

INTERLOCKS FOR TRANSFER CRANES

The productivity of many crane systems can be greatly increased by including transfer cranes in the system. Cleveland Tramrail® transfer cranes permit trolleys to be transferred to discharge lines or other interlocking cranes. With transfer cranes in the system, loads can be transported beyond the confines of a single crane without the need for setting the load down for pick up by another means of material handling or another crane.

A part of the transfer crane interlocking equipment, called a discharge point, is attached to the Cleveland Tramrail® system at each point where a trolley is to be transferred. To prevent a trolley from being accidentally run off the end of the crane or rail, interlocks and discharge points are provided with safety forks. The safety forks obstruct the path of the trolley and will not permit it to pass until the rails of the transfer equipment are in alignment with the crane and locked into position.

Two or more transfer cranes can be interlocked either directly to each other, or by means of a short connecting section of Tarca® beam called a cross-track. These connecting sections are required where structural building support columns are between travel paths of two or more cranes. In some of these installations, the interlocks are mounted on each end of the short connecting section of rail and the discharge points are mounted on the crane girder ends. This approach offers the advantage of mounting the hand chains for the interlock throwout mechanism on the stationary rail section rather than a moving beam of a crane.

The standard interlock and discharge point can be equipped with an automatic latch. This allows the operator to pre-set the throwout mechanism when approaching a point of interlocking in the system. As the two rails come into alignment, a latch is released and the crane and spur track are locked together. This eliminates the need for inching the crane into position before releasing the throwout. When this optional feature is requested, the automatic latch assembly is supplied as an extra.

Due to the special operating nature of transfer cranes, travel brakes are not recommended on the end truck drives.



| Interlock Type | Discharge Point Type | Throwout Mechanism | Wheel Diameter (in.) |
|--------------------|----------------------|--------------------|----------------------|
| L | Use with LD | Use with LPC | 5 or less |
| H | Use with HD | Use with HPC | 5, 6-1/2 or 7 |
| HW (Wedge-Type) | Use with HWD | - | 5, 6-1/2 or 7 |
| S (Wedge-Type) | Use with SD | - | 9-1/2 |

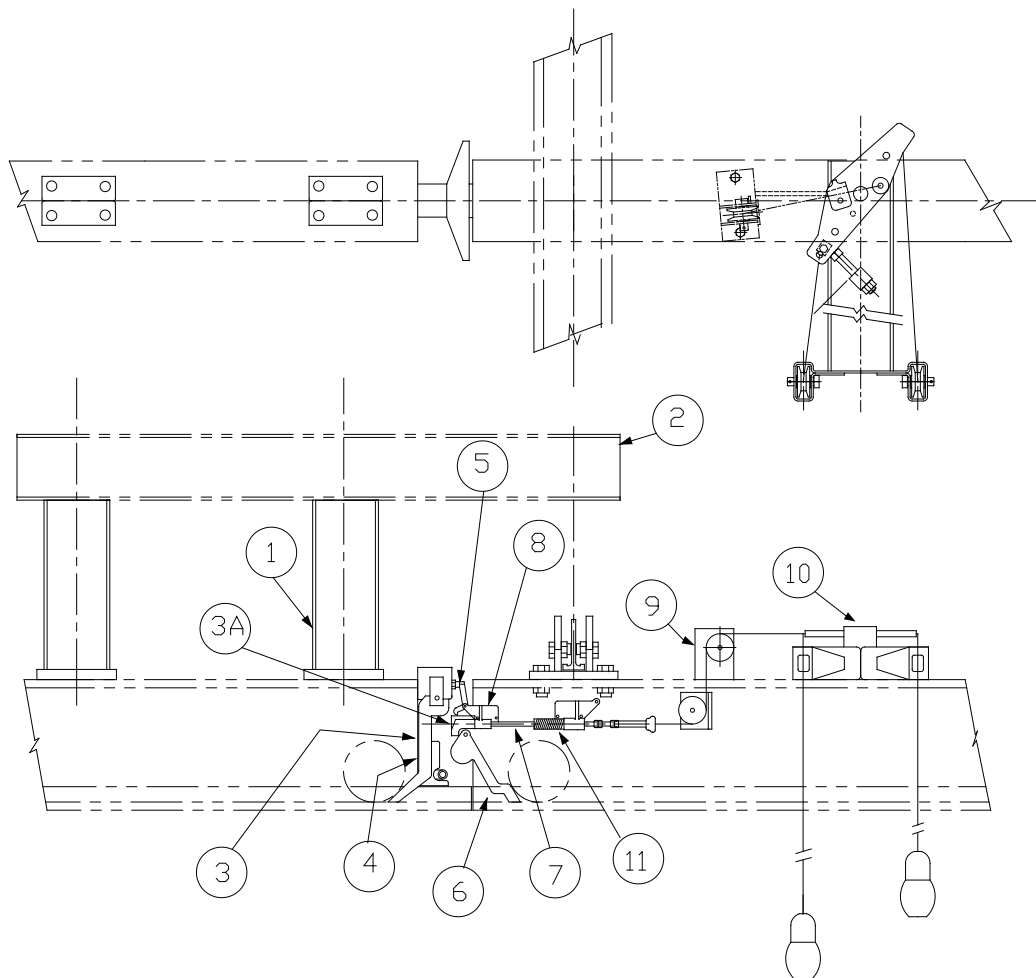


INTERLOCK AND DISCHARGE POINT OPERATION

When a crane is aligned with the track to which a trolley is to be transferred, the safety forks (4 & 6) remain in the down position until the interlock is locked into position by the throwout mechanism (10).

