

**SGR76 SKIDDING GRAPPLE
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL**

VALBY®

VALBY®



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Spencer, New York 14883

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www.northeastimplement.com

**It is very important to read this entire owners/operators
manual before using this machine**

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1: TO THE OWNER-OPERATOR

Thank you for purchasing a VALBY product

Before we begin this manual, the people at VALBY want you, the owner-operator, to know this piece of equipment can be very dangerous if safety procedures and warnings are ignored. Read this manual carefully page by page until you understand it completely. Failure to do so can and will result in personal injury and/or equipment damage.

All personnel including operators, maintenance crews, and bystanders, etc. should read this manual before start up.

This manual should be considered a permanent part of your equipment and should remain with the equipment if you sell it.

IMPORTER:

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U.S.A.

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E-Mail: info@northeastimplment.com

Web: www.northeastimplement.com

Record Your Serial Number:

SGR76 Skidding Grapple

s/n: _____

Date of Purchase: ____/____/____

2: SAFETY INSTRUCTIONS

TERMS AND SYMBOLS USED IN INSTRUCTIONS

THINK SAFETY! Safety is a combination of operator common sense and alertness at all times when the machine is being operated.

CAUTION! This message is used for general reminders of good safety practices or to direct attention to unsafe practices. The message will appear in your operators' manual and/or the sign will appear on the machine with a color combination of yellow and black

WARNING! This Message denotes a specific potential hazard. The sign will be displayed on the machine in areas of potential hazard. The sign will have the color combination of yellow and black

DANGER! This message denotes the most serious specific hazard. The sign will be displayed on the machine in areas of potential hazard.

IMPORTANT! Message labeled "Important" will appear in your operator's manual to provide specific instructions for performing adjustments, service, etc. If these instructions are not followed it could result in damage to the machine.

3: BEFORE PUTTING INTO SERVICE

UNITS OF MEASUREMENT

Units conforming to the international SI-units of measurement are used in the present instructions of installation and use.

DIRECTIONS

In the instructions of installation and use, the right and left side, as well as the front and rear end of the machine, are determined from the driver's seat.

SERIAL NUMBER

Write down the serial number of your machine in the place reserved for it on the page 4 and 14 of the present manual. Prepare to inform, in all your inquiries and orders, the type and the serial number of your machine.

4: SAFETY REGULATIONS

Please, read these instructions with special care.



- Study the manual and read all safety directions carefully and also all instruction stickers on the machine. Before you let another person use the grapple, make sure that he/she also studies these instructions for use and all safety regulations
- The operator has to be over 18-years old and in good health.
- The operator cannot be intoxicated by alcohol, drugs or medicines.
- Remove all inappropriate components that don't belong to the machine.
- Install all protective shields in their places.
- Study the function of all controls.
- Place the skidding grapple in such a position that it cannot move during maintenance, cleaning, adjustments, and installation of accessories or storage.
- In order not to endanger the safety of the operator, do not modify the machine.
- Don't put the machine into such uses, for which it is not designed.
- The danger zone is 80 feet; ensure that no one is inside the danger zone, take special note of children.
- Never leave the skidding grapple (with or without load) hanging in the air, if you are not there to take care of it.
- Do not wear loose or torn clothes.
- Never go under the skidding grapple or the load. Operate the grapple always from the cab of the tractor.
- Check the tightness of all nuts and bolts after the first service hour. Also check the tightness at least once a month.

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- Observe possible leakage of hydraulic oil during the use of the machine. Repair leaks immediately to prevent contamination of nature.
- In case you install a new additional valve system, you have to take into consideration that pressurized hydraulic hoses cannot be in the cabin area without protection.
- The valve controls must be installed in the cabin of the tractor. The valve which controls the side shift of the frame must be a double acting valve with a floating position.
- Use only original spare parts.
- The skidding grapple is designed for short distance transfer of timber from cutting area to a buffer storage. Carrying a load is not allowed during highway driving.

PERSONAL PROTECTION



- Use suitable hearing protectors or ear plugs.
- During maintenance use protective gloves to prevent oil from getting on your skin.

