CENTURY PREMIUM LAGTYPE CROSSING SYSTEM

Over the past two decades, Century premium 9" lagtype concrete grade crossings have become the choice among class I and shortline railroads, state highway departments, light rail transit, ports, intermodal facilities, military and industrial groups.

DURABLE

The Century premium lagtype crossing is the most widely used because of its innovative features and its ability to withstand the heavy loads and high traffic demands of today's highways.

* Designed to meet HS20-44 loading specifications, the Century premium lagtype grade crossing is the crossing surface of choice for our nations highways.

* Built of super strength concrete and high tensile steel reinforcement, the Century premium crossing has become a standard for ports, military and mining facilities where extra heavy loads are present on a daily basis.

* Superior in strength and design, the Century premium concrete grade crossings are not subject to rotting, surface abrasion, wheel lane rutting, warping, or delamination which commonly occurs with wood, rubber and asphalt crossing surfaces.

* The full depth feature of the Century premium concrete crossing eliminates the problems associated with wood shims and grout bags which ultimately have a high tendency of failure and installation expense.

* The weight of the Century premium crossing panels provides stability and reduces the tendency of the panels to move in a vertical or horizontal direction when impacted by vehicular traffic.

* Century premium crossings are manufactured of the highest quality concrete using various state of the art admixtures which makes them resistant to freeze thaw cycles, salt damage and other contaminants.

SAFE

Safety is the number one priority at Century Precast. With this concern in mind, the Century premium lagtype grade crossing systems are manufactured with numerous features to insure safety to rail and highway traffic.

* The Century lagtype premium crossing panels have a non-skid surface which matches existing concrete roads, bridges and sidewalks for uniform appearance and safety.

* All timber screw holes and lifting units are recessed below the surface for a smooth ride and eliminates vehicular wheel impact.

* Century premium crossings have standard manufactured tapered ends for protection from dragging equipment.

* Century's preformed elastomeric flangeway filler is available for all crossings.
ECONOMICAL
* The simplicity of the Century premium lagtype crossing minimizes installation time providing savings in labor and equipment costs. The average installation time for the Century premium crossing is 30 - 45 track feet per hour depending on size, experience of installation crew.
* Quick installations minimize closure of the crossing to railroad and vehicular traffic.
* The Century premium crossing panels are designed to be handled with a standard rubber tired loader backhoe. This feature eliminates additional project costs such as the mobilization of larger pieces of equipment required for modular type grade crossings.
* The Century premium crossing panels install on a standard trackbed and structure. No extra timely and costly subgrade preparation is necessary.

VERSATILE
In today's ever changing railroad industry, a company must be prepared to listen to the client and be innovative to meet their different needs. With this in mind, Century Precast developed the premium lagtype concrete grade crossing which has many unique and versatile characteristics.
* Manufactured to fit any size rail.
* Fits over all major types of rail fastening systems.
* Century crossings accommodate all types of rail anchors.
* Century crossing panels can be removed and reinstalled independently of each other.

* Easy, efficient and economical removal and reinstallation of panels for routine track maintenance cycles.
* Crossing panels can be used as a surface for temporary detours during grade crossing rehabilitation.
* Custom surface finishes and colors are available.
* Can be installed with or without Century elastomeric flangeway filler.
* Custom built for turnouts, curved track, crossovers, devils strips, etc...
* All Century premium crossing panels have standard premanufactured tapered ends.

GRADE CROSSING SECTION VIEW

<table>
<thead>
<tr>
<th>10'-0' (TYP)</th>
<th>BOTH SIDES</th>
<th>20' (TYP)</th>
<th>2' 11/2' (TYP)</th>
<th>3' (TYP)</th>
<th>50.5'</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIELD PANEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10' ELASTOMERIC BEARING PAD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PREFORMED ELASTOMERIC FLANGEWAY FILLER
PAVING TYPICAL BOTH SIDE

1 1/2" SLOPE

Romar
ENVIROPAN

RAILROAD COLLECTION SYSTEM

In our environmentally sensitive society, it is very important that businesses continue to strive to be good corporate neighbors, especially in the areas of keeping our environment clean.

Those responsible for overseeing railroad facilities that handle oil, fuels, chemicals and other liquid substances are acutely aware of the importance of keeping these areas free of spills which could ultimately cause contamination of ground water and/or find its way into our rivers and streams.

The Enviropan track collection system, manufactured by Century Precast, offers protection from spills in the track area and transferring it to a proper waste treatment system.

With over 40 years of experience in the precast concrete and railroad construction industry, Century Precast is committed to assisting industry in solving its railroad environmental problems.

