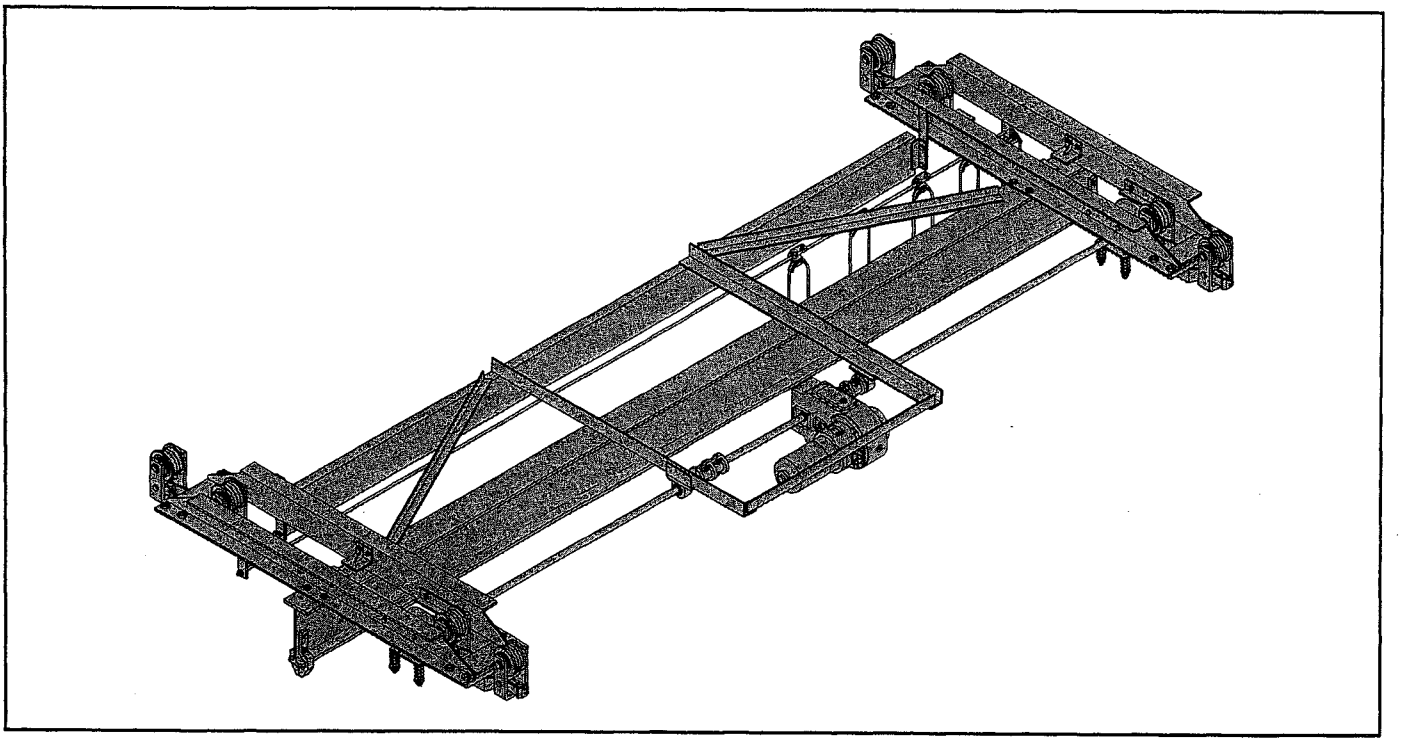
Single Girder, Motor Propelled Cranes With Center Drive, To Operate on Two-Runways of 603 Supertrack, 604 Supertrack Girder, or 605 Trojan Track Girder, 3.33″ Operating Flange, For Use With Electric, Air, or Hand Chain Hoists



The Louden Series 503 center drive crane is offered in capacities of 1 through 5 tons, with spans to 58 feet. Standard bridge speeds are 75 and 135 F.P.M., single speed. Optional travel speeds (single speed) are 50, 110, 165, 190, and 225 F.P.M. Other optional speeds are 2-speed, and variable speed. High speeds listed above.

