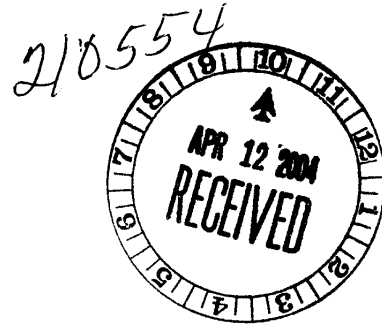




THE HONORABLE VERNON A. WILLIAMS

SECRETARY

THE SURFACE TRANSPORTATION BOARD

WASHINGTON

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RE:

FINANCE DOCKET NO. 27590 (SUB NO. 3)

TTX COMPANY

APPLICATION FOR POOLING REAUTHORISATION

BRIEF RESPECTFULLY SUBMITTED

BY

NATIONAL STEEL CAR LIMITED





GREGORY J. AZIZ
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April 8, 2004



The Honorable Vernon A. Williams
Secretary
Surface Transportation Board
1925 K Street, NW
Washington, DC 20423-0001

ENTERED
Office of Proceedings

APR 12 2004

Part of
Public Record

Re: Finance Docket No. 27590 (Sub-No. 3)
TTX Company – Application for Pooling Reauthorisation

Dear Mr. Williams,

We are writing to you directly, concerning the above captioned matter, which we understand is currently under review by your committee. Please give consideration to the contents of this document during your review process.

National Steel Car is a railroad freight car manufacturing company, continuously providing TTX with many of the railroad cars, which they utilise in their railcar pool. National provides TTX with the following car types:

- (i) articulated all purpose double stack well cars, which carry ocean and domestic containers, as well as highway trailers. (Fig. 1-1)
- (ii) articulated double stack well cars, which carry ocean and domestic containers. (Fig. 1-2)
- (iii) stand alone well cars, drawbar connected or coupled, which carry ocean and domestic containers. (Fig. 1-3, 1-4, 1-5)
- (iv) articulated spine cars which carry ocean and domestic containers, as well as domestic highway trailers. (Fig. 2-1, 2-2)
- (v) 89' flat cars which carry highway trailers and are also outfitted with autoracks for the domestic delivery of new finished automobiles. These cars are also used for the transportation of specialty goods such as pipe and heavy steel sheet and plate. (Fig. 3-1)

The benefits of the TTX model to the American railroad industry are principally composed of three major subsections:

Productivity
Financial Benefit to America's Railroads
The U.S. National Interest

PRODUCTIVITY

The TTX Pool

The pooling of railroad freight equipment through TTX, amongst America's railroads, provides the opportunity for the highest productivity possible, when compared to the purchase of the same types of equipment by the individual railroads. Through pooling, equipment utilisation is optimised nationwide and can be loaded in any direction, on any railroad. By reducing the unproductive movement of empty intermodal flat cars, TTX saves the railroads over \$180 million in operating costs per annum.

Low Rate Structure

The efficiency of the TTX pool has allowed it to provide flat cars at rates significantly lower than AAR default rates. TTX has continually passed on the results of this higher productivity through lower rates, and in fact, TTX's rates are 27% lower than they were in 1994 when the ICC last approved the TTX flat car pool. This has resulted in a savings to the participating railroads of \$650 million since 1996, through a combination of permanent and temporary rate reductions.

Growth of Intermodalism

TTX has continuously provided pro-active equipment solutions as intermodalism has grown dramatically over the last 15-20 years. As ocean containers have changed in size, length and capacity, so too has the TTX fleet. In so doing, TTX has kept pace with world shipping developments, thereby eliminating the need for costly, in-transit, load-reload centers due to the non-conformity of ocean – rail – truck conveyances. This has allowed containers to be manifested from shipping point to final destination on a worldwide basis, thereby providing American

exporters and importers with a seamless transportation network, yielding the lowest transportation costs of any country on Earth.

The efficiencies derived thereby have allowed the railroads greater operating margins due to greater participation of through-in-transit moves than would otherwise be attainable on an individual railroad basis.

The sustainability of an efficient American railroad network is vital to the National interest and touches every American in some way each and every day.

FINANCIAL BENEFIT TO MEMBER RAILROADS

The Cost of Capital

America's railroads by their very nature are involved in the most Capital-intensive industry in the Country. Each railroad is responsible for the safety, maintenance, and security of thousands of miles of track, railbed, bridges, trestles, tunnels, road crossings, terminals, and equipment.

With the quarter-to-quarter pressures demanded by the investment community and the high rates of return required by their shareholders, stakeholders and employees, the judicious application of capital constrains all railroads' ability to invest in new equipment. The maintenance of the network must come first. The reader will acknowledge the fact that America's railroads are the only entirely privately funded mode of transportation in the country, receiving virtually no capital participation by Government. It is therefore evident that the railroads, individually, would never be able to fund their equipment requirements to the levels currently required by an ever-demanding world marketplace.

