

INTERNATIONAL STANDARD



1275

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Extended pitch precision roller chains and chain wheels for transmission and conveyors

First edition — 1972-07-01

STANDARDSISO.COM : Click to view the full PDF of ISO 1275:1972

UDC 621.855 : 621.867

Ref. No. ISO 1275-1972 (E)

Descriptors : mechanical drives, conveyors, chains, chain wheels.

Price based on 14 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1275 was drawn up by Technical Committee ISO/TC 100, *Chains and chain wheels for power transmission and conveyors*.

It was approved in March 1968 by the Member Bodies of the following countries :

Austria	Greece	South Africa, Rep. of
Belgium	India	Spain
Brazil	Iran	Sweden
Chile	Israel	Turkey
Czechoslovakia	Italy	United Kingdom
Egypt, Arab Rep. of	Japan	U.S.A.
Finland	Korea, Dem. P. R. of	Yugoslavia
France	Portugal	
Germany	Romania	

The Member Body of the following country expressed disapproval of the document on technical grounds :

U.S.S.R.

CONTENTS

	Page
0 Introduction	1
1 Scope and field of application	1
2 References	1
3 Transmission chains	2
3.1 Nomenclature	2
3.2 Designation	4
3.3 Dimensions	4
3.4 Breaking loads	4
3.5 Proof loading	4
3.6 Length accuracy	4
3.7 Marking	4
4 Chain wheels	7
4.1 Nomenclature	7
4.2 Diametral dimensions	8
4.3 Tooth gap form	8
4.4 Radial run-out	9
4.5 Axial run-out (wobble)	9
4.6 Pitch accuracy of wheel teeth	9
4.7 Range of teeth	9
4.8 Bore tolerance	9
4.9 Marking	9
5 Conveyor chains	9
5.1 General	9
5.2 Nomenclature	9
5.3 Designation	9
5.4 Dimensions	9
5.5 Marking	9
5.6 Attachments	12
Appendix : Pitch circle diameters	14

STANDARDSISO.COM : Click to view the full PDF of ISO 1275:1972

(

)

(

)

Extended pitch precision roller chains and chain wheels for transmission and conveyors

0 INTRODUCTION

The provisions of this International Standard have been arrived at by including sizes of chains used by the majority of countries in the world, and by unifying dimensions, strength and other data in respect of which current national standards were differing. At the same time certain side ranges listed in some national standards, for which it was considered a universal usage had not been established, have been eliminated.

The whole field of application open to this medium of transmission has been covered by the ranges of chains already established. To achieve this the sizes of 25.4 mm (1.0 in) to 76.2 mm (3.0 in) pitch inclusive have been duplicated by the inclusion of chains derived from standards originating in the western hemisphere (suffix A) and, on the other hand, by chains representing the unification of the principal standards originating in Europe (suffix B), the two being complementary for the coverage of the widest possible field of application.

The part of this International Standard covering chain wheels represents the unification of all the relevant national standards in the world and includes, in particular, complete tolerances relating to tooth form which are absent from most current national standards.

The specified dimensions of chain ensure complete interchangeability of any given size, and provide interchangeability of individual links of chains for repair purposes.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the characteristics of extended pitch precision roller chains suitable for the mechanical transmission of power and for conveyors, together with those of their associated chain wheels. It specifies dimensions, tolerances, measuring loads and minimum breaking loads.

These extended pitch chains have been derived from some of the short pitch transmission precision roller chains covered by ISO/R 606 having certain common dimensions but being twice the pitch.

These chains are intended for use under less onerous conditions in respect of speed and power transmitted than are the base chains from which they are derived.

2 REFERENCES

ISO/R 286, *ISO System of limits and fits – Part 1 : General, tolerances and deviations.*

ISO/R 606, *Short pitch transmission precision roller chains and chain wheels.*

3 TRANSMISSION CHAINS

3.1 Nomenclature

The illustrations shown in Figures 1 to 3 do not define the actual form of the chain plates.