All speeds, except variable, will have adjustable torque and speed ramps through the use of the Acco Acceleration Control Module, a solid state device providing smooth bridge motion and excellent load control. Variable speed incorporates inverter control.

Standard crane motors are T.E.N.V., 30 minute, with Class F insulation, 55 degree rise over 60 degree ambient. All crane motors will have an AC disc brake as standard.

Available current characteristics are 460/230 volts, 3 phase, 60 Hertz, with 115 volt control circuit.

The gear reducer utilizes Helical gears cut from solid blanks to AGMA specifications. All gears are supported at both ends of the gear shaft by tapered roller bearings, and are enclosed in an oil-tight housing and run in an oil bath.

The drive tires are spring loaded to the underside of the runways, enabling all load wheels to be idler wheels. Load wheels are drop forged and hardened to 425 Brinnel minimum. Wheels are flanged, with 4½ inch tread diameter, and bearings are double row ball or tapered roller type.

Standard electrical equipment includes NEMA type 12 enclosure, a mainline magnetic contactor, manually operated fused mainline disconnect switch with lock out provision, branch circuit fuses, single speed magnetic reversing contactor, transformer with fused secondary, and flat wire festoon tagline bridge electrification. Festooning will consist of four power conductors and eight control conductors.

Each crane is custom designed to fit the structure from which it is to be supported. It is designed to meet or exceed the standards of the Monorail Manufactures Association and ANSI specification #MH27.1-1996.

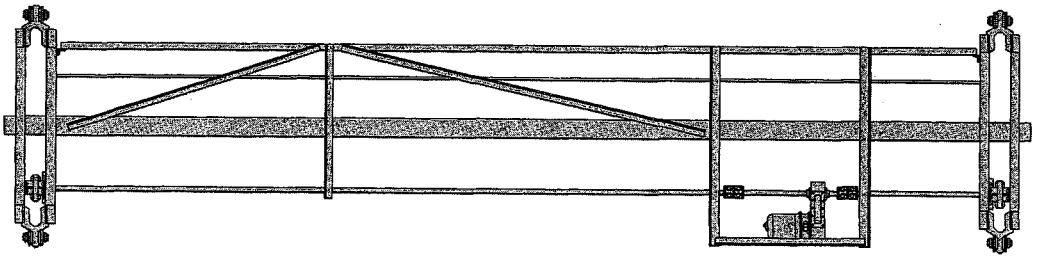
The 503 series crane is designed for Class C moderate service (as defined by the above ANSI standard).

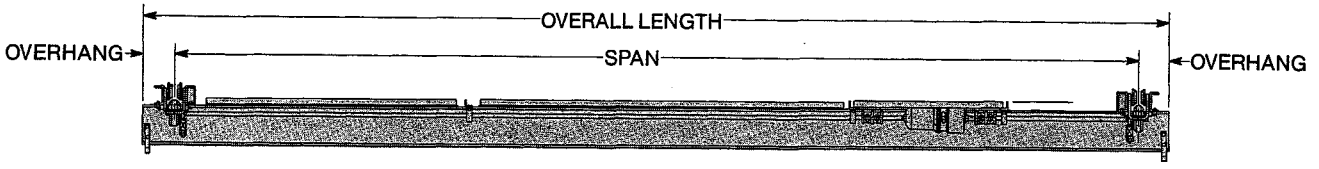
The crane is fully assembled before shipment, including the tagline festoon system. The crane will be painted with one coat of yellow lead free alkyd enamel.

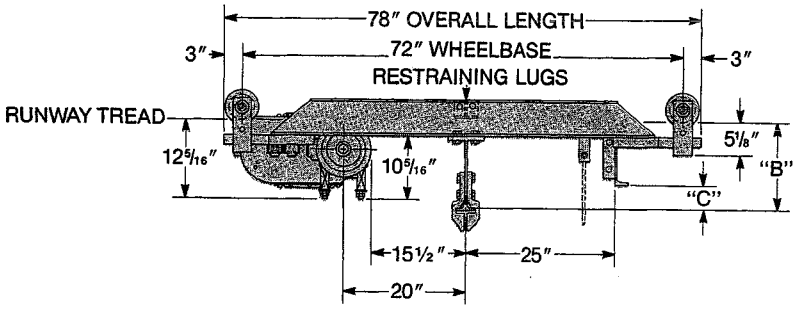
WARNING: Equipment described herein is not designed for and should not be used for lifting, supporting or transporting humans. Use of the equipment for this purpose can result in serious bodily injury and/or property damage.

