

Owners Manual

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Introduction:



Model BC540AG2

PTO Coupler Adapter

The Bullet PTO Coupler Adapter utilizes our patented coupler technology that we hope will make your life a little bit easier when it comes to hooking up your pto powered implements. While it is well known that not everyone struggles with hooking up a PTO shaft, there are those that do struggle, the goal was to make this task easier by eliminating some of the challenges people have. For more information, connection guides, etc... please visit our website https://lionforgeindustries.com/product/bullet-pto-coupler-adapter/

Installation Instructions:

Note: There are no specialty tools or secondary components required to install your Bullet PTO coupler adapter.

- 1. Before any installation or use, read warning below first, these instructions and this manual in its entirety.
- 2. **WARNING** The Bullet PTO coupler adapter will add approximately 4.25 to 5 inches in length to your driveline, refer to the specifications page (page 4) for more information. Prior to using this product you must measure (possibly cut) and verify your implements driveline will accomodate the additional length with the Bullet PTO coupler adapter installed when connecting your equipment. Should it be required to cut your implements pto shaft, refer to your equipment/attachments/driveshaft OEM owners manual or contact your equipment dealer for the correct procedure and instructions on how to cut your driveshaft (if required) to the proper length. The Bullet coupler when installed tractor side will decrease the distance from its spline shaft end to the drawbar hitch hole which may have an operational affect on your pull type equipment driveline angles and you may be required to adjust your drawbar length (if adjustable) or run a drawbar or hitch extender to keep this distance within the operational parameters required by your equipment manufacturer. Consult your equipment manufacturer prior to using the Bullet Coupler adapter with your pull type equipment to ensure you are able to do so without issue. This coupler is designed for use on rear PTOs only, do not attempt to install or run on any mid or front mounted PTOs. The Bullet PTO coupler adapter must only be rotated clockwise as indicated on the back of the adapter.
- 3. With your tractor off (not running) and parked securely. Clean any dirt, debris and rust off of your tractors PTO shaft and from the female receiver coupler of your implement shaft. Also, check for any burrs or abnormalities on the tractor PTO shaft and female receiver coupler on your implements driveshaft that may cause issues with connecting. It is recommended to always keep your PTO shaft components clean and lubricated and inspected for any problems that might cause connectivity issues.
- **4.** Lubricate your tractors PTO shaft and the receiver coupler on your implements driveline with spray oil, or lubricant to ease connectivity. If your equipment is brand new, intial connections may be tight and will loosen up as components wear in after use, including your Bullet PTO coupler adapter as it wears in after some use.
- 5. **PRE INSTALL CHECK** Prior to installing/using your Bullet coupler adapter. Lubricate your bullet coupler adapter, Light oil or spray lube ie: Fluid Film or similar. **Do not use grease on the internal components of the coupler**.(there are 3 lubrication access holes on the locking cam ring, page 2 Fig.1.0), Press the lock/release button and rotate and test the coupler to ensure lock/release button is fuctioning to hold the locking cam ring in the open position as indicated on page 2 Figure 1.1. Press lock/release button again to release the locking cam ring allowing it to return to the fully locked or (closed) position as indicated on page 2 Figure1.0. Perform this cycle a few times to ensure smooth operation and also inspect the jaws and detents to ensure they are move freely during the open position. Lock/Release button may be lubricated when coupler is in the open position by spraying directly into the button cavity (page 2 Fig.1.1). wipe off any excess lubrication. You must perform this Pre install check EVERY TIME prior to installation/use of your Bullet Pto Coupler Adapter. If you suspect or have any issues during this pre install check, DO NOT use or ATTEMPT to install or use your Bullet PtO coupler adapter and contact us for assistance.

BulletInstallation Instructions - cont:

