



Grapple Kit Install & Grapple Bucket Manual



Model # _____

Serial # _____

Rev. 03/17

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- Thank you for purchasing a Rybind Attachment. For proper installation and operation for your Rybind Attachment this book **SHOULD BE READ COMPLETELY BEFORE BEGINNING INSTALLATION OR OPERATION OF THE EQUIPMENT.**
- Your safety and the safety of others depend on the proper installation, operation, maintenance, and understanding in the use of this equipment.
- Some photographs and installations in this manual may show details of this attachment that may be slightly different from your unit.
- Continuing improvements and advancements of this product may occur at any time.
- Any unauthorized modification to this product or lack of maintenance, proper use, or unsafe operating techniques will not be covered under warranty, further more Rybind Manufacturing reserves the right to void the warranty on some or all the equipment installed on that unit.
- If any questions arise during installation or maintenance of your product please consult your dealer or contact Rybind Manufacturing's corporate offices.

Thank you for your business.

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Rylind Grapple Kit and Grapple Bucket

Rylind Manufacturing's Retro Fit Grapple Kits are designed to be profiled and welded on to a customer's current general purpose bucket. Grapple Kits come with ready to profile mounting points and cylinders plumbed to a central location in the middle of the bucket. Plumbing to the loaders 3rd function valve is not provided.

Rylind Manufacturing's Grapple buckets are specifically built with a thicker top angle to accommodate the stress and pressure excerpted on the bucket during use of the grapple in multiple situations. Rylind Grapple buckets come in pin-on mounts, Rylind Wedge-loc, Rylind Pin-loc, Deere, Volvo, CAT, JRB, and many more styles of coupler mounts. Grapple buckets come plumbed to a central pressure relief valve or a t-fitting depending on the loader the bucket will be going on. Plumbing to the loaders 3rd function valve is not provided.

Maintenance

Any damaged components, bends, cracked welds, or hydraulic leaks need to be fixed immediately. It is recommended to pull grapple pins after the first 80 hours of operation to check for any fatigue or unusual wear patterns. Hydraulic lines should be kept free of debris that may cause leaks or damage.

Lubrication of your grapple is extremely important. Dust, dirt, snow, rain, and other debris can and will wash away lubrication and it may be necessary to inspect and reapply grease more than once a day depending on the environment the bucket is operating in.

- 1. Discontinue use immediately if any problems are found.**
2. Before each operation inspect the grapple for any stress, cracks, broken parts, or leaking cylinders.
3. Remove and inspect grapple pins for stress and wear every 250 hours of operation.
4. Grease all hinge points before each use.
5. Inspect grapple tines for stress fractures and signs of fatigue every 40 hours of operation.