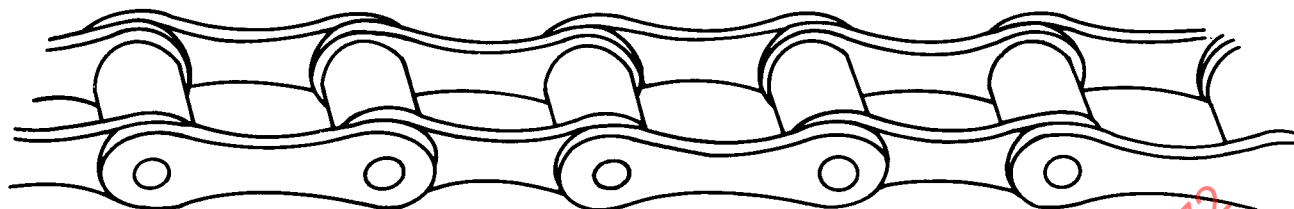


FIGURE 1 – Transmission chain

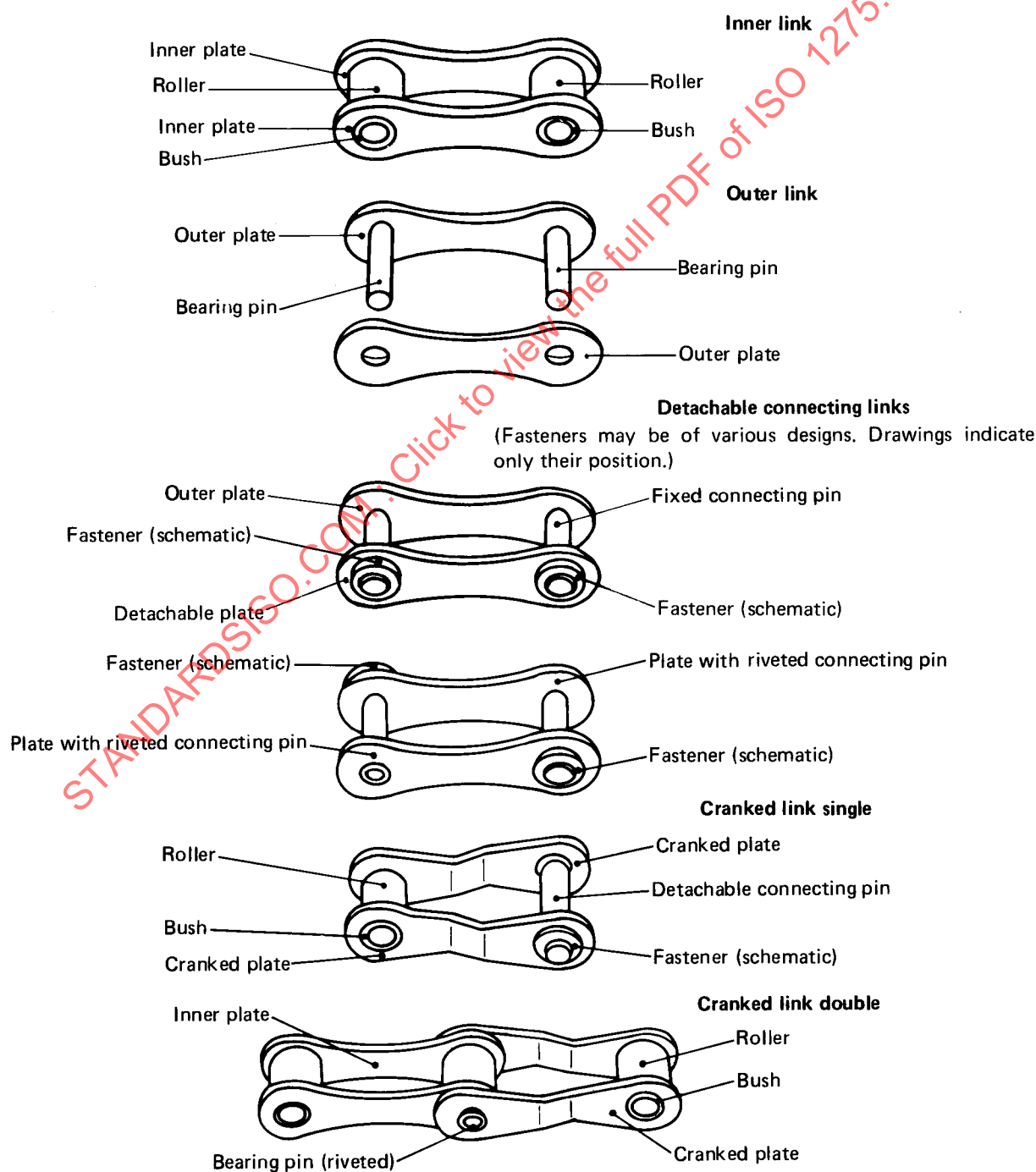
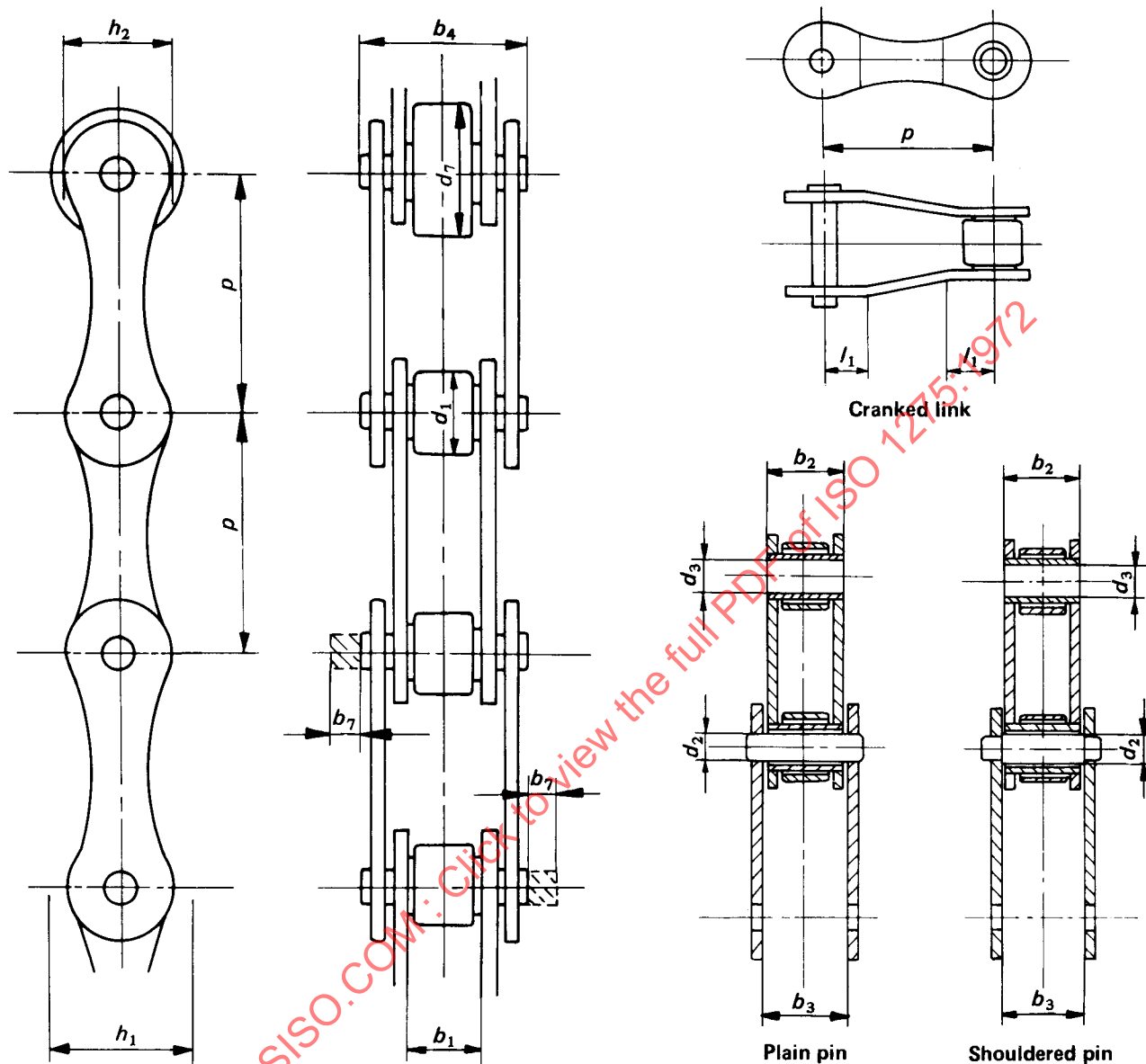


