610 (with pumping unit), electrical rating: 6A, 120V ac.

"Rope Gripper", Models 618, 620, 622, 624, 625, 626 and 626 SPL (with pumping unit), electrical rating: 6A, 120V ac.

EC TYPE-EXAMINATION CERTIFICATE

Acting under the Wet op de gevaarlijke werktuigen issued by the Lifinstituut
(Stichting Nederlands Instituut voor Lifttechniek), identification number Notified Body 0400,
commissioned by departmental order no. ARBO/APM/97/00293 of April 23rd, 1995

Certificate nr. : NL 01-400-1002-020-03 Object nr.: 1002-020-03

Description of the product : "Rope Gripper" used as ascending safety device

Trademark, type : "Rope Gripper", Models 618, 620, 622, 624, 625 and 626

Name and address of the manufacturer : Hollister-Whitney Elevator Corporation
P.O. Box 4025, 2603 North 24th Street
Quincy, Illinois 62305, USA

Name and address of the certificate holder : Hollister-Whitney Elevator Corporation
P.O. Box 4025, 2603 North 24th Street
Quincy, Illinois 62305, USA

Certificate issued on the basis of the following requirements : Lifts Directive 95/16/EG

Test laboratory : CSA International
178 Rexdale Boulevard,
Toronto, ON, Canada M9W 1R3

Date and number of the laboratory report : February 5, 2001 CSA, 155941-1002290 (LR 88181-2)

Date of EC type-examination : March 12, 2001

Annexes with this certificate : CSA's Certificate of Compliance 155941-1002290 (LR 88181-2)
Issue date: February 5, 2001. (4 pages + supplement)
Drawings: ILLS 30, 44 to 47, 56 to 62, 93 to 100 and 103 to 105
Manuals : ILL 1 to 6 and ILL 70 to 80
Principle of operation : ILL 23 to 25

Additional remarks : None

Conclusion : The safety components meet the requirements of the Lifts Directive 95/16/EC taking into account any additional remarks mentioned above.



Issued in Amsterdam
Date of issue : March 15th, 2001

LIFTINSTITUUT
managing director

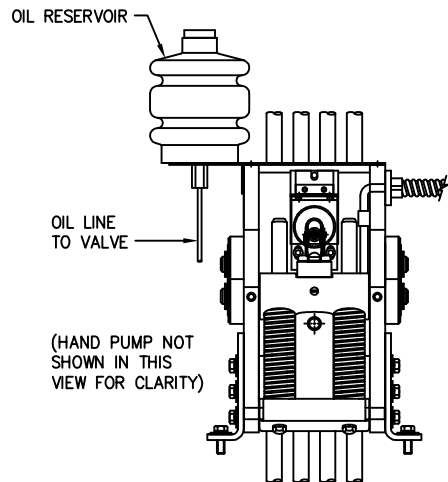
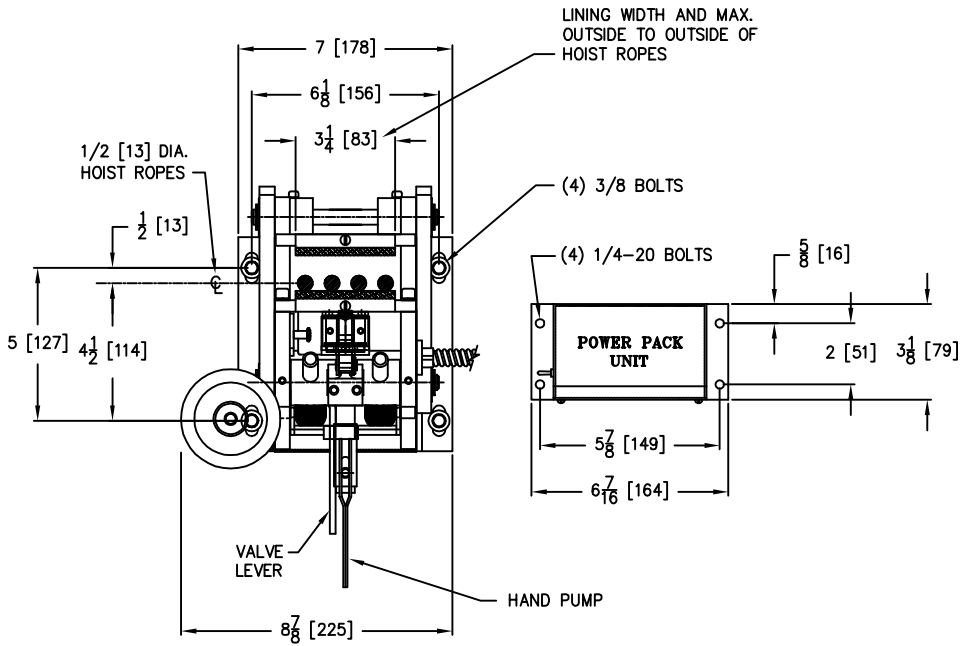