EFFICIENT

The Enviropan has a tapered flashing which fits snug under the head of the rail to force materials dripped on the rail into the pans. The flashing can be custom cut in the field to fit around rail joints, welds, etc.

DURABLE

The Enviropan is built of high-strength reinforced concrete which does not flex, warp, or degrade under ultra violet light. Its rigid structure along with a built-in taper prevents pooling of materials characteristic in other types of systems.

ECONOMICAL

The fast installation of the modular Enviropan system saves money when compared to steel, fiberglass pans or poured-in-place concrete systems.

LONG SERVICE LIFE

The Enviropan system can be easily removed and reinstalled for routine track maintenance or repairs.

PATENT PENDING.
What Is It?

- Kronaplate® 333R is a specialty lubricant, developed in cooperation with major carriers to reduce costs and increase effectiveness.

- It is a non-melting grease, made especially for lubricating railroad switches in yards, terminals and mainlines.

What Does It Do?

- Kronaplate® 333R reduces lubricant consumption and labor costs by up to 75 per cent.

- It virtually eliminates interruptions in service. It is reliable and trouble-free...switches move freely and easily.

- Kronaplate® 333R is pumpable and effective in temperatures ranging from the -40°F cold of winter up to +550°F, even withstanding the use of propane switch heaters.

- It lasts more than four times longer than lubricants currently in use. Field tests performed over a two-year period by eight major carriers and four shortlines have shown Kronaplate® 333R requires re-application only every 30 to 60 days.

- This lubricant has a plating action that reduces wear and protects from salt, sand, chemicals and weed sprays. It significantly reduces the number of dry and corroded switches.

- It is not water soluble...does not wash away.

- Kronaplate® 333R has a cushioning effect which reduces shock and noise.

- It is packaged for easy handling in one gallon cans, 45 lb. pails, and in kegs and drums.
What Is It?

- **Kromeplate® 176R** is a specialty lubricant E/M Corporation has developed in cooperation with major railroads to increase effectiveness and to reduce operating costs.

- It is a non-melting grease containing molybdenum disulfide and is fortified to provide exceptional performance.

What Does It Do?

- F.A.S.T. Train Tests at the Transportation Test Center in Pueblo, Colorado, and two years of field tests by eight major carriers have shown:
  - **Spreadability** is exceptional, regardless of method of application; up to six miles on tangent track, and through various curve configurations.
  - **Retention** to handle multiple train passings.
  - Outstanding **flowability** performance, with minimal top rail contamination.

- **Kromeplate® 176R** reduces costs.
  - Because it is tacky, adheres to the rail and carries for long distances, lubricant consumption is reduced by up to one half.
  - Labor and application costs are reduced accordingly.
  - **Kromeplate® 176R** promotes a burnishing action which results in a smooth gauge face and a dramatically lower coefficient of friction, thus reducing rail wear and lowering fuel costs by 15 to 50 per cent.

- There are many additional benefits.
  - **Kromeplate® 176R** reduces potential environmental problems. Because it adheres so well to the rail, trackside contamination does not occur.
  - It has excellent pumpability, suitable for any lubrication method.
  - It is not water soluble...very resistant to washout.

- **Kromeplate® 176R** has a wide operating temperature range of -30°F to +550°F. It performs well in conditions ranging from winter cold to the extreme hot temperatures generated by wheel-track friction.

- It resists throw-off at high speeds.

This photo was taken eight train passings after Kromeplate® 176R was applied. It is easy to see how the lubricant has burnished into the rail flange for reduced friction and rail wear. The photo also demonstrates the product's remarkable absence of top rail contamination.
Compromise Joints

INFORMATION REQUIRED
for ordering and installing Compromise Joints

Application of Joints In Track—Refer to the diagrams shown to the right for reference purposes when ordering and installing compromise joints.

LEFT HAND JOINT

1
HIGH RAIL OUT

3
LOW RAIL

4
GAGE

RIGHT HAND JOINT

2
LOW RAIL OUT

1
HIGH RAIL

4
GAGE

CENTER LINE OF TRACK

RIGHT HAND JOINT

1
HIGH RAIL

2
GAGE

OUT

3
LOW RAIL

LEFT HAND JOINT

3
HIGH RAIL

OUT

4
GAGE

ONE RIGHT-HAND COMPROMISE JOINT Consists of:
Bar No. 1 Out
Bar No. 2 Gage

ONE LEFT-HAND COMPROMISE JOINT Consists of:
Bar No. 3 Out
Bar No. 4 Gage

ONE SET OF COMPROMISE JOINTS (Meaning: 1 Right-hand and 1 Left-hand Joint)
Consists of:
Bar No. 1 Out
Bar No. 2 Gage
Bar No. 3 Out
Bar No. 4 Gage

NOTE: Each joint consists of two bars.
(Distinction between four different bars must be made when ordering.)

