HRL Rail Leveler

Product Specifications

DESIGN HIGHLIGHTS

- Leveler powered down to working range via constant pressure push-button
- "Quick cycle" powered-in/powered-out hydraulic lip activation
- 20" lip standard (508 mm)
- Steel NEMA 12 control panel (Interlock capable) with raise, lower, lip in, lip out, mushroom-style stop, amber and green illuminated operation indicator lights (optional side shift control)
- Integrally mounted power unit, valves and solenoids
- Manual side shift capability
- Amber pilot light indicates power on
- 6" high runoff guards (152.4 mm)
- Structural channel deck beams
- Integral maintenance lock bar with lock-out/tag-out capability
- Includes endloading capability
- Reduced lip crown/extended lip chamfer

AVAILABLE OPTIONS

- ☐ Hydraulic side shift
- ☐ Lockable key switch on control station
- ☐ Remote hand held push button station
- ☐ Remote power pack
- ☐ Additional embedded rail lengths (10'/3.05 m) _____(specify qty)
- ☐ Abrasive deck surface
- ☐ Special paint color
- ☐ Flush mount track assembly
- ☐ Lip taper _____ (specify)
- ☐ Other _____ Note: Curve track consult factory

ACCESSORIES

- ☐ Digital master or combination control panel with HMI _____
- ☐ Other _____

CAPACITY

☐ 45K lb (20K kg) ☐ 50K lb (22K kg) ☐ 60K lb (27.2K kg)

PROJECT INFORMATION

JOB NAME _____

ADDRESS _____

GENERAL CONTRACTOR _____

DISTRIBUTOR _____

MODEL _____

QUANTITY _____

VOLTAGE/PHASE _____

CERTIFIED FOR CONSTRUCTION

BY _____

COMPANY _____

ADDRESS _____

DATE _____

1. **General:** "HRL" Series Rail Leveler with hydraulic operated platform and hydraulic lip extension and retraction. Unit conforms to ANSI MH14.1 1987 performance requirements. Unit to be manufactured by Serco.
2. **Construction, Platform Assembly:** Platform constructed of high tensile steel safety tread deck plate supported by high tensile channel beam design construction on 45K lb (20K Kg) and 50K lb (22K Kg) units and structural I-beams on 60K lb (27K Kg) units. Structural members fully welded to front header. Deck to be ¼" (6 mm) thick on 45K lb (20K Kg) capacity units and ⅜" (10 mm) thick on 50K lb (22K Kg) and 60K lb (27K Kg) capacity units.
3. **Lip Assembly:** Lip to be 20" (508 mm) high tensile steel safety tread lip plate with beveled leading edge. Lip to be ⅝" (16 mm) thick on 45K lb (20K Kg) and ¾" (19 mm) on 50K lb (22K Kg) and 60K lb (27K Kg) capacity units. Lip hinge to have full width structural front header and heavy wall tubing with a minimum of ½" (12 mm) wall thickness on 45K lb (20K Kg) and 50K lb (22K Kg) and ¾" (19 mm) wall thickness on 60K lb (27K Kg) capacity units. Lip hinge shaft is to be a minimum of 1" (25 mm) solid steel on 45K lb (20K Kg) and 50K lb (22K Kg) and 1-¼" (30 mm) on 60K lb (27K Kg) capacity units.

NOMINAL DIMENSIONS		
MODEL	LEVELER WIDTH	LEVELER LENGTH
HRL86	8', 8'6", 9' (2.4, 2.6, 4.7 m)	8'6" (2.6 m)
HRL90	8', 8'6", 9' (2.4, 2.6, 4.7 m)	9' (2.75 m)
HRL96	8', 8'6", 9' (2.4, 2.6, 4.7 m)	9'6" (2.9 m)
HRL10	8', 8'6", 9' (2.4, 2.6, 4.7 m)	10' (3.05 m)
HRL106	8', 8'6", 9' (2.4, 2.6, 4.7 m)	10' (3.20 m)

