

HO SCALE FREIGHT CAR TRUCKS

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April 1, 2014

As this list demonstrates, we've come a long way since the days when most modelers assumed there were only four types of trucks: Arch Bar, Andrews, Bettendorf, and Roller Bearing. Model trucks are listed below roughly in the chronological order of their prototypes, though there was, of course, much overlap. Where possible, I've given stock numbers. However, in some cases stock numbers have been elusive, so I've used the manufacturers' descriptions even when they are incorrect.

Many HO scale freight car trucks are still for sale, or at least are still available on the resale market, for which there are now much better alternatives, and accordingly I have not listed them. However, if I've missed any HO scale trucks you think should be included, please e-mail me at rhendrickson@opendoor.com. Trucks with "working" springs are not listed unless there is no alternative. "Working" springs have always been too stiff to actually work well and the tiny "see through" wire coils are entirely unrealistic. (Some modelers have addressed this by attaching thin black plastic view blocks behind the spring boxes, which helps but does not eliminate the problem.) Kadee is converting some older truck frames to solid HGC frames with molded springs, but not all of their cast metal trucks have been reworked.

Model truck manufacturers' descriptions cannot be taken literally, as they often misidentify the prototypes for their trucks. The "Bettendorf" label is especially likely to be mis-used; in the dark ages of the hobby, it was applied generically to any truck having the journal boxes cast as part of the side frames, and is still so used by some model truck manufacturers. Though the first such trucks were of the patented Bettendorf T-Section design, later integral-journal-box trucks were built by many different manufacturers to a variety of designs, though all of them met specifications developed by the ARA (later AAR), and Bettendorf itself stopped making trucks entirely in 1942. Calling the many different types of ARA/AAR trucks "Bettendorf" is, therefore, confusing and inaccurate.

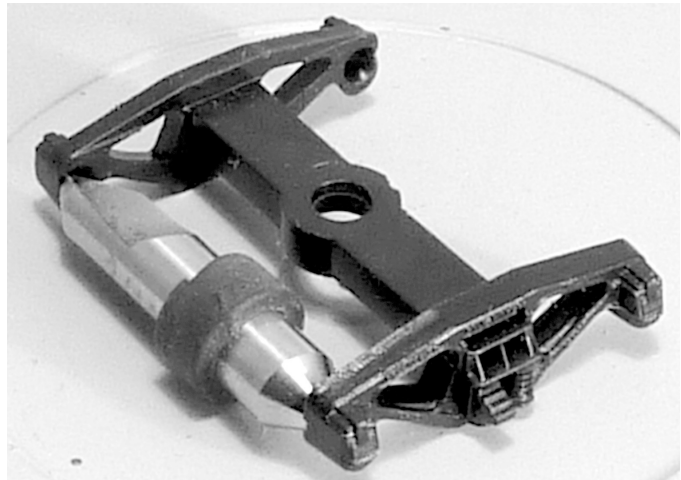
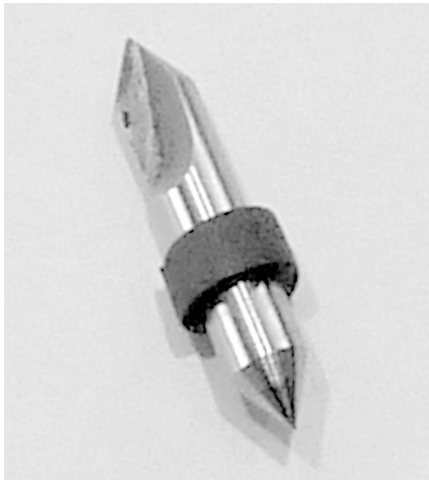
Another terminological issue is the use of "friction bearing" for trucks with solid bearings. Though roller bearing manufacturers used the term "friction bearings" negatively in advertising, it was never adopted in the railroad engineering literature. In fact, all journal bearings have some friction, though roller bearings have less resistance on starting and at low speeds. So "friction bearing" is an incorrect reference to trucks having plain or solid journal bearings. "Double truss" is also a problem, as prototype truck makers used it in the early 20th century for U-section side frames but later for boxed-in lower chords.

I'm sometimes asked why I don't include later trucks with roller bearings in this list. The answer is simple; since my modeling is focused on the steam/diesel transition era, I don't know very much about roller bearing trucks and am not motivated to learn more. I would be happy to include information on this subject if a post-1960 modeler would carry out the necessary research; any volunteers?

Most of the model trucks shown below have metal wheels, or are available with them; I've shown them with metal wheels even if that's not what they came with, as I routinely throw plastic wheel sets into the trash. Most trucks still come with code 110 wheels, but some are now available with semi-scale code 88 wheels. Tahoe Model Works trucks come with either; TMW stock numbers beginning with 1 have code 110 wheels, stock numbers beginning with 2 have code 88 wheels. Kadee is now offering its trucks with either code 110 or code 88 wheel sets; stock numbers for trucks with code 88s have a "1" prefix (for example, the arch bar truck with 110s is #561 and with 88s is #1561). Kadee code 88 wheel sets are also available separately with either ribbed or solid wheel backs.

Both Kadee and Walthers offer some trucks with ribbed back wheels representing cast iron wheels as well as smooth backs representing wrought steel (and some cast iron) wheels. In those cases, both part numbers are shown below, labeled (R) or (S).

Most HO scale truck frames are molded in one piece from slippery acetal plastic, which provides good rolling qualities but, being very shiny, is highly unrealistic in appearance and does not retain paint well. My solution to this is to sand blast every truck frame with fine abrasive powder. This results in a matte dark gray surface closely resembling the appearance of prototype trucks when in service and dirty, and paint will also adhere well to sand blasted truck frames if necessary. Doesn't this harm the bearing surfaces? It may, if they're not masked, but cleaning up the bearings with a hand-operated truck tuning tool should be done routinely on all truck frames anyway, whether sand blasted or not, as the bearing cones are not always perfect when they come out of the mold. This tool is illustrated below.



Exceptions to the practice of one piece truck frame molding are the Eastern Car Works trucks, which are molded as three styrene pieces – separate side frames and bolster – and must be cemented together. Needless to say, getting the pieces precisely aligned when assembling them is essential.

NOTE: for an excellent guide to N scale trucks, see: <http://www.visi.com/~spookshow/trucks/trucks.php>

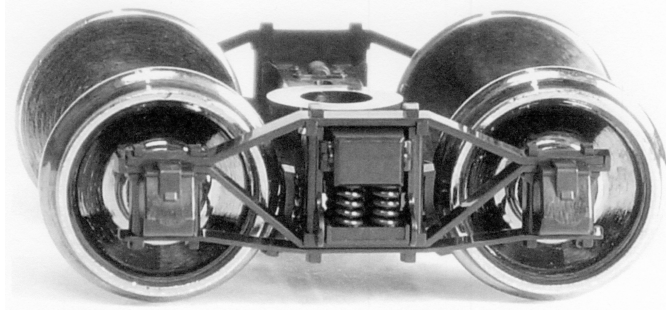
Abbreviations used in the listings below:

NBS = does not include simulated brake shoes (most now do).

BR = includes Brake Rigging (many don't).