TO DETERMINE A "RIGHT-HAND" OR "LEFT-HAND" JOINT
- Stand in center of track facing the joint.
- Name the rails from left to right.
- If the high rail is on the right side it is a "right-hand" joint.
- If the high rail is on the left side it is a "left-hand" joint.

With rails of the same height, consider the heavier rail section as "high" in above.

INFORMATION REQUIRED for Ordering Compromise Joints

HIGH RAIL

LOW RAIL

When Ordering SPECIFY the FOLLOWING:
- Quantity of right-hand and left-hand compromise joints required.
- High and Low Rail Sections.
- Length of Joint Bar.
- Horizontal Bolt Hole Centers for each rail section, measured from the end of the section.
- End of rail opening if other than ½".
- Vertical bolt hole centers measured from bottom of the base of the rail.
- Bolt hole diameters, or diagram of bolts being used.
- Rail head wear requiring compensation.

A facsimile of the above drawing, with the information completely filled in, should be attached to all orders for compromise joints.
**STEP CHAIRS**

Strongly recommended where variation in height of two rails is more than one-half inch.

Step Chairs provide better support of smaller rail, hold rail in vertical alignment on gauge line and reinforce compromise joints.

---

**Tie Plates New And Used**

**How To Order**

To insure prompt shipment of tie plates fabricated to meet your requirements, give the following information:

- Width of rail at base and rail section
- Punching — number of spike holes and their locations
- Length and width of tie plates, and whether single or double shoulders are required

Flat tie plates without cant are usually furnished for industrial application.

A dimensioned-plan view of the tie plate such as that shown below is a convenient method for sending the required information.

(100, 115, 132 only)
### Track Spikes

Cut track spikes consist of a square body, with flat hook head, reinforced throat, and chisel point at the bottom end. They are manufactured in accordance with American Railway Engineering Association standards.

Track spikes are measured under the head to the cut end. When ordering, check to be sure size of spike conforms to the weight of rail and thickness of ties to be used.

### Track Bolts

**Dome Head Drive Spikes** have head diameter of 2½" and 11/32" thickness. Can be used with head protruding above top surface of wood or can be counter-bored and used with rubber fiber sealer hown.

Standard track bolts are button-head oval-neck design, fitted with square nuts. Bolt head and neck are forged steel with U.S. Standard threaded, coarse. Nominal diameter, specified as bolt size, is the over-all thread diameter. Length is measured from under the head to the end of the bolt. Track bolt nuts are commonly manufactured to the American Standard heavy unfinished square design.

### Washer Head Timber Drive Spikes

Washer head timber drive spikes are used to hold down highway crossing planks, prefabricated crossing panels, and guard rails on bridges. Manufactured to A.R.E.A. standards they are available from stock in sizes ¾" and ¾" diameters by 10" and 12" lengths.

Romar warehouses stock all sizes of track bolts for immediate delivery in any quantities.

Romar can supply all types of bolts to meet every track requirement. Stocks include heat-treated high strength frog bolts, heat-treated machine bolts for crane rail and crane runway applications.

### Track Bolt Sizes

<table>
<thead>
<tr>
<th>Track Bolt Size</th>
<th>Average Number Per Keg of 200 Lbs.</th>
<th>Kgs. Per Mile of Track—Based on It's spaced 24&quot; center to center, 4 spikes per tie</th>
<th>Rail Weight Per Yard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; x 2&quot;</td>
<td>960</td>
<td>1.5</td>
<td>12—20</td>
</tr>
<tr>
<td>1/2&quot; x 2½&quot;</td>
<td>875</td>
<td>1.7</td>
<td>25</td>
</tr>
<tr>
<td>3/4&quot; x 3&quot;</td>
<td>490</td>
<td>2.8</td>
<td>30—35</td>
</tr>
<tr>
<td>3/4&quot; x 3½&quot;</td>
<td>300</td>
<td>4.9</td>
<td>40—45</td>
</tr>
<tr>
<td>3/4&quot; x 4&quot;</td>
<td>275</td>
<td>5.3</td>
<td>60</td>
</tr>
<tr>
<td>7/8&quot; x 4&quot;</td>
<td>260</td>
<td>5.1</td>
<td>70—75</td>
</tr>
<tr>
<td>7/8&quot; x 4½&quot;</td>
<td>178</td>
<td>7.5</td>
<td>80</td>
</tr>
<tr>
<td>1&quot; x 5&quot;</td>
<td>168</td>
<td>8.0</td>
<td>85—90</td>
</tr>
<tr>
<td>1&quot; x 5½&quot;</td>
<td>118</td>
<td>11.7</td>
<td>90—120</td>
</tr>
<tr>
<td>1&quot; x 6&quot;</td>
<td>111</td>
<td>13.0</td>
<td>90—120</td>
</tr>
<tr>
<td>1½ x 6&quot;</td>
<td>105</td>
<td>13.0</td>
<td>130</td>
</tr>
<tr>
<td>1½ x 6½&quot;</td>
<td>75</td>
<td>17.82</td>
<td></td>
</tr>
<tr>
<td>1½ x 7&quot;</td>
<td>74</td>
<td>19.03</td>
<td></td>
</tr>
</tbody>
</table>

