GEARED TROLLEY 2 TONNE

MODEL NO's: **PT2000G.V3**

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.


Refer to instructions


Wear eye protection


Wear safety footwear


Wear head protection

1. SAFETY

1.1. GENERAL SAFETY

CAUTION Read all safety regulations and instructions. Any errors made in following the safety regulations and instructions may result in serious injury.

× **DO NOT** allow untrained personnel to operate or maintain the machinery.

✓ Keep all safety regulations and instructions in a safe place for future use.

❑ **WARNING!** Ensure Health & Safety, local authority, and general workshop practice regulations are adhered to when using this product.

❑ **WARNING!** This machinery must only be operated by trained and competent personnel.

❑ **WARNING!** Ensure all safety guards and covers are in place before use. **DO NOT** operate the machine with any safety devices removed or disabled.

❑ **WARNING!** Wear appropriate personal protective equipment (PPE) at all times, including gloves, safety boots, and eye protection.

❑ **WARNING!** Never exceed the rated capacity of the equipment. Overloading may cause mechanical failure and pose a serious hazard.

❑ **WARNING!** Ensure the machine is securely fixed and placed on a stable, level surface to prevent tipping or shifting during operation.

❑ **WARNING!** Keep hands, hair, loose clothing, and tools away from moving parts.

✓ Locate product in a suitable working area.

❑ **WARNING! DO NOT** lift or transport loads over people.

❑ **WARNING!** Ensure the load is properly secured and evenly distributed before lifting.

❑ **WARNING!** Never use damaged slings, chains, hooks, or any part of the lifting assembly.

❑ **WARNING!** Never leave a suspended load unattended.

❑ **WARNING!** Avoid shock loading; lift and lower loads slowly and smoothly.

❑ **WARNING!** Inspect lifting devices and accessories before each use for signs of wear or damage. **DO NOT** use if any part is compromised.

❑ **WARNING!** Only use this equipment on beams or supports that are verified for strength and compatibility with the rated capacity.

❑ **WARNING!** When the load prevents adequate visibility of the zone in front of the load, there is a necessity to be assisted.

❑ **WARNING!** It is necessary to carry out a risk assessment to avoid injuring due to over intensive use.

❑ **WARNING!** When the load prevents adequate visibility of the zone in front of the load, there is a necessity to be assisted.

❑ **WARNING!** Prolonged lowering of loads can overheat the braking system, reducing its effectiveness and risking uncontrolled descent. This may cause brake damage and pose serious safety hazards. Allow cooling periods and avoid continuous lowering to prevent overheating.

× **DO NOT** exceed the rated load capacity. Doing so may result in equipment failure or personal injury.

× **DO NOT** stand or walk under a suspended load.

× **DO NOT** use the equipment if any part appears damaged, loose, or worn.

× **DO NOT** attempt to modify or alter the machine in any way without manufacturer approval.

× **DO NOT** leave the machine running or a load suspended when unattended.

× **DO NOT** use makeshift or non-original parts to replace lifting or structural components.

× **DO NOT** operate the machine under the influence of alcohol, drugs, or medication that impairs alertness.

× **DO NOT** remove, bypass, or disable safety devices or warning labels.

× **DO NOT** use the equipment in explosive or flammable atmospheres unless certified for such environments.

× **DO NOT** pull or drag loads sideways using vertical lifting equipment.

× **DO NOT** use lifting equipment for purposes other than those for which it was designed.

✓ This equipment is designed to operate in ambient temperatures between -10°C and +40°C. **DO NOT** use the machinery outside this range unless it has been specifically adapted or rated for extreme conditions. Operating outside of the specified temperature range may affect performance, compromise safety, or cause damage to components.

1.2. MAXIMUM ELEVATION OF THE FIXING POINT

The maximum elevation of the fixing point refers to the highest vertical position at which the hoist or load hook can safely lift a load. This is typically determined by the design of the hoist, trolley, and beam height. It is the point where the bottom hook reaches its uppermost position without interference or risk of collision with the trolley or structure.

2. INTRODUCTION

Heavy-duty steel construction with powder coat paint finish for corrosion resistance. Suitable for use with our lever hoists or chain blocks. Designed for mounting onto an I-beam or RSJ to allow load to be manoeuvred sideways. Geared block trolleys make it easier to move heavy loads along the gantry by using chain rather than manual handling. Incorporates wheel guards to prevent contact with other trolleys mounted on same load bearer.

