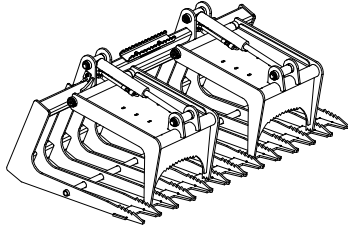
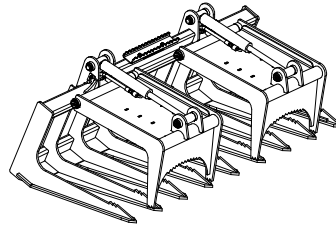


# VIRNIG MFG INC.

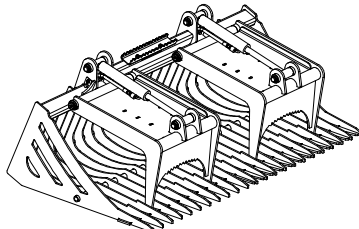
## 2 CYLINDER GRAPPLES



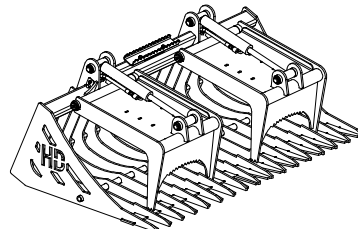
SGV



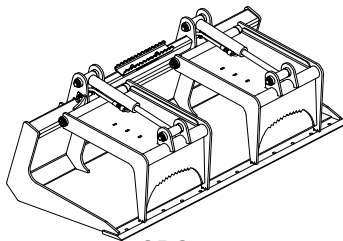
STG



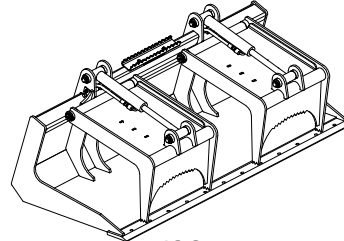
SRGV



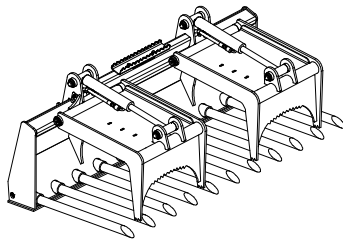
HSRGV



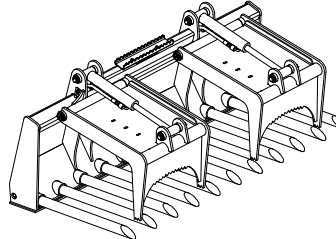
SBG



ISG



TBG



ITG

## OWNERS/OPERATORS MANUAL

Serial Numbers 80400 and Greater

Model Number \_\_\_\_\_.

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

Phone: 320-393-7080

01/25/12

# Warranty

Virnig Manufacturing, Inc. products are warranted to be free from defects, in workmanship, for one year from the end users date of purchase.

Purchased components on Virnig Manufacturing, Inc. products are subject to the warranty of original Manufacturer.

This warranty is void on products that have been Modified or Repaired without the prior consent of Virnig Manufacturing, Inc.

Virnig Manufacturing, Inc. does not warrant damage from misuse, accidents, or negligence nor damage to machine or surrounding environment.

Claims are limited to replacement parts and a reasonable labor amount. This warranty does not cover service mileage, downtime, or replacement of attachment.

Upon request for warranty claim an RGA number will be assigned and replacement parts sent prepaid ground freight and invoiced. Defective parts need to be returned prepaid to Virnig Manufacturing, Inc. for warranty consideration. Upon inspection, account will be credited for defective part.

Please call Virnig Manufacturing at 320-393-7080 with any questions regarding warranty.

## **Features of Virnig Mfg. Inc. 2 Cylinder Grapples include:**

- 2" bore x 8 3/8" stroke cylinders.
- Optional cylinder guards.
- Jaw openings greater than 37" for all models.
- Greaseable pins with replaceable bushings at all pivot points.
- Skeleton style buckets have open back and bottom that allows dirt to fall through.
- Scrap style buckets have optional 5/8" x 8" reversible bolt-on edge.
- Tooth style buckets have replaceable teeth.
- Constructed with heavy plate for strength and durability.

