

Peerless Type H-1-B Friction Draft Gear

Clever design, careful selection of materials, and skilled workmanship
Provide light weight, maximum protection, heavier pay load and long service life

THE Peerless Type H-1-B A.A.R. Approved Friction Draft Gear was particularly designed to meet the requirements imposed upon draft appliances under the most severe conditions.

This gear is designed for uniformity, smoothness of action and high absorption qualities, with low recoil, resulting in a highly efficient mechanism adapted to effectively absorb the violent impacts incidental to present day traffic requirements.

shipped from the plant. This tup is a duplicate of the machine under which draft gears are tested for certification by the Association of American Railroads.

Other Interesting Features

The following features about the Peerless Type H-1-B Friction Draft Gear are worthy of note from the



Peerless Type H-1-B Hylastic Vanadium Steel Friction Draft Gear.
A. A. R. Certificate of Approval No. 8

Care in Manufacture

Great care is exercised in the selection of materials, and the best physical properties suited for each part of the gear are determined by exhaustive tests. Each unit as assembled is "worked-in" to insure uniformity. The final result is a completely heat-treated product, each part being required to pass rigid physical and chemical requirements.

Inspection

Peerless H-1-B Draft Gears are tested for capacity, travel and action under a 27,000-lb. tup before being

standpoint of operation and construction:—

1. In tests conducted at the A. A. R. Draft Gear Laboratory, Purdue University, and upon the results of which Certificate of Approval No. 8 was issued, this gear exceeded by a wide margin every requirement of the A. A. R. Specifications for Approved Friction Draft Gears.
2. Self-contained, easily assembled and easily applied.
3. Light in weight.
4. Positive release insured by an independent releasing mechanism. In the entire A. A. R. tests there was never a stuck blow.
5. Uniform and soft in action, high absorption, low recoil.

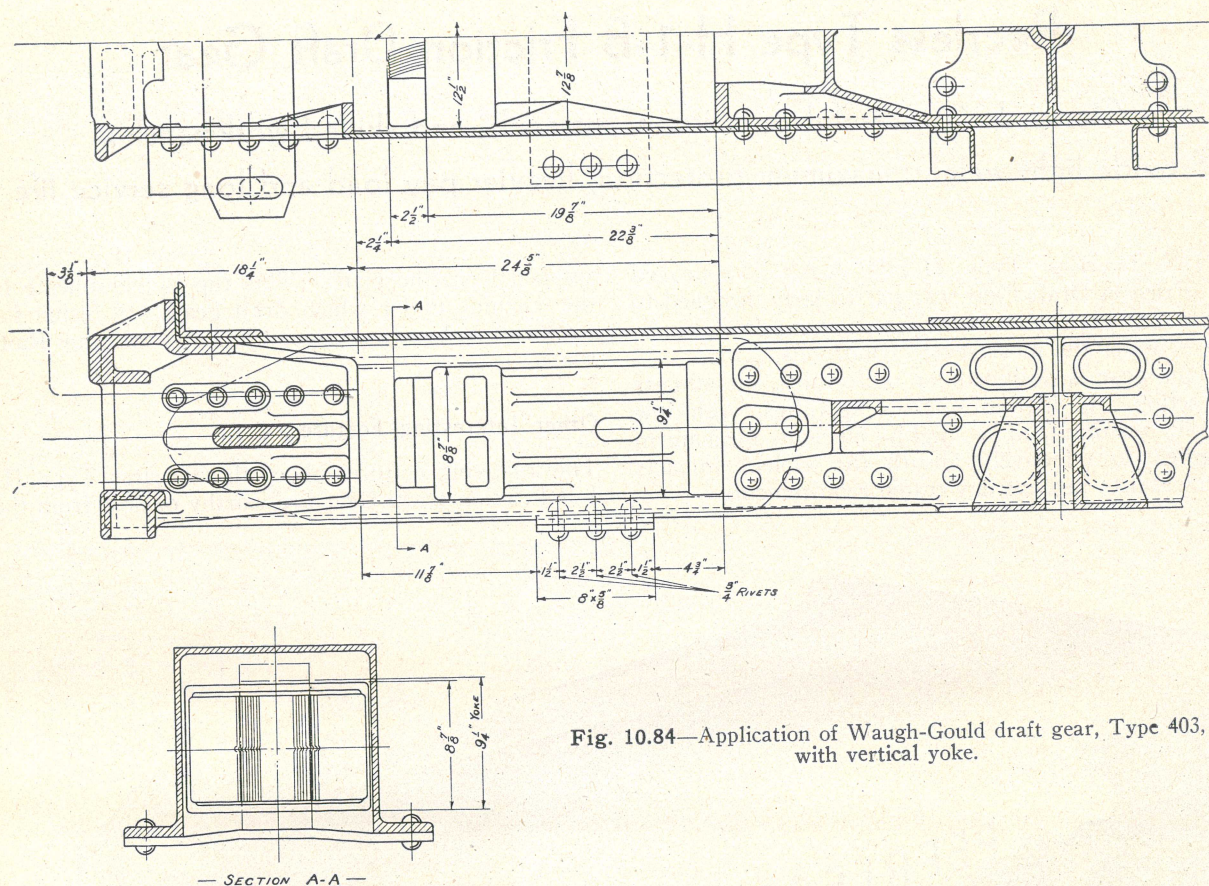
PEERLESS EQUIPMENT COMPANY, CHICAGO, ILL.