Next, the safety forks automatically rise permitting the trolley to travel on or off the crane. The safety forks will not rise unless the center of the discharge point (3) and the throat of the interlock nose (3A) are in position to be locked together. The safety forks (4 & 6) are shaped and balanced so that it is impossible for them to be raised by bumping a trolley wheel against them. A heavy spring load holds the throat (3A) locked and the forks (4 & 6) raised when the crane is interlocked with the discharge point.

When the interlock and discharge point is equipped with an automatic latch, the operator can pre-set the throwout mechanism (10). As the two rails come into alignment, the latch (5) is released and the crane and spur line are locked together.



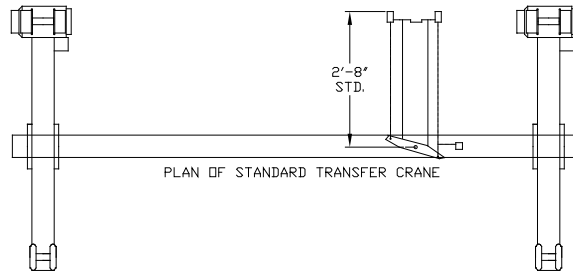
Discharge Point

- 1 "Gooseneck" Support
- 2 Runway Rail Support
- 3 Discharge Point
- 3A Throat of Interlock
- 4 Discharge Point Safety Fork

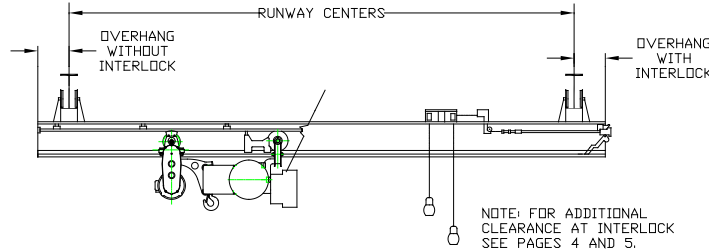
Interlock Mechanism

- 5 Auto-Latch
- 6 Interlock Safety Fork
- 7 Slide Rod
- 8 Slide Rod Guide
- 9 Sheave & Bracket
- 10 Throwout Mechanism
- 11 Spring

CLEARANCE OUTLINE FOR TRANSFER CRANES



TOP VIEW



| Dimensions (in.) | | | | | | | | | | |
|--------------------|---------------------|----------------------------|-------------------------------------|---------------------|----------------------------------|---------------------|-------------------|------------------|------------------|------------------|
| Tarca® Girder Size | Tarca® Track Series | Base End Truck Part Number | Minimum Overhang without Conductors | | Minimum Overhang with Conductors | | Standard Overhang | | | Maximum Overhang |
| | | | With L Interlock | With H Interlock | With L Interlock | With H Interlock | Without Interlock | With L Interlock | With H Interlock | |
| 10 | 4500 | SN206 | 7.5 ^B | - | 9.2 | - | 10.0 | 10.0 | - | 24.0 |
| | | SN208 | | | | | | | | |
| | | SN211 | | | | | | | | |
| | | SN412 | 11.0 ^B | - | 13.0 ^B | - | 15.0 | 15.0 | - | 24.0 |
| | | SN416 | | | | | | | | |
| | | SL408 | | | | | | | | |
| 11-3/4 | 4600 | SN206 | 7.5 ^B | - | 9.0 ^B | - | 10.0 | 10.0 | - | 24.0 |
| | | SN208 | | | | | | | | |
| | | SN211 | | | | | | | | |
| | | SN412 | 11.0 ^B | - | 13.0 | - | 15.0 | 15.0 | - | 24.0 |
| | | SN416 | | | | | | | | |
| | | SL412 | | | | | | | | |
| 12-1/2 through 20 | 5000 through 5500 | SN206 | 6.5 ^B | 7.5 ^A | 6.5 ^B | 7.5 ^A | 10.0 | 10.0 | 15.0 | 36.0 |
| | | SN208 | | | | | | | | |
| | | SN211 | | | | | | | | |
| | | SN412 | 11.0 ^B | 11.625 ^A | 11.0 ^B | 11.625 ^A | 15.0 | 15.0 | 15.0 | 36.0 |
| | | SN416 | | | | | | | | |
| | | SN422 | | | | | | | | |
| | | SL412 | | | | | | | | |
| | | SL416 | 7.0 | 7.75 ^A | 7.0 | 7.75 | 10.0 | 10.0 | 15.0 | 36.0 |
| | | SL422 | | | | | | | | |
| | | SN213 | - | 11.5 ^A | - | 11.5 | 15.0 | - | 15.0 | 36.0 |
| | | SL213 | | | | | | | | |
| | | SN426 | - | 10.0 | - | 10.0 | - | - | 15.0 | 36.0 |
| | | SL426 | | | | | | | | |
| | | SN215 | - | 15.0 ^A | - | 15.0 ^A | 15.0 | - | 15.0 | 36.0 |
| SL215 | | | | | | | | | | |
| SN430 | - | 15.0 ^A | - | 15.0 ^A | 15.0 | - | 15.0 | 36.0 | | |
| SL430 | | | | | | | | | | |

