

On behalf of **FreightCar America, Inc.**

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UNITED STATES PATENT AND TRADEMARK OFFICE

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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FREIGHTCAR AMERICA, INC.

Petitioner

v.

NATIONAL STEEL CAR LIMITED,

Patent Owner

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IPR2025-01048

Patent 8,132,515

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**PETITIONER'S OPPOSITION TO PATENT OWNER'S  
MOTION FOR DISCRETIONARY DENIAL**

## TABLE OF CONTENTS

	Page No.
I. INTRODUCTION .....	1
II. <i>INTER PARTES</i> REVIEW OF THE '515 PATENT WOULD BE AN APPROPRIATE AND WORTHWHILE USE OF BOARD RESOURCES .....	1
A. IPR Is Necessary To Correct A Material Error By The Patent Examiner .....	1
B. The Petition's Strong Merits Support Institution.....	3
C. Two Petitions Challenging The '515 Patent Are Warranted .....	4
D. Patent Owner's Reliance On § 325(d) Is Unavailing .....	6
E. Review of the '515 Patent Is Important To Critical Economic And National-Security Interests In The American Steel Industry .....	7
F. The <i>Fintiv</i> Factors Favor Petitioner .....	8
G. The Petition Satisfies 35 U.S.C. § 312(a)(3).....	8
H. Patent Owner's Remaining Arguments for Discretionary Denial Are Meritless .....	10
III. CONCLUSION.....	10

**TABLE OF AUTHORITIES**

**Page No(s).**

35 U.S.C. § 312.....8  
35 U.S.C. § 325(d).....6

### EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 8,132,515 (“the ’515 patent”)
1002	File History of the ’515 patent
1003	Declaration of Mehdi Ahmadian, Ph.D.
1004	Excerpts from <i>1946 Car Builders’ Cyclopeda</i> , 17th ed. (“1946 Cyclopeda”)
1005	U.S. Patent No. 1,321,928 (“Lindström”)
1006	U.S. Patent No. 4,941,411 (“Wong”)
1007	<i>Excerpts from Lancashire &amp; Yorkshire Wagons, Vol. II</i> , by Noel Coates, Copyright 2006 (“Coates”)
1008	U.S. Patent No. 992,192 (“Hart”)
1009	Excerpts from <i>The Car Builders’ Dictionary, 1906 Edition</i> (“1906 Cyclopeda”)
1010	Excerpts from <i>Car Builders’ Dictionary, 1912 (Seventh) Edition</i> (“1912 Cyclopeda”)
1011	Excerpts from <i>Car Builders’ Cyclopeda of American Practice, Tenth Edition—1922</i> (“1922 Cyclopeda”)
1012	U.S. Patent No. 1,537,051 (“Campbell ’051”)
1013	U.S. Patent No. 1,999,652 (“Campbell ’652”)
1014	U.S. Patent No. 3,710,729 (“Schuller”)
1015	U.S. Patent No. 4,348,962 (“Smith”)
1016	Excerpts from <i>COAL CARS: The First Three Hundred Years</i> , by Martin Robert Karig III, Copyright 2007 (“Karig”)
1017	Excerpts from <i>Modern Private Owner Wagons on British Rail</i> , by David Ratcliffe, Copyright 1989 (“Ratcliffe 1”)

