



A **VANTAGE** Company

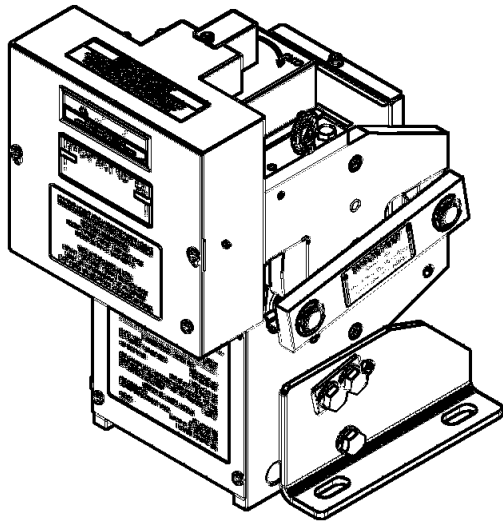
Bulletin #1182 Linear Rope Gripper[®] Installation & User Guide

Page Intentionally Left Blank

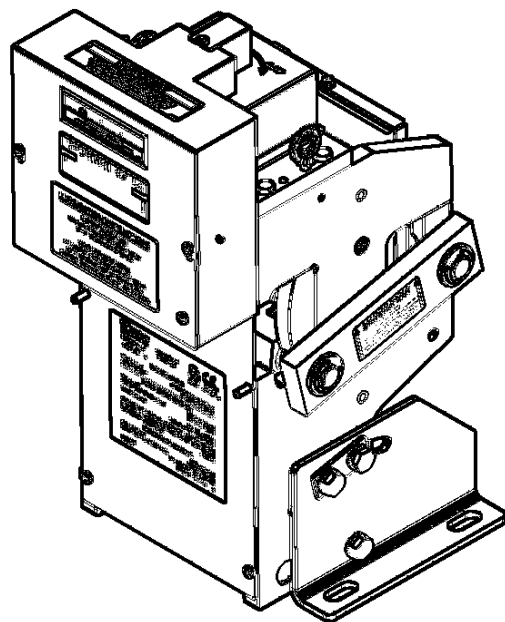
Bulletin #1182

Installation & User Guide

**MODEL
620L & 620L-EPU
LINEAR ROPE
GRIPPER®**



**MODELS
622L & 622L-EPU
LINEAR ROPE
GRIPPER®**



© Hollister-Whitney Elevator Co. LLC
#1 Hollister-Whitney Parkway
Quincy, IL 62305
Phone 217.222.0466 • Fax 217.222.0493
11/6/2024



WARNING

This installation and user guide is intended for qualified and authorized elevator personnel ONLY. For your safety and the safety of others, do not attempt ANY procedure that you are not qualified and authorized to perform. Recommended procedures must be done in accordance with the applicable rules of the latest edition of the National Electrical Code; the latest edition of ASME A17.1; and all governing local codes. Every attempt has been made to ensure that this guide is accurate and up-to-date. Hollister-Whitney Elevator Co. LLC assumes no liability for consequences resulting from any error or omission. Please notify Hollister-Whitney Elevator Co. LLC regarding any difficulties with this guide



WARNING

Keep hands clear of moving parts forces created can crush fingers.

Contents

1	User Guide	1-1
1.1	Features.....	1-1
1.1.1	Mounting to Channel Guidelines.....	1-3
1.2	Environmental Considerations	1-6
1.3	Storage	1-6
1.3.1	Short Term Storage	1-6
1.3.2	Long Term Storage	1-6
1.4	Lang Lay Considerations	1-6
2	Installation	2-1
2.1	Safety.....	2-1
2.2	Verification	2-1
2.3	Planning.....	2-1
2.4	Locating the Assembly	2-2
2.5	Mounting.....	2-5
2.6	Testing	2-7
2.7	Lining Wear-In.....	2-8
3	Service	3-1
3.1	Safety.....	3-1
3.2	Lining Replacement	3-1
3.2.1	Excessive Lining Wear.....	3-2
3.2.2	Non-Excessive Lining Wear.....	3-2
3.3	Lubrication Instructions	3-3
3.4	Testing All Circuits	3-3
3.5	Suggested Controller Circuits	3-4
3.5.1	GRC1 Description	3-5
3.5.2	GRC2 Description	3-5
3.5.3	DZC1 Description.....	3-6
3.5.4	DZC2 Description.....	3-7
3.5.5	Gripper Self-Test.....	3-7
4	Operation.....	4-1
4.1	Normal Operation.....	4-1
4.2	Over-Speed.....	4-1
4.3	Over-Speed Reset	4-1
4.4	Unintended Motion.....	4-2
4.5	Unintended Motion Reset	4-2
4.6	Smart Rope Gripper.....	4-2
4.7	Manual Opening.....	4-2
5	Warning Labels.....	5-1

- 5.1 High Pressure Applied Warning Label 5-1
- 5.2 Movable Shoe Warning Label..... 5-1
- 5.3 More Than One Live Circuit Warning Label 5-2
- 6 Troubleshooting Guide 6-1
 - 6.1 LED Troubleshooting Guide..... 6-1
 - 6.2 Wiring Schematic..... 6-2
- 7 Emergency Power Unit 7-1
 - 7.1 Emergency Power Unit 7-1
 - 7.2 Features..... 7-1
 - 7.3 Installation..... 7-2
 - 7.4 Testing 7-4
 - 7.5 Service..... 7-4
 - 7.5.1 Fuse7-4
 - 7.5.2 Battery.....7-4
 - 7.6 Operation 7-5
 - 7.6.1 Manually Opening7-5
 - 7.7 Troubleshooting Guide..... 7-6
 - 7.7.1 Wiring Schematic7-6
 - 7.7.2 Switch Configuration7-6
 - 7.7.3 Fuse7-6
 - 7.7.4 UPS.....7-6
- 8 Service Parts 8-1

List of Figures

Figure 1 - Key Components	1-3
Figure 2 - New Installation.....	1-4
Figure 3 - Existing Installation	1-5
Figure 4 – Important Notice – Lang Lay Ropes.....	1-6
Figure 5 - Safety Set Screw	2-2
Figure 6 - Removable Shoe	2-2
Figure 7 - Vertical Ropes.....	2-4
Figure 8 - Angled Ropes	2-4
Figure 9 - Mounting Footprints	2-4
Figure 10 - Stationary Shoe Contact	2-5
Figure 11 - Rope Distribution	2-6
Figure 12- Movable Shoe	2-6
Figure 13 - Connecting Arms	2-6
Figure 14 - Connecting Arms	2-7
Figure 15 - Connecting Arms	2-7
Figure 16 – IMPORTANT – Lining Wear-In.....	2-8
Figure 17 – IMPORTANT – Wear-In Line.....	2-8
Figure 18 - Connecting Arms	2-9
Figure 19 - Shim Locations	2-10
Figure 20 – Lubrication Instructions	3-3
Figure 21 - Circuit – I.....	3-5
Figure 22 - Circuit – II.....	3-6
Figure 23 - Circuit –III.....	3-6

Figure 24 – Manual Opening..... 4-3

Figure 25 – High Pressure Applied Warning Label 5-1

Figure 26 – Movable Shoe Warning Label 5-2

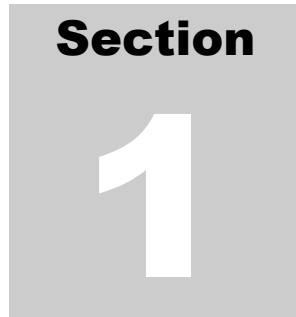
Figure 27 – More than one Live Circuit Warning Label 5-2

Figure 28 – LED Troubleshooting Guide 6-1

Figure 29 – Wiring Schematic 6-2

Figure 30 – Emergency Power Unit Key Components 7-2

Figure 31 – Emergency Power Unit Connection to Rope Gripper® 7-3



Section
1

1 User Guide

1.1 Features

The 620L and 622L Rope Gripper® protects against ascending car over-speed and/or unintended car movement. The Rope Gripper® can prevent the car from moving in the event of:

- The car falling up or down accidentally
- The car leaving the floor with the door(s) open
- Ropes slipping traction on traction wheel

The Rope Gripper® provides powerful, steady pressure on the hoist ropes. By using easily replaceable non asbestos linings, the hoist ropes will not be damaged. While the braking engages the hoist ropes with a quick, but powerful grip, the Rope Gripper® will not put excessive stress on the machine or drive sheave when the unit is installed properly.

There is no need for a separate hydraulic or air unit, resulting in a smaller footprint.

The electromagnetic clutch releases on removal of power and is designed to protect internal construction from possible damage.

The electric linear actuator and electromagnetic clutch features allows an automatic reset when power is restored.

The Rope Gripper® is equipped with intelligent self-monitoring functionality and will not complete the safety circuit if any internal fault is detected.

Table 1 - Specifications

		ROPE GRIPPER® MODEL			
		620L	620L-EPU	622L	622L-EPU
MAX. OUT TO OUT OF CABLES	inch	5.25		6.5	
	mm	133.3		165	
DOOR ZONE	inch	± 3 (6 Total)			
	mm	± 76.2 (152.4 Total)			
CLOSING TIME	sec.	0.300			
POWER SUPPLY		1A, 100~240V ac, 1PH, 50/60Hz	6A, 120V ac; 3A, 24V dc	2A, 100~240V ac, 1PH, 50/60Hz	6A, 120V ac; 3A, 24V dc
CONTACT RATINGS		5A, 250V ac, 5A, 30V dc			
1:1 ROPING	MAXIMUM RATINGS	RATED SPEED	fpm	350	600
			m/s	1.78	3.05
			m/m	107	183
		ROPE GRIPPER TRIPPING SPEED	fpm	402	690
			m/s	2.04	3.51
			m/m	1231	210
	CAR RATED LOAD	lbs	2560	5000	
		kg	1161	2268	
	TOTAL SYSTEM LOAD	lbs	12070	18600	
		kg	5475	8437	
	MINIMUM RATINGS	CAR RATED LOAD	lbs	600	1500
			kg	272	680
CAR & CWT MASS	lbs	2280	6000		
	kg	1034	2722		
2:1 ROPING	MAXIMUM RATINGS	RATED SPEED	fpm	250	400
			m/s	1.27	2.03
			m/m	76	122
		ROPE GRIPPER TRIPPING SPEED	fpm	303	459
			m/s	1.54	2.33
			m/m	92	140
	CAR RATED LOAD	lbs	5120	10000	
		kg	2322	4536	
	TOTAL SYSTEM LOAD	lbs	24140	38000	
		kg	10950	17237	
	MINIMUM RATINGS	CAR RATED LOAD	lbs	1500	2500
			kg	680	1134
CAR & CWT MASS	lbs	6000	8000		
	kg	2722	3629		
4:1 ROPING	MAXIMUM RATINGS	RATED SPEED	fpm	87	150
			m/s	0.44	0.76
			m/m	27	46
		ROPE GRIPPER TRIPPING SPEED	fpm	110	189
			m/s	0.56	0.96
			m/m	33	58
	CAR RATED LOAD	lbs	10240	20000	
		kg	4644	9072	
	TOTAL SYSTEM LOAD	lbs	48280	76000	
		kg	21900	34473	
	MINIMUM RATINGS	CAR RATED LOAD	lbs	3000	5000
			kg	1361	2268
CAR & CWT MASS	lbs	12000	16000		
	kg	5443	7257		

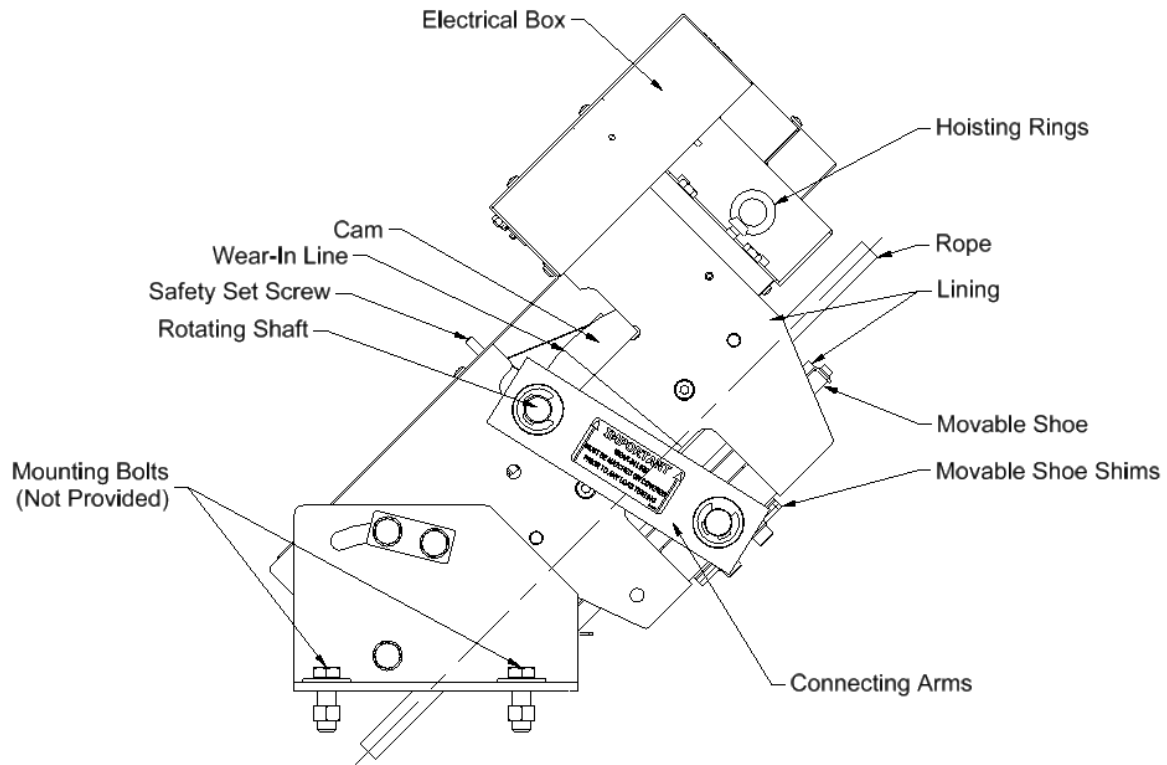


Figure 1 - Key Components

1.1.1 Mounting to Channel Guidelines

When mounting the Rope Gripper® to a channel framework, it must withstand upward and downward forces according to Table 3 and meet applicable codes.

Any mounting channel framework must be sufficiently sized to securely hold the Rope Gripper® and elevator while preventing any sliding. The traction machine must also be prevented from sliding. See Figure 2 - New Installation and Figure 3 - Existing Installation for suggested machine room mounting configurations.

 **NOTE -**

HOLLISTER-WHITNEY ALSO OFFERS MACHINES WITH BUILT-IN FACTORY MOUNTS FOR ROPE GRIPPERS®. PLEASE CONTACT YOUR HOLLISTER-WHITNEY SALES ASSOCIATE FOR MORE DETAILS.