A. Without roller and bracket. Add 3.5" when this is used.

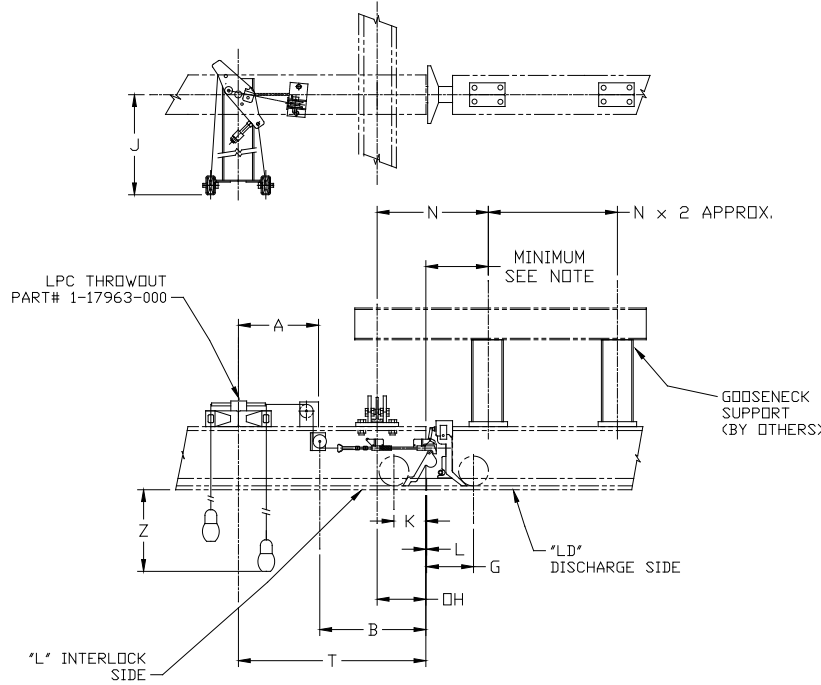
B. These can be reduced 1.5" for absolute minimum where shear keys are not required.

Note: The above minimum overhangs make allowance for end truck shear keys (see B above) on all overhangs used with 10" girders and Type BF end trucks or larger. Minimum overhang listed with types AL and A end trucks without interlocks are based on end truck width. On motor driven cranes equipped with WA motor heads, the minimum overhang is 6.5". With MT tractors it is 7" which is over the gear cover belt not less than in the above table. For WB and WC motor heads or larger tractor drives, consult Customer Service.

TYPE "L" INTERLOCKS, TYPE "LD" DISCHARGE POINTS, AND TYPE "LPC" THROWOUT MECHANISMS

For Use with Trolleys Having Wheels of 5" Diameter or Less

When ordering LD Discharge Points, the size of the girder, overhang, type of end truck, size of the runway and discharge lines must be specified. Type L Interlocks and Type LD Discharge Points are used for carrier loads under 5 tons. Refer to page 10 for Beam Preparation layout information for LD Discharge Points.



Type "L" Interlocks

| Interlock Part Number | Dimensions (in) | | | | |
|-----------------------|-----------------|---------------|--------|------|------------|
| | Bridge Girder | Tarca® Series | A | B | T Standard |
| 1-17946-100 | 8 | 4200 | 14.875 | 19 | 33.875 |
| 1-17947-100 | 8-1/2 | 4300 | 14.875 | 17.5 | 31.125 |
| 1-17967-000 | 10 | 4500 | 9 | 29 | 38 |
| 1-17967-050 | 11-3/4 | 4600 | 9 | 29 | 38 |
| 1-17967-100 | 12-1/2 | 5000 | 9 | 29 | 38 |
| 1-17967-125 | 12-1/2 | 5100 | 9 | 29 | 38 |
| 1-17967-200 | 14 | 5200 | 9 | 29 | 38 |
| 1-17967-245 | 15-1/2 | 5250 | 9 | 29 | 38 |
| 1-17967-260 | 16 | 5300 | 9 | 29 | 38 |
| 1-17967-280 | 18 | 5400 | 9 | 29 | 38 |
| 1-17967-290 | 20 | 5500 | 9 | 29 | 38 |
| 1-17967-295 | 22 | 5550 | 9 | 29 | 38 |
| 1-17967-300 | 24 | 5660 | 9 | 29 | 38 |
| 1-17967-310 | 25 | 5700 | 9 | 29 | 38 |
| 1-17967-350 | 28 | 5770 | 9 | 29 | 38 |
| 1-17967-400 | 32 | 5860 | 9 | 29 | 38 |

Constant Dimensions

- G (minimum) = 9.5"
- G (to clear) = 14.5"
- J = 32"
- K (minimum) = 7"
- K (to clear) = 9"
- L (minimum) = 0.125"
- L (maximum) = 0.25"
- OH = 10" with two head end truck
= 15" with four head or larger end truck
- Z = 8'
- N = OH + Min.

Note: Minimum To Be Determined - Dimension from end of beam to CL of 1st support leg, based on discharge point (refer to page 10 for size of structural support member).

Type "LD" Discharge Points

| Discharge Point Part Number | Bridge Girder | Tarca® Series | Description |
|-----------------------------|----------------|-------------------|------------------------------------------------------|
| 1-13844-100 | 8" through 32" | 4200 through 5860 | Type LD Discharge Point |
| 1-13844-000 | 8" through 32" | 4200 through 5860 | Type LD Discharge Point with Cam for Automatic Latch |

For electrification of Interlocks and Discharges Points see page 19 of the Electrification & Controls section.

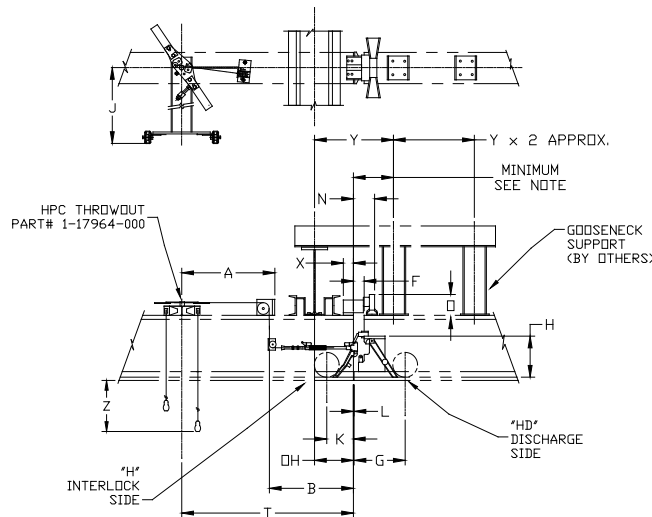
TYPE "H" INTERLOCKS AND TYPE "HD" DISCHARGE POINTS

For Use with Trolleys Having Wheels of 5", 6-1/2" or 7" Diameter

Type H Interlocks are operated by a Type HPC Throwout Mechanism of the chain type shown in the drawing below. The 27.5" minimum dimension will clear any standard end truck up to 26000 lbs. with a normal wheelbase. Where overhang must be more than the standard 15", the interlock slide rods do not change, but the operating chain is lengthened.