HIGHWAY DRIVING

- Put on lights and devices required by the traffic regulations when you drive on highways.
- Keep the warning triangle of the tractor in its place.
- Keep the reflectors and lamps clean.
- Be aware of the weakened steering caused by the weight of the skidding grapple.
- Don't carry a load when you drive on a highway.

CHECK AND OVERHAUL DURING OPERATION

In order to make sure the faultless function of your machine, you have to check it often. After the first service hour, check all possible oil leakage points of the hoses, connections and cylinders. Check the above-mentioned places also during regular service. If the skidding grapple is equipped with accessories or shields that are not mentioned in the manual, they are not in the normal production program of the factory.

CHANGES IN THE CONSTRUCTION

In order not to weaken its performance or safety, or not to shorten the service life of the machine, do not change the construction of the machine without permission of the manufacturer.

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5: USE OF THE GRAPPLE

PROPERTIES OF THE GRAPPLE IN BRIEF

The **VALBY** skidding grapple is designed for short distance transfer of timber from the woodlot to the landing. The use of the grapple for other purposes without permission of the manufacturer is not allowed and will lead to voiding of the warranty. The VALBY skidding grapples come in two versions, which are identical except that the SGR76-ML has a mechanical frame lock instead of the hydraulic side shift. It is easy to add the side shift if needed, because the ML version also has the brackets for the hydraulic cylinder. It is also possible to convert a side shift version to one with a mechanical frame lock. The part number for the conversion kit is: 76000026.

6: TECHNICAL DATA

Weight of the skidding grapple in working condition	750 lb.
Wingspan of the grapple opened	76"
Operating pressure	2320 psi
Side shift angle, degrees	+/- 30

7: CONNECTING TO THE 3-POINT HITCH



When the skidding grapple is in its normal storing position on its parking stand and the opened jaws, hook up to the tractor is made as follows:

1. Carefully back up the tractor near the skidding grapple and place the draw arms so that they are on the same level as the holes in the hook up bracket of the skidding grapple. Back up the tractor so that the lower link pins can be installed in their places. Put lynch pins into the lower link pins. In case there are quick coupler ends in the draw arms, install the balls into the draw ears of the skidding grapple. Back up the tractor so that the balls hit the backing plate of the quick coupling ends. Lift draw arms so that the locks of the quick coupling ends will lock. Check the locking.
2. Install the top link in its place.
3. Lift the skidding grapple up from the ground. Watch the sideways sway. There is air in the cylinder and hoses which may cause an uncontrolled movement. Adjust the sway stoppers of the tractors lift arms so that the skidding grapple is in the centerline of the tractor and lock them.
4. Lift the parking leg of the skidding grapple to its upper position and lock it.
5. a) Skidding grapple with standard equipment. Connect the hydraulic hoses of the skidding grapple to the quick couplers of the tractor hydraulics. The control of the

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frame has to be connected to the double acting valve block equipped with a “floating” position. The “floating” position is needed to enable the tractor to turn when the logs are skidded out.

- b) Skidding grapple equipped with its own valve system (Option)
6. Install the valve system to the tractor so that the controls move freely and they are easy to control. Pressurized hydraulic hoses are not allowed to be installed without protection in the tractor cab. Connect the pressure hose of the valve system to the output of the single acting valve block of the tractor and the return hose to the free return.
 7. Make sure that the controls of the valve system are free in the mid-position. Engage the hydraulics.
 8. Make sure that there is enough room on both sides of the skidding grapple. Air inside the cylinder of the skidding grapple may cause the turning movement of the frame to be uncontrolled, until the cylinder will be filled with oil.
 9. Turn the frame carefully a few times from one extreme position to the other, until the air is discharged from the cylinders. Repeat the same procedure with the cylinder for the jaws.
 10. Check that the hydraulic hoses are never left hanging too low in any working position. Watch that the hoses do not get tangled in the tractor or the skidding grapple. Bundle up and tie the hoses, if necessary.

8: DISCONNECTION FROM THE 3-PT HITCH OF THE TRACTOR

1. Pull the parking stand all the way out, and lock it.
2. Open the jaws completely and place the skidding grapple down on the ground. Adjust the length of the top link so that the support and the jaws rest on the ground.
Open the jaws completely and place the skidding grapple down on the ground. Adjust the length of the top link so that the support and the jaws rest on the ground.
3. Turn off the hydraulic oil flow, and disconnect the hydraulic hoses from the tractor. Put covers on the quick couplers.
4. Disconnect the top link and draw arms from the loader in that order.
5. Drive the tractor carefully forward.



