

LIRR Bumping Blocks Inventory Passenger Yards Only

December 17, 2015

Engineering Asset Management Group

Shock Free Bumper Western Cullen Hayes INC.

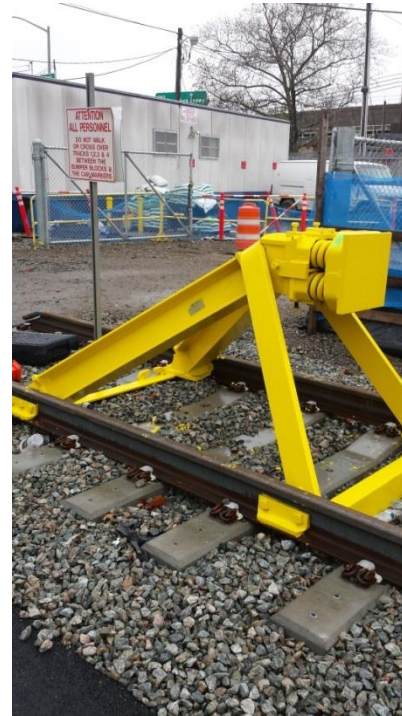
TYPE WA

Johnson Avenue TK 1



TYPE WA

Johnson Avenue TK 1



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Johnson Ave	1	Shock Free Bumper	Western Cullen Hayes INC.	TYPE WA
Johnson Ave	2	Shock Free Bumper	Western Cullen Hayes INC.	TYPE WA

Shock-Free Specifications



Hayco® Shock-Free® Head prolongs bumping post life... cuts equipment damage and protects lading

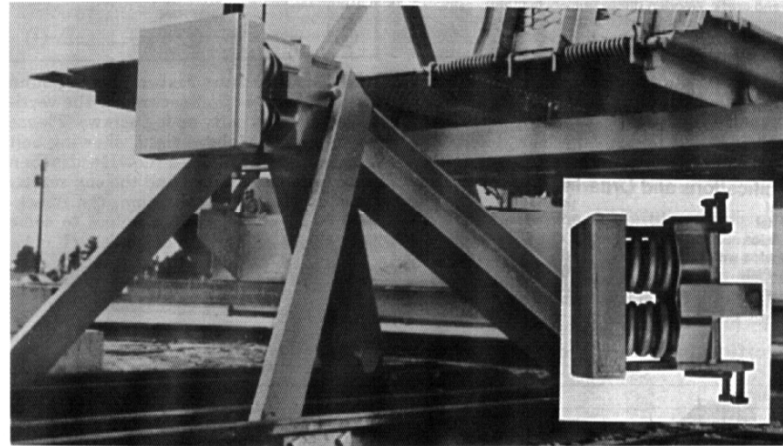
The W-C-H Hayco® Shock-Free® Head (U.S. Patent No. 2,860,582) pays for itself at every installation by prolonging bumping post life, cutting equipment damage at track-ends, and doing its share to decrease claims.

This rugged unit takes only about thirty minutes to install, but it can mean the difference between a troublesome and trouble-free track-end. Thousands are proving it every day, around the world.

Our Shock-Free® Head is a 435 pound cushioning unit which is applied to a railroad bumping post after it is in track.

It slips over the regular bumping post head and is made a part of the post by tightening the six cap screws provided.

Train impact is absorbed by compressing eight heavy springs which "float" between laminated rubber and fiber shock pads. As the Head compresses 1-5/8" from first coupler contact, the draft gear mechanism in the car comes into operation. At normal switching speed, the result is a shock-free final impact, protecting the bumping post, the car and the lading.



The 12-1/2" extension of the bumping post provided by the Shock-Free® Head, provides ample air hose clearance for Piggy-Back cars and Buck Unloaders.