3. SPECIFICATION

Model No:	**PT2000G.V3 (**fig.1)
Nett Weight:	15.8kg

Capacity	**I-Beam Width**	**Amm**	**Bmm**	**Cmm**	**Hmm**	N.W./KGS
2T	80~168mm	312	255	233	128	15.8

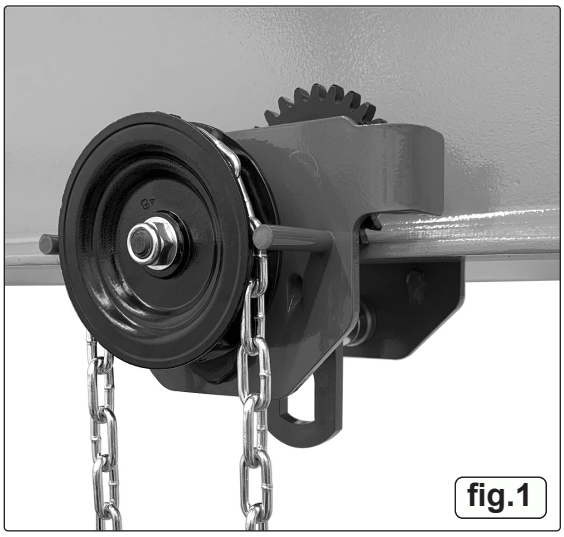

fig.1

4. CONTENTS

Numbers refer to Contents illustration on right fig.3. And also refers to attached parts list.	
1	Main Pin
2	Gear Case Assembly
3	Driven Wheel
4	Driven Wheel
5	Tooth Gear
6	Gear Case Assembly
7	Axle Housing
8	Chain Wheel
9	Lifting Ring
10	Hex Nut
11	Space Washer

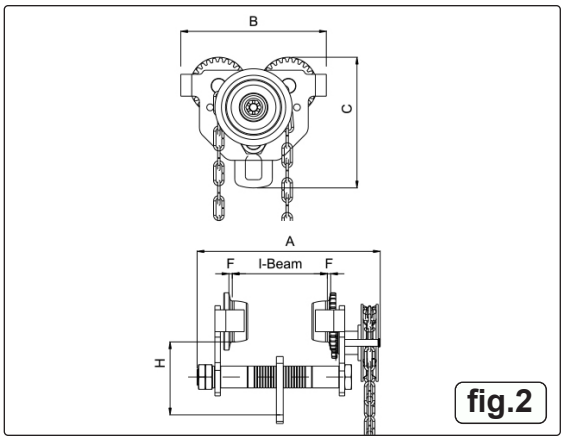

fig.2

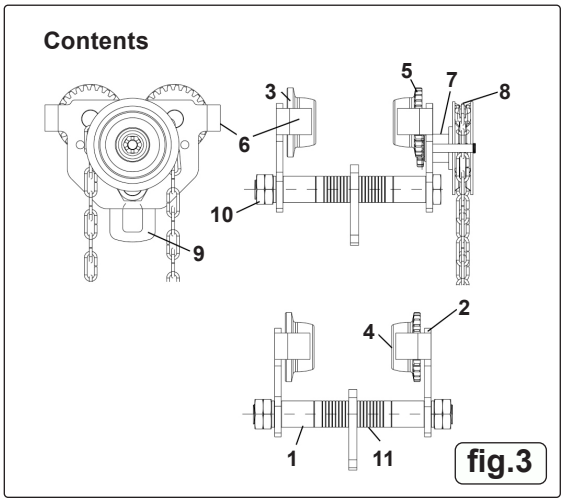

fig.3

5. PRE-INSTALLATION CHECKS

Ensure the installation site can support the full load capacity.

5.1. UNPACKING

5.1.1. Carefully unpack the geared trolley and remove all components from the packaging. Check the contents against the parts list to ensure everything is present and undamaged. Inspect all components for any signs of damage caused during transport. Do not use the equipment if any parts are bent, cracked, or otherwise compromised. Retain the packaging for future storage or transport if necessary, and dispose of any packing materials in accordance with local regulations. **WARNING**: The trolley is heavy, use proper lifting techniques or mechanical assistance to avoid injury.

5.1.2. PROCEDURE FOR CORRECT MOUNTING

To mount the geared trolley correctly, begin by ensuring that the runway beam is suitable for the trolley. The beam must be clean, structurally sound, and within the specified width and load capacity range. Measure the actual width of the beam flange accurately. Using this measurement, assemble the required number of spacer washers on the inside of the trolley side plates, also refer to parts list so that the distance between the trolley wheel flanges is no more than 6 mm (1/4 inch) greater than the beam flange width. Distribute the washers equally on each side inside the trolley to maintain balance, and place any remaining washers on the outside. There must always be at least one washer on both the inside and outside of each trolley side plate (see fig.2 for reference).