By improving productivity and making significant investments in new equipment using its own funds, TTX has allowed the railroads to keep pace with the rapid growth in demand for the movement of intermodal containers and trailers, finished automobiles, and other commodities, without diverting funds from vitally important rail infrastructure and other required, mandatory, capital investments.

TTX capital expenditures for new and redeployed flat cars have totaled more than \$4.2 billion since 1994. During this period, TTX has added 83,000 new intermodal platforms, 10,700 autoracks, 9,800 other flatcars to its fleet, and reconfigured thousands more fleet cars to serve new, more productive uses. The capital relief provided to the railroads by TTX, has allowed them to concentrate on other areas of capital investment required within their individual organisations while providing

adequate returns and improved overall customer service, fostering growth system-wide.

TTX Brings Order to the Marketplace

The orderly movement of goods and services is of paramount importance to the American economy and TTX is the integral provider of late-model, state of the art equipment to America's railroads. Because the equipment is pooled amongst all of the member railroads, The TTX fleet can be of sufficient size to provide the **elasticity** necessary to ensure the equipment needs of the member railroads on short notice, due to the vicissitudes of the American economy. This would not be possible, nor financially feasible by any railroad on an individual basis.

REGIONAL VS. THE U.S. NATIONAL INTEREST

U.S. Railroad Consolidation

The U.S. Railroads, large as they are through the heavy consolidation of the last ten years, are still composed of very large operating entities operating essentially regionally in the eastern and western U.S. TTX's purview is National and indeed even Pan-North American.

To properly anticipate the needs of America, TTX deploys substantial resources, **beyond the capability of any one railroad**, continually analyzing the needs of the U.S. economy as a whole. This continual stream of data is constantly weighed against the TTX fleet and the anticipated needs of each sector of the American economy, how those needs will affect each individual railroad and how that railroad will need to participate in the rail network to provide the transportation required for the exporter, the importer, and the U.S. consumer.

TTX constantly measures and anticipates the rail-service needs of the U.S. economy on a macro-economic basis and thus, is able to provide the equipment needed, so that on a transcontinental basis, the nation's economic needs are addressed orderly and efficiently, domestically and internationally.

Regional Equipment Requirements

Because of the huge dynamic of the U.S. economy, different regions of the U.S., and indeed different rail corridors within different regions, require an ever-changing menu of equipment types and capabilities. Because of the depth of the TTX fleet, and the many offerings of equipment types and the capabilities of each, TTX is able to re-assign pro-actively, the nation's needs, as required, by individual railroads and provide the equipment where it is required, on short notice. This solution would not otherwise be available to America's railroads attempting to address their needs unilaterally.

The Shifting Dynamics of Modes of Transport

Large-scale shippers and receivers are constantly shifting modes of transportation as they drive for efficiency to provide different types of service for their customers. For example, express firms such as UPS, Federal Express, and the USPS have pushed into heavy, door to door, express freight, on a 3-5 day guaranteed delivery basis. Their trailers travel America's railroads on TTX equipment, designed, engineered, and built, to provide ride quality as well as rapid loading and unloading of **standardised equipment**.

The resulting benefits are two-fold for the American public in general and American industry in particular.

For American industry it has provided predictable, just in time delivery of vital goods.

For the American public, it has taken thousands of trucks and trailers off of the U.S. interstate system and put them on the railroads.

There is even a bonus in this for the U.S. Government, in that the capital requirements of the continually expanding interstate highway system is relieved somewhat by these activities.

Only the large TTX pool can accommodate these pan-national marketing efforts. Duplication of these benefits by an individual railroad would be extremely difficult, take far too long to develop, and would be fraught with inefficiency.

Size Matters

The great success and many benefits of the TTX pool are due in large part to its size.

Because TTX has grown over the years to a multi-billion dollar fleet of equipment, it has developed economies of scale that are otherwise unattainable by the railroads on an individual basis.

TTX equipment by its very nature is, in railroad industry parlance, "very high-mileage equipment." It requires planned, predictable maintenance. This in turn requires TTX to maintain a fleet size well in excess of the daily requirements of the railroads. The benefits to the railroads – no maintenance costs and no out of service costs (ie. loss of revenue due to equipment shortages) – are dramatic and incalculably large. There is safety in numbers for the railroads and for the shippers and receivers who depend ultimately on this equipment.

The reality of the world marketplace today demands predictable, on-time, delivery of goods and services. There is no room for failure. Because the railroads are the TTX customer in this case, they could not be better served under another structure, nor would they be capable of individually duplicating this feat – the capital cost and over-investment needed to meet this requirement would be so great as to render individual railroads non-competitive.

