

INSTALLATION/OPERATING SAFETY INSTRUCTION & MAINTENANCE MANUAL



Push Girder Trolleys

Capacities: 500kg to 20 tonne

Geared Girder Trolleys

Capacities: 1 tonne to 30 tonne

Close Coupled Push Girder Trolleys

Capacities: 500kg to 5 tonne

Close Coupled Geared Girder Trolleys

Capacities: 1 tonne to 5 tonne

Complies to AS1418.2

Girder Clamps

Capacities: 1 tonne to 10 tonne

Complies to AS4991:2004

Note: Operator must read and fully understand the operating instructions before using these products.



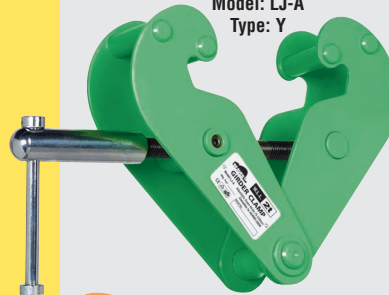
More than just lifting



Model: GCT-DK



Model: GCL-DK



Model: LJ-A
Type: Y



Model: GCT-BFGK



Model: GCL-BFGK



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**THESE SYMBOLS
MEAN
ATTENTION
BECOME ALERT
YOUR SAFETY IS
INVOLVED!**

SIGNAL WORDS

Note use of the following signal words **DANGER, WARNING AND CAUTION** with safety messages. The appropriate signal word for each has been selected using the following guidelines:



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. The signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.



Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator can avoid many accidents by observing the following precautions in this manual. To avoid personal injury, study following precautions and insist those working with you, or you yourself, follow them.

Replace any **Caution, Warning, Danger** or Instruction safety label that is not readable or is missing.

Do not attempt to operate this equipment under the influence of alcohol or drugs.

Review safety instructions with all users.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

Never exceed the limit of a lift. If its ability to do a job, or to do so safely is in question - DON'T TRY IT.

Introduction

Girder Trolley

The Beaver Girder Trolley is engineered to provide a simple and quick means to attach a trolley to an overhead monorail. The trolley is quickly adjusted to the required width by means of spacers on a suspension pin.

The width of the beam the trolley is attached to must fall within the range shown on the ID plate of the trolley.

The beam must be assessed by a competent person for its suitability prior to the trolley being affixed.

Girder Clamp

The Beaver Girder Clamp is designed to provide a simple and versatile suspension point for a number of applications including hoisting and lifting.

The width of the beam the girder clamp is attached to must fall within the range shown on the ID plate of the clamp.

The beam must be assessed by a competent person for its suitability prior to the girder clamp being affixed.

In some states or territories the operator may need relevant training or licences, please check prior to using this product. Normal wear and tear is not considered grounds for a warranty claim, and also intentional misuse or damage caused by neglect will not be covered.

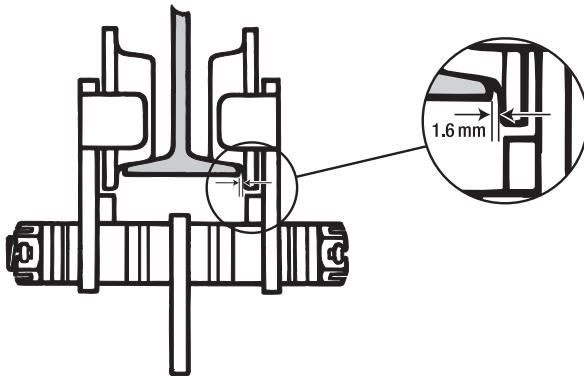
WARNING

- Do not lift or transport loads over people
- Never leave a suspended load unattended
- Ensure that the rated capacity of the Girder Trolley or Girder Clamp is never exceeded
- Regularly inspect the Girder Trolley or Girder Clamp
- Never modify the Girder Trolley or Girder Clamp in any way
- Never side load the Girder Trolley or Girder Clamp
- As the Trolley Wheels are not fitted with brakes, never use the Girder Trolley on an incline.
- Always wear the appropriate PPE (Personal Protective Equipment)
- Never use these products if under the influence of alcohol or drugs

Installation

Girder Trolley

Sliding the Girder Trolley over the open end of a monorail is the simplest method of installation. However if this option is not available then assemble the Girder Trolley on the ground first to calculate the correct positioning of the spacers. Then disassemble the Girder Trolley, place it over the flanges of the monorail and tighten the nut on the suspension pin, then insert the cotter pin through the castled nut. The gap between the wheel flange and the monorail should be approx. 1.6mm per side; the total gap must never exceed 4.8mm.



