

# **CHAIN BLOCKS**

# MODEL NO's: CB500E CB1000E CB2000E CB3000E

**CB5000E** 

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.





Wear protective

gloves



footwear





Wear head protection

Wear eye protection

Refer to instructions

# 1. SAFETY

# 1.1. UNDERSTANDING INSTRUCTIONS AND WARNINGS

- The owner and/or operator shall understand the operating instructions and warnings before operating the chain block.
- **WARNING!** Information must be emphasised and understood.
- ✓ If the operator is not fluent in English, the product instructions and warnings must be read to, and discussed with, the operator in the operator's native language by the owner, making sure the operator understands the contents.
- Ensure that the chain block is in a good working order and condition. Follow the inspection requirements as described in Section 8 Maintenance. Take immediate action to repair or replace damaged parts by contacting your supplier. Ensure that all accessory lifting devices are suitably certified. If the chain block is damaged, remove from service immediately.
- Use recommended parts only. The use of unauthorised parts may be dangerous and will invalidate the warranty.
- Wear goggles, hard hat, protective gloves, and steel-toed work boots during set up and use.
- WARNING! Failure to heed safety and warning instructions may result in damage and/or personal injury and will invalidate the warranty.
- This chain block is designed for lifting within a garage or workshop environment.
- ✓ Ensure the support for the chain block is capable of withstanding a load of at least 1½ times the chain block safe working load.
- ✓ Keep the chain block clean for the best and safest performance.
- ✓ Locate the chain block in a suitable, well lit work area. Keep work area clean and tidy and free from unrelated materials.
- Ensure all non-essential persons keep a safe distance whilst the chain block is in use.
- ✓ Keep children and unauthorised persons away from the working area.
- ✓ Store in a dry, childproof area when not in use.
- To avoid injury, be fully aware of your own and other people's locations, in relation to the lifting, and lowering, of the load.
- ✓ Keep a sound footing and balance, and ensure the floor is not slippery.
- Ensure load sling(s) are fully engaged in the load hook and that the hook safety bar is in the closed position. Raise and lower in a smooth, controlled manner and DO NOT shock load the chain block by allowing the attached load to fall freely, even for very short distances. Lower load with care, ensuring that you are fully aware of the condition of the surface onto which the load is to be placed.
- Check the brake operation by stopping when the load has been raised a short distance (100mm) and ensuring that it is held with no downward creep.
- ✓ Before operating inspect both hooks to ensure it is securely attached.
- ✓ Ambient operating temperature is between -10°C and +50°C.
- ✓ All moving parts should always be kept lubricated before operating. Use a qualified person to lubricate and maintain the various parts.
- ▲ DANGER: Use the chain block for lifting only, NOT for supporting the lifted load.
- **DO NOT** operate chain block with anything other than manual power (by hand).
- **DO NOT** allow the load to swing during operation and **DO NOT** subject the equipment, chains or straps to shock loads.
- **DO NOT** use the chain block in an explosive or corrosive atmosphere.
- **DO NOT** operate the chain block if damaged.
- DO NOT allow untrained persons to operate the chain block.
- DO NOT exceed the rated capacity (safe working load) of the chain block.
- DO NOT attempt to lift a load if the chain block is kinked or knotted.
- DO NOT try to raise a load with two, or more, chain block use a single block of adequate capacity.
- **DO NOT** use the chain block to drag the load across the floor. Always position the load directly below the hoist.
- **DO NOT** wrap the chain block around the load always use separate and suitable slings/chains/ropes of the correct capacity.
- DO NOT allow anyone to stand or pass beneath the raised load.
- DO NOT use the chain block for purposes other than that for which it is designed.
- DO NOT lift people or lift loads over people. DO NOT stand under load. Falling loads can injure or kill people.
- DO NOT operate chain block with dangerous goods (e.g. molten masses, radioactive materials).
- **DO NOT** use whilst under the influence of drugs, alcohol or intoxicating medication.
- ✓ When not in use, store in a safe, dry, childproof location.
- DO NOT remove or cover warning labels and/or tags. These carry important safety information. If unreadable or missing, contact Sealey Customer Service Centre for a replacement.
- □ **WARNING!** Failure to heed safety and warning instructions may result in damage and/or personal injury and will invalidate the warranty.