TTX is a model of efficiency and organization, providing seamless, as-needed service to the railroads.

Benefits of TTX to Research, Design, and Acquisition Activities

Other than the United States, there is no country on earth capable of delivering the quantities of goods and services over vast distances in the short time frames required by the American Exporter or Importer.

Because the railroad industry speaks with one voice, intermodally, through TTX, the efficiencies of intermodalism have been advanced immeasurably and are unequalled elsewhere in the world.

To maintain America's leadership in this field, TTX works with railroad car builders, parts suppliers, and shippers to develop new equipment types, to continually improve the performance of its fleet and to provide standardised equipment moving from one railroad to another, seamlessly from shipping point to destination.

This fact alone is an additional multi-billion dollar driver to the American economy each and every year.

Further, TTX has developed its own quality criteria for all of its suppliers, based upon objective criteria embodied in its SECO quality program.

SECO benefits the entire industry, fosters excellence through competition, and drives continuous improvement both in the design and reliability of equipment and its componentry. The tangible result is the rapid adoption of new ideas and technologies benefiting the railroads, the exporter, the importer, and America in general.

The yielded result is a dependable, efficient, system, unique to America.

Stimulative to Competition

Because the TTX fleet is so large, TTX is able to take risks with substantial amounts of new equipment to establish marginal services, and grow them into sustainable new, efficient transportation capabilities.

During the term of the last ICC authorization, TTX on many occasions assumed the risk, on behalf of the railroad community, by providing specialized flat cars for the transportation of steel pipe, automobile and truck frames, and other heavy, bulky, goods, and sub-assemblies. These new railcars were generally special order, especially equipped cars, to handle these commodities.

In every case, because new modern equipment was provided to the domestic shipper, through TTX and the railroads, a new rail service was created. Once established, through the use of TTX pooled equipment on a no-risk basis, the railroads and even the shortlines and large shippers have gone on to order similar equipment through other lessors. The railroads will do this in most cases because this new business is captive to their system or originates and travels a great distance on their system.

The key consideration here is that, without the heft of the TTX fleet and their ability to take risk on a relatively "small" number of cars relative to the TTX fleet size (typically 500-800 cars) to prove an initial business case, it is highly unlikely that any individual railroad would risk their capital on an unproven business case as the risk/reward ratio is too great. Further, the demands of the marketplace require new, efficient, made to order equipment to accommodate each "new" opportunity. Trial efforts using old, underutilized general-purpose equipment, idle in some rail yard, to prove a "New Business Case" would be rejected out of hand by the marketplace (ie. The shipper-receiver).

For TTX, the risk is small, and if successful, is an augmentation to their fleet, which will in all likelihood be further enhanced over time to provide the **elasticity** TTX is famous for, especially if the railroads/shortlines/shippers provide their own fleets through other lessors.

Therefore, TTX is stimulative to the competitive forces of the marketplace, providing a catalyst, rather than foreclosing other equipment supply options.

U.S. Security

TTX is integral to U.S. security. It is the only U.S. fleet deep enough and capable enough of moving military matériel nationwide, for domestic or international use. Containerisation logistics are a paramount requirement of the modern U.S. military. The heavy-haul capability of the modern, well maintained, flat and intermodal equipment composing the TTX fleet is vital to the U.S. military and to the U.S. National interest.

CONCLUSION

Although this submission provides a brief overview of the activities and benefits of the TTX pool, in our view there is only one conclusion that, upon reflection, the Surface Transportation Board can reach.

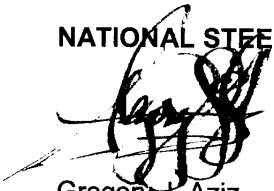
As a model, both in theory and in practice, the TTX railroad car equipment pool is unique in its efficiency and productivity, is unparalleled on a worldwide basis, and in fact, is the envy of the world.

It is in the National Interest, strategically and economically, that the requirements of the U.S. economy, the U.S. railroad network, America's rail-freight users, and the American consumer be protected.

National Steel Car supports, most vigorously, the immediate re-authorisation of the TTX Company – Application for Pooling Re-authorisation Finance Docket No. 27590 (Sub-No. 3).

