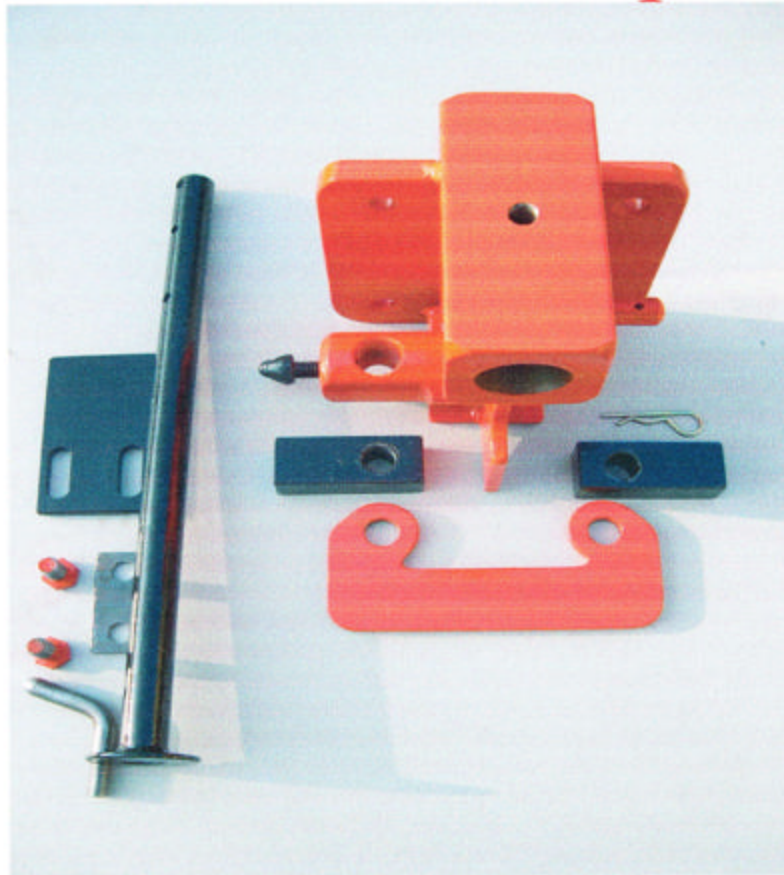


# Assembly & Operation Instructions for the Gravely Quick Hitch Non Powered Attachment Adapter



Designed and Manufactured Exclusively By  
**Cogan Valley Machine Co.**

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# Assembly & Operation Instructions for the Gravely Quick Hitch Non Powered Attachment Adapter 2010 Production Year

The boys at Cogan Valley Machine are proud to offer another new product to its line of quality after market parts for the Gravely tractors.

This adapter will allow you to connect any non-powered attachment with a flat Gravely 4-bolt mounting surface to a quick hitch, mounted to the walk behind Gravely.

Value added features:

The main parts have received Powder Coat Paint for a durable finish with a stock color to closely match **gravely orange** or black.

A push plate has been included to provide support and remove any pressures of the attachment on the quick hitch horn, thus, allowing the horn to just carry the weight of the attachment. This is done with an adjustable push bar mounted to the Weldment, thus, transferring any rearward forces back against the quick hitch casting instead of a bending force on the horn. The lack of this support has caused some horns to bend under the stress of some attachment such as snow blowers. With this innovative design, the horn only carries the weight of the attachment straight down. Our 2-stud reinforcement retainer plate is used for this push plate. Our 4-stud reinforcement retainer plate can be used as the push plate instead of this 2-stud reinforcement retainer plate if any of the upper Q H studs need supported to curtail bending or breaking.

The adapter can allow the attachment to swing or tilt free on the horn to adjust to uneven ground.

OR

The adapter can be locked ridged, in a centered position. Either mode is achieved by a center web of the weldment coming to rest against stop blocks mounted on the two lower quick hitch studs. Depending on the application, the stop blocks can be turned to one of three positions equally, using either end or the side of the block to allow varying amounts of swing to achieve full centered lock, a moderate swing, or a full swing side to side to the studs.

A drop leg has been incorporated into the design that will enable the attachment to remain upright and supported after you have disconnected from the power unit, thus allowing ease to reconnect the next time, sparing your back with the effort of manhandling the attachment into position. This feature also could come in handy when storing your attachment, for example a two wheeled cart. After you use this feature, you will realize that "Gravely" doesn't have a leg to stand on when it comes to innovative new ideas.

A pin has been added on the side of the unit to hang some of the hardware items not used when the unit is stored to avoid misplacement.