## **Initial Use**

- See following page for suggested hose routing.
- Check that quick-tach on grapple fits onto skid loader properly. Pins must engage through 3/8" plates at bottom of quick-tach.
- With bottom of attachment touching ground/floor open jaw and slowly roll back bucket. Make sure there is no interference between attachment and loader with grapple jaws open and attachment fully rolled back.
- 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.
- 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.



Grapple is shipped Center Plumbed, as shown above. The lead hoses are connected under the center step of the grapple. 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.

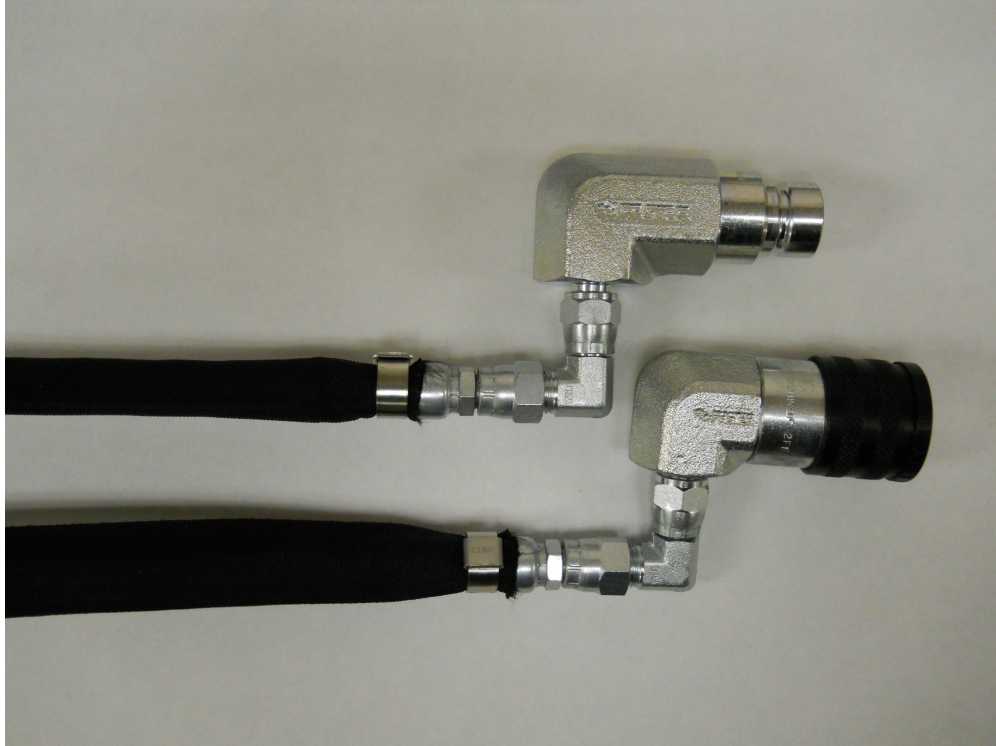
Grapple can also be Left Side Plumbed. Left Side Plumb works for Cat, Bobcat and ASV. Grapple can be converted to Left Side Plumb by following instructions located in this manual. Please see picture below showing Left Side Plumb. Hoses should be run through the bracket on the skid loader arm, as shown,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



If there is too much slack hose, the amount of slack can be adjusted using the clamp on the attachment near the mount plate.

<u>ITEM</u>	<u>PART NO.</u>	<u>QTY</u>	<u>DESCRIPTION</u>
LEAD HOSE	1126PP	2	HYD HOSE 80 LG, BOTH ENDS #6 JIC FEMALE (37° FLARE)
COUPLERS	9332PP	1	FLAT FACE COUPLERS, 90 DEGREE, MALE/FEMALE PAIR

NOTE: THIS UNIT PLUMBED WITH HIGHLIGHTED HOSES.