Respectfully submitted,

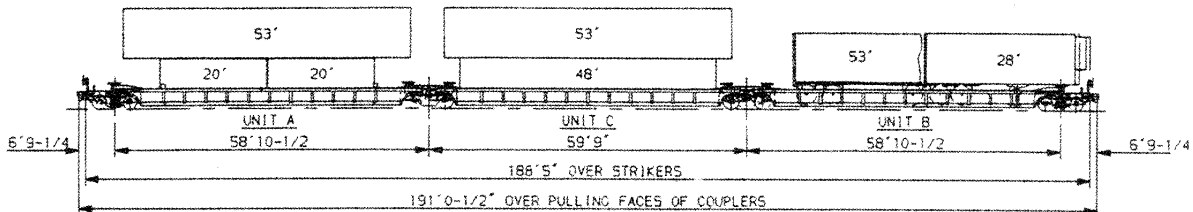
NATIONAL STEEL CAR LIMITED



Gregory J. Aziz
Chairman & CEO
April 8, 2004

INTERMODAL CARS

ALL PURPOSE DOUBLE STACK WELL CAR ARTICULATED - 3 UNIT CONFIGURATION



SPECIFICATIONS

WEIGHTS

Load Limit - per unit	118,300 lbs.
Light Weight - 3 Units	131,700 lbs.
Gross Rail Load	486,600 lbs.

WIDTHS

Inside Well	8' 9"
Over Side Top Chord	9' 11"
Maximum	10' 8"

LENGTHS

Inside Well - End Units	48' 7-3/4"
- Intermediate Unit	49' 0"
Over Pulling Faces of couplers - 3 Units	191' 0-1/2"
Truck Centers	
- Intermediate Units	59' 9"
- End Units	58' 10-1/2"

HEIGHTS (Above Rail)

Container Supports @ 40', Max., Empty	1' 0-1/16"
Side Top Chord (Maximum)	4' 1"
Over Double Stacked Domestic Containers	20' 2"

DESCRIPTION

This All Purpose Articulated Double Stack Well car consists of 3 units all with nominal 48 ft. wells. Each car is equipped with M901G draft gears at the ends, and articulated connectors at the intermediate positions. The car is equipped with two complete air brakes systems operating truck mounted brakes. One handbrake mounted at end operates the brakes on the end and the adjacent intermediate truck.

It is designed to carry two 20 ft. ISO or one 40 to 48 ft. ISO or Domestic Container in the well, plus a 40 to 53 ft. ISO or Domestic container on the upper level. In addition, the car can be equipped to accommodate one 28 ft. container in the well, plus a 28 ft. container on the upper level. The inside width is readily adjustable using the lateral guides which lock in either the ISO or Domestic Container position. Wide platforms provide easy access to the container corners for installation of interbox connectors. Clearance is provided for refrigeration units on 48 ft. containers in the well.

It is also designed to accommodate two 28 ft. maximum length trailers loaded back to back or a single trailer 28 ft. to 53 ft. maximum length. The car accommodates king pin settings from 24" to 42", and includes provision for a 24" refrigeration unit. Each platform is equipped with two fixed, semi-automatic trailer hitches.

Intermediate trucks are 125 ton capacity and end trucks are 70 ton capacity. Each well has a high carrying capacity while exceeding the AAR structural requirements, and is designed to provide excellent durability and fatigue life.

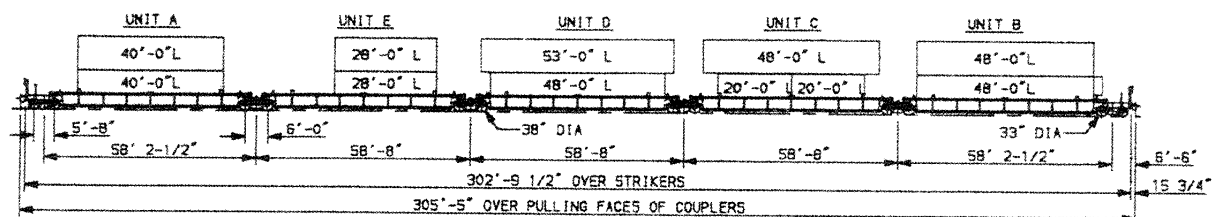


National Steel Car Limited

FIG 1-1

INTERMODAL CARS

COFC DOUBLE STACK WELL CAR ARTICULATED - 5 UNIT CONFIGURATION



SPECIFICATIONS

WEIGHTS

Load Limit - per unit	122,500 lbs.
Light Weight - 5 Units	185,500 lbs.
Gross Rail Load	798,000 lbs.

WIDTHS

Inside Well	8' 8"
Over Side Top Chord	9' 10-3/4"
Maximum	9' 11-1/8"

LENGTHS

Inside Well	48' 2"
Over Pulling Faces of Couplers	305' 5"
Truck Centers - Intermediate Units	58' 8"
Truck Centers - End Units	58' 2-1/2"

HEIGHTS (Above Rail)

Container Supports @ 40ft., Max. Empty	1' 0-1/16"
Side Top Chord	4' 9"
Over Double Stacked Domestic Containers	20' 2"

DESCRIPTION

This COFC Articulated Double Stack Well Car consists of 5 units all with 48 ft. wells. Each car is equipped with M901G draft gears at the ends and articulated connectors at the intermediate positions. The car is equipped with three complete air brake systems operating truck mounted brakes. Handbrakes mounted at each end operate the brakes on the end and the adjacent intermediate trucks.

