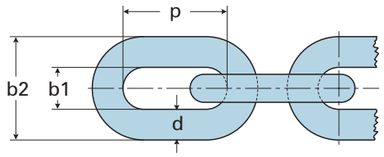
Steel Chains Grade-80 for Chain Hoists (especial uses - no lifting)

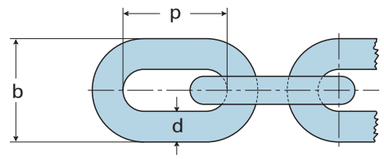


EN 818/7 Chain for powered chain hoist (DAT)

Diameter d		Ref.	Pitch p	Width		Weight	Load Maxima Work	Proof Load	Breaking Load
mm.	inches		mm.	Inside b1 min. mm.	Outside b2 max. mm.	Kg./m.	According to Norm	minim Kg	minim Kg
5	3/16	G70554	15	6,00	16,90	0,54	EN 818/7	1.900	3.100
7	1/4	G70754	21	8,40	23,60	1,08	EN 818/7	3.700	6.100
10	3/8	G71054	28	12,00	34,00	2,25	EN 818/7	7.600	12.600
13	1/2	G71352	36	15,60	44,20	3,8	EN 818/7	13.300	21.200

EN 818/7 Chain for hand chain hoist (T)

Diameter d		Ref.	Pitch p	Width		Weight	Load Maxima Work	Proof Load	Breaking Load
mm.	inches		mm.	Inside b1 min. mm.	Outside b2 max. mm.	Kg./m.	According to Norm	minim Kg	minim Kg
5	3/16	G70542	15	6,00	16,90	0,54	EN 818/7	1.900	3.100
7	1/4	G70742	21	8,40	23,60	1,08	EN 818/7	3.700	6.100
8	5/16	G70842	24	9,60	27,00	1,40	EN 818/7	4.800	8.000
10	3/8	G71042	28	12,00	34,00	2,25	EN 818/7	7.600	12.600
13	1/2	G71346	36	15,60	44,20	3,8	EN 818/7	13.300	21.200



Hand Chain (Control)

	Dimensions (mm.)			Weight (Kg./m.)
References	Diameter "d"	Pitch "t"	Wide Outside "b"	Zinc-plated
C60412	4	19	15	0,30
C60512	5	21	19	0,50
C60612	6	27	22	0,73

Amenabar

The Hoist Company

Special Products

HAND CHAIN HOIST FITTED TO THE "REDUCED HEIGHT" TROLLEY

- This type of **Amenabar** chain hoist enables its use in places of reduced height. The height loss is minimum, due to the fact that the load hook is lifted on the chain hoist side. It can be supplied with a hand driven or a chain trolley.

SYNCHRONIZED CHAIN HOIST

- The lifting of heavy loads requires suspension from more than one fixed point. In this case it is essential to guarantee a synchronized movement of all the units intervening in the lifting process and in this way avoid the overloading of any of the units or parts of the load to be lifted.
- **Amenabar** advises you and provides the appropriate solution to your specific requirements and/or problems.

INVERTED CHAIN HOIST

- For portable applications, the use of a chain hoist that operates in an inverted position reduces the effort of the operation. As it is not necessary to hang the chain hoist from the part to be suspended, it is sufficient to hang or fix the hook of the chain hoist to part of the structure. On the other hand, the supporting effort required is reduced as the hook weighs far less than the body of the chain hoist.
- The exclusive **Amenabar** permanent guidance system allows the inverted operation of its chain hoists without the need to make important modifications to the unit.

GEARED TROLLEY TO CHAIN HOIST

- The trolley to chain hoist are recommended by **Amenabar**:
  - When smooth and highly precise control is required for the lateral movement of the loads.
  - When short movements need to be performed.
  - When the load is very heavy.

Amenabar Recommendations

- The pieces to be lifted shall be of good construction, solid and resistant material.
- Do not pull on the taught chains under the load or rotate loads around them.
- The maximum permitted useful load should be visibly indicated.
- Loads should be lifted, lowered and moved slowly.
- The use of a sign on the chain indicating the maximum descent point of the load is practical.
- A signal code should exist, which is known by all operators intervening in work related to the hoisting and hauling of the loads.
- All hooks should be fitted with an effective safety bolt.
- The chains should be of wrought iron or steel as well as other accessories: rings, hooks, hoops.

