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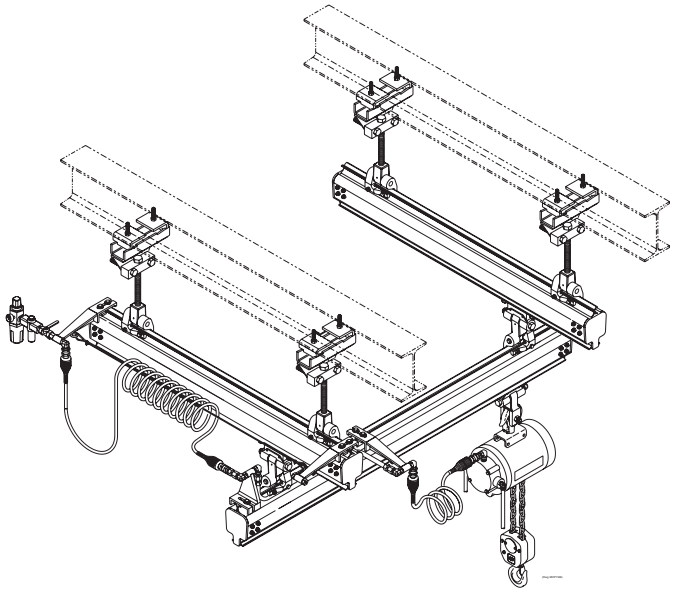
Z Rail Aluminum and Steel Overhead Rail System



Maintenance Information

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MAINTENANCE INFORMATION

The minimum maintenance required for a rail system requires inspection of suspension hardware and all bolted connections.

⚠ CAUTION

- **Any operating problems such as a change in rolling effort or unusual noises must be identified and corrected immediately.**

Retighten all bolt connections (suspension hardware, trolleys attaching hardware, etc.) two weeks after installation and again after two months of operation.

The maintenance schedule below is provided to minimize problems and identify component wear. This chart should be used based on system use and/or local requirements for safe operation. This schedule does not contain daily inspections that may be required by local regulations.

If there are problems with the rail system (worn or damaged components) and replacement is required, refer to appropriate parts list to order replacements. Some components can only be ordered as complete assemblies. If parts are worn or damaged, the complete assembly must be replaced, not just the worn parts.

Trolley wheels have anti-friction bearings which are lubricated for life and only require replacement parts under extreme conditions. If these wheels must be replaced, they can be ordered separately - there is no need to replace the entire assembly.

⚠ WARNING

- **Never perform maintenance on the system while it supports a load.**

⚠ CAUTION

- **During maintenance, tag system:**
  "CAUTION - DO NOT OPERATE - EQUIPMENT UNDER REPAIR".
- **Do not attempt to repair system parts. Replace part or consult an authorized Ingersoll Rand service center.**
- **Do not re-use locknuts, install new locknuts.**
- **Only allow personnel trained in operation and maintenance of the system to perform service.**

NOTICE

- **Visually inspect system before each shift for wear or damage.**
- **Advise supervisor or maintenance personnel, according to company policy or procedure, of any needed maintenance. Replace all damaged system components. Record all inspection, cleaning, maintenance and repair.**
- **After performing maintenance, test system to its rated capacity before returning to service.**

Component	Inspect For	Maintenance Procedure	Interval	
			6 months	12 months
Complete rail system	General condition (roll resistance, rough operation).	Clean and realign system components.	X	
Rail system suspension	Loose mountings, wear or damage.	Tighten or replace mountings.		X
	Loose bolted connections.	Tighten bolts.		X
Runway rails and bridge rails	Loose bolted clamp connections.	Tighten clamp bolts.		X
	Loose bolted rail clamping connections.	Tighten connections.		X
	Suspension wear.	Replace worn components.		X
	Loose connections.	Tighten connections.		X
Rail system splices and end stops	Loose bolted connections.	Tighten splice and end stop bolts.		X
	Improper joint alignment.	Realign joints.		X

CLEANING

It is important to schedule a periodic cleaning of the Overhead Rail System and its parts.

Frequency of cleaning cycles will depend on the use of the system, the personnel operating the system, and the environment the system is installed in. Protecting the system and its surfaces from abuse, wear, decay, or other harm, will improve its appearance and service life.

In very harsh environments moisture and contaminants can quickly destroy the integrity of the system. Although the system is made mostly of precision 6005 class T-5 strength corrosion resistant aluminum and high impact flair resistant nylon, moisture, humidity, and chemicals in time take their toll. The maintenance and preservation of the bridges, rails and suspension devices are just as necessary as the maintenance of any equipment whether it be electrical or mechanical.

Use the following procedures to clean the components of the Overhead Rail System.

