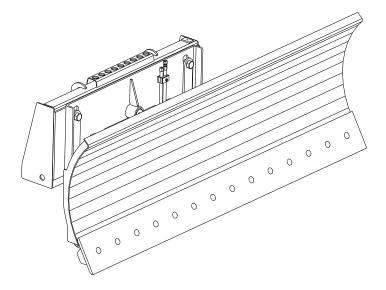
## Light Duty Angle Snow Blade



Model Number	SBS	-LD	

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

Phone: 320-393-7080

1/6/07 Revised 1/1/13

SBS-LD

#### Features of Virnig Mfg. Inc. Light Duty Angle Snow Blade include:

- 2" bore, 8 3/8" stroke cylinder with 1 1/4" rods and 1 1/4" cylinder pins.
- 1 9/16" diameter pivot pin, 2 1/4" diameter oscillation pin.
- Heavy duty frame with oscillation and adjustable skid shoes.
- Trip edge design featuring 2 compression springs.
- 5/8" x 8" double bevel, reversible wear edge.
- 30° blade angle, left or right discharge.
- Recommended for skid loaders with a lift capacity less than 1800 lb.
- Rubber Edge option available.

#### Initial Use

- See following pages for suggested hose routing.
- Check that the quick-tach of the snow blade fits onto skid loader properly. Pins must engage through 3/8" plates at bottom of quick-tach.
- With bottom of the blade touching ground/floor, slowly roll back attachment. Make sure there is no interference between attachment and loader.
- Make sure hoses do not pinch during roll back.
- Slowly roll attachment 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 blade left/right. 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.

#### **Operation**

- Always follow safety information.
- Keep bystanders back 50 feet.
- 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, damage to blade and/or skid loader may occur.
- Care should be taken to avoid hidden obstructions (curb, posts, etc.), damage to blade and/or skid loader may occur.
- Never use this attachment to push any material other than snow.
- Never hook a chain on this attachment.
- Check for debris in quick-tach area before each hook-up.



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



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.

#### **Maintenance**

\*Every 10 hours of operation

- Grease pivot pin (2 fittings), oscillation pin, and cylinder pins (5 grease fittings total).
- Inspect springs and fasteners. Make sure they are in place and holding mating parts securely.
- 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. <u>Never</u> use hands to check for high pressure hydraulic leaks.

\*Every 50 hours of operation

- Check that cylinder, pivot and oscillation pins are secure.
- Check for loose, worn, or missing parts. Repair or replace as needed.
- Check cutting edge wear. Reverse or replace edge as needed.
- Contact your dealer for replacement parts.

#### Warning Labels on Snow Blade Attachment



This label is located near the pivot pin area on the moldboard. Always keep hands clear of snow blade when skid loader hydraulic system is operational.



This label is located near both ends of the moldboard.

Always stay clear of moldboard. Never inspect this attachment with skid loader running or with the blade raised off of the ground/pavement.



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

### Light Duty Snow Blade (SBS-LD) Parts List

[	ITEM	PART NO.	QTY	DESCRIPTION			
Ī	1	6626VW	1	Snow Blade Frame Weldment			
Ī	2	7158VW	1	Snow Blade Oscillation Weldment			
Ī	3		1	Compact Moldboard Weldment			
Ī	4		1	Snow Blade Edge Holder Weldment			
Ī	5	6674VP	1	Snow Blade Oscillation Pin			
Ī	6	1077PP	1	1/2" NC x 3 1/2" Lg HHCS			
Ī	7	1003PP	1	1/2" NC C-Lock Nut			
Ī	8	1034PP	5	1/4"-28 UNF Straight Grease Fitting			
Ī	9	6675VP	2	Snow Plow Oscillation Retention Plate			
Ī	10	6676PP	7	1" NC x 3 1/2" Lg HHCS			
A	11	9332PP	1	Flat Face Couplers, 90°Elbow, Male/Female Pair			
Ī	12	7246PP	7	1" NC Top Lock Nut			
Ī	13		1	Steel Cutting Edge, 5/8" x 8" Bolt on			
Ī	14	1087PP	-	5/8" NC x 3 1/4" Lg Plow Bolt			
	15	1008PP	-	5/8" NC Top Lock Hex Nut			
ľ	16	6673VP	1	Snow Blade Pivot Pin, Straight			
Ì	17	1097PP	2	1 9/16" Dia x 10 Gage Narrow Rim Mach Bushing			
ľ	18	1098PP	2	1 9/16" Dia Heavy Snap Ring			
ľ	19	1112PP	4	1 9/16" Dia x 2" Lg Bushing			
Ì	20	6854PP	2	Wear Shoe			
Ì	21	6862PP	26	1 3/8" Flat Washer			
Ī	22	6863PP	2	7/16" x 1 3/4" Lg Lynch Pin			
	23	1117PP	1	5/16" NC x 1 1/2" Lg HHCS			
	24	2137VP	2	Cylinder Pin			
Ī	25	1094PP	4	1 1/4" Dia x 10 Gage Narrow Rim Mach Bushing			
Ī	26	1095PP	4	1 1/4" Dia Heavy Snap Ring			
Ī	27	1150PP	1	Hydraulic Cylinder			
Ī	28	7231PP	2	Hyd Hose 32" Lg, Both Ends #6 JIC 37° Female Swivel			
Ī	29	1067PP	1	Hose Clamp Assembly			
Ī	30	6868PP	2	Elbow, #6 JIC Male To #6 JIC Male			
Ī	31	1072PP	1	Restrictor Fitting, 1/16" Dia Orifice			
Ī	32	6664VW	2	Snow Blade Spring Guide Weldment			
Ī	33	6684PP	2	Snow Blade Compression Spring			
Ī	34	6680PP	2	3/4" NC x 3 1/4" Lg HHCS			
ſ	35	1011PP	2	3/4" NC Top Lock Hex Nut			
ſ	36	5148PP	2	1/2" Flat Washer			
Ī	37	5237PP	4	1/2" NC Hex Nut			
Ī		1125PP		Hyd. Hose 64" Lg, Both Ends #6 JIC 37° Female Swivel			
	38	1127PP	2	Hyd. Hose 72" Lg, Both Ends #6 JIC 37° Female Swivel			
А		1126PP	2	Hyd. Hose 80" Lg, Both Ends #6 JIC 37° Female Swivel			
		1128PP		Hyd. Hose 88" Lg, Both Ends #6 JIC 37° Female Swivel			
A - Item not shown							

