

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To: MICHAEL J. KRAUTNER AMSTED INDUSTRIES INCORPORATED TWO PRUDENTIAL PLAZA 180 N. STETSON AVE., SUITE 1800 CHICAGO, IL 60601 USA		<h1>PCT</h1> <p>WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY</p> <p>(PCT Rule 43bis.1)</p>	
Applicant's or agent's file reference		Date of mailing (day/month/year)	
BRN044 WO		<b>19 SEP 2018</b> <b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No.	International filing date (day/month/year)	Priority date (day/month/year)	
PCT/US18/45101	03 August 2018 (03.08.2018)	10 August 2017 (10.08.2017)	
International Patent Classification (IPC) or both national classification and IPC			
IPC: F16C 33/78( 2006.01),F16C 19/38;B61F 15/22( 2006.01) CPC: F16C 33/7889, F16C 33/7813, F16C 19/36, F16C 21/005, F16C 33/78			
Applicant			
AMSTED RAIL COMPANY, INC.			
<p>1. This opinion contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p> <p>2. FURTHER ACTION</p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p> <p>3. For further details, see notes to Form PCT/ISA/220.</p>			
Name and mailing address of the ISA/ US		Date of completion of this opinion	Authorized officer
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-8300		13 September 2018 (13.09.2018)	Harry C. Kim  Telephone No. 571-272-4300

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US18/45101

## Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- the international application in the language in which it was filed
- a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:

a. type of material

- a sequence listing
- table(s) related to the sequence listing

b. format of material

- on paper
- in electronic form

c. time of filing/furnishing

- contained in the international application as filed.
- filed together with the international application in electronic form.
- furnished subsequently to this Authority for the purposes of search.

4.  In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
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**Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims <u>1-8</u> _____	YES
	Claims <u>NONE</u> _____	NO
Inventive step (IS)	Claims <u>NONE</u> _____	YES
	Claims <u>1-8</u> _____	NO
Industrial applicability (IA)	Claims <u>1-8</u> _____	YES
	Claims <u>NONE</u> _____	NO

2. Citations and explanations:

Claims 1, 2, 5 and 6 lacks an inventive step under PCT Article 33(3) as being obvious over Fetty et al. US 6,126,321 in view of Dreschmann et al. US 5,487,611.

Fetty discloses the bearing assembly as claimed with the exception of a circular shroud located radially outer and adjacent to one seal.

Dreschmann discloses a bearing assembly in which one end of the assembly has a seal (5) sealing against a wear ring (10), with a circular shroud (at 7) located radially outer and adjacent to the seal. It would have been obvious to one of ordinary skill in the art at the time the application was filed to provide the bearing assembly of Fetty with a shroud located radially outer and adjacent to the seal, for the desired purpose providing additional sealing to the sealing gap, as taught and suggested by Dreschmann.

Claim 3, 4, 7, and 8 lacks an inventive step under PCT Article 33(3) as being obvious over Fetty et al. US 6,126,321 in view of Dreschmann et al. US 5,487,611 in the prior art as applied in the immediately preceding paragraph and further in view of Walker US4,200,345.

Walker discloses a sealing component for surrounding a bearing assembly comprised of a flexible strap of synthetic material (16 and 41) and further including a tab end and a receiving end (Figures 4 and 5) to allow the circular shroud to be assembled into a circular shroud of adjustable circumference.

It would have been obvious to one of ordinary skill in the art at the time the application was filed to utilize other known sealing devices as the sealing member of Dreschmann, including that of a flexible strap as taught by Walker.

Claims 1-8 meets the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US18/45101

**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claim 1 is objected to under PCT Article 6 as lacking clarity because claim 1 is indefinite for the following reason(s): for failing to particularly point out and distinctly claim the subject matter which the inventor or joint inventor, the applicant regards as the invention.

Claim 1 is indefinite and unclear with respect to the recitation of "each bearing cup" in line 9, as only "a bearing cup" has been previously defined in claim 2.

Claim 1 is further indefinite in lines 11-12 reciting "a pair of wear rings, each having a first axially inwardly directed end in engagement with an outwardly directed end of a bearing cone". First, "axially inward" and "axially outward" have not been properly defined; inward and outward relative to what? Second, this limitation suggests that two wear rings are in engagement with a singular cone. Third, it is unclear if the positive recitation of this "a bearing cone" is in addition to the pair of bearing cones of line 4.

Claim 1 is indefinite and unclear in lines 13-14 with respect to "a pair of seals each having a first end fitted into one into each of the bearing cup cylindrical counterbores", as grammatically awkward.

Claim 1 is indefinite and unclear in line 15, as it suggests that both resilient elements form a seal with a singular one of the wear rings.

Claim 1 is indefinite and unclear in lines 18-19 with respect to "a second end of each wear ring received in a cylindrical counterbore in an axially outwardly directed end of each annular backing ring". First, this suggests that both second ends of both wear rings are received in the same cylindrical counterbore. Second, the reference to "each annular backing ring" is unclear, as only "an annular backing ring" has been previously defined in line 17.

Claim 5 is similarly indefinite.