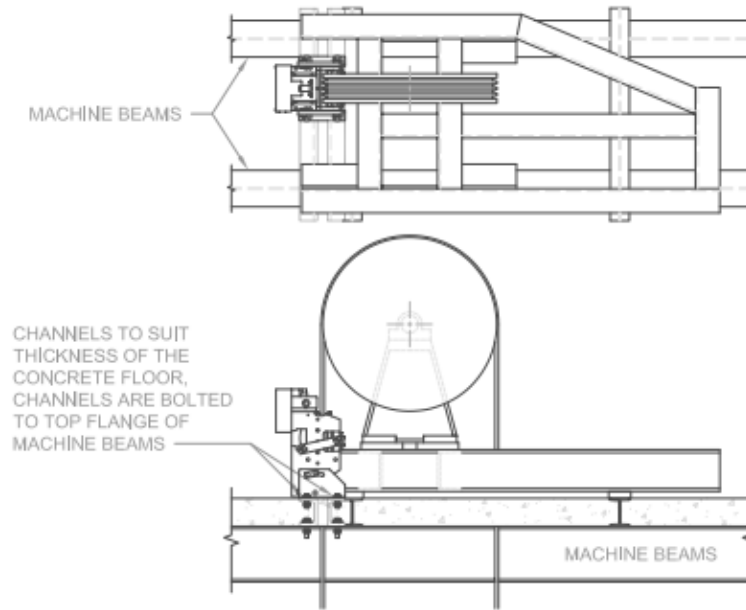
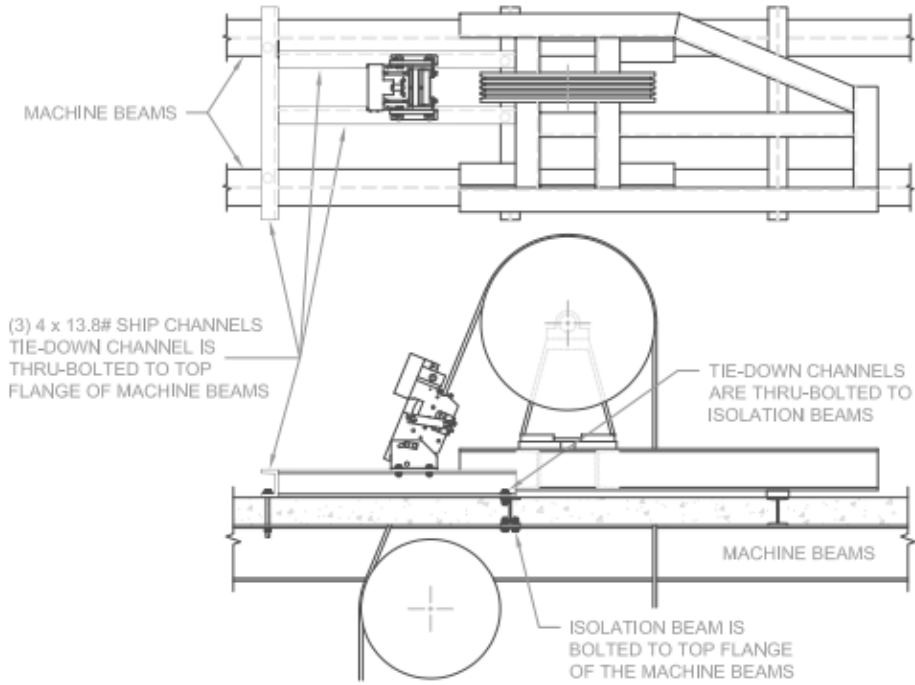


Figure 2 - New Installation

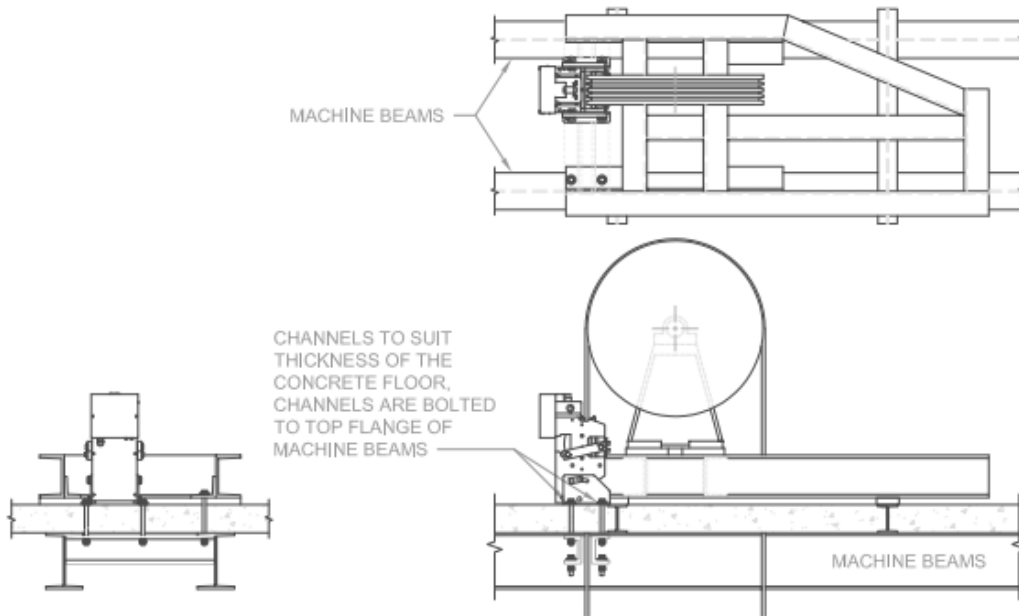
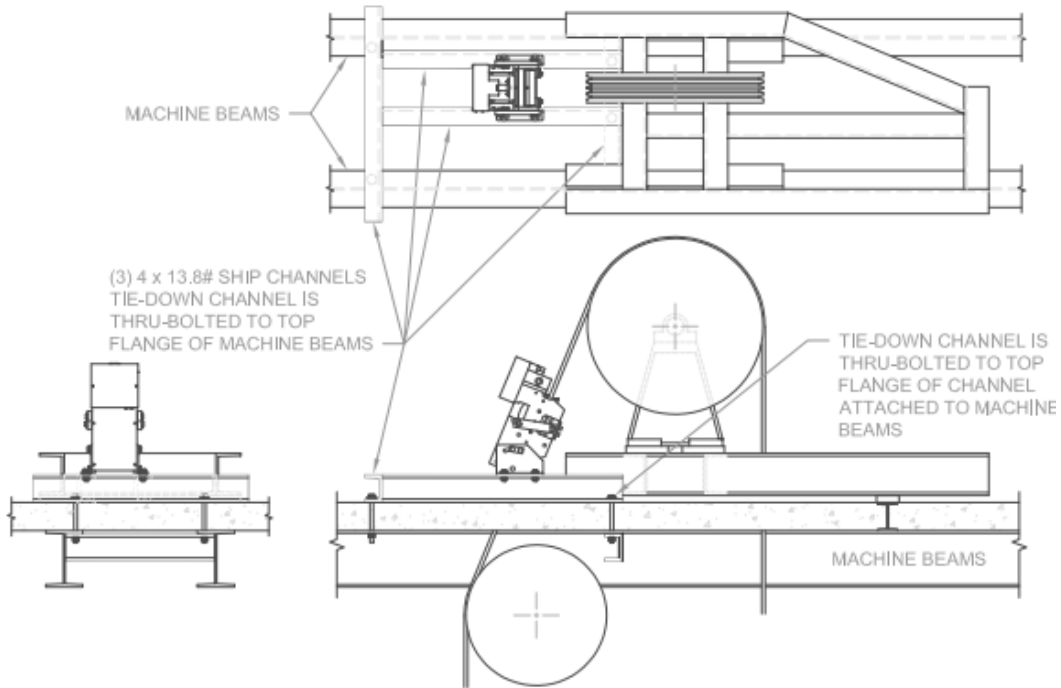


Figure 3 - Existing Installation

1.2 Environmental Considerations

A Hollister-Whitney Rope Gripper® is designed to perform in a tolerant machine space. The machine space working temperature should be held between 35°F & 104°F, (1.7°C & 40°C) and humidity should be held to an average of 90% non-condensing.

1.3 Storage

1.3.1 Short Term Storage

- For short-term storage, place the Rope Gripper® in a warm, dry and clean environment.
- Protect the Rope Gripper® from harsh weather conditions and temperature variations that can lead to condensation.
- Protect the Rope Gripper® from dust, dirt, and moisture.

1.3.2 Long Term Storage

- For long-term storage, place the Rope Gripper® in a sealed, waterproof enclosure with a dehydrating packet that is sized for the enclosure volume and humidity level.
- Follow the same instructions as outlined in Section 1.3.1 - "Short Term Storage".

1.4 Lang Lay Considerations

An Important Notice label is located on the Rope Gripper® Figure 4 – Important Notice – Lang Lay Ropes. If your elevator is equipped with Lang Lay ropes Hollister-Whitney recommends that code compliant rope retention be installed on all wheels in accordance with the latest ASME A17.1/CSA B44 revisions.



Figure 4 – Important Notice – Lang Lay Ropes

Section**2**

2 Installation

2.1 Safety

- Wear proper PPE (Personal Protective Equipment).
- Inspect tools to ensure they are in good condition and proper working order.
- Read and understand all instructions prior to proceeding.
- Follow standard elevator industry and governing safety requirements.

2.2 Verification

Verify all components are present and that the Rope Gripper® assembly can be installed. It may be necessary to fully verify the assembly by checking the following:

- Confirm the contract and part numbers match your numbers on your order.
- Compare the received unit to the assembly drawings included in this document.
- Determine if the received assembly is correct by comparing its capabilities to those required for the project.

2.3 Planning

- Determine the rope drop location (matching the existing drop or refer to applicable job layouts) by using plum lines or laser means.
- Confirm that the assembly will have adequate clearance when positioned in line with the required rope drop.
- Prior to the installation of the assembly, plan and prepare for the electrical and/or conduit routing.
- Ensure that electrical routing will not interfere with the operation, maintenance, or removal of the assembly.

**NOTE -**

ITEMS SUCH AS CONDUIT, FITTINGS, EXTERNAL WIRING, AND MOUNTING HARDWARE ARE NOT PROVIDED.

2.4 Locating the Assembly

- The initial state of the Rope Gripper®, from the factory, is an open (loaded) state. Check and confirm the safety set screws are installed deep enough to hold the rotating shaft in the LOADED (open) position Figure 5.

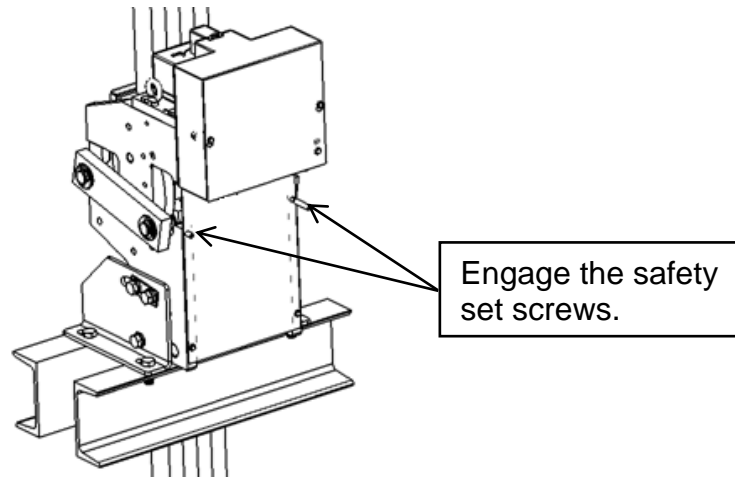


Figure 5 - Safety Set Screw

- Remove the four E-Clips, and both connecting arms. Remove the movable shoe assembly Figure 6.

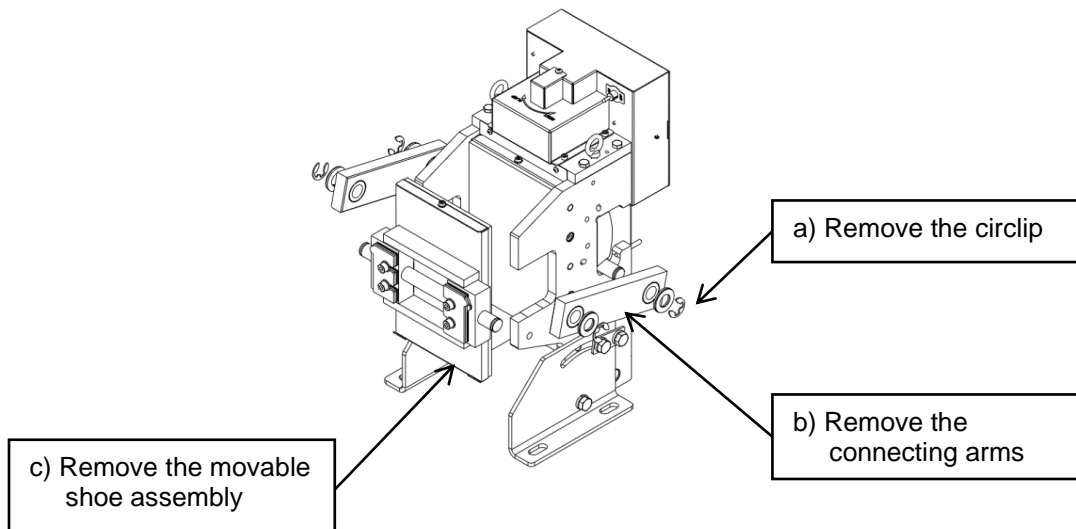


Figure 6 - Removable Shoe

- Check that the shim configuration of the movable plate assembly matches the wire rope specifications. The shim configuration for different wire rope specifications are shown in
- Table 2 – Initial Shim Configurations.

Table 2 – Initial Shim Configurations

Rope Sizes			620L / 620L-EPU / 622L / 622L-EPU	
Nominal (Inch)	MM Range	Decimal Equivalent	Outer Shims	Inner Shims
3/8"	9	0.354	1/8"	1/32 + 2 x 1/16 + 1/8"
	10	0.394		
7/16"	11	0.433	1/16" + 1/8"	1/32 + 1/16 + 1/8"
1/2"	12	0.472	2 x 1/16 + 1/8"	1/32 + 1/8"
	13	0.512		
9/16"	14	0.551	1/16" + 2 x 1/8"	1/32 + 1/16"
5/8"	15	0.591	2 x 1/16 + 2 x 1/8"	1/32"
	16	0.630		

 **NOTE -**

THE ROPE GRIPPER® WAS SHIPPED FROM THE FACTORY SHIMMED FOR 5/8 INCH ROPES.

- Place the assembly on mounting channels as shown in the examples noted in Figure 2 - New Installation, or Figure 3 - Existing Installation.
- Move the Rope Gripper® into position, aligning the unit with the ropes as shown in Figure 7 then mark the mounting holes. If the wire ropes are at an angle, set the Rope Gripper® parallel with the ropes Figure 8 before marking the holes.
- Verify the assembly will not interfere with elevator equipment (machine frame, traction or deflector sheave, machine beams, etc.) or any other obstructions.

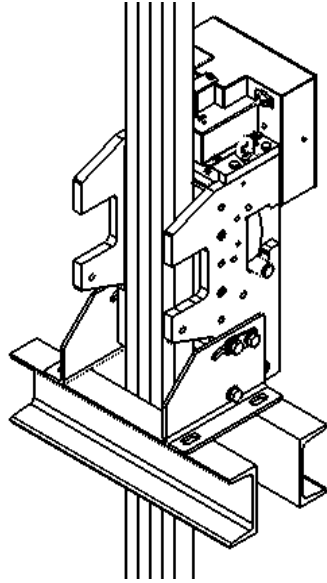


Figure 7 - Vertical Ropes

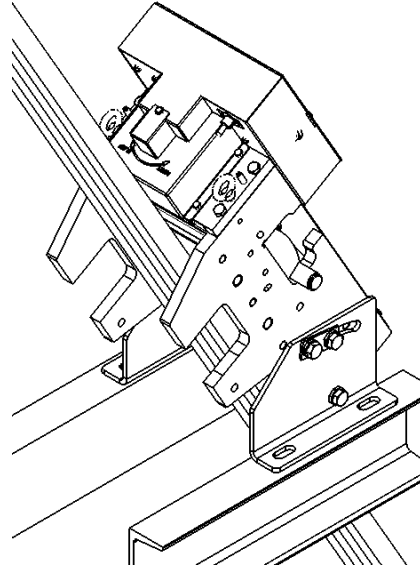


Figure 8 - Angled Ropes

- Use the assembly base to mark the mounting locations for the bolts. A field template (not included) can also be made from cardboard, plywood or Masonite for locating the mounting holes per Figure 9 - Mounting Footprint.
- Remove the assembly or template and drill the required 39/64" dia. mounting holes.

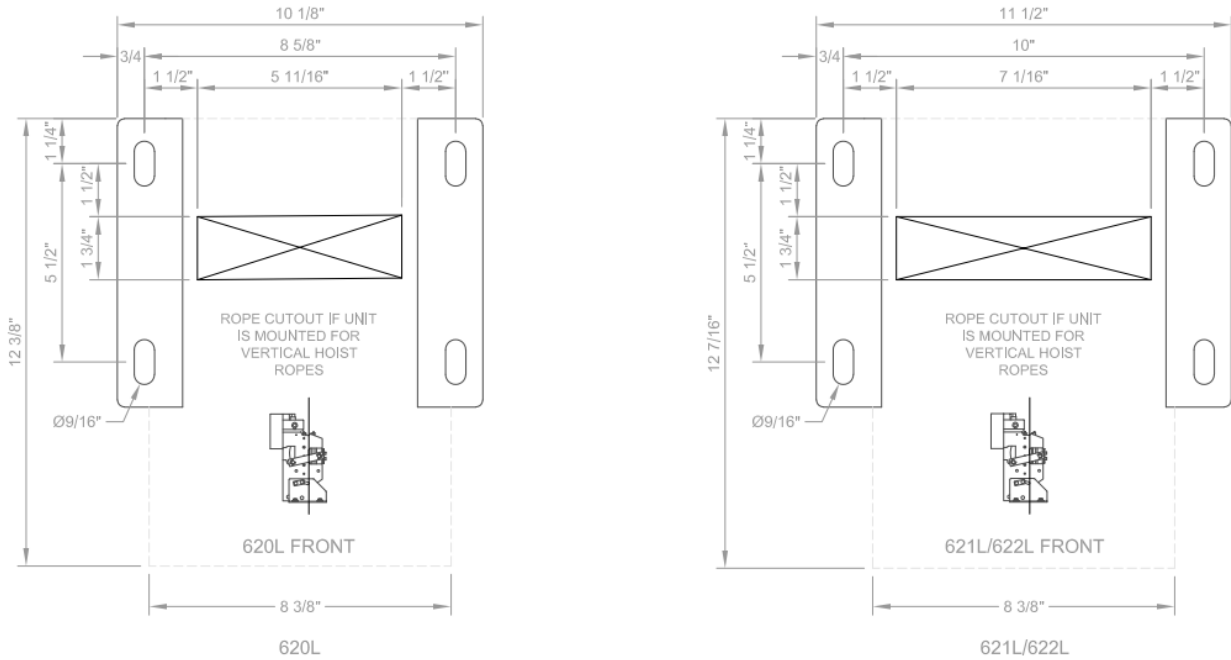


Figure 9 - Mounting Footprints

2.5 Mounting

- Attach Rope Gripper® to mounting channels with the recommended bolts per Table 3. **Do not fully tighten the bolts yet.**

Table 3 - Mounting Specifications

MODEL #	APPROXIMATE UP & DOWN FORCE	GRADE 5 MOUNTING BOLTS (Approximate Torques)	REFERENCE DRAWINGS
620L / 620L-EPU	2000 lbs.	1/2" UNC @ 74 ft.-lbs.	See Appendix (a)
622L / 622L-EPU	4000 lbs.	1/2" UNC @ 74 ft.-lbs.	See Appendix (b)

 **NOTE -**

MOUNTING MUST CONFORM TO LOCAL, STATE, AND APPLICABLE CODES.