**Lock Washers** or Spring Washers can be furnished from stock in ¾", ¾" or 1" sizes in heavy duty carbon steel or alloy steel.
GAUGE RODS & TRACK BRACES

Romar Gauge Rods and Track Braces can be installed quickly and easily removed for reuse in other locations. They are recommended for use wherever there is difficulty in holding track to gauge, especially on curves. Will also save costs of regauging track and renewing ties. When ordering, specify track gauge and rail section.

Track Braces increase safety where track strains are extreme, by holding rails rigidly on both sides of the base, thereby preventing them from tilting or turning. They also prevent track spreading in front of switch points and will prevent lifting or crowding of track spikes. They are manufactured from 1 1/4" diameter steel rod with double adjustable clamps at both ends to grip both sides of rail base. Complete brace weighs 34 lbs.

R-1
Romar Gauge Rods are designed for heavy duty service at moderate cost. They can be spaced five ties apart straight track for maximum return. At switches, two gauge rods placed in front of the switch points will save the expense of regauging track and help to lengthen the life of switches, switch points and ties. Gauge rods are fabricated from 1 1/4" diameter steel and malleable steel castings, weigh 29 lbs. each.

RAIL ANCHORS

Rail Anchors are designed to prevent rail creepage, eliminate undue cutting and wear, and prolong tie life. They are very simple to apply and can be moved easily from rail and reapplied in other locations.

Heavy one-piece construction provides two equal jaws that grip each side of the rail base. Facets provide sliding adjustments of anchor contacts to rail, enabling anchor to adjust to tolerances in rail base dimensions. They are quickly and safely applied by one man using special tool that protects anchor from over-driving and damaging rail.

One piece high carbon manganese steel construction. Round edge section, specially heat-treated, is easily applied by hooking to inside of rail base and forcing into place by pressing downward on special tool. Two notches provide take-up feature to make this anchor especially serviceable for new rail and for undersized or worn rail bases.

Simply constructed of specially rolled tee section of heat-treated steel. This one piece anchor can be applied to bear against tie, against the tie plate or against both. It is self-locking, remains tight and effective, can be driven into position quickly by one man with standard spike maul or sledge and easily removed for reuse in other locations.
Facts about "Hayes" bumping posts

Western-Cullen-Hayes Bumping Posts are designed to stop unauthorized movement of a railroad car beyond the rail end and to protect property, personnel, lading and equipment from damage. They also improve operating efficiencies by providing a positive stop against which train crews can switch while operating under standard procedures.

The bumping posts, when properly installed at track ends, engage the coupler and draft gear of a moving car and transfer the force of impact to ties, rail and ballast, bringing the car to a safe, sure stop. They are designed to accommodate normal switching speeds.

Bumping posts are especially valuable in areas needing extra protection such as chemical storage areas, work yards, assembly lines, plant loading and unloading areas, etc.

Theory of Design

Rugged, All-Steel Construction

Designed Like A Bridge: Post Head And Members Transfer Impact From Coupler To The Ballast

Engineered For Easy Installation

The W-C-H design employs two triangular units to make a complete post. A one-piece front (tension) unit (Figure 1) and a one-piece rear (compression) unit (Figure 2) are combined to absorb and carry the stresses of the coupler impact to the track. Each unit has a strong angle cross member below the rails which helps prevent distortion of the post and track.

How it works:

When a coupler strikes the Bumping Post the impact is taken in three directions: (See Figure 3)

1. Horizontal thrust along the track
2. Upward push at the front
3. Downward load at the rear

In all W-C-H Posts the horizontal thrust is carried to the track rails by alloy steel bolts having double the strength of ordinary bolts. There is a W-C-H Bumping Post to meet most every requirement. Use the convenient chart to determine the type best suited to your particular needs.

