



Type US-24B Trolley Base for Street Railway Service

Advantages

The street railway operator will find many advantages in the exclusive features of the Westinghouse-Nuttall type US-24B Trolley Base.

Long Life—An all steel welded construction provides the extra strength needed for hard service.

Light Weight—The use of welded and heat treated steel eliminates unnecessary weight without sacrificing strength.

Reduced Maintenance—In the simple, sturdy design of the US-24B base, unnecessary parts are eliminated and thus sources of maintenance expense avoided. Lubrication is needed only twice a year, due to the use of roller bearings on swivel and hinge. Shunts conduct the current around parts which might otherwise become pitted and require periodic attention.

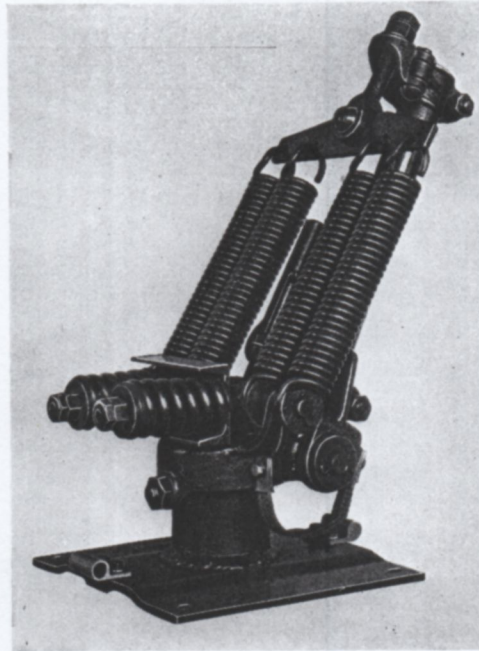
Fewer Dewirements—With this trolley base the utmost freedom of movement is secured. Because of its light weight, lower spring tension is required. Roller bearings in swivel and hinge provide quick response to variations of trolley wire positions, and so dewirements are less frequent.

Quiet—Due to its light weight and low wheel pressures, roof noises are eliminated.

Economical—There is less wear and tear on overhead and wheel because of the lower spring pressure and light weight.

Construction

Swivel—The swivel pin is fitted with two Timken roller bearings, separated by a wide spacer bushing, thus distributing the bearing pressure so that utmost freedom of lateral movement is



THE LIGHT WEIGHT AND STURDY CONSTRUCTION OF THE US-24B TROLLEY BASE MAKES IT ECONOMICAL AND RELIABLE

secured. This bearing assembly is immersed in grease in the cup-shaped chamber welded to the base plate. No grease can escape from this chamber, nor can dirt enter. It is closed at the bottom and effectively sealed above by the upper swivel casting, the edges of which extend down over the lower chamber and prevent the entrance of foreign matter.

Replenishing of grease is necessary only twice a year. A $\frac{1}{8}$ -inch plug is provided on top of the swivel casting for this purpose.

To lift the swivel out of the chamber, merely loosen one locking screw in flange of swivel casting.

Socket—The long, heat-treated steel tubular socket, welded to steel castings, provides reinforcement for the pole which is securely held in place by hinge clamps at each end of the socket.

Large inside diameter of socket prevents "freezing" of pole. Socket is open at bottom to prevent collection of water and dirt. The use of Hyatt Roller bearings in the socket hinge provides utmost flexibility of movement and contribute to long life.

Springs—Four steel tension springs are fastened to swivel casting by bushings, to provide free movement and minimize wear. Spring tension is set at the factory to give 30 pounds pole, but can be easily changed if necessary by means of a single adjusting bolt. Maximum wire pressure—35 pounds.

Spring Buffer—Two large adjustable compression springs effectively stop oscillation of the pole in case of dewirement.

Lock Down Device—A simple arrangement is provided for locking down the pole horizontally. This may be done with the base swung to any lateral position. The lock must be unlatched by hand.

Shunt—Current is conducted around pole socket axle pin and bearings by flexible braided copper shunt. A concave disc on the bottom of the swivel chamber shunts current around swivel bearings. The shunts minimize pitting of these principal parts.

Dimensions—In locked down position, base is $9\frac{1}{2}$ inches high overall. Length overall is 30 inches. Swiveling radius is $7\frac{1}{2}$ inches. Spacing of mounting bolt holes is 10 inches. Maximum wire height depends upon length of poles. The standard length is 12 feet, but lengths of 13, 14 and 15 feet can be supplied, giving a maximum wire height of from 22 to 24 feet at railroad crossing.

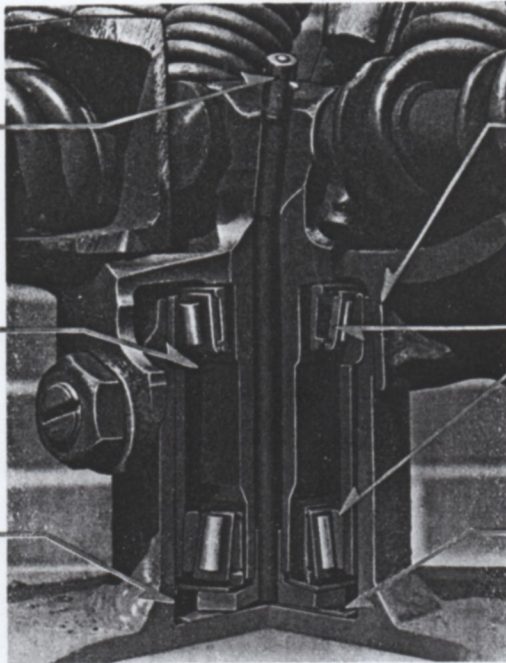


TYPE US-24B TROLLEY BASE—Continued

Grease is easily replenished through this fitting.

Large Reservoir holds six months' supply of grease.

Welded steel cup-shaped base, closed at bottom to prevent loss of lubricant.



Flange extending down over socket prevents entrance of dust and grit.

Two sets of Timken tapered roller bearings enable the trolley to easily follow variations of the overhead.

Bronze concave washer maintains spring pressure against end of swivel pin and shunts current around the bearing.

SECTION OF SWIVEL SHOWING INTERNAL CONSTRUCTION

Dimensions of US-24B Trolley Base