1. Clean all hanger assemblies with LUBRI-LINK-GREEN® or spray-on WD40® and dry with compressed air.
2. Clean all trucks and trolleys using suitable cleaner. Dry using low-pressure, filtered, compressed air.
3. Remove accumulated dirt, sediment, and corrosion on the metal plates, bushings, rollers and pins.
4. Clean or replace air filter if used with the system.

⚠ WARNING

- **Solvents and certain cleaning solutions may be hazardous to your health. Beware of mixing cleaners or solvents and the vapors they produce. Use adequate ventilation. Wear protective clothing, goggles, gloves and other appropriate safety wear.**

⚠ CAUTION

- **Clean up all excess cleaning fluids or spills immediately after they occur.**

NOTICE

- **During routine cleaning always check for worn, damaged or broken parts needing replacement.**

■ Storage

■ *Stainless Steel Rail System*

Storage for the stainless steel rail system should be in clean and dry environment. This should not be stored with any other type of metals.

⚠ CAUTION

- **If stainless steel parts or rail are stored with other types of metal the properties of the stainless steel are subject to change and could compromise the integrity of the rail.**

■ *Aluminum and Steel Rail System*

Store in clean and dry environment to avoid corrosion.

GENERAL SYSTEM DISASSEMBLY

Never disassemble components or assemblies further than necessary to accomplish the needed repair. If excess force is used, a good part can be damaged during the course of disassembly. Do not use heat to free parts unless they are already worn or damaged beyond repair, and no additional damage will occur to other parts. As a general rule the channel that makes up the rail and bridge sections should be removed by disassembling the separate pieces at the spliced joints. In instances where the rail or bridge sections must be removed in complete assemblies, use a safety cable or chain to restrict the distance a section may fall when removed. Review all safety procedures listed in the preceding chapters to familiarize yourself with safety issues and precautions.

For your safety follow these steps and use due care and caution in the disassembly of the system.

⚠ CAUTION

- **Never disassemble the system alone. Always have someone help you.**

1. Shut off and bleed down air supply.
2. Disconnect the air supply from the bridge air stanchion and runway air regulator.
3. Remove one end stop from the bridge section.
4. Remove the festooning, hoist, positioner or lifting device from the bridge section.
5. Remove an end stop from one end of each runway.
6. Remove the bridge section and festooning trolleys.
7. Remove safety cables from the runways.
8. Loosen mounting tabs on I-Beam clamp.
9. Remove rail section.
10. Repeat for opposite side.

TROUBLESHOOTING

This section provides the basic troubleshooting information. Specific causes to problems are best identified by through inspections performed by personnel instructed in safety, operation and maintenance of this equipment. The chart below provides a brief guide to common rail symptoms, probable causes and remedies.

Symptom	Cause	Remedy
Change in rolling effort or erratic operation.	Dirt or obstruction in rail.	Clean all parts and inspect for wear.
	Damaged or bent rail.	Inspect all parts and replace those damaged. Determine cause of damage prior to operation.
	Misaligned bridge or runway.	Check for loose or broken fasteners. Tighten if loose or replace if broken. Check alignment.
	Worn or damaged trolley wheels and/or guide rollers.	Inspect wheels and rollers. Replace damaged parts.
	Spliced sections misaligned.	Ensure inside running surfaces at the splice are flush and aligned.
Unusual noises.	Broken guide roller and/or wheel.	Inspect and replace damaged parts.
	Dirt or obstruction in rail.	Clean all parts and inspect for wear.
Load creeping.	Runway or bridge not level.	Level components to specifications.
	Runway or bridge overloaded.	Reduce load to within rated capacity.
Hoist, positioner or handling device malfunctioning.	Leaking or damaged air hose, fittings or electrical cable.	Check and repair leaks. Tighten fittings if loose. Replace electrical cable. Refer to hoist, positioner or handling device service manual for additional repair instructions.

INSPECTION RECORD

Ingersoll Rand Z Rail Overhead Rail System Inspection Form			Good condition	Fair condition	Poor condition	Return to Service Center for repair	Destroy or recycle	If the equipment condition is due to normal wear and tear, state so; if not, state circumstances.
Item No.	**Description**	**Quantity**						
			Required Action:					
Operator _____ Date:_____ Inspector_____ Date:_____ Supervisor_____ Date:_____			Clean and inspect as per maintenance schedule.	Clean and inspect as per maintenance schedule.	Halt operation. Remove system from service and repair or replace affected parts.	Tag system: "Caution. Do not use. System under repair." Send parts to authorized repair center.	Clean parts and destroy, or recycle. Replace parts.	Company:_____ Department:_____ Date:_____ Time:_____

This page may be photocopied and used by inspectors or maintenance personnel.

RELATED DOCUMENTS

Overhead Rail System Safety Information Manual 16600454.
Overhead Rail System Product Information Manual 71341101.
Overhead Rail System Parts Information Manual 16600462.

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