9: WORKING WITH THE SKIDDING GRAPPLE

1. The operator must always be alert and add front-end weights if the front end becomes light. The initial front-end weight load should be 10lb for every engine horsepower of the tractor. (Example: 50HP tractor should initially have 500lb of front end weights) More weights should be added as needed.



- The requirement of space of the skidding grapple has to be taken into account when piling logs. There has to be room for backing up to the log pile and the path to the landing has to be wide enough, especially when skidding long trees.
2. The skidding grapple is backed onto the log pile with the jaws opened. The end of the pile can be evened out using the front plate of the grapple (picture 1, page 11). The 3-point hitch is put down so that the grapple jaws reach under the pile when they are closed. The grapple is closed and the 3-point hitch lifted so that a sufficient ground clearance is left under the butt ends of the load.
 3. When skidding long trees the valve section for the turning cylinder of the frame of the skidding grapple is put into a "floating" position and the tops of the trees are allowed to drag on the ground (page 11). Long trees cannot be carried off the ground, because the front of the tractor will be too light, making the tractor dangerous to steer. (Page 11). **WARNING!** The tops of the trees can also rise in the air when the frame swings sideways in the "floating" position. Therefore an

uncontrolled swing to the side may happen (page 11). Always be alert when you use the "floating" position.

4. Short 6 – 10 foot wood can be carried totally off the ground, but the turning cylinder has to be kept locked in the mid-position of the valve (page 11). The operator must always be alert and add front-end weights to the initial load if the front end becomes light.
5. During transport, the log load will move, whereupon the grip of the jaws will loosen. The hold of the grapple must therefore be tightened every now and then during the transport, in order to keep the logs tight in the grapple.
6. During the ride you have to watch out, especially in turns, that the skidded logs do not hit any obstacles (page 11).
7. The grapple can be used for stacking up cordwood to a pile of approx. 3-4 feet high depending on how high the 3-point hitch of the tractor will lift. The load is put down on the pile and the grapple is opened while simultaneously lifting the 3-point hitch.
8. When transporting the grapple empty, one must lock the turning cylinder in mid-position, and close the jaws. (Page 11).

10: TRACTOR STABILITY



Farm tractors are fairly narrow. For forestry use one should widen out both front and rear wheels to their widest position. The increased width improves side stability. Row crop tractors with narrow front ends cannot be used in the forest. The weight of the attachment or trailer makes the tractor light in the front end, which makes the tractor difficult to steer.

One must therefore add front-end weights to the tractor. Tractors are also prone to roll over backwards. The risk of roll over is higher when traveling up hill. A roll over can

happen in a couple of seconds even when the tractor is moving at walking speed. Uphill slopes must be avoided. The trailer tow hook should be low and under the tractor. The combination of tractor, the attachment and the load should put at least 30% of the total weight on the front axle. This means that one must always add front-end weights.