CAN INSTALL SMALL ELBOWS (PART NO. 1012PP) BETWEEN HOSES AND COUPLERS, AS SHOWN ABOVE, TO IMPROVE HOSE ROUTING AT HYDRAULIC COUPLER INTERFACE ON LOADER. ELBOWS ARE ZIP TIED TO ATTACHMENT. ADDITIONAL ELBOWS WILL NOT BE REQUIRED FOR MOST BRANDS OF SKID LOADERS, USE ONLY IF NEEDED.

## **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.
- 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 jaws or bucket.
- Never use grapple jaws for hooking and/or pulling. Material should be clamped securely.
- Check for debris in quick-tach area before each hook-up.

## **Maintenance**

\*Every 10 hours of operation

- Grease hinge pins and cylinder pins (8 grease fittings total).
- Inspect cylinders, 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.

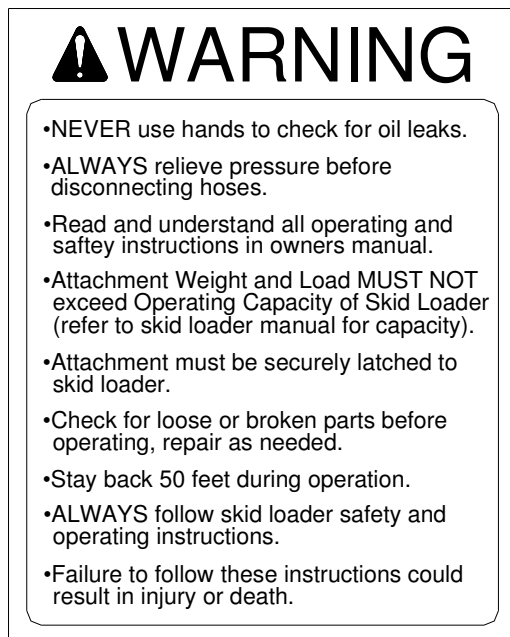
# WARNING LABELS ON GRAPPLE ATTACHMENT



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



This label is located near the quick-tach on the bucket.  
This label has several important instructions that must be followed for safe operation of this attachment.