Louden® 503 SINGLE GIRDER MOTOR PROPELLED CRANES WITH CENTER DRIVE

503-2
Issued 9-7-01







NOTES:
1. Speeds shown are based on using 1800 R.P.M. motors.
2. Horsepowers shown are based on using single speed motors.
3. Available non-standard speeds are: 50, 110, 165, 190, 255 F.P.M.
4. Standard 2-speed motors are 1800/600 R.P.M.
5. Design load = Live load, plus 15% live load for impact, plus 1,290 lbs. for hoist and trolley.
6. Maximum permissible wheel load on 603 Supertrack and 604 type Supertrack Girder is 2,500 lbs. (5,000 lbs. per two-wheel trolley). For 605 Trojan Track Girder the limitation is 3,750 lbs. (7500 lbs. per two-wheel trolley) when transferring through 505.7830 latch; 5,000 lbs. (10,000 lbs. per two-wheel trolley) when captive on bridge, or when used on Super-Trojan Track Runways. (Super-Trojan Track requires .7500 in. min. thickness of top flange, .4375 in. min. thickness of web, and splices must be welded rather than bolted.)
7. Weights shown are based on single speed drive with brake and controls, flat-wire festoon tagline bridge electrification, and 12" overhang each end of bridge.
8. Calculated for this crane.
9. B = Girder depth plus 2" (Trd. To Trd.)

Max. Span Ft.	Bridge Girder Required	Crane Weight (Lbs.)	Motor H.P. Speed (F.P.M.) 75	135	OVERHANG In. Std.	In. Min.	In. Max.	505.7824 Latch	505.7830 Latch	Truck Capacity (Max.)	Wheel Load Per Pair (8)	Idler Trl. Wheel & Axle	Dim. "C"
Catalog Number 503.2003						**2,000 lbs. Capacity**						**3,590 lbs. Design Load[5]**	
22	604.924	2257	¾	¾	12	7	18	15	13½	5,000	2,360	28-0882	1"
24	604.1231	2724	¾	¾	12	7	18	15	13½	5,000	2,477	28-0882	2"
26	604.1231	2815	¾	¾	12	7	18	15	13½	5,000	2,500	28-0882	2"
28	604.1231	2906	¾	¾	12	7	18	15	13½	10,000	2,522	28-0593	2"
30	604.1231	2997	¾	¾	12	7	18	15	13½	10,000	5,545	28-0593	2"
32	604.1435	3312	¾	¾	12	7	18	15	13½	10,000	2,623	28-0593	4"
34	604.1435	3418	¾	¾	12	7	18	15	13½	10,000	2,650	28-0593	4"
36	604.1435	3524	¾	¾	12	7	18	15	13½	10,000	2,676	28-0593	2"
38	604.1538	3751	¾	¾	12	7	18	15	13½	10,000	2,733	28-0593	3"
40	604.1538	3861	¾	¾	12	7	18	15	13½	10,000	2,761	28-0593	3"
42	604.1846	4367	¾	1	12	7	18	15	13½	10,000	2,887	28-0593	6"
44	604.1846	4493	¾	1	12	7	18	15	13½	10,000	2,919	28-0593	5"
46	604.1846	5363	¾	1	12	7	18	15	13½	10,000	3,136	28-0593	4"
48	604.1846	5505	¾	1	12	7	18	15	13½	10,000	3,172	28-0593	4"
50	604.2153	6211	¾	1	12	7	18	15	13½	10,000	3,348	28-0593	7"
52	604.2153	6367	¾	1	12	7	18	15	13½	10,000	3,387	28-0593	7"
54	604.2153	6523	¾	1	12	7	18	15	13½	10,000	3,426	28-0593	7"
56	605.2166	7695	¾	1	12	7	18	15	13½	10,000	3,719	28-0593	5"
58	605.2166	7885	¾	1	12	7	18	15	13½	10,000	3,767	28-0593	5"

WARNING: Equipment described herein is not designed for and should not be used for lifting, supporting or transporting humans. Use of the equipment for this purpose can result in serious bodily injury and/or property damage.