**NOTE:** Ensure you have read and understood the safety instructions at the beginning of this section before you operate the chain block.

# 2. GENERAL

### **IDENTIFICATION/SUPPLIER**

Sealey Power Products, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk, IP32 7AR.

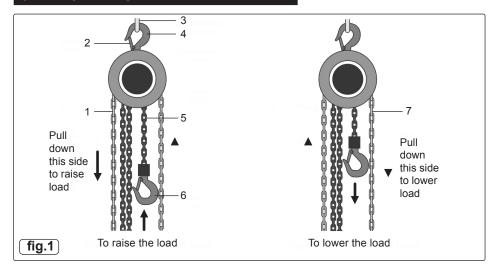
# 3. INTRODUCTION

Fitted with heat treated and ground gearing. Mechanical load brake for extra safety. All chains are manufactured from hardened alloy material. Load hooks feature safety latches. Compact gear housing allows use where headroom is limited.

# 4. SPECIFICATION

Model No:	CB500E	CB1000E	CB2000E	CB3000E	CB5000E
Capacity:	0.5tonne	1tonne	2tonne	3tonne	5tonne
Chain Falls:	1	1	2	2	2
Head Room:	280mm	322.5mm	380mm	470mm	600mm
Load Chain Diameter:	Ø6mm	Ø6mm	Ø6mm	Ø8mm	Ø10mm
Maximum Hook Capacity Ø:	24mm	28mm	34mm	38mm	41mm
Nett Weight:	8.7kg	9.1kg	12.3kg	21.5kg	35kg
Pulling Effort:	161N	322.5N	345N	404N	476N
Safe Working Load:	500kg	1000kg	2000kg	3000kg	5000kg
Standard Lift:	2.5m	2.5m	2.5m	3m	3m

# 5. CONTENTS



1	Hand Chain		
2	Hook Latch		
3	Supporting Structure		
4	Suspension Hook		
5	Load Chain		
6	Load Hook		
7	Hand Chain		

# 6. ASSEMBLY

6.1.1. The lever hoist is delivered assembled. Unpack the product and check contents against the parts list in these instructions. Should there be any damaged or missing parts, contact your supplier immediately. It is recommended that two people lift the heavier models from their boxes and hook them onto the support to be used.

# 7. OPERATION

- 7.1. OPERATION (Refer to Section 8.2 regarding daily inspection before each and every use).
  A risk assessment must be carried out before undertaking any operations with the chain block.
- 7.1.1. Ensure that the chain block is suspended from a structure capable of supporting at least 1½ times the safe working load of the hoist and that the hoist hook is fully engaged, with the safety bar closed. See illustrations in fig.2.



- 7.1.2. Confirm that the load does not exceed the Safe Working Load of the hoist.
- 7.1.3. Ensure that slings/chains/ropes around the load are adequate and in good condition and that the load is directly below block.

#### 7.2. LIFTING LOAD

- 7.2.1. Pull the load chain (1) in fig.1 down to raise the load.
- 7.2.2. Attach slings/chains/ropes to chain block load hook and ensure safety bar is closed.
- 7.2.3. Make sure load is vertical (i.e. not pulling at an angle).
- 7.2.4. Start to raise the load by pulling the chain (1). Check that the load is level, with no possibility of the load tilting and/or slipping from its restraints. If necessary lower load and re-adjust slings to obtain a safe, level lift. Stop lifting at approximately 100mm to check that brake will hold load.
- 7.2.5. Continue to raise load to required height in a slow and controlled manner. **DO NOT** raise so far that load hook comes into contact with the chain block.

### 7.3. LOWERING LOAD

7.3.1. Pull down on chain (7), the load will be lowered. (If there isn't a load on the bottom hook (6) it will still move up and down, this is normal operation).

### 8. MAINTENANCE

#### 8.1 LUBRICATION

- 8.1.1. Check daily for any signs of rust or corrosion. Without a load check for signs of rust that are visible and clean as needed.