Model BC540AG2 PTO Coupler Adapter

- 6. With your tractor still off (not running) and parked securely.
- 7. Install your Bullet Pto coupler adapter splined shaft male end into the female receiving coupler on your implements driveshaft and confirm it is locked into place.
- 8. Press the lock/release button and rotate the locking cam ring until the Lock/Release button detent is holding the collar in the open position (Fig.1.1) You will see the "NO" symbol in the window in this postion as well as indicated in Fig 1.1 below. Do not ever operate your Bullet Coupler Pto adapter in the open position or any postion in between, only in the fully closed position (Fig 1.0)
- 9. Using both hands, proceed to hook up to your tractors PTO shaft, pushing the coupler onto the shaft all the way so the weight of the shaft is now supported by the tractor pto shaft. Note: Do not allow the Bullet pto coupler to hang on your tractors pto shaft part way on with the weight of the driveline.
- 10. Press the lock/release button again to release the locking cam ring to begin the closing function of the coupler (Fig.1.0)
- 11. Rotate the implement PTO shaft (or your tractors PTO stub shaft, if it spins freely) to align your pto shaft splines with the spline cut jaws inside the coupler. Alternatively, if you don't have enough room to turn your tractors pto stub shaft, you may push the coupler on half way instead of all the way as indicated in step 9, then follow step 10 & step 11 and instead of pulling back the coupler in step 12 you can push the coupler forward slowly and complete the rest of the step as indicated in step 12.
- 12. Once splines are aligned, the Locking collar starts to rotate toward the fully closed position, the lock/release button will dissappear under the locking collar as it rotates toward the fully closed position (Fig 1.0), pull the coupler back slowly to where the ball detents line up with the ball groove on you tractors PTO stub shaft to where the locking cam ring moves completely into the fully closed position, where the lock/release button will pop back up and the "CHECKMARK" will apear in the window (Fig 1.0). Verify in window on locking cam ring that you can see the "CHECKMARK" which indicates the coupler is fully closed. Note: The Bullet coupler will not be locked (fully closed) until splines are aligned and the ball detents are in position to line up with the ball groove on the tractors PTO shaft. Do not operate unless you have confirmed and verified coupler is locked in the fully closed position (Fig.1.0). Also refer to #3 on page 1 to ensure your pto shaft is free from issues that might prevent the Bullet Coupler adapter from closing fully.
- 13. For removal, (Tractor always off) Press lock/release button and rotate locking collar to the open position (Fig 1.0) and disconnect your driveline.

CLOSED POSITION (GOOD TO OPERATE)

Fig. 1.0

"CHECKMARK" Marking in window indicating fully closed position

Lubrication access hole
(3 located 120 degrees apart)

Note: Lock/Release detent button in view in window on the locking collar when coupler is in the fully closed position. This is a secondary verification to the "Checkmark" indicating that the unit is in the FULLY Closed position. NEVER OPERATE YOUR COUPLER IF IT IS NOT IN THIS POSITION!

Jaws and detents will be fully closed when the "Checkmark" is viewed in window and the lock/relased button is in the window.

OPEN POSITION (DO NOT OPERATE!)

Fig. 1.1

Lock/release button shown when coupler is in the open positon, keeping collar held open for installation. NEVER OPERATE unit in this position or anywhere in between, only operate in FULLY closed position

> -"NO" Symbol shown indicates fully open position and must never be operated in this position or anywhere in between this and the fully closed position. ONLY OPERATE in FULLY Closed position (Fig 1.0).

Jaws and spline shaft groove detents are fully released and floating when in the open position.

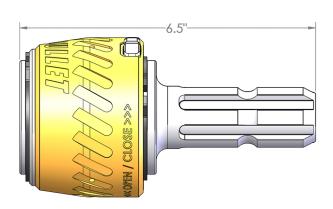


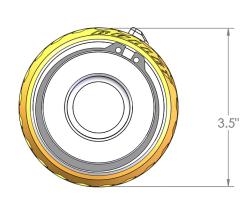
Operational Info, Guidelines & Maintenance:

