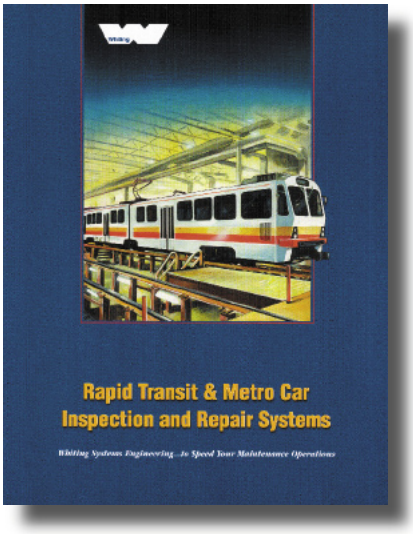
Whiting Equipment Canada Inc.

Rapid Transit & Metro Car
Inspection and Repair Systems



RAPID TRANSIT AND METRO CAR INSPECTION AND REPAIR SYSTEMS

Car hoists • Spinning Posts • Truck Repair Hoists
Body Hoists • Body Stands • Turntables • Transfer Tables
Drop Tables • Portable Electric Jacks • Remote Progression Systems • Overhead Cranes and Monorails • Jib Cranes
Automatic Wheelstops • Retarders and Winches

Whiting Systems Engineering to solve your maintenance problems

Dependable, service tested Whiting maintenance equipment is available in a variety of arrangements to speed maintenance and reduce costs and downtime. Electric motor powered multi—hoist units can be arranged to lift coupled cars. All units are synchronized and interlocked to maintain minimum elevation variations.

Use of the mechanical screw and nut principle allows hoisting and holding at any position Whiting the complete range of the hoist. Whiting systems Engineering offers design and layout services to suit your requirements. In addition to hoisting and holding, all equipment for ear and train moving, ear retarding and holding, as well as overhead crane systems are all available from a single source.

We invite you to take advantage of our experience in planning rapid transit and metro car shops. A conference at your convenience can easily he arranged.

Car hoists raise pair of metro cars to a convenient height for worker access to underbody components.

Body Hoists

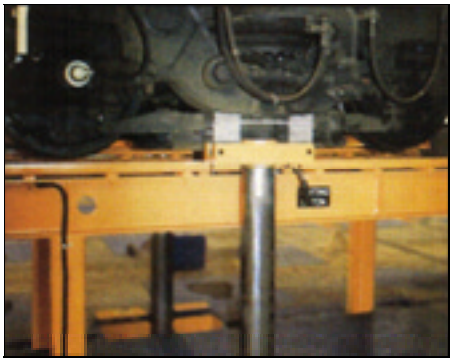
Body hoists utilize lifting pads that contact the transit car at predetermined jacking points. The hoist capacity can be designed to handle cars with or without trucks attached. Body hoists, when used in pairs at both ends of cars, can be used in conjunction with a car hoist. Once a car is in position, the body hoists are elevated into contact with the jack pads on the car The car hoist is then lowered bringing any or all trucks to track level for removal to a work centre. The body hoists are then supporting the car weight. Body hoists may raise or lower the car to a more convenient height for accessibility. Standard capacities range from 7 to 15 tons.

Car Hoists

Car hoists raise the entire transit car to a convenient height for worker access to underbody components. Utilizing a rugged, proven, mechanical screw nut design, two or four screw designs are standard in capacity ranges to 50 tons. Cars can be raised individually, articulated, or in married pairs with electrically synchronized car hoists positioned under each truck location. An important feature of the electro-mechanical screw nut design requires motor power to the car hoist to both raise and lower, thus minimizing the possibility of inadvertent lowering of the hoist with personnel under the car(s).

Spinning posts, capable of assuming the car load at the truck frame may be incorporated into the car hoist to allow the wheels to be rotated for various audio visual inspections.

Construction is arranged so that the entire underside of the car is free of obstruction.



Wheel spinning posts raised and locked into position. When not in use the spinning posts are stored in recesses adjacent to the rails.

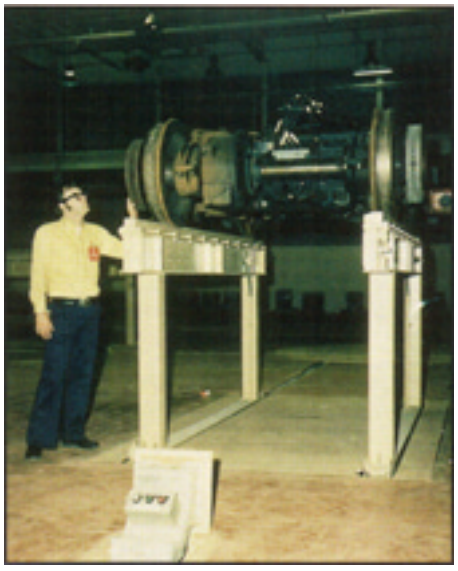
Body hoists support the car in a level position during truck removal.