FIGURE 2 – Types of links



The chain path depth h_1 is the minimum depth of channel through which the assembled chain will pass.

The overall width of a chain with a joint fastener is :

- $b_4 + b_7$ for riveted pin end and fastener on one side;
- $b_4 + 1.6 b_7$ for headed pin end and fastener on one side;
- $b_4 + 2 b_7$ for fasteners on both sides.

FIGURE 3 — Key to Tables 1 to 4

3.2 Designation

Extended pitch transmission precision roller chains shall be designated by the standard ISO chain numbers given in Tables 1 to 4 first column. These chain numbers have been obtained by taking the ISO chain number for the base chain in ISO/R 606, and adding the prefix 2.

3.3 Dimensions

Chains shall conform to the dimensions given in Tables 1 to 4. The maximum and minimum dimensions are specified to ensure interchangeability of links as produced by different makers of chain. They represent limits for interchangeability, but are not the manufacturing tolerances.

For the purposes of this International Standard, dimensions for the simple (single strand) extended pitch chains only are shown.

3.4 Breaking loads

The test length shall have a minimum of five free pitches. The ends shall be attached to the testing machine shackles by a pin through the plate holes or the bushes or by the bush common to an inner or outer link. The shackles shall be so designed as to allow universal movement. The method to be used is left to the discretion of the manufacturer.

Tests in which failures occur adjacent to the shackles shall be disregarded.

The minimum tensile breaking loads shall be those given in Tables 1 to 4.

3.5 Proof loading

All chains shall be proof loaded to one-third of the minimum tensile breaking load given in Tables 1 to 4.

3.6 Length accuracy

Finished chains shall be measured after proof loading (where applicable) but before lubricating.

The standard length for measurement shall be 49 times the pitch of the chain or 1 524 mm (60 in), whichever is less, and shall terminate at each end in an inner link.

The chain shall be supported throughout its entire length, and the measuring load given in Tables 1 to 4 shall be applied.

To comply with this International Standard, the length shall be the nominal length subject to the limits of tolerance :

$$\begin{array}{r} + 0.15 \% \\ 0 \end{array}$$

The length accuracy of chains which have to work in parallel shall be within the above limits but matched by agreement with the manufacturer.

3.7 Marking

The chains shall be marked with :

- a) the manufacturer's name or trade mark;
- b) the ISO chain number (column 1 of Tables 1 to 4).