- 1. Read and follow all installation instructions and this manual in its entirety prior to operation.
- 2. Prior to operation ensure you have measured & adjusted (cut) (as required) and confirmed that your driveshaft overall length will accommodate the additional length added by the Bullet Pto coupler adapter when installed onto your tractor and implement while allowing the drive shaft telescoping tube to function as it should. Refer to your OEM manuals or contact your dealer for your equipment and driveshaft telescoping requirements and for proper procedure on cutting to length (if required to do so). Read the warning as listed on page 1.
- **3.** Do not circumvent or modify your, Tractors, OEM equipment/implements & driveshaft safety protection systems & shields and ensure they are in proper working condition as per their OEM specifications. If a slip clutch is used in your driveline, ensure that it is properly adjusted and maintained and in good working order to protect your driveline and the Bullet Pto Coupler Adapter. **DO NOT** use shear bolts rated higher in strength than your OEM equipment and driveshaft specifications require. Adhere to all safety recommendations and practices in your OEM equipment manuals.
- **4.** Do not exceed the Bullet coupler adapters max 150 **PTO** horsepower rated capacity on any tractor or equipment as per the Bullet couplers specifications found on (page4).
- **5.** Do not exceed 540 rpm, Do not use on 1000 rpm pto.
- **6.** Do not attempt to align the coupler adapter splines with your tractors pto shaft by using your tractor running to rotate it or damage may occur and void your warranty.
- **7.** Do not hook up or disconnect your Bullet PTO coupler adapter and/or implement driveline while your tractor is running.
- **8.** Follow all installation instructions **EVERY TIME** you use your BULLET PTO Coupler adapter. If the coupler will not close, go through the installation instruction steps again. **DO NOT** use your coupler if it does not pass the pre-install check part of the installation instructions on page 2. Component identification reference can be found on **page5 of this manual**.
- **9.** Lubricate every 8-10 hours of operation through lubrication access holes (**Page 2 Fig.1.0**). Also spray lube into the lock/release button cavity to ensure smooth operation. (**Page 2 Fig.1.1**) Wipe off any excess lubrication.
- **10.** Periodically you can flush out the coupler using WD40 to clean the Bullet as per the pre install check instructions on page 2 to clean out any dirt and follow up with re lubcriating the unit prior to use so long as pre installation check requirements are met.
- 11. Always store your Bullet PTO coupler in the closed position (Page 2 Fig 1.0) and out of the elements when not in use.
- **12.** Failure to follow these instructions and guidelines and the entire content of this manual may result in damage to your Bullet PTO coupler adapter, equipment damage, personal injury or worse and void your warranty.



Specifications





Specs:

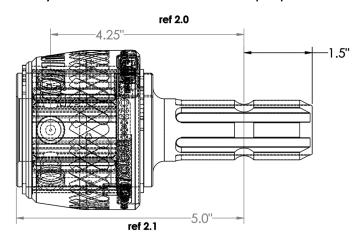
Warning: The Bullet Coupler Adapter will increase length when installed to existing PTO shaft by approximately 4.25 inches (ball groove to ball detent (ref 2.0) and 5 inches overall from ball groove to face of the coupler (ref 2.1). Always check your pto driveline length prior to use of any adapter as in some cases it may be required to cut your implement pto shaft to proper length to accommodate the additional length added by the adapter.

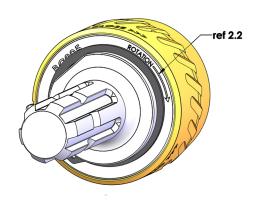
Weight: approx. 6.72 lbs Max Diameter: 3.5 inches O.D.

Overall length: 6.5 inches

PTO HP rating: up to 150 PTO HP @ 540 RPM

For use on tractors with 540RPM PTO, 1.375" 6-Spline. Clockwise rotation only (ref 2.2) (when standing at rear of tractor looking at the end of the pto stub shaft on the tractor) For use with only rear mounted PTO **do not use on front or mid point pto**

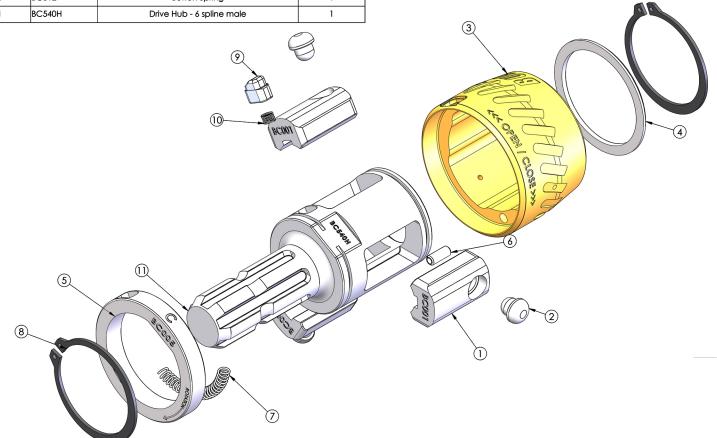






| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|---------------------------|------|
| 1 | BC001 | 540 Spline Jaw | 3 |
| 2 | BC002 | Floating Detent | 3 |
| 3 | BC003 | Locking Cam Ring | 1 |
| 4 | BC004 | Spacer Ring | 1 |
| 5 | BC005 | Spring Guide Ring | 1 |
| 6 | BC007 | Spring Pin | 1 |
| 7 | BC008 | Compression Spring | 1 |
| 8 | BC009 | External Retaining Ring | 2 |
| 9 | BC011 | Lock/Release Button | 1 |
| 10 | BC012 | Button Spring | 1 |
| 11 | BC540H | Drive Hub - 6 spline male | 1 |