Specifications*

Weight	435 lbs
Striking Face	15" x 17"
Extension, Open	12-1/2"
Extension, Closed	10-7/8"

Compression	80,000 lb
Springs	8, nested in twos
Shock Pads	8, each 5/8" thick
Ordering Reference	Hayco® Shock-Free® Head

* See following page for Attaching Fixture that allows the Shock-Free® Head to be adapted for mounting on flat vertical surfaces.

WESTERN-CULLEN-HAYES, INC.
2700 W. 36TH PLACE CHICAGO, ILL. 60632
(773) 254-9600 FAX (773) 254-1110



WESTERN-CULLEN-HAYES, INC.
120 N. 3rd Street, P.O. Box 756, Richmond, Indiana 47374
(765) 962-0526 FAX (765) 966-5374

Hydraulic HYDRO-BUMPER MODEL 12 Holley Engineering CO, INC.

LIC – TK 8

LIC – TK 2



HYDRO-BUMPER MODEL 12

Locations

Bumper Blocks Locations				
Location	Track	Type	Manufacturer	Model
WSSY	1	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	2	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	3	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	4	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	5	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	6	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	7	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	8	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	9	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	10	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	11	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	12	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	13	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	14	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	15	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	16	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	17	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	18	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	19	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	20	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	21	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	22	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	23	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	24	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	25	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	26	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	27	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	28	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	29	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12
WSSY	30	Hydraulic	HOLLEY ENGINEERING CO, INC.	HYDRO-BUMPER MODEL 12

Hydraulic Western Cullen Hayes INC. Model 17902-C

LIC – TK 8



LIC – TK5



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Long Island City	4	Hydraulic	Western Cullen Hayes INC.	17902-C
Long Island City	5	Hydraulic	Western Cullen Hayes INC.	17902-C
Long Island City	6	Hydraulic	Western Cullen Hayes INC.	17902-C
Long Island City	7	Hydraulic	Western Cullen Hayes INC.	17902-C
Long Island City	8	Hydraulic	Western Cullen Hayes INC.	17902-C

Hydraulic Western Cullen Hayes INC. Model 17902-00-00

LIC – TK 1



LIC – TK2



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Long Island City	1	Hydraulic	Western Cullen Hayes INC.	17902-00-00
Long Island City	2	Hydraulic	Western Cullen Hayes INC.	17902-00-00
Long Island City	3	Hydraulic	Western Cullen Hayes INC.	17902-00-00
Long Island City	Switch Lead	Hydraulic	Western Cullen Hayes INC.	17902-00-00

Hydraulic Western Cullen Hayes INC. Model 17902-00-00

Hempstead TK 6



Hempstead TK 5



Bumper Blocks Locations				
Location	Track	Type	Manufacturer	Model
Hempstead	5	Hydraulic	Western Cullen Hayes INC.	17902-00-00
Hempstead	6	Hydraulic	Western Cullen Hayes INC.	17902-00-00
Hempstead	7	Hydraulic	Western Cullen Hayes INC.	17902-00-00
Hempstead	8	Hydraulic	Western Cullen Hayes INC.	17902-00-00

Hydraulic Western Cullen Hayes INC. Model 17901

Speonk – TK 6



Port Jefferson – TK 1



Hydraulic Western Cullen Hayes INC. Model 17901

Oyster Bay – TK 3



Oyster Bay – TK 2



Hydraulic Western Cullen Hayes INC. Model 17901 Locations

Bumper Blocks Locations				
Location	Track	Type	Manufacturer	Model
Speonk	3	Hydraulic	Western Cullen Hayes INC.	17901
Speonk	4	Hydraulic	Western Cullen Hayes INC.	17901
Speonk	5	Hydraulic	Western Cullen Hayes INC.	17901
Speonk	6	Hydraulic	Western Cullen Hayes INC.	17901
Speonk	7	Hydraulic	Western Cullen Hayes INC.	17901
Speonk	Tail	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	1	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	2	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	3	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	4	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	5	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	6	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	7	Hydraulic	Western Cullen Hayes INC.	17901
Port Jefferson	8	Hydraulic	Western Cullen Hayes INC.	17901
Oyster Bay	1	Hydraulic	Western Cullen Hayes INC.	17901
Oyster Bay	2	Hydraulic	Western Cullen Hayes INC.	17901
Oyster Bay	3	Hydraulic	Western Cullen Hayes INC.	17901
Oyster Bay	4	Hydraulic	Western Cullen Hayes INC.	17901
Oyster Bay	5	Hydraulic	Western Cullen Hayes INC.	17901
Oyster Bay	6	Hydraulic	Western Cullen Hayes INC.	17901
Oyster Bay	7	Hydraulic	Western Cullen Hayes INC.	17901
Advance	1 MofE	Hydraulic	Western Cullen Hayes INC.	17901