- Position the Rope Gripper® so that the stationary shoe lining lightly touches all the ropes from top to bottom.

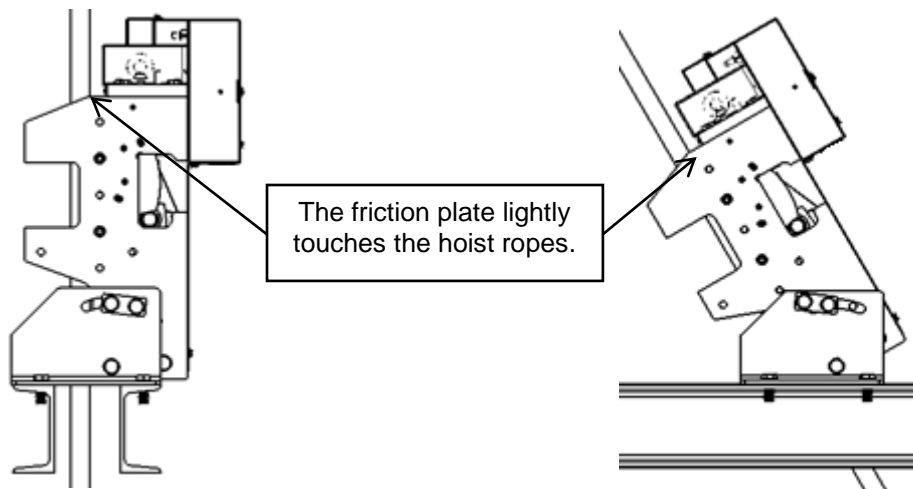


Figure 10 - Stationary Shoe Contact

- Make sure Rope Gripper® is squarely aligned, and centered side to side as much as possible, with the ropes. Misalignment may cause uneven and/or excessive lining wear.

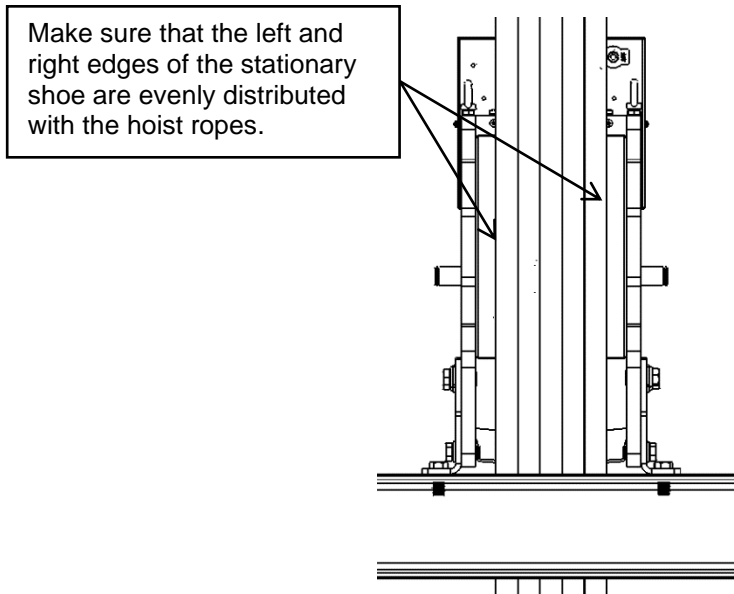


Figure 11 - Rope Distribution

- Securely fasten Rope Gripper® mounting bolts. Make sure they are torqued per Table 3.
- Check rope alignment. Make sure all ropes touch the stationary shoe lining evenly.
- Reinstall the movable shoe assembly. Reinstall the connecting arms with chamfered edges facing the inside of the Rope Gripper® with the wear-in line sticker facing out and secure the four circlips (and washers if applicable).

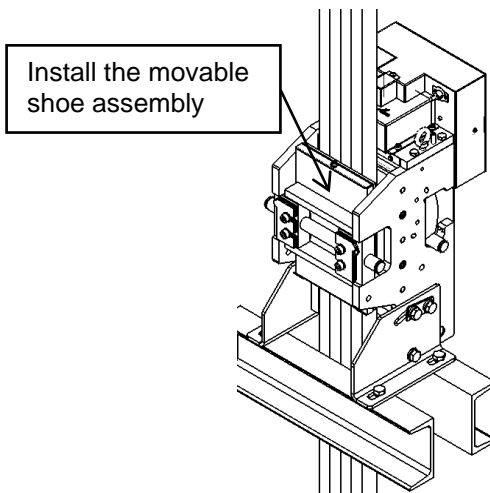


Figure 12- Movable Shoe

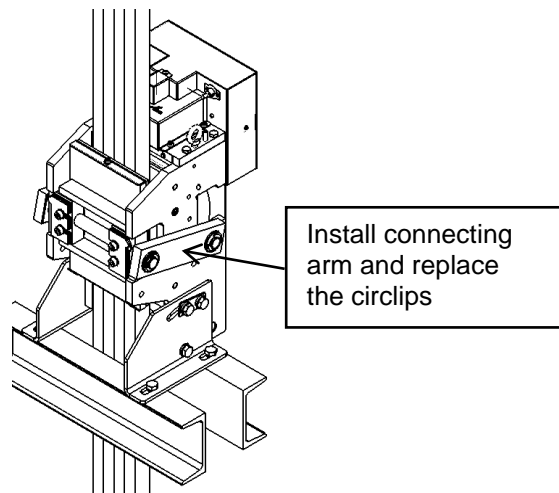


Figure 13 - Connecting Arms

- Connect terminals RG1, RG2, RG5, and RG7 to elevator control. Check control diagram for proper connection. See Figure 21. Connect the earth ground to the grounding screw located in the electrical enclosure.
- Make sure controller safety circuit is active and clear for running. Turn test switch ON. The motor may run momentarily prior to energizing the electromagnetic clutch.
- When the electromagnetic clutch is energized, loosen the two security set screws a turn or two. Confirm that the Rope Gripper® is being held open.
- Remove security set screws. Once removed, store the set screws in the two threaded holes provided in the gearbox base plate.

 **NOTE -**

SECURITY SET SCREWS MUST BE COMPLETELY REMOVED WHEN ROPE GRIPPER® ACTIVATES TO PREVENT THE GRIPPER FROM FAILING TO SET OR CAUSE DAMAGE TO THE UNIT.

- Unit is now ready for the required testing and lining wear-in.

2.6 Testing

- Make sure controller safety circuit is active and clear for running. Turn test switch ON. The Rope Gripper® should be in or go to the ready, open (LOADED) position (NOT clamping the ropes).
- Turn test switch to OFF. This should activate the Rope Gripper®, clamping the ropes. Be sure that while clamping the ropes, the Elevator Can Run switch contacts on the Rope Gripper® stop or prevent power from being applied to the motor and machine brake.

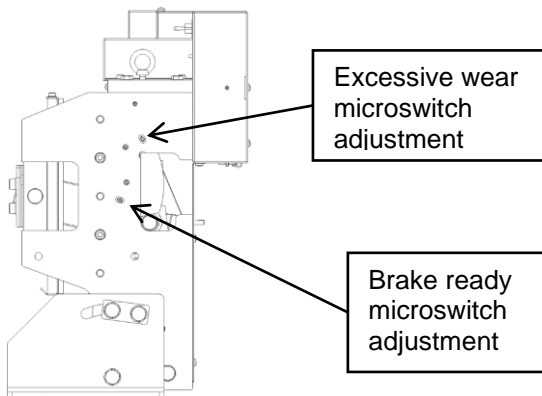


Figure 14 - Connecting Arms

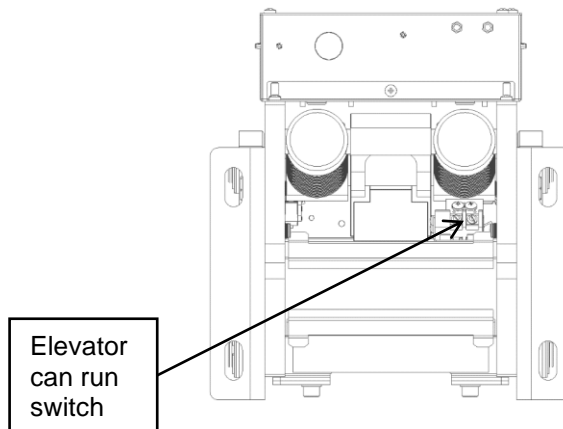


Figure 15 - Connecting Arms

- Turn test switch ON. Rope Gripper® should reload (re-open).

2.7 Lining Wear-In

- The Rope Gripper® will not function properly until the linings have been worn in. A label has been placed on the Rope Gripper® to notify personal of the importance of lining wear in Figure 16 – IMPORTANT – Lining Wear-In.



Figure 16 – IMPORTANT – Lining Wear-In

- A line has been marked on the side wall of the Rope Gripper® to aid in the Wear-In process and a label is located on the Rope Gripper® arms indicating the Rope Gripper® arms must match or cover the wear in line Figure 17 – IMPORTANT – Wear-In Line.



Figure 17 – IMPORTANT – Wear-In Line

NOTE -

AT THIS POINT IN THE PROCEDURE, THIS LINE IS WELL ABOVE THE CONNECTING ARM AND WILL BE MET OR COVERED BY THE CONNECTING ARM DURING THE WEAR-IN PROCESS (SEE FIGURE 1 FOR LOCATIONS OF CONNECTING ARM AND WEAR-IN LINE).

- Make sure test switch is ON.
- Run the car at a slow or inspect speed. Keeping hands clear of all equipment use caution to wipe down the ropes to remove any dirt and/or excess oil and grease from top to bottom.
- Jump terminals RG5 to RG7, preferably at the controller, and run the empty car in slow speed in the direction that the machine will pull the ropes thru the Rope Gripper® (typically DOWN). When the car is up to that speed, turn the test switch OFF. The Rope Gripper® will clamp the ropes with a light pressure and ropes will begin to wear grooves in the linings.

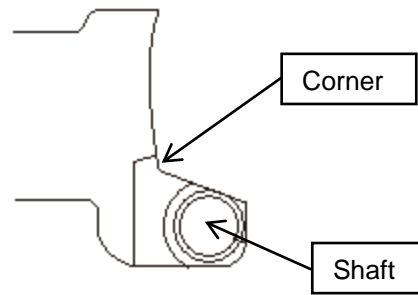


Figure 18 - Connecting Arms

- As the linings wear in, the rotating shaft will move up the cam slot and around the corner of the cam noted above (Figure 18), and the connecting arms (see Figure 1 - Key Components) will move up the side wall and begin to match or line up with the wear-in line marked on the side wall.

 **NOTE -**

IT MAY TAKE SEVERAL CAR RUNS TO COMPLETE LINING WEAR-IN.

- Once the rotating shaft has turned the corner and the wear-in line is matched or covered, stop the car and **REMOVE THE JUMPER FROM RG5 TO RG7.**

 **CAUTION**

FAILURE TO REMOVE THE JUMPER WILL CAUSE UNSAFE CONDITIONS.

If the lining wear-in is not completed after the grooves in the linings have reached approximately 1/16" (1.5 mm) deep, spacer shims (Figure 19) can be moved from between the shaft support blocks and moveable shoe to the outside of the support block to allow the rotating shaft to just turn the corner and move up the cam to near the wear-in line. Refer to Table 2 – Initial Shim Configurations for recommended initial spacer and shim set-up

 **NOTE -**

THE ROPE GRIPPER® WAS SHIPPED FROM THE FACTORY SHIMMED FOR 5/8 INCH ROPES.

CAUTION

BEFORE CHANGING SPACERS, INSTALL SECURITY SET SCREWS TO PREVENT UNINTENDED ROPE GRIPPER® ACTIVATION, WHICH COULD LEAD TO SEVERE PERSONAL INJURY AND/OR DAMAGE TO THE UNIT.

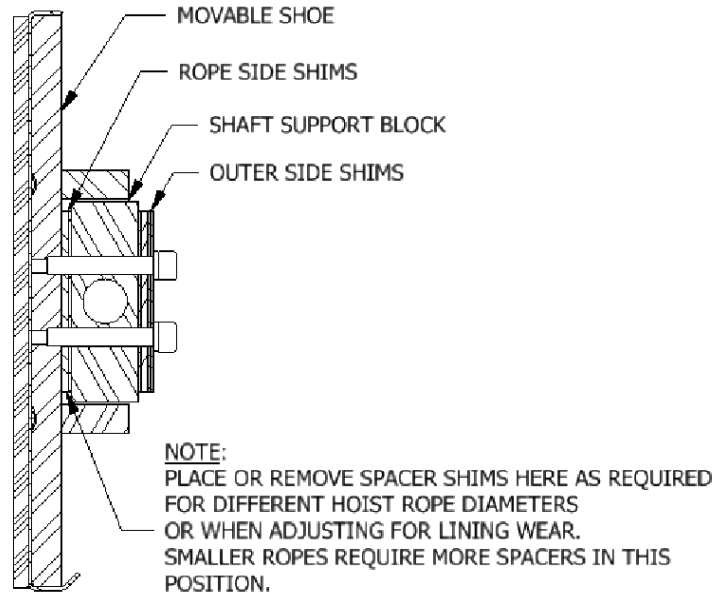


Figure 19 - Shim Locations

Section

3

3 Service

3.1 Safety

- Wear proper PPE (Personal Protective Equipment).
- Inspect tools to ensure they are in good condition and proper working order.
- Read and understand all instructions prior to servicing.
- Follow standard elevator industry and governing safety requirements.

3.2 Lining Replacement

The linings will wear, especially after multiple high-speed stops. When clamping, the rotating shaft will move towards the upper end of the cam as the linings wear. Near the end of the cam, the excessive wear micro switch Figure 14 will open and the Rope Gripper® will not automatically reopen (reload).

In this case you must inspect the linings, and decide whether the spacer shims should be adjusted, or the linings should be replaced. This will depend on whether the grooves in the linings are more or less than 3/16" (4.75mm) deep. To inspect linings for wear, first reopen the Rope Gripper® using Method 1 or 2 below.

1. Turn test switch off. On PC Board, move jumper J1 to J2. Turn test switch on; Rope Gripper® will reload electrically. Once in the open position, install the security set screws so they touch the rotating shaft. Return jumper on J2 to J1. Or;
2. **Turn test switch off.** Refer to section 4.7 Manual Opening. Only open as far as is necessary to install security set screws. Opening Rope Gripper® further will damage Rope Gripper®. Once in the open position, install the security set screws so they touch the rotating shaft and remove any wrenches.

* IMPORTANT-

Use wrenches to open Rope Gripper® only as far as is necessary to install security set screws. Opening Rope Gripper® further could damage Rope Gripper®. Once in the

open position, install the security set screws so they touch the rotating shaft and remove any wrenches.

CAUTION

BEFORE CHANGING SHOES OR SPACERS, INSTALL SECURITY SET SCREWS TO PREVENT UNINTENDED ROPE GRIPPER® ACTIVATION, LEADING TO SEVERE PERSONAL INJURY AND/OR DAMAGE TO THE UNIT.