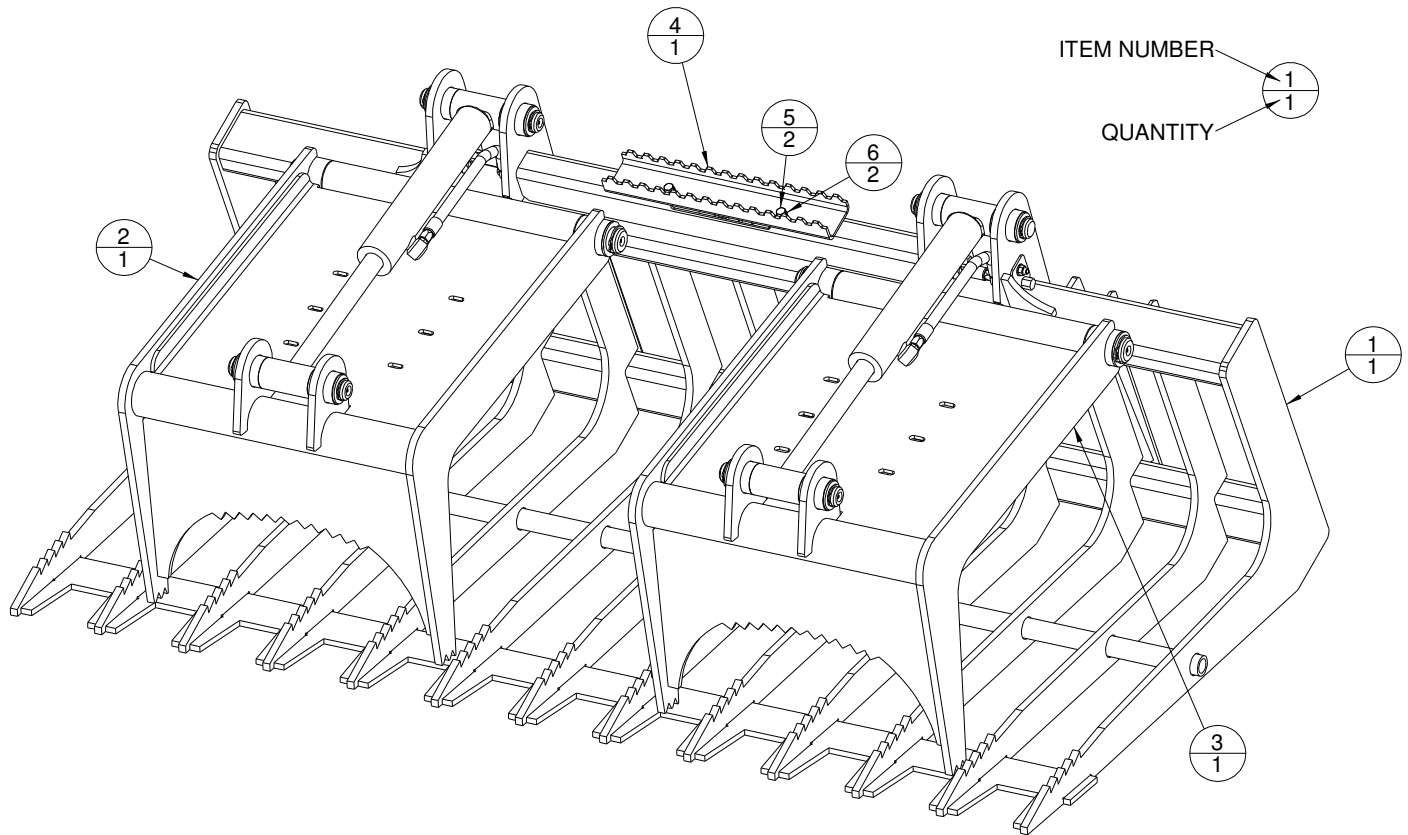


## 2 CYLINDER GRAPPLE PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	-----	1	BUCKET WELDMENT
2	5476VW	1	TBG GRAPPLE JAW WELDMENT (RH)
3	5475VW	1	TBG GRAPPLE JAW WELDMENT (LH)
4	9418VP	1	BOLT ON GRAPPLE STEP
5	1116PP	2	3/8" NC X 3/4" LONG HHCS
6	1075PP	2	3/8" LOCK WASHER
7	5488VP	2	HINGE PIN, STANDARD
8	2137VP	4	CYLINDER PIN
9	1112PP	8	1 9/16" DIA X 2" LONG BUSHING
10	1097PP	4	1 9/16" DIA X 10 GAGE NARROW RIM MACH BUSHING
11	1098PP	4	1 9/16" DIA HEAVY SNAP RING
12	1111PP	8	1 1/4" DIA X 1 9/16" LONG BUSHING
13	1094PP	8	1 1/4" DIA X 10 GAGE NARROW RIM MACH BUSHING
14	1095PP	8	1 1/4" DIA HEAVY SNAP RING
15	1034PP	8	1/4"-28 UNF STRAIGHT GREASE FITTING
16	1150PP	2	2" BORE X 8 3/8" STROKE CYLINDER