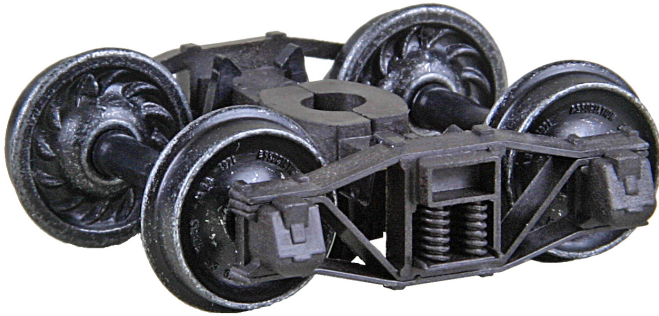
OP = out of production but may still be available on the resale market.

Early 5' Wheelbase Arch Bar

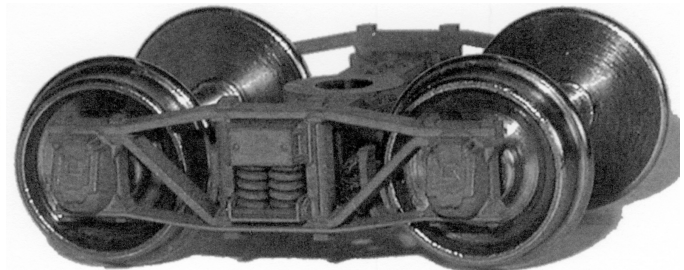


Tahoe Model Works 111, 211 (BR)

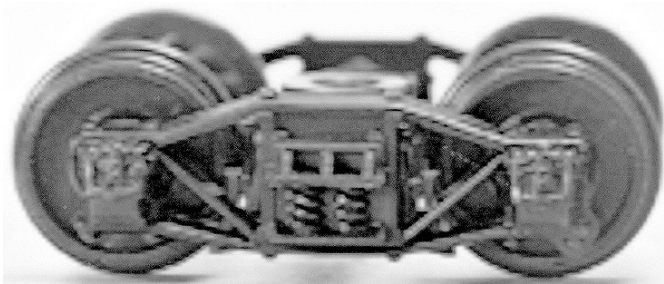
Diamond Arch Bar



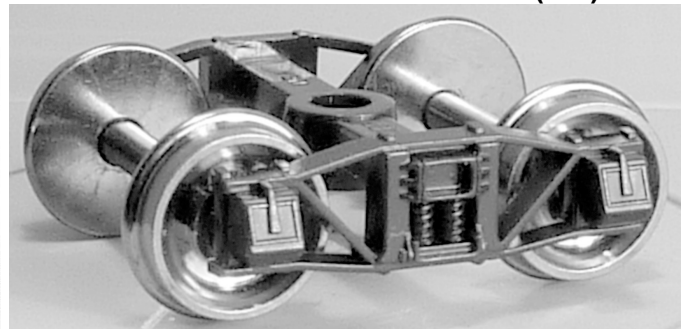
Kadee 561/1561 (BR, NBS)



Tahoe Model Works 103/203 (BR)

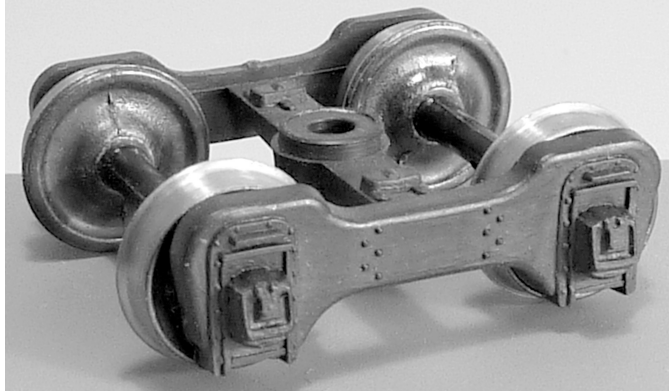


Walthers 1018



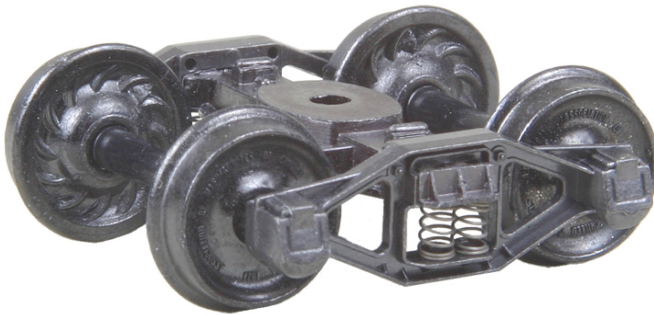
Bowser 74326 (NBS)

Fox Pressed Steel
(no bolster springs)

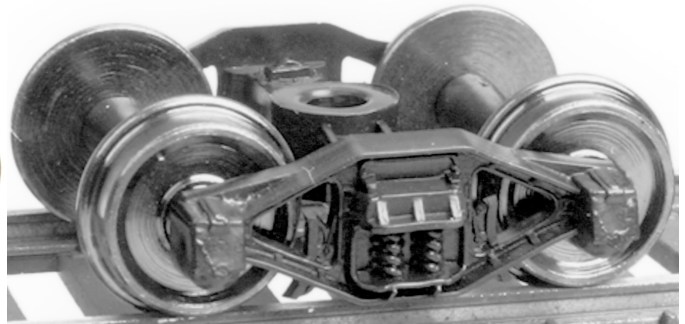


Model Die Casting (NBS, OP)

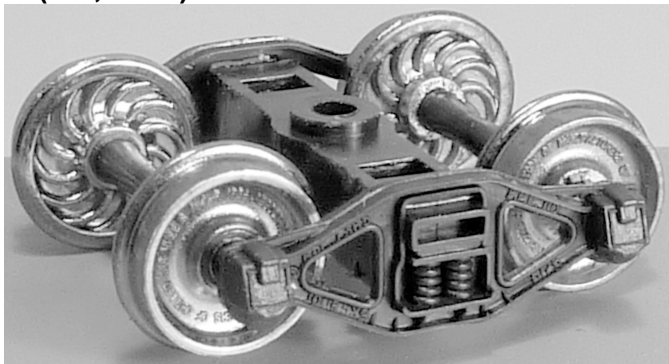
Bettendorf T-Section



Kadee 511/1511 (BR, NBS)

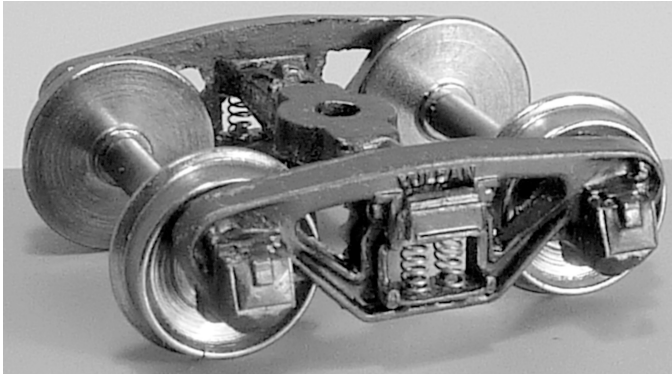


Walther's 1009

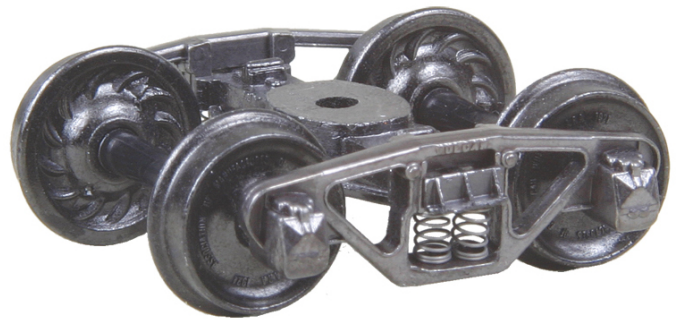


Red Caboose (NBS, OP)