3.2.1 Excessive Lining Wear

If lining wear is excessive, greater than 3/16" (4.75 mm), linings should be replaced. Remove both connecting arms by removing 4 circlips (and washer if applicable). Remove moveable shoe assembly. Remove screw from top of each lining assembly and remove linings by unhooking them at the bottoms. It may be necessary to loosen the mounting bolts to tip Rope Gripper® to allow access to the stationary shoe. Refer to Table 2 – Initial Shim Configurations for initial spacer and shim set-up to use with new linings. When linings have been replaced, follow the Installation procedure and the Lining Wear-In procedure.

3.2.2 Non-Excessive Lining Wear

If lining wear is not excessive, less than 3/16" (4.75 mm), spacer shims (Figure 19) can be moved from the back side of the shaft support blocks to between the shaft support blocks and moveable shoe. Loosen the bolts that hold the blocks to the movable shoe, move a 1/8" spacer shim from the outer side to the rope side under the blocks and tighten bolts. Addition of shims between the block and the shoe will move the shoe closer to the ropes and lower the position of the rotating shaft toward the bottom end of the cam when clamping.

When replacements are complete, turn the test switch ON and carefully remove the security set screws, being sure the electromagnetic clutch holds. Follow the procedures described earlier to ensure that the rotating shaft will be around the corner at the bottom of the cam (and connecting arm position matches or covers the wear-in line marked on the side wall) when gripping the ropes.

IMPORTANT-

After replacing the linings or after adjusting the spacer shims it is important to test the Rope Gripper® to ensure the Rope Gripper® is functioning properly and the rotating shaft is around the corner.

3.3 Lubrication Instructions

It is important to maintain a thin layer of general-purpose grease on the cam and guides. A lubrication instructions label is also continually located on the Rope Griper® Figure 20 – Lubrication Instructions.

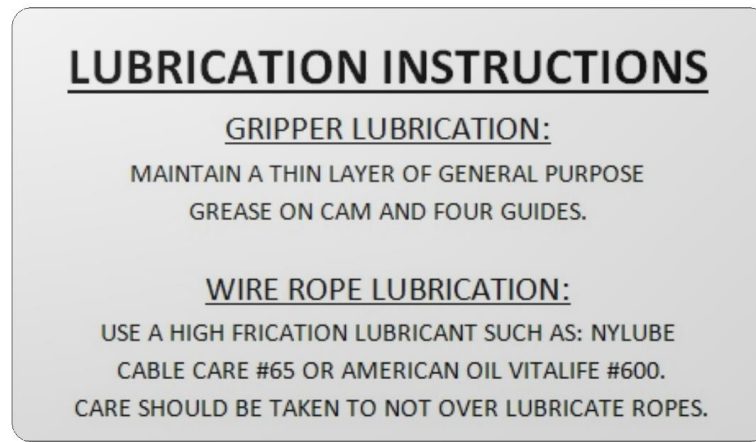


Figure 20 – Lubrication Instructions

3.4 Testing All Circuits

The following three tests should be made while the car is running in slow speed in both the up and down directions. During each test the Rope Griper® 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 the Rope Griper® test switch OFF. Observe A, B, and C above.
 - 2) With the car in the door zone, open the door or open the door lock circuit, then open the door zone circuit, and observe A, B, and C above.



NOTE -

THE CONTROLLER'S SAFETY CIRCUITS SHOULD REQUIRE A MANUAL RESET BEFORE THE ROPE GRIPPER® REOPENS.

- 3) Manually open the governor over-speed switch and observe A, B, and C above.

 **NOTE -**

THE GOVERNOR WILL REQUIRE A MANUAL RESET AFTER THIS TEST. THE CONTROLLER'S SAFETY CIRCUITS SHOULD THEN REQUIRE A MANUAL RESET BEFORE THE ROPE GRIPPER® REOPENS.

3.5 Suggested Controller Circuits

 **NOTE -**

THE FOLLOWING DESCRIBES CIRCUITS TO MEET CODE REQUIREMENTS AND PREVENT NUISANCE SHUTDOWNS. THE CONTROLS CIRCUIT CAN ALSO BE CONFIGURED SO THAT THE ROPE GRIPPER® ALSO RESPONDS TO OTHER ERRORS.

Both the B44 and A17.1-2000 Codes and more recent codes require new circuitry for activation of the Rope Gripper®. It is the controller manufacturer's responsibility to provide proper circuitry that meets all applicable codes and laws for operating this device.

The function of the Rope Gripper® when applied is to clamp the ropes and stop the car. We recommend that the Rope Gripper® is activated when an over-speed occurs or when the car leaves the floor (door zone) with the doors open (hoist way door unlocked and/or the car gate switch open). If the doors happen to be open while the car is between floors, the Rope Gripper® need not be activated.

It is suggested that a manual reset of the Rope Gripper® require a minimum of 30 seconds of constant pressure activation, to allow the mechanic resetting the Rope Gripper® to quickly react to an unsafe condition. In other words, it is recommended that the reset control act as a constant pressure switch for the first ten seconds, before latching in the run condition after ten seconds.

It is suggested that if the elevator controller has a monitor function for the machine brake, that the Rope Gripper® be activated immediately on sensing a stuck brake condition, rather than waiting for unintended motion to occur.

The suggested circuits shown in Figure 21 and Figure 22 activate the Rope Gripper® by opening contacts RG1, RG2, DZ1, and DZ2. Relay coils RG1, RG2, DZ1 and DZ2 are controlled by the governor over-speed switch (GOS) and function blocks GRC1, GRC2, DZC1, and DZC2, respectively.

3.5.1 GRC1 Description

If the car is not in the door zone when main line power turns “ON”, or when switching from “Inspection” to “Normal Operation”, or when resetting the governor over-speed switch; allow a time interval, signal the door closure, and when the car gate or door interlock contact makes, energize RG1.

Anytime the car is in the door zone (“Inspection” or “Normal Operation”), RG1 is de-energized when both the car gate contact and door interlock contact are opened. Should the car now leave the door zone (unintended motion), power to the Rope Gripper® is removed and the Rope Gripper® is activated. In the door zone, when the car gate contact or door interlock contact is made, energize RG1. If the car should leave the door zone with RG1 energized, then Rope Gripper® activation is prevented. RG1 should remain energized even if both the car and hoist way doors are opened while between floors. When the car is in the door zone again, RG1 should function as above.

3.5.2 GRC2 Description

Redundant circuits are required by the 2000 A17.1 and B44 Codes. Circuits for RG2 function identical to RG1 except separate logic for the timing function, door locks, gate switch and door zone should be used. DZC1 logic could be used for circuits of RG1 and DZC2 for circuits of RG2. (See NOTE in Figure 23)

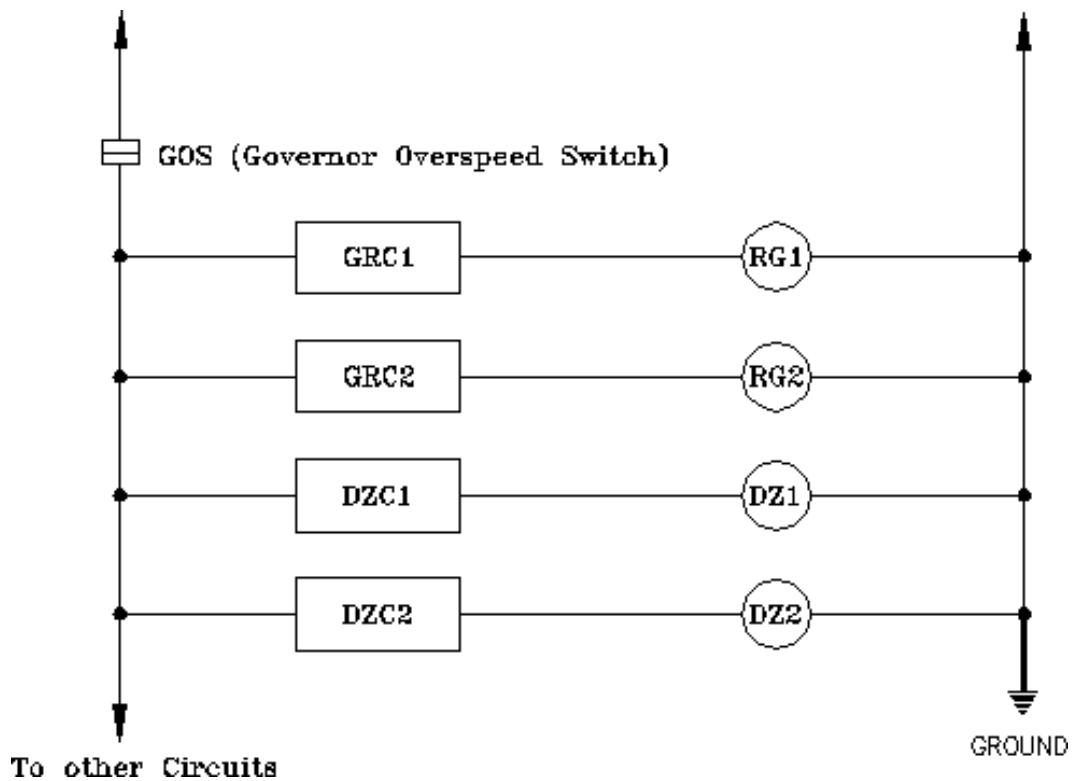


Figure 21 - Circuit – I

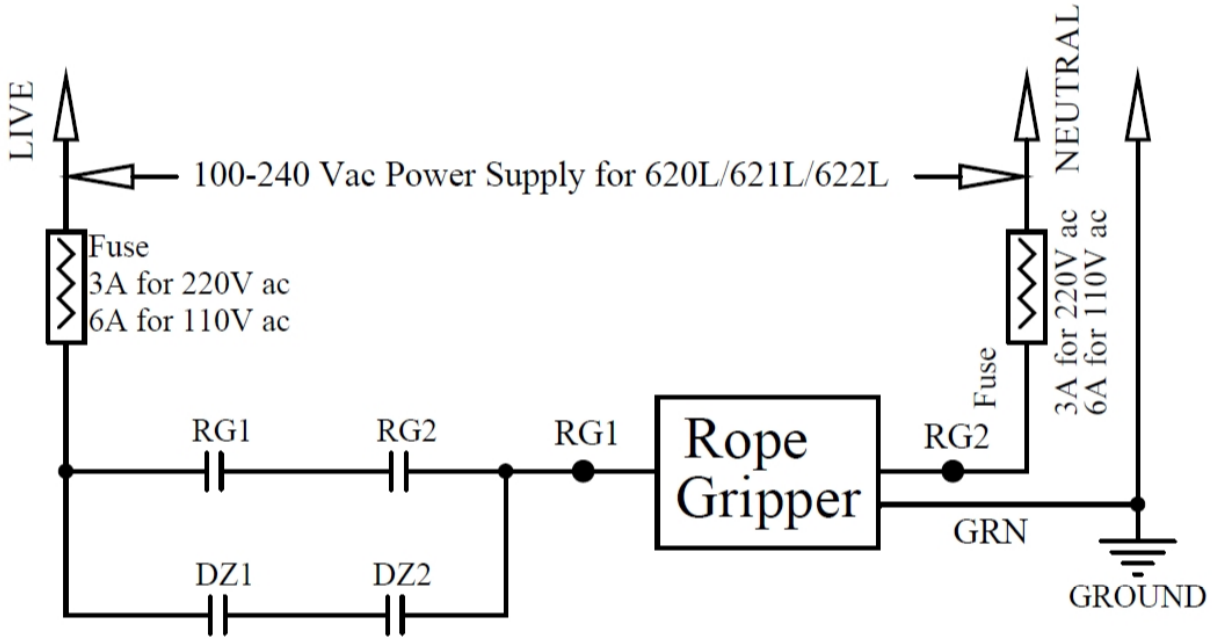


Figure 22 - Circuit - II

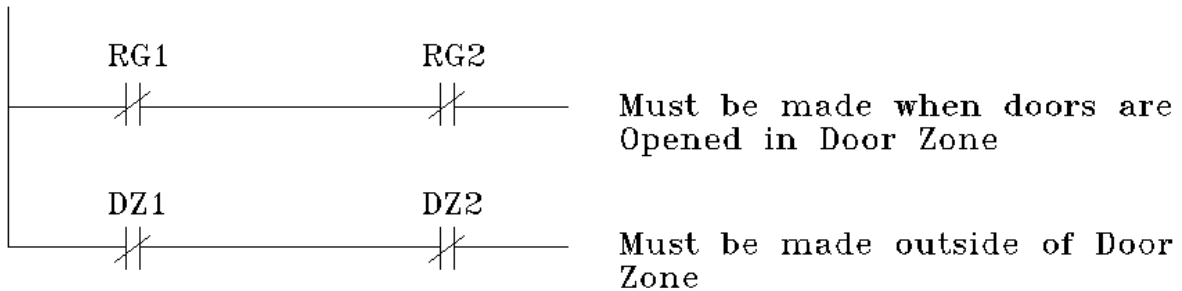


Figure 23 - Circuit -III

 **NOTE -**

IF FORCE GUIDED RELAYS ARE USED FOR RG1, RG2, DZ1, AND DZ2, USE THIS DIAGRAM.

3.5.3 DZC1 Description

DZ1 is energized in the door zone and de-energized outside of the door zone (See Figure 23's Note). Maximum door zone is +/-3 inches [6 inches Total].

3.5.4 DZC2 Description

- Circuits for DZ2 function are identical to DZ1 except a separate door zone signal is utilized.

If the above circuits (Figure 23) do not make contact when required, the elevator must be prevented from running. If other types of relays are used, circuits must prove that contacts from RG1, RG2, DZ1 and DZ2 are functioning properly and when a failure is detected the elevator must be prevented from running.

3.5.5 Gripper Self-Test

The Rope Gripper® is equipped with self-monitoring functionality to ensure that it functioned properly. It is recommended that the controller periodically activate the Rope Gripper® to test proper functioning. It is suggested the controller self-test be done with the elevator doors closed and the normal service brake “set”. If the Rope Gripper® functions properly, the controller will reopen the Rope Gripper® and the elevator will go back into normal operation. It is recommended that this self-test occur at regular intervals such as every three months with the car at the top of the hoist way at a low traffic time in accordance with all standard and local elevator regulations and protocols. Please contact your controller manufacture for further implementation considerations.

Section**4**

4 Operation

4.1 Normal Operation

Power to the Rope Gripper® is constantly maintained. When in the door zone DZ1 and DZ2 provide power to the Rope Gripper®. RG1 and RG2 energize when the doors close. As the car leaves the floor DZ1 and DZ2 de-energize, power to the Rope Gripper® is maintained through RG1 and RG2. When approaching a new floor DZ1 and DZ2 again energize, when the doors open RG1 and RG2 de-energize.

4.2 Over-Speed

When an over-speed is detected, the governor over-speed switch opens; additional over-speed can be detected by use of an encoder or tachometer that detects the speed of the elevator. (Not the motor or worm shaft of a geared elevator.) When detected, relays RG1, RG2, DZ1 and DZ2 de-energize. This removes power from the Rope Gripper®, clamping the ropes and stopping the car.

4.3 Over-Speed Reset

Over-speed reset is accomplished by resetting the governor over-speed switch and the elevator control circuits. Refer to and follow the controller manufacturer's instructions for Rope Gripper® reset.

*** 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. E.g.: 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.

4.4 Unintended Motion

When at the floor with the doors open, relays RG1 and RG2 are de-energized and relays DZ1 and DZ2 are energized. If the car leaves the floor, DZ1 and DZ2 de-energize, removing power from the Rope Gripper®, clamping the ropes and stopping the car.

4.5 Unintended Motion Reset

Unintended motion reset is accomplished through elevator control circuits. Refer to and follow the control manufacturer's instructions for Rope Gripper® reset.

*** 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. E.g. 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.

4.6 Smart Rope Gripper

The Rope Gripper® is equipped with intelligent self-monitoring functionality and will not complete the safety circuit if any internal fault is detected. If you find that the Rope Gripper® is not giving the controller a signal that it is safe to run consult the LED Troubleshooting Guide Figure 28 – LED Troubleshooting Guide to aid in troubleshooting procedures.

4.7 Manual Opening

CAUTION

USE CAUTION WHEN MANUALLY OPENING THE GRIPPER. THE SPRINGS APPLY GREAT FORCE REQUIRING CONSIDERABLE TORQUE TO ROTATE THE BALL SCREW WHEN MANUALLY OPENING. ENSURE TOOLS ARE PROPERLY SECURED TO SHAFT AND TOOLS ARE CONTROLLED WITH A FIRM STEADY GRIP.

During a power failure the Rope Gripper® will activate. When power is restored the Rope Gripper® will automatically reload and put the elevator back into service.