A	17	2	HYD HOSE 14 1/2 LG, BOTH ENDS #6 JIC FEMALE (37° FLARE)
	1103PP		HYD HOSE 15 1/8 LG, BOTH ENDS #6 JIC FEMALE (37° FLARE)
A	18	2	HYD HOSE 18 LG, BOTH ENDS #6 JIC FEMALE (37° FLARE)
	1104PP		HYD HOSE 18 3/4 LG, BOTH ENDS #6 JIC FEMALE (37° FLARE)
19	1105PP	4	HYD HOSE 17 LG, BOTH ENDS #6 JIC FEMALE (37° FLARE)
20	1013PP	4	TEE, 3-WAY #6 JIC MALE (37° FLARE)
21	1108PP	2	BULKHEAD TEE, 3-WAY #6 JIC MALE (37° FLARE)
22	1109PP	4	#6 JIC CAP (37° FLARE)
23	2119VP	2	HYDRAULIC SYSTEM CLIP
24	1096PP	2	3/8" NC X 1 1/4" LG BUTTON HEAD SOCKET CAPSCREW
25	1113PP	2	3/8" HEAVY FENDER WASHER
26	6140PP	2	3/8" NC FLANGE LOCK NUT
27	1067PP	1	HOSE CLAMP ASSEMBLY
28	1117PP	1	5/16" NC X 1 1/2" LG HHCS
29	1131PP	1	RESTRICTED FITTING, 3/32" DIAMETER ORIFICE

