

**LOUDEN**®

**MONORAIL AND CRANE  
SYSTEM TRACK**

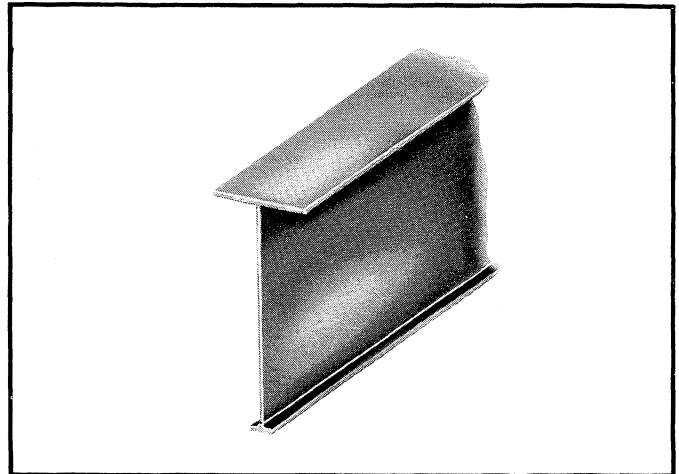
**TROJANTRACK™ GIRDER WITH  
3.33" OPERATING FLANGE**

**LOUDEN TROJANTRACK™ GIRDER**

*Louden 3.33" flange TrojanTrack* has the strongest track flange of any of our specially rolled monorail track sections. The operating flange design and metalurgy offer a track capable of sustaining large wheel loads under rugged heavy-duty service, while minimizing peening and wear.

Never used by itself as a track, the *TrojanTrack* section is used as the operating flange of continuously welded girders. The girder web and top flange are fabricated from steel plate continuously welded to form the girder track section. These girders are of sufficient depth to permit the use of large diameter wheels to move extremely heavy loads under punishing requirements with dependable performance and durability.

Each piece of *Louden TrojanTrack Girder* is fabricated, and cut to exact length. All holes are in place, all curves are prepared to layout specifications, and all equipment is shipped from the factory ready for erection.



*Louden TrojanTrack Girders* are designed for maximum economy of weight with maximum structural value as a load carrying member.

Trolleys for this track are illustrated in Catalog Section 403T and switches are illustrated in Catalog Section 703T. A complete line of hangers and other fittings is shown in Catalog Section 607.

FEATURES	BENEFITS
Uniform thickness of running tread with published dimensions.	Full metal thickness from fillet to edge of flange provides maximum load carrying capacity. Dimensions are known, with no reduction of metal from fillet to flange.
Published chemical content and physical properties of running tread.	Assures that long wearing and peen-resistant metalurgy is used which meets or exceeds monorail manufacturer's specifications.
Full 13/16" tread thickness.	Able to withstand extremely heavy wheel loads and the punishment of the most severe duty systems.
Flat running tread.	Allows the use of flat tread wheels on which the radius of the wheel is uniform across the width of the running surface or "Footprint". Prevents wheel tread slip, minimizing tread wear and peening.
Efficient girder design.	Web and top flange are computer matched with the high carbon flange, for maximum load carrying capacity with minimum weight.
Web and top flange offset.	Allows easy alignment of the running flange of adjacent girders at splices. Provides extra clearance for ease of installation.
Fully manufactured at factory.	All girders are welded, straightened, and all splice holes, hanger holes, as well as electrification holes are in place before painting and shipment, for easier and faster installation.
The LOUDEN® Trademark.	Being the originators of the underhung monorail and crane industry, the user is assured of the ultimate in design, manufacturing and application expertise when purchasing a system which will most completely satisfy his particular requirements.



