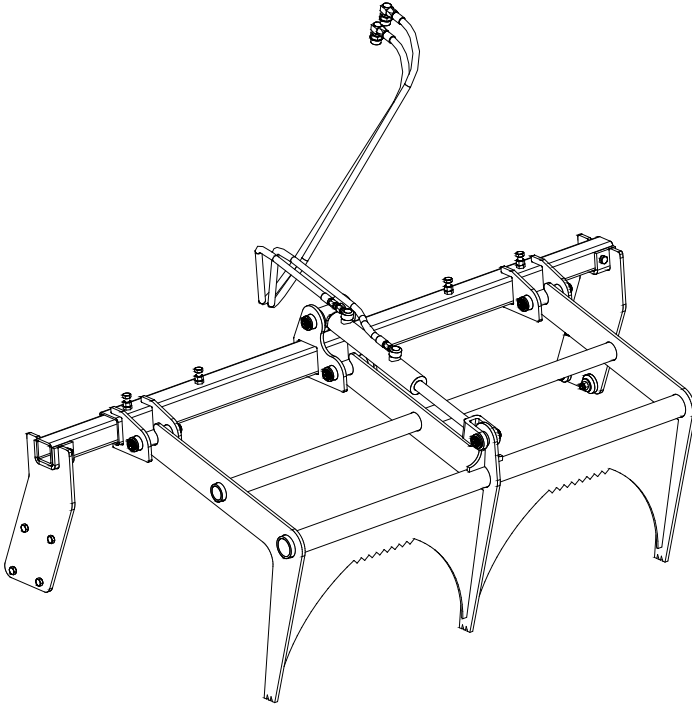


# Bolt on Grapple



Model Number BOGV6084.

Serial Number \_\_\_\_\_.

Phone: 320-393-7080

4/30/02  
Revised 1/1/13

BOGV

## **Features of Virnig Mfg. Inc. Bolt on Grapple include:**

- Mounts to many types of existing buckets.
- 1 1/2" bore x 8" stroke cylinder.
- Mount tubes telescope to fit various width buckets.
- No cutting or welding required for installation.
- Recommended for skid loaders with a lift capacity under 2400 lb.

## **Installation**

- There needs to be a minimum of three bolts holding each grapple mount to the bucket/fork side plate (four recommended). If the four pre-drilled holes do not align with bucket/fork side plate, new holes need to be drilled through both bucket side plate and grapple mount.
- Use fender washers (part number 9330PP) as needed. Some, none, or all washers may be used depending on style of bucket/fork.
- When mounting Bolt on Grapple to a bucket not made by Virnig Mfg., find the Virnig Mfg. bucket model (see following pages) with the closest bucket/fork height and follow the dimensions of that model.
- Locate Bolt on Grapple mounts per proper bucket/fork model drawing. Always keep bottom of Bolt on Grapple mounts parallel to the bottom of the bucket/fork and never locate the mounts behind the side plates of the bucket/fork.
- Drill four holes for 1/2" diameter bolts through each side plate of bucket/fork. Secure mounts to bucket/fork with hardware provided. Loosen set screws (8 total) holding outer cross tubes. Bolt outer cross tubes to mounts. Center grapple on bucket/fork.
- Tighten set screws and jam nuts securely.
- With bottom of bucket/fork touching ground/floor, open Bolt on Grapple jaw and slowly roll back. Make sure there is no interference between attachment and skid loader with grapple jaw open and attachment fully rolled back.
- If interference occurs, the grapple mounts will need to be moved forward. Determine amount of interference and move grapple mounts forward at least that distance. Remount Bolt on Grapple and recheck clearance.
- See following pages for suggested hose routing.
- Make sure hoses do not pinch during roll back.
- Slowly roll bucket fully forward. Check that hoses are long enough so they do not stretch or bind.

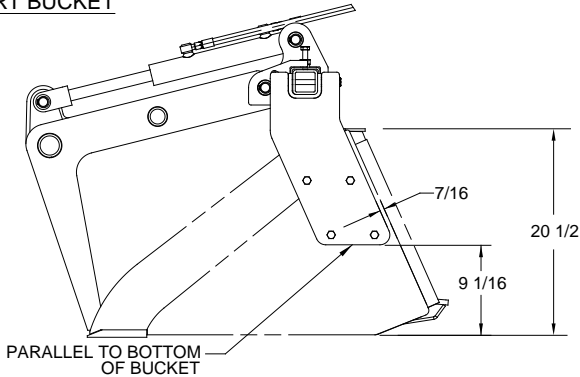
## **Installation (cont.)**

- Do not connect this attachment to high flow couplers.
- Cycle jaw open/close. Check for oil leaks per instructions in "Maintenance" section.
- Read and understand all warning information in this manual before operating this attachment.
- Never exceed the maximum attachment operating pressure of 3500 psi.