Maintenance and Upkeep

- All the gears, shafts and mechanisms in general of the different units should be kept oiled and clean.
- The correct operation of the safety bolt of the hooks should be continuously checked.
- All pieces subject to deterioration should be regularly checked.
- The units should be in perfect condition and working order.
- The units should be inspected in their work position, at least once a week by the operator or other competent person.
- The chains, hooks etc., should be examined each day that they are used by the operator or designated personnel. A thorough inspection is recommended every three months and a certificate should be issued.
- The chains should be withdrawn when:
  - They are not safe due to overloads or defective or inappropriate irregularities.
  - They have stretched by more than 5% of their length.
  - The deterioration of the internal face of the links exceeds one quarter of the original thickness of the link..
- Chains should be oiled at frequent and regular intervals when rolled in drums or passing over hoists, except when they can retain or pick up sand or gravel and when they are used as slings
- Chains should be stored hanging from hooks in such a way that employees do not suffer strains and in conditions that reduce oxidation to a minimum.
- Chains which have been exposed to extremely low temperatures for hours shall be warmed.

Ergonomic Attitudes

- The arms of the worker shall be alternately extended to the maximum possible when pulling the traction element.
- The traction element shall not be wrapped around the hand but shall be tightly held.
- Feet shall be supported on a solid base. According to the case: separated or one in front of the other.
- The back shall always remain straight.
- It is strictly forbidden to stand below a suspended load.

We advise that these recommendations are clearly visible near to the work station for the correct and safe use of the units.

Personal Protection

Operators involved in the handling and manipulation of these units should have personal protection equipment consisting of a minimum of:

- Gloves.
- Safety boot with reinforced toecaps.
- Protective helmets.

The use of safety harnesses is reserved for those positions involving a risk of fall from a height.

When the work position is uncomfortable and the back is subjected to abnormal strains, the employee shall be provided with an anti-lumbago belt.

Suspended Loads | Compulsory Head Protection | Electrical Risk | Compulsory Hand Protection

General Risks for all Machines

RISKS	PREVENTATIVE MEASURES
Breakage of chains:	■ Chains shall be made of wrought iron or steel. The safety factor shall be at least five for the maximum nominal load. ■ All chains shall be checked before being put into operation. ■ The chain shall always be rolled around the rolling lathe a minimum of three times. ■ When not in use, chains should be stored in clean, dry, well ventilated and closed spaces in order to protect them against corrosion or other damage.
Cuts, grazes or jamming:	■ Pull prudently on the chain and in a coordinated way. ■ Do not touch moving parts. ■ Chains should not be wrapped around the hand but held tightly with both hands.
Dropping to another level:	■ If a risk exists, the area shall be protected with rigid hand rails around its perimeter, only leaving the area for unloading materials free, which will be protected by a detachable hand rail.
Load Dropping:	■ Do not stand under suspended loads. ■ All hooks should be equipped with a safety latch. ■ When the shaft signal prevents the hoisting or stoppage signal from being heard, an auxiliary rope will be fitted with a n audible element or other signal on the upper extreme, in such a way that when manipulated by the operator located at the bottom can advise his colleague of the moment the load is lifted or stopped. ■ Another extremely practical system is to introduce a signal on the chain indicating the maximum descent point of the load and particularly in the lathe, i.e. a depth indicator. ■ Do not lower the load quickly. ■ Always check the proper operation of the braking system. ■ Regularly check the deterioration produced by the essential elements of the chain units: cogs, shafts, slings etc.

- UNE 58915/1992 Series Elevation Units.
- UNE 58919/1995 Series Elevation Units. Measures to be taken to determine the operating periods of the power driven units.
- UNE 58920/1999 Elevation Force Restrictors for the control of power-driven elevating mechanisms. Chain Hoist.
- UNE-EN 818/7: 2002 Elevation Chains with short links. Safety. Part 7: Calibrated Chain for Chain Hoists. Class T (Types T, DAT and DT).
- UNE 58-234/1994, On-going Maintenance Equipment.

  Suspended Monorails with electric trolley.

  Definition and Safety Rules.
- UNE 18-024/1953, Jagged hoists for calibrated chains.
- UNE 58-509/1979 Elevation Hooks. General Characteristics.
- UNE 58-515/1982 Elevation Hooks. Nomenclature
- UNE-EN 1677-2/2001, Sling Accessories. Safety.