BODY STANDS • TRUCK REPAIR HOISTS TRANSFER TABLES

Body stands support the car(s) in a level position during truck removal.

Body Stands

Body stands are similar to body hoists. The body stand however, has no motive power capability to raise or lower the car but merely provides support of the car body when trucks are being removed. Car hoists are required to lie used with body stands. Standard capacities are from 4 to 12-1/2 tons.



Truck repair hoists with truck in raised position.

Truck Repair Hoists

Truck repair hoists are similar to car hoists. A truck repair hoist's primary purpose is to provide the shop worker with convenient access height for repair of the truck. Truck repair hoists are placed adjacent to the car hoist track, with a capacity equivalent to the truck weight.

Pitless transfer table transporting articulated pair of metro cars.

Transfer Tables

The transfer table is an invaluable tool for maintaining traffic flow between tracks in a car repair or maintenance shop. While transfer tables normally require a Pit up to several feet deep, Whiting can supply a table not requiring any pit. This design is most unique in that it still permits normal traffic flow on a track even when the transfer table is busy on another track.

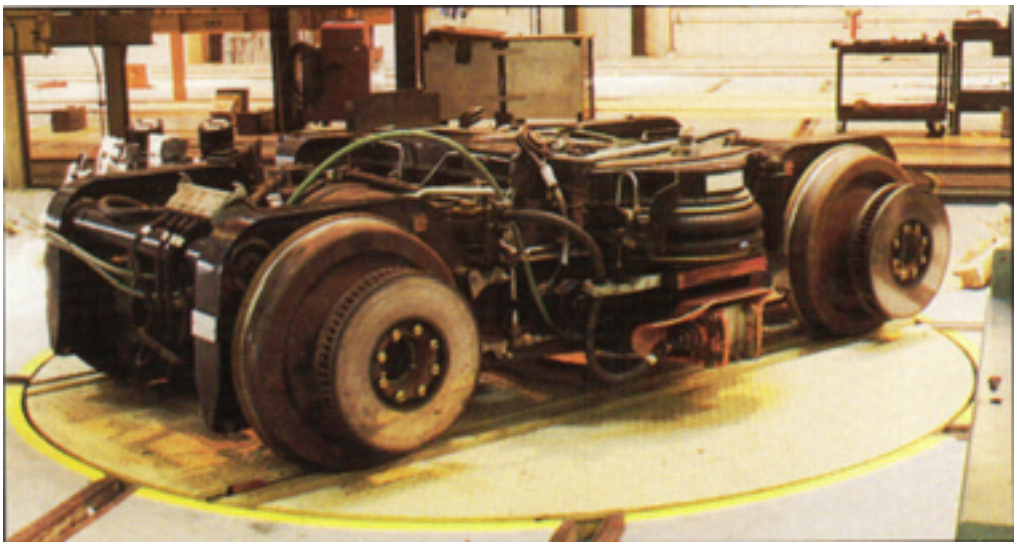
45 1/2 ton metro car turntable with metro car.

Turntables

Turntables are available in different sizes based upon the application. Large diameter car equalize wheel wear due to prevailing track system curves by entire rotating the car 180°.

Turntables are also available to rotate a single truck in 90° increments. These can either be manual or motorized in their rotation. Both ball bearing and caster designs have been in use for many years.

Recently designed car shops utilize a truck turntable on each service track between car hoists. This arrangement allows selective changeout of any truck regardless of its position. Whiting turntables are extremely rugged and balanced, and are especially suitable for metro service.



Bogie truck on truck turntable revolving 90° to release track

Portable Electric Jacks

Whiting portable electric jacks consist of a steel base containing a Worm and worm gear. Welded to the base is a massive structural steel column assembly housing an alloy steel jack screw and aluminum bronze jack nut. The jack nut travels on the screw and supports the lifting bracket. A single operator manning a portable electric jack station can control simultaneous operation of any number of jacks. Each jack may also be operated individually.

Whiting portable jacks can he equipped with a variety of specialized brackets to meet the requirements of dozens of unique lifting operations. Jack capacities range from 15 to 60 tons.

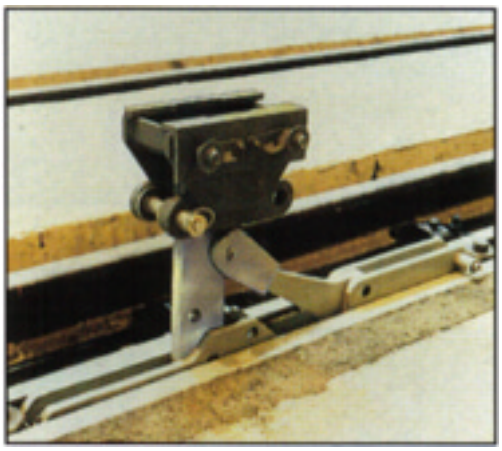
Standard portable electric jacks with special lifting brackets for metro car hoisting.

Car Progression Systems

Remote control devices operating in a partially enclosed buried track are used to progress one or many cars. It avoids many of the obvious hazards associated with the usual exposed tag line car pullers. At the same time it allows for the design of partially or fully automated systems.