11: FRONT END WEIGHTS



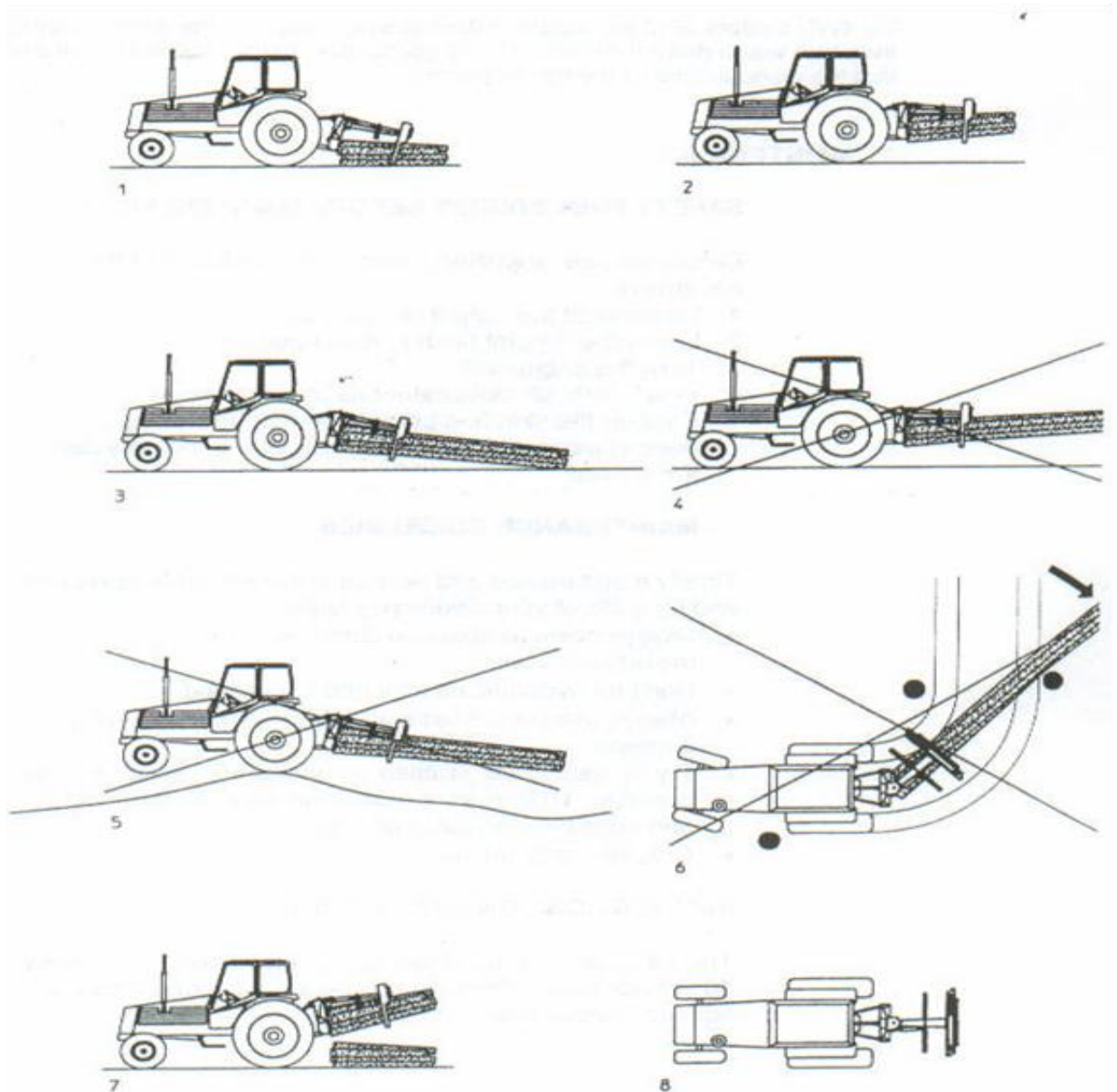
Some tractors have more weight in the front than others. A tractor with a front-end loader is heavier in the front end, and filling the loader bucket with dirt improves the weight distribution even more. The rule of thumb for adding weights for stationary tractors is that if the attachment is heavy and long; add 60% of the attachments weight to the front end. This rule does not apply to moving or tractors that are pulling a load

12: 2WD TRACTORS

A moving farm tractor becomes often light in the front end due to the weight of the attachment or the resistance of the skid. The tractor becomes difficult to steer and there is a risk for roll over. One must therefore add front-end weights to the tractor in order to stabilize the tractor.

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For skidding or pulling a trailer with a 2WD tractor the rule of thumb is to add 10 lb. front-end weights for every horsepower of tractor engine power. Thus on a 40 HP tractor one adds $40 \times 10 = 400$ lbs. of front end weights. This assumes "average" conditions and tractors without tire chains. The use of tire chains will increase the traction on inclines, where tires without chains will spin. One must therefore compensate for the increased traction by adding weights in order to reduce the risk for tractor roll over. Some experimenting will be necessary to find the right amount of weight for your tractor and terrain.

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13: 4WD TRACTORS

On 4WD tractors all of the weight of the tractor is always on the driving wheels. One can therefore weigh down the front end of these tractors to the maximum front axle weight that the manufacturer of the tractor permits.