TABLE 1 — Chain dimensions, measuring loads and breaking loads of extended pitch transmission chains (metric units)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ISO chain number	Pitch p	Roller diameter d_1 max.	Width between inner plates b_1 min.	Bearing pin body diameter d_2 max.	Bush bore d_3 min.	Chain path depth h_1 min.	Plate depth h_2 max.	Cranked link l_1 min.	Width over inner link b_2 max.	Width between outer plates b_3 min.	Width over bearing pin b_4 max.	Additional width for joint fastener ¹⁾ b_5 max.	Measuring load	Breaking load min.
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN
208A	25.40	7.92	7.95	3.96	4.01	12.33	12.07	6.9	11.18	11.31	17.8	3.9	0.125	13.8
208B	25.40	8.51	7.75	4.45	4.50	12.07	11.81	6.9	11.30	11.43	17.0	3.9	0.125	17.8
210A	31.75	10.16	9.53	5.08	5.13	15.35	15.09	8.4	13.84	13.97	21.8	4.1	0.20	21.8
210B	31.75	10.16	9.65	5.08	5.13	14.99	14.73	8.4	13.28	13.41	19.6	4.1	0.20	22.2
212A	38.10	11.91	12.70	5.94	5.99	18.34	18.08	9.9	17.75	17.88	26.9	4.6	0.28	31.1
212B	38.10	12.07	11.68	5.72	5.77	16.39	16.13	9.9	15.62	15.75	22.7	4.6	0.28	28.9
216A	50.80	15.88	15.88	7.92	7.97	24.39	24.13	13.0	22.61	22.74	33.5	5.4	0.50	55.6
216B	50.80	15.88	17.02	8.28	8.33	21.34	21.08	13.0	25.45	25.58	36.1	5.4	0.50	42.3
220A	63.50	19.05	19.05	9.53	9.58	30.48	30.18	16.0	27.46	27.59	41.1	6.1	0.78	86.7
220B	63.50	19.05	19.56	10.19	10.24	26.68	26.42	16.0	29.01	29.14	43.2	6.1	0.78	64.5
224A	76.20	22.23	25.40	11.10	11.15	36.55	36.20	19.1	35.46	35.59	50.8	6.6	1.11	124.6
224B	76.20	25.40	25.40	14.63	14.68	33.73	33.40	19.1	37.92	38.05	53.4	6.6	1.11	97.9
228B	88.90	27.94	30.99	15.90	15.95	37.46	37.08	21.3	46.58	46.71	65.1	7.4	1.51	129.0
232B	101.60	29.21	30.99	17.81	17.86	42.72	42.29	24.4	45.57	45.70	67.4	7.9	2.00	169.0

1) The actual dimensions will depend on the type of fastener used but they should not exceed the dimensions in this column, and should be obtained by the purchaser from the manufacturer.