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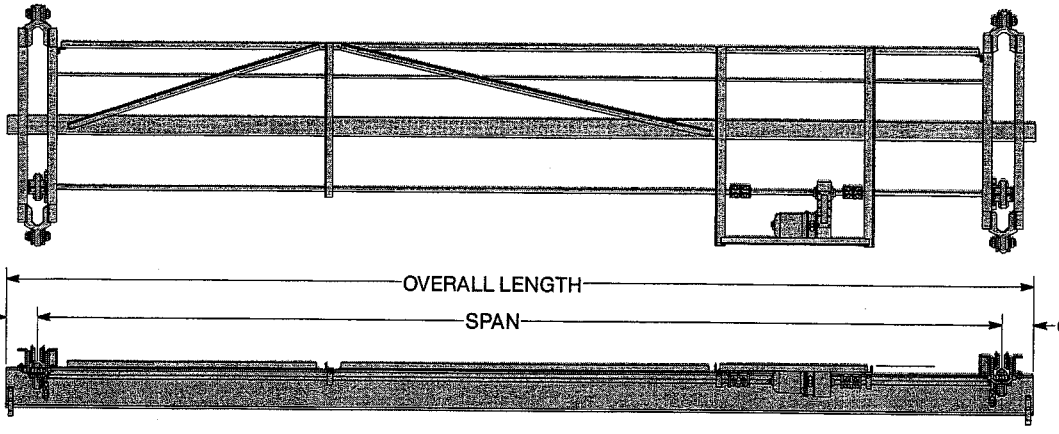
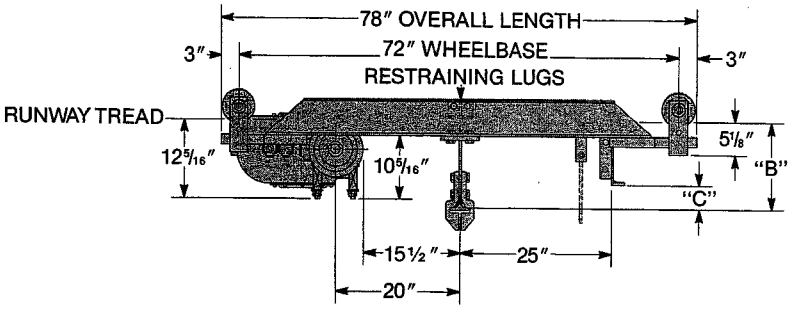
LOUDEN® 503 SINGLE GIRDER MOTOR PROPELLED CRANES WITH CENTER DRIVE

503-3
Issued 9-7-01





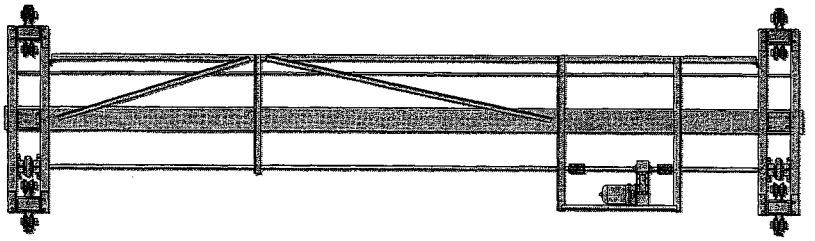
NOTES:
1. Speeds shown are based on using 1800 R.P.M. motors.
2. Horsepowers shown are based on using single speed motors.
3. Available non-standard speeds are: 50, 110, 165, 190, 255 F.P.M.
4. Standard 2-speed motors are 1800/600 R.P.M.
5. Design load = Live load, plus 15% live load for impact, plus 2,000 lbs. for hoist and trolley.
6. Maximum permissible wheel load on 603 Supertrack and 604 type Supertrack Girder is 2,500 lbs. (5,000 lbs. per two-wheel trolley). For 605 Trojan Track Girder the limitation is 3,750 lbs. (7500 lbs. per two-wheel trolley) when transferring through 505.7830 latch; 5,000 lbs. (10,000 lbs. per two-wheel trolley) when captive on bridge, or when used on Super-Trojan Track Runways. (Super-Trojan Track requires .7500 in. min. thickness of top flange, .4375 in. min. thickness of web, and splices must be welded rather than bolted.)
7. Weights shown are based on single speed drive with brake and controls, flat-wire festoon tagline bridge electrification, and 12" overhang each end of bridge.
8. Calculated for this crane.
9. B = Girder depth plus 2" (Trd. To Trd.)