Type H Interlocks and Type HD Discharge Points are of a heavier design for carrier loads over 5 tons.

When ordering an HD Discharge Point, the discharge line beam must be ordered with it for proper building into the beam end of the discharge point. It is also necessary to specify the size of the crane girder, overhang, and type of end truck. Refer to page 10 for Beam Preparation layout information for HD Discharge Points.



Type "H" Interlocks

| Interlock Part Number | Bridge Girder | Tarca® Series | Dimensions (in.) | | | | |
|-----------------------|---------------|---------------|------------------|----|----------------|-------|------|
| | | | A | B | H ¹ | O | T |
| 1-17967-150 | 12-1/2 | 5100 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-160 | 14 | 5200 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-161 | 15-1/2 | 5250 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-162 | 16 | 5300 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-164 | 18 | 5400 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-170 | 20 | 5500 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-172 | 22 | 5550 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-174 | 24 | 5660 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-175 | 25 | 5700 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-178 | 28 | 5770 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-180 | 32 | 5860 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-184 | 36 | 5970 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-188 | 40 | 6091 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |
| 1-17967-190 | 46 | 6201 | 13.5 | 29 | 11.5625 | 5.125 | 42.5 |

Constant Dimensions

- G (minimum) = 13"
- G (to clear) = 18"
- J = 32"
- K (minimum) = 8"
- K (to clear) = 12.25"
- L (minimum) = .125"
- L (maximum) = .25"
- N = 5.5"
- OH = 15" standard
- Z = 8'
- X = 4" (14" and larger Tarca®) or 6-1/2" (12-1/2" Tarca®) over conductor bar bracket
- Y = OH + Min.

Note: Minimum To Be Determined - Dimension from end of beam to CL of 1st support leg, based on discharge point (refer to page 10 for size of structural support member).

1. Dimension H may vary with the end truck used.

Type "HD" Discharge Points

| Part Number | Bridge Girder | Tarca® Series | Description |
|----------------|------------------|----------------|----------------------------------------------------------------------|
| 1-17942-000 | 12-1/2" thru 46" | 5100 thru 6201 | HD Discharge Point Assembly Only |
| 1-10621-212 | 12-1/2" | 5100 | Roller Guide Assembly for 12-1/2" Tarca® |
| 1-10621-214 | 14" | 5200 | Roller Guide Assembly for 14" Tarca® |
| 1-10621-216 | 15-1/2" thru 46" | 5250 thru 6201 | Roller Guide Assembly for 15-1/2" and Larger Tarca® |
| 3K-10621-40-12 | 12-1/2" | 5100 | Roller Guide Assembly, Top and Bottom, for 12-1/2" Tarca® |
| 3K-10621-40-14 | 14" | 5200 | Roller Guide Assembly, Top and Bottom, for 14" Tarca® |
| 3K-10621-40-16 | 15-1/2" thru 46" | 5250 thru 6201 | Roller Guide Assembly, Top and Bottom, for 15-1/2" and Larger Tarca® |

For electrification of Interlocks and Discharges Points see page 19 of the Electrification & Controls section.

WEDGE-TYPE INTERLOCKS FOR TRANSFER CRANES

Types "HW" and "S" Interlocks and Types "HWD" and "SD" Discharge Points

This development is ideal for operation in automatic crane interlocking systems and heavy duty cycle operations. The interlock is motor operated (standard) or hydraulic operated (optional), with manual or automatic controls. In addition, this easy to install, motor driven interlock is engineered to virtually eliminate readjustment of the interlocking mechanism and minimize installation time.

How the wedge-type interlock works:

As the interlock and discharge point beams approach one another, the operator pushes a button powering a gear motor that activates a pair of rollers. Rollers move from the interlocking beam toward a stationary wedge on the discharge point beam.

The rollers make contact with the wedge and self align within 1-1/4" horizontal range. As both beams are interlocked, forks on powered and non-powered beams are raised for free passage of the carrier. This action is detailed in Figure 1 below.

To disengage the interlock, the operator pushes a second button. Motor driven rollers move back and away from the wedge allowing the forks to drop and make contact with the rail tread, thereby preventing the carrier from traveling off the open end of the beam.

A roller guide assures proper spacing between the two beams and vertical alignment of the rail treads.

Safety Features:

- Safety forks prevent the hoist carrier from running off the end of the transfer bridge or spur track.
- Safety forks are not sensitive to vertical misalignment within the allowable limits per Monorail Manufacturers Association specifications.
- Torque limiter prevents burnouts of interlock drive motor.
- Positive track and SAFPOWRBAR® electrification alignment.
- Optional alignment limit switches will not permit the wedge-type engaging mechanism to operate until the interlock and discharge point beams are within the 1" interlocking range.
- Optional signal lights can be supplied with alignment limit switches to indicate crane alignment if rail visibility is poor.