The Gravely attachment mounting surface bolt pattern of the advance casting has been duplicated on the face of this adapter, thus allowing any Gravely attachment with a flat mounting surface, such as a tool bar, dump scoop, or wheel barrow to be converted to a quick hitch attachment, mounted to the walk behind Gravely. The Gravely wheel barrow, for example, would need the lift handle changed slightly to work over the hood, as this adapter extends the attachment about 6in. Even home grown projects like a 2 wheeled cart can be mounted to this adapter. The possibilities are up to you.

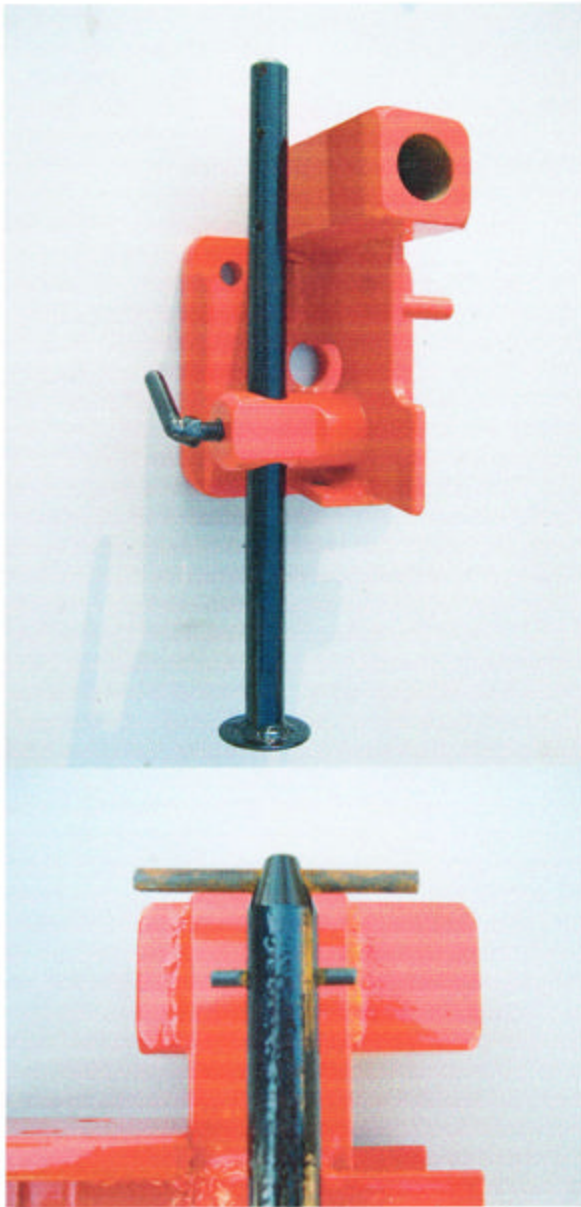
## Assembly Instructions of this Product

### Main unit assembly:



Bolt the slotted push bar using the provided  $3/8''$  X  $3/4''$  grade 5 hex bolts and the small  $1/8''$  thick 2-hole tie plate to the bottom side of the Weldment into the 2 tapped holes. Apply a little oil or light grease before inserting bolts into threads. Leave these bolts only snug till final adjustment to your machine. The 2-hole tie plate provides a better locking grip for the push plate than simple washers.

Slip the smaller hair pin through a hole at the end of the  $1/2''$  storage pin located on the opposite side from the drop leg lug for future storage of the accessory hardware, when your adaptor is not in use.



The drop leg of your adapter needs to be assembled in place. 2 roll pins are provided to install through the upper 2 holes of your drop leg. The long pin (1/4" X 3") acts as a handle, the shorter (3/16" X 1-1/2"), when installed, provides some clearance for your fingers and ease of operation. The lower pin should be installed with its slit rotated to a position as not to rest on the drop leg lug when lowered to it. This will help preserve the finish. After assembly, the drop leg is irremovable from the lug without disassembly. Apply a little oil or light grease to the threads of the "L" shaped 3/8" lock bolt handle and thread into the end of the lug to lock the drop leg into the desired position. A large hairpin is

provided to insert into the lower hole (about 4" below the small roll pin) of the drop leg, acting as a safety, to support the weight of your attachment in storage mode or, to hold the drop leg up off the ground when in use, should the lock bolt handle loosen.

A grease fitting is provided to thread into the top of the horn receiver block. Inject a moderate amount of grease to coat the horn and taper horn socket as needed. If you are starting with all new parts, you could lightly coat the horn first before assembly to get the lubrication started.

### Push plate and tilt limit assembly:



The provide “C” shaped 2 hole push plate (also called 2-stud reinforcement retainer plate) is attached to the lower two double ended Q H studs (not supplied with this kit) of your quick hitch. Our optional “horseshoe” shaped 4-stud reinforcement retainer plate

can be used for this purpose as well. NOTE: It is important that all the studs used for these plates have the same length hex portion so the plate will sit even. It has been discovered that studs of different production batches were slightly different in this regard. If needed, replace the studs.