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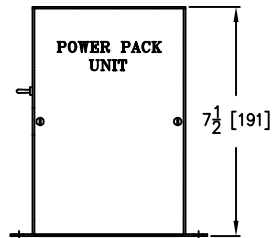
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CHK. BY			

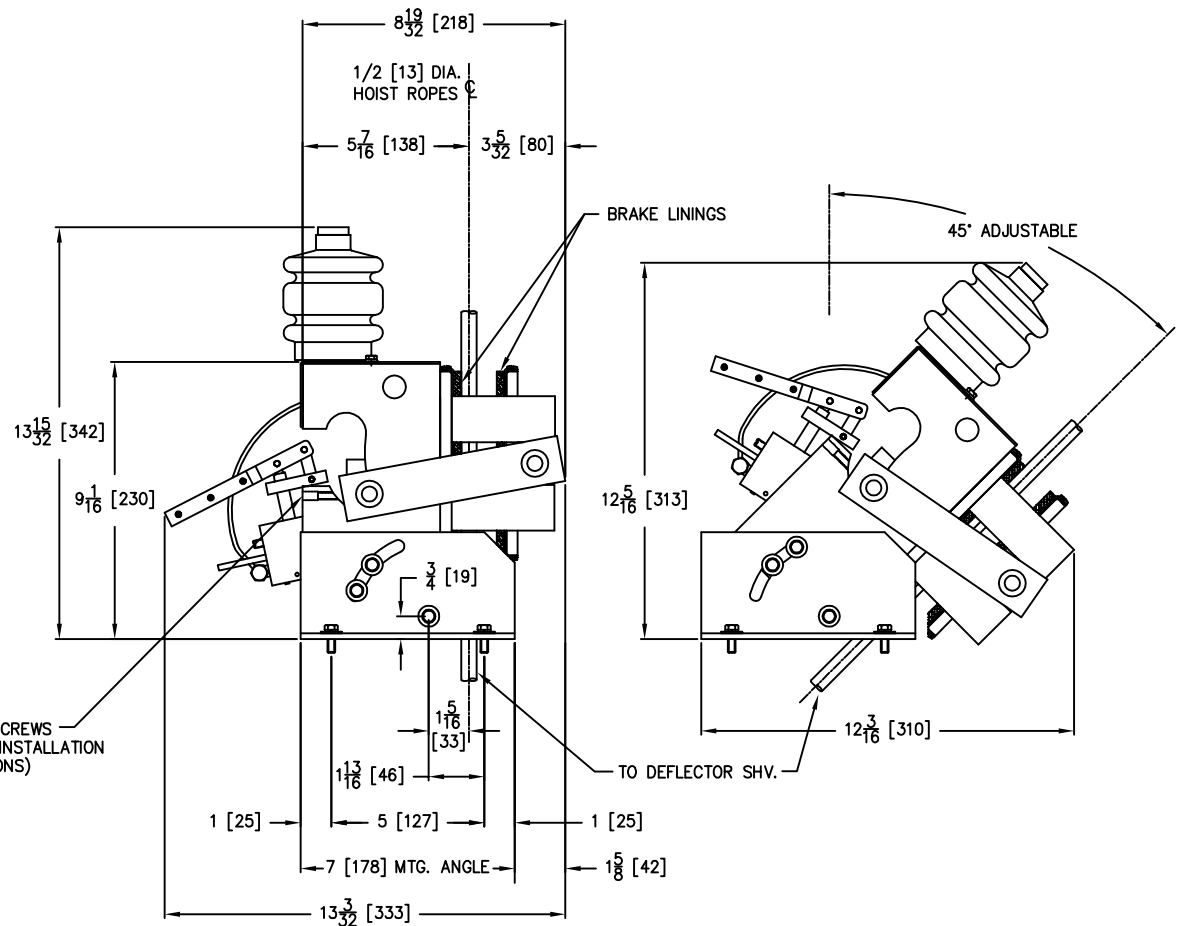
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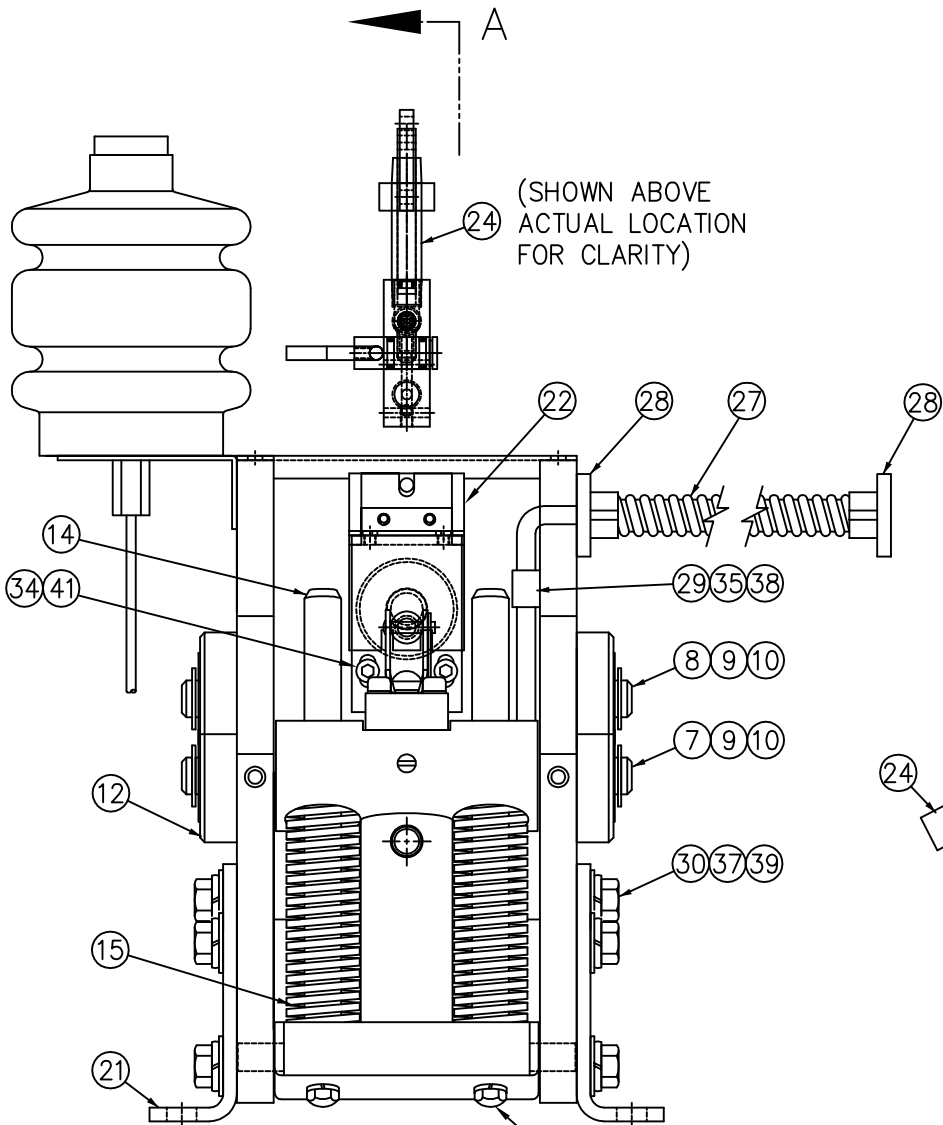