Exhibit No.	Description
1018	Excerpts from <i>Private-Owner Wagons in Colour, For the Modeller and Historian</i> , by David Ratcliffe, Copyright 2009 (“Ratcliffe 2”)
1019	Excerpts from <i>Wagons of the Final Years of the British Railways</i> , By David Larkin, Copyright 2008 (“Larkin 1”)
1020	Excerpts from <i>Working Wagons</i> , Vol. 3 1980–1984, by David Larkin, Copyright 2001 (“Larkin 2”)
1021	Excerpts from <i>Wagon Recognition</i> , Vol. 1 Carkinds – B to W, by Martin Buck and Mark Rawlinson (“Buck”)
1022	Declaration of Sylvia Hall-Ellis
1024	Excerpts from <i>Private Owner Wagons</i> , Vol. 1, by Andrew Marshall, Copyright 1989 (“Marshall”)
1025	Sotera Stipulation
1026	Presidential Executive Order, June 13, 2025
1027	U.S. Steel Press Release, June 18, 2025
1028	<i>Rebuilding U.S. Zinc Capacity in an Era of Global Competition</i> Center for Strategic and International Studies, by Grace Baskaran and Meredith Schwartz, Center for Strategic and International Studies, May 2025
1029	Made in America website, <a href="https://www.madeinamerica.gov/">https://www.madeinamerica.gov/</a>
1030	<i>CN purchases iron-ore cars, enhances U.S. Steel Partnership</i> , by Jeff Stagl, RailPrime Article, April 11, 2024
1031	Investor Relations Presentation, The Greenbrier Companies, August 2025
1032	Investor Day 2024 Presentation, Trinity Industries, June 25, 2024
1033	Declaration of Michael Selapack
1034	Pagevault capture of Partnerships - Sustainability.ussteel.com - United States Steel,

Exhibit No.	Description
	<a href="https://sustainability.ussteel.com/innovation/partnerships">https://sustainability.ussteel.com/innovation/partnerships</a> , captured September 9, 2025
1035	Pagevault capture of <i>Duluth, Missabe, and Iron Range Railway records</i>   University of Minnesota Archival Finding Aids, <a href="https://archives.lib.umn.edu/repositories/22/resources/8318">https://archives.lib.umn.edu/repositories/22/resources/8318</a> , captured on September 17, 2025
1036	<i>Publication of a Report on the Effect of Imports of Steel on the National Security: An Investigation Conducted Under Section 232 of the Trade Expansion Act of 1962, as Amended</i> , Department of Commerce, Bureau of Industry and Security, Federal Register, Vol. 85, No 129, July 6, 2020
1040	Memorandum Order Granting Motion to Stay, <i>NEC Corporation v. Peloton Interactive, Inc.</i> , 1-22-cv-00987, Dkt. 210 (D. Del. Apr. 9, 2024)
1041	Oral Order Granting Motion to Stay, <i>The Nielsen Co. (US), LLC v. TVision Insights, Inc.</i> , 1-22-cv-01345 Dkt. 106 (D. Del. Apr. 1, 2024)
1042	Oral Order Granting Motion to Stay, <i>ImmerVision, Inc. v. Apple Inc.</i> , 1-21-cv-01484 Dkt. 159 (D. Del. Oct. 17, 2023)
1043	Oral Order Granting Motion to Stay, <i>GAN (UK) Ltd. v. MGM Resorts Int’l</i> , No. 1-22-cv-00361, Dkt. 88 (D. Del. Mar. 29, 2023)
1044	Memorandum Order Granting Motion to Stay, <i>WSOU Investments, LLC d/b/a Brazos Licensing and Development v. Netgear, Inc.</i> , 1-21-cv-01117, Dkt. 97 (D. Del. Nov. 30, 2022)
1045	Oral Order Granting Motion to Stay, <i>Speyside Medical, LLC v. Medtronic CoreValve LLC</i> , 1-20-cv-00361, Dkt. 155 (D. Del. Sept. 30, 2021)
1046	Oral Order Granting Motion to Stay, <i>Midwest Energy Emissions Corp. v. Arthur J. Gallagher &amp; Co.</i> , 1-19-cv-01334, Dkt. 253 (D. Del. Dec. 10, 2020)

*FreightCar America v. National Steel Car*  
IPR2025-01048 – U.S. Patent No. 8,132,515

<b>Exhibit No.</b>	<b>Description</b>
1047	Oral Order Granting Motion to Stay, <i>VLSI Tech. LLC v. Intel Corp.</i> , 1-18-cv-00966, Dkt. 615 (D. Del. May 8, 2020)
1048	Oral Order Denying Motion to Stay, <i>Tonal Systems, Inc. v. iFIT Inc.</i> , 1-20-cv-01197, Dkt. 188(D. Del. Feb. 9, 2023)

## **I. INTRODUCTION**

The Petition in this IPR is a companion to that filed in IPR2023-01047. Both petitions challenge the validity of all claims of the '515 patent. Although the companion petitions are based on different primary references, Patent Owner has advanced nearly identical arguments in support of its motions for discretionary denial. Accordingly, to simplify and facilitate the Office's review of this memorandum, the memorandum will incorporate by reference relevant portions of Petitioner's memorandum in opposition to Patent Owner's discretionary-denial request in IPR2023-01047.