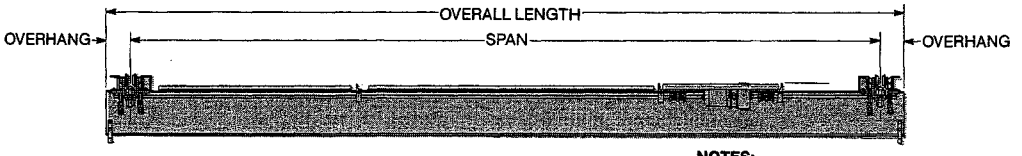
Max. Span Ft.	Bridge Girder Required	Crane Weight (Lbs.)	Motor H.P. Speed (F.P.M.) 75	135	OVERHANG In. Std.	In. Min.	In. Max.	505.7824 Latch	505.7830 Latch	Truck Capacity (Max.)	Wheel Load Per Pair (8)	Idler Trl. Wheel & Axle	Dim. "C"
Catalog Number 503.4003							**4,000 lbs. Capacity**					**6,600 lbs. Design Load[5]**	
18	604.1231	2217	¾	1	12	7	18	15	13½	10,000	3,855	28-0593	4"
20	604.1231	2374	¾	1	12	7	18	15	13½	10,000	3,894	28-0593	4"
22	604.1231	2465	¾	1	12	7	18	15	13½	10,000	3,917	28-0593	4"
24	604.1231	2556	¾	1	12	7	18	15	13½	10,000	3,940	28-0593	4"
26	604.1435	2999	¾	1	12	7	18	15	13½	10,000	4,050	28-0593	6"
28	604.1435	3097	¾	1	12	7	18	15	13½	10,000	4,074	28-0593	6"
30	604.1538	3289	¾	1	12	7	18	15	13½	10,000	4,123	28-0593	5"
32	604.1538	3401	¾	1	12	7	18	15	13½	10,000	4,151	28-0593	5"
34	604.1846	3801	¾	1	12	7	18	15	13½	10,000	4,251	28-0593	8"
36	604.1846	4149	¾	1	12	7	18	15	13½	10,000	4,338	28-0593	6"
38	604.1846	4275	¾	1	12	7	18	15	13½	10,000	4,369	28-0593	6"
40	604.1846	4401	¾	1	12	7	18	15	13½	10,000	4,401	28-0593	6"
42	604.2153	5320	¾	1	12	7	18	15	13½	10,000	4,630	28-0593	9"
44	604.2153	5460	¾	1	12	7	18	15	13½	10,000	4,665	28-0593	9"
46	604.2153	5924	¾	1	12	7	18	15	13½	10,000	4,781	28-0593	7"
48	604.2153	6080	¾	1	12	7	18	15	13½	10,000	4,820	28-0593	7"
50	605.2166	7627	¾	1½	12	8½	18	17	15	20,000	2,604	28-0593	7"
52	605.2166	7809	¾	1½	12	8½	18	17	15	20,000	2,627	28-0593	7"
54	605.2474	8403	¾	1½	12	8½	18	17	15	20,000	2,701	28-0593	10"
56	605.2474	8609	¾	1½	12	8½	18	17	15	20,000	2,727	28-0593	8"
58	605.2474	8815	¾	1½	12	8½	18	17	15	20,000	2,752	28-0593	8"