If the car is to be moved during a power outage, manually open the Rope Gripper® as follows:

1. **Confirm machine brake is functioning properly (preventing car movement).**
2. **Confirm the Rope Gripper® power switch to OFF.**
3. Confirm machine brake is functioning properly (preventing car movement).
4. Remove the electrical covers so that the end of the ball screw shaft is accessible.
5. Locate the two 10 mm ratchet wrenches that were provided with the Rope Gripper®.
6. Place one 10 mm ratchet wrench on the end of the ball screw on the top of the Rope Gripper® to act as a holding wrench making sure it locks against the Rope Gripper® as the Rope Gripper® tries to close in the CLAMP direction shown.
7. Use the other ratchet wrench to rotate the shaft in the RESET direction shown to open the Rope Gripper® until the brake is fully opened. The two wrench arrangement can be seen in Figure 24 – Manual Opening below.

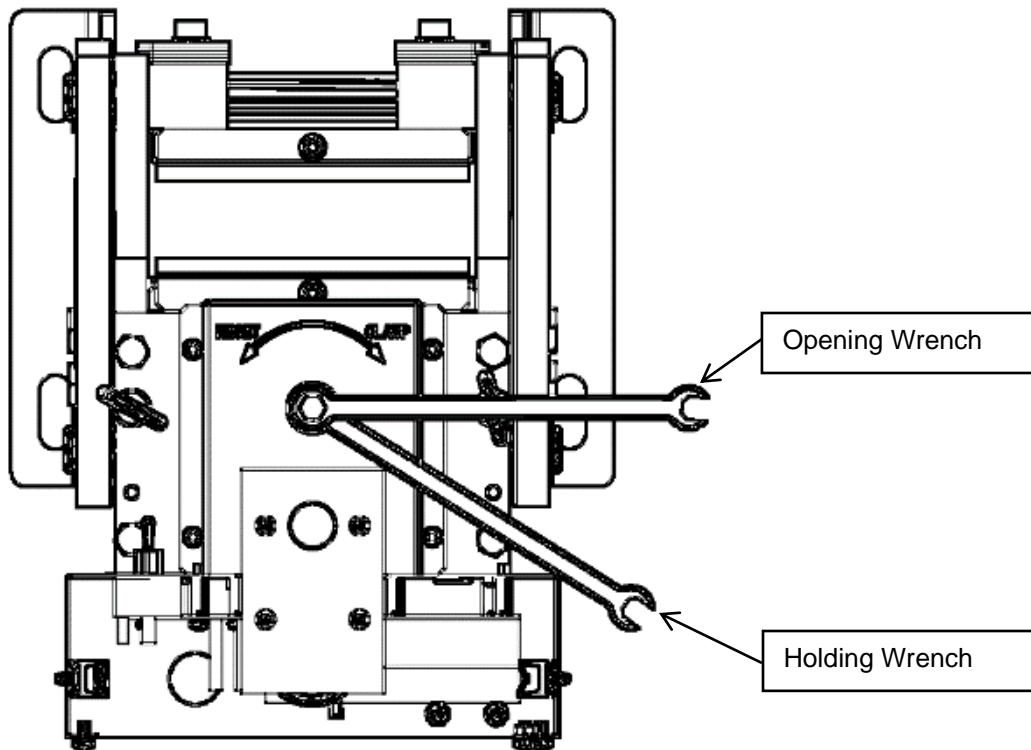


Figure 24 – Manual Opening

* IMPORTANT-

Use wrench(s) to open Rope Gripper® only as far as is necessary to allow car movement. Opening further may damage the Rope Gripper®.

8. To manually close the Rope Gripper®, if applicable turn the wrench a little so that the holding wrench is free and remove the holding wrench.
9. Slowly and carefully guide the wrench to allow the Rope Gripper® to return to the closed position. It may be necessary to use two wrenches to “crab-walk” the Rope Gripper® closed.
10. Once closed remove any wrenches and replace covers.

CAUTION

NEVER TURN THE ROPE GRIPPER® POWER SWITCH ON WITH WRENCHES ATTACHED TO THE BALL SCREW. SERIOUS PERSONAL INJURY AND EQUIPMENT DAMAGE CAN OCCUR.

CAUTION

DO NOT ATTEMPT TO DRIFT THE CAR WITH THE ROPE GRIPPER WITHOUT FIRST CONTACTING HOLLISTER-WHITNEY FOR FURTHER DIRECTIONS.

NOTE -

A ROPE GRIPPER CONFIGURATION WITH AN EMERGENCY POWER UNIT IS AVAILABLE TO OPEN THE ROPE GRIPPER ELECTRICALLY IN THE EVENT OF AN EMERGENCY SUCH AS A POWER OUTAGES. SEE SECTION 7.1 FOR ADDITIONAL INFORMATION.

Section
5

5 Warning Labels

5.1 High Pressure Applied Warning Label

The Rope Gripper® applies significant pressure to the elevator ropes. It is important to use great caution when working with the Rope Gripper®. A warning label is located on the front of the Rope Gripper® to notify personnel Figure 25 – High Pressure Applied Warning Label.



Figure 25 – High Pressure Applied Warning Label

5.2 Movable Shoe Warning Label

The Rope Gripper® applies significant pressure to the elevator ropes. It is important to use great caution when working with the Rope Gripper®. Heightened safety precautions should be used when working around or with the movable shoe. A warning label is located on the movable shoe of the Rope Gripper® to notify personnel Figure 26 – Movable Shoe Warning Label.



Figure 26 – Movable Shoe Warning Label

5.3 More Than One Live Circuit Warning Label

The Rope Gripper® contains more than one live circuit. A warning label is located on the back of the electrical cover Figure 27 – More than one Live Circuit Warning Label. See the wiring schematic Figure 29 – Wiring Schematic for more details.

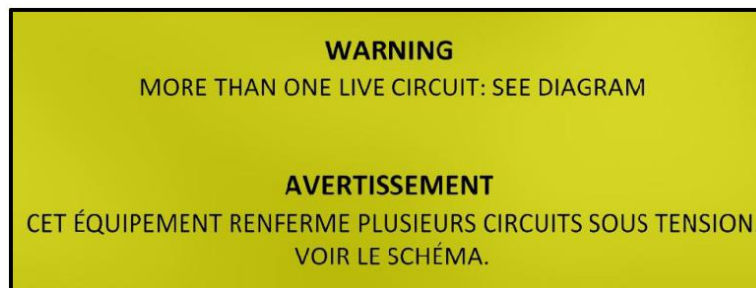


Figure 27 – More than one Live Circuit Warning Label

Section
6

6 Troubleshooting Guide

6.1 LED Troubleshooting Guide

Three LED's are present on the Rope Gripper® circuit board. Please reference Figure 28 – LED Troubleshooting Guide below for troubleshooting.

Linear Gripper PCB LED Troubleshooting Guide			
LED Color			Status Description
RED (POWER)	AMBER (STATUS)	GREEN (OPEN)	
OFF	*	*	Power OFF
ON	*	*	Power ON
ON	ON	ON	Gripper ready
ON	ON	FLASH	Gripper locked OPEN with safety set screws upon power being applied
ON	ON	OFF	1. Preparing to reset and J2 is open 2. Actively resetting and J2 is open
ON	OFF	OFF	1. Excessive pad wear - will not reset and J2 is open 2. Excessive pad wear - actively resetting and J2 is closed 3. Excessive pad wear - reset and J2 is closed
ON	FLASH	FLASH	Gripper closing - loss of power
ON	FLASH	OFF	System error (motor current overload, clutch current overload, rope gripper set without external trigger, etc.)

Figure 28 – LED Troubleshooting Guide

6.2 Wiring Schematic

The wiring schematic depicted in Figure 29 is also present on the back of the electrical box cover to assist in any wiring troubleshooting.

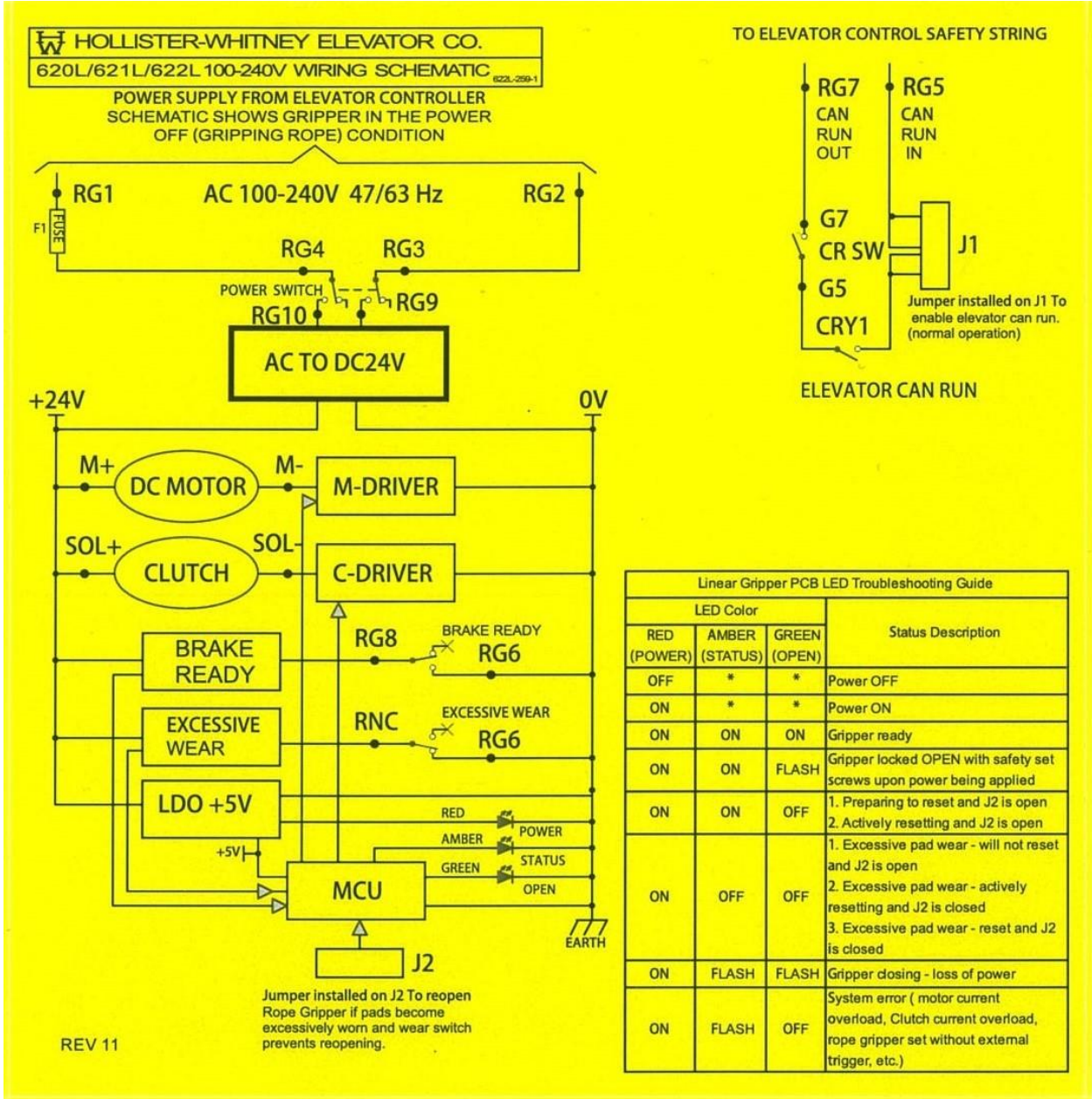


Figure 29 – Wiring Schematic

Section

7

7 Emergency Power Unit

7.1 Emergency Power Unit

When the Rope Gripper® is mounted in a remote location where access is limited a configuration with an Emergency Power Unit is available to open the gripper manually via battery backup in an emergency situation such as a power outage.

The Emergency Power Unit can also be used in non-remote applications for additional ease and safety of opening the Rope Gripper® manually via battery backup as an alternative to the procedure outlined in section 4.7.



NOTE -

EMERGENCY POWER UNIT CONFIGURATIONS ARE ONLY AVAILABLE FOR 110 VOLTS AC POWER SUPPLY. PLEASE SEE TABLE 1 - SPECIFICATIONS FOR DETAILS.

7.2 Features

The Emergency Power Unit relocates the PCBA from the Rope Gripper® to the Emergency Power Unit enclosure for ease of servicing and troubleshooting the Rope Gripper®.

The Emergency Power Unit and Rope Gripper® are connected via a Cable and Terminal Blocks with terminal block RG1 in the Emergency Power Unit being Fused.

A Test Switch is located on the side of the Emergency Power Unit to open and close the Rope Gripper® remotely.

An Operation Switch is also located on the side of the Emergency Power Unit to switch from Normal Operation when the Rope Gripper® is powered by the elevator controller to Emergency Operation when the Rope Gripper® is powered by the Battery Backup UPS.

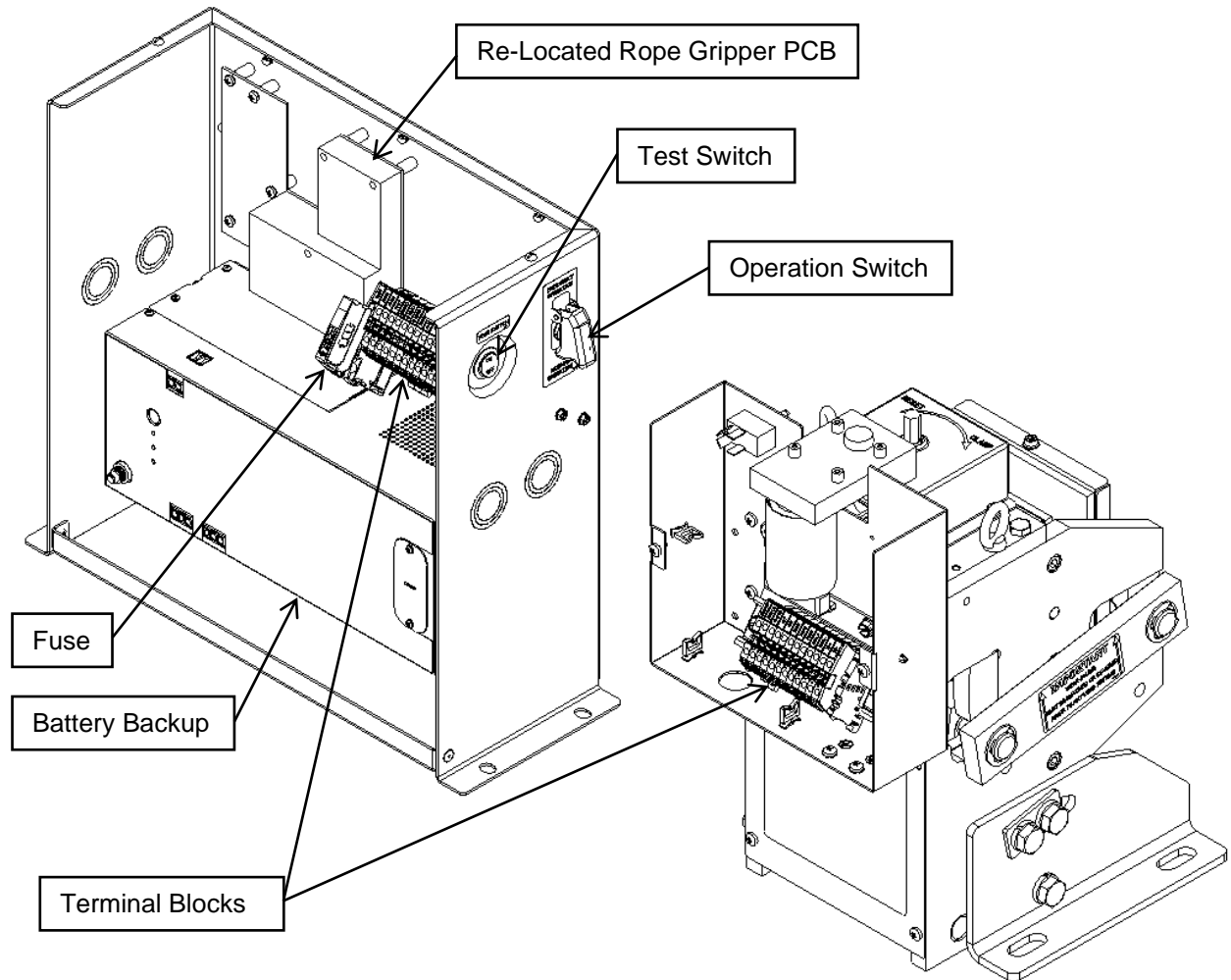


Figure 30 – Emergency Power Unit Key Components

7.3 Installation

The Emergency Power Unit must be oriented upright but can be placed in any location that provides ease of access for serviceability.

- Mount the Emergency Power Unit via the four mounting holes in the best available location within reach of the Rope Gripper® with the cable length ordered.