Component Identification





Limited Product Warranty:

The following terms and conditions (these "Terms") apply to your purchase of the BC540A Bullet PTO Coupler Adapter (the "Product") from Lionforge Industries Inc. (the "Company"). Please read these Terms and the included Owner's Manual carefully. They contain very important information about your rights and obligations, as well as limitations and exclusions which may apply to you.

By completing your purchase of the Product, you acknowledge that you have read, accepted and agreed to be bound by these Terms.

These Terms are subject to modification by the Company without prior written notice at any time, in Company's sole discretion. The version of these Terms applicable to your purchase will be the most current version in effect.

Section 1. Limited Warranty and Disclaimers

The Company warrants to the original purchaser (the "Purchaser") of each Product that such Product will be free from defects in materials or workmanship, under normal usage and service (the "Limited Warranty"), from the date of purchase for a period of one (1) year (the "Warranty Period"). The date of purchase shall be the date of sale as indicated on a purchase invoice or receipt. Please keep your invoice or receipt as you will be required to submit this to the Company when submitting a Limited Warranty claim.

This Limited Warranty is intended to be limited in nature and conditional upon the purchaser having read the Owner's Manual in its entirety, followed all instructions therein regarding installation, operation, safety and maintenance, and followed all other requirements set forth therein. The Company expressly warns the Purchaser NOT to use the Product if the Purchaser suspects that there is a defect or if it looks like there might be a defect, and to contact the dealer, agent or representative where the Product was originally purchased immediately in this instance.

All Limited Warranty claims for any Product not purchased directly through the Company must be submitted to and processed through the dealer, agent, or representative where the Product was originally purchased. If your dealer, agent, or representative is no longer in business and the Product is still within the one (1) year Warranty Period, please contact us directly.

For Limited Warranty claims on Products purchased directly through the Company, please email us at warranty@lionforgeindustries.com, subject heading "Warranty claim request" and we will provide instructions along with a request for any other information we require for review and inspection. You may be asked to return the product to our location for review and inspection, we will advise you if this is required. All shipping costs for any return is the responsibility of the original purchaser. Unless expressly set out in your order, the Company does not provide insurance on Products during shipment. To ship a Product, you must prepay shipping charges and accept the risk of loss or damage during shipment.

Address for shipping: Lionforge Industries Inc. 40067 PR501 Ste. Genevieve, Manitoba, Canada R5J 0B1

The Company and its dealers, agents and representatives reserve the right to request proof from the Purchaser of compliance with the Owner's Manual regarding installation, operation, safety, maintenance, and use, and reserve the right to review and inspect information provided in order to determine if any defects in materials or workmanship exists. Under no circumstances will any Product adapters, components or parts be covered under this Limited Warranty if found that the Purchaser, in our sole determination, was negligent in its use, maintenance, operation or repair of the Product, including without limitation, any misuse, alteration or modification, conditions causing corrosion, improper storage, lack of reasonable care and proper maintenance or repair, from failure to follow the company's and/or other manufacturers equipment installation, operating, safety and maintenance instructions, exceeding rated operational capacity, circumventing or alteration or modification of other equipment and/or manufacturers driveline safety systems, due to accident, normal wear and tear or that have been repaired with component parts other than those manufactured, used, or supplied by the Company.

During the Warranty period, the Company will, at its option, repair or replace defective products, adapters or parts. Notwithstanding the foregoing, damage due to shipping of the Product (be it by you shipping it to us or us shipping it to you) is not covered under this Limited Warranty. This Limited Warranty also does not cover damage due to external causes, including without limitation wear and tear, accident, abuse, misuse, or use or care not in accordance with the Product Owner's Manual. If the Company repairs or replaces any Product, its warranty term is not extended. Separate warranties may be provided by manufacturers, suppliers, dealers or agents who provide their own warranty, however, the Company is not liable or responsible for such separate warranties.