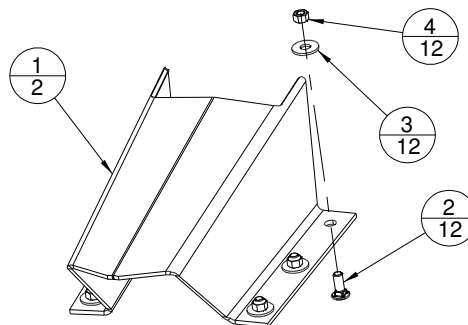
A - 1101PP AND 1102PP USED WITH SGV, STG, SRGV, HSRGV, SBG AND ISG MODELS.  
1103PP AND 1104PP USED WITH TBG AND ITG MODELS.

# MAIN COMPONENT ASSEMBLY



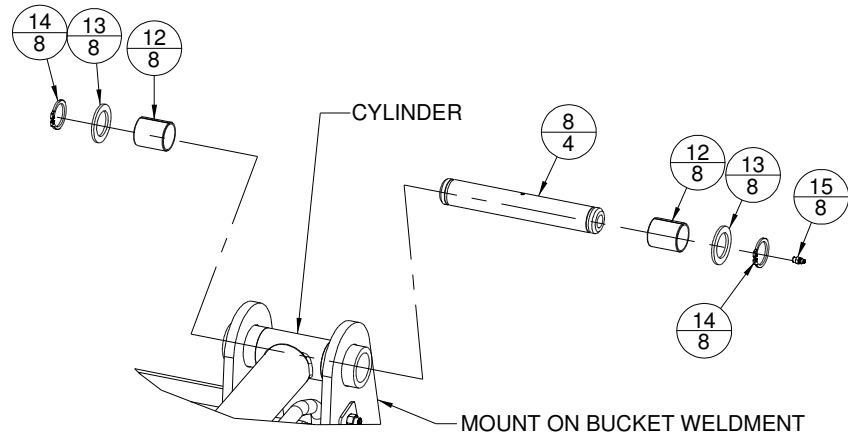
SGV72 SHOWN

# OPTIONAL CYLINDER GUARD ASSEMBLY (USED ON ALL MODELS, ITEM CYL-GRD)

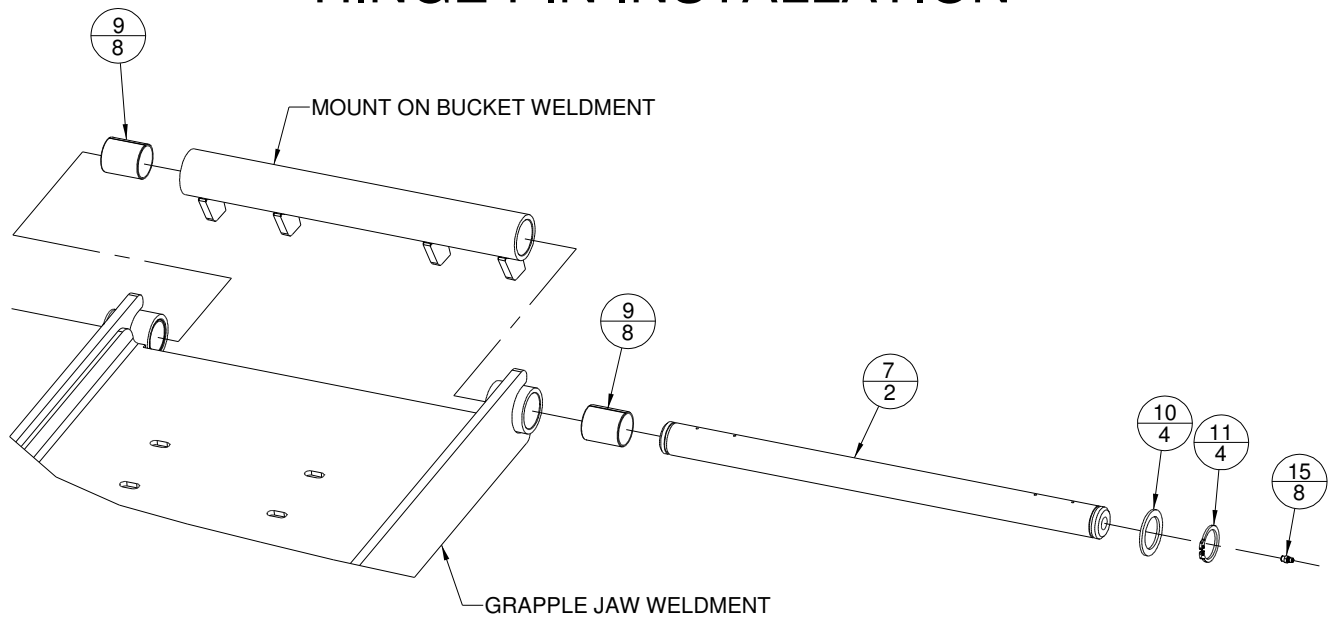


ITEM	PART NO.	QTY	DESCRIPTION
1	2318VP	2	CYLINDER GUARD
2	1089PP	12	3/8" NC X 1" CARRIAGE BOLT
3	1083PP	12	3/8" USS FLAT WASHER
4	6140PP	12	3/8" NC TOP LOCK FLANGE NUT