NOTE -

HOLLISTER WHITNEY DOES NOT SUPPLY MOUNTING HARDWARE.

- Remove the covers on the Emergency Power Unit and Rope Gripper®.
- Remove the appropriate knockouts on the Emergency Power Unit for the cable supplied to connect the Emergency Power Unit to the Rope Gripper® as well as a knockout for the incoming wires from the controller. Also remove the knockout on the Rope Gripper® for the cable. If necessary, wiring on the Emergency Power Unit can be routed to either side of the assembly through the knockouts provided.
- Install any appropriate conduit etc. between the Rope Gripper® and Emergency Power Unit per local jurisdictions and codes as well as the cable provided. Install any appropriate conduit etc. between the Rope Gripper® and the controller per local jurisdiction as well as the wiring specified by the controller manufacturer.

 **NOTE -**

HOLLISTER WHITNEY ONLY SUPPLIES THE CABLE FOR INTERCONNECTIONS BETWEEN THE ROPE GRIPPER® AND THE EMERGENCY POWER UNIT. HOLLISTER-WHITNEY DOES NOT SUPPLY ANY CONDUIT, CONDUIT FITTINGS, CABLE GLANDS, ETC. FOR WIRING.

- Connect the Emergency Power Unit to the Rope Gripper® with the cable provided following the connection diagram below shown in Figure 31. Torque all terminal blocks shown in the Figure 31 to 6.19-7.08 in-lbs.

ROPE GRIPPER WIRE PIGTAIL TO EMERGENCY POWER UNIT CONNECTIONS	TERMINAL BLOCK #											
	EGND	RG12	RG13	G7	G5	RG6	RNC	RG8	SOL+	SOL-	M+	M-
	GREEN / YELLOW	1	2	3	4	5	6	7	8	9	10	11

Figure 31 – Emergency Power Unit Connection to Rope Gripper®

- Connect the Emergency Power Unit to the controller via terminal blocks RG1, RG2, RG5, RG7, and EGND in the Emergency Power Unit. Torque terminal block marked RG1 to 13.28-14.15 in-lbs. Torque RG2, RG5, RG7, and EGND to 6.19-7.08 in-lbs.
- Reinstall the covers on the Emergency Power Unit and Rope Gripper®.

7.4 Testing

This testing section covers the Emergency Power Unit testing only. Before commencing any testing ensure that the Rope Gripper® and Emergency Power Unit are properly installed. See section 2 for additional Rope Gripper® installation and testing instructions.

- Ensure that the elevator controller is supplying power to RG1.
- Ensure the main switch on the Rope Gripper® is in the ON position.
- Ensure that the test switch on the Emergency Power Unit is in the ON position.
- Ensure that the operation switch on the Emergency Power Unit is in the NORMAL OPERATION position.
- Verify that the Rope Gripper® is open.
- Verify the ECR circuit (RG5 & RG7) is MADE.
- Flip the test switch to OFF.
- Verify the Rope Gripper® closes.
- Flip the operation switch to EMERGENCY OPERATION.
- Flip the test switch to ON.
- Verify that the Rope Gripper® opens.
- Verify once open that the ECR circuit (RG5 & RG7) is OPEN.
- Testing is now complete.
- To place the Rope Gripper® back into service flip test switch to OFF.
- Once closed flip the Emergency Power Unit operation switch to back to NORMAL OPERATION.
- Flip the Emergency Power Unit test switch to ON.

7.5 Service

7.5.1 Fuse

A fuse is located in the terminal block identified as RG1 in the Emergency Power Unit. Order part number 620L-686 from Hollister-Whitney for a replacement fuse.

7.5.2 Battery

For a procedure for battery replacement please reference the appropriate manufacture manual for the make/model of UPS present in your Emergency Power Unit. Order part number 620L-648-001 from Hollister-Whitney for a replacement battery.

7.6 Operation

During a power failure the Rope Gripper® will activate. When power is restored the Rope Gripper® will automatically reload and put the elevator back into service.

7.6.1 Manually Opening

CAUTION

USE CAUTION WHEN MANUALLY OPENING THE GRIPPER.

As required manually operate the Rope Gripper® via the Emergency Power Unit as follows:

1. **Confirm machine brake is functioning properly (preventing car movement).**
2. Flip the Emergency Power Unit test switch to OFF.
3. Flip the Emergency Power Unit operation switch to EMERGENCY OPERATION.
4. Flip the Emergency Power Unit test switch to ON.
5. The Rope Gripper® will open.
6. To place the Rope Gripper® back into service flip test switch to OFF.
7. The Rope Gripper® will close.
8. Once the Rope Gripper® is closed flip the Emergency Power Unit operation switch to back to NORMAL OPERATION.
9. Flip the Emergency Power Unit test switch to ON.
10. The rope gripper will open automatically when one power is restored from the controller.

CAUTION

DO NOT ATTEMPT TO DRIFT THE CAR WITH THE ROPE GRIPPER WITHOUT FIRST CONTACTING HOLLISTER-WHITNEY FOR FURTHER DIRECTIONS.

NOTE -

WHILE THE EMERGENCY POWER UNIT OPERATION SWITCH IS IN THE EMERGENCY OPERATION POSITION THE ELEVATOR CAN RUN CIRCUIT WILL BE OPEN.

7.7 Troubleshooting Guide

7.7.1 Wiring Schematic

A wiring schematic is present in the appendix of this manual to assist in any wiring troubleshooting.

7.7.2 Switch Configuration

For normal operation confirm operation switch to NORMAL OPERATION and test switch to ON.

7.7.3 Fuse

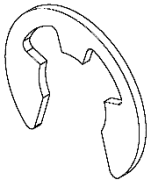

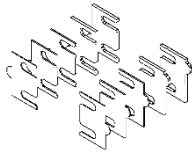
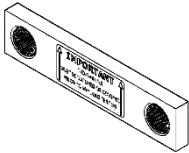
Confirm the fuse in terminal block RG1 of the emergency power unit is in operational condition.

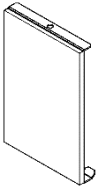
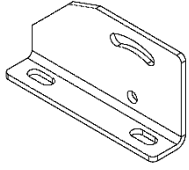
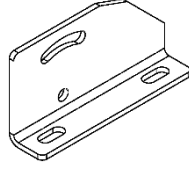
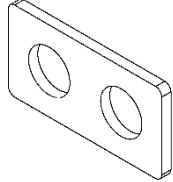
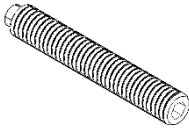
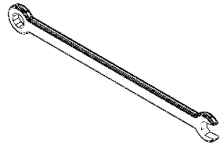
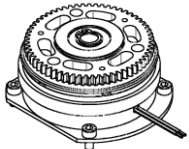
7.7.4 UPS

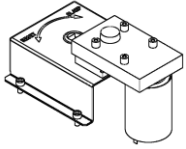
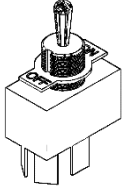
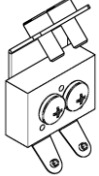
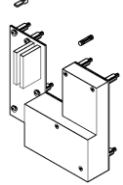

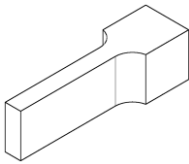
For UPS specific trouble shooting please reference the appropriate manufacture manual for the make/model of UPS present in your Emergency Power Unit.

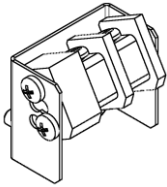
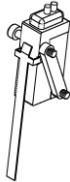
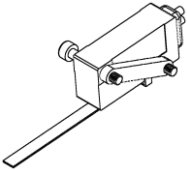


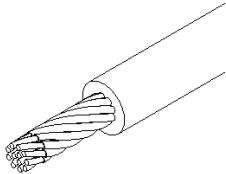
Section
8

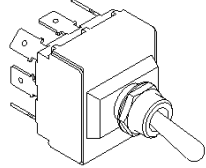


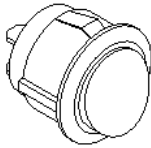
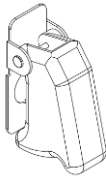

8 Service Parts

Gripper Model	Part Number	QTY Per Gripper	Description	Image
620L 620L-EPU 622L 622L-EPU	90-033-M	4	External Retaining Clip	
620L-EPU 622L-EPU	201-032	1	Locking Hole Plug, Emergency Power Unit	
620L 620L-EPU	620L-008A	1	Movable Shoe Shim Kit	
622L 622L-EPU	622L-008A			
620L 620L-EPU	620L-020	2	Connecting Arm Assembly	
622L 622L-EPU	622L-020			

620L 620L-EPU	620-022-GY 620-022-CH	2	Lining Assembly	
622L 622L-EPU	622-022-GY 622-022-CH			
620L 620L-EPU	601-041-L	1	Mounting Angle – Left	
622L 622L-EPU	600-041-L			
620L 620L-EPU	601-041-R	1	Mounting Angle – Right	
622L 622L-EPU	600-041-R			
620L 620L-EPU	601-095	2	Double Bolt Washer	
622L 622L-EPU	600-095			
620L 620L-EPU 622L 622L-EPU	620-121-M	2	Safety Set Screw	
620L 620L-EPU 622L 622L-EPU	620L-268	2	Ratchet Wrench	
620L 620L-EPU	620L-300	1	Electromechanically Clutch Assembly	
622L 622L-EPU	622L-300			

620L 620L-EPU	620L-301	1	Motor-Gearbox Assembly	
622L 622L-EPU	622L-301			
620L 620L-EPU 622L 622L-EPU	620-302	1	Switch Assembly	
620L 620L-EPU 622L 622L-EPU	620L-303	1	Contact Assembly	
620L 620L-EPU 622L 622L-EPU	620L-304	1	Complete PCBA Assembly	
620L 620L-EPU 622L 622L-EPU	620L-304-002	1	Fuse, PCBA	
620L 620L-EPU 622L 622L-EPU	620L-304-003	1	Jumper	

620L 620L-EPU 622L 622L-EPU	620L-306	1	Contact Terminal Assembly	
620L 620L-EPU 622L 622L-EPU	620L-307	1	Brake Ready Micro-Switch Assembly	
620L 620L-EPU 622L 622L-EPU	620L-308	1	Excessive Wear Micro-Switch Assembly	
620L 620L-EPU 622L 622L-EPU	620L-309	1	Electrical Cover Assembly	
620L	620L-310	1	Lower Front Cover Assembly	
620L-EPU	620L-EPU-310			
622L	622L-310			
622L-EPU	622L-EPU-310			
620L-EPU 622L-EPU	620L-606-005	5 ft	Cable, 14GA, 12 Conductor	
	620L-606-015	15 ft		
	620L-606-030	30 ft		
	620L-606-050	50 ft		

620L-EPU 622L-EPU	620L-626	1	Operation Switch, Emergency Power Unit	
620L-EPU 622L-EPU	620L-648-001	1	Battery, Emergency Power Unit	
620L-EPU 622L-EPU	620L-649S	1	Cover With Sticker Applied	
620L-EPU 622L-EPU	620-680	1	Test Switch, Emergency Power Unit	
620L-EPU 622L-EPU	620L-685	1	Cover, Toggle Switch	
620L-EPU 622L-EPU	620L-686	1	Fuse, Emergency Power Unit	

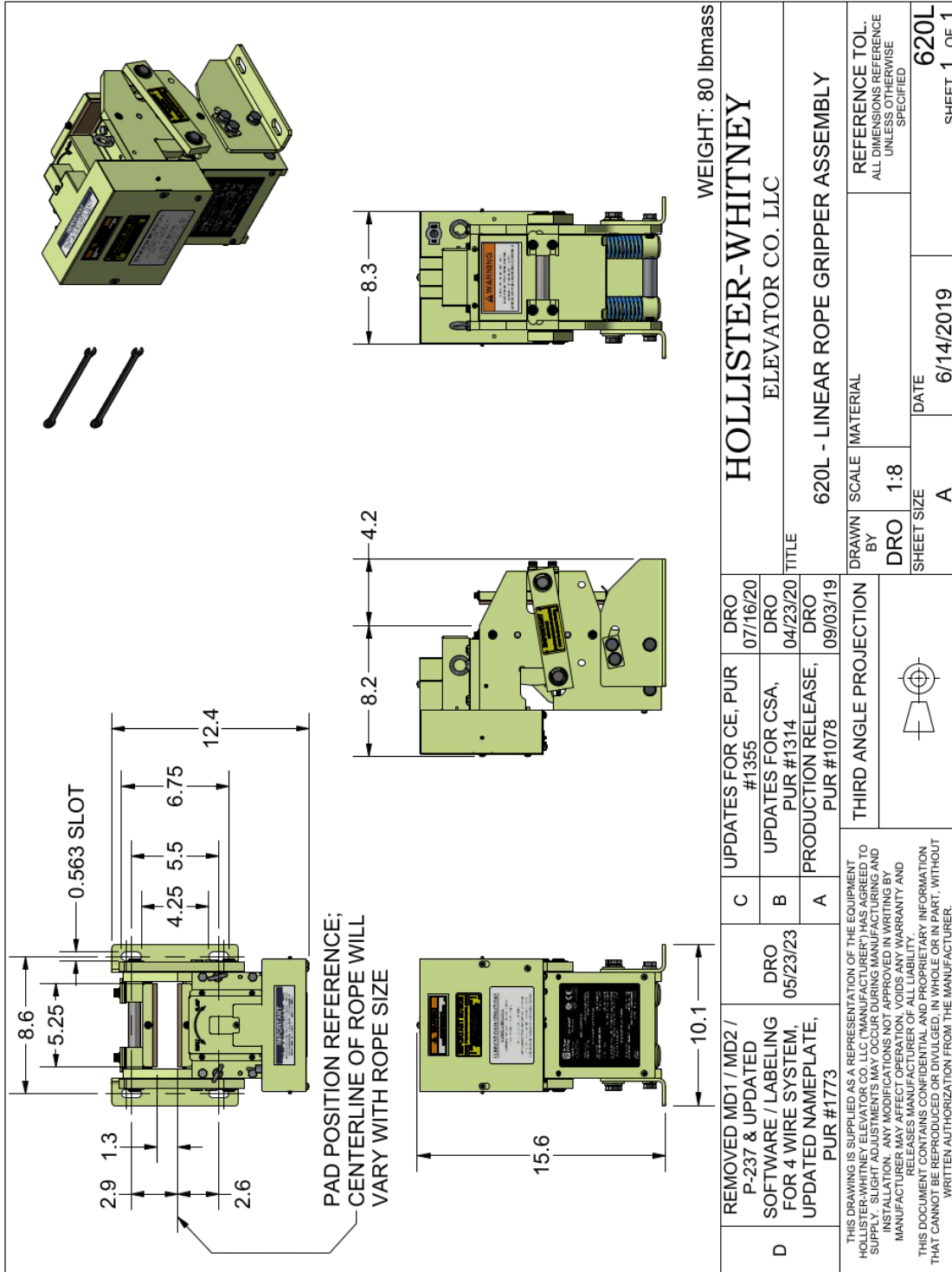
Appendix



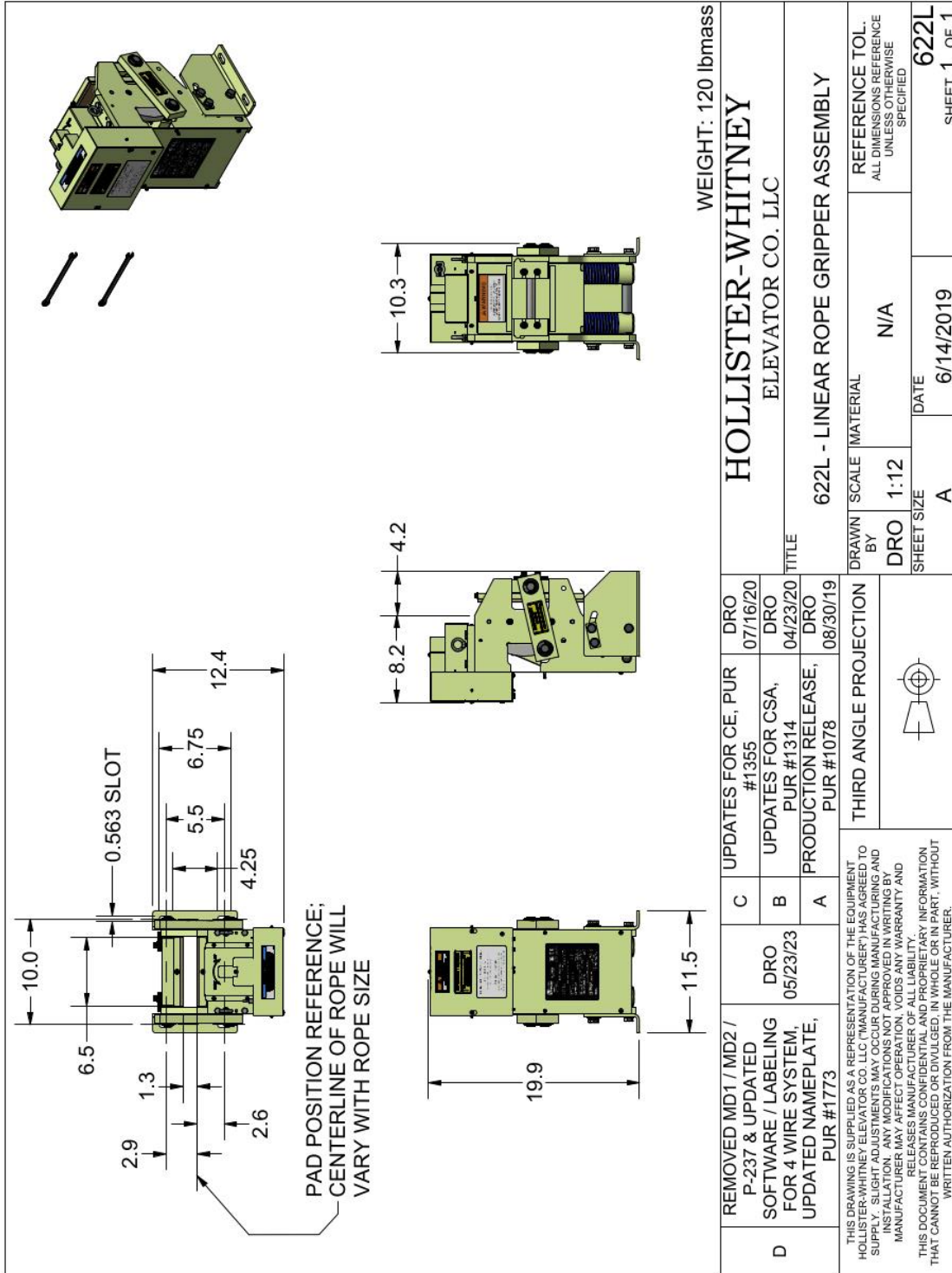
NOTE -

ADDITIONAL SUPPORTING DOCUMENTATION CAN ALSO BE FOUND IN BULLETIN 1182S LINEAR ROPE GRIPPER INSTALLATION & USER GUIDE SUPPLEMENT.