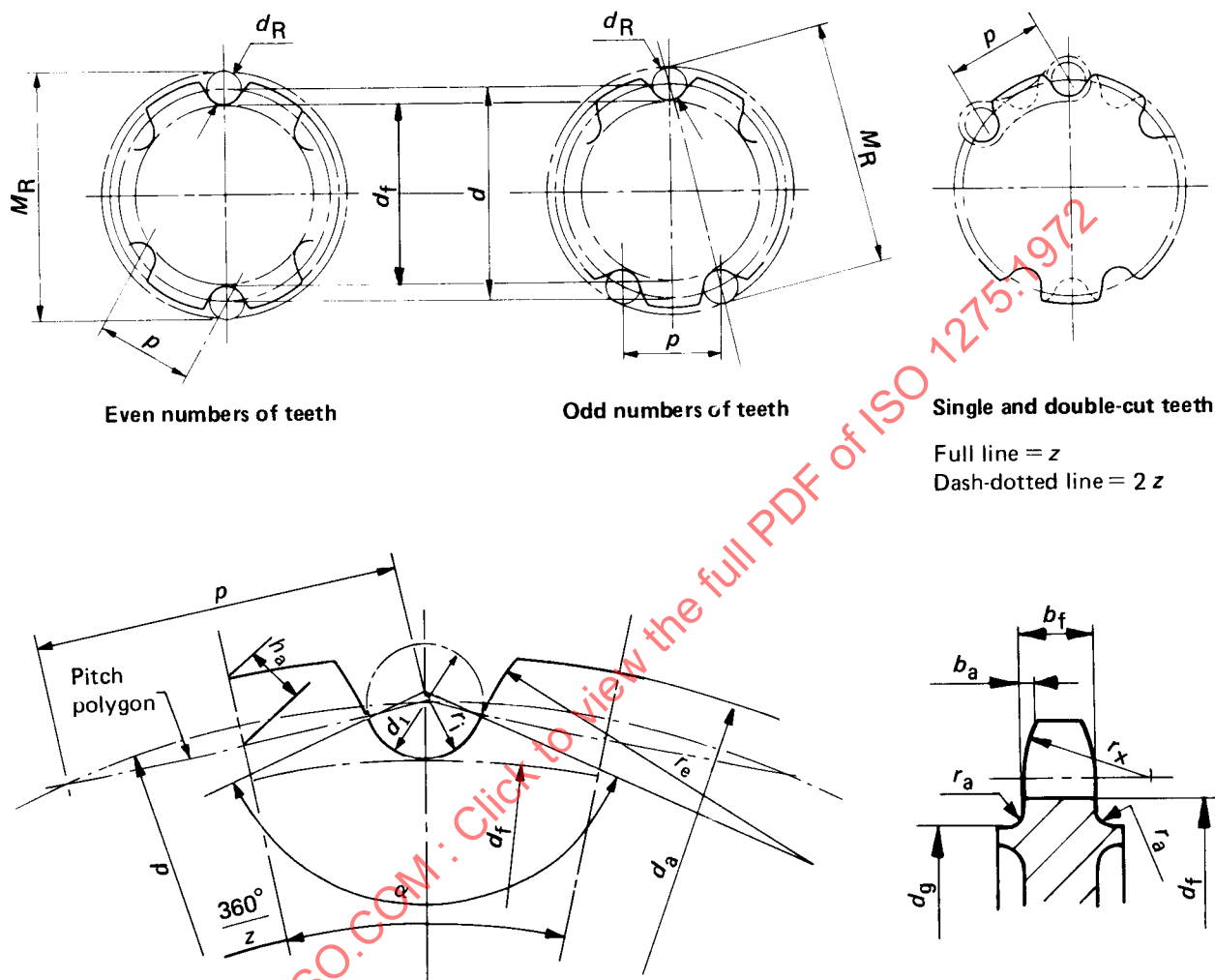
TABLE 2 — Chain dimensions, measuring loads and breaking loads of extended pitch transmission chains (inch-pound units)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ISO chain number	Pitch p	Roller diameter d_1 max.	Width between inner plates b_1 min.	Bearing pin body diameter d_2 max.	Bush bore diameter d_3 min.	Chain path depth h_1 min.	Plate depth h_2 max.	Cranked link l_1 min.	Width over inner link b_2 max.	Width between outer plates b_3 min.	Width over bearing pin b_4 max.	Additional width for joint fastener ¹⁾ b_5 max.	Measuring load	Breaking load min.
	in	in	in	in	in	in	in	in	in	in	in	in	lbf	lbf
208A	1.00	0.313	0.313	0.156	0.158	0.485	0.475	0.27	0.440	0.445	0.70	0.15	28	3 100
208B	1.00	0.335	0.305	0.175	0.177	0.475	0.465	0.27	0.445	0.450	0.67	0.15	28	4 000
210A	1.25	0.400	0.375	0.200	0.202	0.604	0.594	0.33	0.545	0.550	0.86	0.16	44	4 900
210B	1.25	0.400	0.380	0.200	0.202	0.590	0.580	0.33	0.523	0.528	0.77	0.16	44	5 000
212A	1.50	0.469	0.500	0.234	0.236	0.722	0.712	0.39	0.699	0.704	1.06	0.18	63	7 000
212B	1.50	0.475	0.460	0.225	0.227	0.645	0.635	0.39	0.615	0.620	0.89	0.18	63	6 500
216A	2.00	0.625	0.625	0.312	0.314	0.960	0.950	0.51	0.890	0.895	1.32	0.21	112	12 500
216B	2.00	0.625	0.670	0.326	0.328	0.840	0.830	0.51	1.002	1.007	1.42	0.21	112	9 500
220A	2.50	0.750	0.750	0.375	0.377	1.200	1.188	0.63	1.081	1.086	1.62	0.24	175	19 500
220B	2.50	0.750	0.770	0.401	0.403	1.050	1.040	0.63	1.142	1.147	1.70	0.24	175	14 500
224A	3.00	0.875	1.000	0.437	0.439	1.439	1.425	0.75	1.396	1.401	2.00	0.26	250	28 000
224B	3.00	1.000	1.000	0.576	0.578	1.328	1.315	0.75	1.493	1.498	2.10	0.26	250	22 000
228B	3.50	1.100	1.220	0.626	0.628	1.475	1.460	0.84	1.834	1.839	2.56	0.29	340	29 000
232B	4.00	1.150	1.220	0.701	0.703	1.682	1.665	0.96	1.794	1.799	2.65	0.31	450	38 000

1) The actual dimensions will depend on the type of fastener used but they should not exceed the dimensions in this column, and should be obtained by the purchaser from the manufacturer.

4 CHAIN WHEELS

4.1 Nomenclature



b_a = tooth side relief
 b_f = tooth width
 b_1 = minimum width between inner plates
 d = pitch circle diameter
 d_a = tip diameter
 d_f = root diameter
 d_g = absolute maximum shroud diameter
 d_R = measuring pin diameter
 d_1 = maximum roller diameter
 h_a = height of tooth above pitch polygon
 h_2 = maximum plate depth

M_R = measurement over pins
 p = chordal pitch and is equal to chain pitch
 r_a = actual shroud radius
 r_e = tooth flank radius
 r_i = roller seating radius
 r_x = minimum tooth side radius
 z = number of teeth corresponding to the number of links that can be wrapped around the wheel
 z_1 = number of teeth for double-cut wheels = $2z$
 α = roller seating angle

FIGURE 4 — Nomenclature of chain wheels

4.2 Diametral dimensions

4.2.1 Pitch circle diameter

$$d = \frac{p}{\sin(180^\circ/z)} \text{ (see the Table in the Appendix for the pitch circle diameters according to the number of teeth)}$$