Products and Branch Offices Are Listed in the Classified Indexes

Sec. 10—961

FreightCar America, Ex. 1054

IPR2025-01046, -01047



Waugh-Gould Type 403 Friction Draft Gear

THE Waugh-Gould Type 403 Friction Draft Gear was awarded the first draft gear certificate of approval issued by the Association of American Railroads. Sturdy construction insures ample strength to withstand the severest impacts received in service. The resilience of the housing structure reduces to a minimum the forces resulting from oversolid blows. This gear will protect equipment and lading over a long period of time and will resist the heaviest shocks impressed upon it without damage to any of its parts.

Space Requirements

The normal external dimensions are $8\frac{7}{8}$ in. by $12\frac{1}{2}$ in. by $22\frac{3}{8}$ in. requiring one follower for application to standard draft gear pockets. It is furnished with means for temporarily restricting the overall length to facilitate installation. The normal travel is $2\frac{1}{2}$ in.

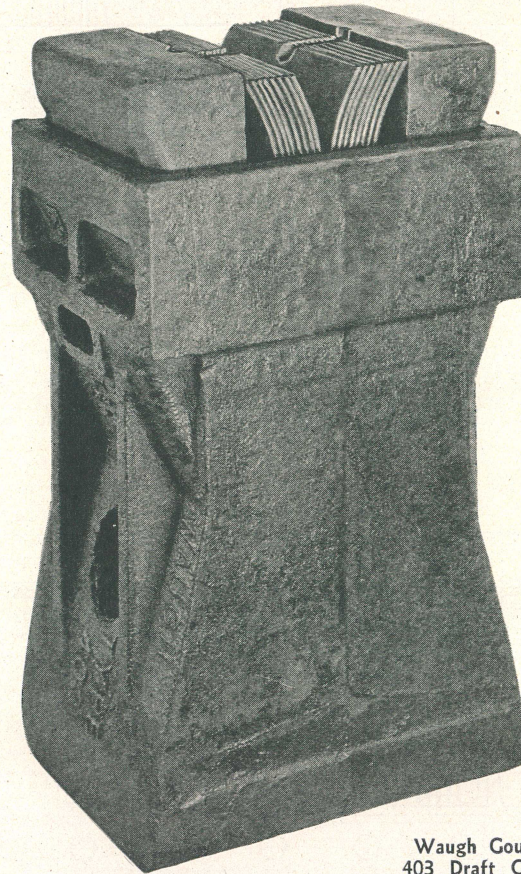
Construction

The Waugh-Gould Type 403 Draft Gear is comprised of a cast steel heat-treated housing having integral friction surfaces against which casehardened wedges operate under the pressure of leaf springs. These leaf springs are held both in alignment and in position between the wedges by means of end-nibs. The gear is held assembled by means of a lug at the bottom of each wedge, which is locked into the housing.