NOTE:
 POWER PACK UNIT CAN MOUNT ON
 EITHER SIDE OF ROPE GRIPPER



SECURITY SET SCREWS
 REMOVE AFTER INSTALLATION
 (SEE INSTRUCTIONS)

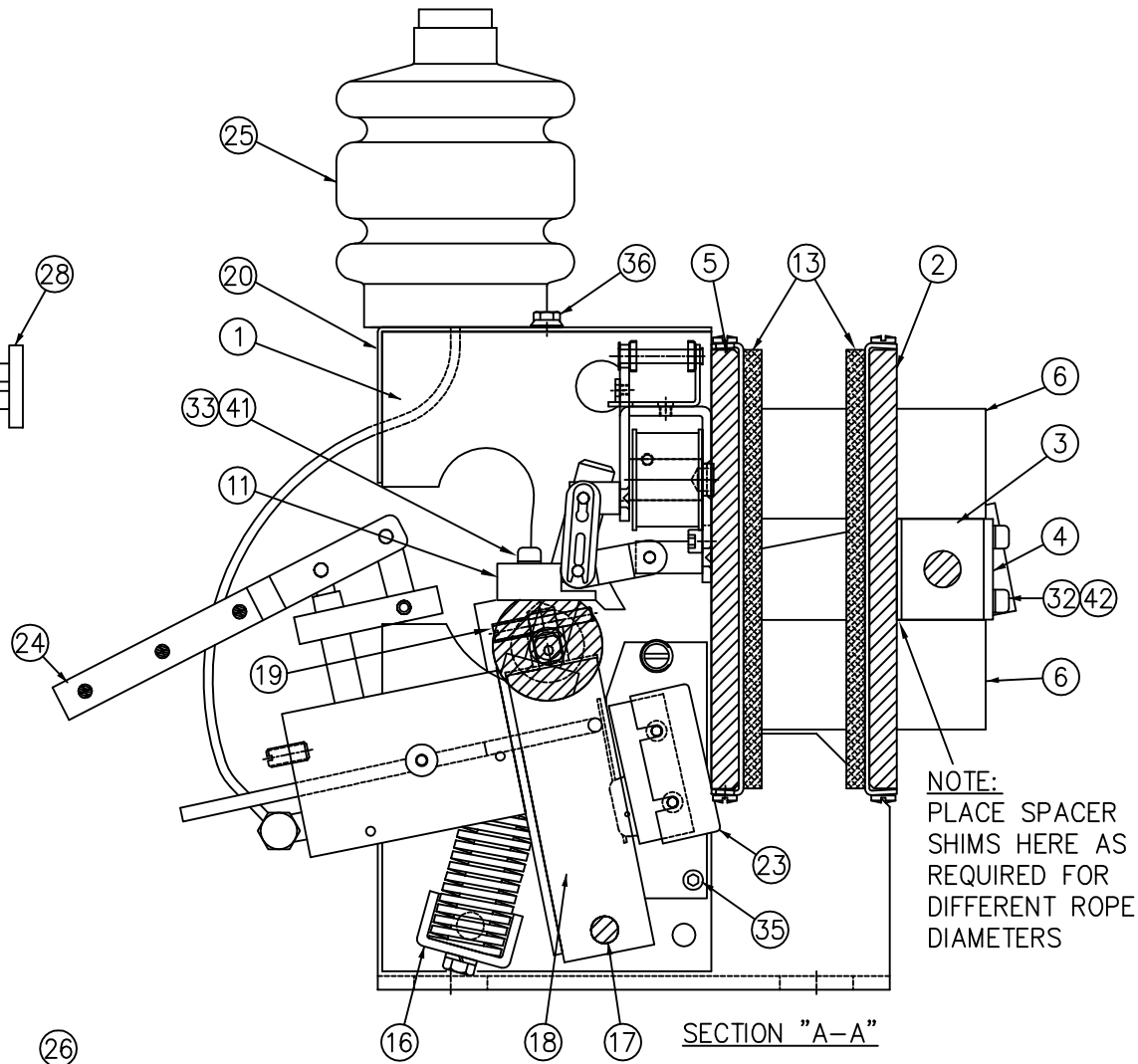




FRONT VIEW WITH
COVER PLATE REMOVED

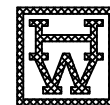
(SHOWN ABOVE
ACTUAL LOCATION
FOR CLARITY)

(POWER PACK UNIT)



SECTION "A-A"

NOTE:
PLACE SPACER
SHIMS HERE AS
REQUIRED FOR
DIFFERENT ROPE
DIAMETERS



HOLLISTER-WHITNEY ELEVATOR CORP.
#1 Hollister-Whitney Parkway
Quincy, Illinois 62305
Ph: 217-222-0466 Fax: 217-222-0493

"ROPE GRIPPER™" ASSEMBLY

DATE 4-21-03

618

MATERIAL LIST
#618 ROPE GRIPPER ASSEMBLY

NO.	PART NO.	QTY.	DESCRIPTION
1	618-001	2	WALL - SIDE
2	618-004	1	SHOE - MOVABLE
3	618-007	2	BLOCK - SHAFT SUPPORT
4	618-008	2	SPACER - LINING WEAR
5	618-003	1	STATIONARY SHOE ASSEMBLY
6	618-096	4	GUIDE - MOVABLE SHOE
7	618-015	1	ROTATING SHAFT ASSEMBLY
8	618-018	1	SHAFT - NON-ROTATING
9	17/32 I.D. 1-1/4 O.D. .020 THK.	4	WASHER - FLAT
10	TRUARC #5144-50	4	SNAP RING
11	618-078	1	LATCH