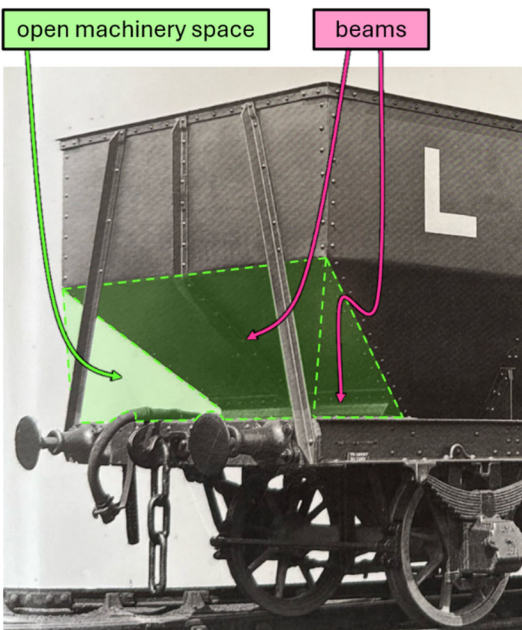
## **II. *INTER PARTES* REVIEW OF THE '515 PATENT WOULD BE AN APPROPRIATE AND WORTHWHILE USE OF BOARD RESOURCES**

### **A. IPR Is Necessary To Correct A Material Error By The Patent Examiner**

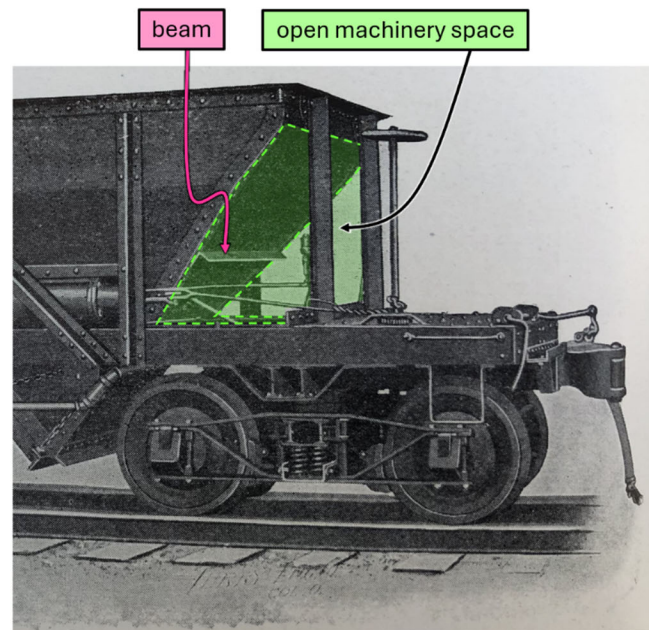
Discretionary denial of the Petition is unwarranted for several reasons. First, *inter partes* review of the challenged '515 patent is necessary to correct an error by the Office during prosecution. The '515 patent is directed to a hopper car whose angled hopper walls, or "slope sheets," are supported by reinforcement beams extending along the undersides of the sheets. The beams obviate the need to use other support structures under the slope sheets, such as support plates or struts, which would obstruct the "machinery space" under the slope sheet.

During prosecution, Patent Owner distinguished prior art cited by the patent examiner because, while the rejected claims required “an unobstructed machinery space,” the slope sheet of the prior-art car was supported by plates that “rather obstruct the machinery space in question.” Patent Owner’s argument succeeded in overcoming the examiner’s rejection. When the ’515 patent issued, every claim contained a version of the open-machinery-space limitation. *See generally* ’047 Opp. at 3-5.