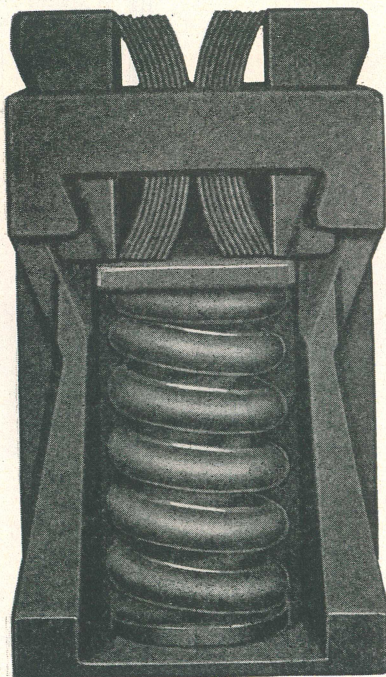
Operation

As the gear is compressed, the leaf spring pressure gradually increases on the wedges to a maximum at the point of full closure. This uniformly increasing

pressure of the leaf springs against the wedges as the gear is closed, brings about exceptional smoothness of operation. The use of leaf springs for developing working pressures of the friction system eliminates slippage and minimizes loss of gear capacity due to rust or other etching elements. Under no circumstances will the gear creep or become closed under continued surges in heavy draft. Soft metal inserts in the wedges stabilize the coefficient of friction and maintain smooth friction surfaces, practically eliminating wear both on the wedges and housing.



Waugh Gould
403 Draft Gear



Cross-section
of the
403
Gear
showing
spring
arrangement

All parts are interchangeable. No special tools or appliances are required to assemble or disassemble the gears. They can be readily taken apart for inspection and easily reassembled.

Adaptable for Light Cars Used in Foreign Service

The Waugh-Gould 403 Friction draft gear, designed primarily for American freight service, can be readily converted to provide a gear suitable for lighter weight cars by making one small change. Six leaf springs are removed and a spacer is substituted. This provides a gear of lower capacity but one retaining the characteristic smoothness of the Type 403 Draft Gear.

WAUGH EQUIPMENT COMPANY, NEW YORK 17, N. Y.

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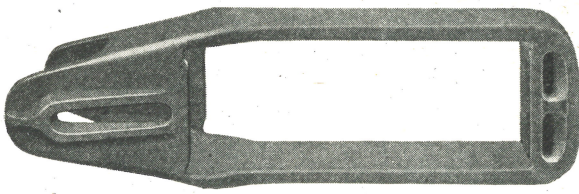


Fig. 10.99—Buckeye A.A.R. vertical-plane draft yoke for 24 $\frac{5}{8}$ in. friction gears.

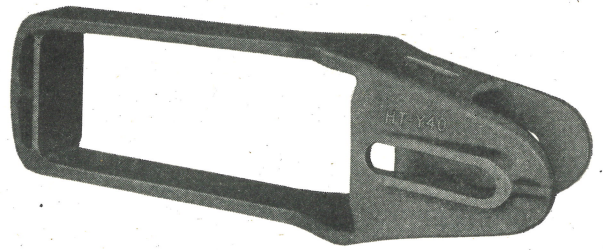


Fig. 10.100—Buckeye A.A.R. vertical-plane draft yoke of high-tensile steel.