It is designed to carry two 20 ft. ISO or one 40 ft. to 48 ft. ISO or Domestic Container in the well, plus a 40 to 53 ft. ISO or Domestic container on the upper level. In addition, it will accommodate one 28 ft. container in the well, plus a 28 ft. container on the upper level. Clearance is provided for refrigeration units on 48 ft. containers in the well.

The inside width is readily adjustable using the lateral guides which lock in either the ISO or Domestic container position. Wide platforms provide easy access to the container corners for installation of interbox connectors. Intermediate trucks are 125 ton capacity and end trucks are 70 ton capacity.

With National's focus on light weight, this car has a load limit of 122,500 lbs. per unit, while exceeding the AAR structural requirements and is designed to provide excellent durability and fatigue life.

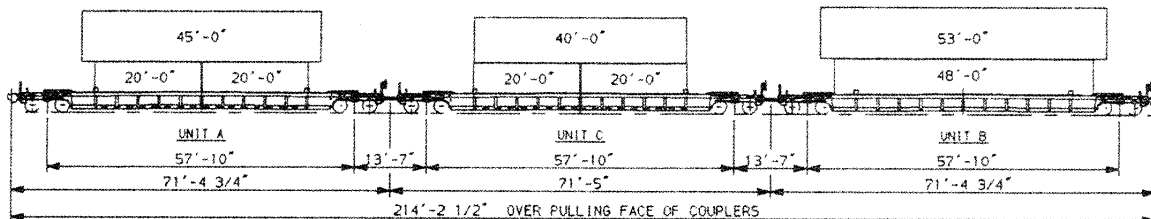


National Steel Car Limited

FIG 1-2

INTERMODAL CARS

COFC DOUBLE STACK WELL CAR (TOFC CONVERTIBLE) STAND ALONE OR DRAWBAR COUPLED



SPECIFICATIONS

WEIGHTS

Load Limit - per unit
Light Weight - per unit
Gross Rail Load - per Unit

170,770 lbs.
49,230 lbs.
220,000 lbs.

WIDTHS

Inside Well
Over Side Top Chord
Maximum

8' 9-3/4"
9' 11-3/4"
10' 8"

LENGTHS

Inside Well
Over Pulling Faces of
couplers - 3 Units
- 4 Units
Truck Centers

48' 1-1/2"
214' 2-1/2"
285' 7-1/2"
57' 10"

HEIGHTS (Above Rail)

Container Supports @ 40', Max., Empty
Side Top Chord (Maximum)
Over Double Stacked Domestic
Containers

1' 0-1/16"
4' 0-7/8"
20' 2"

DESCRIPTION

This COFC Double Stack car with a 48 ft. well can be supplied as a stand alone or a drawbar coupled multiple unit car. The three unit car shown has M901G draft gears at both ends and drawbars at the intermediate positions. Each unit has self-contained air brakes operating truck mounted brakes, and a handbrake. All units are readily convertible between single and multi-unit configuration by replacement of the drawbars with couplers and draft gears.

It is designed to carry two 20 ft. ISO or one 40 to 48 ft. ISO or Domestic Container in the well, plus a 40 to 53 ft. ISO or Domestic on the upper level. The inside width is readily adjustable using the lateral guides which lock in either the ISO or Domestic Container position. Wide platforms provide easy access to the container corners for installation of interbox connectors and for servicing refrigeration units. Clearance is provided for refrigeration units on 48 ft. containers in the well.

Since this car is designed to be convertible to include TOFC service, it will accommodate two 29' 6" maximum length trailers loaded back to back or a single trailer from 28 ft. to 53 ft. maximum length. The car accommodates king pin settings from 30" to 42", and includes provision for a 24" maximum refrigeration unit. The car can be equipped with single or double fixed, semi-automatic trailer hitches up to 90,000 lbs. capacity. All wells are equipped with 70 ton trucks.

With National's focus on light weight, this car has a load limit of 170,770 lbs. while exceeding the AAR structural requirements and is designed to provide excellent durability and fatigue life.