However, in granting the ’515 patent, the patent examiner overlooked numerous prior-art hopper cars that supported their slope sheets with reinforcement beams, leaving the machinery space completely unobstructed. Some of these references predate the ’515 patent by a century:



**L&Y Hopper Car (1904)**

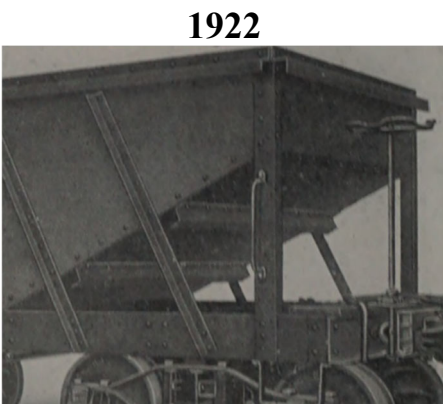


**Kilbourne & Jacobs Hopper Car (1912)**

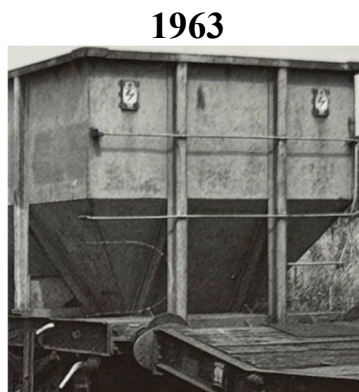
Pet. at 24–29. Thus, review of the '515 patent is necessary to correct the patent examiner's error in granting the patent. *See generally* '047 Opp. at 6–20.

**B. The Petition's Strong Merits Support Institution**

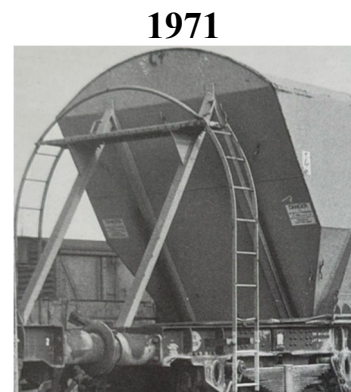
The Petition cites ten references to demonstrate that reinforcement beams and open machinery spaces were common and well known in the prior art. In addition to the 1911 Hart patent, the 1904 L&Y Hopper Car and the 1912 Kilbourne & Jacobs Hopper Car, discussed above, the Petitions cites the following:



Gregg Co.



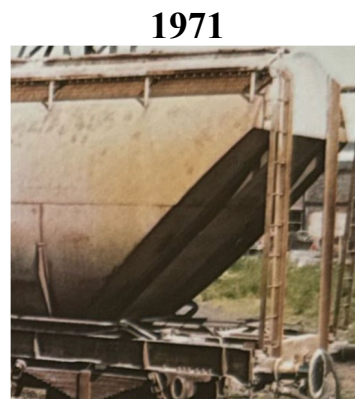
BR Shildon



BP Chemicals



Steeley



British Steel



Marcroft

Pet. at 26–29. Thus, the merits of the Petition are strong because it shows that the allegedly novel feature of the '515 patent was not only present in the prior art—it was well known decades before Patent Owner filed its application in 2009.

The Petition also shows that the other features recited in the challenged claims, other than the unobstructed machinery space, were also well known and had become standard hopper car features decades before Patent Owner filed its application. *E.g.*, Pet. at 19, 33–51, 54–63. Even the few modern features recited in the challenged claims—such as pneumatic door openers for the bottom-discharge hopper doors—were in use *forty years* before the '515 patent issued. The Petition is strong because it shows the challenged claims would have been obvious not just in 2009, when the Patent Owner filed its patent application—they would have been obvious decades earlier. The strong merits of the Petition counsel against discretionary denial.