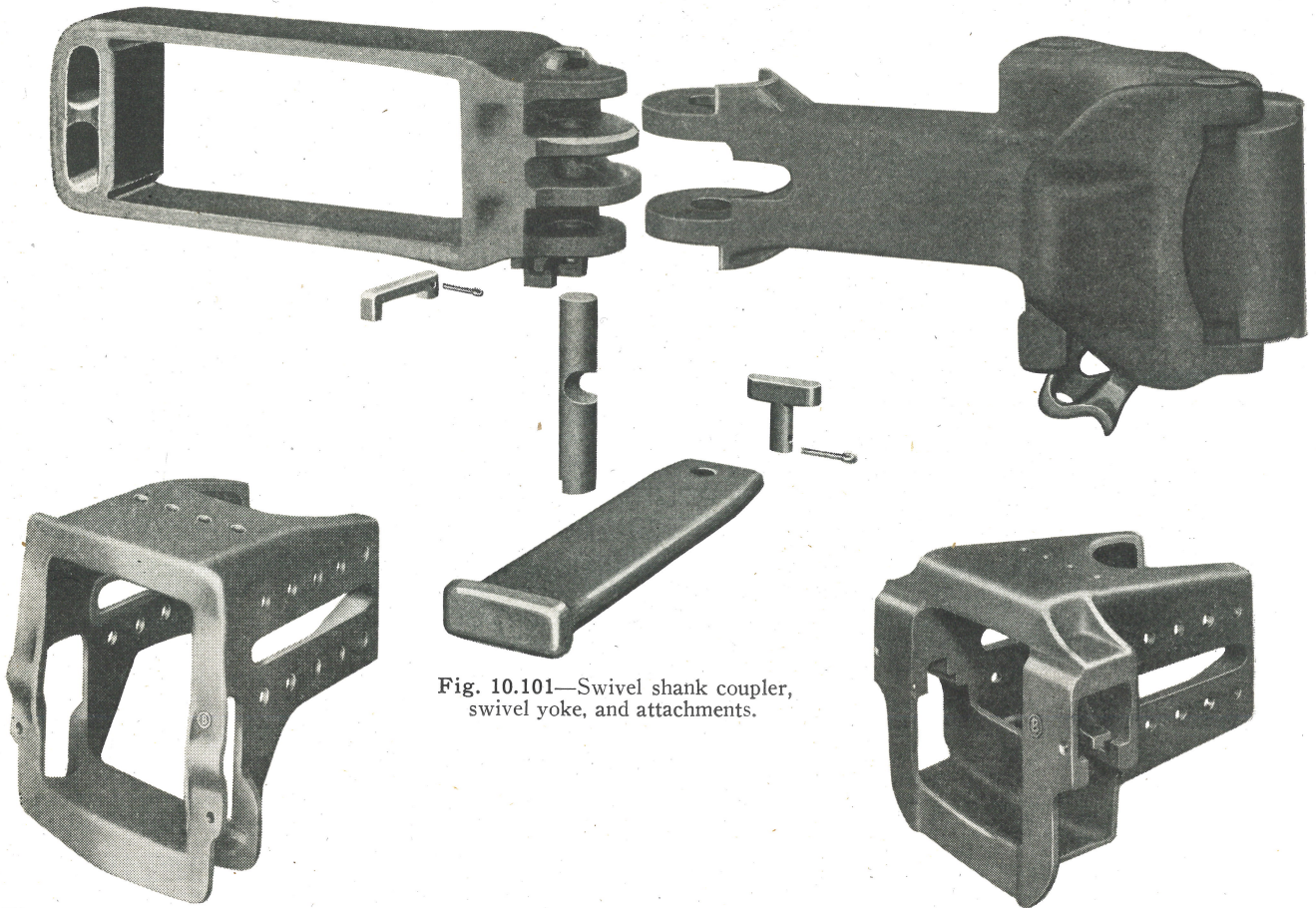


Fig. 10.101—Swivel shank coupler, swivel yoke, and attachments.

Fig. 10.102—Striker with Integral Front Lugs and Swing Coupler Carrier.

Fig. 10.103—Swing Motion Striker with Integral Front Lugs.