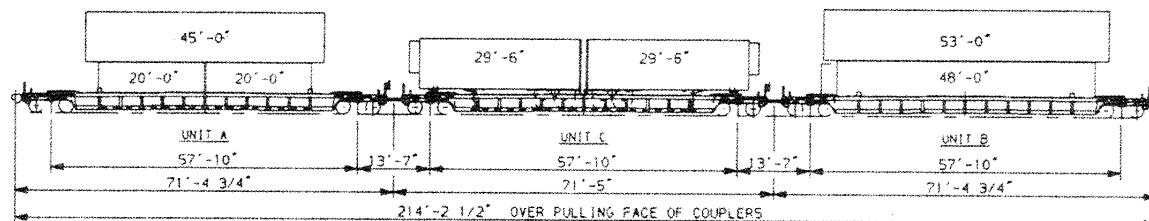


National Steel Car Limited

FIG 1-3

INTERMODAL CARS

ALL PURPOSE DOUBLE STACK WELL CAR STAND ALONE OR DRAWBAR COUPLED



SPECIFICATIONS

WEIGHTS

Load Limit - per unit
Light Weight - per unit
Gross Rail Load - per Unit

169,390 lbs.
50,610 lbs.
220,000 lbs.

WIDTHS

Inside Well
Over Side Top Chord
Maximum

8' 9-3/4"
9' 11-3/4"
10' 8"

LENGTHS

Inside Well
Over Pulling Faces of
couplers - 3 Units
- 4 Units
Truck Centers

48' 1-1/2"
214' 2-1/2"
285' 7-1/2"
57' 10"

HEIGHTS (Above Rail)

Container Supports @ 40', Max., Empty
Side Top Chord (Maximum)
Over Double Stacked Domestic
Containers

1' 0-1/16"
4' 0-7/8"
20' 2"

DESCRIPTION

This All Purpose Double Stack car with a 48 ft. well can be supplied as a stand alone or a drawbar coupled multiple unit car. The three unit car shown has M901G draft gears at both ends and drawbars at the intermediate positions. Each unit has self-contained air brakes operating truck mounted brakes, and a handbrake. All units are readily convertible between single and multi-unit configuration by replacement of the drawbars with couplers and draft gears.

It is designed to carry two 20 ft. ISO or one 40 to 48 ft. ISO or Domestic Container in the well, plus a 40 to 53 ft. ISO or Domestic on the upper level. The inside width is readily adjustable using the lateral guides which lock in either the ISO or Domestic Container position. Wide platforms provide easy access to the container corners for installation of interbox connectors and for servicing refrigeration units. Clearance is provided for refrigeration units on 48 ft. containers in the well.

It is also designed to accommodate two 29' 6" maximum length trailers loaded back to back or a single trailer from 28 ft. to 53 ft. maximum length. The car accommodates king pin settings from 30" to 42", and includes provision for a 24" maximum refrigeration unit. The car can be equipped with single or double fixed, semi-automatic trailer hitches up to 90,000 lbs. capacity. All wells are equipped with 70 ton trucks.

With National's focus on light weight, this car has a load limit of 169,390 lbs. while exceeding the AAR structural requirements and is designed to provide excellent durability and fatigue life.

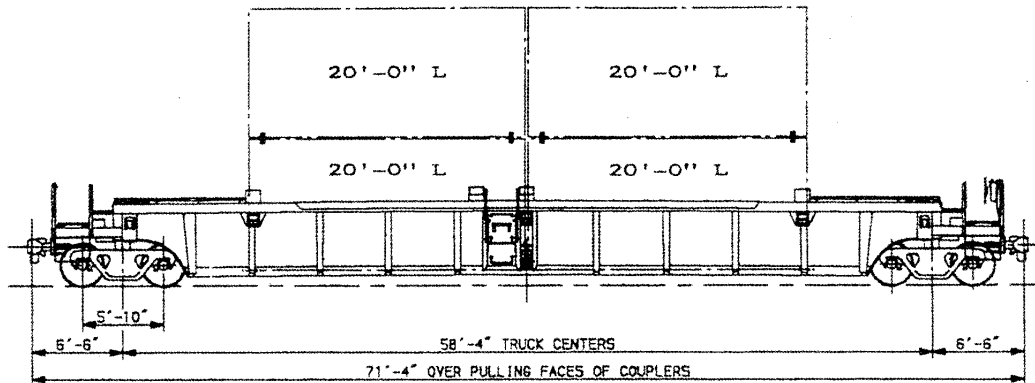


National Steel Car Limited

FIG 1-4

INTERMODAL CARS

COFC DOUBLE STACK WELL CAR STAND ALONE 286 GRL



SPECIFICATIONS

WEIGHTS

Load Limit	226,000 lbs.
Light Weight	60,000 lbs.
Gross Rail Load	286,000 lbs.

