

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

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

Specifications

Load Capacities		553 & 554 Carriages		555 Carriage	
Dynamic Horizontal	2 million inches (50 km) of travel	12,650 lbs	(5740 kg)	12,650 lbs	(5740 kg)
Dynamic Horizontal	100 million inches (2540 km) of travel	3,400 lbs	(1540 kg)	3,400 lbs	(1540 kg)
Static Horizontal		19,000 lbs	(8620 kg)	19,000 lbs	(8620 kg)
Dynamic Roll Moment	2 million inches (50 km) of travel	560 ft-lbs	(760 N-m)	560 ft-lbs	(760 N-m)
Dynamic Roll Moment	100 million inches (2540 km) of travel	150 ft-lbs	(200 N-m)	150 ft-lbs	(200 N-m)
Static Roll Moment		790 ft-lbs	(1070 N-m)	790 ft-lbs	(1070 N-m)
Dyn. Pitch & Yaw Moment	2 million inches (50 km) of travel	1,710 ft-lbs	(2320 N-m)	1,710 ft-lbs	(2320 N-m)
Dyn. Pitch & Yaw Moment	100 million inches (2540 km) of travel	460 ft-lbs	(625 N-m)	460 ft-lbs	(625 N-m)
Static Pitch & Yaw Moment		1,775 ft-lbs	(2406 N-m)	845 ft-lbs	(1145 N-m)
Each Bearing Dyn. Capacity	2 million inches (50 km) of travel	6,325 lbs	(2870 kg)	6,325 lbs	(2870 kg)
Each Bearing Dyn. Capacity	100 million inches (2540 km) of travel	1,700 lbs	(770 kg)	1,700 lbs	(770 kg)
Each Bearing Static Load Capacity		9,500 lbs	(4310 kg)	9,500 lbs	(4310 kg)
Maximum Belt Tensile Force		675 lbs	(306 kg)	675 lbs	(306 kg)
Maximum Carriage Thrust Force		475 lbs	(215 kg)	475 lbs	(215 kg)
Maximum Speed		118 in/sec	(3 m/sec)	197 in/sec	(5 m/sec)
Maximum Acceleration		1,930 in/sec ²	(49,0 m/sec ²)	1,930 in/sec ²	(49,0 m/sec ²)
d₂	Center to center distance (spacing) of each bearing on a single rail	3.876 in	(98,4 mm)	3.876 in	(98,4 mm)
d_r	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
Table Material	Base Extrusion, Carriage, & End Plates - 6061 anodized aluminum
Linear Rail Material	Case Hardened Steel
Belt Properties	Black, 50 mm wide, Polyurethane, Steel reinforced belt
Drive Pulley Weight	1.500 lbs (0,68 kg)
Drive Pulley Diameter	2.569 in (65,25 mm)
Drive Lead	8.071 in (205,00 mm)
Belt Stretch - x Load (lbs or N)	0.00006 in/ft per lbs (0,00114 mm/m per N)
Unidirectional Repeatability	+/- 0.001 in (+/- 0,0254 mm)
Bidirectional Repeatability	+/- 0.004 in (+/- 0,1016 mm)
Position Accuracy (Belt) ⁽¹⁾	< 0.010 in/ft (< 0,254 mm/300mm)
Orthogonality (multi-axis systems)	< 60 arc-seconds
Friction Coefficient	< 0.01
Breakaway Torque ⁽²⁾	< 16 lb-in (1,808 N-m)
Motor Mount	NEMA 34 & 42 Mounts, Metric Mounts, and Gearheads
Coupling	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

