

GB Instruction for use

POWERTEX



Short Link Lifting Chain PSL Grade 10

User Manual



POWERTEX Short Link Lifting Chain PSL

Instruction for use (GB) (Original instructions)

General:

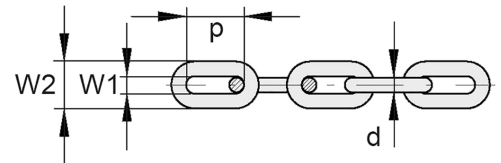
POWERTEX PSL Grade 10 chains are intended to be cut in suitable lengths by professional sling shops and used as parts making up assembled lifting equipments such as chain slings or lifting beams. The assembled lifting equipment must not be put into service until the complete lifting assembly has been certified to be in accordance to the Machinery directive 2006/42/EC. Make sure to follow the chain sling or lifting equipment manufacturer's instructions. PSL short link lifting chains are CE-marked and delivered with a POWERTEX Certificate & Declaration of Conformity in accordance to Machinery Directive 2006/42/EC. The chains follow also EN 818-2 (Grade 8) with exception for higher WLL (+25%) and limitation of using temperature to max 200°C.

Standard applied: EN 818-2 (WLL+25%)

Proof load testing: Each link has been proof load tested 2,5 x WLL at the factory prior delivery

Temperature range: -40°C up to +200°C

Safety factor: 4:1.



Data and dimensions

Model	Chain Ø d (mm)	WLL (ton)	Proof load (kN)	Min breaking force (kN)	Pitch p (mm)	W1 min (mm)	W2 max. (mm)	Weight (kg/m)
PSL-6-10	6	1,4	35,3	56,5	18	7,8	22,2	0,8
PSL-7-10	7	1,9	48,1	77,0	21	9,1	25,9	1,2
PSL-8-10	8	2,5	62,8	101	24	10,4	29,6	1,5
PSL-10-10	10	4,0	98,2	157	30	13,0	37,0	2,3
PSL-13-10	13	6,7	166	265	39	16,9	48,1	3,9
PSL-16-10	16	10,0	251	402	48	20,8	59,2	5,8
PSL-19-10	19	14,0	354	567	57	24,7	70,3	8,4
PSL-20-10	20	16,0	393	628	60	26,0	74,0	8,9
PSL-22-10	22	19,0	475	760	66	28,6	81,4	11,4
PSL-26-10	26	26,5	664	1060	78	33,8	96,2	16,0
PSL-32-10	32	40,0	1005	1610	96	41,6	118	24,1

Use in adverse environments

Temperature's effect on working load limit (WLL)

Account should be taken to the temperature that can be reached by the chain in service. PSL chain in grade 10 can be used in temperatures between -40°C and up to +200°C without reduction of the working load limits. If the chain sling reaches temperatures that exceed the allowed temperatures the chains should be discarded or be returned to your distributor for evaluation.

Corrosive/Acidic conditions

Grade 10 is not suitable for use in corrosive environments. Chains in grade 10 should not be used either immersed in acidic solutions or exposed to acid fumes. The chains should for the same reason not be hot dip galvanized or exposed to electrolytic finishing without permission from the manufacturer.

Chemical affects

Consult with your distributor in case the chains are to be exposed to chemicals especially combined with high temperatures.

Hazardous conditions

In particularly hazardous conditions including offshore activities, lifting of a person, and lifting of potentially dangerous loads such as molten metals, corrosive materials or fissile materials, the degree of hazard should be assessed by a competent person and the working load limit adjusted accordingly.

Before first use

Ensure that

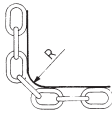
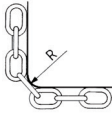
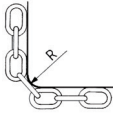
- a) the chain is precisely as ordered;
- b) the manufacturer's Certificate/Declaration of Conformity and User manual is available;
- c) the identification and working load limit marking on the chain/ chain packing correspond to the information on the certificate;
- d) full details of the chain is recorded in a register;

Before each use of lifting chains

Make sure to follow the chain sling or lifting equipment manufacturer's user instructions. The chain should be inspected for obvious damage or deterioration. If faults are found during this inspection, the procedure given in "Inspections and maintenance" should be followed. Chains must always be used without twists or knots. Shortening hooks may be used to adjust chain legs that needs shortening.