A point to remember is that a bumping post is no stronger than the track on which it is mounted. For maximum track end security, proper installation is a must. Be sure to read the pertinent section of this brochure.

Western-Cullen-Hayes Bumping Posts are established as world-wide standards. A rating earned by superior design and quality of workmanship. The following sections of this brochure detail both Hayes\(^*\) and Buda bumping posts, now all part of the Western-Cullen-Hayes family of renowned, reliable track appliances.

SPECIAL APPLICATION BUMPERS Two-way posts; post with all parts above rail base; spring head subway posts; special gauge and/or height posts; and posts for girder trestle. Write for prices and delivery, specifying application.
How to select the bumping posts you need

Using the chart below, and the Design Parameters chart on the preceding page, choose the type bumping post that best matches your application requirements and conditions.

Bumping posts can be made to meet special situations. Designs are available for all components above rail base. Special requirements for steel mill and mining cars, atypical rail heights-wide and narrow gauges and unique track configurations are also available.*

<table>
<thead>
<tr>
<th>Type</th>
<th>Bumping Post</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>WK</td>
<td>Recommended for industry stub end tracks with three car capacity or less, without descending grades to track end.</td>
<td></td>
</tr>
<tr>
<td>WD</td>
<td>General service. Long industrial tracks outside of buildings, flat switching yards, no descending grades or hazards at track end. Installation-strengthening “middle rails” can be used with this post.</td>
<td></td>
</tr>
<tr>
<td>WG</td>
<td>For active track, where frequent striking face contact demands greater car stopping ability. Any spur downgrade toward post. Also, for active tracks within buildings; metropolitan, flat switching yards and TOFC track-ends. Installation-strengthening “middle rails” can be used with this post.</td>
<td></td>
</tr>
<tr>
<td>WA</td>
<td>The strongest post ever built as a standard product. For track-end service where greatest car-stopping ability is needed. Lay track with heaviest rail available, full-spike ties, use plenty of good ballast and tamp thoroughly. Installation-strengthening “middle rails” can be used with this post.</td>
<td></td>
</tr>
<tr>
<td>WCT</td>
<td>General service post. Clamp to rail design. No holes to drill in rail.</td>
<td></td>
</tr>
<tr>
<td>WCTS</td>
<td>Same as WCT but with spring-loaded striking face and anti-climb ribs. For use in rapid transit service.</td>
<td></td>
</tr>
</tbody>
</table>

**Bumping Posts**

**Hayco® Shock Free® Cushion Head**

The Hayco® Shock-Free® Cushion Head can be used on Hayes Bumping Posts to:

- Extend the life of a Bumping Post.
- Help to reduce damage claims.
- Installs quickly and easily.
- Can be used on a variety of other commercially produced bumpers.

Use a Shock Free® Head with the attaching fixture on a flat vertical surface where the area cannot accommodate standard all steel bumper.
Anatomy of a Bumping Post

Design Parameters
Components have been carefully selected to provide maximum strength at minimum weight. Posts are listed in order of strength rating. Generally speaking, Western-Cullen-Hayes Bumping Posts are designed to accommodate normal switching speeds.

<table>
<thead>
<tr>
<th>Type Post</th>
<th>Weight in Pounds</th>
<th>Tension Units</th>
<th>Compression Units</th>
<th>Least I&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>In Inches</td>
<td>Area - Sq. Inches</td>
<td>Steel Symbol</td>
</tr>
<tr>
<td></td>
<td>850</td>
<td>2 dia.</td>
<td>3.14</td>
<td>C10 25 lb.</td>
</tr>
<tr>
<td></td>
<td>1160</td>
<td>2 dia.</td>
<td>3.14</td>
<td>C10 25 lb.</td>
</tr>
<tr>
<td>WK</td>
<td>705</td>
<td>1 x 4</td>
<td>4</td>
<td>W6 25 lb.</td>
</tr>
<tr>
<td>WD</td>
<td>800</td>
<td>1 x 4</td>
<td>4</td>
<td>W6 25 lb.</td>
</tr>
<tr>
<td>WG</td>
<td>825</td>
<td>1 x 4</td>
<td>4</td>
<td>W6 25 lb.</td>
</tr>
<tr>
<td>1250</td>
<td>1½ x 4</td>
<td>6</td>
<td>W8 31 lb.</td>
<td>37.0</td>
</tr>
<tr>
<td>1280</td>
<td>1½ x 4</td>
<td>6</td>
<td>W8 31 lb.</td>
<td>37.0</td>
</tr>
<tr>
<td>WA</td>
<td>1655</td>
<td>1½ x 6</td>
<td>9</td>
<td>W8 40 lb.</td>
</tr>
<tr>
<td>1705</td>
<td>1½ x 6</td>
<td>9</td>
<td>W8 40 lb.</td>
<td>49.0</td>
</tr>
</tbody>
</table>