A - Item not shown.

#### Light Duty Snow Blade (SBS-LD) Parts List (cont.)

#### Table 1

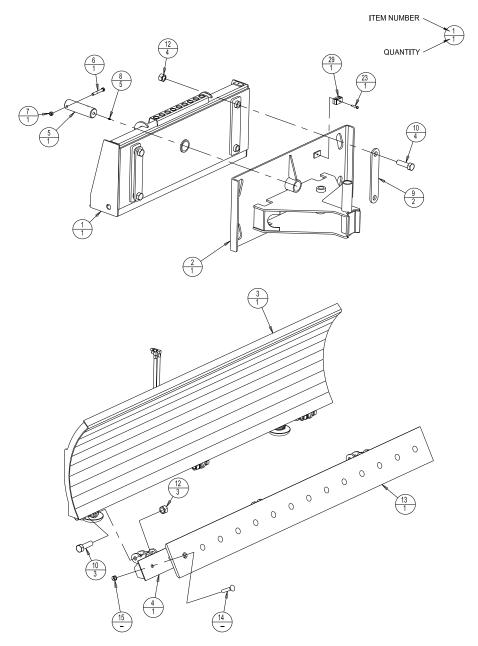
MODEL	SBS60-LD	SBS72-LD	SBS84-LD	SBS96-LD
Blade Weldment	8606VW	7070VW	7160VW	7593VW
Edge Holder Weldment	8610VW	7082VW	7164VW	7597W
Bolt on Edge	BEV60	BEV72	BEV84	BEV96
# Bolts and Nuts	10	12	14	16
Replacement Edge Kit	SEK60	SEK72	SEK84	SEK96

Items 13 through 15 are available as a Replacement Edge Kit.

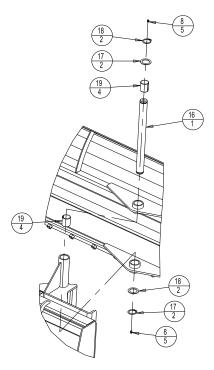
Replacement Edge Kit part numbers are listed in Table 1.

Replacement Edge Kits include width specific Steel Cutting Edges and required mounting hardware.

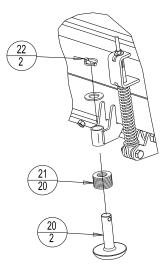
### Main Component Assembly



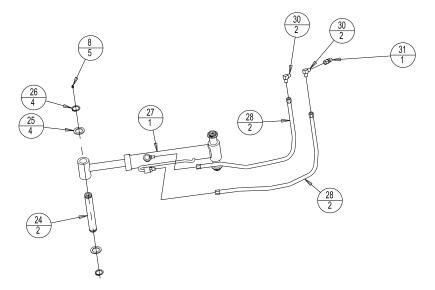
### **Pivot Pin Installation**



#### Wear Shoe Installation



### Hydraulic Installation



Note: Restrictor fitting (Item #31), plumbed to barrel end of cylinder.

### Spring Installation

