

	<b>553</b>	<b>10</b>	<b>012</b>	-	<b>D1</b>	-	<b>M04</b>	-	<b>C293</b>	-	<b>L04</b>	-	<b>E00</b>	-	<b>B00</b>																								
<p><b>Table Series</b></p> <p><b>553</b> - 553 carriage  <b>554</b> - 554 carriage  <b>555</b> - 555 carriage</p> <p><b>Carriage Length</b></p> <p><b>10</b> - 10 inches</p> <p><b>Travel Length</b> (see page K-6)</p> <p><b>012</b> - 12 to 360 inches</p> <p><b>Drive Shaft</b> (see page K-7)</p> <p><b>D1</b> - Right Hand single shaft      <b>D3</b> - Right Hand thru shaft  <b>D2</b> - Left Hand single shaft        <b>D4</b> - Left Hand thru shaft</p> <p><b>Motor Mount</b> (see page K-20)</p> <p><b>M00</b> - none; just shaft extension      <b>M04</b> - NEMA 34 mount (E)      <b>M10</b> - NEMA 42 mount (E)  <b>M99</b> - other                                      <b>M05</b> - NEMA 34 mount (M)      <b>M11</b> - NEMA 42 mount (M)</p> <p><b>Coupling Options</b> (see pages K-24 &amp; K-25)</p> <p><b>C000</b> - none                      <b>C293 to C303</b> - H197              <b>C573 to C583</b> - G177              <b>C684 to C691</b> - G260  <b>C999</b> - none                      <b>C359 to C369</b> - H225              <b>C639 to C649</b> - G220</p> <p><b>Limit &amp; Home Switches</b> (see pages K-21 to K-23)</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>L00</b> - no switches</td> <td style="width: 15%;"></td> <td style="width: 15%;">Reed</td> <td style="width: 15%;">Hall</td> <td style="width: 15%;">Prox (NPN)</td> <td style="width: 15%;">Prox (PNP)</td> </tr> <tr> <td><b>L99</b> - other</td> <td>EOT &amp; home switches</td> <td><b>L04</b></td> <td><b>L07</b></td> <td><b>L10</b></td> <td><b>L13</b></td> </tr> <tr> <td></td> <td>EOT switches only</td> <td><b>L05</b></td> <td><b>L08</b></td> <td><b>L11</b></td> <td><b>L14</b></td> </tr> <tr> <td></td> <td>home switch only</td> <td><b>L06</b></td> <td><b>L09</b></td> <td><b>L12</b></td> <td><b>L15</b></td> </tr> </table> <p><b>Encoder Options</b> (see page K-27)</p> <p><b>E00</b> - none                              <b>E02</b> - rotary (1000 lines/rev)      <b>E99</b> - other  <b>E01</b> - rotary (500 lines/rev)      <b>E03</b> - rotary (1270 lines/rev)</p> <p><i>note: When selecting any rotary encoder option, the Drive Shaft D3 or D4 above is required.</i></p> <p><b>Power-off Brakes</b> (see page K-26)</p> <p><b>B00</b> - none      <b>B05</b> - 24 VDC      <b>B06</b> - 90 VDC      <b>B99</b> - other</p> <p><i>note: When selecting any brake option, the Drive Shaft D3 or D4 above is required.</i></p>	<b>L00</b> - no switches		Reed	Hall	Prox (NPN)	Prox (PNP)	<b>L99</b> - other	EOT & home switches	<b>L04</b>	<b>L07</b>	<b>L10</b>	<b>L13</b>		EOT switches only	<b>L05</b>	<b>L08</b>	<b>L11</b>	<b>L14</b>		home switch only	<b>L06</b>	<b>L09</b>	<b>L12</b>	<b>L15</b>															
<b>L00</b> - no switches		Reed	Hall	Prox (NPN)	Prox (PNP)																																		
<b>L99</b> - other	EOT & home switches	<b>L04</b>	<b>L07</b>	<b>L10</b>	<b>L13</b>																																		
	EOT switches only	<b>L05</b>	<b>L08</b>	<b>L11</b>	<b>L14</b>																																		
	home switch only	<b>L06</b>	<b>L09</b>	<b>L12</b>	<b>L15</b>																																		