Grapple Parts

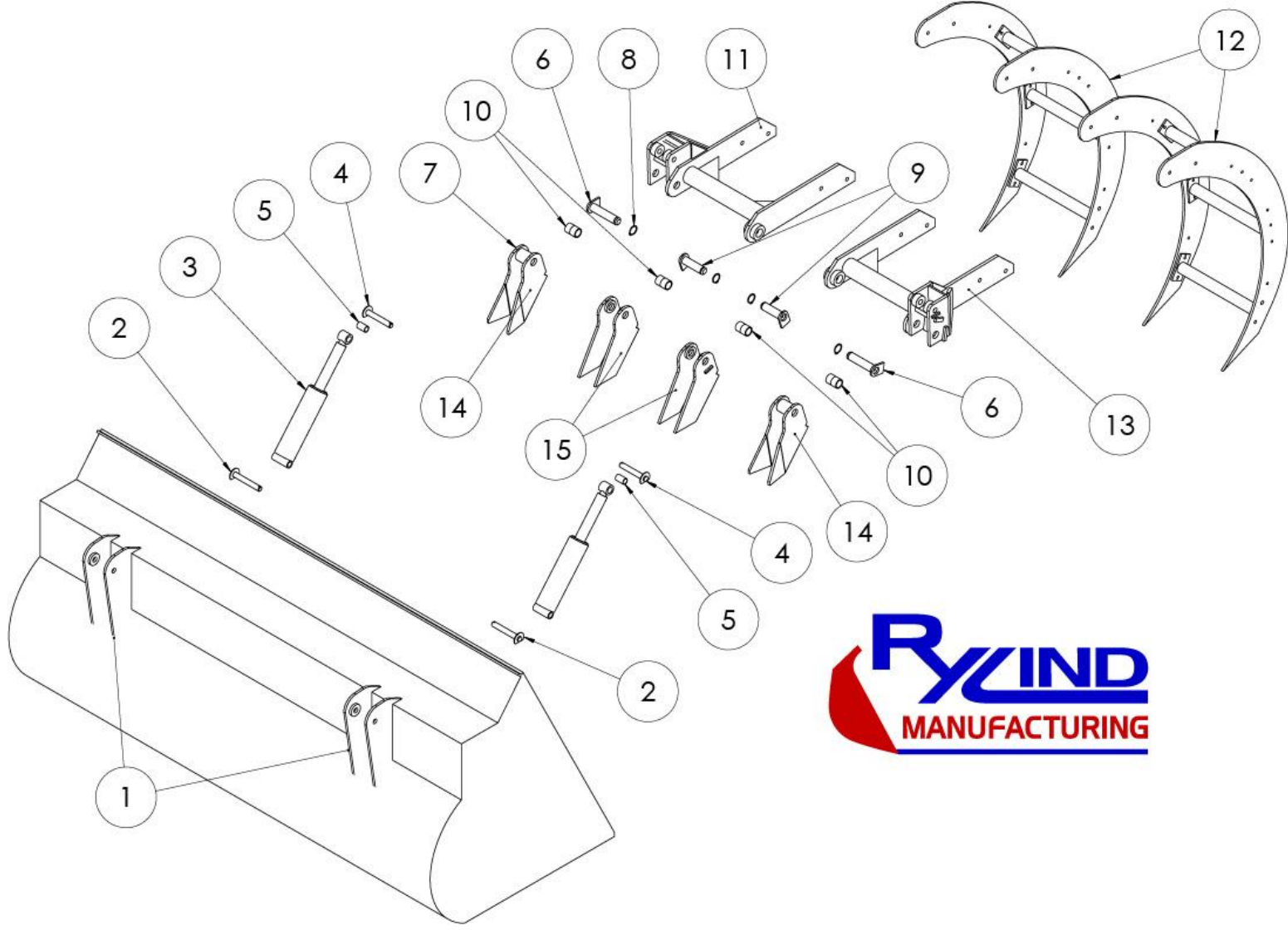
GK Grapple Kits and GBG Grapple Buckets Parts List

**Model and Serial Number required when ordering Parts*

#	# Required	Part Number	Description
1	2	17385	Cylinder Barrel Mounting Bracket
2	2	17386	Cylinder Barrel Pin
3	2	See Below	Grapple Cylinder Complete
	2	See Below	Grapple Cylinder Seal Kit
4	2	17390	Cylinder Rod Pin
5	4	Model Specific	Cylinder Rod Bushing
6	2	17392	Outer Grapple Hinge Pin
7	4	Model Specific	Outer Grapple Hinge Bushing
8	4	17394	Snap Ring
9	2	17395	Inner Grapple Hinge Pin
10	4	Model Specific	Inner Grapple Hinge Bushing
11	1	17397	Left Hand Grapple Mount
12	2	17398	Grapple Tine
13	1	17399	Right Hand Grapple Mount
14	1	17400	Outer Weld-on Mounting Bracket
15	1	17401	Inner Weld-on Mounting Bracket

#	# Required	Part Number	Description
	2	17405	2.5" x 10" Grapple Cylinder
	2	20320	3" x 10" Grapple Cylinder
	2	17407	3.5" x 10" Grapple Cylinder
	2	20321	4" x 10" Grapple Cylinder
	2	17409	2.5" Cylinder Seal Kit
	2	20311	3" Cylinder Seal Kit
	2	17411	3.5" Cylinder Seal Kit
	2	20322	4" Cylinder Seal Kit