Once the Girder Trolley has been adjusted correctly run the trolley along the entire length of the monorail to ensure that there are no tight points or hang ups.

Girder Clamp

Turn the clamps handle anti clock wise until the jaws are open sufficiently to fit over the bottom flange of the monorail. Now turn the handle clock wise until the side plates of the clamp are firmly closed over the bottom flange of the monorail. Always ensure that the bottom flange of the monorail fits into the side plates (if in doubt check before using the clamp).

Connecting Chain Blocks to Close Coupled Trolleys

Prior to fitting a Close Coupled Trolley to the monorail the chain block will need to be fitted to the suspension plate. To fit the chain block to the trolley the top hook will need to be removed, to do this remove the chain blocks hand wheel cover and remove the suspension pin (the locking plate is held in position with a locking screw).

Next position the suspension plate from the trolley (the best way of doing this is to disassemble the trolley so that you are only working with the suspension plate) between the side plates of the chain block. Insert the suspension pin from the hand wheel side of the chain block, through the side plate and suspension plate (of the trolley) ensuring that it is located correctly. Refit the locking device on the suspension pin and then fit the locking screw. Refit the hand wheel over to the chain block making sure that the securing screws are fitted with spring washers when reinstalled. Now the girder trolley can be reassembled. To adjust and fit the girder trolleys to the monorail simply follow the instructions in this manual.

As the chain block is fitted to the trolley it may be extremely heavy, please make sure that appropriate equipment is used to lift the assembly into position when fitting it to the monorail.

Operation

Never use a Girder Trolley or Girder Clamp to support or move people. If a load is to be left unattended always lower it to the ground (**never leave a suspended load unattended**).

Girder Trolley

Once the Girder Trolley has been fitted to the beam it is now ready for use.

Always check that the Girder Trolley has the correct capacity to support the load to be lifted, always include the weight of the lifting device that is to be suspended.

Connect your lifting device to the suspension point of the girder trolley ensuring that the hook of your lifting device sits centred on the bar, also ensure that the hook sits evenly (make sure that the hook is not being supported by its cheeks).

The load can now be lifted, ensure that the load is only lifted vertically. Never side pull or side load the Girder Trolley.

When the trolley is traversing the beam ensure that a slow and even pace is sustained. Never jerk the load as the load will act like a pendulum and may cause an accident.

Always check that end stops have been fitted to the monorail, if end stops are not fitted do not use the girder trolley until they are.

Girder Clamp

Once the Girder Clamp has been fitted to the beam it is now ready for use.

Always check that the Girder Clamp has the correct capacity to support the load to be lifted, always include the weight of the lifting device that is to be suspended.

Connect your lifting device to the suspension point of the Girder Trolley ensuring that the hook of your lifting device sits centred on the bar, also ensure that the hook sits evenly (make sure that the hook is not being supported by its cheeks).

The load can now be lifted, ensure that the load is only lifted vertically. Never side pull or side load the Girder Clamp.

Item Selection

When choosing the correct Girder Trolley or Girder Clamp a number of items must be taken into account. The tables on the following pages may help when selecting items in the future.

Dimensions & Specifications



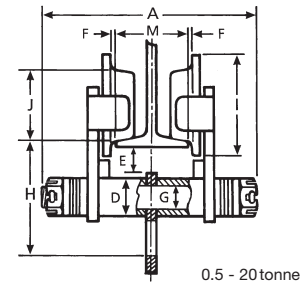
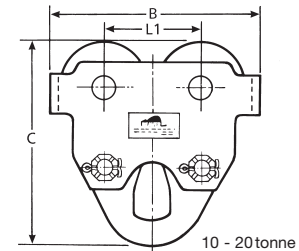
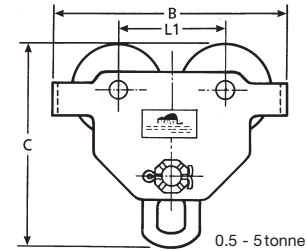
Push & Geared Girder
Trolleys & Girder Clamps

