

INSTRUCTIONS FOR INSTALLING A CHANNEL FRAME HUMPHREY MANLIFT ELEVATOR

FLOOR OPENINGS – It is assumed that the correct sized openings have been provided in all the floors to be traversed by the Manlift. All openings must be of the same size.

HEAD ASSEMBLY – Support the head assembly above the top floor to be served by the Manlift. If drive unit supports have been provided with the Manlift, they should be used for this purpose. The height from top floor to bottom of channel bedplate should be as shown on the Manlift drawing. The head pulley should be centrally located plumb and square over the line of openings in the floors

FOOT ASSEMBLY – The foot assembly is furnished completely assembled. Do not remove the angle anchor plates, which are attached to the leg castings. Plumb and square foot assembly under the head assembly. Anchor foot assembly to bottom floor (or pit floor) through the holes in angle anchor plates.

LINE UP – Hang plumb lines between at least two (2) corners of the head and foot circles, and bolt a frame brace securely to each floor according to the plumb lines.

CHANNEL GUIDE RAILS – Beginning at the top floor or the bottom, install 3” 4.1# channel guide rails forming the frame of the Manlift. The channel guide rails are pre-drilled and match-marked, and should be installed in accordance with these markings. The markings, beginning at the bottom and facing the Manlift on the up side, are as follows:

Left Front	C – C1 to C1 – C2 to C2 – C3, etc.
Right Front	B – B1 to B1 – B2 to B2 – B3, etc.
Left Rear	D – D1 to D1 – D2 to D2 – D3, etc.
Right Rear	A – A1 to A1 – A2 to A2 – A3, etc.

Splice plates for attaching the channel guide rails together are shipped in the hardware box. Bolt the guide rails to the frame braces already located at each floor. After the guide rails are so placed, add the intermediate frame braces where the guide rails are drilled for it. The locations of the intermediate frame braces are shown on the floor line sketch (Form H27). 5/16 x 1” flat head machine screws with lock nuts are furnished for attaching the splice plates and frame braces to the channel guide rails. 5/16 x 1 ¼” flat head machine screws with lock nuts are furnished for attaching the channel guide rails to the head and foot circles. These machine screws and lock nuts are shipped in the hardware box. The holes in the channel guide rails are countersunk so that the bolt heads will not protrude inside the guide rails.

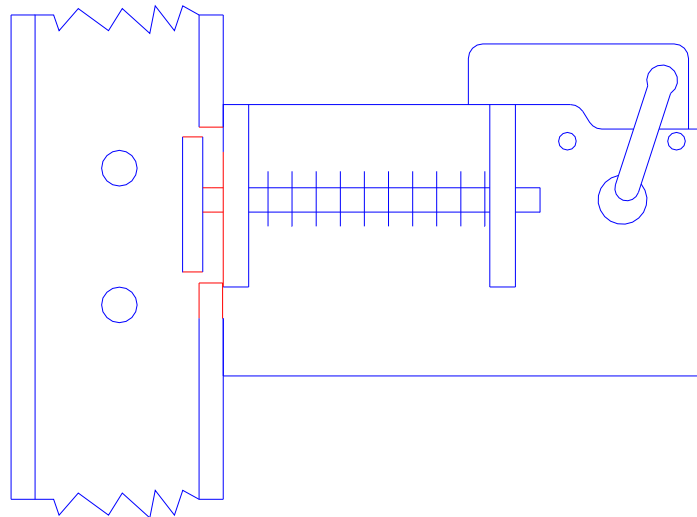
Where there is a distance of more than 15’0” between landings, we recommend that lateral bracing be provided to the channel guide rails.

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MOVEABLE SAFTY CONE HOODS – If moveable safety cone hoods are being used, they should be installed now. To mount moveable cone hoods, drill 13/32” bolt holes in the channel guide rails, 6” down from the underside of the floor openings, and 1” in from the outside edge of the guide rail (one on each side of front guide rails, facing Manlift on up travel side). Drill 13/32” bolt holes on 2” centers below the first holes drilled. Bolt the two (2) U-shaped steel mounting brackets to the guide rails with the open end to the rear (one on each side of the front Manlift guide rails), with 3/8 x 1” truss head bolts with lock nuts. Attach cone hoods to guide rails using tubing spacers, bolts, washers and nuts provided. Adjust L-73 counter balance weights on the cone hood arms so that the cone hood is parallel with approaching floor opening, and install ½ x 1” set screws.

STATIONARY SAFETY CONE HOODS – If stationary safety cone hoods are being used, remove circular angle and insert neck of hood through the floor openings. Replace circular angle, allowing flange of angle to rest on top floor. Attach circular angle to floor.

SAH-14 SAFETY STOP DEVICE – Install SAH-14 safety stop device(s) above the top floor served (on up travel side of Manlift) where channel guide rail is cut out for it. If SAH-14 foot safety stop device(s) is/are being used, install on the channel guide rail at bottom of Manlift (on down travel side) where channel guide rail is cut out for it. The weight of a person standing on the step, or a weight of fifty (50) pounds, will depress the plunger plate to activate the limit switch, which in turn breaks the circuit to apply the brake and stop the Manlift. To restart the Manlift after an SAH-14 safety stop device has been tripped, it is necessary to push the manual reset button which must be installed above the top floor served by the Manlift. If desired, a manual reset button can also be located at the bottom landing served. A sketch of the SAH-14 safety stop device installed on the channel guide rail is shown below.



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SAH-12 OVERHEAD SAFETY STOP DEVICE – The SAH-12 overhead safety stop device is shipped wired to the head circles of the drive assembly. This safety stop device must be attached to the head circles as shown on the Manlift drawing.