Exploded View

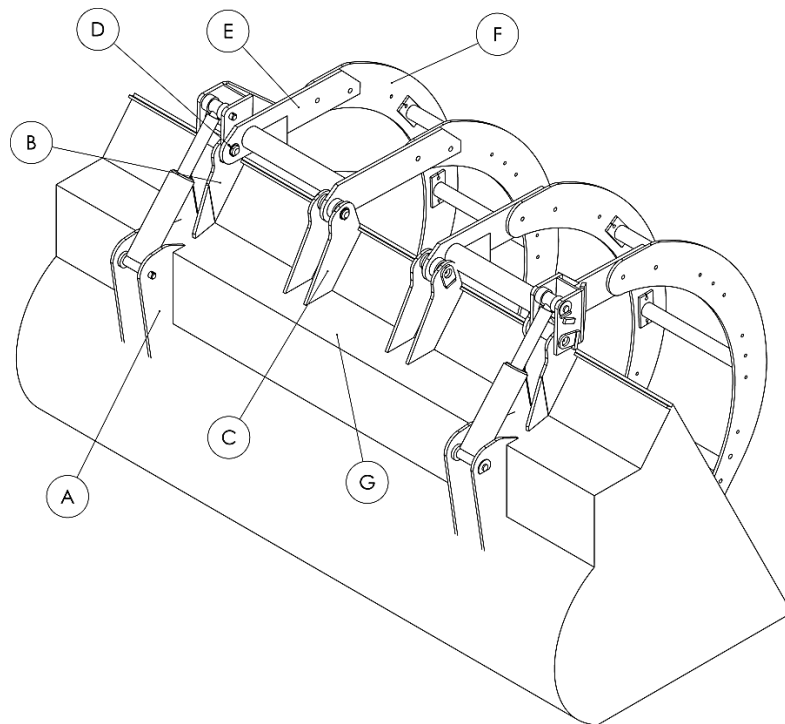


*Picture may not reflect current model or design

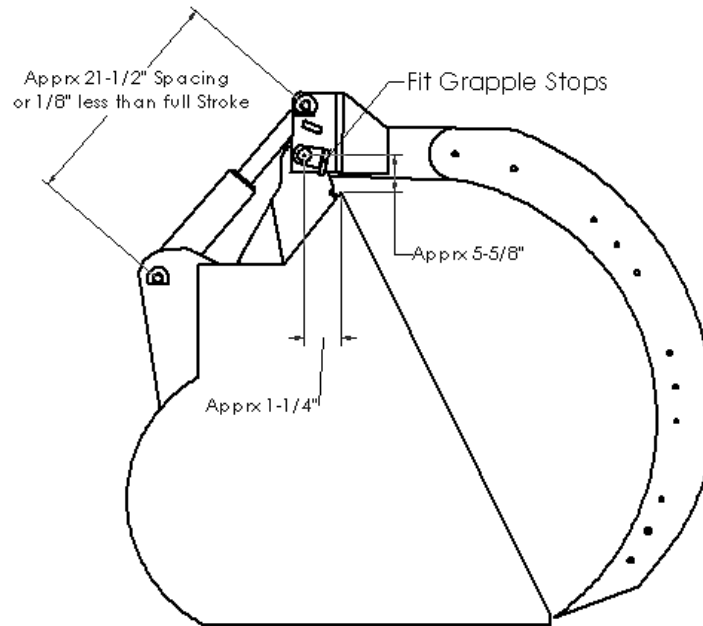
Rylind Grapple Kit Installation

Since all buckets are built and designed differently these instructions are a general guideline, some installation may differ. This is setup as a universal install kit and profiling of mounting brackets is necessary for a correct fit. Some measurements and pictures may differ during your install.