*NOTE: “Least I” refers to resistance to compression or bending. The full term is “Least Moment of Inertia”. It is the most accurate way to determine bumping post strength.
General dimensions for the bumping posts you order

You know which types of bumping posts you need. The next step is to determine the dimensions and other requirements for installation. The following drawings will give you the data you need.

Please note that all bumping post heads except on the Type WCTS and WCT are built 2½ inches to the right of centerline of track. This accommodates standard car coupler position.
CS-60 hinged type car stop

The model CS-60 hinged type car stop is designed for permanent installation on either flush or exposed rails. Made of high-quality ductile iron castings, the CS-60 may be raised for stopping and holding cars or rotated to the side to permit passage. It is also an excellent safety device to protect workers and warehouse doors as well as crossovers, walks, etc.

SELF TIGHTENING WHEEL STOP
model SW rerailer

The Nolan SW rerailer can be spiked to the tie or clamped to the rail with a positive wedge type locking system. Either way, the SW is easily and quickly installed for general use to retrack all types of locomotives and cars smoothly and efficiently.

When using the clamping device, the rerailers are placed in position on both the right and left rails. The clamp slides under the rail and the wedge is driven in position, securely locking the assembly to eliminate tipping and/or misalignment of the rerailer.

Two lugs on the underside of each unit prevent sliding of the rerailer past the first tie. The design of the SW provides a smooth, gentle retracking for one or a string of cars, while the special alloy, heat treated steel gives maximum strength and durability.

SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Model Number</th>
<th>For Use On Rails</th>
<th>Load Capacity</th>
<th>Weight Ea.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW-A</td>
<td>85 to 100 lbs.</td>
<td>100 tons</td>
<td>129 lbs.</td>
</tr>
<tr>
<td></td>
<td>(39 to 45kg)</td>
<td></td>
<td>(59kg)</td>
</tr>
<tr>
<td>SW-B</td>
<td>110 to 140 lbs.</td>
<td>200 tons</td>
<td>150 lbs.</td>
</tr>
<tr>
<td></td>
<td>(50 to 64kg)</td>
<td></td>
<td>(68kg)</td>
</tr>
<tr>
<td>SW-C (optional)</td>
<td>Clamp for A &amp; B</td>
<td></td>
<td>27 lbs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(12kg)</td>
</tr>
</tbody>
</table>

model DW rerailer

The advanced design of the DW rerailer accounts for its worldwide popularity for both cars and diesel locomotives. The DW permits retracking one or an entire string of cars without repositioning, and the only tool required for setting is a hammer.

SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Model Number</th>
<th>For Use On Rails</th>
<th>Load Capacity</th>
<th>Weight per Rerailer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DW-5</td>
<td>70 to 100 lbs.</td>
<td>100 tons</td>
<td>180 lbs. (82kg)</td>
</tr>
<tr>
<td></td>
<td>(32 to 45kg)</td>
<td></td>
<td>225 lbs. (102kg)</td>
</tr>
<tr>
<td>DW-5½</td>
<td>85 to 140 lbs.</td>
<td>200 tons</td>
<td>275 lbs. (125kg)</td>
</tr>
<tr>
<td></td>
<td>(39 to 64kg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DW-5¾</td>
<td>90 to 140 lbs.</td>
<td>300 tons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(41 to 64kg)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HD hinged derail

The Model HD double end derail is a high quality cast unit which can be hand thrown at the rail. The rugged steel base is spiked directly to the ties and features a three position derail mounting for use on a wide variety of rails up to a maximum of 7½" (181mm) high. The model SS optional target stand is complete with connecting rod, adjustable throw arm, cast steel base and signal vanes. The HD may be padlocked in either open or closed position.

HD SPECIFICATIONS*

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>28&quot; (711mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>100 lbs. (45kg)</td>
</tr>
<tr>
<td>For Rails</td>
<td>60 to 140 lbs. (27 to 64kg)</td>
</tr>
<tr>
<td>Model SS Target Stand (as described)</td>
<td>40 lbs. (18kg)</td>
</tr>
</tbody>
</table>

*Specifications subject to change without notice.