4.2.2 Measuring pin diameter

$$d_R = d_1$$

4.2.3 Root diameter

$d_f = d - d_1$, with the following tolerances :

$$d_f \leq 127 \text{ mm (5 in)} : -0.25 \text{ mm } (-0.010 \text{ in})$$

$$127 < d_f \leq 250 \text{ mm (9.85 in)} : -0.30 \text{ mm } (-0.012 \text{ in})$$

$$d_f > 250 \text{ mm (9.85 in)} : h 11 \text{ (see ISO/R 286)}$$

4.2.4 Measurement over pins

M_R for even numbers of teeth = $d + d_R \text{ min.}$

M_R for odd numbers of teeth and single-cut wheels = $d \cos \frac{90^\circ}{z} + d_R \text{ min.}$

M_R for odd numbers of teeth and double-cut wheels = $d \cos \frac{90^\circ}{z_1} + d_R \text{ min.}$

The measurement over pins of wheels with even numbers of teeth shall be carried out over pins inserted in opposite tooth gaps.

The measurement over pins of wheels with odd numbers of teeth shall be carried out over pins in the tooth gaps most nearly opposite.

The limits of tolerance for the measurement over pins are identical with those for the corresponding root diameters.

NOTE — Chain wheels for extended pitch chains may be provided with either one set of teeth having a number of teeth equal to z or with two sets of teeth, the location of the tooth spaces of the second set being midway between those of the first. In this case the total number of teeth of the wheels will be $z_1 = 2z$.

In the case of a single set of teeth, z will be an integer. In the case of double-cut wheels z_1 will be an integer, but z will be fractional if z_1 is an odd number.

Short pitch base chains should not be used with double-cut wheels made for extended pitch chains and vice versa.

4.2.5 Tip diameter

$$d_a \text{ max.} = d + 0.625 p - d_1$$

$$d_a \text{ min.} = d + p \left(0.5 - \frac{0.4}{z} \right) - d_1$$

It should be noted that $d_a \text{ max.}$ and $d_a \text{ min.}$ can be applied arbitrarily both to the minimum and maximum tooth gap forms, subject to the limitations imposed by the cutter on the maximum diameter.

To facilitate the construction of the tooth gap form to a large scale on a drawing board, the tooth height above the pitch polygon can be obtained from the following formulae :

$$h_a \text{ max.} = p \left(0.3125 + \frac{0.8}{z} \right) + 0.5 d_1$$

$$h_a \text{ min.} = p \left(0.25 + \frac{0.6}{z} \right) - 0.5 d_1$$

NOTE — $h_a \text{ max.}$ is related to $d_a \text{ max.}$ and $h_a \text{ min.}$ to $d_a \text{ min.}$

4.3 Tooth gap form

The actual tooth gap form which is provided by cutting or by an equivalent method shall have tooth flanks of a form lying within the minimum and maximum flank radii and blending smoothly with the roller seating curve subtending the respective angles.

4.3.1 Minimum form

$$r_e \text{ max.} = 0.12 d_1 (z + 2)$$

$$r_i \text{ min.} = 0.505 d_1$$

$$\alpha \text{ max.} = 140^\circ - \frac{90^\circ}{z}$$

4.3.2 Maximum form

$$r_e \text{ min.} = 0.008 d_1 (z^2 + 180)$$

$$r_i \text{ max.} = (0.505 d_1 + 0.069 \sqrt[3]{d_1}) \text{ mm (where } d_1 \text{ is expressed in millimetres)}$$

$$\text{or } = (0.505 d_1 + 0.008 \sqrt[3]{d_1}) \text{ in (where } d_1 \text{ is expressed in inches)}$$

$$\alpha \text{ min.} = 120^\circ - \frac{90^\circ}{z}$$

4.3.3 Tooth width

$$b_f = 0.95 b_1 ; \text{ with tolerance } h 14 \text{ (see ISO/R 286)}$$

NOTE — $b_f = 0.93 b_1$, $h 14$, may be used by agreement between user and manufacturer.

4.3.4 Tooth side relief

$$b_a = 0.05 p \text{ min. to } 0.075 p \text{ max.}$$

4.3.5 Absolute maximum shroud diameter

$$d_g = p \cot \frac{180^\circ}{z} - 1.05 h_2 - 1.00 - 2 r_a \text{ mm (where } p, h_2 \text{ and } r_a \text{ are expressed in millimetres)}$$

$$\text{or } = p \cot \frac{180^\circ}{z} - 1.05 h_2 - 0.040 - 2 r_a \text{ in (where } p, h_2 \text{ and } r_a \text{ are expressed in inches).}$$

4.3.6 Minimum tooth side radius

$$r_x = 0.5 p$$

4.4 Radial run-out

Radial run-out, measured on one complete turn of the wheel, with reference to the bore and root diameter shall not exceed a value for total indicator reading derived from :

$0.0008 d_f + 0.08 \text{ mm}$, or 0.15 mm , whichever is the greater (where d_f is expressed in millimetres) up to a maximum of 0.76 mm ;

$0.0008 d_f + 0.003 \text{ in}$, or 0.006 in , whichever is the greater (where d_f is expressed in inches) up to a maximum of 0.030 in .