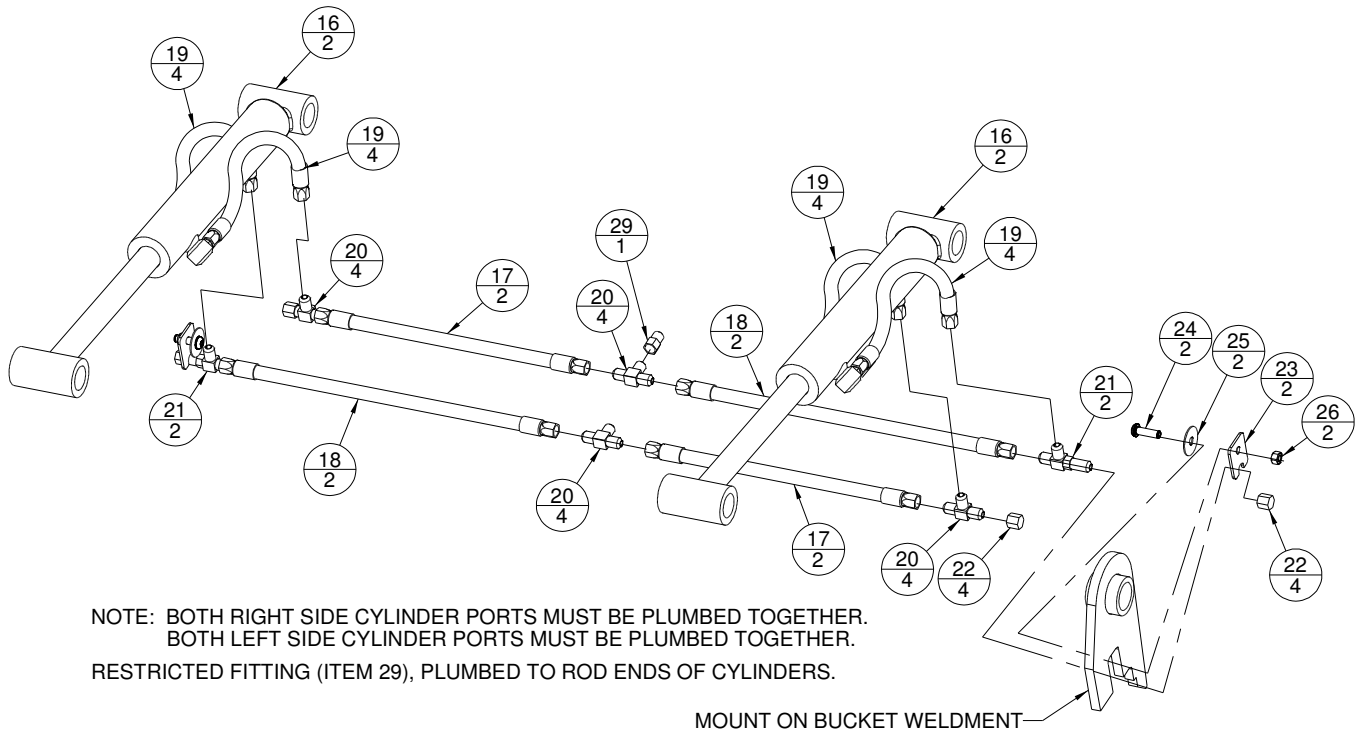
# CYLINDER PIN INSTALLATION



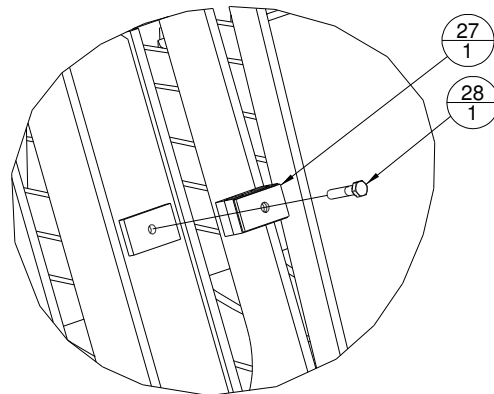
# HINGE PIN INSTALLATION



# HYDRAULIC ROUTING AND INSTALLATION

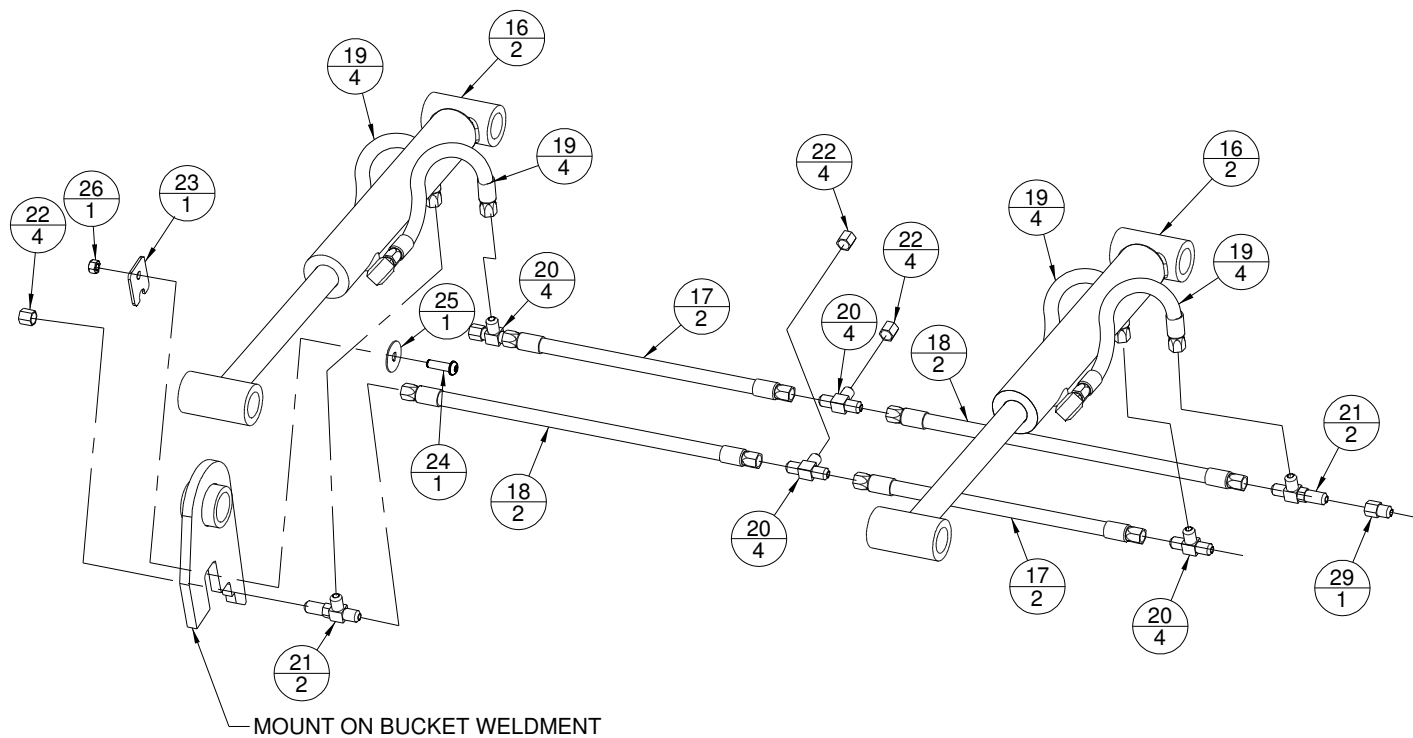


# CLAMP INSTALLATION



# OPTIONAL SIDE HYDRAULIC ROUTING AND INSTALLATION

LEFT SIDE PLUMBING SHOWN



NOTE: BOTH RIGHT SIDE CYLINDER PORTS MUST BE PLUMBED TOGETHER.  
BOTH LEFT SIDE CYLINDER PORTS MUST BE PLUMBED TOGETHER.  
RESTRICTED FITTING (ITEM 29), PLUMBED TO ROD ENDS OF CYLINDERS.

## CHANGES FOR OPTIONAL SIDE HYDRAULIC ROUTING.

LEAD HOSES CONNECT TO END TEES.

THIRD BRANCH OF CENTER TEES ARE CAPPED.

LEAD HOSES CAN BE PLUMBED ON LEFT OR RIGHT SIDE OF GRAPPLE

SEVERAL PARTS WILL NOT BE USED:

QTY. 1: ITEM #23-HYDRAULIC SYSTEM CLIP.

QTY. 1: ITEM #24-3/8" NC X 1 1/4" LG. BUTTON HEAD SOCKET CAPSCREW.