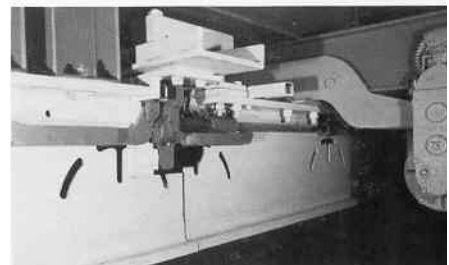
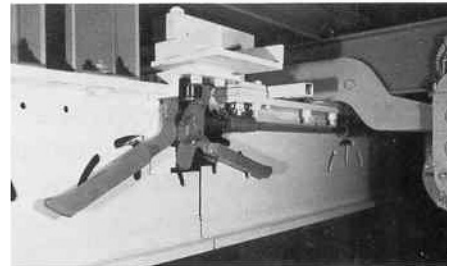
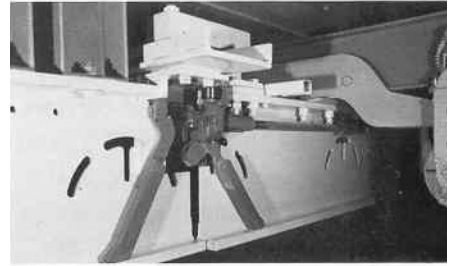
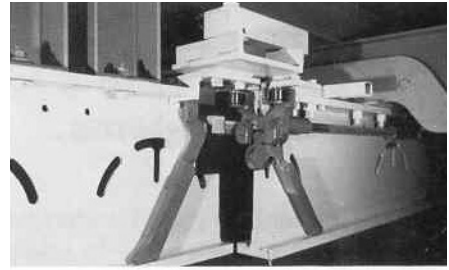
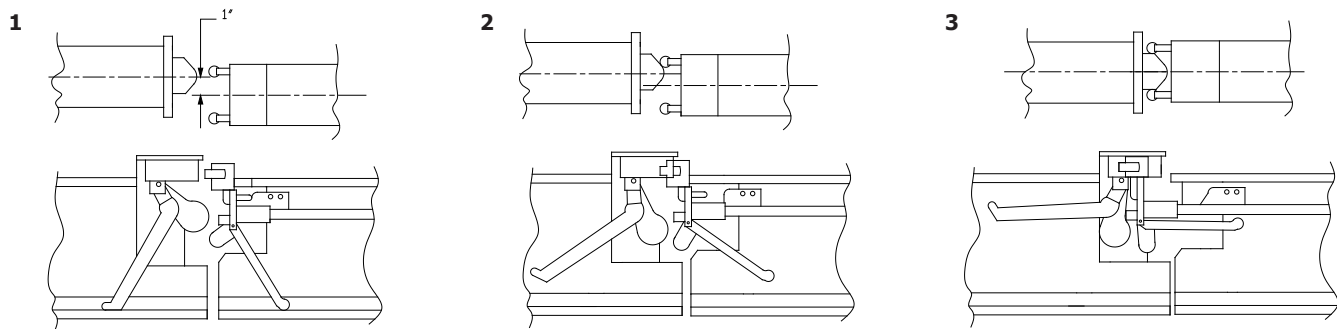


Figure 1



1. Before Interlock

Rollers move toward wedge. Forks rest on rail tread.

2. During Interlock

Rollers make contact with wedge. Track begins to align and forks move up and away from rail tread.

3. After Interlock

Rollers and wedge interlock. Track alignment is complete and forks are now fully raised and in horizontal position allowing free passage of carrier.

WEDGE-TYPE INTERLOCKS FOR TRANSFER CRANES (Continued)

Types "HW" and "S" Interlocks and Types "HWD" and "SD" Discharge Points

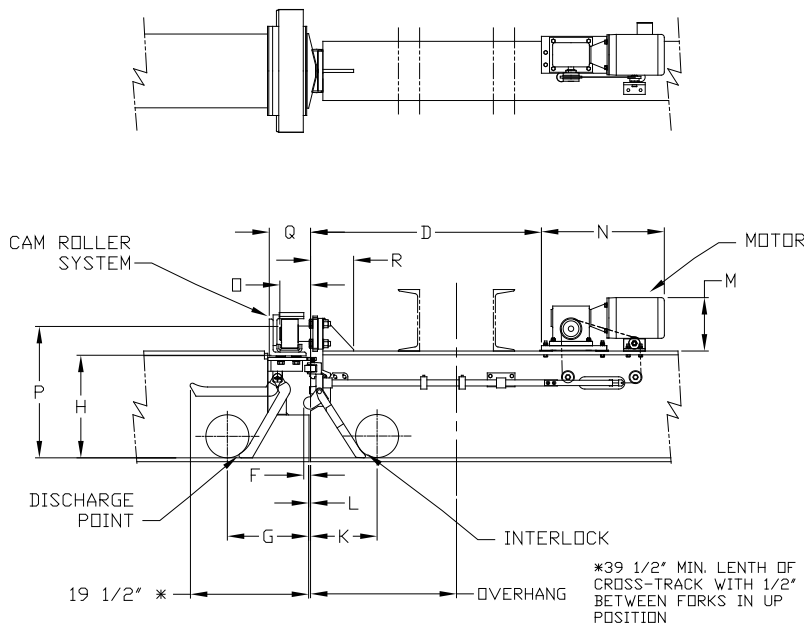
Types HW and S Interlocks are operated by a gear motor through a roller chain connection to the interlock. The motor is actuated by a push button which can be installed in any standard control panel (consult Customer Service for control arrangements). The Type S gear motor is positioned to clear any standard end truck used on Super Tarca® track.

Types HW and S Interlocks and HWD and SD Discharge Points are aligned by a cam roller mechanism. A safety catch will not permit the engaging mechanism to operate until the interlock and discharge point are in alignment (range +/- 1").

Type HW Interlocks and HWD Discharge Points are of rugged design and are adaptable to Tarca® crane girders 16" and larger using trolleys with 5", 6-1/2", or 7" diameter wheels. Type S Interlocks and Type SD Discharge Points are of rugged design and adaptable to all standard Super Tarca® track and crane girders using trolleys with 9-1/2" diameter wheels.

When ordering a Type HW or S Interlock with a motor driven throwout mechanism, specify the crane girder, spur track size, overhang of the crane girder and end truck used.