Vulcan

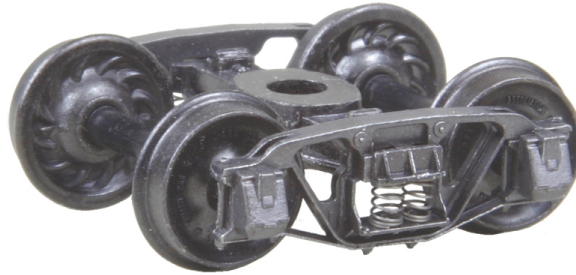


L-section
Ulrich Cast Metal (NBS, OP)



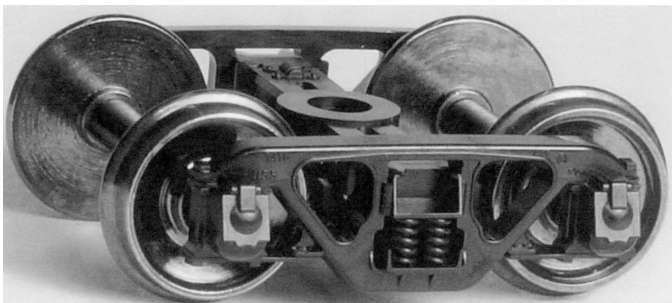
U-Section
Kadee Double Truss 515/1515 (BR, NBS)

Early Andrews L-Section

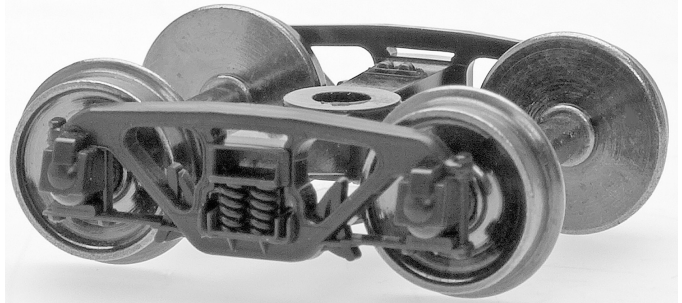


Kadee 509/1509 (BR, NBS)

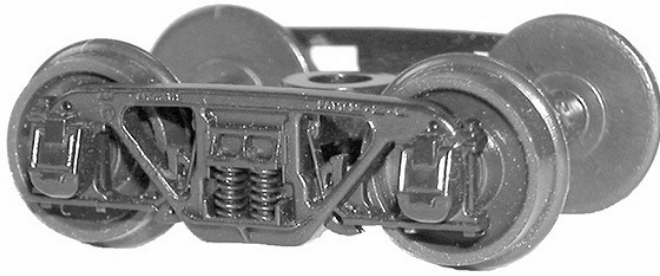
Andrews U-Section



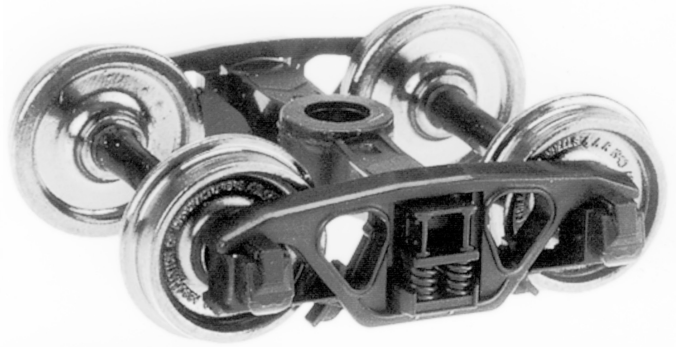
Tahoe Model Works USRA Andrews
TMW 112, TMW 212 (BR)



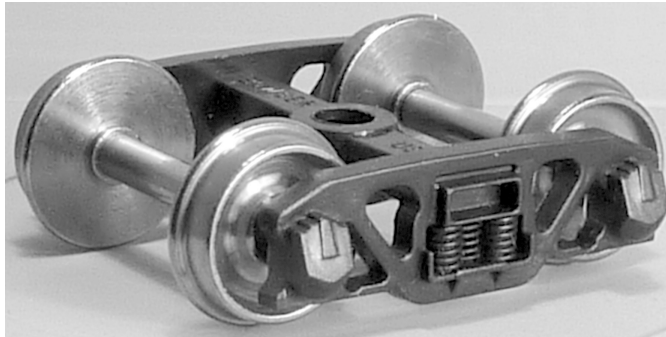
Intermountain Andrews



Accurail 203

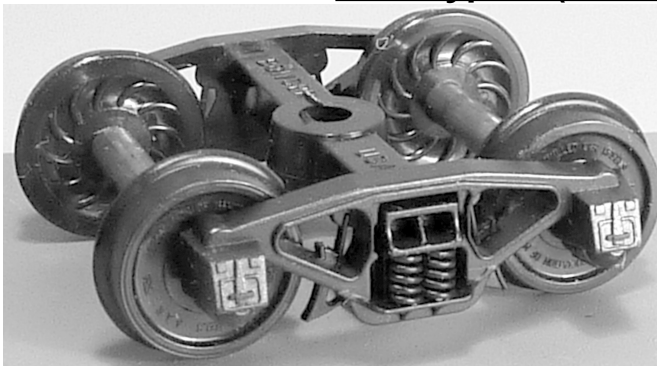


Walthers Proto 2000 23207(S)/23399(R)

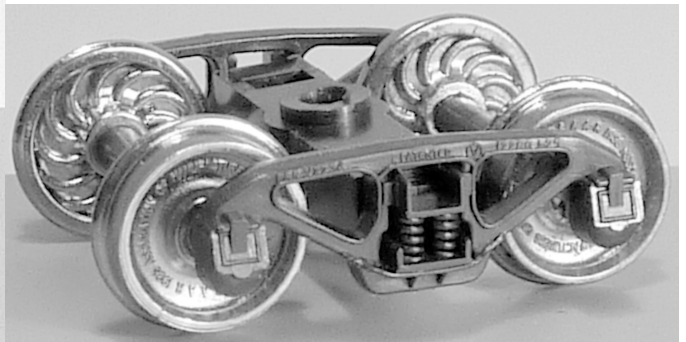


Bowser "Crown" Andrews 70 Ton 74091 (NBS)

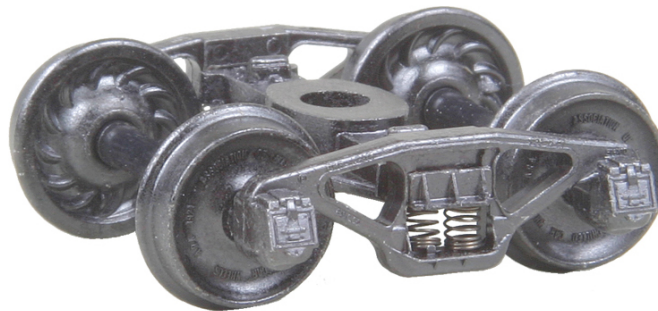
ARA Type Y (Pennsylvania R.R. 2D-F8)