Next, fit the side plates and nuts to the main pin, but do not fully tighten them yet. Slightly slacken the nuts and spread the side plates apart so the trolley wheels can slip over the beam flange. If the beam has open ends, slide the trolley on; otherwise, assemble it directly on the beam. Once the trolley is positioned, screw the nuts firmly against the inside washers to secure the assembly. Ensure that the wheels rest evenly on the beam flange and rotate freely. Suspend a light test load from the trolley to confirm that all four wheels maintain proper contact with the beam. Then, fully tighten the nuts against the washers and secure them with lockouts to prevent loosening during use.

Finally, ensure the hand chain hangs straight and is free from twisting. Perform a thorough inspection to verify correct alignment, smooth trolley movement, and that all safety components are correctly installed and secure before putting the trolley into service.

5.2. CENTRE OF GRAVITY

The centre of gravity is the point at which the entire weight of the equipment or load is considered to act. For safe operation, it must be kept as low and centered as possible within the base or support structure. An elevated or offset centre of gravity can cause instability, increasing the risk of tipping, uneven load distribution, or mechanical failure, especially during lifting or movement. Always position and secure loads with the centre of gravity in mind.

6. OPERATION

6.1. MANUAL CONTROLS

6.1.1. Handling the Load

When operating the geared trolley, always ensure it is positioned directly above the load to achieve a vertical lift. Avoid any side pulling or actions that could cause the geared trolley wheels to lift off one side of the beam, as this may lead to instability or derailment. Begin by bringing the hoist hook into engagement with the load, making sure it is properly seated and secure before lifting.

The load is lifted or lowered using the hoist's hand chain or electric controls, depending on the hoist type. For manual hoists, pulling the hoist hand chain in one direction raises the load, while pulling it the other way lowers it. In the case of geared trolleys, a separate hand chain is specifically used to move the geared trolley itself along the beam. Pulling this trolley chain drives a geared mechanism connected to the trolley wheels, allowing the operator to move the entire hoist and suspended load smoothly and precisely along the beam, without manually pushing or pulling the load.

Raise the load only as high as needed to clear any obstacles in its path. While moving the geared trolley, avoid letting the load swing excessively; allow the geared trolley to coast to a stop to maintain control and balance. Never allow the geared trolley to collide with beam end stops or other trolleys, as this can damage the equipment and create safety hazards. Always operate the system with smooth, controlled motions to ensure safe and effective load handling.

6.1.2. SPACE REQUIRED FOR USE

Ensure there is enough clear space around the geared trolley and hoist to allow safe operation and load handling. This typically means having at least 1 meter (3 feet) of clearance on all sides for the operator to move freely and safely control the equipment. Overhead clearance should be sufficient to raise and lower loads without obstruction. The work area must be free of obstacles, clutter, and hazards to allow smooth trolley movement along the beam and safe load passage.

6.2. FORESEEABLE INAPPROPRIATE USES

The geared trolley and hoist must be used only as intended. Common inappropriate uses include overloading, side pulling, and improper installation on unsuitable beams. The system must never be used to lift people or left with a load suspended unattended. Moving the geared trolley by pushing the hoist instead of using the hand chain, or operating it in corrosive or extreme environments without proper adaptation, can cause serious damage. Modifying the equipment or using non-approved parts is also unsafe. Always operate the hand chain smoothly and vertically to avoid damaging the gear mechanism.

6.3. WHAT TO DO IN AN EMERGENCY

In the event of an emergency involving the trolley or hoist, immediately stop all operations and ensure the area is clear of personnel to prevent further risk. Disconnect the power source if using an electric hoist, or stop manual operation. Do not attempt to move or lower any suspended load until the equipment has been inspected by a qualified person. Notify your supervisor and follow your workplace's emergency procedures. If there are any injuries or serious hazards, contact emergency services without delay. Clearly tag the equipment as "Out of Order" and prevent further use until it has been inspected, repaired, and confirmed safe for operation.

6.4. MAXIMUM DEFLECTION OF 1/500 THE SPAN UNDER THE SELF-WEIGHT OF THE TROLLEY

The maximum permissible deflection of the beam under the self-weight of the trolley must not exceed 1/500 of the span length. This ensures the beam remains stable and the trolley operates smoothly without misalignment or excessive wear. For example, a beam with a 5,000mm span should not deflect more than 10mm under the trolley's weight. Exceeding this limit can compromise the safe movement of the trolley and reduce the overall reliability of the lifting system. Proper beam selection and installation are essential to maintain this deflection within safe limits.