Interlock & Discharge Point Part Numbers



| Part Number | Type | Beam Size | Tarca® Series |
|--------------|---------------------|-----------|---------------|
| 4K-18533-42A | HW Interlock | 16" | 5300 |
| 4K-18533-42B | HW Interlock | 18" | 5400 |
| 4K-18533-42C | HW Interlock | 20" | 5500 |
| 4K-18533-42F | HW Interlock | 22" | 5550 |
| 4K-18533-42D | HW Interlock | 24" | 5660 |
| 4K-18533-42G | HW Interlock | 25" | 5700 |
| 4K-18533-42E | HW Interlock | 28" | 5770 |
| 4K-18534-B | HWD Discharge Point | 16-24" | 5300-5660 |
| 4K-18533-41A | S Interlock | 16" | 8050 & 8070 |
| 4K-18533-41B | S Interlock | 19" | 8100 |
| 4K-18533-41C | S Interlock | 22" | 8150 |
| 4K-18533-41D | S Interlock | 25" | 8200 |
| 4K-18533-41E | S Interlock | 28" | 8271 |
| 4K-18534-A | SD Discharge Point | 16-28" | 8050-8271 |

Interlocks are also available for Double Girder cranes. Consult factory for additional information.

| Interlock Type | Dimensions (in.) | | | | | | | | | | | | | | |
|----------------|------------------|---------|---------|--------------|---------|---------|--------------|---------|---------|-------|----|------|------|------|----------------|
| | D ² | F (min) | G (min) | G (to clear) | H | K (min) | K (to clear) | L (min) | L (max) | M | N | O | Q | P | R ¹ |
| HW | 35.5625 | 1.258 | 13 | 20 | 16.3125 | 11.375 | 17.375 | .125 | .25 | 8.875 | 20 | 5.25 | 7.25 | 23.5 | 7 |
| S | 35.5625 | 1.25 | 12.5 | 23 | 26.3125 | 12.25 | 17.5 | .125 | .25 | 8.875 | 20 | 5.25 | 7.25 | 23.5 | 7 |

- For 18" beam and smaller for HW Interlocks and HWD Discharge Points, add 2-1/2" to conductor bar bracket. For 16" Super Tarca® for S Interlocks and SD Discharge Points, add 2-1/2" for conductor bar bracket.
- "D" standard dimension may be increased to clear end truck or bracing.

For electrification of Interlocks and Discharges Points see page 19 of the Electrification & Controls section.

DIRECT INTERLOCKING TRANSFER CRANE CLEARANCE DIMENSIONS

Direct Interlocking Transfer Cranes are of the same construction as Transfer Cranes except they have a Discharge Point built into one end of the girder to permit it to be locked to a transfer crane equipped with an Interlock. This permits the movement of a trolley from crane to crane, or to permit the two cranes to move together as a single unit.

Units with Type LD Discharge Points cannot be engaged with units having Type H Interlocks, nor can units with Type HD Discharge Points be engaged with Type L Interlocks.

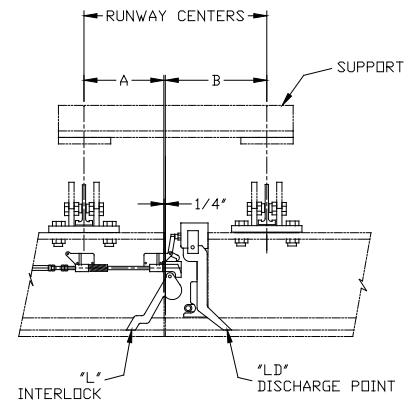
The tables below list minimum, standard, and maximum overhang available when planning a direct interlocking system. Where greater overhangs are necessary, submit full outline of conditions to Customer Service for study.

On all units, check kick-up conditions which are possible on short spans.

Consult Customer Service for design procedures.

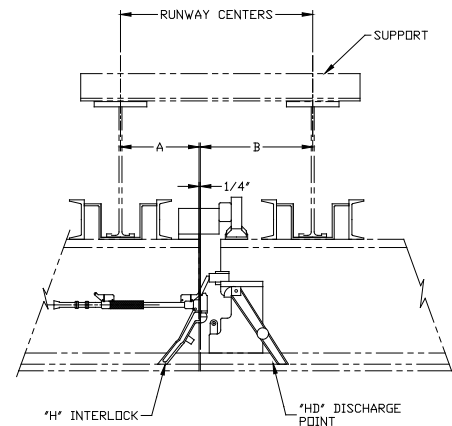
Type "L" Interlocks and "LD" Discharge Points for Use with Trolleys Having Wheels of 5" Diameter or Less

| Dimensions (in.) | | | | | | | | | | |
|--------------------|---------------------|------------------------------------|---------------------------------|------------------|------|----------------------------------------|---------------|----------------------|------------------|--------|
| Tarca® Girder Size | Tarca® Track Series | Base End Truck Part Number | "A" Overhang with "L" Interlock | | | "B" Overhang with "LD" Discharge Point | | Runway Centers | | |
| | | | Non Electrified Min. | Electrified Min. | Std. | Min. | Std. and Max. | Non Electrified Min. | Electrified Min. | Std. |
| 10 | 4500 | N206, N208, N211 | 7-1/2 | 9-1/2 | 10 | 15-3/4 | 18 | 23-1/2 | 25-1/2 | 28-1/4 |
| | | N412, N416, N422, L412, L416, L422 | 11 | 13 | 15 | 20-1/4 | 21 | 31-1/2 | 33-1/2 | 36-1/4 |
| 11-3/4 | 4600 | N206, N208, N211 | 6-1/2 | 9 | 10 | 15-3/4 | 16-1/2 | 22-1/2 | 25 | 26-3/4 |
| | | N412, N416, N422, L412, L416, L422 | 11 | 11 | 15 | 20-2/5 | 21 | 31-1/2 | 31-1/2 | 36-1/4 |
| 12-1/2 and larger | 5000 and larger | N206, N208, N211 | 6-1/2 | 6-1/2 | 10 | 14-3/4 | 16-1/2 | 21-1/2 | 21-1/2 | 26-1/2 |
| | | N412, N416, N422, L412, L416, L422 | 11 | 11 | 15 | 19-3/8 | 21 | 30-5/8 | 30-5/8 | 36-1/4 |
| | | N213, L213 | 7 | 7 | 10 | 15-1/2 | 16-1/2 | 22-3/4 | 22-3/4 | 26-3/4 |
| | | N426, L426 | 11-1/2 | 11-1/2 | 15 | 19-3/4 | 21 | 31-1/2 | 31-1/2 | 36-1/4 |