4.5 Axial run-out (wobble)

Axial run-out, measured on one complete turn of the wheel with reference to the bore and the flat part of the side face of the teeth, shall not exceed a value for total indicator reading derived from :

$0.0009 d_f + 0.08 \text{ mm}$ (where d_f is expressed in millimetres) up to a maximum of 1.14 mm ;

$0.0009 d_f + 0.003 \text{ in}$ (where d_f is expressed in inches) up to a maximum of 0.045 in .

For fabricated (welded) wheels, 0.25 mm (0.010 in) may be accepted if the above formulae give smaller values.

4.6 Pitch accuracy of wheel teeth

Pitch accuracy of wheel teeth is important and chain manufacturers must be consulted for details.

4.7 Range of teeth

The recommendations apply primarily to a range of teeth from 5 to 75 inclusive (with intermediate numbers of teeth $5 \frac{1}{2}$ to $74 \frac{1}{2}$ inclusive).

The preferred range of numbers of teeth is 7, 9, 10, 11, 13, 19, 27, 38 and 57.

4.8 Bore tolerance

Unless otherwise agreed between the manufacturer and the purchaser, bores should be to H8 limits (see ISO/R 286).

4.9 Marking

- the maker's name or trade mark;
- the number of teeth;
- the chain designation (the ISO chain number or maker's equivalent).

5 CONVEYOR CHAINS

5.1 General

Except where otherwise stated, the shapes, dimensions, and test details for the chain and chain wheels shall conform to sections 3 and 4, respectively, of this International Standard.

It is usual for chains used for conveyor purposes to have straight edged (not waisted) side plates. Additionally, an alternative large roller diameter (d_7) may be adopted. These features are illustrated in Figure 5.

5.2 Nomenclature

The nomenclature of Figure 2 is also applicable here. The illustrations of Figures 2 and 5 do not define the actual form of the chain plates.

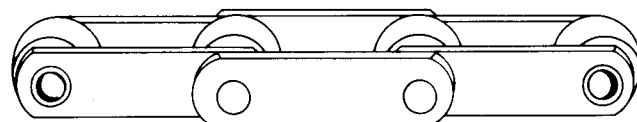


FIGURE 5 – Conveyor chain

5.3 Designation

Extended pitch precision roller chains suitable for conveyor purposes are designated additionally with the prefix C when the straight edged chain plates (illustrated in Figure 5) are used, and with a suffix L when the alternative large size roller (d_7) is adopted. When necessary for the purpose of distinguishing between the chain roller sizes adopted, a suffix S may be applied to chains with the small roller.

5.4 Dimensions

When the large roller size is adopted the dimension d_1 shall be replaced by d_7 in wheel formulae. Dimensions shall be in accordance with Tables 3 and 4.

5.5 Marking

The chains shall be marked with :

- the manufacturer's name or trade mark;
- the ISO chain number (see column 1 of Table 3 or 4).

TABLE 3 — Dimensions, measuring loads and breaking loads of extended pitch chains suitable for conveyor work¹⁾ (metric units)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ISO chain number ²⁾	Pitch p	Roller diameter d_1 max.	Roller diameter (large) d_7 max.	Width between inner plates b_1 min.	Bearing pin body diameter d_2 max.	Bush bore d_3 min.	Chain path depth h_1 min.	Plate depth h_2 max.	Cranked link l_1 min.	Width over inner link b_2 max.	Width between outer link b_3 min.	Width over bearing pin b_4 max.	Additional width for joint fastener ³⁾ b_7 max.	Measuring load daN	Breaking load min. daN
C 208A	25.40	7.92	15.88	7.95	3.96	4.01	12.33	12.07	6.9	11.18	11.31	17.8	3.9	0.125	13.8
C 208B	25.40	8.51	15.88	7.75	4.45	4.50	12.07	11.81	6.9	11.30	11.43	17.0	3.9	0.125	17.8
C 210A	31.75	10.16	19.05	9.53	5.08	5.13	15.35	15.09	8.4	13.84	13.97	21.8	4.1	0.20	21.8
C 210B	31.75	10.16	19.05	9.65	5.08	5.13	14.99	14.73	8.4	13.28	13.41	19.6	4.1	0.20	22.2
C 212A	38.10	11.91	22.23	12.70	5.94	5.99	18.34	18.08	9.9	17.75	17.88	26.9	4.6	0.28	31.1
C 212B	38.10	12.07	22.23	11.68	5.72	5.77	16.39	16.13	9.9	15.62	15.75	22.7	4.6	0.28	28.9
C 216A	50.80	15.88	28.58	15.88	7.92	7.97	24.39	24.13	13.0	22.61	22.74	33.5	5.4	0.50	55.6
C 216B	50.80	15.88	28.58	17.02	8.28	8.33	21.34	21.08	13.0	25.45	25.58	36.1	5.4	0.50	42.3
C 220A	63.50	19.05	39.67	19.05	9.53	9.58	30.48	30.18	16.0	27.46	27.59	41.1	6.1	0.78	86.7
C 220B	63.50	19.05	39.67	19.56	10.19	10.24	26.68	26.42	16.0	29.01	29.14	43.2	6.1	0.78	64.5
C 224A	76.20	22.23	44.45	25.40	11.10	11.15	36.55	36.20	19.1	35.46	35.59	50.8	6.6	1.11	124.6
C 224B	76.20	25.40	44.45	25.40	14.63	14.68	33.73	33.40	19.1	37.92	38.05	53.4	6.6	1.11	97.9

1) The base chain dimensions are identical with those of Table 1 with the addition of the large roller diameters. Normally, the side plates are straight (not waisted).