Then place each of the 2 stop blocks (hang vertically) on the studs and secure with nuts only snugly till final assembly.

### Mounting Gravely attachments:



To attach your home grown or “Gravely” attachment to the new Non-powered adapter, use four 1/2” bolts of sufficient length as needed. If your attachment has a 3/8 bolt or a cast lug that held back the advance casting PTO shaft, clearance is provided in the

Weldment for that. All that is left to do is some fine adjustments and your new adapter is ready to go.

## Final adjustments:

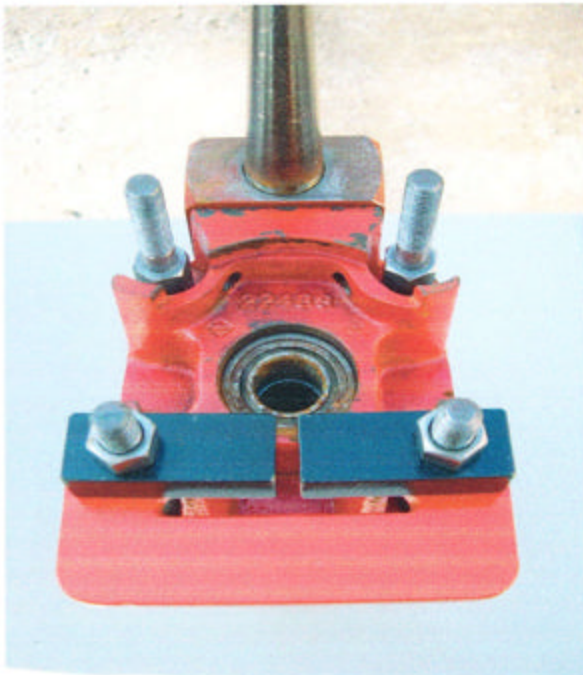
Due to different **Gravely** quick hitch models, designs and machined dimensions of castings and studs, this adapter will need to be fitted to your particular Quick Hitch. The slotted push bar is designed for this purpose.

Place your new adapter fully on the horn of your quick hitch and secure with a hairpin or similar device. Use washers on the small end of the horn to take up as much endplay, if any, as you can without making the adapter tight on the horn. The adapter needs to swing freely.

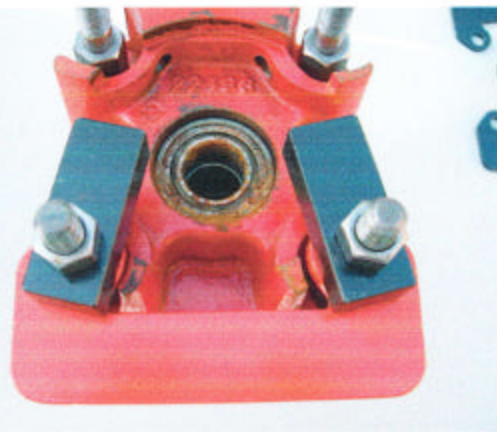
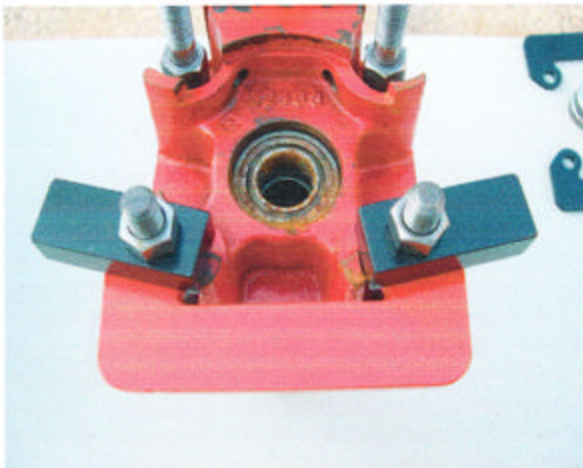
Adjust the push bar (using the slotted holes) to within about 1/64" (.010" to .015") of touching the push plate (2-stud reinforcement retainer plate). You can use thin card stock such as matchbook cover or several layers of regular paper as a gauge. Secure tightly using the two grade 5 bolts and the 2 hole tie plate.

The goal here is to have the push bar in place when needed to resist the rearward forces developed while using an attachment, but allowing the adapter to swing freely on the horn without interference with the push plate when free float tilt is desired. Once this adjustment is made, it can remain unless the entire setup changes, such as going to a different quick hitch and / or machine, or it otherwise falls out of adjustment. If so, repeat this step. The strength of this design, in part, is subject to the proper adjustment of the push bar to the push plate.