  NOTE: The chain block MUST be kept clean and dry and must be maintained in accordance with these instructions.
- 8.1.2. After use, clean off the dirt on the chain block and keep it in a dry place.
- DO NOT use motor oil to lubricate the equipment. Lubricate the load chain and hook shanks regularly using lithium grease.
- 8.1.3. Chain wear in the link points needs to be avoided by lubricating the chain at regular intervals tailored to usage. When lubricating the chain, also check its ware status.

### 8.2. DAILY INSPECTION

- □ WARNING! Procedures not specifically explained in this manual must be performed only by a qualified technician.
- 8.2.1. Perform the procedures in this section BEFORE INITIAL USE and DAILY. Inspection is needed more often for heavily used hoists.
- 8.2.2. Check operating mechanisms for proper operation, proper adjustment, and unusual sounds.

### 8.3. QUARTERLY

- 8.3.1. Quarterly (every 3 months), clean off load chain, then lubricate load chain links with lithium grease. Apply grease to inner surfaces of load chain, where the links rub against each other.
- 8.3.2. Repair or replacement of hoist components must be performed only by a qualified technician using only identical replacement parts with the same rating.

### 8.4. FREQUENT BRAKING SYSTEM INSPECTION

8.4.1. The braking system must automatically stop and hold up to the rated load if the hand chain is released.

### 8.5. FREQUENT HOOK INSPECTION

- 8.5.1. Distortion, such as bending, twisting, or increased throat opening.
- 8.5.2. Wear.
- 8.5.3. Cracks, nicks, or gouges.
- 8.5.4. Latch engagement (if equipped).
- 8.5.5. Damaged or malfunctioning latch (if provided).
- 8.5.6. Hook attachment and securing means.

## 8.6. FREQUENT HOIST LOAD CHAIN INSPECTION

- 8.6.1. Test the hoist under load in lifting and lowering directions and observe the operation of the chain and sprockets. The chain should feed smoothly into and away from the sprockets.
- 8.6.2. If the chain binds, jumps, or is noisy, first see that it is clean and properly lubricated. If the trouble persists, inspect the chain and mating parts for wear, distortion, or other damage. Examine visually for gouges, nicks, weld spatter, corrosion, and distorted links. Slacken the chain and move the adjacent links to one side to inspect for wear at the contact points. If wear is observed or if stretching is suspected, the chain should be measured as follows:
  - I) Select an unworn, un-stretched length of the chain (e.g., at the slack end).
  - II) Suspend the chain vertically under tension and, using a calliper-type gauge, carefully measure the outside length of any convenient number of links approximately 12" to 24" overall.
  - III) Carefully measure the same number of links in the used sections and calculate the percentage increase in length.
  - IV) If the used chain is 2.5% longer than the unused chain, replace the chain.
  - Check rope or load chain reeving.
- □ **WARNING!** To prevent serious injury from hoist failure: **DO NOT** use damaged equipment. If any defect or damage is noted, repair the problem before further use.

## 8.7. MONTHLY INSPECTION

- 8.7.1. A qualified technician should perform the procedures in this section AT LEAST EVERY 3 Months. Inspection is needed more often for heavily used hoists. Remove or open access covers to allow inspection of components.
- 8.7.2. First, follow all Frequent Inspection procedures. Additionally:
- 8.7.3. Check fasteners for evidence of loosening.
- 8.7.4. Check load blocks, suspension housings, hand chain wheels, chain attachments, clevises, yokes, suspension bolts, shafts, gears, bearings, pins, rollers, and locking and clamping devices for evidence of wear, corrosion, cracks, and distortion.
- 8.7.5. Check hook retaining nuts or collars, and pins, welds, or rivets used to secure the retaining members for evidence of damage.
- 8.7.6. Check load sprockets, idler sprockets, drums, and sheaves for evidence of damage and wear.
- 8.7.7. Check the brake mechanism for evidence of worn, glazed, or oil contaminated friction disks; worn pawls, cams, or ratchets; and corroded, stretched, or broken pawl springs.
- 8.7.8. Check supporting structure or trolley, if used, for evidence of damage.
- 8.7.9. Check warning label for legibility and replacement.
- 8.7.10. Check end connections of wire ropes or load chains for evidence of wear, corrosion, cracks, damage, and distortion.