PUSH GIRDER TROLLEY - SPECIFICATIONS

| Beaver Product Code | 522005S | 522010S | 522015S | 522020S | 522030S | 522050S | 522100S | 522200S |
|---------------------------|---------|---------|-----------|---------|---------|---------|----------|----------|
| Rated Capacity | 500 kg | 1 tonne | 1.5 tonne | 2 tonne | 3 tonne | 5 tonne | 10 tonne | 20 tonne |
| Proof Load kN | 7.35 | 14.71 | 22.06 | 29.42 | 44.13 | 61.29 | 122.58 | 245.17 |
| Adjustable Beam Width mm | 50-152 | 64-203 | 74-203 | 88-203 | 100-305 | 114-305 | 124-305 | 136-305 |
| Minimum Radius of Curve m | 0.8 | 1.0 | 1.0 | 1.1 | 1.3 | 1.4 | 2.0 | 3.5 |

DIMENSIONS

| | | | | | | | | | |
|-------------------|----|---------|------|------|------|---------|-----|-----|-----|
| A (Overall Width) | mm | 245 | 311 | 311 | 327 | 445 | 457 | 490 | 558 |
| B (Length) | mm | 199 | 246 | 260 | 276 | 332 | 377 | 424 | 555 |
| C | mm | 187 | 222 | 238 | 263 | 309 | 353 | 396 | 498 |
| D | mm | 34 | 40 | 45 | 52 | 58 | 64 | 64 | 75 |
| E | mm | 30 | 38 | 38 | 38 | 40 | 42 | 45 | 58 |
| F | mm | 1.5 - 3 | | | | 2 - 3.5 | | | |
| G | mm | 24 | 30 | 33 | 36 | 42 | 48 | 48 | 55 |
| H (Headroom) | mm | 105 | 125 | 134 | 150 | 171 | 196 | 190 | 233 |
| I (Flange dia.) | mm | 79 | 95 | 102 | 108 | 131 | 144 | 176 | 226 |
| J | mm | 55 | 68 | 74 | 80 | 100 | 110 | 136 | 175 |
| L1 | mm | 100 | 120 | 125 | 132 | 155 | 168 | 200 | 272 |
| Net Weight | kg | 6.5 | 10.5 | 13.5 | 17.5 | 27 | 41 | 71 | 168 |



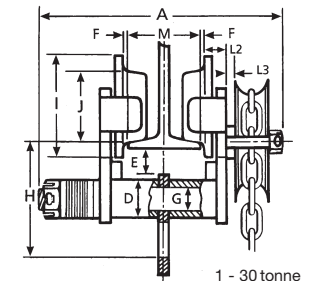
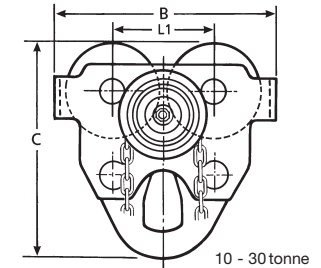
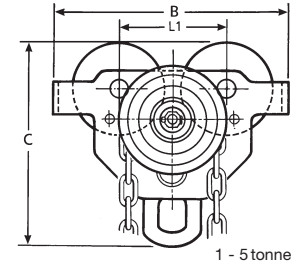
Dimensions & Specifications

GEARED GIRDER TROLLEY - SPECIFICATIONS

| Beaver Product Code | 523010S | 523015S | 523020S | 523030S | 523050S | 523100S | 523200S | 523300S |
|----------------------------|---------|-----------|---------|---------|---------|----------|----------|----------|
| Rated Capacity | 1 tonne | 1.5 tonne | 2 tonne | 3 tonne | 5 tonne | 10 tonne | 20 tonne | 30 tonne |
| Proof Load kN | 14.71 | 22.06 | 29.42 | 44.13 | 61.29 | 122.58 | 245.17 | 367.74 |
| Adjustable Beam Width mm | 64-203 | 74-203 | 88-203 | 100-305 | 114-305 | 124-305 | 136-305 | 175-305 |
| Standard Lift Mtr | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Effort at Rated Capacity N | 50 | 70 | 90 | 95 | 140 | 240 | 250 | 250 |
| Minimum Radius of Curve m | 1.0 | 1.0 | 1.1 | 1.3 | 1.4 | 2.0 | 3.5 | 6.0 |