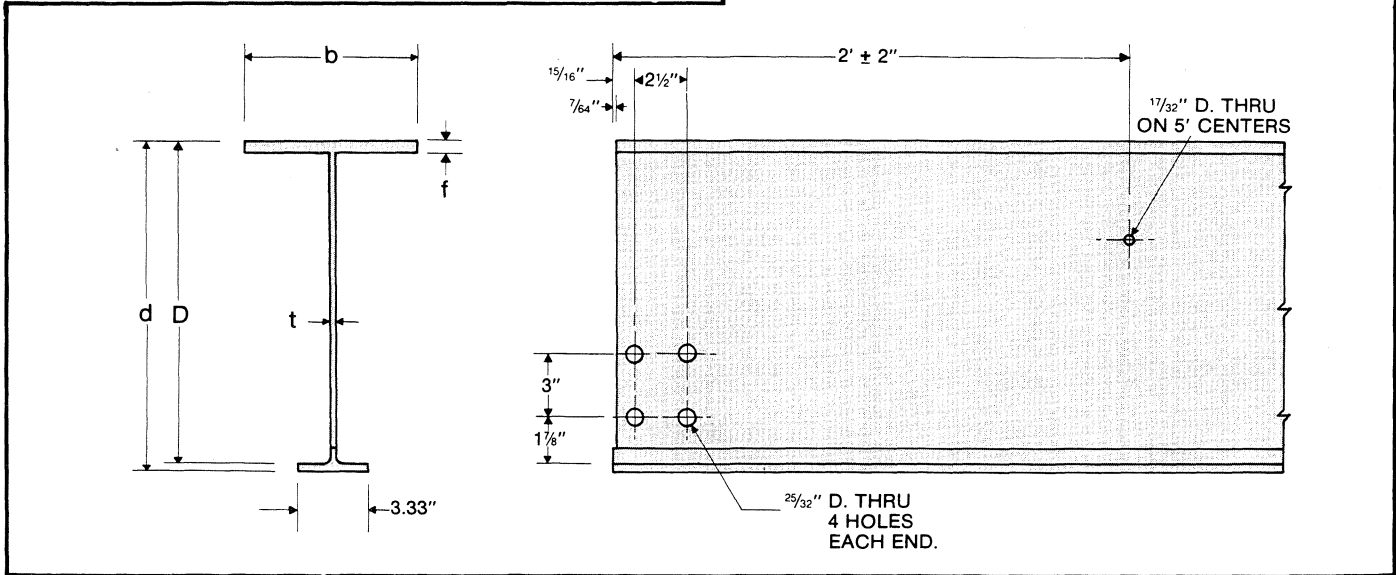
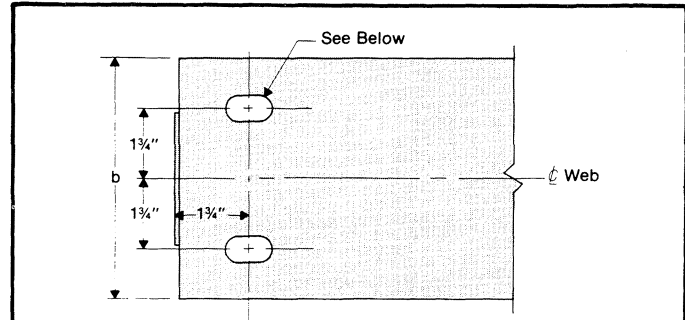
**LOUDEN® MONORAIL AND CRANE SYSTEM TRACK  
TROJANTRACK™ GIRDER WITH 3.33" OPERATING FLANGE**

605-2  
Issued 9-7-01

**LOUDEN TROJANTRACK™ GIRDER**

**Operating Flange Specifications:**

Min. Carbon Content .....	.50
Min. Manganese Content .....	1.00
Min. Ult. Tensile .....	115,000 psi
Min. Yield Point .....	78,500 psi
Min. Brinnell Hardness .....	225
Bottom Flange Width .....	3.33"
Tread Thickness .....	13/16"