The load advancing robot arm can contact the car axle, coupler, car end frame, journal box or other point consistent to the cars being progressed. It can also he used to move trucks only to and from a truck repair area.

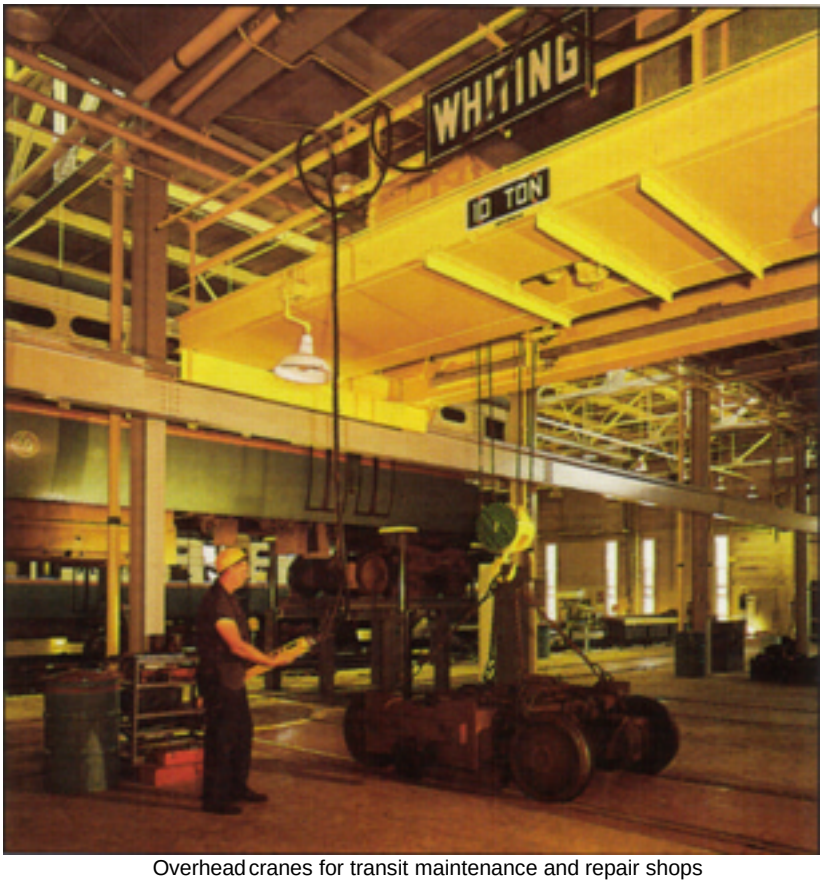
Unique designs are available to remotely raise or lower the robot arm. Also available are styles that “capture” the truck assembly to maintain control throughout its travel.



Remote controlled robot-type car progression systems can be operated with wire rope or chain depending on the application.

Counter-weighted car puller drive.

CAR PROGRESSION SYSTEMS



Overhead cranes for transit maintenance and repair shops

Overhead Cranes

Overhead cranes are highly efficient material handling machines. Whiting overhead cranes combine top value with economy by utilizing the latest Computer Aided Design techniques to minimize engineering costs. Structural designs optimized through computerization, and cost reductions accomplished through mass manufacturing techniques contribute to providing our customers the best value available in the crane industry today. Over 100 years of crane manufacturing history together with our expertly trained staff of installers, instructors and service personnel make any turnkey project as simple and easy as saying “Whiting”.

Our Company

Whiting Equipment Canada Inc., a subsidiary of Whiting Corporation, Harvey, Illinois, has operated in Canada since 1930. Since that time, Whiting Canada has grown from a sales office to a diversified manufacturing facility in Welland, Ontario.

Whiting Canada custom designs, engineers, and fabricates a wide range of high quality and specialized equipment for applications in rail and mass transit, chemical processing and metallurgical industries. Our products are in use world wide.

Whiting is not solely an engineering company that subcontracts fabrication. Nor are we merely a fabricator who will assemble equipment with input from a salesman and a few shop mechanics. Our knowledgeable sales and application specialists look carefully at your needs and work with you to see that they are all considered. Then the design and production team take over to ensure these needs are met. Whiting's well trained and qualified engineering staff includes registered professional engineers together with experienced designers and technicians who will concentrate on your order. Their tools include state-of-the-art computers for engineering analysis and CAD. They are backed by a highly capable and well managed manufacturing facility. Whiting combines superior technology with innovation and service to provide you with the finest products available.

Parts and Service

When Whiting equipment eventually needs service or repair, a knowledgeable and experienced staff is ready to help. Most spare parts or replacement items are manufactured in our plant and with the same care as was given to the original equipment.

Our service organization is available 24 hours a day to assist you in diagnosing a problem, and for repair, adjustment, or parts replacement.

As your requirements change, our staff is available to assist you in modifying your equipment to meet your new needs.

WHITING

The sign of good judgement since 1884

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