Bowser "AAR" 74277

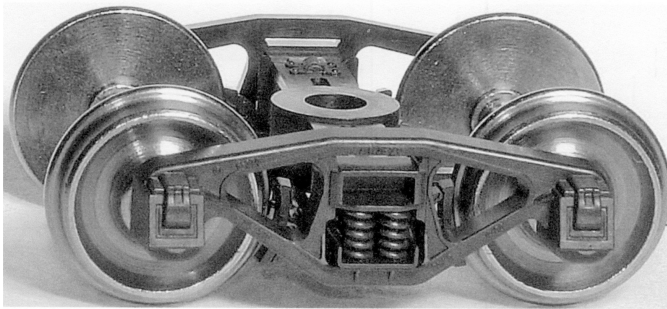


Red Caboose (NBS, OP)

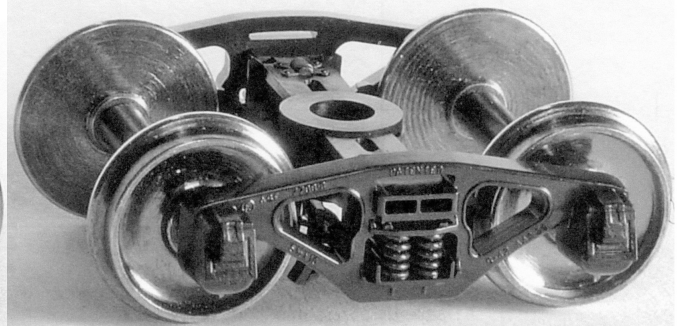


Kadee 517/1517 (BR, NBS)

ARA Cast Steel with Spring Plank



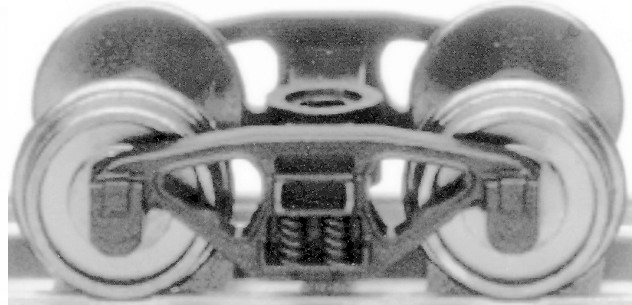
**Tahoe Model Works Buckeye ARA
TMW 106/TMW 206 (BR)**



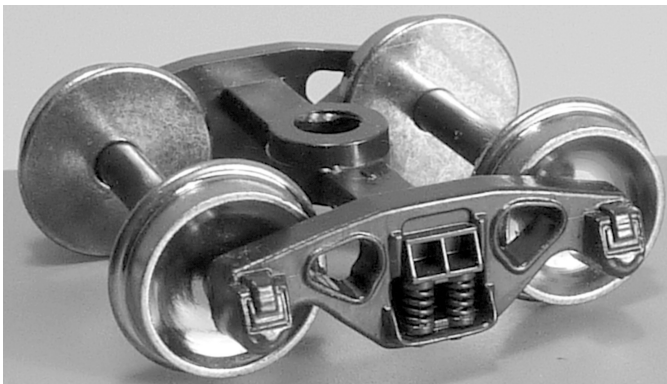
**Tahoe Model Works Barber
Lateral Motion TMW 109/TMW209 (BR)**



Accurail "Bettendorf"



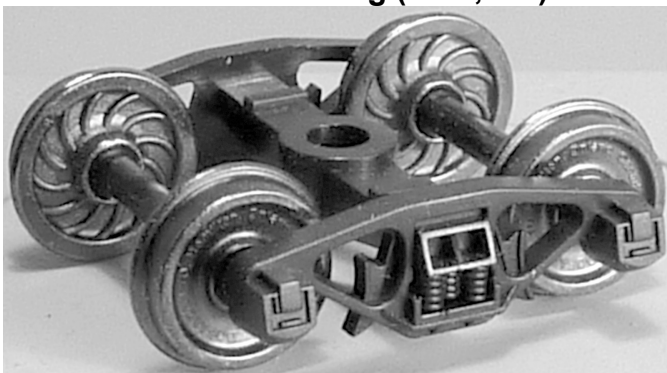
Atlas "Bettendorf" 50 Ton 18500 (NBS)



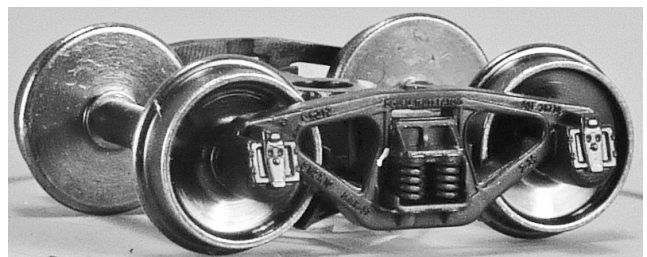
Model Die Casting (NBS, OP)



True Line (Canada) w. Simplex Bolster (NBS)

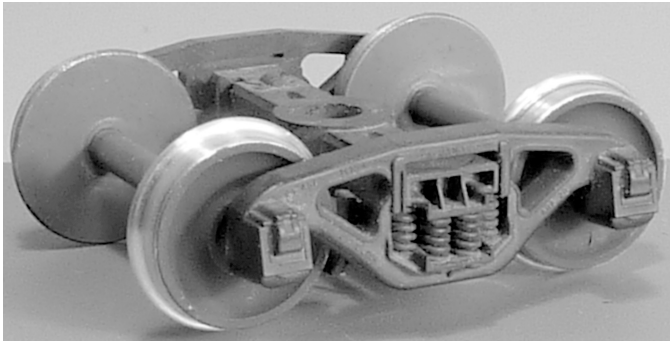


True Line (Canada) "Bettendorf" coil spring

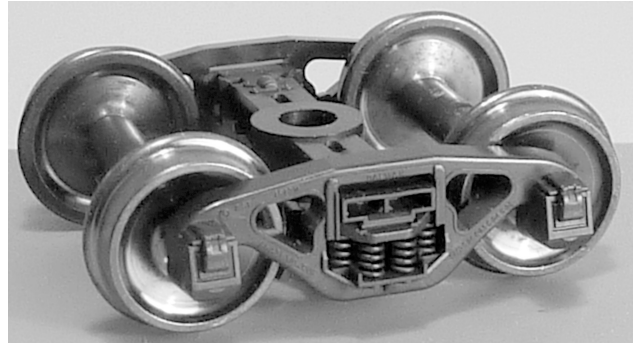


Tangent 102/103 ASF w. Spring Plank

Dalman Two-Level

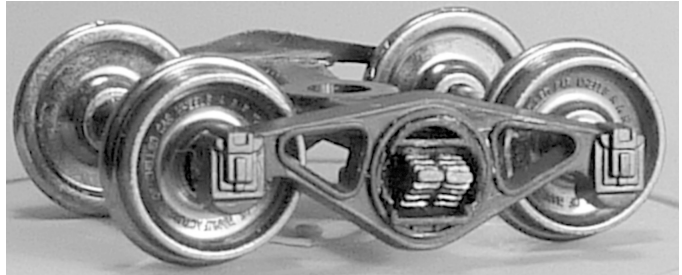
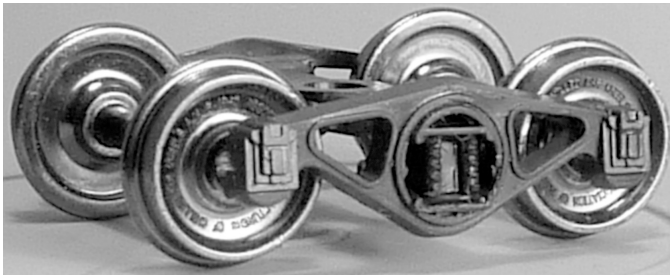