SD sliding derail

The Nolan SD is a rugged double end derail cast from manganese steel for permanent installation. When used in conjunction with the model LS heavy duty operating stand (optional), the derail adjusts automatically to most popular rail heights. The cast steel operating stand comes complete with operating lever, adjustable throw arm and signal vanes. The derail may be locked in operating position.

SD SPECIFICATIONS*

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>28&quot; (711mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>200 lbs. (91kg)</td>
</tr>
<tr>
<td>For Rails</td>
<td>85 to 140 lbs. (39 to 64kg)</td>
</tr>
<tr>
<td>Model LS Operating Stand (as described)</td>
<td>85 lbs. (39kg)</td>
</tr>
</tbody>
</table>

*Specifications subject to change without notice.
Derails
Portable, Sliding, and Hinged Types

Portable derails

Lightweight, tough, easily and quickly installed

Nolan portable derails are available in both double end, models PD-1 and PD-2, and single end designs, models PD-3R and PD-3L, providing track crew protection anywhere. Each model is cast from special alloy, heat treated metal and features a convenient wedge type clamp to lock it securely to the rail head. In compliance with the F.R.A. regulations, both the wedge and flag can be padlocked in position. Unlike the double end PD-1 and PD-2, the PD-3 single end derail is available in both right hand and left hand designs. The PD-3 is an extra heavy duty unit for use with heavy types of equipment such as billet and ladle cars in steel mills, and other exceptionally heavy cars. All models come complete with a 48\" (1219 mm) high detachable, reflectorized blue flag "DERAIL" as standard equipment.

**Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>Length</th>
<th>Approx. Weight</th>
<th>Adjusts for Rails</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD-1</td>
<td>28&quot;</td>
<td>61 lbs. (29kg)</td>
<td>60 to 140 lbs.</td>
</tr>
<tr>
<td>PD-2</td>
<td>18&quot;</td>
<td>43 lbs. (20kg)</td>
<td>20 to 60 lbs.</td>
</tr>
<tr>
<td>PD-3</td>
<td>21&quot;</td>
<td>70 lbs. (32kg)</td>
<td>60 to 140 lbs.</td>
</tr>
</tbody>
</table>

(511mm)

(457mm)

(546mm)
SAFETY WHEEL CHOCKS

FLAG TYPE

A

DOUBLE CHAIN TYPE

B

DOUBLE TENSION TYPE

B-2

DOUBLE-CHAIN TYPE WITH FLAG

C

SINGLE TYPE

D

ALDON SAFETY WHEEL CHOCKS provide effective blocking of all rolling stock and are used by railroads, industry, and shippers and receivers of carload freight. They are available in several styles to accommodate individual application. Instantly attached and removed. No tools required. Equipped with rail biting tool steel spurs. Spurs can be turned and replaced. Standard finish in railroad maintenance-of-way yellow.

A

FLAG TYPE for Exposed Rails

A-1

FLAG TYPE for Flush Rails.

B

DOUBLE-CHAIN TYPE has two chocks connected with strong chain welded to each block, making contact on both sides of the wheel tread; thus, stopping travel in either direction. Handles provided.

B-1

DOUBLE-CHAIN TYPE same as Style B but modified for use on flush rails. Handles provided.

B-2

DOUBLE TENSION TYPE has two chocks which are drawn tight and locked to both sides of the wheel by load binder action. Eliminates car motion during loading and unloading. Ideal when using forklift. Handles provided. Can be padlocked to prevent release by vandals.

C

DOUBLE-CHAIN TYPE WITH FLAG has two chocks connected with strong chain, prevents travel in either direction.

C-1

DOUBLE-CHAIN TYPE WITH FLAG same as Style C, but modified for use on flush rail.

C-2

DOUBLE TENSION TYPE WITH FLAG has two chocks which are drawn tight and locked to both sides of the wheel by load binder action. Eliminates car motion during loading and unloading. Ideal when using forklift. Handles provided. Can be padlocked to prevent release by vandals.

D

SINGLE TYPE replaces makeshift wooden wedges, boards, sticks, etc., for blocking wheel, always providing rail head fit which cannot accidentally become unseated. Handles provided.

D-1

SINGLE TYPE similar to Style D but modified for use on flush rails. Handles provided.

Wt. 12 lbs.

Wt. 12 lbs.

Wt. 12 lbs.

Wt. 12 lbs.

Wt. 16 lbs.

Wt. 16 lbs.

Wt. 16 lbs.

Wt. 8 lbs.