  Part 5: Wrought Elevation Hooks with safety pointer, class 8.
- General Decree for Safety and Hygiene in the Workplace

  In Chapter X, dedicated to "Elevation and Transport", we find the following Acts:

Act 100:	Construction of equipment and mechanisms.
Act 101:	Maximum Load.
Act 102:	Load Handling.
Act 103:	Service and Maintenance.
Act 104:	Brakes.
Act 107:	General Rules.
Act 111:	Rigging for Chain Hoists. Chains.

- Labour Decree for Construction, Glass and Ceramics.

  In Sub-section 4: Elevation Units, Transport and Similar", we find the following Acts:

Act 277: On general conditions.
Act 278: Maximum Load.
Act 279: On stationing under loads.
Act 280: Maximum Manual Overload.
Act 285: On mechanism verification.
Act 286: On chain, rope, cable quality.
Act 287: On Hooks.

REVIEWS OF REGULATIONS

- ROYAL DECREE 2291/1985. Regulation for Lifting Equipment (MINISTRY OF INDUSTRY AND ENERGY, Official Journal number 296, 11th December 1985). Affected by:
  1. Transposed except, Acts. 10, 11, 12, 13, 14, 15, 19 and 23, for ROYAL DECREE 1314/1997, Single Repealing Provision).
- ROYAL DECREE 1215/1997, 18th July, setting out the minimum health and safety provisions for the use of work equipment by employees
- Directive 89/655/EEC, 30th November 1989, amended by the Directive 95/63/CE, 5th December 1995, establishes the minimum health and safety provisions for the use of work equipment by employees
- AGREEMENT 119 OF OIT, relating to machinery protection
- ROYAL DECREE 1435/1992, 27th November, in which the application stipulations of the Council Directive 89/392/CEE, relating to the approximation of the legislation of member states on machinery. (Includes the subsequent modification made by R.D. 56/1995)
- Directive 89/392/EEC, relating to the approximation of the legislation of member states on machinery (published in the "Official Journal of European Communities", number L 183, 29th June, 1989), later modified by the Council Directive 91/368/EEC, 20th June ("Official Journal of European Communities", number L 198, 22nd July, 1991).
- Council Directive 93/68/EEC, 22nd July (DOCE number L220/1, 30th August, 1993), modified at the same time several Directives among which, the Directive 89/392/CEE
- ROYAL DECREE 56/1995, 20th January, in which ROYAL DECREE 1435/1992, 27th November was modifies, relating to the application stipulations of the Council Directive 89/392/CEE, on machinery.

Amenabar

The Hoist Company

Notes:

1. **Amenabar** reserves the right to make any changes to this catalogue without prior warning for product modification or in compliance with the prevailing legislation.
2. For some information in this catalogue, the source is MTAS.

Request Details:

Company _____ Department _____

Contact Name _____

Street _____ Postal Code _____ Area _____

Telephone _____ Fax _____ E-mail _____

We wish to receive information about:

Details of expected use _____

Model _____ Number of feeder lines _____ Required Capacity _____

Elevation Height _____ Elevation Speed _____

Additional Devices:

☐ Lowering control ☐ Collection Box ☐ Beam End

☐ Load Restrictor ☐ Maximum Speed _____ ☐ Minimum Speed _____ ☐ Space limitations: Long _____ High _____ Wide _____

Environmental Conditions:

☐ Normal ☐ Relative Humidity _____ % ☐ Dust ☐ Dirt

☐ Maximum Temperature _____ ☐ Minimum Temperature _____ Other Characteristics _____

Operation time of the chain hoist:

_____ Loading cycle per hour _____ Hours per Day _____ Days per Week _____ Distance covered for each cycle

Unusual conditions which may affect the selection and use of the powered chain hoist:

Type of Use (see page 16):

☐ Light ☐ Medium ☐ Heavy ☐ _Very Heavy

Fixing:

☐ Hook ☐ Manual Trolley ☐ Chain Trolley ☐ Power driven Trolley Beam Wing Width for Trolley _____

Voltage:

☐ Tri-phase ☐ Mono-phase ☐ 230 V ☐ 400 V ☐ Other

Frequency:

☐ 50 Hz ☐ 60 Hz

Protection:

☐ IP 55 ☐ Other

09/2005