**Tahoe Model Works Dalman
TMW 101/201 (BR)**



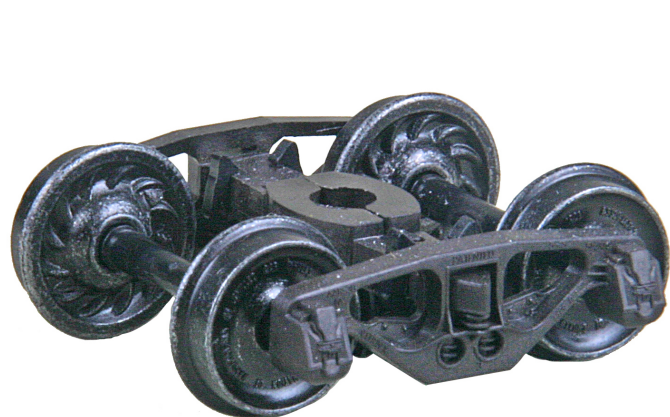
**Tahoe Model Works Dalman with Barber
Lateral Motion TMW 102/202 (BR)**

Taylor Flexible



Eastern Car Works [same kit makes either coil spring or leaf spring trucks](NBS, OP)

National B-1

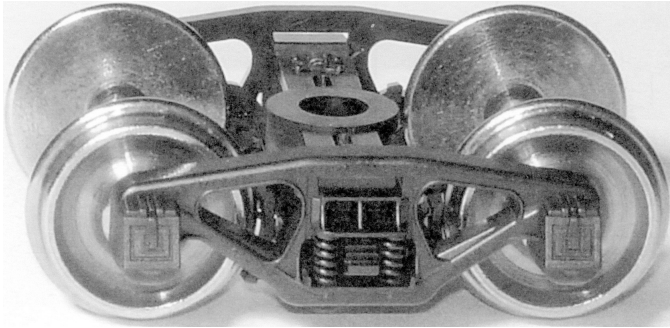


**Kadee 567/1567(R), 568/1568(S)
(BR, NBS)**

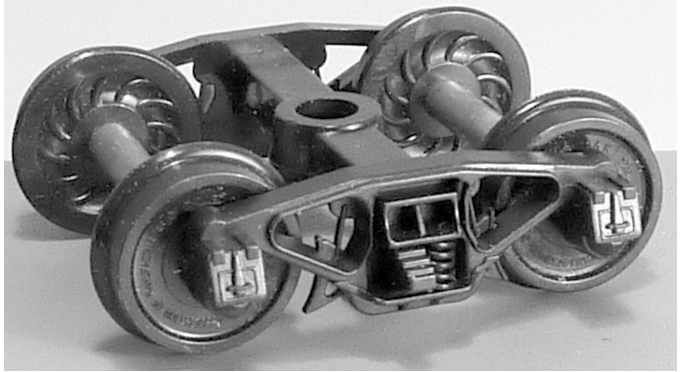


Walthers/Life-Like 21254(R) 21255(S)

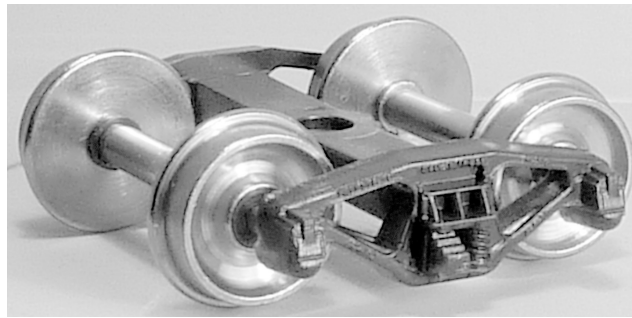
ARA/AAR Coil-Elliptic



Tahoe Model Works 108/208 (BR)

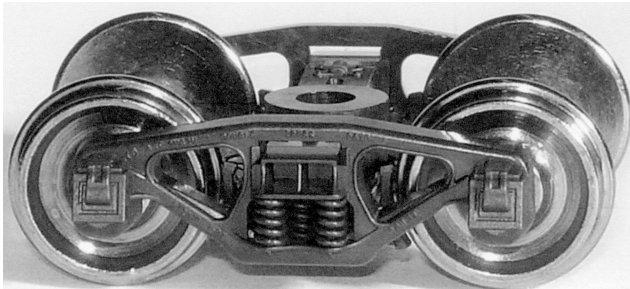


Bowser 74190 Coil-Leaf

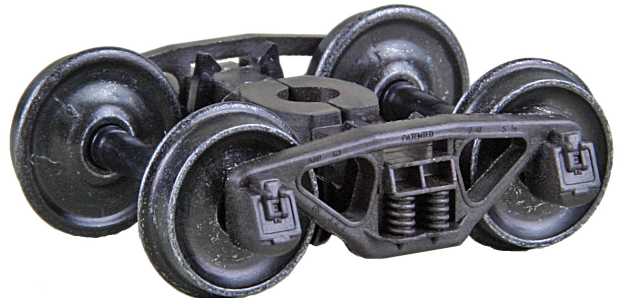


Tichy Leaf/Coil 3049 (NBS)

AAR 50 Ton Double Truss Self-Aligning Spring-Plankless



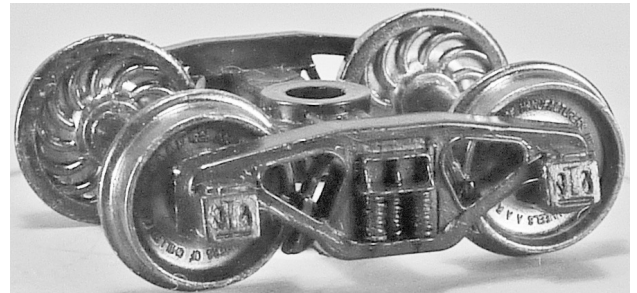
Tahoe Model Works TMW 107/207 (BR)



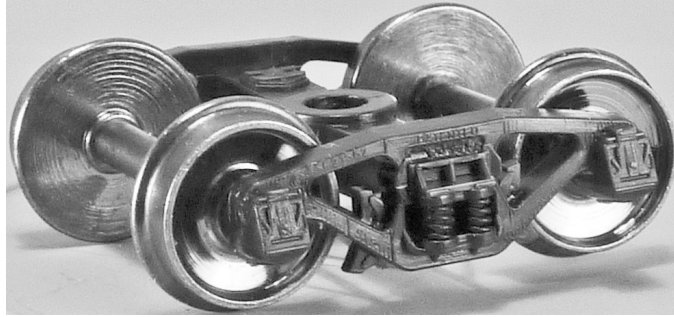
**Kadee "Bettendorf 50T" 564/1564(S) 565/1565(R)
(BR, NBS)**