(E) - English Interface  
(M) - Metric Interface

## Specifications

Load Capacities		553 & 554 Carriages		555 Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	12,650 lbs	( 5740 kg)	12,650 lbs	( 5740 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	3,400 lbs	( 1540 kg)	3,400 lbs	( 1540 kg)
<b>Static Horizontal</b>		19,000 lbs	( 8620 kg)	19,000 lbs	( 8620 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	560 ft-lbs	( 760 N-m)	560 ft-lbs	( 760 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	150 ft-lbs	( 200 N-m)	150 ft-lbs	( 200 N-m)
<b>Static Roll Moment</b>		790 ft-lbs	( 1070 N-m)	790 ft-lbs	( 1070 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	1,710 ft-lbs	( 2320 N-m)	1,710 ft-lbs	( 2320 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	460 ft-lbs	( 625 N-m)	460 ft-lbs	( 625 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		1,775 ft-lbs	( 2406 N-m)	845 ft-lbs	( 1145 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	6,325 lbs	( 2870 kg)	6,325 lbs	( 2870 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	1,700 lbs	( 770 kg)	1,700 lbs	( 770 kg)
<b>Each Bearing Static Load Capacity</b>		9,500 lbs	( 4310 kg)	9,500 lbs	( 4310 kg)
<b>Maximum Belt Tensile Force</b>		675 lbs	( 306 kg)	675 lbs	( 306 kg)
<b>Maximum Carriage Thrust Force</b>		475 lbs	( 215 kg)	475 lbs	( 215 kg)
<b>Maximum Speed</b>		118 in/sec	( 3 m/sec)	197 in/sec	( 5 m/sec)
<b>Maximum Acceleration</b>		1,930 in/sec <sup>2</sup>	( 49,0 m/sec <sup>2</sup> )	1,930 in/sec <sup>2</sup>	( 49,0 m/sec <sup>2</sup> )
<b>d<sub>2</sub></b>	Center to center distance (spacing) of each bearing on a single rail	3.876 in	( 98,4 mm)	3.876 in	( 98,4 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.508 in	( 38,3 mm)	1.626 in	( 41,3 mm)

Other	553, 554 & 555 Carriages
<b>Table Material</b>	Base Extrusion, Carriage, & End Plates - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Belt Properties</b>	Black, 50 mm wide, Polyurethane, Steel reinforced belt
<b>Drive Pulley Weight</b>	1.500 lbs ( 0,68 kg)
<b>Drive Pulley Diameter</b>	2.569 in ( 65,25 mm)
<b>Drive Lead</b>	8.071 in ( 205,00 mm)
<b>Belt Stretch - x Load (lbs or N)</b>	0.00006 in/ft per lbs ( 0,00114 mm/m per N)
<b>Unidirectional Repeatability</b>	+/- 0.001 in (+/- 0,0254 mm)
<b>Bidirectional Repeatability</b>	+/- 0.004 in (+/- 0,1016 mm)
<b>Position Accuracy (Belt) <sup>(1)</sup></b>	< 0.010 in/ft (< 0,254 mm/300mm)
<b>Orthogonality (multi-axis systems)</b>	< 60 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Breakaway Torque <sup>(2)</sup></b>	< 16 lb-in (1,808 N-m)
<b>Motor Mount</b>	NEMA 34 & 42 Mounts, Metric Mounts, and Gearheads
<b>Coupling</b>	Two (2) different styles available

### Footnotes:

- (1) Position accuracy varies based on belt stretch. The given rating is based upon a carriage speed of 5 inches/sec (127 mm/sec) and a no load condition.  
 (2) This is a nominal value. Breakaway torque will increase, or decrease, based on belt tension.