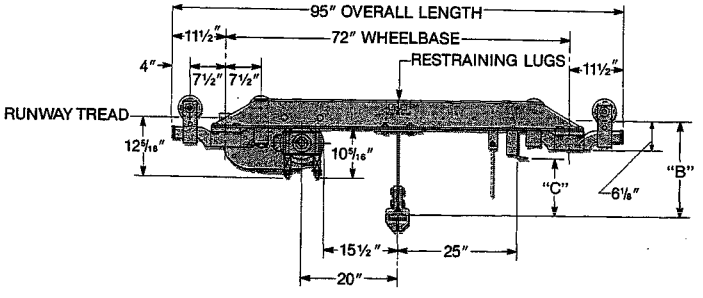
WARNING: Equipment described herein is not designed for and should not be used for lifting, supporting or transporting humans. Use of the equipment for this purpose can result in serious bodily injury and/or property damage.

LOUDEN® 503 SINGLE GIRDER MOTOR PROPELLED CRANES WITH CENTER DRIVE

503-4
Issued 9-7-01







NOTES:
1. Speeds shown are based on using 1800 R.P.M. motors.
2. Horsepowers shown are based on using single speed motors.
3. Available non-standard speeds are: 50, 110, 165, 190, 255 F.P.M.
4. Standard 2-speed motors are 1800/600 R.P.M.
5. Design load = Live load, plus 15% live load for impact, plus 2,000 lbs. for hoist and trolley.
6. Maximum permissible wheel load on 603 Supertrack and 604 type Supertrack Girder is 2,500 lbs. (5,000 lbs. per two-wheel trolley). For 605 Trojan Track Girder the limitation is 3,750 lbs. (7500 lbs. per two-wheel trolley) when transferring through 505.7830 latch; 5,000 lbs. (10,000 lbs. per two-wheel trolley) when captive on bridge, or when used on Super-Trojan Track Runways. (Super-Trojan Track requires .7500 in. min. thickness of top flange, .4375 in. min. thickness of web, and splices must be welded rather than bolted.)
7. Weights shown are based on single speed drive with brake and controls, flat-wire festoon tagline bridge electrification, and 12" overhang each end of bridge.
8. Calculated for this crane.
9. B = Girder depth plus 2" (Trd. To Trd.)

Max. Span Ft.	Bridge Girder Required	Crane Weight (Lbs.)	Motor H.P. Speed (F.P.M.) 75	Motor H.P. Speed (F.P.M.) 135	OVERHANG In. Std.	OVERHANG In. Min.	OVERHANG In. Max.	OVERHANG 505.7824 Latch	OVERHANG 505.7830 Latch	Truck Capacity (Max.)	Wheel Load Per Pair (8)	Idler Trl. Wheel & Axle	Dim. "C"
Catalog Number 503.6003						**6,000 lbs. Capacity**						**8,900 lbs. Design Load[5]**	
14	604.924	1807	¾	1	12	7	18	15	13½	10,000	4,903	28-0593	3"
16	604.1231	2154	¾	1	12	7	18	15	13½	10,000	4,989	28-0593	6"
18	604.1231	2665	¾	1	12	7	18	17	15	20,000	2,558	28-0593	4"
20	604.1231	2756	¾	1	12	8½	18	17	15	20,000	2,570	28-0593	4"
22	604.1435	2944	¾	1	12	8½	18	17	15	20,000	2,593	28-0593	6"
24	604.1435	3130	¾	1	12	8½	18	17	15	20,000	2,617	28-0593	6"
26	604.1538	3310	¾	1	12	8½	18	17	15	20,000	2,639	28-0593	7"
28	604.1538	3415	¾	1	12	8½	18	17	15	20,000	2,652	28-0593	7"
30	604.1846	3869	¾	1	12	8½	18	17	15	20,000	2,709	28-0593	8"
32	604.1846	4157	¾	1	12	8½	18	17	15	20,000	2,745	28-0593	8"
34	604.1846	4283	¾	1	12	8½	18	17	15	20,000	2,761	28-0593	8"
36	604.1846	4409	¾	1	12	8½	18	17	15	20,000	2,777	28-0593	6"
38	604.2153	4923	¾	1	12	8½	18	17	15	20,000	2,841	28-0593	9"
40	604.2153	5073	¾	1½	12	8½	18	17	15	20,000	2,860	28-0593	9"
42	604.2153	5213	¾	1½	12	8½	18	17	15	20,000	2,877	28-0593	9"
44	604.2153	5343	¾	1½	12	8½	18	17	15	20,000	2,893	28-0593	9"
46	605.2166	6845	¾	1½	12	8½	18	17	15	20,000	3,081	28-0593	7"
48	605.2166	7027	¾	1½	12	8½	18	17	15	20,000	3,104	28-0593	7"
50	605.2474	7787	¾	1½	12	8½	18	17	15	20,000	3,199	28-0593	10"
52	605.2474	7985	¾	1½	12	8½	18	17	15	20,000	3,224	28-0593	10"
54	605.2474	8183	¾	1½	12	8½	18	17	15	20,000	3,248	28-0593	10"
56	605.2785	9256	¾	1½	12	8½	18	17	15	20,000	3,382	28-0593	11"
58	605.2785	9484	¾	1½	12	8½	18	17	15	20,000	3,411	28-0593	11"