**C. Two Petitions Challenging The '515 Patent Are Warranted**

Patent Owner argues that multiple IPR petitions are not justified. Mot. at 27–30. But as explained in Petitioner's Notice of Ranking (Paper 3), two petitions are warranted because they are based on materially different primary references.

The '047 petition relies on two primary references: the 1911 Hart patent and the 1919 Lindström patent.<sup>1</sup> Hart discloses the allegedly novel feature of the '515 patent: the use of slope-sheet reinforcement beams to create an open machinery space unencumbered by support structure. Because Hart dates from 1911, the dawn of metal freight cars, it does not disclose certain features that later became standard on hopper cars. Thus, the '047 petition also relies on secondary references that disclose these routine hopper-car features.

The Petition is based on a single primary reference: the 1946 Cyclopeda's disclosure of the NSC ore car. The NSC ore car was selected as the Petition's primary reference because it possesses most of the standard hopper-car features that Patent Owner included in the lengthy claims of the '515 patent. The Petition explains that it was obvious to modify the NSC ore car to support its slope sheets with reinforcement beams that extend along the underside of the slope sheets—one of three basic options for supporting a slope sheet. Pet. at 24–29. With this obvious modification, the NSC ore car would have an open machinery space. *Id.*

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<sup>1</sup> The Lindström patent is the primary reference for a handful of claims that recite the allegedly novel feature of U.S. Patent No. 8,166,892: a two-part sidewall stiffener with web continuity. The '892 patent, which also has been asserted in the related district-court action, is the subject of the petition in IPR IPR2025-01046.

Patent Owner argues that the age of the references is a weakness in the Petition. Mot. at 28–29 (“each Petition is based on ancient asserted art references that fail to meaningfully show how a person of ordinary skill in the art (“POSITA”) in or around 2009 would have understood the entirety of any challenged claim in the ’515 Patent, or the claimed features therein.”). But old references are not disqualified as prior art because of their age. On the contrary, the large number of very old references showing the allegedly novel feature of the ’515 patent highlights the gravity of the mistake made by the patent examiner during prosecution. The age of the prior art also underscores the injustice of allowing Patent Owner to retain exclusive rights in features that long ago passed into the public domain. This is a petition that should be considered on its merits.

**D. Patent Owner's Reliance On § 325(d) Is Unavailing**

Patent Owner argues, under § 325(d), that the prior art in the Petition was considered by the examiner or cumulative of art considered by the examiner. Mot. at 46–68. But in each example provided by Patent Owner, the car’s machinery space is encumbered either by a transverse support plate or an angled support strut. ’047 Opp. at 10–20. Patent Owner has not identified any prior art submitted during prosecution that discloses an open machinery space, let alone any discussion of such art by the examiner. *Id.* Moreover, even if such art had included open machinery spaces, the examiner still would have erred by overlooking that art. *Id.*

at 20. Under these facts, discretionary denial under § 325(d) is unwarranted. *Id.* at 33–35.<sup>2</sup>

**E. Review of the '515 Patent Is Important To Critical Economic And National-Security Interests In The American Steel Industry**

As explained in the '047 Opposition, strong U.S. national security and economic interests in the U.S. steel industry also counsel against discretionary denial. *See generally id.* at 24–28. The Commerce Department and the President have both determined that a strong domestic steel industry is vital to the country's economy and national security. Petitioner FCA is one of only three American manufacturers of the ore cars that transport iron ore from U.S. mines to U.S. steel mills.<sup>3</sup> However, NSC has accused FCA's ore cars of infringing a patent that claims exclusive rights in hopper-car features that have been in the public domain for decades. Review of the '515 patent is necessary to ensure that FCA can

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<sup>2</sup> The criticisms in Patent Owner's '048 motion are the same or very similar to those in its '047 motion. Accordingly, the responses and analysis in Petitioner's '047 opposition are applicable here.

<sup>3</sup> The other two U.S. manufacturers are TrinityRail and Greenbrier. Patent Owner NSC is not on this short list because NSC is a Canadian company.

continue to build the accused rail cars, and to reduce the U.S. steel industry's dependence on foreign-made ore cars.