4. **Deck Extensions:** All units will be equipped with two steel deck extension arms to be used during end load operations. The arms are a minimum of 1" (25 mm) wide by 5" (125 mm) tall structural steel and extend to provide deck support during end load operations. The arms will be provided with a locking feature to lock them at any extension length.
5. **Carriage Assembly:** Structure utilizes sealed roller bearing wheels to enable side to side movement of vertically stored dock leveler along a track assembly. Structure to support rear hinge assembly, lower main cylinder mount and power pack. Structure to be minimum 60,000 lbs. (27.2 K Kg) capacity. Rear hinge assembly to utilize 4 rear hinge pins on 45K and 50K lb (20K-22K Kg) capacity units and 6 pins on 60K lb (27K Kg) capacity units. All pins to be a minimum of 1" (25 mm) diameter.
6. **Track Assembly:** Two heavy steel tracks mounted on an embedded structural channel. Minimum 60,000 lbs. (27.2 K Kg) capacity.
7. **Power Pack:** Power pack is an electric/hydraulic motor pump and valve assembly. (Can be remote mounted.)
8. **Electrical:** Motor is 1 HP, NEMA Standard T.E.N.V./56C frame. Standard motor voltages available are 240V single phase or 208/240V/480V and 575V three phase. RPM: 3450. Control panel has built-in motor overload protection as standard. Optional remote solenoid valves and power pack supplied with standard wall mount bracket.
9. **Hydraulic:** Main cylinder minimum 3-½" (88 mm) diameter bore. Lip cylinder to be a minimum of 2-½" (63 mm) diameter bore. All weather hydraulic fluid with viscosity of 15 cSt at 40°C (100° F).
10. **Side Shift:** Mechanical side shift standard. Hydraulic side shift upon request.
11. **Control Panel:** (11"W x 17"H x 6-¾"D) (275mm x 425mm x 171mm) NEMA 12, thermal overload, UL approved. Mushroom-style STOP button. Independent controls for raise, lip extend and lip retract. Amber and green pilot lights indicate power and safe operation respectively.
12. **Product Finish:** Enamel gray finish.
13. **Mushroom-style Stop Button:** Stops the leveler instantly when depressed. The "STOP" button is maintained contact type which activates a solenoid on the leveler hydraulic system. The dock attendant does not have to continuously hold the stop button to maintain the leveler in a "STOP" position.
14. **Quick Cycle Lip:** Properly sized cylinders and the LIP EXTEND/LIP RETRACT button ensure quickest leveler cycle time by not having to fully raise the unit to extend or retract the lip.
15. **Projection:** Unit to project a maximum of 14" (356 mm) from dock face when in the vertical stored position (lip vertical).
16. **Float Compensation:** Allows for vertical deflection when lip is in contact with rail car bed.
17. **Operation:** Serco's "HRL" Hydraulic Rail Leveler will be supplied with a carriage assembly, a track assembly, a platform and lip assembly, an electrical power-pack assembly including motor and pump, and a hydraulic final assembly including cylinders, hosing and valving. Platform and Lip to be operated by independent hydraulic cylinders controlled by a remote push button station. To operate leveler dock attendant pulls the "STOP" button (amber light indicates power on) on control panel. Attendant pushes and holds "LOWER" button to lower leveler onto the railcar floor. Audible alarm will sound anytime leveler is stopped between stored position and operating range. Above operating range, while motor is running, releasing the "LOWER" button will stop all leveler motion. Pressing the "STOP" button at any time will immediately stop all movement. When leveler lowers to near operating range, the motor will stop and the platform will automatically float down to rest on the rail car floor. The green light will illuminate to indicate the leveler has reached the operating range. Pressing the "LIP EXTEND or LIP RETRACT" button will extend or retract the lip at any point in the leveler cycle. Rail leveler is restored by pressing the "RAISE" button and holding until the leveler raises to a vertical position. (Lip must be in vertical position). To perform an end load the dock attendant pulls the "STOP" button and then presses the "LOWER BUTTON" to lower the leveler. Once the unit has descended partially, the attendant presses the "LIP RETRACT" button, retracting the lip to a pendant position. The attendant then lowers the unit to several inches above the rail car bed, pushes the "STOP" button and while standing on the unit (supported hydraulically), manually extends the support arms to the desired length. With the arms correctly positioned, the attendant pulls the "STOP" button and then allows the unit to float down to the rail car floor. Standard working range is 6" (152 mm) above and 6" (152 mm) below dock.
18. **Installation:** Unit shipped partially assembled. Track assembly supplied by Serco is embedded at site by mounting carriage assembly to the track assembly and then mounting the deck/lip assembly and the power unit to the carriage. Hydraulic components on deck/lip are preinstalled, enabling easy power pack hook up. Control panel for remote mounting is furnished with unit to be electrically interconnected by others. Installation by others unless specifically contracted for with Serco.
19. **Limited Warranty:** Limited parts & labor warranty on all components under normal use for a 1-year "Base Warranty Period" beginning on the completion of installation or the sixtieth (60th) day after shipment, whichever is earlier. Additional limited 4-year parts only warranty on hydraulic power unit and cylinders. Limited prorated 10-year structural warranty available upon engineering approval of written application.