Under no circumstances shall the Company be held responsible for failures by any Purchaser to adhere to any of the obligations of this Limited Warranty, including, but not limited too, if such failures are the result of unforeseeable circumstances, or any other conditions beyond our control, for which we reserve the right to make that determination. Without incurring any obligation to customers who purchased previous products from us, the Company reserves the right to revise this Limited Warranty, change specifications, improve or change design, revise or change manuals and technical documentation at any time without notice.

While the Company desires to process all approved Limited Warranty claims in a reasonable time, the acceptable timeline for completion of approved Limited Warranty claims shall be subject to any existing and unforeseeable circumstances including, but not limited to, supply, shipping and labour, which may affect the Company's ability to obtain materials or manufacturer components and replacement parts.

This Limited Warranty will be construed in accordance with and governed by the laws of the Province of Manitoba.

THE ABOVE LIMITED WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE PRODUCTS. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE COMPANY DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, IN RESPECT OF PRODUCTS, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO ORAL OR WRITTEN INFORMATION, PHOTOGRAPHS, ADVERTISEMENTS OR ADVICE GIVEN BY COMPANY, ITS AGENTS OR EMPLOYEES WILL CREATE A REPRESENTATION, WARRANTY OR CONDITION OR IN ANY WAY INCREASE THE SCOPE OF THIS LIMITED WARRANTY.

THE COMPANY'S SOLE LIABILITY AND RESPONSIBILITY FOR DEFECTS IN PRODUCTS IS LIMITED TO REPAIR AND REPLACEMENT AS SET FORTH IN THIS SECTION. THE COMPANY WILL NOT BE LIABLE FOR LOST PROFITS, LOSS OF BUSINESS, INJURIES, DEATH OR DAMAGES OF ANY KIND OR DIRECT, INDIRECT, CONSEQUENTIAL, SPECIAL OR PUNITIVE DAMAGES, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY THIRD PARTY. YOU AGREE THAT FOR ANY LIABILITY RELATED TO THE PURCHASE OR SUPPLY OF PRODUCTS, THE COMPANY IS NOT LIABLE OR RESPONSIBLE FOR ANY AMOUNT OF DAMAGES ABOVE THE AGGREGATE DOLLAR AMOUNT PAID BY YOU FOR THE PURCHASE OR SUPPLY OF THE PRODUCT GIVING RISE TO THE LIABILITY.



What Is Not Covered

Under no circumstances will any Product adapters, components or parts be covered under this Limited Warranty if found that the Purchaser, in our sole determination, was negligent in its use, maintenance, operation or repair of the Product, including without limitation, any misuse, alteration or modification, conditions causing corrosion, improper storage, lack of reasonable care and proper maintenance or repair, from failure to follow the company's and/or other manufacturers equipment installation, operating, safety and maintenance instructions, exceeding rated operational capacity, circumventing or alteration or modification of other equipment and/or manufacturers driveline safety systems, due to accident, normal wear and tear or that have been repaired with component parts other than those manufactured, used, or supplied by the Company.

Section 2. Returns and Exchanges

All returns and Limited Warranty claims for any Product not purchased directly through the Company must be submitted to and processed through the dealer, agent, or representative the Product was originally purchased from. All third party sales returns must be processed according to the sales return policy of the original dealer or agent. Any return, refund or warranty policy offered by a dealer, agent or representative is considered separate and distinct from the Companies own policies and in no way shall it bind the Company to perform on terms different than herein stated.

If you have purchased the Product directly through the Company, then you may submit a return request to the Company within fifteen (15) days of the original date of purchase, on condition that the Product is in new, unused, undamaged and unaltered condition. Proof of purchase date by sales invoice or receipt will be required. No returns will be accepted or refunds issued after the expiry of fifteen (15) days from the original date of purchase. To submit your refund request, please email returns@lionforgeinstries.com with the subject line 'Return for Refund Request' so we can easily identify it, along with a copy of your original receipt and shipping document.

All shipping costs for any return is the responsibility of the original purchaser. To return Products, you must ship the Products to the Company in their original packaging and condition, prepay shipping charges and accept the risk of loss or damage during shipment. The Company will not issue a refund or ship a replacement or exchange until the returned Product is received. The returned package must contain a copy of an original purchase receipt that shows the price of the returned Product(s).