### 8.8. STORAGE INSPECTION

- 8.8.1. Store in a dry location, recommended indoors.
- 8.8.2. A hoist that is used in infrequent service, which has been idle for a period of a month or more, but less than a year, must be inspected before being placed in service according to the Frequent Inspection requirements.
- 8.8.3. A hoist that is used in infrequent service, which has been idle for a period of a year or more, must be inspected before being placed in service according to the Periodic Inspection requirements.
- 8.8.4. Equipment should be stored in an area where they will not be subjected to damage.
- 8.8.5. If extreme temperatures or chemically active or abrasive environments are involved, the guidance provided in shall be followed.
- **8.8.6. TEMPERATURE** When equipment are to be used at temperatures above 140"F (60"C) or below -20"F (-29"C), the equipment manufacturer or a qualified person should be consulted.
- **8.8.7. CHEMICALLY ACTIVE ENVIRONMENTS** The strength and operation of equipment can be affected by chemically active environments such as caustic or acid substances or fumes. The equipment manufacturer or a qualified person should be consulted before equipment are used in chemically active environments.
- **8.8.8. OTHER ENVIRONMENTS** The internal workings of equipment can be affected by high moisture, gravel or sand, silt, grit, or other dust-laden air. Equipment subject to these environments should have their inner components frequently cleaned, inspected, and lubricated. **Note:** If the equipment is stored outdoors, be sure to lubricate all parts before and after use to ensure the equipment stays in good working condition.

### 8.9. DAMAGED CHAIN BLOCK

8.9.1. Any chain block which appears to be damaged, badly worn, or operates abnormally, **MUST BE REMOVED FROM SERVICE!** It is recommended that necessary repairs be made by an authorised service agent.

### 8.9.2. CLEANING

8.9.3. If the moving parts of the equipment are obstructed, use cleaning solvent or another good de-greaser to clean the equipment. Remove any existing rust.

### 8.10. END OF SERVICE

8.10.1. Through years of normal wear, the chain block will eventually become unserviceable. When this happens ensure that it is disposed of in accordance with local authority regulations.

### 9. TROUBLESHOOTING

9.10.1. The chain block is a dependable workhorse that runs without problems most of the time; however, they do sometimes require maintenance or repair. It is necessary to conduct basic maintenance and troubleshooting in the field to keep the chain block in good working condition or to make informed decisions on repair or replacement. Determination of specific causes of problems has to be identified through inspections performed by TRAINED or PROFESSIONAL Technicians. The parts should be the original one.

SYMPTON	CAUSE	REMEDY	
Hoist does not lift without load.	The hand chain is twisted.	Disassemble the housing, Align the hand chain.	
	Hand chain is not installed properly.	Reinstall the hand chain properly.	
	Damaged hand chain/hand chain wheel or gear.	Replace the defective parts with original spare parts or scrap directly.	
	Overloading.	Reduce the lading to rated capacity.	
	The hand chain is twisted.	Disassemble the housing, Align the hand chain.	
	The load hook was pulled against the housing and got stuck.	Release the hook, unload the hoist and try again.	
Load is not lifted.	Brake disc is worn.	Replace the defective parts with original spare parts.	
	The load chain is twisted.	Align the load chain.	
	Load chain/load chain wheel or gear is worn.	Replace the defective parts with original spare parts or scrap directly.	
Load is lifted with interruptions or does	The load chain is twisted.	Align the load chain.	
not lift the whole distance.	Hook stuck.	Inspect the hook and replace the original parts if necessary.	
	Brake disc is too tight.	Adjust the tolerance between chain wheel and the screws.	
Hoist does not lower the load.	Keep loading too long time,the brake is stuck by impact stress during lifting.	Pull down the hand chain with much power to loosen the brake.	
Load slips down particularly during lowering.	Brake discs are missing,installed incorrectly or worn.	Replace the brake discs by original spare parts; or install it correctly.	
The latch does not work.	Latch broken.	Replace the hook latch by original parts.	
	Load hook bent or twisted.	Inspect the hook and replace the original parts if necessary.	



# **ENVIRONMENT PROTECTION**

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No Liability is accepted for incorrect use of this product.

WARRANTY: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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