Reduction of WLL due to sharp edges

It is important to protect the chain links from damages from sharp edges. If proper padding can't be used the WLL of the sling needs to be reduced according to below reduction table

Edge load	R = larger than 2 x chain Ø	R = larger than chain Ø	R = chain Ø or smaller
			
Load factor	1 x WLL	0,7 x WLL	0,5 x WLL

Storage

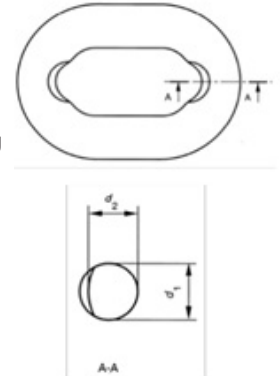
Store chains in a dry and clean area well protected from corrosion.

Inspections and maintenance

Daily inspection

During service, chains are subjected to conditions that may affect their safety. It is necessary, therefore, to ensure, as far as it is reasonably practicable, that the chain is safe for continued use. If any of below damages are found the chain should be taken out of service for a thorough examination:


- a) The chain has been overloaded. If the chain slings have extended or if free rotation between the links are missing or if there is a noticeable difference in length between legs in a multi-leg sling, the reason can be that the chain has been overloaded.
- b) Wear by contact with other objects usually occurs on the outside of the straight portions of the links where it is easily seen and measured. Wear between adjoining links is hidden. The chain should be slack and adjoining links rotated to expose the inner end of each link. Inter-link wear (in the bearing points) is tolerated until the mean value of two measured values 90° against each other has been reduced to 90% of the nominal diameter
- c) Cuts, nicks, gouges, cracks, excessive corrosion, heat discoloration, bent or distorted links or any other defects.



Thorough examination

A thorough examination should be carried out of a competent person at intervals not exceeding twelve months. This interval should be less where deemed necessary in the light of service conditions. Records of such examinations should be maintained. Chains should be thoroughly cleaned to be free from oil, dirt and rust prior to examination. Any cleaning method which does not damage the parent metal is acceptable. Methods to avoid are those using acids, overheating, removal of metal or movement of metal which may cover cracks or surface defects. Adequate lighting should be provided and the chain should be examined throughout its length to detect any evidence of overloading, wear, distortion cracks or external damages that may affect safety.

Repair: If any chain link within the leg of a chain sling is required to be replaced then the entire length of the chain leg need to be renewed.

 **End of use/Disposal**

Chains shall always be sorted/scrapped as general steel scrap. Your POWERTEX distributor will assist you with the disposal, if required.

EC Declaration of Conformity

SCM Citra OY
 Asessorinkatu 3-7
 20780 Kaarina Finland
 www.powertex-products.com

hereby declares that the POWERTEX product as described above is in compliance with EC Machinery Directive 2006/42/EC and EN 818-2 (WLL+25%).

UK Declaration of conformity

SCM Citra OY
 Asessorinkatu 3-7
 20780 Kaarina, Finland
 www.powertex-products.com

hereby declares that the POWERTEX product as described above is in compliance with the Supply of Machinery (Safety) Regulations 2008 & BS EN 818-2 (WLL+25%).

CertMax+

The CertMax+ system is a unique leading edge certification management system which is ideal for managing a single asset or large equipment portfolio across multiple sites. Designed by the Lifting Solutions Group, to deliver optimum asset integrity, quality assurance and traceability, the system also improves safety and risk management levels.

CertMax

Marking

The POWERTEX PSL Chain links are marked with factory symbol, Grade and traceability code marking of the batch.

The POWERTEX Short Link Chain is **CE** and **UKCA** marked.

Standard: EN norms 818-2 +25 % WLL and ASTM A973.



User Manuals

You can always find the valid and updated User Manuals on the web. The manual is updated continuously and valid only in the latest version.

NB! The English version is the Original instruction.

The manual is available as a download under the following link:
www.powertex-products.com/manuals



Product compliance and conformity

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