The Company will inform you of estimated shipment dates but is not liable for any delivery delays or failure to ship by the estimated due date, including without limitation as a result of events beyond the Company's or its shippers' reasonable control, including without limitation shortage of materials, transportation failure, or acts of God.

Address for returns: Lionforge Industries Inc. 40067 PR501 Ste. Genevieve, Manitoba, Canada R5J 0B1

The Company reserves the right to review and inspect all returned Products, ensuring their new, unused, undamaged and unaltered condition prior to approving any refund. The refund, if approved, will equal the total purchase price paid for the Product, less a restocking fee of up to 20%. The Company may issue any approved refunds under the original payment method used when purchased or by a cheque issued and mailed within approximately 30 days from the date of approval, whichever is more convenient for the Company. Refunds on purchases made with a credit card will only be credited to the same card.

The Company reserves the right to revise or change our return, refund and Limited Warranty policy at any time without notice and without incurring any obligation to buyers of products previously purchased from us.

Section 3. Online Purchases

Products may change or be discontinued at any time. For purchases made online or by catalogue, the Company will deliver Products that have similar characteristics of the Products you ordered, but minor changes between what is delivered and what is described online or by catalogue are possible. The Company may ship Products with minor specification changes, provided that the Product materially has the same functionality, performance and characteristics of the ordered Product.

Products may differ slightly from how depicted in any illustrations, photography or descriptions online or by catalogue. The Company has made every effort to display as accurately as possible the colours of Products as they appear. However, as the actual colours you see will depend on photographic processes and your screen, the Company cannot guarantee that your screen's display of any colour will be accurate.

Section 4. Entire Agreement

These Terms set forth the entire agreement of the parties with respect to its subject matter. These Terms may not be altered, supplemented, or amended by the use of any other documents. Any attempt to alter, supplement or amend this document or to enter an order for Products that are subject to additional or altered terms and conditions will be null and void. These Terms may be changed by the Company at any time, in its sole discretion without prior notice, with respect to any future sales or transactions with you.

Section 5. Governing Law, Disputes and Language

These Terms and the subject matter of these Terms and all related matters will be governed by the laws of the Province of Manitoba, Canada and the laws of Canada applicable in Manitoba, excluding any laws that implement the United Nations Convention on Contracts for the International Sale of Goods or the U.S. Uniform Commercial Code, and excluding any conflict of laws rules. Subject to the following paragraph, you submit to the exclusive jurisdiction of the courts of the Province of Manitoba.

To the extent permitted by applicable law, unless the Company agrees otherwise, any claim, dispute or controversy, whether in contract or tort, pursuant to statute or regulation, or otherwise, and whether pre-existing, present or future, arising out of or relating to the Products, any Website of the Company, the Owner's Manual and these Terms (each, a "Claim") will be determined by final and binding arbitration to the exclusion of the courts. Arbitration will be conducted in Manitoba on a simplified and expedited basis by one arbitrator selected by the Company pursuant to the then current laws and rules relating to commercial arbitration in the Province of Manitoba. The foregoing does not, however, preclude the Company from seeking injunctive relief in other jurisdictions when necessary to protect its interests. You agree that any dispute resolution proceedings will be conducted only on an individual basis and not in a class, consolidated or representative action. If for any reason a Claim proceeds in court rather than in arbitration, you waive any right to a jury trial.

Section 6. Product Return - other

You also acknowledge, agree, and accept that you may be required to obtain and supply appropriate customs documents, export permits or other, to return your Product to Canada which is your sole responsibility.

Section 7. Notices

Except as explicitly stated otherwise, any notices must be given to the Company by email to info@lionforgeindustries.com and to you to the email address you provide to the Company.



Section 8. General

The failure of the Company to assert a right hereunder or to insist upon compliance with any term or condition will not constitute a waiver of that right or excuse any subsequent non-performance of any such term or condition by you. The headings used in these Terms are included for convenience only and will not limit or otherwise affect these Terms. If any provision of these Terms will be ruled unenforceable, then the remainder will be enforced to the extent permissible. The Product is not intended for use by children under the age of 18.

Section 9. Customer Support and Information

Please contact us at info@lionforgeindustries.com for assistance with questions about your purchase, shipment, warranty service, and any exchanges, returns, cancellations or transfers, or to change your address or to inquire about orders, bills and invoices.

For Product questions and inquiries not related to returns, refunds or Limited Warranty, please contact your local dealer, agent, or representative.

Effective as of August 16, 2022.