Hydraulic Western Cullen Hayes INC. Model WH

Babylon – TK 17



Port Jefferson – TK 9

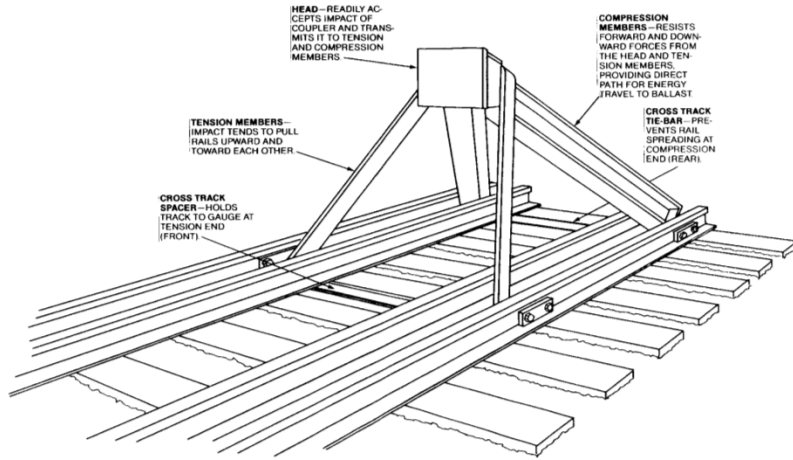


Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Port Jefferson	9	Hydraulic	Western Cullen Hayes INC.	WH
Babylon	17	Hydraulic	Western Cullen Hayes INC.	WH



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.

Type Post	Weight In Pounds	Tension Units		Compression Units	
		In Inches	Area - Sq. Inches	Steel Symbol	Least I*
WCT	850	2 dia.	3.14	C10 25 lb.	3
WCTS	1160	2 dia.	3.14	C10 25 lb.	3
WK	705	1 x 4	4	W6 20 lb.	13.3
WD	800	1 x 4	4	W6 25 lb.	17.1
WDC	825	1 x 4	4	W6 25 lb.	17.1
WG	1250	1-1/2 x 4	6	W8 31 lb.	37.0
WGC	1280	1-1/2 x 4	6	W8 31 lb.	37.0
WA	1655	1-1/2 x 6	9	W8 40 lb.	49.0
WAC	1705	1-1/2 x 6	9	W8 40 lb.	49.0

*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.

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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 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, a typical rail heights wide and narrow gauges and unique track configurations are also available.*

Type Bumping Post	Application
WK	Recommended for industry stub end track with three car capacity or less, without descending grades to track end.
WD	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.
WDC	Same as WD but with a curved striking face for passenger car couplers.
WG	For active track, where frequent striking face contact demands greater car stopping ability. Also, for active track within buildings; metropolitan, flat switching yards and TOFC track-ends. Installation-strengthening "middle rails" can be used with this post.
WGC	Same as WG but with a curved striking face for passenger car couplers.
WA	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.
WAC	Same as WA but with a curved striking face for passenger car couplers.
WCT	General service post. Clamp to rail design. No holes to drill in rail.
WCTS	Same as WCT but with spring-loaded striking face and anti-climb ribs. For use in rapid transit service.
WP*	Portable one-piece cushion post.
WR	Special design post-heavy service for special gauge and cars. Standard or modified gauge. See page 8.