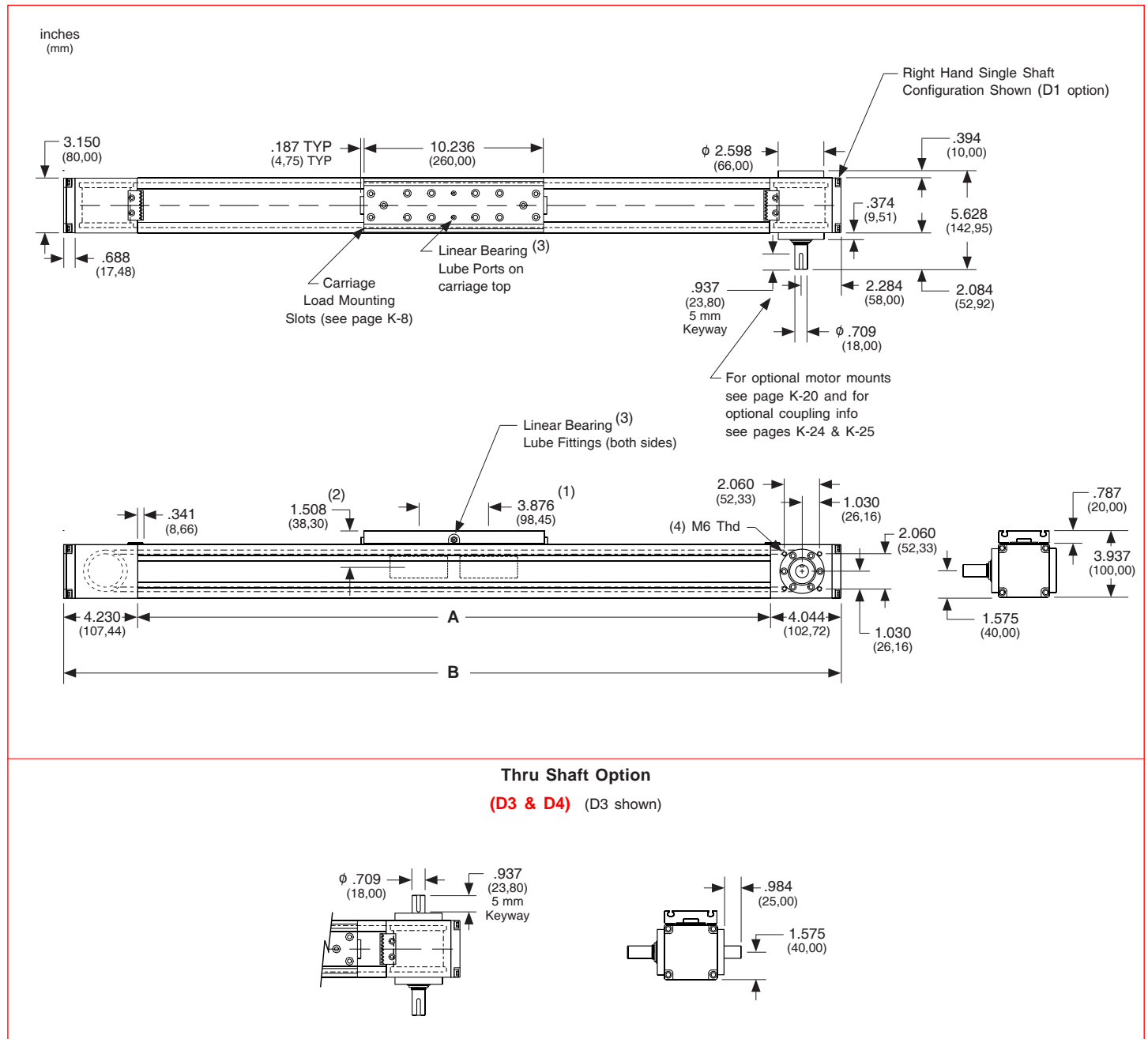
Model Number	Travel ⁽¹⁾ Length inches (mm)	Table Dimensions inches (mm)		Belt Weight lbs (kg)	Table Weight (553 & 554 Carriages) lbs (kg)		Table Weight (555 Carriage) lbs (kg)	
		A	B					
55x10012	12 (300)	24.00 (609,6)	32.275 (819,8)	0.29 (0,13)	24.1 (10,9)	23.0 (10,4)		
55x10018	18 (455)	30.00 (762,0)	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.

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.