**F. The *Fintiv* Factors Favor Petitioner**

Trial has been set for January 2027 in the related district-court litigation—approximately a month after the expected final written decision in December 2026. Moreover, Magistrate Judge Burke almost always grants a stay upon institution of *inter partes* review. *Inter partes* review of the '515 patent would therefore have the potential to conserve judicial resources. Finally, the *Fintiv* factors do not support discretionary denial for all the additional reasons provided in Petitioner's '047 opposition. *See generally id.* at 28–33.

**G. The Petition Satisfies 35 U.S.C. § 312(a)(3)**

Patent Owner makes the same arguments under § 312(a)(3) against the '048 petition that it made in its motion for discretionary denial of the '047 petition. Mot. at 30–46 (arguing, *inter alia*, that the grounds are voluminous, fail to specify where claimed elements are found, use cross-references inappropriately, and are somehow incomplete). These arguments are incorrect for the same reasons explained in Petitioner's opposition. *See generally* '047 Opp. at 35–41. For example, the Petition's length is dictated by the length of the patent's 44 claims, which run to a full 4,700 words. Patent Owner's argument that the Petition fails to identify certain claim elements is flawed because it ignores the Petition's many

detailed, annotated images. And the Petition’s cross references are clear and help *avoid* redundancy. Finally, the Petition reasonably refrains from restating the analysis of an independent claim in connection with each of its dependent claims, as is standard in IPR petitions.

Patent Owner argues that the Petition “conflates” different NSC car designs and “ignores that the schematics [in Figure 2,670] and the picture [in Figure 2,673] are two distinct pieces of prior art.” Mot. at 35–36. Not so. The schematics in Figure 2,670 and the photo in Figure 2,673 show the same ore car. This is apparent from the figures and confirmed by the fact that the figures cross-reference each other. As shown below, the schematics in Figure 2,670 on page 294 has a caption stating “*See also Fig. 2,673,*” and the photograph on page 295 states “*See also page 294.*” EX1004 at 27, 28 (annotations added in red).

Fig. 2,670—Plan, elevation and sections of Canadian Pacific 50-Ton center discharge ore car.  
Builder, National Steel Car Corporation, Ltd.  
Series 114,100-114,349  
(See also Fig. 2.673)

Fig. 2.673—Canadian National 50-ton center discharge ore car for use at Steep Rock mining operations. Built by National Steel Car Corporation, Ltd.  
Light weight, 40,600 lb.; load limit, 128,400 lb.; capacity, 825 cu. ft.; length inside, 19 ft. 8 in.  
(See also page 294)

**H. Patent Owner’s Remaining Arguments for Discretionary Denial Are Meritless**

Finally, Patent Owner’s motion includes several additional arguments that are identical to arguments in its ’047 motion. None of these arguments has merit. *See generally* ’047 Opp. at 42–45.

**III. CONCLUSION**

For the reasons set forth in the Petition and herein, *inter partes* review of the ’515 patent would be an appropriate use of Board resources. Petitioner respectfully requests that the Director deny Patent Owner’s motion for discretionary denial.

Dated: September 18, 2025

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FreightCar America, Inc.

**CERTIFICATE OF COMPLIANCE**

The undersigned certifies that the foregoing PETITIONER’S OPPOSITION TO PATENT OWNER’S MOTION FOR DISCRETIONARY DENIAL contains 1,795 words according to the word-processing program used to prepare this paper. The foregoing word count complies with the 14,000-word type-volume limit specified by the Memorandum Form Acting Director Stewart, *Interim Processes for PTAB Workload Management* (March 26, 2025).

Dated: September 18, 2025

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**CERTIFICATE OF SERVICE**

I hereby certify that, pursuant to 37 C.F.R. § 42.6(e) and with the agreement of counsel for Patent Owner, a true and correct copy of PETITIONER'S OPPOSITION TO PATENT OWNER'S MOTION FOR DISCRETIONARY DENIAL is being served electronically on September 18, 2025, to the e-mail addresses shown below:

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