Cat. No.	605.1235	605.1543	605.1850	605.2166	605.2474	605.2785	605.3089	605.3292
Wt./Ft.	35 lbs.	43 lbs.	50 lbs.	66 lbs.	74 lbs.	85 lbs.	89 lbs.	92 lbs.
D	12"	15"	18"	21"	24"	27"	30"	32"
d	12-13/16"	15-13/16"	18-13/16"	21-13/16"	24-13/16"	27-13/16"	30-13/16"	32-13/16"
b	6"	8"	10"	12"	14"	14"	14"	14"
f	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
t	5/16"	5/16"	5/16"	7/16"	7/16"	7/16"	7/16"	7/16"

Each piece of girder track is furnished with standard splice punching at each end and two slotted holes at each end of the top flange as shown above. Nominal slot length is twice the hole size but does not exceed 2". Hole size must be specified as shown at right.

Maximum permissible Wheel Load on 605 type TrojanTrack and 605 Type Super TrojanTrack

605 TrojanTrack - 3,750# per Wheel - 7,500# per 2-Wheel Trolley  
605 Super TrojanTrack - 5,000# per Wheel - 10,000# per 2-Wheel Trolley

\*Super TrojanTrack requires 3/4" minimum Top Flange, 7/16" web plate splices must be welded

N.A. - Not Available

		Top Flange Hole Sizes				
		Bolt Size				
Flange Thickness		5/8"	3/4"	7/8"	1"	1 1/8"
	5/8"		1 1/16"	1 3/16"	1 5/16"	N.A.
3/4"		N.A.	1 3/16"	1 5/16"	1 1/16"	1 3/16"



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**LOUDEN® TROJANTRACK™ GIRDER TRACK EQUIVALENT CENTER  
LOADS SPAN/450 - DEFLECTION LIMITED TO 1.25"**