## Tilt limit adjustment:



Use the two stop blocks to control the position or amount of tilt (swing) of your adapter you desire, as described above in the feature section, and lock with nuts on your lower Q H studs. By positioning the stop blocks so the longest leg to the bolt hole, face each other squarely, a gap will form equal to the thickness of the weldment web, thus when assembled, will lock the adapter centered. When using



the other end or sides of the stop blocks to control the amount of tilt, swing the weldment side to side against each block while they are loose to align them squarely to the web, thus giving maximum surface contact when the web rest against the stop block at the desired swing limit. Then tighten securely. Other than locked in the center position, though it may look odd, the stop blocks will **NOT** be square or level to the quick hitch casting if this is done correctly.



### Storage or sitting your attachment aside:

With the use of the drop leg, disconnecting from your walk behind tractor is simple and easy. When in use, the drop leg is stored by raising it up through the drop leg lug and locked with the “L” shaped clamp bolt handle. The supplied large hairpin can be slipped through the third hole (about 4” below the small roll pin) in the drop leg to insure it not fall inadvertently to snag on the ground. To store or just set your attachment aside with this adapter; use your machine to take the attachment to the desired location. Drop the leg to the ground and lock with the lock bolt handle. For safety, the hairpin should be slipped into the third hole to prevent your attachment from falling if the drop leg were to inadvertently loosen. Detach the horn hairpin and pull your machine away. Your attachment will be standing there, all lined up, ready for you to pull up to it the next time.

### Other Attachments:

With this quick hitch system, the innovative design of the [Cogan Valley Machine Co.](#) built adapter, and the addition of optional accessories if necessary, other attachments such as a tool bar, dump scoop, wheel barrow, can be used in combination with other powered or non-powered quick hitch attachments and quickly interchanged with each other. This done in many cases, without removing the push plate or stop blocks from the lower Q H studs.

## Optional equipment and accessories:

If you are using a snow blower or similar attachment with the tilt limit bushing installed on one of the upper studs in combination with this Quick Hitch Non Powered Attachment Adapter, it is recommended you purchase our horseshoe shaped 4-stud reinforcement retainer plate. The 4-stud plate can be used instead of the standard issue 2-stud plate to act as the push plate. This serves to reinforce the 4 studs when using the tilt limit bushing for the snow blower.



We offer an optional modified hex stud (with a shorter hex portion) to allow the 4-stud reinforcing retainer plate surface to fall behind the quick hitch casting surface and therefore getting the 4-stud reinforcing retainer plate back behind the travel of the teardrop shaped tilt limit plate of the snow blower or similar attachment.

## Also Available:



At the time of this printing, [Cogan Valley Machine Co.](#) has produced a "Gravely Quick Hitch Old Style Snow Plow Adapter." allowing the use of the old style dozer blade with the **Gravely** quick hitch system.



Your purchased product includes all the parts shown on the table in the cover picture plus other related hardware as a complete kit.

Not included with this product would be the model L tractor, the quick hitch, or the tool bar used in the pictures to illustrate the use of this adapter.

Some pictures for illustration of this product are of our prototype model.

Some features subject to change without notice for a better design.

This adapter fits nicely, and in most cases, has shipped in a medium flat rate box with professionally fitted packing to insure your new parts have arrived in new condition. Check your parts with the list below to insure you have received a complete kit before you begin assembly.

This assembly has been designed and manufactured with high regard to strength and durability probably to the point of overkill. It'll never be said that [Cogan Valley Machine Co.](#) builds a product shabbily or with shortcuts as many do in today's market. We have learned long ago; it usually only takes a "little" more effort or material to go first class. We are proud to stand our products next to any of [Gravelly's](#) finest.

Thank you for your purchase of this superb exclusive  
[Cogan Valley Machine Co.](#) Product.

May it serve you well.

Jerry & Larry Schmohl

## PARTS LIST

201	Main Weldment
103	Slotted Push Bar
104	Two Hole Tie Bar
105	3/8 X 3/4 Hex Bolt (2)
106	3/4 X 12-3/4 Drop Leg
107	1/4 X 3 Roll Pin
108	3/16 X 1-1/2 Roll Pin
109	Large Hairpin
110	3/8 Lock Bolt Handle
111	1/8 Grease Fitting
115	Small Hairpin
116	2 Stud Reinforcement Retainer Plate (Push Plate)
118	Stop Block (2)

At the time of printing, all parts were available for replacement excluding item 201. If you managed to destroy item 201 to the point of replacement, you probably need a complete assembly.

For customer service

Call 570/998-9484

Or

E-mail at [ironworker@chilitech.net](mailto:ironworker@chilitech.net).

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