

KS

KOREAN INDUSTRIAL STANDARD

Leaf Chains

KS B 1409-1997

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Rep. of Korea

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the original standard in Korean is to be evidence.

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1. Scope

This Korean Industrial Standard specifies the leaf chains used for general lifting purposes, balancing purposes, action-transmitting purposes, etc.

Remarks 1. The "leaf chain" is the general name of a metallic device that is assembled from several plates connected with pins to form a flexible chain.

2. The corresponding international standard of this standard is as shown in below.

ISO 4347 Leaf Chains, Clevises and Sheaves

2. Nominal Numbers and Dimensions

The nominal numbers and dimensions of the leaf chains are divided into the three series of AL, BL ⁽¹⁾ and LL ⁽¹⁾, and further subdivided as shown in Table 1 (Series AL, 18 classes), Table 2 (Series BL, 54 classes) and Table 3 (Series LL, 30 classes).

The shape should be as shown in Fig. 1.

Note ⁽¹⁾ The Series BL leaf chains are derived from the Series BL of ANSI B 29.8, and the Series LL ones conform to the series LL of ISO 4347.

Table 1 Nominal Numbers and Dimensions of Series AL Leaf Chains

Unit : mm

Nominal number	Nominal pitch P (Standard value)	Lacing number	Thickness of plates b_0 (maximum)	Hole dia. of articulating link plates d_1 (minimum)	Bearing pin dia. d_2 (maximum)	Chain plate depth h_3 (maximum)	Width over riveted bearing pin b_4 (maximum)
AL 422	12.70	2×2	1.57	4.00	3.98	10.41	8.43
AL 444		4×4					14.88
AL 466		6×6					21.34
AL 522	15.875	2×2	2.08	5.12	5.09	13.03	11.02
AL 544		4×4					19.51
AL 566		6×6					27.99
AL 644	19.05	4×4	2.44	5.98	5.96	15.62	22.78
AL 666		6×6					32.69
AL 844	25.40	4×4	3.30	7.96	7.94	20.83	30.78
AL 866		6×6					44.20
AL 1044	31.75	4×4	4.09	9.56	9.54	26.04	37.90
AL 1066		6×6					54.46
AL 1244	38.10	4×4	4.90	11.14	11.11	31.24	45.19
AL 1266		6×6					65.00
AL 1444	44.45	4×4	5.77	12.74	12.71	36.45	52.88
AL 1466		6×6					76.15
AL 1644	50.80	4×4	6.55	14.31	14.29	41.66	59.97
AL 1666		6×6					86.39

Remark The nominal number of Series AL leaf chains is expressed by the symbol representing the Series "AL" directly followed by a number of one or two digits that is the quotient of the leaf chain pitch divided by 3.175mm, the number of plates constituting a pin link and the number of plates constituting an articulating link, in that order.

Example : The nominal number AL 1044 denotes a leaf chain of which the pitch is 31.75mm and the articulating link and pin link each consists of 4 plates.

Table 2 Nominal Numbers and Dimensions of Series BL Leaf Chains

Unit : mm

Nominal number	Nominal pitch P (Standard value)	Lacing number	Thickness of plates b_0 (maximum)	Hole dia. of articulating link plates d_1 (minimum)	Bearing pin dia. d_2 (maximum)	Chain plate depth h_3 (maximum)	Width over riveted bearing pin b_4 (maximum)
BL 422	12.70	2×2	2.08	5.12	5.09	12.07	11.05
BL 423		2×3					13.16
BL 434		3×4					17.40
BL 444		4×4					19.51
BL 446		4×6					23.75
BL 466		6×6					27.99
BL 522	15.875	2×2	2.44	5.98	5.96	15.09	12.09
BL 523		2×3					15.37
BL 534		3×4					20.32
BL 544		4×4					22.78
BL 546		4×6					27.74
BL 566		6×6					32.69
BL 622	19.05	2×2	3.30	7.96	7.94	18.11	17.37
BL 623		2×3					20.73
BL 634		3×4					27.43
BL 644		4×4					30.78
BL 646		4×6					37.49
BL 666		6×6					44.20
BL 822	25.40	2×2	4.09	9.56	9.54	24.13	21.34
BL 823		2×3					25.48
BL 834		3×4					33.76
BL 844		4×4					37.96
BL 846		4×6					46.18
BL 866		6×6					54.46

Table 2 (Continued)