## **Installation Bucket/Fork Models**

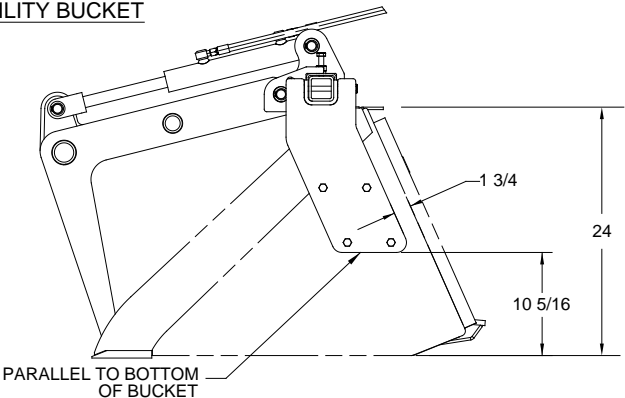
Location of Bolt on Grapple on Virnig Mfg. Dirt Bucket

DIRT BUCKET



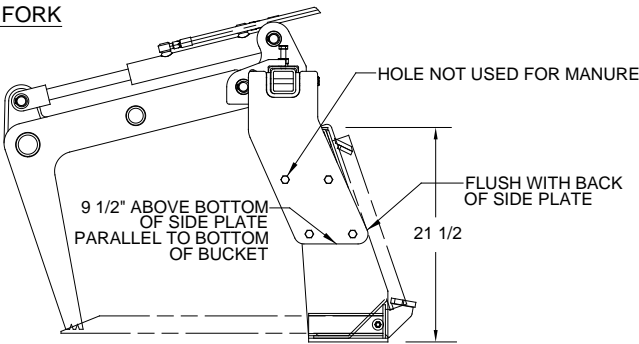
# Location of Bolt on Grapple on Virnig Mfg. Utility Bucket

## UTILITY BUCKET



# Location of Bolt on Grapple on Virnig Mfg. Manure Fork

## MANURE FORK





Grapple shown Center Plumb works for Case, John Deere, New Holland, Mustang, Takeuchi, and Gehl skid loaders.

Hoses need to be secured so they do not get damaged during operation. Hoses can be routed as shown in the picture above. Hoses can also be tied or bungeed to the skid loader cross member (close to the lower pivot ) to hold them from getting pinched or stretched.

Grapple can also be Left Side Plumbed. Grapple can be converted to Left Side Plumb by following instructions located in this manual. Please see picture on the next page showing Left Side Plumb. Hoses should be run through the bracket on the skid loader arm, as shown, or the hoses can be tied or bungeed to the skid loader arm.



Grapple shown Left Side Plumb, works for Cat, Bobcat, Kubota, Terex and ASV.



If needed, additional small elbows (Part No. 1012PP) are zip tied to the attachment and can be installed between hoses and couplers, as shown above, to improve hose routing at hydraulic coupler interface on loader. The additional elbows will not be required for most brands of skid loaders.

## **Operation**

- Always follow safety information.
- Keep bystanders back 50 feet.
- Never attempt to lift more than the operating capacity (attachment weight and load) of skid loader. Attachment weight is equal to bucket/fork weight plus Bolt on Grapple weight. Grapple weight is 310 lb.
- Always follow all safety and operating instructions of skid loader.
- Always relieve pressure before disconnecting hydraulic hoses.
- Never hit or pound couplers.
- Never ram piles with jaw closed.
- Never hook a chain on Bolt on Grapple.
- Never use grapple jaw for hooking and/or pulling. Material should be clamped securely.
- Secure hydraulic hoses so they will not be pinched or stretched while Bolt on Grapple is in use.

## **Maintenance**

\*Every 10 hours of operation

- Grease hinge pins and cylinder pins (5 grease fittings total).
- Inspect cylinder, hydraulic fittings, and hoses for leaks and damage. Replace as needed. Make sure skid loader is shut off and hydraulic pressure is relieved before checking for leaks. Never use hands to check for high pressure hydraulic leaks.

\*Every 50 hours of operation

- Check that all cylinder and hinge pins are secure.
- Check for loose, worn, or missing parts. Repair or replace as needed.
- Contact your dealer for replacement parts.



