



An automatic power-roll door saves tenants from having to manually close and open.



A lift controller panel.



A VRC storage lift.

# UPLIFTING

## Extending the machine life of your storage lifts

By Randy Vander Hill

When a VRC (vertical reciprocating conveyor) storage lift is maintained per the manufacturer's guidelines by qualified, trained technicians, it should last a very long time.

All VRCs require routine servicing that should be scheduled at least quarterly, depending on frequency of use. While some self-storage operators feel they can use regular site personnel to service their lifts, it's not good protocol to allow anyone without the proper training, technical expertise and knowledge of related safety hazards to work on this type of equipment.

### Maintenance = Longevity

I sometimes hear about VRC dealers that send sales personnel to older storage facilities, where lifts have been in operation a long time, to sell newer models. While a cheaply built lift will wear out and require replacement, a quality product should not. Even in the case of economical models, most malfunctions are likely caused by a lack of qualified maintenance and routine safety inspections.

### Parts Is Parts?

An issue that can be hard to explain to storage operators is why they sometimes can't get replacement parts for the lifts they purchased or inherited. Why are the original components sometimes impossible to replace? It could be the lift manufacturer—or the vendor that supplied a part, such as a hydraulic power unit—has gone out of business. Perhaps the manufacturer only keeps an inventory of replacement parts for a few years. It could also be due to design and engineering changes that have been made to the lift model.



*Signage is essential to tenant safety and proper lift use.*

The inaccessibility of parts does not mean a VRC is not repairable. It just means it will take more time (labor) to research and acquire the parts or conversion kits. In most cases, it will also cost a lot more money to complete the work. One of many advantages of working with a well-established lift company is it can supply all major component parts for the life of your equipment. This should include power units, controls, pumps, motors and cylinders.

An established company will also be able to assist with upgrading lifts when the time is right. For example, one of my company's very first clients wanted to rebuild his older lift with all new hydraulic and electrical components. Fortunately, his particular VRC had a truss-designed mast tower that was structurally very sound. It had only minor wear and, most important, it had always been well-maintained with a quarterly service program. In this case, the upgrade was done for a fraction of the cost of installing a new lift.

### Prevention Is Best

Prevention can be the best medicine, and storage owners and property-management companies often ask what they can do to help minimize service calls on lifts. First, there are a few simple tasks the facility manager can handle:

- Do a walk-around of the lift each morning or evening. Check for and remove any debris blocking the entry gate or doors.
- Check the door and safety interlocks for alignment and activation by running the lift. No lift doors should open when the lift is traversing between floors! (If you can open a door when the lift is motion, shut down the lift and immediately call for service.)
- Ensure all doors or gates open and close freely (when the lift platform is at a designated level) without binding within the doorjamb.
- Check for any visible hydraulic leaks or puddles that can develop on older lifts. This includes lift types designed with cables and pulleys. These have two hydraulic cylinders and, therefore, more fittings and hydraulic hose that can chafe and leak over time.
- If there's sufficient light, check for any frayed cables.
- Before any regular scheduled service, run the lift to listen for unusual sounds. Call and advise your service company of anything you may hear. In some cases, this can help the

service technician make sure he has the right materials for the service call.

- Make sure all required signs such as "NO RIDERS ALLOWED," "KEEP DOOR CLOSED" and "LOAD CAPACITY" are posted at each level and on the platform.

If a lift doesn't work, check the following before calling for service:

- First, make sure all doors or gates are closed and latched on each level. A lack of functionality can sometimes be the result of a tenant having propped a door open.
- Confirm the circuit breaker has not tripped. If it has, it may be because the lift was overloaded. Try removing some weight and resetting the breaker. If this doesn't work, call your local service company, as troubleshooting may require an experienced technician.
- Check to see if the OSHA-required push-pull-emergency switch has accidentally been activated (pushed in). If it has, check the lift for obvious safety issues and then return it to the operating (pulled out) position.
- If your lift has a more advanced check-light indicator system, see what the lights are telling you. Most of the time, you'll find a door or gate has been left open on another level, the push-pull-emergency button has been activated, or the circuit has been tripped.



The storage-lift interior.

## New Product Features

Today's advanced lift companies have introduced many new product features, most of which can be installed or retrofitted on older lifts, regardless of the original manufacturer. These include safer, low-voltage controls with indicator lights; fiberglass (FRP), lightweight car enclosures; next-generation interlocks; automatic overhead car lights; automatic rolling doors; aluminum, nonskid, diamond-plate flooring; programmable controllers; and customized car enclosures.

A few years ago, when smaller automatic power-roll doors became available to the self-storage industry, a considerable amount of time was spent developing, testing and improving on the idea for lift customers. Conversations with facility owners indicated the desire for a change so customers wouldn't have to manually raise and lower the entry door each time the lift was used. With women representing a large percentage of the self-storage tenant base, door height was also an issue. The new doors have become a commonly requested feature on new installations.

VRC storage lifts are a major success in the self-storage industry. With qualified maintenance, they will continue to provide many years of cost-saving benefits for property owners and developers. VRCs are here to stay and will continue where possible to be the best economical alternative to using passenger elevators.

**ISS**

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