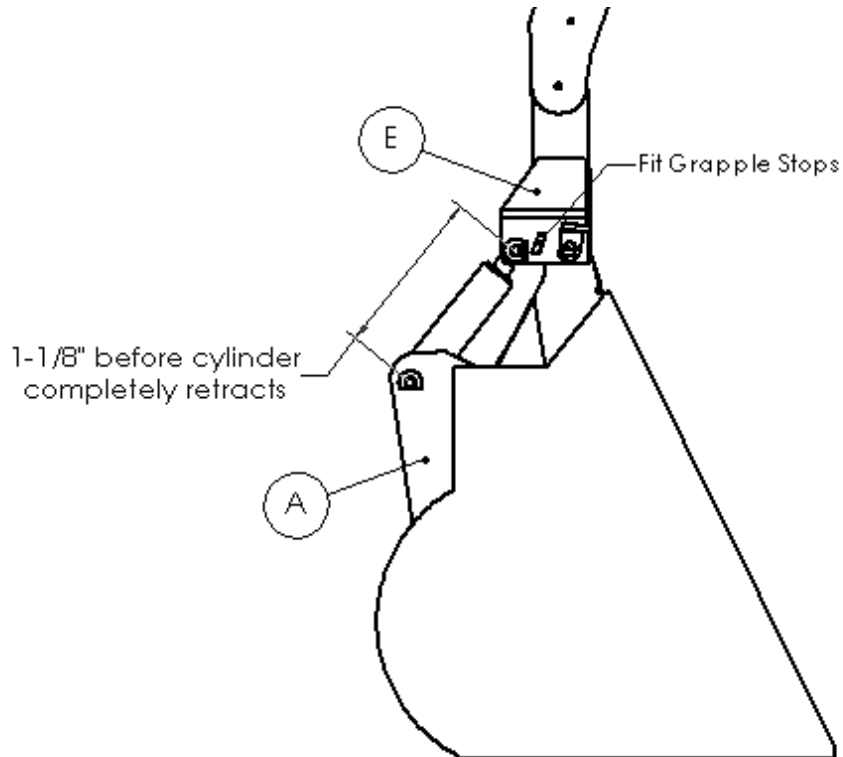
1. Read instructions completely before beginning install.
2. Using a piece of cardboard profile the spill guard of bucket for the Outer and Inner Grapple Hinge Brackets (References B & C)
3. Cut and install Outer and Inner Grapple Hinge Brackets (Reference B) and tack weld in place with 1-1/2" shaft through hinge points to insure bushings are square and parallel.
(Do not completely weld yet)
4. Bolt Grapple Tine to either the Right Hand or Left Hand Grapple Mount.
(References E & F)
5. Attach Tine to the grapple mounts tack welded onto the spill guard of your bucket using the pins and bushings provided (Reference D)
6. Move Grapple up and down to insure proper clearance and the grapple is moving properly. Close grapple and place a spacer between the floor of the bucket and the grapple tine at the desired distance. *(Usually 1"-3")*



7. Install Closure stops with cylinders mounted, according to drawing below.



8. Pin Grapple Cylinder Rod end to the Grapple Mount (Reference E)
9. Extend Grapple to its desired full open position and then back the cylinders off 1-1/8".



10. Using a piece of cardboard profile the position of the Lower Cylinder Mounting Brackets (Reference A) and torch cut to fit.

11. Tack weld Lower Cylinder Mounting Bracket. Check and adjust cylinder stroke so it stops at least 1/8" before cylinder is fully extended and Grapple Tines do not impact the bucket creating an abnormal wear point.
12. Open and close grapple to ensure proper operation.
13. Install Grapple Open and Closure stops as seen in pictures.
14. Repeat Steps 1-13 on opposite side of bucket.

15. If this is a solid grapple install bucket on machine and roll back the bucket to ensure loaders center link does not collide with grapple.

16. Remove Grapple Tines and Cylinders
17. Mount the hose retention rings and either the Hydraulic T-Fitting or Pressure Relief Valve to bucket Reference G area. (If this is not the desired location you can mount the fitting where you like.)
18. Brace each hinge plate to bucket to stop movement caused by completely welding each hinge point.
19. Wait for welds to cool
20. Re-attach the grapple tines and cylinders test the grapple open and close operation to make sure the hinge points did not move during welding.
21. Install hydraulic jumper hoses from loaders 3rd valve to either the T-Fitting or Pressure Relief Valve
22. Install hydraulic hoses from the T-Fitting or Pressure Relief Valve to each of the grapple cylinders
23. Operate the grapple from the cab several times to remove any air from the hydraulic lines and cylinders. (If this does not work you may need to bleed the hydraulic lines to ensure proper operation.)
24. Grease all hinge points before first operation.