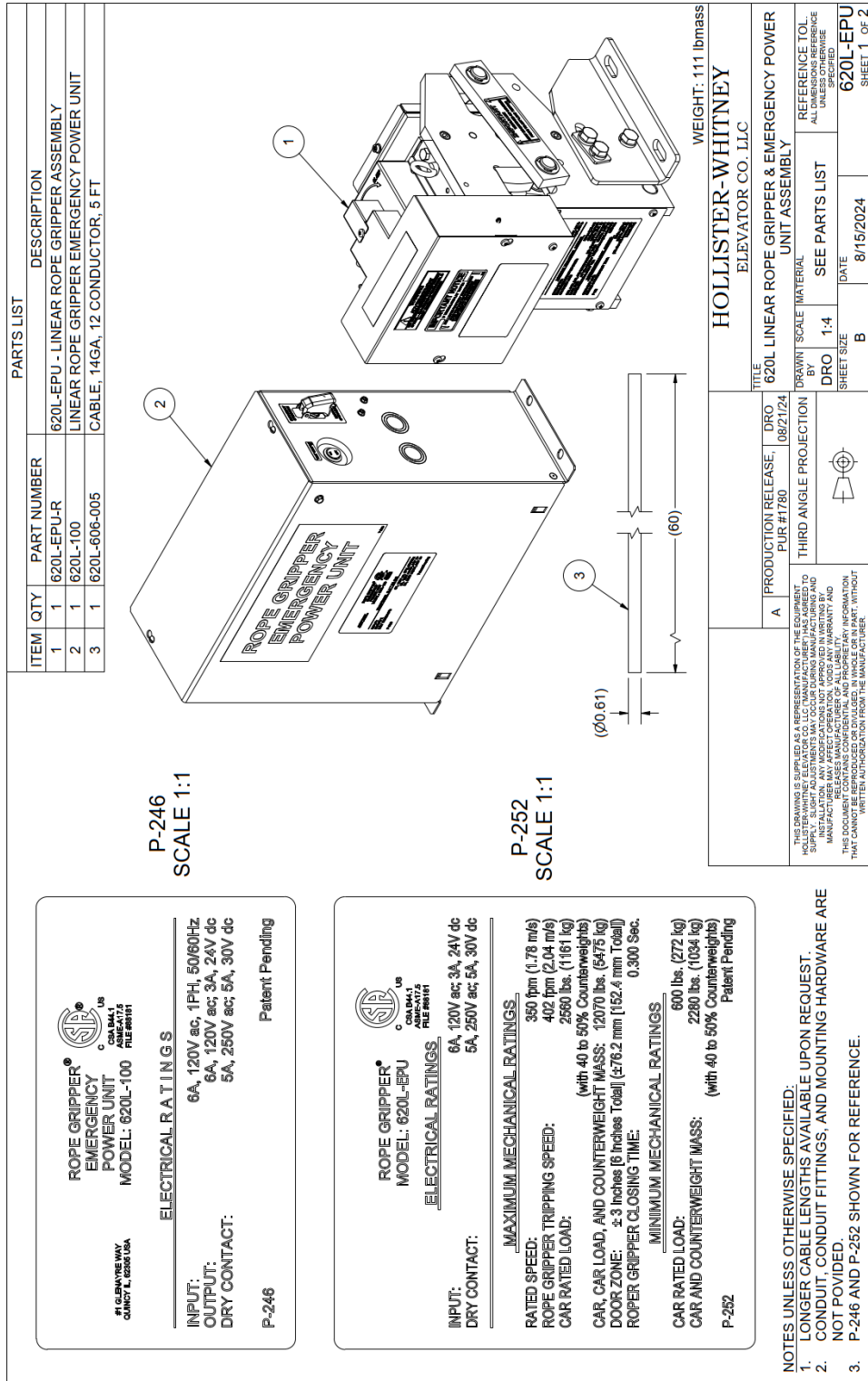
Drawing 1 – 620L	b
Drawing 2 – 622L	c
Drawing 3 – 620L-EPU Sheet 1	d
Drawing 4 – 620L-EPU Sheet 2	e
Drawing 5 – 622L-EPU Sheet 1	f
Drawing 6 – 622L-EPU Sheet 2	g
Drawing 7 – 620L-100	h
Drawing 8 – 620L-100-E Electrical Schematic	i
Drawing 9 – CSA Certificate of Compliance Page 1	j
Drawing 10 – CSA Certificate of Compliance Page 2	k
Drawing 11 – CSA Certificate of Compliance Page 3	l
Drawing 12 – CSA Certificate of Compliance Page 4	m
Drawing 13 – CE Certificate	n