2) The chain numbers are derived from the basic ISO chain numbers of Table 1 with the prefix C (for conveyor) and adding, as appropriate, a suffix S (for small roller) or L (for large roller).

3) The actual dimensions will depend on the type of fastener used but they should not exceed the dimensions in this column and should be obtained by the purchaser from the manufacturer.

TABLE 4 — Dimensions, measuring loads and breaking loads of extended pitch chains suitable for conveyor work¹⁾ (inch-pound units)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ISO chain number ²⁾	Pitch p	Roller diameter d_1 max.	Roller diameter (large) d_7 max.	Width between inner plates b_1 min.	Bearing pin body diameter d_2 max.	Bush bore d_3 min.	Chain path depth h_1 min.	Plate depth h_2 max.	Cranked link l_1 min.	Width over inner link b_2 max.	Width between outer link b_3 min.	Width over bearing pin b_4 max.	Additional width for joint fastener ³⁾ b_5 max.	Measuring load	Breaking load min.
	in	in	in	in	in	in	in	in	in	in	in	in	in	lbf	lbf
C 208A	1.00	0.313	0.625	0.313	0.156	0.158	0.485	0.475	0.27	0.440	0.445	0.70	0.15	28	3 100
C 208B	1.00	0.335	0.625	0.305	0.175	0.177	0.475	0.465	0.27	0.445	0.450	0.67	0.15	28	4 000
C 210A	1.25	0.400	0.750	0.375	0.200	0.202	0.604	0.594	0.33	0.545	0.550	0.86	0.16	44	4 900
C 210B	1.25	0.400	0.750	0.380	0.200	0.202	0.590	0.580	0.33	0.523	0.528	0.77	0.16	44	5 000
C 212A	1.50	0.469	0.875	0.500	0.234	0.236	0.722	0.712	0.39	0.699	0.704	1.06	0.18	63	7 000
C 212B	1.50	0.475	0.875	0.460	0.225	0.227	0.645	0.635	0.39	0.615	0.620	0.89	0.18	63	6 500
C 216A	2.00	0.625	1.125	0.625	0.312	0.314	0.960	0.950	0.51	0.890	0.895	1.32	0.21	112	12 500
C 216B	2.00	0.625	1.125	0.670	0.326	0.328	0.840	0.830	0.51	1.002	1.007	1.42	0.21	112	9 500
C 220A	2.50	0.750	1.562	0.750	0.375	0.377	1.200	1.188	0.63	1.081	1.086	1.62	0.24	175	19 500
C 220B	2.50	0.750	1.562	0.770	0.401	0.403	1.050	1.040	0.63	1.142	1.147	1.70	0.24	175	14 500
C 224A	3.00	0.875	1.750	1.000	0.437	0.439	1.439	1.425	0.75	1.396	1.401	2.00	0.26	250	28 000
C 224B	3.00	1.000	1.750	1.000	0.576	0.578	1.328	1.315	0.75	1.493	1.498	2.10	0.26	250	22 000

1) The base chain dimensions are identical with those of Table 2 with the addition of the large roller diameters. Normally, the side plates are straight (not waisted).

2) The chain numbers are derived from the basic ISO chain numbers of Table 2 with the prefix C (for conveyor) and adding, as appropriate, a suffix S (for small roller) or L (for large roller).

3) The actual dimensions will depend on the type of fastener used but they should not exceed the dimensions in this column and should be obtained by the purchaser from the manufacturer.

5.6 Attachments

5.6.1 General

Except when otherwise stated, the dimensions and test details for the chain with attachments shall conform to section 3 of this International Standard.

5.6.2 Designation

Two types of attachments are given, having the common dimensional basis as detailed in Table 5 (columns 2, 3 and 4); their designation and distinguishing features are as follows :

- K1 : with one attachment hole centrally disposed in each platform;
- K2 : with two attachment holes longitudinally disposed as shown in Figure 6.

5.6.3 Dimensions

Attachments shall conform to the dimensions given in Table 5.

5.6.4 Manufacture

The actual form of the K attachment plates is left to the discretion of the manufacturer, but the attachments are normally of integral construction whereby the chain plates are extended and bent over to make the platform, as shown in Figure 6.

The length of the attachment plate is also left to the discretion of the manufacturer, but it should be sufficient to accommodate the attachment holes longitudinally in the case of type K2, and not interfere with the working of the adjoining links. A common length is normally adopted for both type K1 and K2.

5.6.5 Marking

The marking shall be the same as would be shown on the chain plates replaced by an integral construction attachment.

STANDARDSISO.COM : Click to view the full PDF of ISO 1275:1972