Disclaimer:

Rylind Manufacturing is not responsible for damage to the grapple, bucket, or failure of the welds due to the loader's 3rd function valve or the pressure relief valve being set too high causing a high speed jerking operation of the grapple. Hydraulic pressure to the grapple cylinders should not exceed 2500 lbs.



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LIMITED WARRANTY

Rylind Manufacturing Inc. Is a company related to and having the responsibility for the manufacturing, marketing, and distribution of the product line known by the registered trade name "Rylind"

Rylind Manufacturing, Inc. warrants these products to be free of defects in material and/or workmanship for a period of one (1) year or 2,000 hours from the date of purchase under normal use and service providing that:

- A. All products and related components are installed properly according to instructions and that proper maintenance and greasing of movable parts is completed on a regular basis.
- B. The attachment products and related components are used only for the purpose for which they were intended as designated by the manufacturer and that the rated capacities are not exceeded.
- C. This is a "PARTS ONLY" warranty for defects in hydraulic components not typical maintenance parts (i.e. seal kits, hydraulic hoses, cylinders, or vendor supplied valves). This means the hydraulic part will be replaced freight prepaid from the factory. Travel time or labor to replace the defective component is "NOT" included in this warranty. Return of the defective parts for inspection may be requested.
- D. Hydraulic kits and components are warranted for one (1) year from invoice date. Cylinders must be returned in their entirety and not have been disassembled to be considered for warranty. After warranty replacement parts include cylinders, hydraulic valves, seal kits, electric components, and wear parts are warranted for 90 days from the date of purchase. Disassembly, modification or welding of any kind without the written permission of Rylind Manufacturing voids the warranty on the cylinder and seals. All warranty components must be packaged and sealed to avoid contaminants from entering during shipping. Improperly packaged components will not be considered for warranty. Hydraulic hoses are warranted against failure due to workmanship. Improper installation, ripping, cutting, or wear due to rubbing is not covered under warranty.
- E. Defects in materials and/or workmanship with respect to welding or structural failures will be paid at a rate not to exceed 70% of the advertised charge out rate. Repairs must be authorized by Rylind before work proceeds. Travel time or mileage is "NOT" included. All warranty work to be performed must be authorized by Rylind Manufacturing, Inc. Repair or replacement will be at our discretion. Estimates of the total costs involved must be given to us before proceeding with any work involving a Rylind product. No warranty will apply to products that have been modified or repaired without our authorization. Normal wear and tear will not be considered as

a defect. Accidents, misuse or negligence does not justify warranty. This warranty does not include or cover purchased subassemblies including, but not limited to, teeth, fork tines, cylinders, wear plates, edges, etc... Such purchased subassemblies are covered only by the OEM's warranty, if any, of their respective manufacturer, and not Rybind Manufacturing.

F. Limitations

- a. This limited warranty does not cover product, which in the opinion of Rybind, is damaged due to abuse, misuse, misapplication, prohibited operation, improper maintenance, alteration, unauthorized service, contamination by the base machine, or normal wear and tear. This warranty is null and void if the product is modified in any way without the written consent or instruction of Rybind.
 - b. This limited warranty is null and void if the product is used in a prohibited operation, or unauthorized adjustment/assembly/disassembly has occurred.
 - c. Dealers or Agents of Rybind have no authority to make any type of representation or warranties on behalf of Rybind Manufacturing beyond those expressly set forth in this document.
 - d. This warranty is in lieu of and excluding all other warranties preceding it including and without limitation to any implied warranties of merchantability or fitness for a particular purpose.
- G. In no event shall Rybind be liable to any party, including but not limited to buyer for any direct, incidental, consequential, punitive, or special damages, including but not limited to loss of profits, loss of productivity, in any way related to or arising, directly or indirectly from the product. The liability of Rybind for any and all losses and damage to buyer, its successors and assigns, resulting from any cause whatsoever, including the negligence of Rybind, irrespective of whether such defects are discoverable or latent, shall in no event exceed the purchase price of the product with respect to which such losses or damages are claimed.
- H. All returned products must be shipped to the following address to avoid any delay or expense in the warranty process:

Rybind Manufacturing, Inc.
Warranty/Service Department
16178 Front Ave
Atwood, CO 80722