DIMENSIONS

| | | | | | | | | | |
|-------------------|----|---------|------|------|---------|-----|-----|-----|-----|
| A (Overall Width) | mm | 338 | 338 | 349 | 464 | 476 | 510 | 600 | 673 |
| B (Length) | mm | 246 | 260 | 276 | 332 | 377 | 424 | 555 | 710 |
| C | mm | 222 | 238 | 263 | 309 | 353 | 396 | 498 | 598 |
| D | mm | 40 | 45 | 52 | 58 | 64 | 64 | 75 | 90 |
| E | mm | 38 | 38 | 38 | 40 | 42 | 45 | 58 | 65 |
| F | mm | 1.5 - 3 | | | 2 - 3.5 | | | | |
| G | mm | 30 | 33 | 36 | 42 | 48 | 48 | 55 | 65 |
| H (Headroom) | mm | 125 | 134 | 150 | 171 | 196 | 190 | 233 | 285 |
| I (Flange dia.) | mm | 95 | 102 | 108 | 131 | 144 | 176 | 226 | 286 |
| J | mm | 68 | 74 | 80 | 100 | 110 | 136 | 175 | 200 |
| L1 | mm | 120 | 125 | 132 | 155 | 168 | 200 | 272 | 330 |
| L2 | mm | 23 | 23 | 26 | 29 | 35 | 52 | 78 | 100 |
| L3 | mm | 8 | 8 | 8 | 10 | 10 | 25 | 58 | 82 |
| Net Weight | kg | 14.5 | 17.5 | 21.5 | 31 | 46 | 75 | 172 | 337 |



Dimensions & Specifications



Push & Geared Girder
Trolleys & Girder Clamps

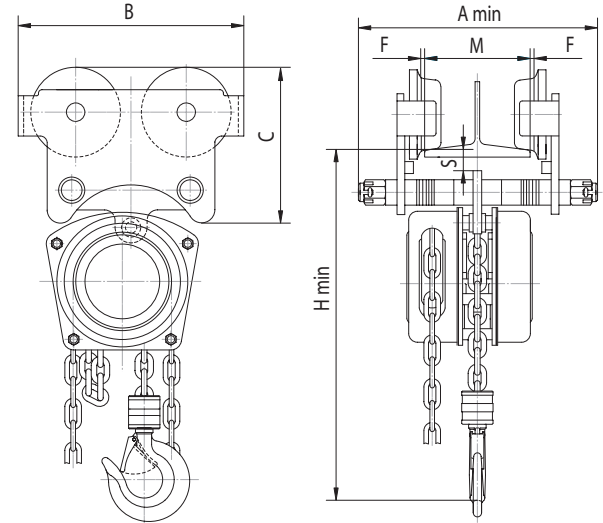
CLOSE COUPLED PUSH GIRDER TROLLEY

SPECIFICATIONS

| Beaver Product Code | 522005SC | 522010SC | 522015SC | 522020SC | 522030SC | 522050SC |
|---------------------------|----------|----------|-----------|----------|----------|----------|
| Rated Capacity | 500 kg | 1 tonne | 1.5 tonne | 2 tonne | 3 tonne | 5 tonne |
| Proof Load kN | 7.35 | 14.71 | 22.06 | 29.42 | 44.13 | 61.29 |
| Adjustable Beam Width mm | 50-152 | 64-203 | 74-203 | 88-203 | 100-305 | 114-305 |
| Minimum Radius of Curve m | 0.8 | 0.9 | 1.0 | 1.0 | 1.2 | 1.3 |

DIMENSIONS

| | | | | | | | |
|------------|----|---------|--------|--------|--------|---------|---------|
| A min | mm | 236 | 303 | 310 | 317 | 435 | 457 |
| B | mm | 199 | 246 | 260 | 276 | 332 | 377 |
| C | mm | 131.5 | 164 | 177 | 183 | 224 | 246 |
| H min | mm | 300 | 385 | 450 | 480 | 520 | 640 |
| S | mm | 30 | 38 | 38 | 38 | 40 | 42 |
| F | mm | 1.5 - 3 | | | | | |
| M | mm | 50-152 | 64-203 | 74-203 | 88-203 | 100-305 | 114-305 |
| Net Weight | kg | 14 | 23.5 | 33 | 39 | 59.5 | 89 |