All standard Bumping Posts are made in one size which will fit any rail from 5 to 7-1/2 inches high (except Type WA which fits any rail from 5-3/8 to 8 inches high). For rail smaller than 5 inches, or larger than 7-1/2 inches please give height of rail.

NOTE: All bumping posts are sold without the HAYCO® SHOCK-FREE® CUSHION HEAD. If you are interested in this addition see pages 7 and 8 for further information. The SHOCK-FREE® HEAD slips on the contact face and assists in prolonging the life of the bumping post, providing additional cushioning and reducing lading damage.

* Consult factory for information

** Not provided with bumping post; (use locally available relay rail).

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Fix Midwest Steel Corporation Durable

Long Beach TK 2



Long Beach TK 4



Greenport	Pocket	Fixed	Midwest Steel Corp	Durable
Greenport	Main	Fixed	Midwest Steel Corp	Durable
Long Beach	2	Fixed	Midwest Steel Corp	Durable
Long Beach	4	Fixed	Midwest Steel Corp	Durable
Long Beach	7	Fixed	Midwest Steel Corp	Durable
Long Beach	10	Fixed	Midwest Steel Corp	Durable
West Hempstead	Fence	Fixed	Midwest Steel Corp	Durable

Fix

Western Cullen Hayes INC.

Type WA-10706

VD Yard - TK 1



VD Yard – TK 1



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
VD Yard	1	Fixed	Western Cullen Hayes INC.	TYPE WA - 10706
VD Yard	2	Fixed	Western Cullen Hayes INC.	TYPE WA - 10706
VD Yard	3	Fixed	Western Cullen Hayes INC.	TYPE WA - 10706
VD Yard	4	Fixed	Western Cullen Hayes INC.	TYPE WA - 10706
VD Yard	5	Fixed	Western Cullen Hayes INC.	TYPE WA - 10706
VD Yard	Switch Lead	Fixed	Western Cullen Hayes INC.	TYPE WA - 10706

Fix Western Cullen Hayes INC. Type WA

KO Yard - TK 3



KO Yard – TK 7



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Ronkonkoma	1	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	2	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	3	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	4	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	5	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	6	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	7	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	8	Fixed	Western Cullen Hayes INC.	TYPE WA
Ronkonkoma	9	Fixed	Western Cullen Hayes INC.	TYPE WA

Fix Western Cullen Hayes INC. Type WD - Modify

Far Rockaway TK 3 Yard



Atlantic – TK 3



Fix

Western Cullen Hayes INC. Type WD - Modified Locations

Bumper Blocks Locations				
Location	Track	Type	Manufacturer	Model
Long Island City	12	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
E Yard	3E	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Atlantic Terminal	3	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Far Rockaway	3 Yard	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Far Rockaway	1 Station	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Long Beach	8	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Hempstead	2	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Babylon	11	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Babylon	12	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Babylon	13	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Babylon	14	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Babylon	15	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified
Babylon	16	Fixed	Western Cullen Hayes INC.	TYPE WD - Modified