Walthers 1012 "Bettendorf"

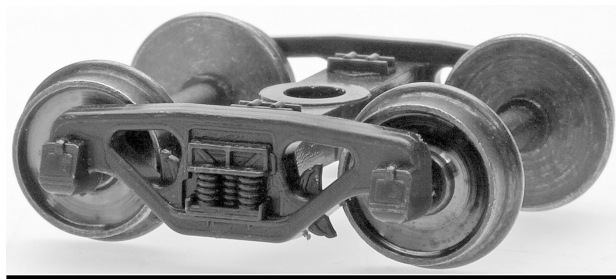


Walthers/Life-Like AAR Spring-Plankless



Intermountain 40061 ASF (NOTE: this is NOT an ASF A-3, though it has sometimes been identified it as such)

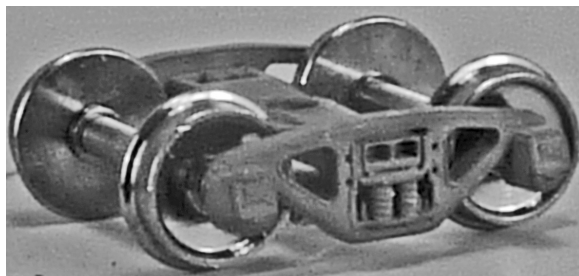
AAR 70 Ton (5'8" Wheelbase)



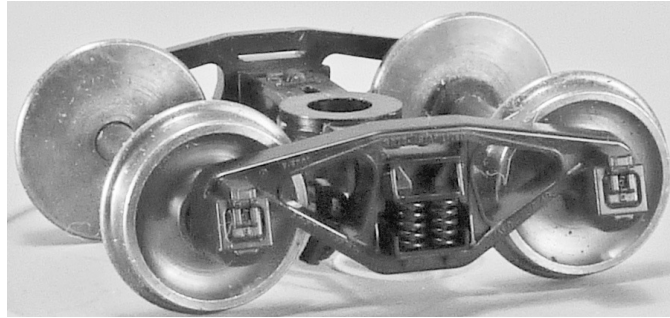
Intermountain
National C-1 70 Ton



Atlas (NBS)
Barber Stabilized S-1-L
Rapido

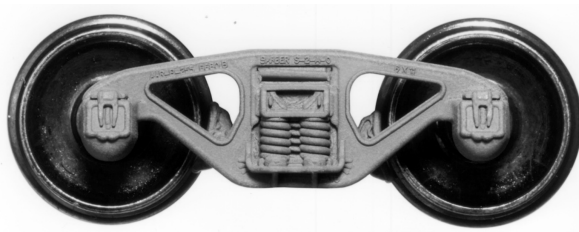


Barber Stabilized S-2 50 Ton with Spring Plank

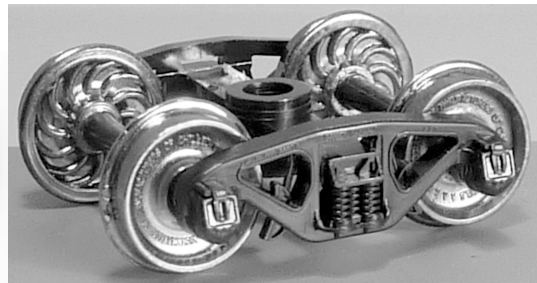


Tahoe Model Works TMW 113/-213 (BR)

Barber Stabilized S-2 50 Ton Spring Plankless

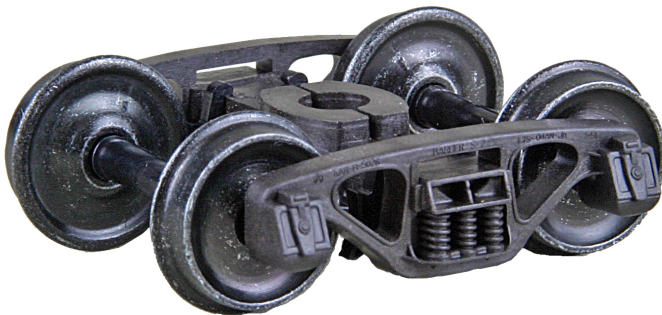


Exactrail ET-114

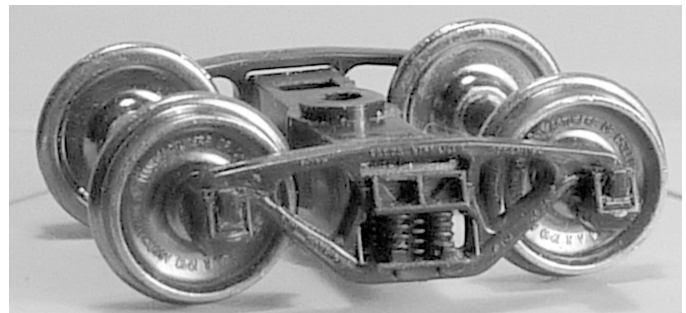


Branchline (OP)

Barber Stabilized S-2 70 Ton 5'8" WB

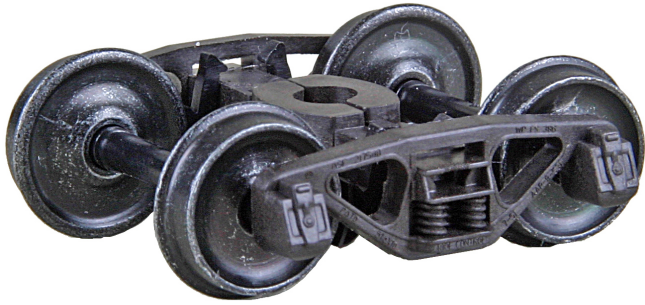


Kadee 566/1566 (BR)

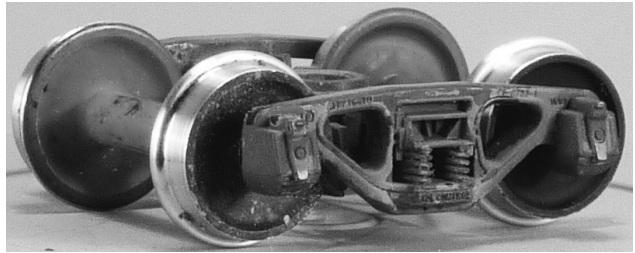


Hi-Tech (ex-Red Caboose)

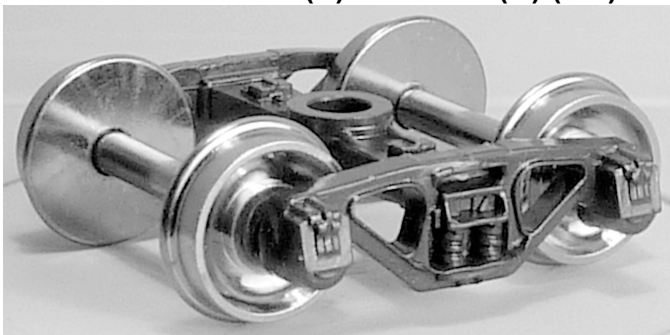
American Steel Foundries ASF A-3 50 Ton



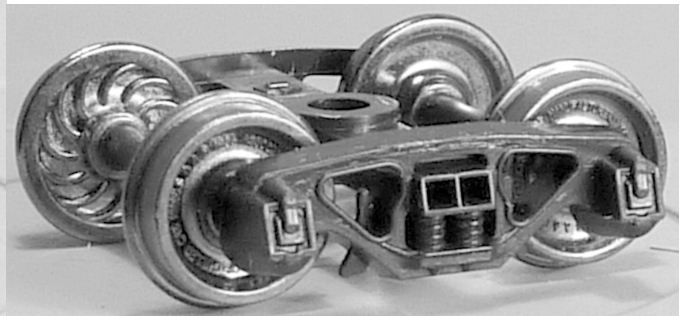
Kadee 562/1562(S) 563/1563 (R) (BR)