Dimensions & Specifications

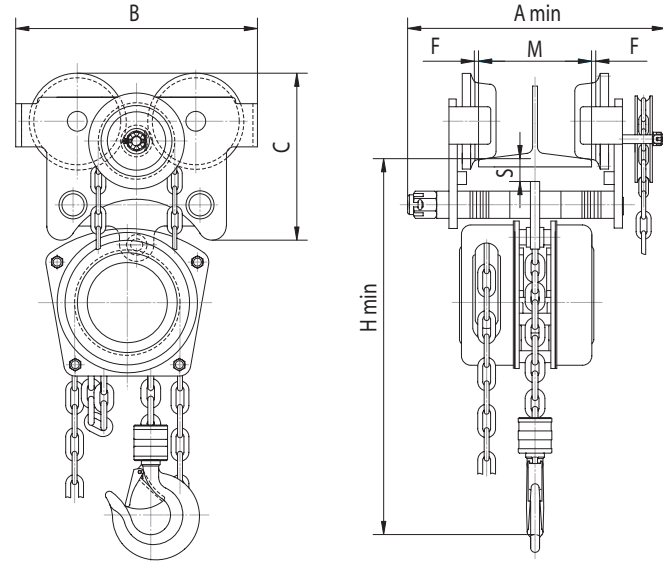
CLOSE COUPLED GEARED GIRDER TROLLEY

SPECIFICATIONS

| Beaver Product Code | 523010SC | 523020SC | 523030SC | 523050SC |
|---------------------------|----------|----------|----------|----------|
| Rated Capacity | 1 tonne | 2 tonne | 3 tonne | 5 tonne |
| Proof Load kN | 14.71 | 29.42 | 44.13 | 61.29 |
| Running Height | 2.5 | | | |
| Chain pull (full load) kg | 50 | 90 | 95 | 140 |
| Adjustable Beam Width mm | 64-203 | 88-203 | 100-305 | 114-305 |
| Minimum Radius of Curve m | 0.9 | 1.0 | 1.2 | 1.3 |

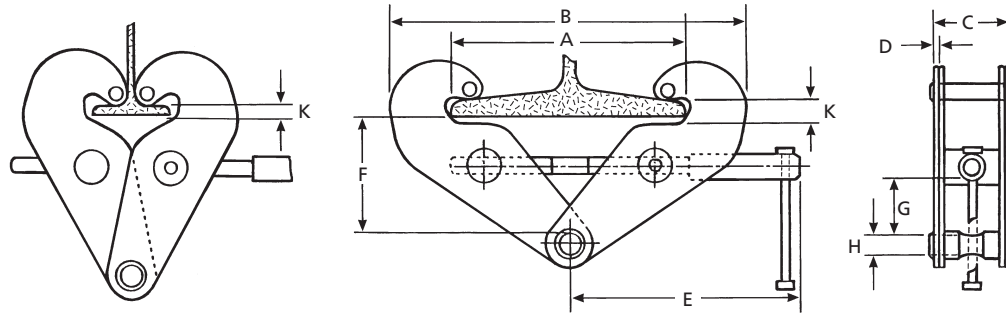
DIMENSIONS

| | | | | | |
|------------|----|---------|--------|---------|---------|
| A min | mm | 334 | 343 | 459 | 475 |
| B | mm | 246 | 276 | 332 | 377 |
| C | mm | 164 | 183 | 224 | 246 |
| H min | mm | 385 | 480 | 520 | 640 |
| S | mm | 38 | 38 | 40 | 42 |
| F | mm | 1.5 - 3 | | | |
| M | mm | 64-203 | 88-203 | 100-305 | 114-305 |
| Net Weight | kg | 27.5 | 43 | 63.5 | 93 |



Dimensions & Specifications

GIRDER CLAMPS



SPECIFICATIONS - Model LJ-A - Industrial type Y & YA

| Beaver Product Code | Working Load Limit kg | Adjustable Beam Width mm | Net Weight kg | Dimensions in mm | | | | | | | | | | | |
|---------------------|-----------------------|--------------------------|---------------|------------------|--------|--------|-----|----|-----|--------|--------|--------|----|--------|--------|
| | | | | A max. | B min. | B max. | C | D | E | F min. | F max. | G min. | H | K min. | K max. |
| 270010Y | 1000 | 75 - 230 | 3.8 | 246 | 186 | 350 | 66 | 4 | 215 | 90 | 133 | 44 | 20 | 14 | 21 |
| 270020Y | 2000 | 75 - 230 | 4.6 | 246 | 186 | 350 | 74 | 6 | 215 | 90 | 133 | 44 | 20 | 14 | 21 |
| 270020YA | 2000 | 75 - 360 | 6.5 | 380 | 205 | 485 | 76 | 6 | 271 | 150 | 232 | 57 | 22 | 14 | 21 |
| 270030Y | 3000 | 80 - 320 | 9.2 | 320 | 232 | 455 | 102 | 8 | 255 | 143 | 195 | 75 | 22 | 30 | 34 |
| 270050Y | 5000 | 90 - 320 | 11.0 | 320 | 242 | 455 | 110 | 10 | 255 | 145 | 195 | 75 | 28 | 30 | 34 |
| 270100Y | 10000 | 90 - 320 | 17.2 | 320 | 268 | 480 | 118 | 12 | 275 | 133 | 185 | 66 | 38 | 34 | 35 |