Fix
Western Cullen Hayes INC.
Type WD

LIC TK 10



Bellmont – TK 6



Fix

Western Cullen Hayes INC. Type WD Locations

Bumper Blocks Locations				
Location	Track	Type	Manufacturer	Model
Long Island City	9	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Island City	10	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Island City	11	Fixed	Western Cullen Hayes INC.	TYPE WD
E Yard	2E	Fixed	Western Cullen Hayes INC.	TYPE WD
Hall	Pocket	Fixed	Western Cullen Hayes INC.	TYPE WD
Belmont	6	Fixed	Western Cullen Hayes INC.	TYPE WD
Belmont	7	Fixed	Western Cullen Hayes INC.	TYPE WD
Ronkonkoma	10	Fixed	Western Cullen Hayes INC.	TYPE WD
Ronkonkoma	11	Fixed	Western Cullen Hayes INC.	TYPE WD
Montauk	Main	Fixed	Western Cullen Hayes INC.	TYPE WD
Montauk	5	Fixed	Western Cullen Hayes INC.	TYPE WD
Atlantic Terminal	1	Fixed	Western Cullen Hayes INC.	TYPE WD
Atlantic Terminal	2	Fixed	Western Cullen Hayes INC.	TYPE WD
Atlantic Terminal	4	Fixed	Western Cullen Hayes INC.	TYPE WD
Atlantic Terminal	5	Fixed	Western Cullen Hayes INC.	TYPE WD
Far Rockaway	2 Station	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Beach	0	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Beach	1	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Beach	5	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Beach	6	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Beach	9	Fixed	Western Cullen Hayes INC.	TYPE WD
Long Beach	11	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Washington	2	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Washington	3	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Washington	4	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Washington	5	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Washington	7	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Washington	8	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Jefferson	4 W	Fixed	Western Cullen Hayes INC.	TYPE WD
Port Jefferson	5 W	Fixed	Western Cullen Hayes INC.	TYPE WD
Hempstead	1	Fixed	Western Cullen Hayes INC.	TYPE WD
Hempstead	3	Fixed	Western Cullen Hayes INC.	TYPE WD
Hempstead	4	Fixed	Western Cullen Hayes INC.	TYPE WD
Storage	1	Fixed	Western Cullen Hayes INC.	TYPE WD
West Hempstead	Main	Fixed	Western Cullen Hayes INC.	TYPE WD
West Hempstead	Pocket	Fixed	Western Cullen Hayes INC.	TYPE WD
West Hempstead	Long Siding	Fixed	Western Cullen Hayes INC.	TYPE WD

Fix

Western Cullen Hayes INC.

Type - WDC

Bellmont – TK 1



Atlantic – TK 6



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Belmont	1	Fixed	Western Cullen Hayes INC.	TYPE WDC
Belmont	2	Fixed	Western Cullen Hayes INC.	TYPE WDC
Belmont	3	Fixed	Western Cullen Hayes INC.	TYPE WDC
Belmont	4	Fixed	Western Cullen Hayes INC.	TYPE WDC
Belmont	5	Fixed	Western Cullen Hayes INC.	TYPE WDC
Belmont	8	Fixed	Western Cullen Hayes INC.	TYPE WDC
Montauk	2	Fixed	Western Cullen Hayes INC.	TYPE WDC
Montauk	4	Fixed	Western Cullen Hayes INC.	TYPE WDC
Montauk	6	Fixed	Western Cullen Hayes INC.	TYPE WDC
Atlantic Terminal	6	Fixed	Western Cullen Hayes INC.	TYPE WDC

Fix
Western Cullen Hayes INC.
Type – WDC - Modify
Long Beach TK 3



Bumper Blocks Locations				
Location	Track	Type	Manufacturer	Model
Long Beach	3	Fixed	Western Cullen Hayes INC.	TYPE WDC - Modified

Fix

Western Cullen Hayes INC.

Type – WK

Port Jefferson - Tail



Tag



Bumper Blocks Locations				
Location	Track	Type	Manufacturer	Model
Port Jefferson	Tail	Fixed	Western Cullen Hayes INC.	TYPE WK

Fix Custom

**Manufacturer Unknown
Far Rockaway TK – 2 Yard**



**Western Railroad Supply
Port Washington TK 6**



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Far Rockaway	2 Yard	Fixed		Custom
Port Washington	1	Fixed	Western Railroad Supply	Custom
Port Washington	6	Fixed	Western Railroad Supply	Custom

Fix

**The Mechanical MFC. Co. Chicago
Montauk Tail Track**



**Manufacturer Unknown
Montauk Track 3**



Bumper Blocks Locations

Location	Track	Type	Manufacturer	Model
Montauk	3	Fixed	Unknown	Wheel Stop
Montauk	Tail	Fixed	The Mechanical MFG. Co.Chicago	