CAUTION
1. RAILCAR MUST BE AT A COMPLETE STOP BEFORE CHOCK IS PLACED AGAINST WHEEL.
2. KEEP GRIPPERS SHARP BY TURNING TO NEW EDGE AND REPLACE WHEN WORN. ANCHOR GRIPPERS SECURELY.
PORTABLE FRICTION RAIL SKIDS

In design, the ALDON RAIL SKID features a low, blunt nose which is followed by a higher curved heel.

It is a sliding or friction-type car stop which can be used singly or in pairs and is held upright on the rail by guide flanges along each side of the rail. Suitable for rail 60 lb. and up.

ALDON RAIL SKIDS are placed ahead of the point where it is desired to stop the car proportionate to the weight and speed of the car. The momentum of the moving car forces the lead wheel to mount the skid which, in turn, slides along the head of the rail.

ALDON RAIL SKIDS permit the wheels of either slide or continue to revolve on the respective skid and opposite rail, providing a graduate retardation and shock-proof stop of the car.

Removal of the wheel from the skid can be accomplished by use of a hand car mover applied to the free wheel when it can again be placed in the advanced position.

MODEL S-81
For general service. Ideal for industrial applications where average-size railcars are being worked. Weight 20 lbs.

MODEL S-86
For stopping cars and as a wheel chock. Features a "pocket" center to capture wheel. Weight 27 lbs.

MODEL S-87
The heaviest-duty rail skid now available. This model is made for severe service, especially hump yard tracks, where long and very heavy trains are being formed. Features heat-treated machines steel wedge joined to main casting by a replaceable tongue. Wedge lies flat on rail to assure quick mounting of wheels. For use on 100# or heavier rail. Weight 46 lbs.

MODEL S-78
A lightweight model for heavier duty due to its alloy steel. Mounting end is precision ground to 1/16" at tip. Weight 14 lbs.

MODEL SMR - MINE RAIL SKID
Designed for use on mine rail from 40 lb. through 60 lb. Will accommodate wheels from 6" to 16" dia. Furnished in either Right Hand or Left Hand versions, skids are designed to hug flange side of rail heads only, thus permitting use of skid through switches and crossings.

CAUTION: ALDON RAIL SKIDS are recommended for use on level track only. When using an ALDON RAIL SKID, no other car-stopping or car-slowing device should be used at the same time, such as: Car Stops, Car Blocks, Derails, etc. Every caution should be taken to give RAID SKIDS the longest possible distance to slide.

NOTICE: Periodically check skid and replace when worn or deformed. The RAIL SKID is recommended for use in slowing and stopping one car. Efficiency of performance is greatly reduced when attempting to stop more than one car.

SUGGESTED USES
• Spotting first car in establishing the head end of the train.
• Protecting warehouse doors, employees, car loading, etc.
ALDON PERMANENT RE-RAILER MODEL PL

A permanently installed rerailer for dirty areas where rerailing with other means is extremely difficult. For those places where constant spills make staying on the rails almost impossible. Installation rerails from both sides of the rail and in both directions of travel.

DESIGN
Model PL Re-railer is long enough to offer gradual incline to rail head and slewing angle is equally moderate. Designed for maximum load of 20 tons per wheel.

CONSTRUCTION
Re-railer is made from one inch and two inch steel plate, and with exception of extra ballast, proper support and fastenings are furnished. Re-railer is tailored to rail size; therefore, rail specification, measurement from top of rail to top of tie must be specified.

INSTALLATION
This installation can be made in old track; however, 13 foot crossties must be added in place of existing ties.

Weight: Approximately 7,850 lbs.

ALDON “AUTOMATIC” CAR RETARDER

The wide range of adjustment minimizes the possibility of light cars climbing out of the retarder.

Design of the Aldon unit permits full ballast and a full complement of ties under the retarder, minimizing creepage and drainage problems.

The use of standard AAR truck springs and standard fasteners keeps cost to a minimum. The friction rails bear only against the inside of wheel flanges, so that leaky journals do not affect retardation.

Car Retarder stopped a cut of 2 cars, gross wt. 315,200 pounds, entering at 6.3 MPH.

The ALDON CAR RETARDER is clamped in place without alteration to the track.

With full ballast beneath, the ALDON CAR RETARDER functions consistently in ice and snow.

Available in 13' and 18' lengths. In general, the 13 foot retarder can absorb about 200,000 ft. lbs. of kinetic energy, and the 18 foot unit, about 300,000 ft. lbs.

Power is needed to remove car from retarder.
Retarder Wt. — 13' - 4,650 lbs. — 18' - 7,600 lbs.