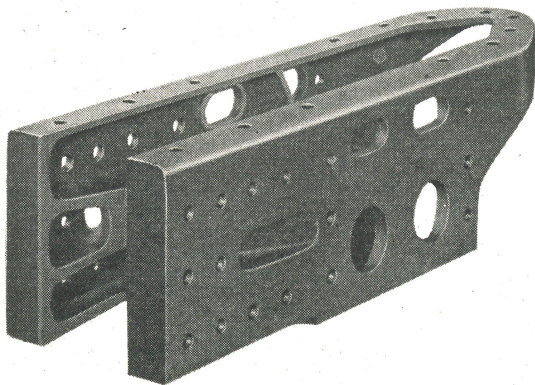


Fig. 10.104—Bolster Center Filler and Rear Draft Gear Lugs for box car.

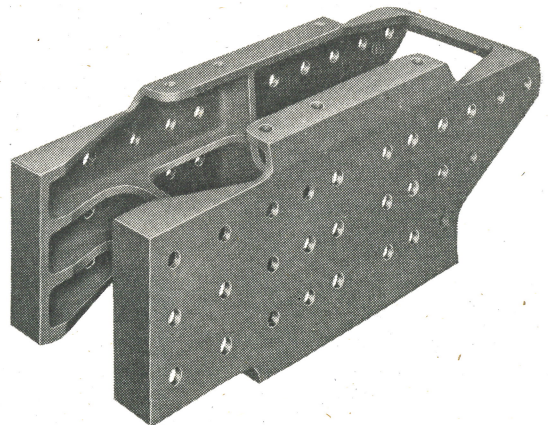
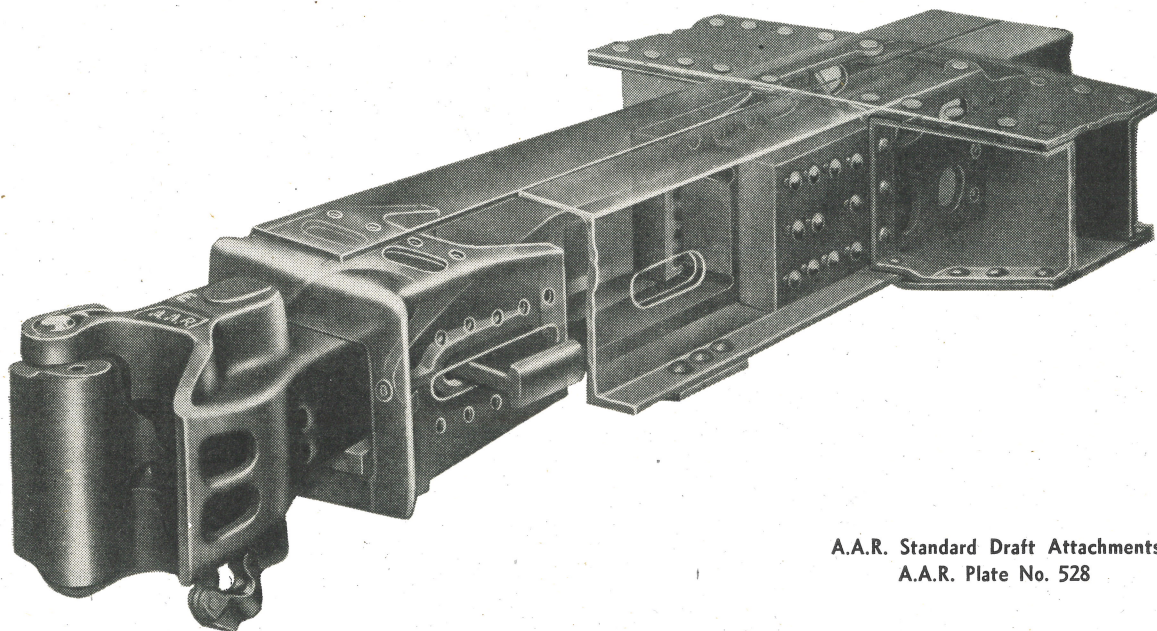


Fig. 10.105—Bolster Center Filler and Rear Draft Lugs for hopper car.