605-3  
Issued 9-7-01

SPAN	605.1235	605.1543	605.1850	605.2166	605.2474	605.2785	605.3089	605.3292	SPAN
10	25057 s	30950 s	36686 s	57748 s	65304 s	72584 s	71773 s	76238 s	10
11	25040 s	30929 s	36661 s	57716 s	65267 s	72542 s	71728 s	76192 s	11
12	25023 s	30908 s	36636 s	57683 s	65230 s	72500 s	71684 s	76146 s	12
13	23305 t	30887 s	36611 s	57412 t	65193 s	72458 s	71639 s	76100 s	13
14	21607 t	29689 t	36586 s	53248 t	65156 s	72416 s	71595 s	76054 s	14
15	20133 t	27669 t	36009 t	49635 t	61365 t	72374 s	71551 s	76008 s	15
16	17877 c	25899 t	33710 t	46469 t	57457 t	69649 t	71506 s	75963 s	16
17	15786 c	24334 t	31679 t	43672 t	54006 t	65470 t	71462 s	75917 s	17
18	14032 c	22942 t	29871 t	41183 t	50933 t	61751 t	71418 s	75871 s	18
19	12544 c	21693 t	28250 t	38951 t	48181 t	58419 t	68428 t	75446 t	19
20	11271 c	19885 c	26789 t	36940 t	45699 t	55416 t	64920 t	71585 t	20
21	10174 c	17976 c	25465 t	35117 t	43451 t	52695 t	61742 t	68086 t	21
22	9220 c	16318 c	24259 t	33457 t	41403 t	50217 t	58849 t	64902 t	22
23	8386 c	14870 c	23084 c	31939 t	39531 t	47951 t	56203 t	61990 t	23
24	7652 c	13596 c	21129 c	30544 t	37811 t	45871 t	53775 t	59318 t	24
25	7002 c	12469 c	19401 c	28610 c	36226 t	43953 t	51537 t	56105 c	25
26	6423 c	11467 c	17866 c	26358 c	34060 t	42180 t	49468 t	51740 c	26
27	5906 c	10573 c	16495 c	24347 c	32947 c	40535 t	47176 c	47846 c	27
28	5441 c	9770 c	15266 c	22544 c	30528 c	39005 t	43738 c	44357 c	28
29	5022 c	9047 c	14159 c	20922 c	28352 c	37577 t	40645 c	41217 c	29
30	4643 c	8392 c	13159 c	19455 c	26386 c	36242 t	37852 c	38382 c	30
31		7799 c	12252 c	18125 c	24603 c	34567 c	35320 c	35813 c	31
32		7257 c	11426 c	16915 c	22982 c	32317 c	33018 c	33476 c	32
33		6763 c	10672 c	15810 c	21502 c	30266 c	30918 c	31345 c	33
34		6309 c	9981 c	14799 c	20148 c	28389 c	28997 c	29394 c	34
35		5893 c	9347 c	13870 c	18905 c	26667 c	27234 c	27605 c	35
36		5508 c	8762 c	13015 c	17762 c	25083 c	25613 c	25959 c	36
37		5153 c	8222 c	12225 c	16706 c	23623 c	24118 c	24441 c	37
38		4824 c	7723 c	11495 c	15730 c	22273 c	22735 c	23037 c	38
39		4518 c	7259 c	10817 c	14826 c	21022 c	21455 c	21737 c	39
40		4233 c	6828 c	10188 c	13985 c	19861 c	20265 c	20530 c	40
41			6427 c	9601 c	13203 c	18780 c	19159 c	19406 c	41
42			6052 c	9054 c	12473 c	17773 c	18128 c	18359 c	42
43			5701 c	8542 c	11791 c	16833 c	17164 c	17380 c	43
44			5372 c	8062 c	11153 c	15953 c	16263 c	16465 c	44
45			5063 c	7612 c	10554 c	15128 c	15418 c	15607 c	45
46			4773 c	7189 c	9992 c	14354 c	14625 c	14801 c	46
47			4499 c	6790 c	9462 c	13625 c	13879 c	14043 c	47
48			4240 c	6414 c	8963 c	12940 c	13176 c	13329 c	48
49			3996 c	6059 c	8492 c	12293 c	12513 c	12656 c	49
50			3765 c	5723 c	8047 c	11683 c	11887 c	12020 c	50
51				5404 c	7626 c	11105 c	11295 c	11418 c	51
52				5102 c	7226 c	10558 c	10734 c	10849 c	52
53				4815 c	6847 c	10039 c	10203 c	10308 c	53
54				4542 c	6487 c	9547 c	9698 c	9795 c	54
55				4283 c	6144 c	9079 c	9217 c	9307 c	55
56				4035 c	5817 c	8633 c	8760 c	8842 c	56
57				3798 c	5506 c	8209 c	8325 c	8400 c	57
58				3572 c	5208 c	7804 c	7910 c	7977 c	58
59					4924 c	7417 c	7513 c	7574 c	59
60					4652 c	7048 c	7134 c	7188 c	60
61					4392 c	6694 c	6771 c	6819 c	61
62					4142 c	6356 c	6423 c	6466 c	62
63					3902 c	6031 c	6090 c	6127 c	63
64					3672 c	5720 c	5770 c	5801 c	64
65					3450 c	5420 c	5463 c	5489 c	65
66					3237 c	5133 c	5167 c	5188 c	66
67						4856 c	4883 c	4899 c	67
68						4590 c	4609 c	4620 c	68
69						4333 c	4346 c	4352 c	69
70						4086 c	4091 c	4093 c	70

**NOTES:**

- Figures shown are allowable Equivalent Center Loads (ECL's) at the span as if developed by a single two-wheel trolley. Refer to ECL calculations for loads on four, eight and 16 wheel units, in section 1100 (Engineering).
- The ECL's shown are limited by tension of the bottom flange, compression of the top flange, deflection of the beam and shear. These are indicated by the letters t, c, d & s, respectively, in accordance with ANSI MH 27.1 1981.
- The weight of the girder has been considered and need not be deducted in load calculations.
- These figures are for crane runways and monorail track where deflection is limited to 1/450 of the span, with a maximum deflection of 1.25".
- The maximum ratio of span to depth of the girder has been limited to 32 to avoid a spring-like condition not desirable in most installations.
- The maximum ratio of span to top flange width is limited to 60.
- Special girders may be constructed to meet load/depth/span conditions not shown here. Consult the factory for special girders.