12	618-020	2	CONNECTING ARM ASSEMBLY
13	618-022	2	LINING ASSEMBLY
14	618-029	2	ROD - SPRING SUPPORT
15	618-030	2	SPRING
16	618-057	1	CHANNEL - SPRING SEAT
17	618-031	1	ROD - CYLINDER SUPPORT
18	618-035	1	CYLINDER - HYDRAULIC
19	618-053	1	STUD
20	618-040	1	COVER
21	618-041	2	ANGLE - MOUNTING
22	618-050	1	MICROSWITCH - SOLENOID LOCKING UNIT ASSY.
23	618-061	1	MICROSWITCH ASSEMBLY
24	618-062	1	PUMP ASSEMBLY
25	618-063	1	RESERVOIR ASSEMBLY (INCL. OIL LINE)
26	618-100	1	POWER PACK UNIT
27	600-081	1	CONDUIT - FLEXIBLE (1/2")
28	600-083	2	CONNECTOR - FLEXIBLE (1/2")
29	PPC-1525	1	PLASTIC CLAMP
30	3/8 N.C. x 3/4	6	SCREW - HEX HEAD CAP
31	1/4 N.C. x 3/4	2	SCREW - HEX HEAD CAP
32	1/4 N.C. x 1-3/4	4	SCREW - SOCKET HEAD CAP
33	10-32 x 3/4	2	SCREW - SOCKET HEAD CAP
34	10-24 x 3/8	2	SCREW - SOCKET HEAD CAP
35	8-32 x 3/8	3	SCREW - SOCKET HEAD CAP
36	10-24 x 1/2	2	WHIZ BOLT
37	3/8	4	WASHER - HARDENED FLAT
38	#8	1	WASHER - FLAT
39	3/8	6	WASHER - LOCK
40	1/4	2	WASHER - LOCK
41	#10	4	WASHER - LOCK
42	1/4	4	WASHER - HIGH COLLAR