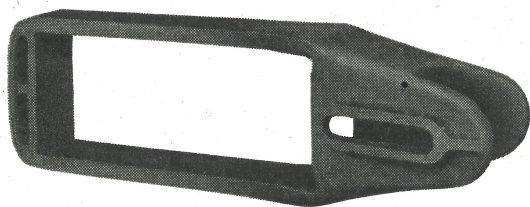
The Buckeye Steel Castings Company

(See also Page 973)

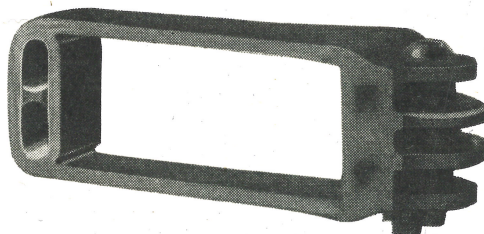
Buckeye Yokes and Draft Attachments



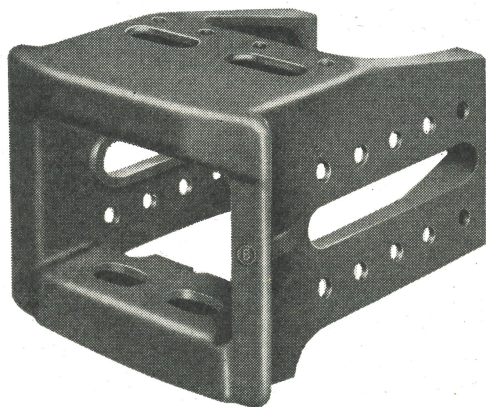
A.A.R. Standard Draft Attachments
A.A.R. Plate No. 528



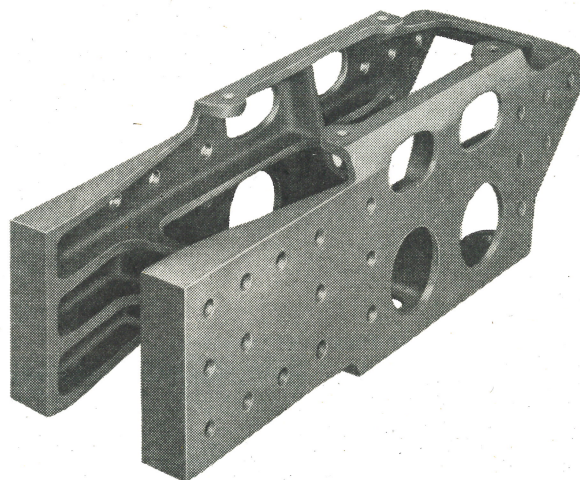
A.A.R. Standard
Vertical-Plane Draft Yoke