**LOUDEN® TROJANTRACK™ GIRDER TRACK EQUIVALENT CENTER LOADS SPAN/600 - DEFLECTION LIMITED TO 1.25"**

605-4  
Issued 9-7-01

SPAN	605.1235	605.1543	605.1850	605.2166	605.2474	605.2785	605.3089	605.3292	SPAN
10	25057 s	30950 s	36686 s	57748 s	65304 s	72584 s	71773 s	76238 s	10
11	25040 s	30929 s	36661 s	57716 s	65267 s	72542 s	71728 s	76192 s	11
12	25023 s	30908 s	36636 s	57683 s	65230 s	72500 s	71684 s	76146 s	12
13	23305 t	30887 s	36611 s	57412 t	65193 s	72458 s	71639 s	76100 s	13
14	21607 t	29689 t	36586 s	53248 t	65156 s	72416 s	71595 s	76054 s	14
15	19589 d	27669 t	36009 t	49635 t	61365 t	72374 s	71551 s	76008 s	15
16	17156 d	25899 t	33710 t	46469 t	57457 t	69649 t	71506 s	75963 s	16
17	15136 d	24334 t	31679 t	43672 t	54006 t	65470 t	71462 s	75917 s	17
18	13439 d	22942 t	29871 t	41183 t	50933 t	61751 t	71418 s	75871 s	18
19	12000 d	21693 t	28250 t	38951 t	48181 t	58419 t	68428 t	75446 t	19
20	10768 d	19856 d	26789 t	36940 t	45699 t	55416 t	64920 t	71585 t	20
21	9705 d	17934 d	25465 t	35117 t	43451 t	52695 t	61742 t	68086 t	21
22	8780 d	16265 d	24259 t	33457 t	41403 t	50217 t	58849 t	64902 t	22
23	7971 d	14806 d	23084 c	31939 t	39531 t	47951 t	56203 t	61990 t	23
24	7258 d	13522 d	21129 c	30544 t	37811 t	45871 t	53775 t	59318 t	24
25	6626 d	12386 d	19401 c	28610 c	36226 t	43953 t	51537 t	56105 c	25
26	6064 d	11375 d	17866 c	26358 c	34760 t	42180 t	49468 t	51740 c	26
27	5560 d	10472 d	16495 c	24347 c	32947 c	40535 t	47176 c	47846 c	27
28	5107 d	9661 d	15266 c	22544 c	30528 c	39005 t	43738 c	44357 c	28
29	4698 d	8930 d	14159 c	20922 c	28352 c	37577 t	40645 c	41217 c	29
30	4327 d	8268 d	13159 c	19455 c	26386 c	36242 t	37852 c	38382 c	30
31		7667 d	12252 c	18125 c	24603 c	34567 c	35320 c	35813 c	31
32		7118 d	11426 c	16915 c	22982 c	32317 c	33018 c	33476 c	32
33		6617 d	10672 c	15810 c	21502 c	30266 c	30918 c	31345 c	33
34		6157 d	9981 c	14799 c	20148 c	28389 c	28997 c	29394 c	34
35		5733 d	9347 c	13870 c	18905 c	26667 c	27234 c	27605 c	35
36		5342 d	8762 c	13015 c	17762 c	25083 c	25613 c	25959 c	36
37		4980 d	8222 c	12225 c	16706 c	23623 c	24118 c	24441 c	37
38		4644 d	7723 c	11495 c	15730 c	22273 c	22735 c	23037 c	38
39		4332 d	7259 c	10817 c	14826 c	21022 c	21455 c	21737 c	39
40		4041 d	6828 c	10188 c	13985 c	19861 c	20265 c	20530 c	40
41			6427 c	9601 c	13203 c	18780 c	19159 c	19406 c	41
42			6052 c	9054 c	12473 c	17773 c	18128 c	18359 c	42
43			5701 c	8542 c	11791 c	16833 c	17164 c	17380 c	43
44			5372 c	8062 c	11153 c	15953 c	16263 c	16465 c	44
45			5063 c	7612 c	10554 c	15128 c	15418 c	15607 c	45
46			4773 c	7189 c	9992 c	14354 c	14625 c	14801 c	46
47			4499 c	6790 c	9462 c	13625 c	13879 c	14043 c	47
48			4240 c	6414 c	8963 c	12940 c	13176 c	13329 c	48
49			3993 d	6059 c	8492 c	12293 c	12513 c	12656 c	49
50			3743 d	5723 c	8047 c	11683 c	11887 c	12020 c	50
51				5404 c	7626 c	11105 c	11295 c	11418 c	51
52				5102 c	7226 c	10558 c	10734 c	10849 c	52
53				4815 c	6847 c	10039 c	10203 c	10308 c	53
54				4542 c	6487 c	9547 c	9698 c	9795 c	54
55				4283 c	6144 c	9079 c	9217 c	9307 c	55
56				4035 c	5817 c	8633 c	8760 c	8842 c	56
57				3798 c	5506 c	8209 c	8325 c	8400 c	57
58				3572 c	5208 c	7804 c	7910 c	7977 c	58
59					4924 c	7417 c	7513 c	7574 c	59
60					4652 c	7048 c	7134 c	7188 c	60
61					4392 c	6694 c	6771 c	6819 c	61
62					4142 c	6356 c	6423 c	6466 c	62
63					3902 c	6031 c	6090 c	6127 c	63
64					3672 c	5720 c	5770 c	5801 c	64
65					3450 c	5420 c	5463 c	5489 c	65
66					3237 c	5133 c	5167 c	5188 c	66
67						4856 c	4883 c	4899 c	67
68						4590 c	4609 c	4620 c	68
69						4333 c	4346 c	4352 c	69
70						4086 c	4091 c	4093 c	70

