What is a Draft Gear?
A draft gear is a device which absorbs energy created by the forces associated in pulling, pushing, stopping, or coupling freight cars. The energy is dampened through a friction clutch, springs, and elastomers to prevent this energy from causing damage to the freight car structure or lading. There are generally two draft gears on each car which technically serve as reverse heat engines.

Rule 21

**Group J — M-901E, 3-1/4 Inch Travel**

<table>
<thead>
<tr>
<th>Removed Group J Qualifier</th>
<th>What Can Be Applied - Groups J, K, N, P, Q, and R</th>
<th>AAR Spec</th>
<th>Gear Length (in.)</th>
<th>Pocket Length (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Cardwell Westinghouse Mark R500</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
</tr>
<tr>
<td>03</td>
<td>Miner RF 444</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
</tr>
<tr>
<td>10</td>
<td>Cardwell Westinghouse Type Mark 50</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
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<tr>
<td>13</td>
<td>Miner SL 76</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
</tr>
<tr>
<td>18</td>
<td>Miner Crown SE</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
</tr>
<tr>
<td>19</td>
<td>Cardwell Westinghouse Mark 325</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
</tr>
<tr>
<td>21</td>
<td>Stucki PowRGuard™ XE</td>
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</table>

**Group M — M-901E, 2-3/4 Inch Travel**

<table>
<thead>
<tr>
<th>Removed Group M Qualifier</th>
<th>What Can Be Applied - Groups J, K, M, N, P, Q, and R</th>
<th>AAR Spec</th>
<th>Gear Length (in.)</th>
<th>Pocket Length (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>Cardwell Westinghouse Mark L</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
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<tr>
<td>06</td>
<td>Cardwell Westinghouse Mark L-R</td>
<td>M901E</td>
<td>22 3/8</td>
<td>24 5/8</td>
</tr>
</tbody>
</table>

Remarks:
Substitution of Groups J, K, N, P, Q, and R for Group M can be done only with car owner’s permission. When substituting Group J for Group M, verify compliance with car weight limitations of Section 3 of Rule 88 of AAR Office Manual.

**Scraps Draft Gear Criteria**
- Draft Gear & Draft Gear Case Damaged - CAUTION!!!
- Excessive Case Damage - See More Examples
- Center Wedge is Damaged
- More Than 2 Broken or Missing Friction Components
- Broken Friction Plates
- Excessive Case Wear & Broken Friction Plates

**Scraps**
- RTP IDG 12-04 Reconditioned, Tested, and Passed

**Friction Component Classification Scrap Condition**
More Than 2 Broken or Missing Friction Components, Broken Friction Plates

**Marking Identification**
RTP IDG 12-04 Reconditioned, Tested, and Passed

**Examples of Non-Qualified Draft Gear & Unacceptable Models**

- Removed What Can Be Applied - Groups J, K, M, N, P, Q, and R
- AAR Gear Pocket

**Group K — M-901G, 3-1/4 Inch Travel**

Substitution of Groups J, Q, and R for Group K can be done only with the car owner’s permission. When substituting Group J for Group K, verify compliance with car weight limitations of Section 3 of Rule 88 of AAR Office Manual.

**Qualifiers**
- Group K  Spec Length Length
- 02 Cardwell Westinghouse Mark H-60 M901G 22 3/8 24 5/8
- 04 Miner Crown TG M901G 22 3/8 24 5/8
- 05 Miner Crown SG M901G 22 3/8 24 5/8
- 07 Cardwell Westinghouse Mark 558 M901G 22 3/8 24 5/8
- 08 Stucki PowRGuard™ GX M901G 22 3/8 24 5/8
- 09 Cardwell Westinghouse Mark 75G M901G 22 3/8 24 5/8

**Remarks:**
Substitution of Groups J, Q, and R for Group K can be done only with the car owner’s permission.