Type "H" Interlocks and "HD" Discharge Points for Use with Trolleys Having Wheels of 7" Diameter or Less

| Dimensions (in.) | | | | | | | | | |
|--------------------|---------------------|------------------------------------|---------------------------------|------|----------------------------------------|---------------|----------------|--------|--|
| Tarca® Girder Size | Tarca® Track Series | Base End Truck Part Number | "A" Overhang with "H" Interlock | | "B" Overhang with "HD" Discharge Point | | Runway Centers | | |
| | | | Min. | Std. | Min. | Std. and Max. | Min. | Std. | |
| 12-1/2 | 5000 | N208, N211 | 8-1/2 | 15 | 15 | 15 | 23-3/4 | 30-1/4 | |
| | | N412, N416, N422, L412, L416, L422 | 13-1/4 | 18 | 20 | 20-1/4 | 33-1/2 | 38-1/2 | |
| | | N213, L213 | 9-1/2 | 15 | 16 | 18 | 25-3/4 | 33-1/4 | |
| 12-1/2 | 5100 | N426, L426 | 13-1/4 | 18 | 21 | 21 | 34-1/2 | 39-1/4 | |
| 14 and larger | 5200 and larger | N208, N211 | 6-1/2 | 15 | 16 | 18 | 22-3/4 | 33-1/4 | |
| | | N412, N416, N422, L412, L416, L422 | 11 | 15 | 20 | 21 | 31-1/4 | 36-1/4 | |
| | | N213, L213 | 7 | 15 | 16-1/2 | 18 | 23-3/4 | 33-1/4 | |
| | | N426, L426 | 11-1/4 | 18 | 20-1/2 | 21 | 32 | 39-1/4 | |



Note: Minimum is without optional guide roller or roller guide. Add 4" with guide roller or roller guide.

TRANSFER CRANE CROSS-TRACKS

The illustrations below show the general arrangement required when planning a transfer crane installation where a trolley is to be transferred from one crane to another with a stationary transfer track equipped with discharge points at both ends.

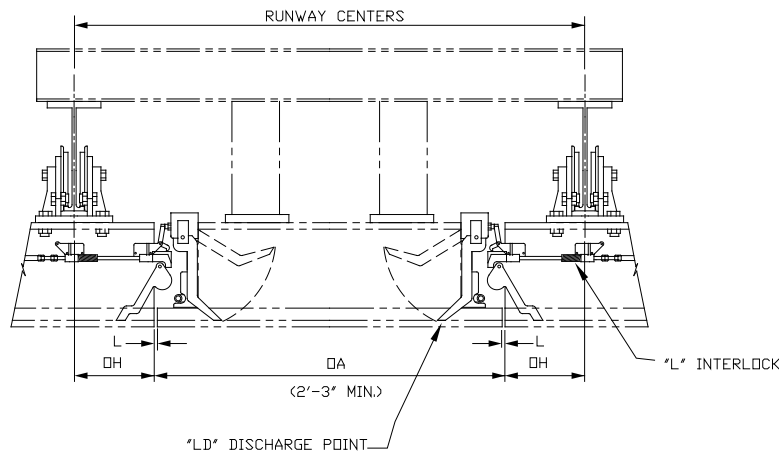
The 2'-3" for Types "L" and "LD" and 2'-8" for Types "H" and "HD" Minimum Dimensions (OA) provide clearance between the ends of the safety forks and cannot be reduced. A 5" dimension from the face of the wall to the end of the cross-track is required for operating clearances over the interlock nose and conductor bar ends. Where an LD Discharge Point is to be mounted on the end of a curve, that curve must have an overhang (OH) of not less than 14" to provide clearances for the lift of the safety fork. When an HD Discharge Point is to be mounted on the end of a curve, that curve must have an overhang of not less than 16" to provide clearances for the lift of the safety fork.

When a roller and guide assembly is used, as shown in the drawings below, the 5" minimum clearance "O" must be increased to 6.5" for operating clearances over the roller.

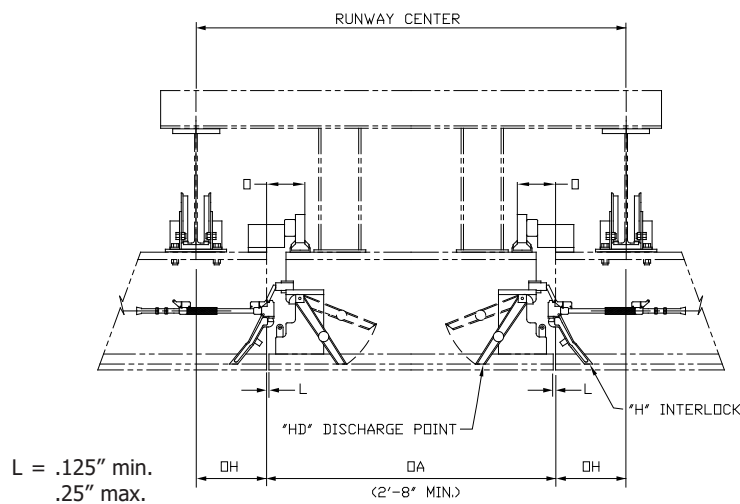
Suitable supports must be provided so that the runway beam and discharge point deflect together under passage of the trolley with its load.