## Warning Labels on Grapple Attachment



This label is located near hinge area on grapple.

Always keep hands clear of grapple when skid loader hydraulic system is operational.



This label is located on the front of the grapple jaw.

Always stay clear of grapple jaw. Never inspect grapple with skid loader running or with jaw open.



This label is located on the jaw of the grapple.

This label has several important instructions that must be followed for safe operation of this attachment.

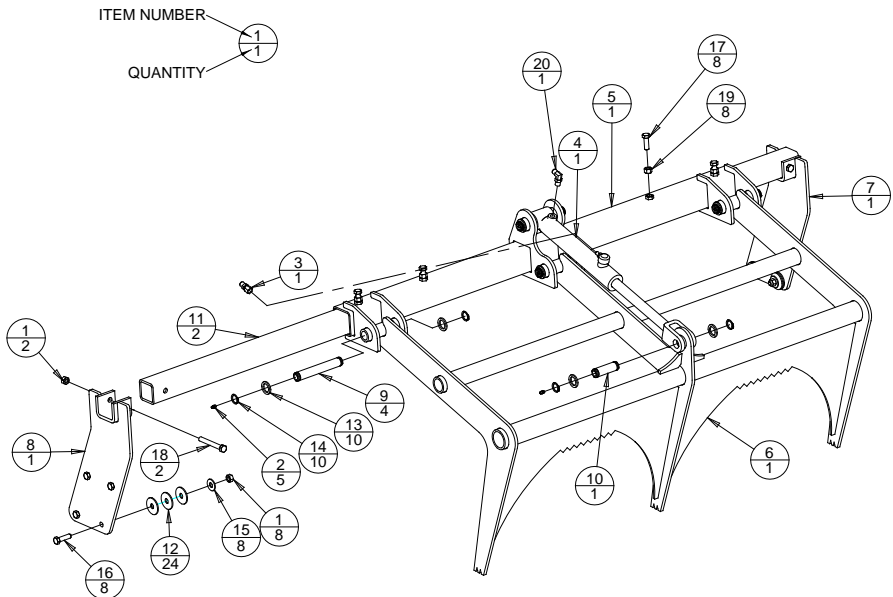
## Bolt on Grapple (BOGV) Parts List

ITEM	PART NO.	QTY	DESCRIPTION
1	1003PP	10	1/2"-13 REVERSE LOCK NUT
2	1034PP	5	1/4"-28 STRAIGHT GREASE ZERK
3	1132PP	1	1/32" DIA RESTRICTOR FITTING IN LINE 6 JIC
4	1121PP	1	BOLT ON GRAPPLE CYLINDER
5	5087VW	1	MAIN CROSSTUBE WELDMENT
6	5088VW	1	BOLT ON GRAPPLE JAW WELDMENT
7	5089VW	1	BOLT ON GRAPPLE MOUNT WDT LH
8	5090VW	1	BOLT ON GRAPPLE MOUNT WDT RH
9	5093VP	4	HINGE PIN
10	5094VP	1	CYLINDER PIN
11	5134VP	2	OUTER CROSS TUBE
12	9330PP	24	1/2" X 2" X 1/8" FENDER WASHER
13	5146PP	10	1" X 10GA MACHINERY BUSHING
14	5147PP	10	1" EXTERNAL SNAP RING
15	5148PP	8	1/2" USS FLAT WASHER
16	5225PP	8	1/2"-13 X 1 3/4" LG HHCS
17	5226PP	8	1/2"-13 X 1 1/2" LG HHCS
18	5227PP	2	1/2"-13 X 4" LG HHCS
19	5237PP	8	1/2"-13 NUT
20	6997PP	1	ELBOW 90 6MJ TO 6MB
A,B	21/22	1/1	1126PP HYD HOSE 1/4" X 80" LG 6FJX TO 6FJX
			1128PP HYD HOSE 1/4" X 88" LG 6FJX TO 6FJX
			1142PP HYD HOSE 1/4" X 96" LG 6FJX TO 6FJX
			1143PP HYD HOSE 1/4" X 102" LG 6FJX TO 6FJX
A	23	1	COUPLER FEMALE STD 90 6MJ
A	24	1	COUPLER MALE STD 90 6MJ

A - Item not shown.

B - Two different length hoses are used, one short and one long with the longer hose being one length longer than the shorter one.

# Component Assembly



Note: Restrictor fitting (Item #3), plumbed to rod end of cylinder.