- NOTES:**
- Figures shown are allowable Equivalent Center Loads (ECL's) at the span as if developed by a single two-wheel trolley. Refer to ECL calculations for loads on four, eight and 16 wheel units, in section 1100 (Engineering).
  - The ECL's shown are limited by tension of the bottom flange, compression of the top flange, deflection of the beam and shear. These are indicated by the letters t, c, d & s, respectively, in accordance with ANSI MH 27.1 1981.
  - The weight of the girder has been considered and need not be deducted in load calculations.
  - These figures are for crane runways and monorail track where deflection is limited to 1/600 of the span, with a maximum deflection of 1.25".
  - The maximum ratio of span to depth of the girder has been limited to 32 to avoid a spring-like condition not desirable in most installations.
  - The maximum ratio of span to top flange width is limited to 60.
  - Special girders may be constructed to meet load/depth/span conditions not shown here. Consult the factory for special girders.**



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**605.1235, 605.15\* TROJANTRACK™**  
**GIRDER TRACK CURVES FOR USE WITH UP TO**  
**15,000 LB. CAP. 4-WHEEL TROLLEY**

**SPECIAL CURVE INFORMATION**

Standard tangent length for square cut end is 12". For tangent lengths shorter than 12" see Cutting Charge on price page. 5" minimum tangent length.

Minimum tangent length for an angle cut is 14".

Minimum center straight for "S" curve is 12".

Maximum overall length is 20'-0".

Minimum radius is 5'-0".

Hangers are required within 12" of the tangent points and at the center of the arc for up to 45 degrees and up to a maximum of 10' radius. Add hangers if 10' radius is exceeded. See Fig. 1.

Hangers are required within 12" of the tangent points and at the 3rd points in the arc for up to 90 degrees and from 6' to 10' radius. Add hangers if 10' radius is exceeded. See Fig. 2.

\*Note: All 605 series Special Curves have a 6" top flange.