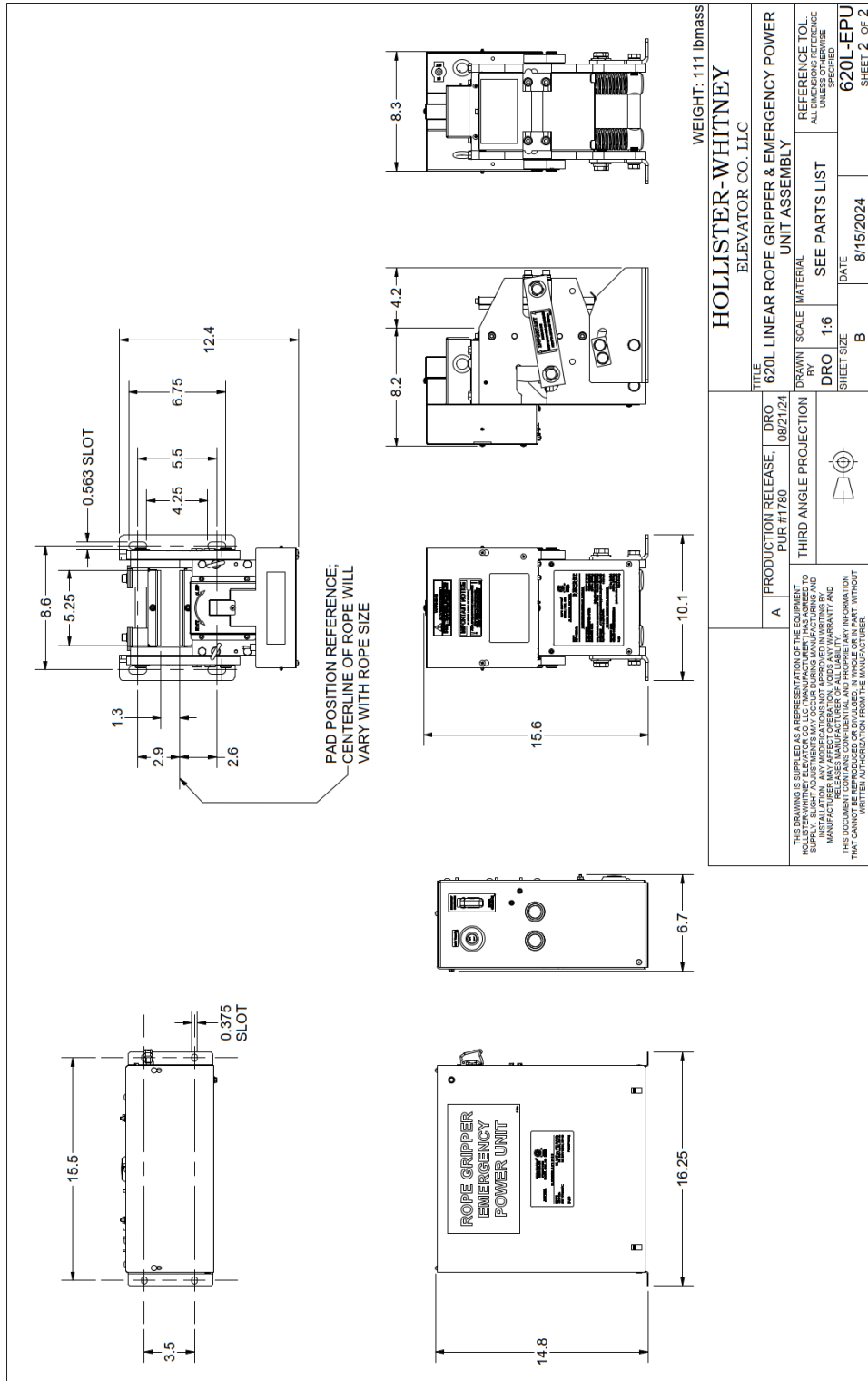
Drawing 1 – 620L



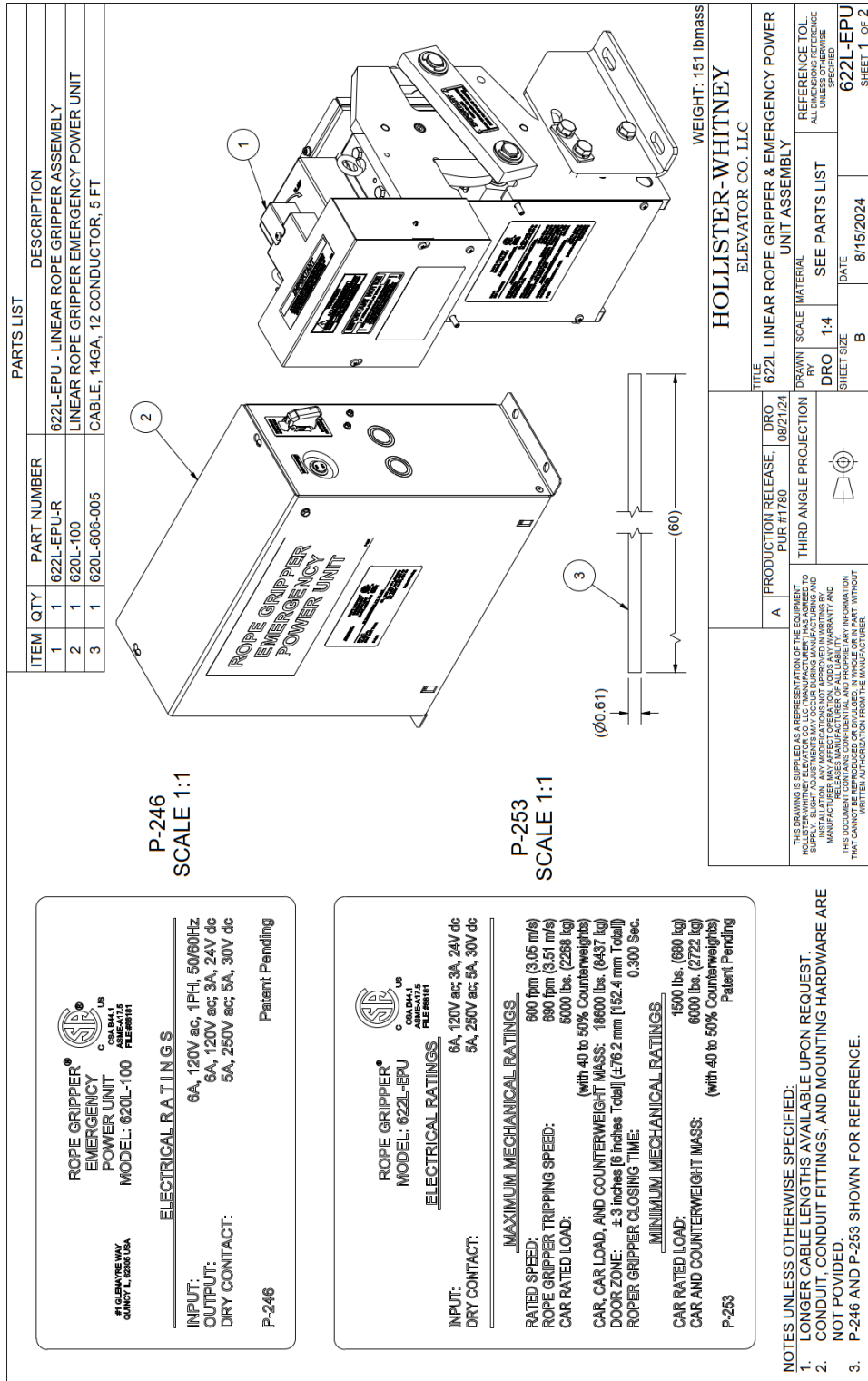
Drawing 2 – 622L



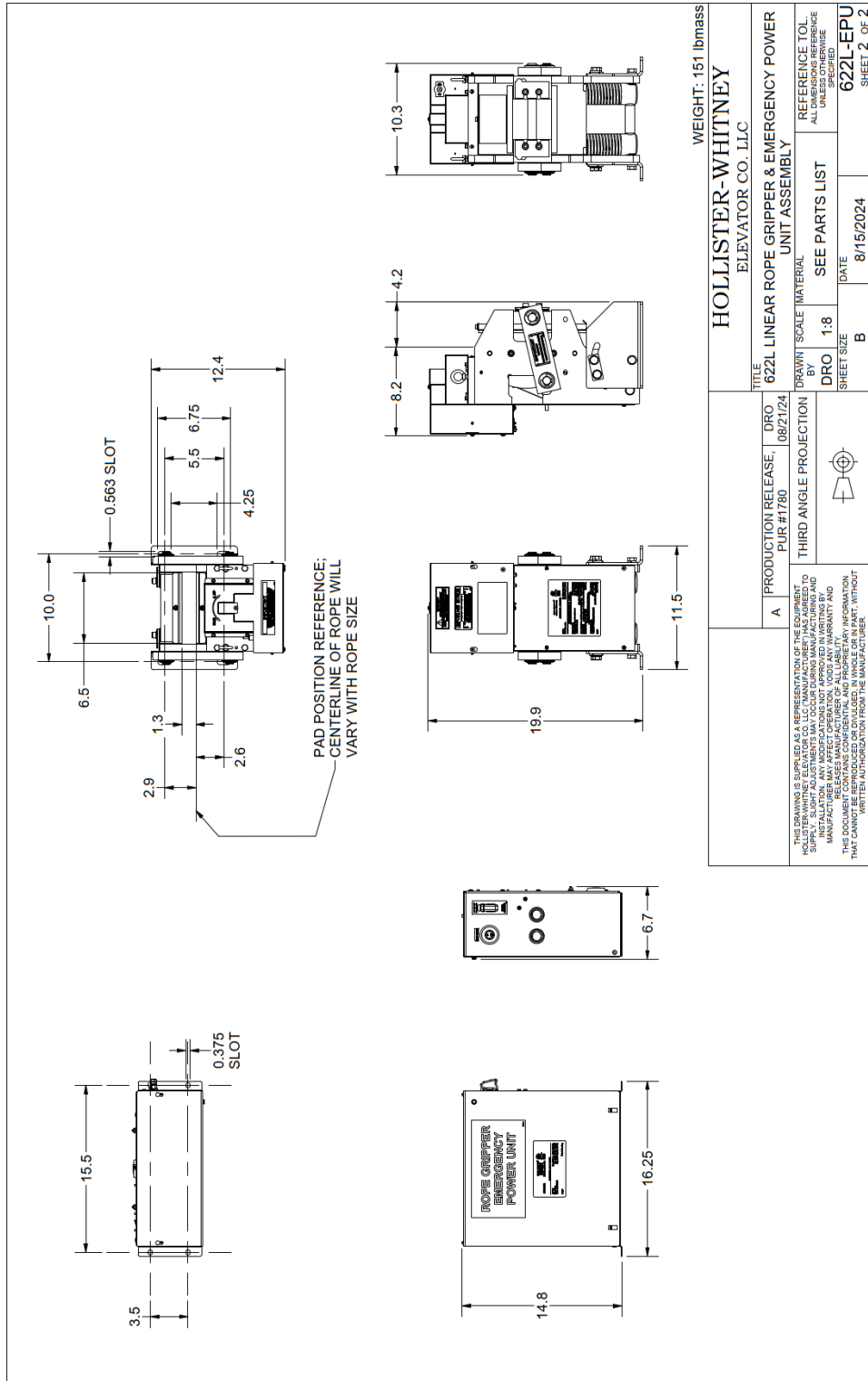
Drawing 3 – 620L-EPU Sheet 1



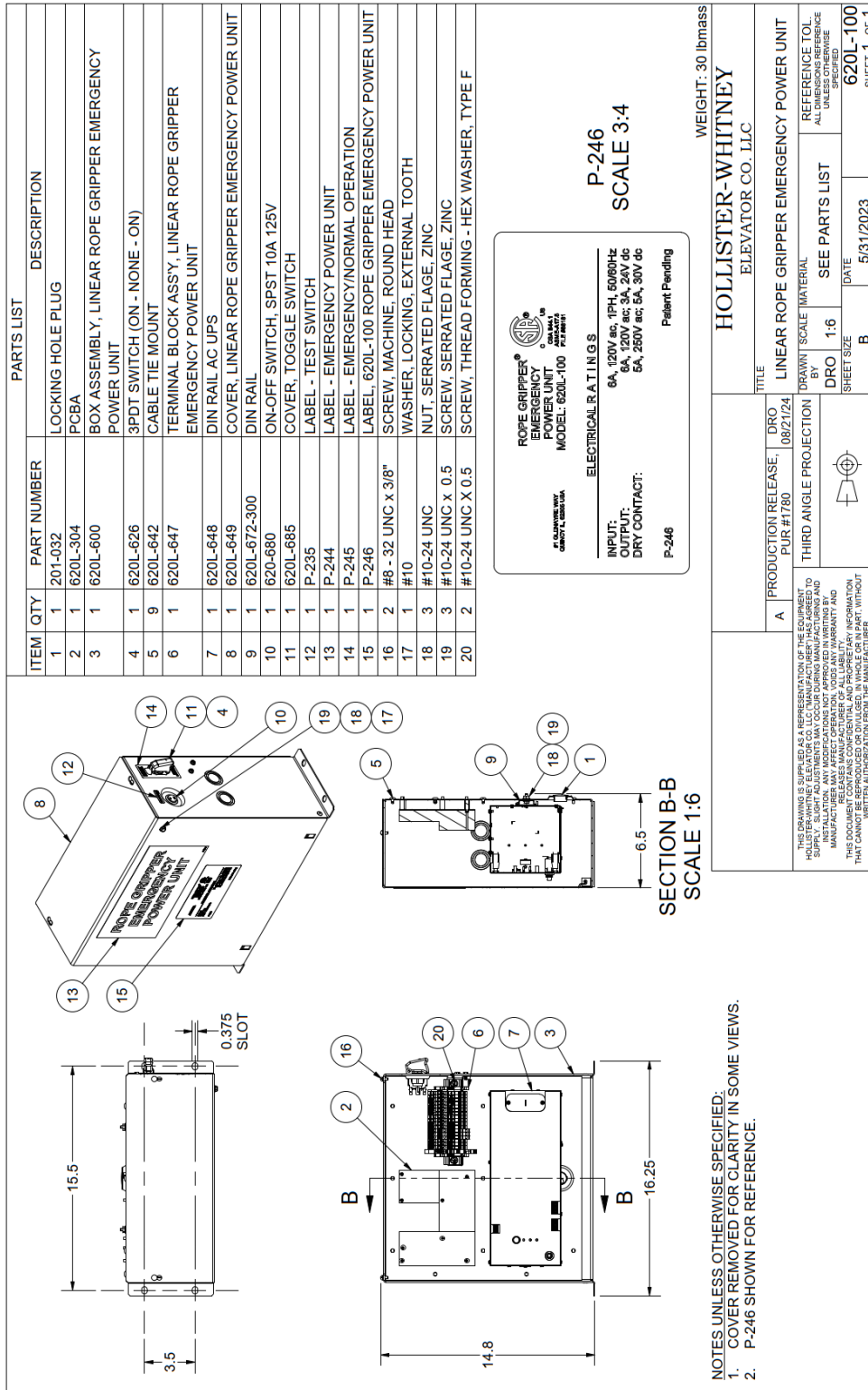
Drawing 4 – 620L-EPU Sheet 2



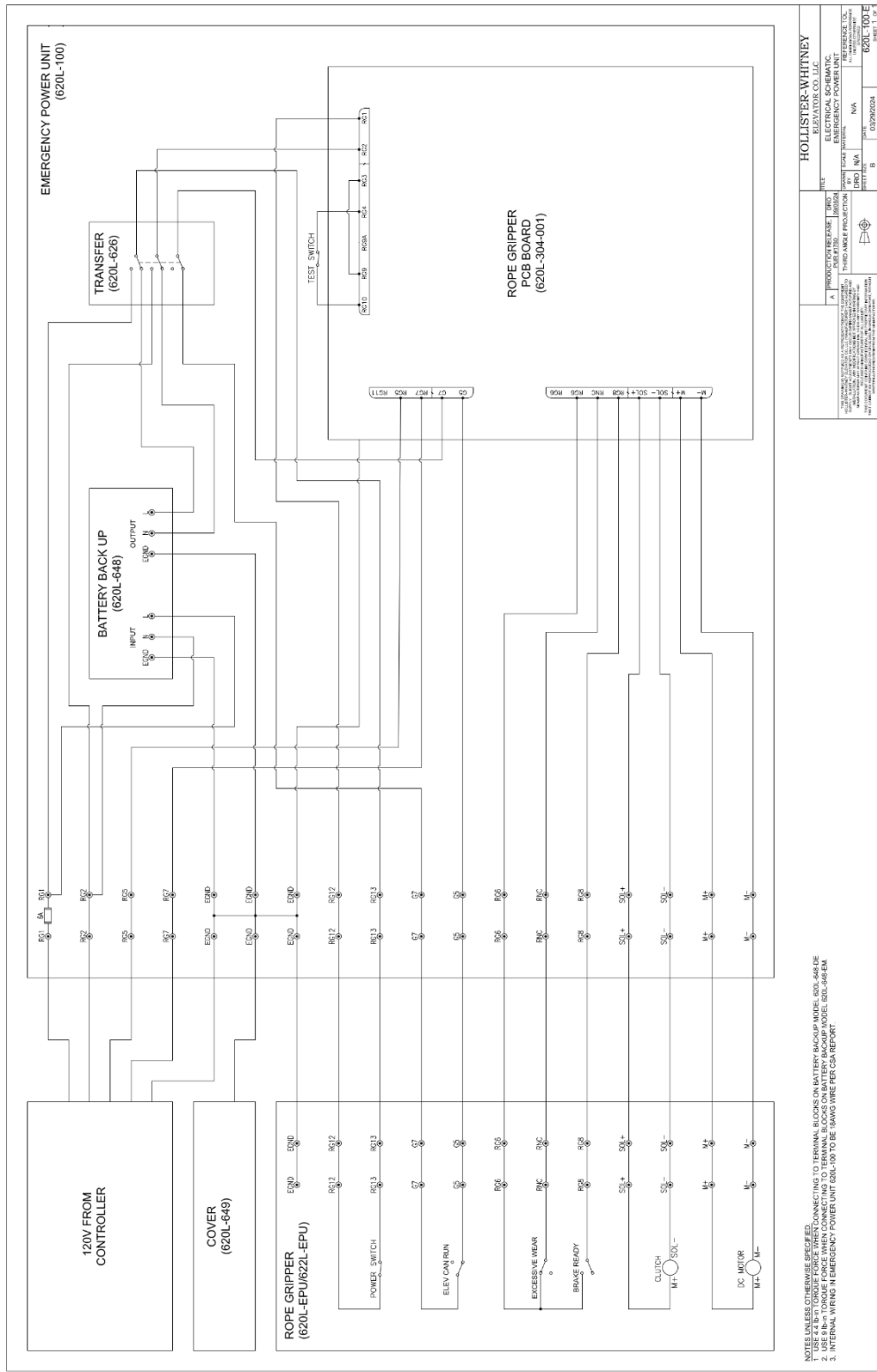
Drawing 5 – 622L-EPU Sheet 1



Drawing 6 – 622L-EPU Sheet 2



Drawing 7 – 620L-100



HOLLISTER-WHITNEY	
ELEVATOR CO. LLC	
ELECTRICAL SCHEMATIC	
COURTESY: HOLLISTER-WHITNEY	
THIRD ANGLE PERSPECTIVE	
REV	DATE
000	03/09/2024
001	03/09/2024
002	03/09/2024
003	03/09/2024
004	03/09/2024
005	03/09/2024
006	03/09/2024
007	03/09/2024
008	03/09/2024
009	03/09/2024
010	03/09/2024
011	03/09/2024
012	03/09/2024
013	03/09/2024
014	03/09/2024
015	03/09/2024
016	03/09/2024
017	03/09/2024
018	03/09/2024
019	03/09/2024
020	03/09/2024
021	03/09/2024
022	03/09/2024
023	03/09/2024
024	03/09/2024
025	03/09/2024
026	03/09/2024
027	03/09/2024
028	03/09/2024
029	03/09/2024
030	03/09/2024
031	03/09/2024
032	03/09/2024
033	03/09/2024
034	03/09/2024
035	03/09/2024
036	03/09/2024
037	03/09/2024
038	03/09/2024
039	03/09/2024
040	03/09/2024
041	03/09/2024
042	03/09/2024
043	03/09/2024
044	03/09/2024
045	03/09/2024
046	03/09/2024
047	03/09/2024
048	03/09/2024
049	03/09/2024
050	03/09/2024
051	03/09/2024
052	03/09/2024
053	03/09/2024
054	03/09/2024
055	03/09/2024
056	03/09/2024
057	03/09/2024
058	03/09/2024
059	03/09/2024
060	03/09/2024
061	03/09/2024
062	03/09/2024
063	03/09/2024
064	03/09/2024
065	03/09/2024
066	03/09/2024
067	03/09/2024
068	03/09/2024
069	03/09/2024
070	03/09/2024
071	03/09/2024
072	03/09/2024
073	03/09/2024
074	03/09/2024
075	03/09/2024
076	03/09/2024
077	03/09/2024
078	03/09/2024
079	03/09/2024
080	03/09/2024
081	03/09/2024
082	03/09/2024
083	03/09/2024
084	03/09/2024
085	03/09/2024
086	03/09/2024
087	03/09/2024
088	03/09/2024
089	03/09/2024
090	03/09/2024
091	03/09/2024
092	03/09/2024
093	03/09/2024
094	03/09/2024
095	03/09/2024
096	03/09/2024
097	03/09/2024
098	03/09/2024
099	03/09/2024
100	03/09/2024

NOTES UNLESS OTHERWISE SPECIFIED:
 1. USE 4 #14 THREADED RODS WHEN CONNECTING TO TERMINAL BLOCKS ON BATTERY BACKUP MODEL 620L-648 DE
 2. USE 4 #14 THREADED RODS WHEN CONNECTING TO TERMINAL BLOCKS ON BATTERY BACKUP MODEL 620L-648 DE
 3. INTERNAL WIRING IN EMERGENCY POWER UNIT 620L-100 TO BE SAWS WIRE PER CSA R6701.

Drawing 8 – 620L-100-E Electrical Schematic



Certificate of Compliance

Certificate: 80000312 **Master Contract:** 155941
Project: 80188681 **Date Issued:** 2024-10-01
Issued to: Hollister-Whitney Elevator Co., LLC
 2603 North 24th St
 Quincy, Illinois 62305
 United States
Attention: Dustin Petersen

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Rowell Manipula
 Rowell Manipula

CSA B44.1/ASME A17.5

PRODUCTS

Class 2411 01 ELEVATOR EQUIPMENT - Elevator Electrical Equipment
 Class 2411 81 ELEVATOR EQUIPMENT - Open and Enclosed Elevator - Electrical Equipment - Certified to US Standards

Part A Rope Gripper

Model(s)	Electrical Rating
620L, 621L, 622L	Power Supply 1A, 100-240Vac, 1 phase, 50/60Hz Contact Ratings: 250Vac, 5A, 5A/30Vdc
620L-EPU, 622L-EPU	Input: 6A, 120V; 3A, 24V dc Dry Contact: 5A, 250V ac; 5A, 30V dc

Part B Rope Gripper Emergency Power Unit

Drawing 9 – CSA Certificate of Compliance Page 1



Certificate: 80000312

Master Contract: 155941

Project: 80188681

Date Issued: 2024-10-01

Model(s)	Electrical Rating
620L-100	Input: 6A, 120V ac, 1Ph, 50/60Hz
	Output: 6A, 120V ac; 3A, 24V dc
	Dry Contact: 5A, 250V ac, 5A, 30V dc

APPLICABLE REQUIREMENTS

CSA B44.1:19/ASME A17.5-2019 - Elevator and escalator electrical equipment

Drawing 10 – CSA Certificate of Compliance Page 2



Certificate: 80000312

Master Contract: 155941

Project: 80188681

Date Issued: 2024-10-01

Notes:

Products certified under Class(es) C241101 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

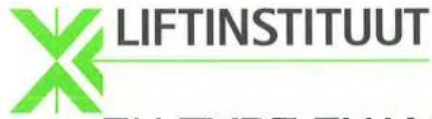
Certificate: 80000312

Master Contract: 155941

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
80188681	2024-10-01	Update to report 80000312 to add Model - 620L-100, 620L-EPU, and 622L-EPU, and add alternate components.
80000312	2020-03-04	Original certification of 620L rope gripper



EU-TYPE EXAMINATION CERTIFICATE

Issued by Liftinstituut B.V.
 Identification number Notified Body 0400,
 commissioned by Decree no. 2018-0000125182

Certificate no.	: NL20-400-1002-020-05	Revision no.:	-
Description of the product	: Rope Brake, certified as stopping element of ascending car overspeed protection and/or unintended car movement protection		
Trademark	: Linear Rope Gripper Assembly		
Type no.	: 620L, 621L, 622L		
Name and address of the manufacturer	: Ensota (Guangzhou) Technologies Ltd. Suixing Industrial Building, Minghua 1 Street, Guangzhou Economic & Technological Development District, Guangzhou, China		
Name and address of the certificate holder	: Hollister-Whitney Elevator Co., LCC P.O. Box 4025 2603 North 24th Street Quincy, Illinois 62305, USA		
Certificate issued on the following requirements	: Lifts Directive 2014/33/EU		
Certificate based on the following standard	: Parts of: EN 81-20/50:2014		
Test laboratory	: Shenzhen Institute of Special Equipment Inspection and Test (SISE) 1032 Honggang Road, Luohu District, Shenzhen, China		
Date and number of the laboratory reports	: June 15, 2020; 2020AF0416, 2020AF0417, 2020AF0436, 2020AF0437, 2020AF0438, 2020AF0439		
Date of EU-type examination	: August 20, 2020		
Additional document with this certificate	: Report belonging to the EU-type examination certificate no.: NL20-400-1002-020-05		
Additional remarks	: None		
Conclusion	: The safety component meets the requirements of the Lifts Directive 2014/33/EU taking into account any additional remarks mentioned above.		

Amsterdam

Date : 26-08-2020
 Valid until : 26-08-2025

ing. P.J. Peeters
 Manager Certification

Certification decision by

Liftinstituut B.V. · Buisklotermeerplein 381 · P.O. Box 36027 · 1020 MA Amsterdam Netherlands · www.liftinstituut.com · Registered at the KvK under number 34157363

F23-02-16-v18.0

Drawing 13 – CE Certificate