All discharge points must be side braced to take the thrust or impact of the interlock on a moving transfer crane engaging with the discharge point.

Type "L" Interlocks and "LD" Discharge Points



Type "H" Interlocks and "HD" Discharge Points



For OH dimension, see page 8 ("A" overhang for either "L" or "H" interlock).

TARCA® AND SUPER TARCA® TRACK DISCHARGE POINT CLEARANCE DIMENSIONS

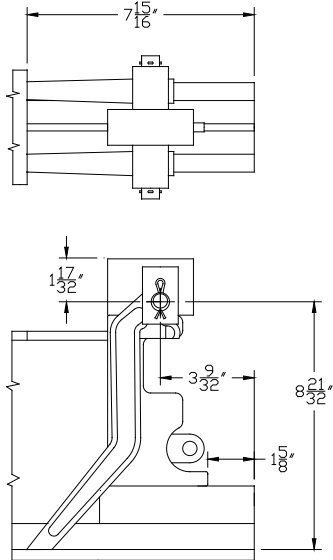
Required Clearance Layout Information for Discharge Points for Monorail, Spur Track, and Direct Interlocking Crane Applications

- Reference the following dimensions at beam ends where discharge points are to be incorporated at the factory.
- Ends specified in the following diagrams include end preparation and factory fabrication of discharge point.

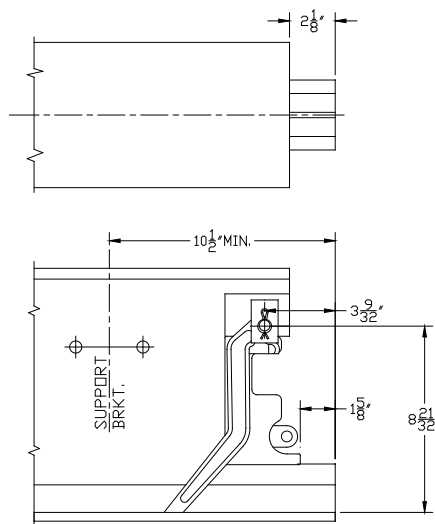
“LD” Discharge Point End Preparation¹

“HD” Discharge Point End Preparation¹

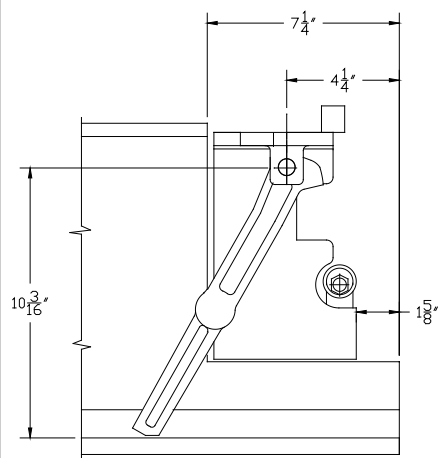
LD-8
Use with 4200 and 4300 track series.



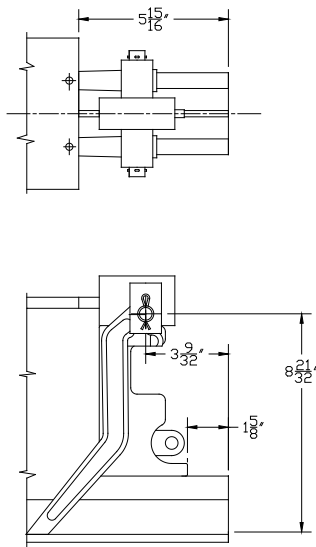
LD-11
Use with 4600 track series.



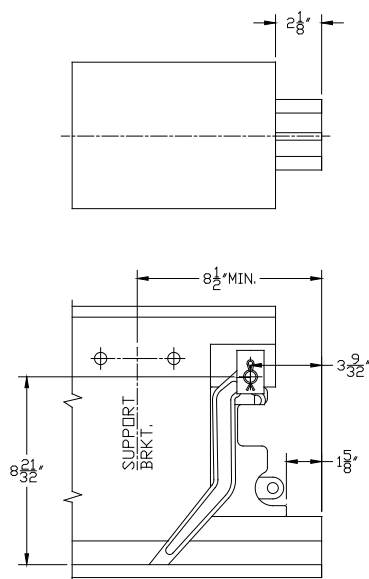
HD-12
Use with 5000 or larger track series.



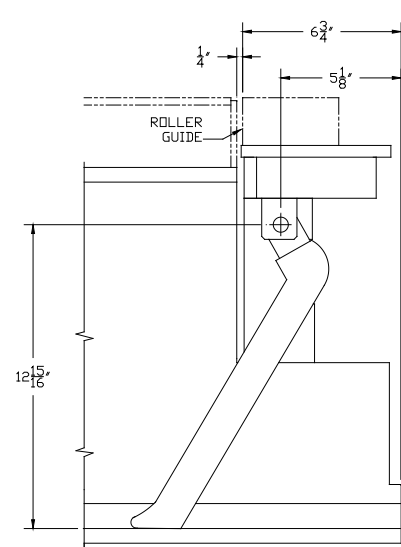
LD-10
Use with 4500 track series.



LD-12
Use with 5000 or larger track series.



SD³ and HWD²
Wedge Type discharge point ends.



1. Maximum 5" diameter wheels.
2. Maximum 7" diameter wheels on Tarca® beam.
3. Maximum 9-1/2" diameter wheels on Super Tarca® beam.