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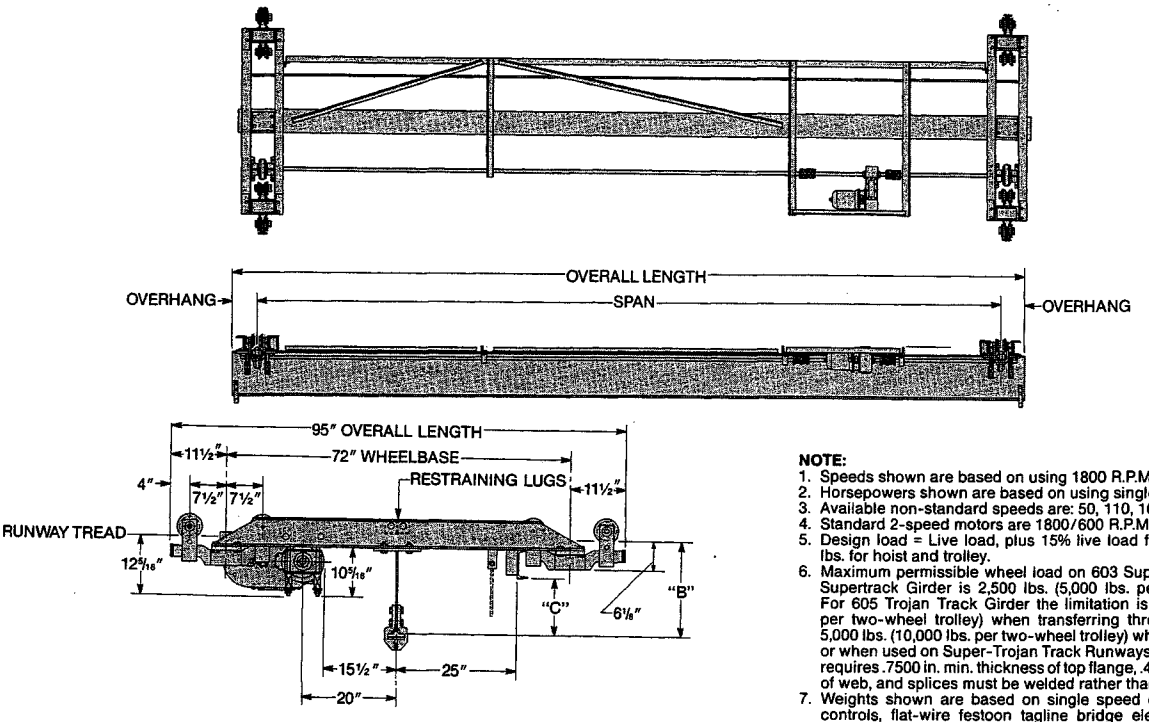
LOUDEN® 503 SINGLE GIRDER MOTOR PROPELLED CRANES WITH CENTER DRIVE