Should the SAH-14 safety stop device not function properly, the rider will bump the light tubular bar of the SAH-12 overhead safety stop device. When the tubular bar is bumped, the limit switch is activated to break the circuit, and the brake is applied to stop the Manlift. As with the SAH-14 safety stop device, the manual reset button must be pushed before the Manlift can be restarted.

M-304 TREADLE FOOT SAFETY STOP DEVICE – If a treadle foot safety stop device is being used it should now be installed. This foot safety stop device should be attached to the Manlift legs as shown on drawing HA-69. If a rider fails to dismount at the bottom landing, or on the dismounting platform, he will step on the treadle board and activate the limit switch, which in turn breaks the circuit to apply the brake and stop the Manlift. As with the SAH-14 and SAH-12 safety stop devices, the manual reset button must be pushed before the Manlift can be restarted.

ELECTRIC EYE EQUIPMENT – If electric eye equipment is to be used at the top and/or bottom landings, it should now be installed. Instructions for installing the electric eye equipment are furnished with it.

LADDER RUNGS – The ladder rungs should now be installed, approximately 12” apart, where the channel guide rails are drilled for them. 5/16 x 1” flat head machine screws and lock nuts, which are shipped in the hardware box, should be used for attaching the ladder rungs. The holes in the channel guide rails are countersunk so that the bolt heads will not protrude inside the guide rails.

BELT – All belts furnished are tested and certified for Manlift service and most belts are pre-punched. However, if the belt is not pre-punched, it should now be punched in accordance with the Belt Punching Diagram. Be sure that all holes punched are square with the edge of the belt and in alignment. Also, all measurements for holes to be punched should be from the center of the belt.

To install belt, set foot bearings to the top of their adjustment. Place belt around pulleys, butting ends together. Bolt the butt strap over the joint, on the outside away from the pulleys, with 5/16 x 1” elevator bolts with washers and lock nuts, as shown on the belt punching diagram. Be sure lock nuts are installed on the outside of the butt strap, away from the pulleys. A 6’0” long butt strap is used on Manlifts up to 100’0” pulley centers, and an 8’0” butt strap is used on Manlifts over 100’0” pulley centers.

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Proper tension of the belt can be obtained and maintained by manual screw adjustment of the belt tension bolts in the Manlift legs, which adjust the ball bearing foot shaft boxes either up or down.

The belt tension should be checked within two (2) weeks after the Manlift has been put into service, as you will undoubtedly experience some stretch in the belt. If the take-up adjustment is not sufficient to provide proper tension on the belt, it may be necessary to cut a portion off one end of the belt and resplice it. Thereafter, the belt tension should be checked at least once a month.

STEPS – Fasten steps squarely on the belt where holes are drilled for them. The exact step spacing is shown on the Belt Punching Diagram. Do not attach steps to the butt strap on the belt. 5/16 x 1 ¼” elevator bolts with lock nuts are furnished for attaching steps to the belt.

HANDHOLDS – Fasten handholds to the belt, above and below each step, where holes are drilled for them. One handhold serves the step on the ascending side and the other serves the step on the descending side. Do not attach handholds to the butt strap on the belt. 5/16 x 1 ¼” elevator bolts with lock nuts are furnished for attaching handholds to the belt.

AUTOMATIC BELT TENSION DEVICE – If an automatic belt tension device is being used, the ¾ x 8” take-up bolts should be removed so that the foot pulley can operate freely up and down with expansion and contraction of the belt. Screw the two (2) ¾” weight support rods to the 6” channel weight support, and place L-74 take-up weights on rod supports to give tension to the belt before starting up Manlift for operation.

CONTROL ROPE – Bolt L-20 Rope Sheaves to brackets which are provided on channel guide rails “C” and “D” approximately 3’6” above the bottom floor. Bolt L-48 Rope Guides to channel guide rails “C” and “D” where holes are drilled for them. Holes for the L-48 Rope Guides are provided in the channel guide rails approximately 20’0” apart the entire length of the Manlift.

Run rope down one side and up the other, the entire length of the Manlift. Thread the rope through the L-20 Rope Sheaves at the bottom of the Manlift, and through the L-48 Rope Guides on channel guide rails “C” and “D”. Attach the ends of the control rope to the control arm, using the rope clamps provided. The control rope should be fastened to the control arm at the top so that pulling the control rope in the direction of belt travel shuts off the power to apply the brake and stop the Manlift.

WIRING – Wire the Manlift as per the Wiring Diagram shown on the Manlift drawing. If only one (1) reset button is being used, it must be installed above the top landing served, and in such a position that the person restarting the Manlift has a clear view of both the “up” and “down” runs of the belt. If two (2) reset buttons are being used, one (1) must be installed at the top landing, and the other at the bottom landing.

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Be sure to wire the control arm mercury switch so that pulling the control rope in the direction of belt travel will break the circuit to apply the brake and stop the Manlift.

INSTRUCTION AND WARNING SIGNS – Install the instruction and warning signs provided at the various landings. One (1) sign reading “AUTHORIZED PERSONNEL ONLY” and one (1) sign titled “MANLIFT INSTRUCTIONS” should be installed at each landing. The “TOP FLOOR – GET OFF” sign should be located a maximum of 2’0” above the top floor. The “BOTTOM FLOOR – GET OFF” sign should be located in such a position that the rider will observe it when approaching the bottom floor.

RED WARNING LIGHT – A red warning light of not less than 40-watt rating should be provided immediately below the top floor, and so located as to shine in the riders face. The purpose of this light is to warn the riders that they are approaching the top floor.