WIDTHS

Inside Well	8' 8"
Over Side Top Chord	9' 11"
Maximum	9' 11-3/8"

LENGTHS

Inside Well	48' 2"
Over Pulling Faces of Couplers	71' 4"
Truck Centers	58' 4"

HEIGHTS (Above Rail)

To Container Guides (Empty Car)	7' 1-1/8"
To Handbrake Wheel (Empty Car)	7' 8-1/4"
Over Double Stacked Domestic Containers	20' 2"

DESCRIPTION

This heavy duty COFC Double Stack Well Car is a 110 ton, 48 ft. car primarily designed to carry four fully loaded 20 ft. containers. Each car is equipped with full draft pockets, self contained air brakes operating truck mounted brakes, and a handbrake which operates both trucks.

It is designed to carry two fully loaded 20 ft. ISO or one 40 to 48 ft. ISO or Domestic Container in the well plus two 20 ft. or one 40 to 53 ft. ISO or Domestic Container on the upper level. With four fully loaded containers, there is still an extra capacity of over 14,000 lbs. to accommodate container overload. Clearance is provided for refrigeration units on 48 ft. containers in the well.

The inside width is readily adjustable using the lateral guides which can be locked in either the ISO or Domestic Container position. Wide platforms provide easy access to the container corners for installation of interbox connectors and for servicing refrigeration units. Access is also provided at the car center for installation of interior IBC's when loaded for four 20 ft. containers. Cars are equipped with 110 ton trucks.

This car has completed successfully all the AAR testing, including track dynamics and elevated center of gravity.

With National's focus on light weight and Maximum Carrying Capacity, this car has a load limit of 226,000 lbs. while exceeding the AAR structural requirements, and is designed to provide excellent durability and fatigue life.

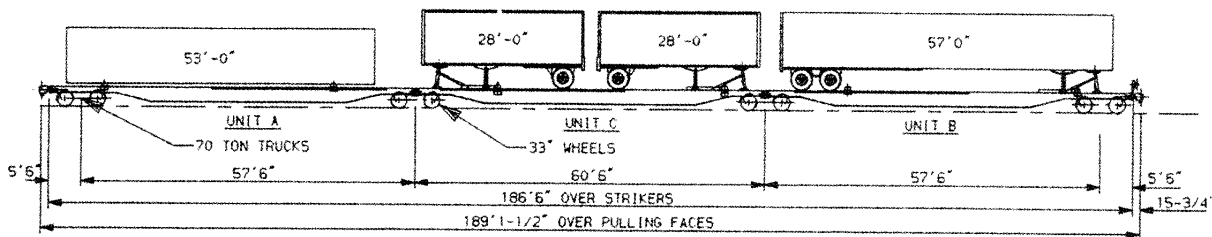


National Steel Car Limited

FIG 1-5

INTERMODAL CARS

ALL PURPOSE SPINE CAR ARTICULATED - 3 UNIT CONFIGURATION



SPECIFICATIONS

WEIGHTS

Total Load Limit	240,000 lbs.
Light Weight - 3 Units	111,200 lbs.
Gross Rail Load	351,200 lbs.

WIDTHS

Inside Trailer Platform Rub Rails	8' 10-1/2"
Maximum (At Container Pedestal Support)	9' 8-1/2"

LENGTHS

Over Pulling Faces of couplers - 3 Units	189' 1-1/2"
Truck Centers	
- Center Unit	60' 6"
- End Units	57' 6"

HEIGHTS (Above Rail)

Container Supports	4' 0-1/2"
Trailer Platform	3' 5-1/2"
Extreme, (Over Handbrake) Empty	5' 11-1/2"
Extreme, Over Domestic Container	13' 7"
Extreme, Over Trailer	16' 11-1/2"

DESCRIPTION

This All Purpose Articulated Single Stack Spine car is capable of carrying both containers and trailers on all 3 units. Each car is equipped with M901G draft gears at the ends and articulated connectors at the intermediate positions. The car is equipped with two complete air brake systems. Handbrake located at the 'B' end operate the brakes on the end and the adjacent intermediate trucks.

Each unit is designed to carry the full range of ISO or Domestic Containers from 40 to 53 ft. In addition, all units are provided with a retractable, semi-automatic trailer hitch to accommodate trailers ranging in length from 28 to 57 ft..

All trucks are 70 ton capacity.

Platforms are provided with National's patented self-locking retractable pedestal which is operable from the ground saving time, while eliminating back breaking deployment.