## Dimensions & Specifications

Model Number	Travel <sup>(1)</sup> Length inches (mm)	Table Dimensions inches (mm)		Belt Weight lbs (kg)	Table Weight (553 & 554 Carriages) lbs (kg)		Table Weight (555 Carriage) lbs (kg)	
		A	B					
55x10012	12 (300)	24.00 (609,6)	32.275 (819,8)	0.29 (0,13)	24.1 (10,9)	23.0 (10,4)		
55x10018	18 (455)	30.00 (762,0)	38.275 (972,2)	0.40 (0,18)	27.3 (12,4)	26.0 (11,8)		
55x10024	24 (605)	36.00 (914,4)	44.275 (1124,6)	0.51 (0,23)	30.6 (13,9)	29.2 (13,2)		
55x10030	30 (760)	42.00 (1066,8)	50.275 (1277,0)	0.62 (0,28)	33.9 (15,4)	32.3 (14,7)		
55x10036	36 (910)	48.00 (1219,2)	56.275 (1429,4)	0.72 (0,33)	37.2 (16,9)	35.5 (16,1)		
55x10048	48 (1215)	60.00 (1524,0)	68.275 (1734,2)	0.94 (0,43)	43.8 (19,9)	41.8 (19,0)		
55x10060	60 (1520)	72.00 (1828,8)	80.275 (2039,0)	1.15 (0,52)	50.3 (22,8)	48.0 (21,8)		
55x10072	72 (1825)	84.00 (2133,6)	92.275 (2343,8)	1.37 (0,62)	56.9 (25,8)	54.3 (24,6)		
55x10084	84 (2130)	96.00 (2438,4)	104.275 (2648,6)	1.58 (0,72)	63.5 (28,8)	60.6 (27,5)		
55x10096	96 (2435)	108.00 (2743,2)	116.275 (2953,4)	1.80 (0,82)	70.1 (31,8)	66.9 (30,3)		
55x10108	108 (2740)	120.00 (3048,0)	128.275 (3258,2)	2.01 (0,91)	76.7 (34,8)	73.2 (33,2)		
55x10120	120 (3045)	132.00 (3352,8)	140.275 (3563,0)	2.23 (1,01)	83.2 (37,8)	79.4 (36,0)		
55x10132	132 (3350)	144.00 (3657,6)	152.275 (3867,8)	2.44 (1,11)	89.8 (40,8)	85.7 (38,9)		
55x10144	144 (3655)	156.00 (3962,4)	164.275 (4172,6)	2.66 (1,21)	96.4 (43,7)	92.0 (41,7)		
55x10180	180 (4572)	192.00 (4876,8)	200.275 (5087,0)	3.30 (1,50)	116.1 (52,7)	110.8 (50,3)		
55x10240	240 (6096)	252.00 (6400,8)	260.275 (6611,0)	4.38 (1,99)	149.0 (67,6)	142.2 (64,5)		
55x10300	300 (7620)	312.00 (7924,8)	320.275 (8135,0)	5.45 (2,47)	181.9 (82,5)	173.6 (78,7)		
55x10360	360 (9144)	372.00 (9448,8)	380.275 (9659,0)	6.52 (2,96)	214.8 (97,4)	204.9 (92,9)		