503-5
Issued 9-7-01



NOTE:
1. Speeds shown are based on using 1800 R.P.M. motors.
2. Horsepowers shown are based on using single speed motors.
3. Available non-standard speeds are: 50, 110, 165, 190, 255 F.P.M.
4. Standard 2-speed motors are 1800/600 R.P.M.
5. Design load = Live load, plus 15% live load for impact, plus 3,000 lbs. for hoist and trolley.
6. Maximum permissible wheel load on 603 Supertrack and 604 type Supertrack Girder is 2,500 lbs. (5,000 lbs. per two-wheel trolley). For 605 Trojan Track Girder the limitation is 3,750 lbs. (7500 lbs. per two-wheel trolley) when transferring through 505.7830 latch; 5,000 lbs. (10,000 lbs. per two-wheel trolley) when captive on bridge, or when used on Super-Trojan Track Runways. (Super-Trojan Track requires .7500 in. min. thickness of top flange, .4375 in. min. thickness of web, and splices must be welded rather than bolted.)
7. Weights shown are based on single speed drive with brake and controls, flat-wire festoon tagline bridge electrification, and 12" overhang each end of bridge.
8. Calculated for this crane.
9. B = Girder depth plus 2" (Trd. To Trd.)

Max. Span Ft.	Bridge Girder Required	Crane Weight (Lbs.)	Motor H.P. Speed (F.P.M.) 75	135	OVERHANG In. Std.	In. Min.	In. Max.	505.7824 Latch	505.7830 Latch	Truck Capacity (Max.)	Wheel Load Per Pair (8)	Idler Trl. Wheel & Axle	Dim. "C"
Catalog Number 503.10003						**10,000 lbs. Capacity**						**14,500 lbs. Design Load[5]**	
14	604.1231	2397	¾	1½	12	8½	18	17	15	20,000	3,925	28-0593	6"
16	604.1435	2670	¾	1½	12	8½	18	17	15	20,000	3,959	28-0593	8"
18	604.1538	2826	¾	1½	12	8½	18	17	15	20,000	3,979	28-0593	7"
20	604.1538	2931	¾	1½	12	8½	18	17	15	20,000	3,992	28-0593	7"
22	604.1846	3349	¾	1½	12	8½	18	17	15	20,000	4,044	28-0593	10"
24	604.1846	3470	¾	1½	12	8½	18	17	15	20,000	4,059	28-0593	10"
26	604.1846	3501	¾	1½	12	8½	18	17	15	20,000	4,063	28-0593	10"
28	604.2153	4147	¾	1½	12	8½	18	17	15	20,000	4,144	28-0593	11"
30	604.2153	4289	¾	1½	12	8½	18	17	15	20,000	4,162	28-0593	11"
32	604.2153	4431	¾	1½	12	8½	18	17	15	20,000	4,179	28-0593	11"
34	605.2166	5061	1	1½	12	8½	18	17	15	20,000	4,258	28-0593	11"
36	605.2166	5249	1	1½	12	8½	18	17	15	20,000	4,282	28-0593	9"
38	605.2166	5415	1	1½	12	8½	18	17	15	20,000	4,302	28-0593	9"
40	605.2166	5581	1	1½	12	8½	18	17	15	20,000	4,323	28-0593	9"
42	605.2474	6489	1	1½	12	8½	18	17	15	20,000	4,437	28-0593	12"
44	605.2474	7019	1	1½	12	8½	18	17	15	20,000	4,503	28-0593	10"
46	605.2474	7217	1	1½	12	8½	18	17	15	20,000	4,528	28-0593	10"
48	605.2474	7415	1	1½	12	8½	18	17	15	20,000	4,552	28-0593	10"
50	605.2785	8450	1	1½	12	8½	18	17	15	20,000	4,682	28-0593	13"
52	605.2785	8670	1	1½	12	8½	18	17	15	20,000	4,709	28-0593	13"
54	605.3089	9288	1	1½	12	8½	18	17	15	20,000	4,786	28-0593	14"
56	605.3089	9524	1	1½	12	8½	18	17	15	20,000	4,816	28-0593	14"

WARNING: Equipment described herein is not designed for and should not be used for lifting, supporting or transporting humans. Use of the equipment for this purpose can result in serious bodily injury and/or property damage.