A.A.R. Alternate Standard
Vertical-Plane Draft Yoke



Striker with Integral Carrier
and Front Draft Lugs
A.A.R. Plate No. 532



Combined Bolster Center Filler
and Rear Draft Lugs
A.A.R. Plate No. 534

THE BUCKEYE STEEL CASTINGS COMPANY, COLUMBUS, OHIO

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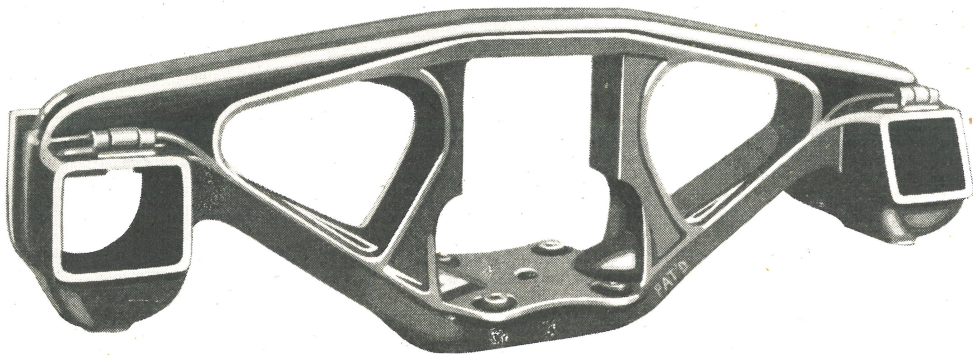
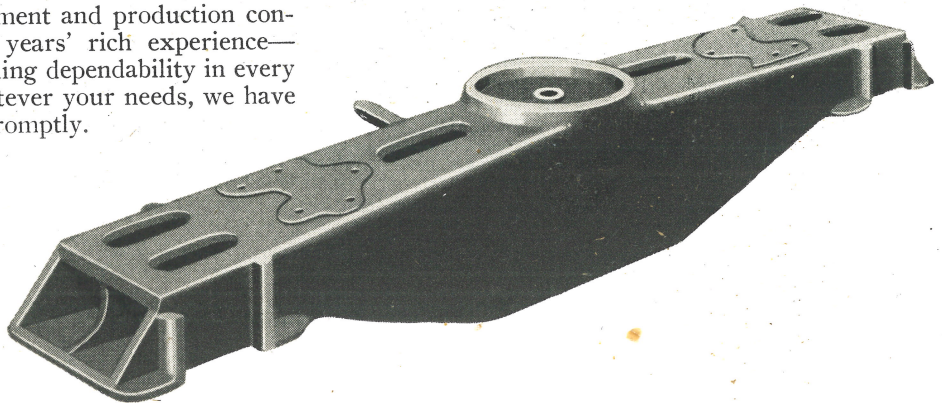
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Specify Scullin for Stamina and Service

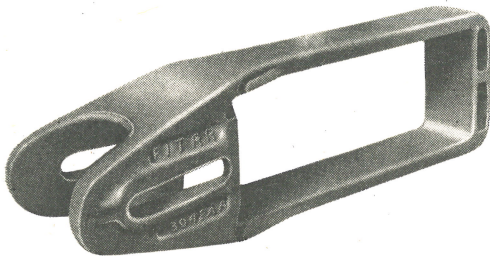
In Freight and Locomotive Castings

THE most modern equipment and production controls—plus almost 50 years' rich experience—are your assurance of unfailing dependability in every Scullin steel casting. Whatever your needs, we have the facilities to fill them promptly.

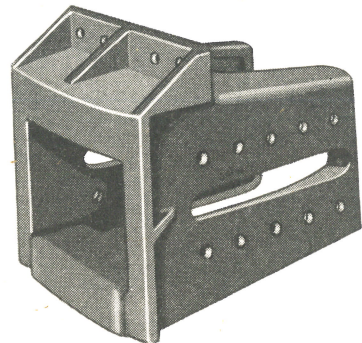
Truck
Bolster



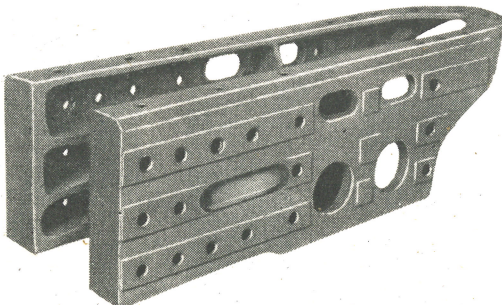
Integral-Journal-Box
Side Frame



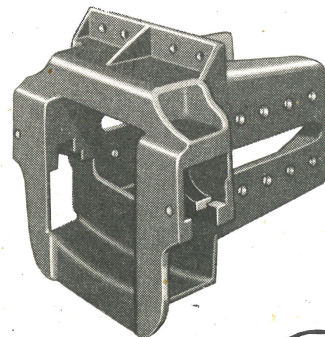
A.A.R. Vertical Plane Cast Yoke
for Friction Gear



Striker with Integral Carrier
and Front Lugs



Bolster Center Filler and
Rear Draft Lugs



Swing Motion Striker with
Integral Front Lugs

SCULLIN STEEL CO., ST. LOUIS 10, MISSOURI

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FreightCar America, Ex. 1054

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