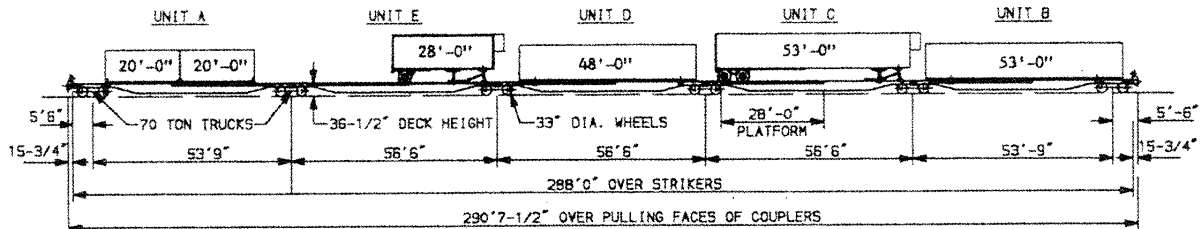


National Steel Car Limited

FIG 2-1

INTERMODAL CARS

ALL PURPOSE SPINE CAR ARTICULATED - 5 UNIT CONFIGURATION



SPECIFICATIONS

WEIGHTS

Load Limit A Unit	106,000 lbs.
B Unit	100,000 lbs.
C, D & E Units (Nom.)	67,200 lbs.
Light Weight - 5 Units	173,500 lbs.

WIDTHS

Inside Trailer Platform Rub Rails	8' 10-1/2"
Maximum (At Container Pedestal Support)	9' 8-1/2"

LENGTHS

Over Pulling Faces of couplers - 5 Units	290' 7-1/2"
Truck Centers - Center Units	56' 6"
Truck Centers - End Units	53' 9"

HEIGHTS (Above Rail)

Container Supports	4' 0-1/2"
Trailer Platform	3' 0-1/2"
Extreme, (Over Handbrake) Empty	5' 11-1/2"
Extreme, Over Domestic Container	13' 6-1/2"
Extreme, Over Trailer	16' 6-1/2"

DESCRIPTION

This All Purpose Articulated Single Stack Spine car is capable of carrying both containers and trailers on all 5 units. Each car is equipped with M901G draft gears at the ends and articulated connectors at the intermediate positions. The car is equipped with three complete air brake systems. Handbrakes located at each end operate the brakes on the end and the adjacent intermediate trucks.

Each unit is designed to carry the full range of ISO or Domestic Containers from 40 to 53 ft., and each end unit can accommodate two 20 ft. containers. In addition, all units are provided with a retractable, semi-automatic trailer hitch to accommodate trailers ranging in length from 28 to 57 ft..

All trucks are 70 ton capacity and the end trucks are equipped with yaw dampers to prevent truck hunting. Intermediate trucks as well as the car body have provisions for the future application of yaw dampers.

Platforms can be provided with standard collapsible container support pedestals or National's patented self-locking retractable pedestal which is operable from the ground saving time, while eliminating back breaking deployment.

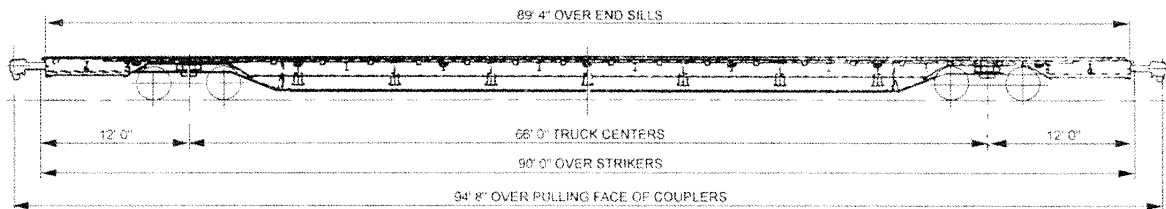


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FIG 2-2

FLAT CARS

100 TON – 89' 4" GENERAL SERVICE FLAT CAR



SPECIFICATIONS

WEIGHTS

Load Limit	200,000 lbs.
Light Weight	86,000 lbs.
Gross Rail Load	286,000 lbs.

WIDTHS

Over Deck	9' 3"
Over Side Sills	8' 4"

LENGTHS

Over Pulling Faces of Couplers	94' 8"
Truck Centers	66' 0"
Over End Sills	89' 4"

HEIGHTS (Above Rail)

Top of Deck	3' 8-3/4"
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DESCRIPTION

This 100 ton – 89' 4" General Service Flat car is equipped with 60k nailable steel flooring extending from end sill to end sill, lading strap anchors, stake pockets and webbing winches. Lading securement needs can be suited for specific requirements. Other features include the ability to concentrate 75% of the load over the center 40 feet of the car and 60% of the load over the center 18 feet of the car.

The car is equipped with standard 110 ton capacity trucks however, clearances are provided for reduced lateral stiffness trucks. Car structure is suitably designed to allow for a future application of 9' high end bulkheads.

This design exceeds all AAR requirements and provides excellent durability and fatigue life.



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FIG 3-1.