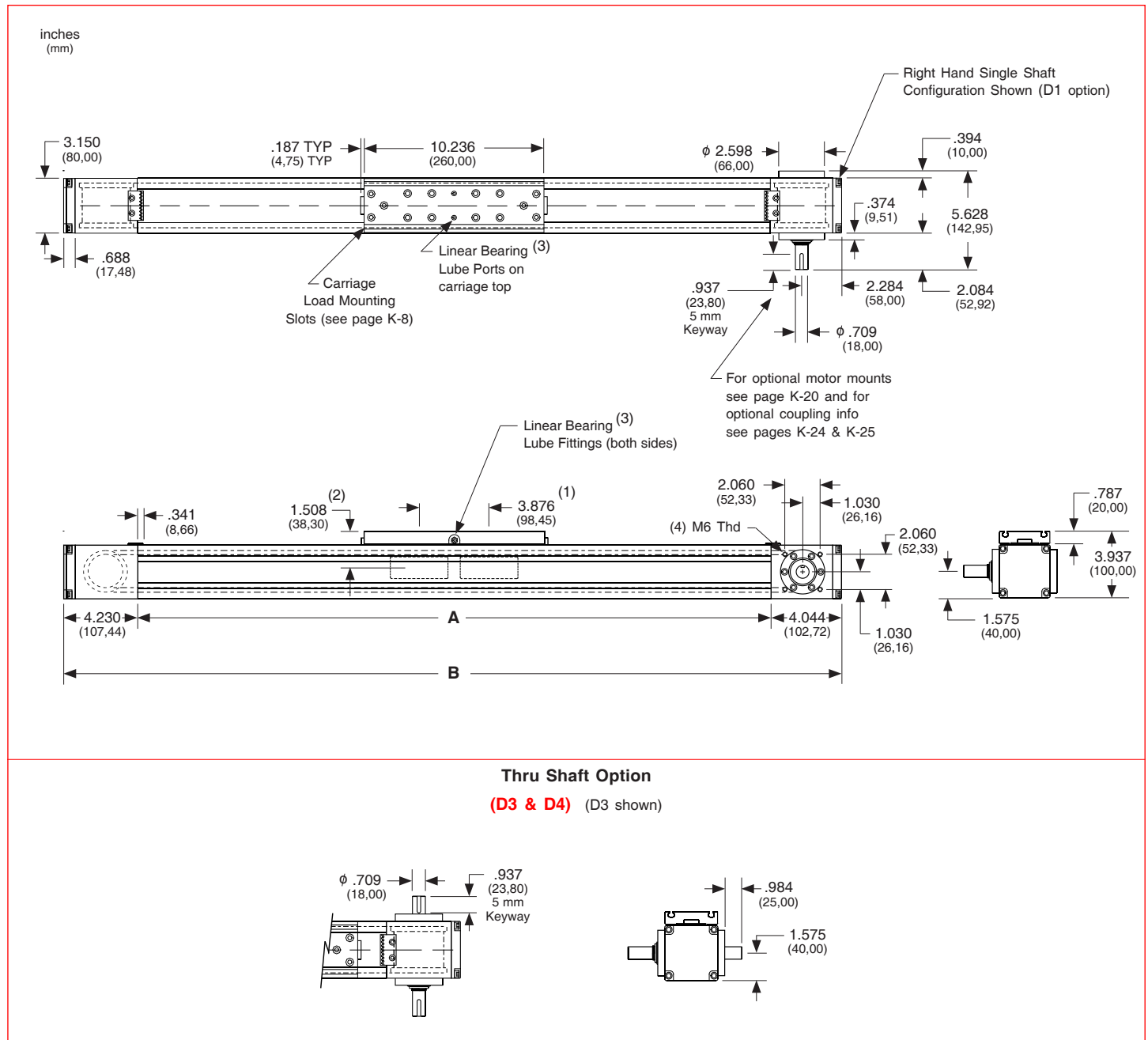
- x = 3; 553 Carriage; Carriage weight = 7.98 lbs. (3,62 kg)
- x = 4; 554 Carriage; Carriage weight = 7.98 lbs. (3,62 kg)
- x = 5; 555 Carriage; Carriage weight = 7.14 lbs. (3,24 kg)

### Footnotes:

(1) Longest possible travel is 30 feet (9,1 meters). Any travel length less than 30 feet (9,1 meters) can be provided.

Specifications subject to change without notice

## Dimensions



### Footnotes:

- (1) This value is center to center distance (spacing) of each bearing on a single rail ( $d_2$ ).
- (2) This value is the center distance of the bearing to top of carriage plate surface ( $d_1$ ) for the 553 & 554 carriages. For the 555 carriage  $d_1 = 1.626$  inches (41,3 mm).
- (3) Two lube ports on carriage top and lube fittings on each side of the 553 & 555 carriages are all interconnected. Only one port is required to lubricate both linear bearings. The 554 carriage will not have any lube ports.