6.5. MAXIMUM LONGITUDINAL SLOPE OF THE TRAVELLING SURFACE

The maximum allowable longitudinal slope of the trolley's travelling surface (e.g., the runway beam) is 0.3%. This means the surface should not incline more than 3mm per 1,000mm of horizontal length. Keeping the slope within this limit ensures smooth trolley movement and prevents unintentional rolling or loss of control, especially when handling loads. Exceeding this slope can compromise safety and increase wear on the wheels and beam. Always verify that the installation surface is level and compliant with this requirement.

6.6. MAXIMUM ELEVATION OF THE RUNWAY FROM THE FLOOR

The maximum elevation of the runway (beam) from the floor for geared travel trolleys is not fixed universally, it depends on safe and ergonomic access to the hand chain. However, as a general guideline, the bottom of the hand chain loop should hang between 500mm and 1000mm from the floor.

This means the runway height must be calculated based on the hoist's headroom and hand chain length to ensure the operator can safely and comfortably reach the chain. If the runway is too high, chain extensions may be needed; if it's too low, the hoist may not clear tall loads. Always follow manufacturer specifications and local safety standards when determining runway elevation.

7. MAINTENANCE

The geared trolley should be inspected regularly and maintained in conjunction with the hoist. During routine inspections, check for any signs of damage, loose or missing parts, and excessive wear on the trolley wheels. Ensure that all fasteners are secure, the side plates are properly aligned, and the spacer washers are intact and correctly positioned. The hand chain used to move the trolley along the beam should be examined for wear, proper tension, and smooth operation. Any unusual noise, uneven rolling, or difficulty in movement may indicate a need for adjustment or repair. If any faults are found, the trolley must be tagged as "out of order" and removed from service until it is properly repaired. Regular lubrication of moving parts, especially wheels and gears, should also be carried out as specified by the manufacturer to ensure long-term performance and safety.

7.1. SPACE NEEDED FOR SAFE MAINTENANCE

See 6.1.2 for required working space. Overhead clearance must also be sufficient to allow the geared trolley to be removed from the beam if necessary, and to fully lower the hoist hook without the load contacting the floor or other obstructions.

Ensure that the maintenance area is free from suspended loads, clutter, or other hazards, and that proper lighting is available. If work at height is required, appropriate fall protection and secure working platforms must be used. Electrical systems (in the case of electric hoists) should be isolated and locked out before any maintenance begins. Always follow the manufacturer's guidelines and site-specific safety protocols when performing maintenance.

7.2. CRITICAL PARTS WHERE DETERIORATION POSES A SAFETY RISK

Certain components of the geared trolley and hoist are critical to safe operation, and their deterioration can pose significant risks to health and safety. These include the trolley wheels, which must maintain full contact with the beam, any wear, cracks, or deformation can lead to derailment. The load chain is equally vital; stretched, corroded, or damaged links can fail under load. The hand chain that drives the geared trolley must also be in good condition, twisting or broken links can cause loss of control during movement. Hooks, both upper and lower, must be free from cracks, bending, or latch damage to prevent accidental detachment of the load. Gear mechanisms in both the hoist and trolley should operate smoothly; worn or jammed gears can result in erratic or unsafe lifting or movement. Side plates and spacer washers must be secure and properly aligned to ensure stable wheel engagement on the beam. Additionally, all fasteners, including nuts, bolts, and lock washers, must be intact and tight, as loose or missing hardware can compromise the assembly. Bearings and axles must rotate freely without signs of seizure or excessive wear. For electric hoists, the brake system must function correctly to prevent unintentional lowering of the load. Regular inspection and maintenance of these components are essential to ensure safe, reliable operation.

7.3. OPERATION METHOD IN CASE OF ACCIDENT OR BREAKDOWN

Stop all operations immediately and secure the area. Do not move or lower any suspended load until inspected by a qualified person. Isolate and tag the equipment as “Out of Order.” Report the incident and only allow trained personnel to inspect and repair the trolley or hoist. Resume use only after a full safety check confirms it is safe.

7.4. INSTRUCTIONS TO ADJUST THE BOTTOM OF THE HAND CHAIN (500MM–1000MM FROM GROUND)

To adjust the bottom of the hand chain to between 500mm and 1000mm from the ground, measure its current hanging height. If too low, remove excess chain links; if too high, add compatible chain links using proper connectors. Ensure the loop remains even, moves smoothly, and does not drag on the ground or hang too high for comfortable use. After adjustment, test the chain to confirm safe and reliable operation.

7.5. END OF SERVICE

When the trolley or hoist is no longer safe due to wear, damage, or age, it must be permanently removed from service. Continued use of such equipment poses serious safety risks. A qualified person should confirm it is beyond repair. Dispose of all parts according to local regulations, recycling metal components where possible and handling hazardous materials safely. Replacement equipment must meet current standards and be properly installed and tested before use.

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.

REGISTER YOUR PURCHASE HERE

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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