SPECIFICATIONS - Model LJ-A - Entertainment type YE

| | | | | | | | | | | | | | | | |
|-----------------|------|----------|-----|-----|-----|-----|----|---|-----|----|-----|----|----|----|----|
| 270010YE | 1000 | 75 - 250 | 3,8 | 266 | 186 | 400 | 66 | 4 | 230 | 90 | 115 | 44 | 20 | 14 | 21 |
| 270020YE | 2000 | 75 - 250 | 4,8 | 266 | 186 | 400 | 74 | 6 | 230 | 90 | 115 | 44 | 20 | 14 | 21 |

General Maintenance

Girder Trolley

The Girder Trolley is equipped with sealed; lifetime lubricated precision ball bearings that should require no further lubrication.

Regularly inspect the Girder Trolley for damage and that the cotter pin has not become dislodged and the castle nut has not become loose. Apply a thin film of machine oil to the hand chain of a Geared Girder Trolley if required. Never over lubricate.

Girder Clamp

The Girder Clamp should only require a small amount of lubrication to its pivot points and the screw thread. Use only light grade machine oil and never over lubricate. Regularly inspect the Girder Clamp for damage, check all pivot points are intact and that the side plates are not bent or cracked. If in any doubt as to the ability of the Girder Clamp to support its rated capacity then remove it from service and return it to Beaver Sales for inspection.

IMPORTANT INFORMATION

1 Year Limited Warranty

Beaver offers a one year limited warranty on this product

Replacement Parts

Replacement parts for this equipment are available directly from BEAVER distributors. Consult the Beaver website for your nearest distributor.

Replacement Part Warranty

Beaver Sales Pty Limited makes every effort to assure that parts meet high quality and durability standards and warrants to the original retail consumer/purchaser of our parts that each such part(s) to be free from defects in materials and workmanship for a period of thirty (30) days from date of purchase.

Proof of Purchase

Please retain your dated sales receipt as proof of purchase to validate warranty period.

Limited Equipment Warranty

Beaver Sales makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship as follows:

1 YEAR LIMITED WARRANTY ON THIS BEAVER PRODUCT

Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities or to lack of maintenance. BEAVER LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD SPECIFIED ABOVE FROM THE DATE THE PRODUCT WAS PURCHASED AT RETAIL. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANT ABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. BEAVER SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY OR FOR INCIDENTAL, CONTINGENT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

To take advantage of this warranty, the product or part must be returned for examination, normal road freight pre-paid to an authorised service centre designated by our Wetherill Park office. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, BEAVER SALES will either repair or replace the product or refund the purchase price, if we cannot readily and quickly provide a repair or replacement, if you are willing to accept such refund. BEAVER SALES will return repaired product or replacement at BEAVER'S expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of BEAVER'S warranty, then the user must bear the cost of storing and returning the product. This warranty gives specific legal rights, and you have other rights, which vary, from state to state.

Beaver Sales Pty Limited
340 Victoria Street Wetherill Park NSW 2164
Phone 1300 783 606
www.beaver.com.au



WARNING

The use of this product is beyond the control of Beaver Sales. The warranty of this product is limited to the replacement cost of this product should it be found to be defective in material and/or workmanship. The warranty is void if the Push or Geared Girder Trolley or Girder Clamp is damaged, worn or used improperly. Normal wear and tear is not considered grounds for replacement.

Inspection Log



Push & Geared Girder
Trolleys & Girder Clamps

Test Certificate No. Model No. Type:

Date introduced into service Serial No.

| Date | Comments | Signature |
|-------|----------|-----------|
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Inspection Log



Push & Geared Girder
Trolleys & Girder Clamps

Date

Comments

Signature

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Push & Geared Girder
Trolleys & Girder Clamps



Sydney, Melbourne, Adelaide,
Perth, Brisbane, Bundaberg,
Mackay, Auckland NZ

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