Unit : mm

Nominal number	Nominal pitch P (Standard value)	Lacing number	Thickness of plates b_0 (maximum)	Hole dia. of articulating link plates d_1 (minimum)	Bearing pin dia. d_2 (maximum)	Chain plate depth h_3 (maximum)	Width over riveted bearing pin b_4 (maximum)
BL 1022	31.75	2×2	4.90	11.14	11.11	30.18	25.37
BL 1023		2×3					30.33
BL 1034		3×4					40.23
BL 1044		4×4					45.19
BL 1046		4×6					55.09
BL 1066		6×6					65.00
BL 1222	38.10	2×2	5.77	12.74	12.71	36.20	29.62
BL 1223		2×3					35.43
BL 1234		3×4					47.07
BL 1244		4×4					52.88
BL 1246		4×6					64.52
BL 1266		6×6					76.15
BL 1422	44.45	2×2	6.55	14.31	14.29	42.24	33.65
BL 1423		2×3					40.16
BL 1434		3×4					53.37
BL 1444		4×4					59.97
BL 1446		4×6					73.18
BL 1466		6×6					86.39
BL 1622	50.80	2×2	7.52	17.49	17.46	48.26	39.01
BL 1623		2×3					46.58
BL 1634		3×4					61.72
BL 1644		4×4					69.29
BL 1646		4×6					84.43
BL 1666		6×6					99.57

Table 2 (Continued)

Unit : mm

Nominal number	Nominal pitch P (Standard value)	Lacing number	Thickness of plates b_0 (maximum)	Hole dia. of articulating link plates d_1 (minimum)	Bearing pin dia. d_2 (maximum)	Chain plate depth h_3 (maximum)	Width over riveted bearing pin b_4 (maximum)
BL 2022	63.50	2 × 2	9.91	23.84	23.81	60.32	51.74
BL 2023		2 × 3					61.70
BL 2034		3 × 4					81.61
BL 2044		4 × 4					91.57
BL 2046		4 × 6					111.48
BL 2066		6 × 6					131.39

Remark The nominal number of Series BL leaf chains is expressed by the symbol representing the Series "BL" directly followed by a number of one or two digits that is the quotient of the leaf chain pitch divided by 3.175mm, the number of plates constituting a pin link and the number of plates constituting an articulating link, in that order.

Example : The nominal number BL 634 denotes a leaf chain of which the pitch is 19.05mm and the pin link each consists of 3 plates and the articulating link consists of 4 plates.

Table 3 Nominal Numbers and Dimensions of Series LL Leaf Chains

Unit : mm

Nominal number	Nominal pitch P (Standard value)	Lacing number	Thickness of plates b_0 (maximum)	Hole dia. of articulating link plates d_1 (minimum)	Bearing pin dia. d_2 (maximum)	Chain plate depth h_3 (maximum)	Width over riveted bearing pin b_4 (maximum)
LL 0822	12.70	2 × 2	1.30	4.46	4.45	10.92	7.60
LL 0844		4 × 4					13.00
LL 0866		6 × 6					18.40
LL 1022	15.875	2 × 2	1.65	5.09	5.08	13.72	9.30
LL 1044		4 × 4					16.10
LL 1066		6 × 6					22.90
LL 1222	19.05	2 × 2	1.90	5.73	5.72	16.13	10.70
LL 1244		4 × 4					18.50
LL 1266		6 × 6					26.30
LL 1622	25.40	2 × 2	3.20	8.30	8.28	21.08	17.20
LL 1644		4 × 4					30.20
LL 1666		6 × 6					43.20
LL 2022	31.75	2 × 2	5.20	14.65	14.63	33.40	28.40
LL 2044		4 × 4					49.40
LL 2066		6 × 6					70.40
LL 2422	38.10	2 × 2	5.20	14.65	14.63	33.40	28.40
LL 2444		4 × 4					49.40
LL 2466		6 × 6					70.40
LL 2822	44.45	2 × 2	6.45	15.92	15.90	37.08	34.00
LL 2844		4 × 4					60.00
LL 2866		6 × 6					86.00
LL 3222	50.80	2 × 2	6.45	17.83	17.81	42.29	35.00
LL 3244		4 × 4					61.00
LL 3266		6 × 6					87.00
LL 4022	63.50	2 × 2	8.25	22.91	22.89	52.96	44.70
LL 4044		4 × 4					77.90
LL 4066		6 × 6					111.10

Table 3 (Continued)

Unit : mm

Nominal number	Nominal pitch P (Standard value)	Lacing number	Thickness of plates b_0 (maximum)	Hole dia. of articulating link plates d_1 (minimum)	Bearing pin dia. d_2 (maximum)	Chain plate depth h_3 (maximum)	Width over riveted bearing pin b_4 (maximum)
LL 4822	76.20	2 × 2	10.30	29.26	29.24	68.88	56.10
LL 4844		4 × 4					97.40
LL 4866		6 × 6					138.90

Remark The nominal number of Series LL leaf chain is expressed by the symbol representing the Series "LL" followed by a number of two digits that is the quotient of the leaf chain pitch divided by 1.5875mm, the number of plates constituting the pin link and that constituting the articulating link, in that order.

Example : The nominal number LL 0822 denotes a leaf chain of which the pitch is 12.70mm and the articulating link and pin link each consists of 2 plates.