QTY. 1: ITEM #25-3/8" HEAVY FENDER WASHER.

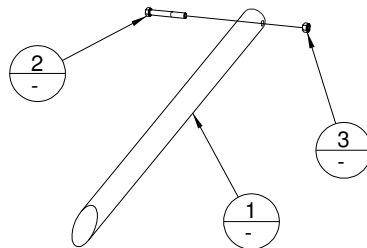
QTY. 1: ITEM #26-3/8" NC FLANGE LOCK NUT.

## OPTIONAL BOLT ON EDGE (USED ON SBG AND ISG MODELS)

MODEL WIDTH	BOLT ON EDGE	HARDWARE QTY*
60	BEV60	10
66	BEV66	11
72	BEV72	12
78	BEV78	13
84	BEV84	14
90	BEV90	15

\*5/8" NC X 2" PLOW BOLT (1122PP) WITH  
5/8" NC TOP LOCK HEX NUT (1008PP).

## TOOTH ASSEMBLY (USED ON TBG AND ITG MODELS)



### TBG REPLACEMENT TOOTH

ITEM	PART NO.	DESCRIPTION	TBG260	TBG266	TBG272	TBG278
1	1401VP	2" DIAMETER REPLACEMENT TINE	9	10	11	12
2	1088PP	7/16" NC X 3 1/4" HHCS				
3	1005PP	7/16" NC C-LOCK HEX NUT				

### ITG REPLACEMENT TOOTH

ITEM	PART NO.	DESCRIPTION	ITG72	ITG78	ITG84	ITG90
1	1645VP	2 1/4" DIAMETER REPLACEMENT TINE	11	12	13	13
2	1077PP	1/2" NC X 3 1/2" HHCS				
3	1003PP	1/2" NC C-LOCK HEX NUT				