Kato

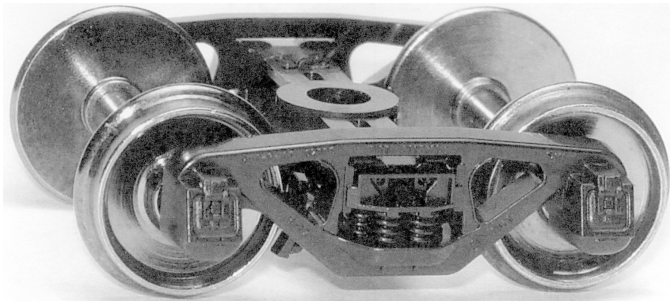


Athearn "Bettendorf" 90400 (NBS)

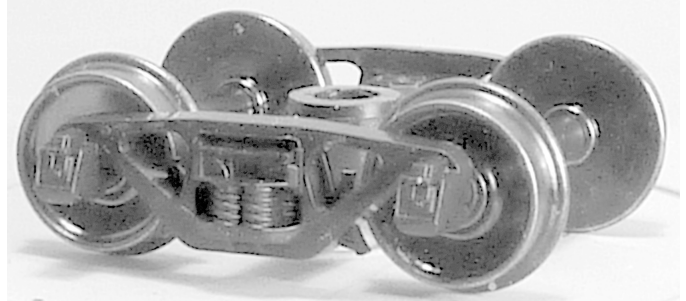


Con-Cor "Bettendorf" 99250

American Steel Foundries ASF A-3 70 Ton 5'8" WB

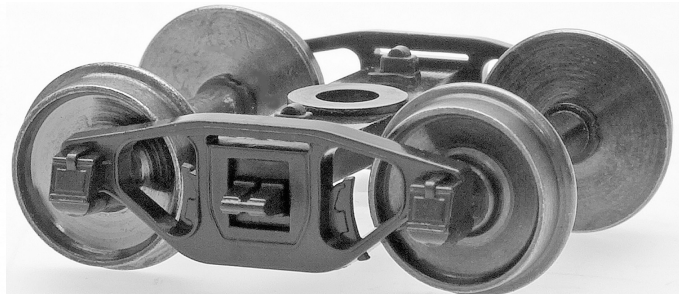
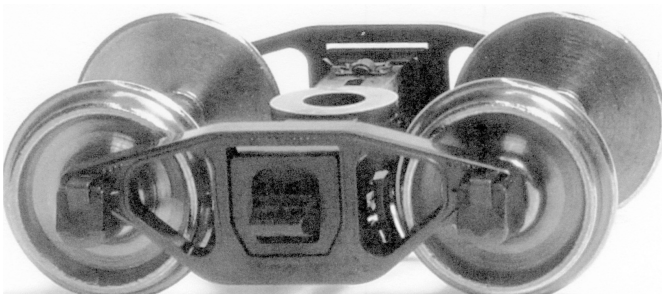


Tahoe Model Works 110/210 (BR)

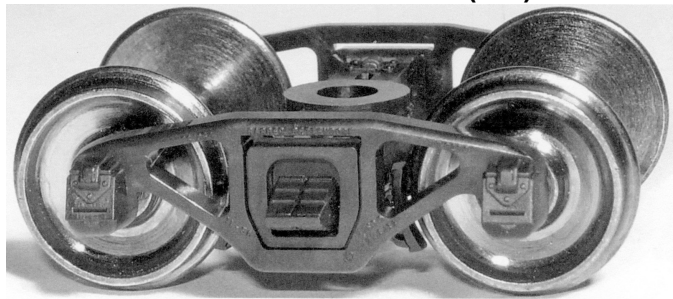


Tangent 100-1

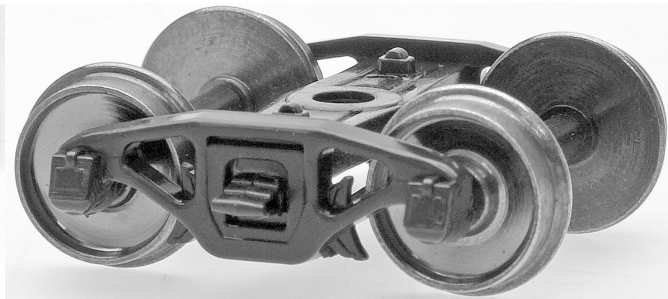
Caboose Trucks



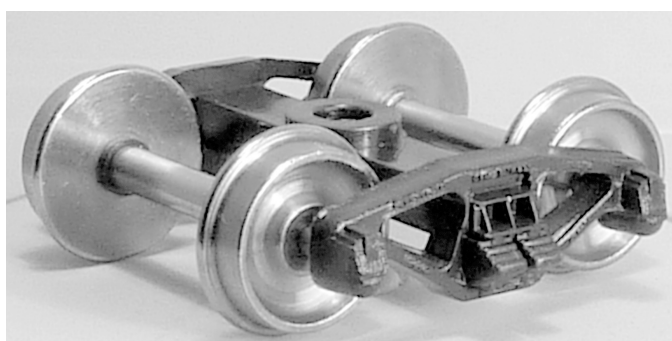
**Bettendorf Swing Motion
Tahoe Model Works 104/204 (BR)**



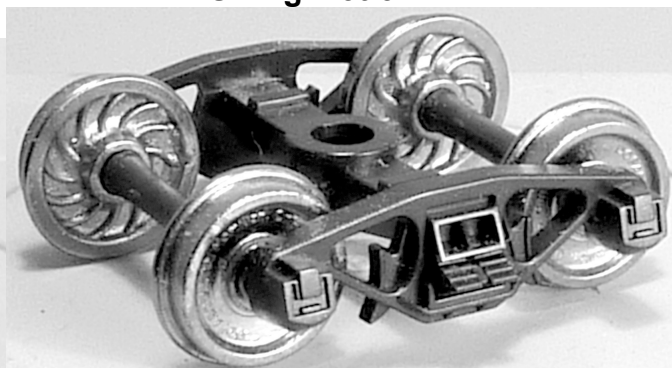
**Bettendorf Swing Motion
Intermountain**



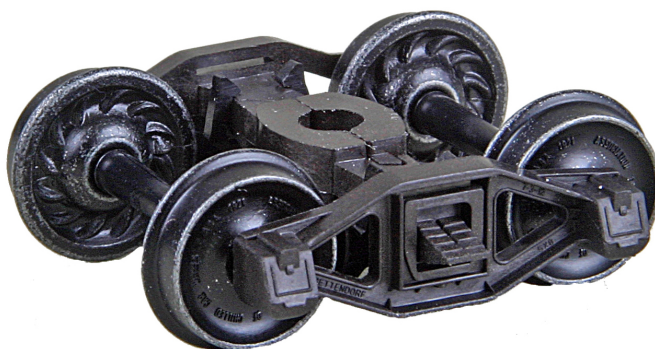
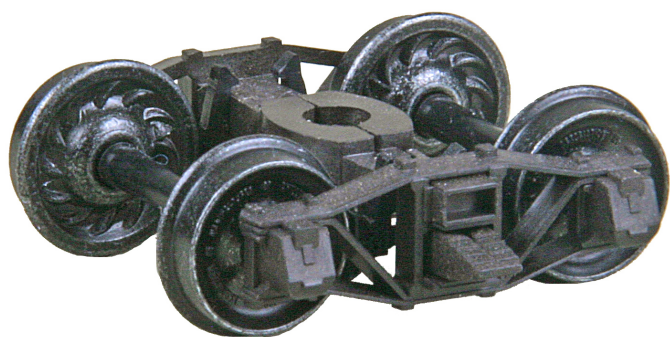
**Barber-Bettendorf Swing Motion
Tahoe Model Works 105/205 (BR)**



**Intermountain Barber-Bettendorf
Swing Motion**



Tichy "Bettendorf" dbl. leaf spr. 3051 (NBS) True Line (Canada) "Bettendorf" Leaf Spr.

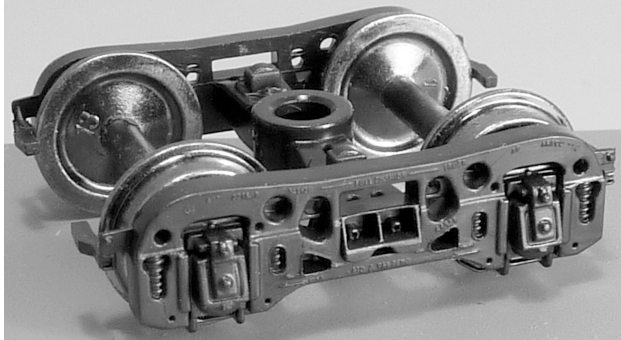


Kadee Leaf Spr. Arch Bar 583 (BR, NBS)

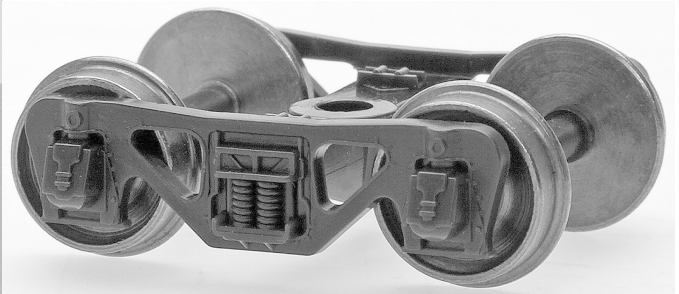
Kadee Leaf Spr. Bett. T-Sec. 581 (BR, NBS)

High Speed Trucks

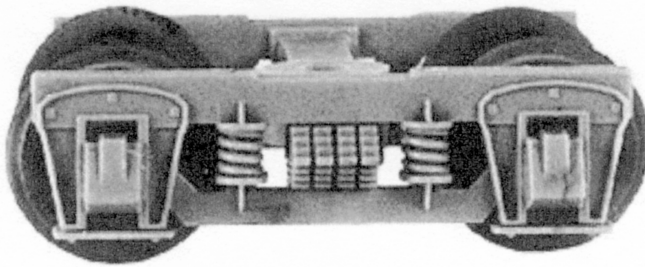
used on express box cars and express refrigerator cars



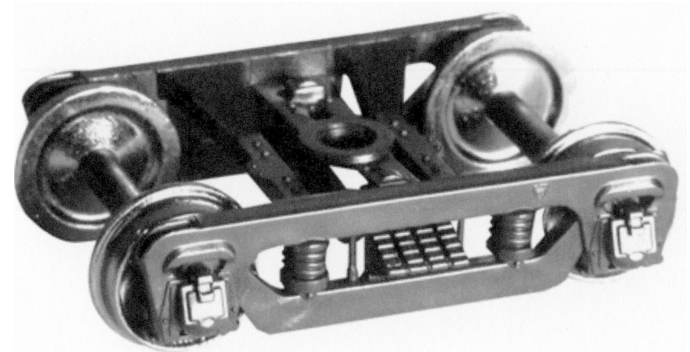
Athearn Allied Full Cushion Truck 90392



Intermountain Symington HS Truck (NBS)

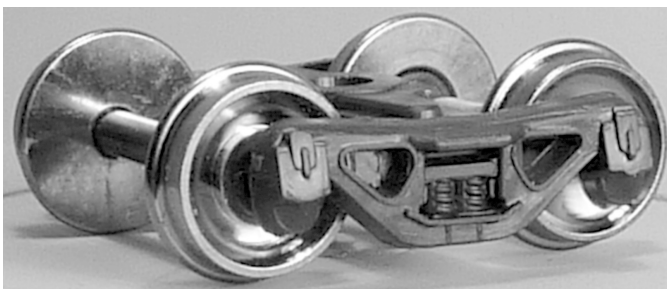


Tichy early Commonwealth 3060 (NBS)

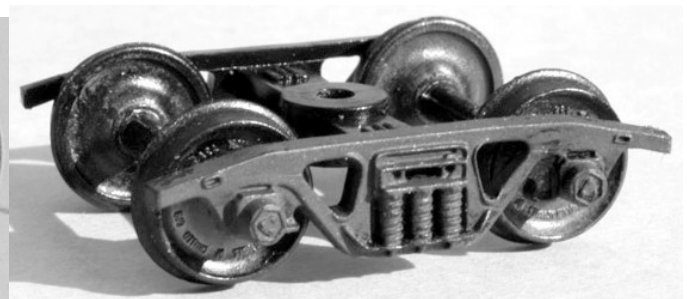


Athearn Commonwealth 90393 (NBS)

Heavy Duty Trucks

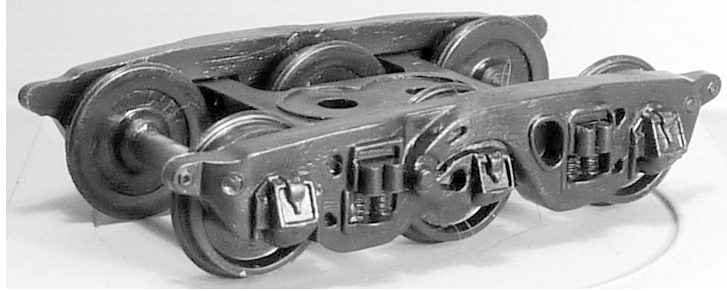


Eastern Car Works Commonwealth 90 T (NBS, OP)



Model Die Casting 100 Ton (NBS)

NOTE: Though the MDC truck above is a roller bearing truck, it's the only truck available with extended side frames for clasp brakes; the roller bearings can be replaced by solid bearing journal boxes removed from another truck frame.



Athearn Buckeye 6 wheel 90407 (NBS)

Bethlehem Car Works “Kitbits” Trucks

These are die cast metal from ancient tooling. Though they are crude by comparison with more recent HO scale trucks, there are several which represent trucks that are not available in any other form. Photos are in the Walthers on-line catalog.

135 PSC Arch Bar

1215 Pilchner Arch Bar

1216 Barber High Speed

1219 Symington-Gould high speed

1223 Fox pressed steel, leaf bolster springs