14: MAINTENANCE

SAFETY PROCEDURES BEFORE MAINTENANCE

Before service, adjusting, cleaning or mounting of the equipment:

1. Disconnect the output of hydraulics.
2. Lower the 3-point hitch to down-position
3. Turn the engine off
4. **WAIT**, until all movement has totally stopped.
5. Support the skidding grapple so that, the grapple doesn't move even if the controls of the valve system are moved.



MAINTENANCE GUIDELINES

- Timely maintenance and service ensure reliable operation and long life of your skidding grapple.
- Always observe absolute cleanliness in all maintenance work.
- Don't let hydraulic oil leak into the ground
- Always use proper tools in order to avoid assembly damage.
- Try to identify the problem or damage as accurately as possible. That way you will avoid unnecessary work and possible additional damage.
- Only use original spare parts.

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INSTRUCTIONS ON LUBRICATION

The lubrication of the skidding grapple is done after every 16 service hours. Press in grease so much that it visibly squeezes out a little.

HYDRAULICS

Hydraulic hoses, pipes and connections have to be checked every now and then, to find possible breaks or leaks. Change torn or broken parts with new ones in order to avoid damage. Always follow absolute cleanliness when you service hydraulic components, clean the hoses from inside of dust, rubber powder and so on before installation.

CHANGE OF HYDRAULIC HOSES

When the assembly of the hydraulic hoses is properly made, it will lengthen their service life. When you have to change the hydraulic hose, follow the given instructions:

- Clean the hose also from inside of dust.
- Be sure, that the hoses are routed correctly. After completing the assembly, ensure that the hoses can move freely during all working motions.
- Check that the hose is not twisted; the service life of a twisted hose is much shorter than the one of a properly installed non-twisted hose.

- Check after the assembly, that the hose doesn't leak from any of its connections.

ORDERING OF SPARE PARTS

When you order spare parts, please, have the following information available:

- Name of the machine
- Serial number of the machine
- Order number of the spare part
- Name of the spare part
- Name and address of the purchaser

Don't order only by picture. Always compare with the name of the spare part in question. In case you have lost the spare part list, send the torn or broken part as a sample.

STORAGE

When the skidding grapple is not in use, proper storing improves its performance and resale value. Clean and touch-up paint the grapple carefully before storing. Grease all grease fittings and spread some thin lubricant in places, which cannot be touch-up painted or greased. The storing place should be dry.

Before cleaning, place the skidding grapple so that it cannot move. Set the output of the hydraulics off and stop the tractor engine.

Warnings: The warnings, cautions and instructions discussed in this manual cannot cover all possibilities conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator

Limited Warranty

VALBY warrants the product to be free from defects in materials and workmanship for twelve (12) months from date of purchase, or one month from in-service, whichever is longer. For seals, the warranty is limited to six (6) months. The warranty covers parts replacement only. The free replacement of parts is exclusive. The manufacturer is not liable for any incidental or consequential damages. No labor costs cost are included, no freight costs are included in replacements. This warranty does not cover defects resulting from:

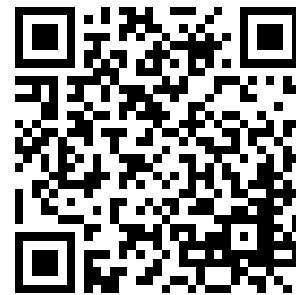
- misuse of product
- inadequate maintenance
- modifications of the product

The warranty is effective only, if the lower portion of this card is completed and returned to the importer within 14 days of receipt of the product.

IMPORTANT: Do not operate your equipment without reading the operators manual! If the operators' manual was lost, a new manual can be obtained from the importer (write address below or call 607-589-6160).

Date of Delivery: ___/___/___
Customer: _____
Address: _____
City: _____
State, Zip _____
Telephone# (____)____-_____
Product: VALBY SGR76 Tractor Grapple
Serial# _____
Purchased From: _____

Importer:
Northeast Implement
460 Halsey Valley Road
Spencer, NY 14883
USA
Phone: (607) 589-6160
Fax: (607) 589-4026
Email info@northeastimplement.com
Website: www.northeastimplement.com



Product Registration

****Please remove this page and mail to address above for warranty registration****
On-line at www.northeastimplement.com, under "Products" tab, click "Product Registration"

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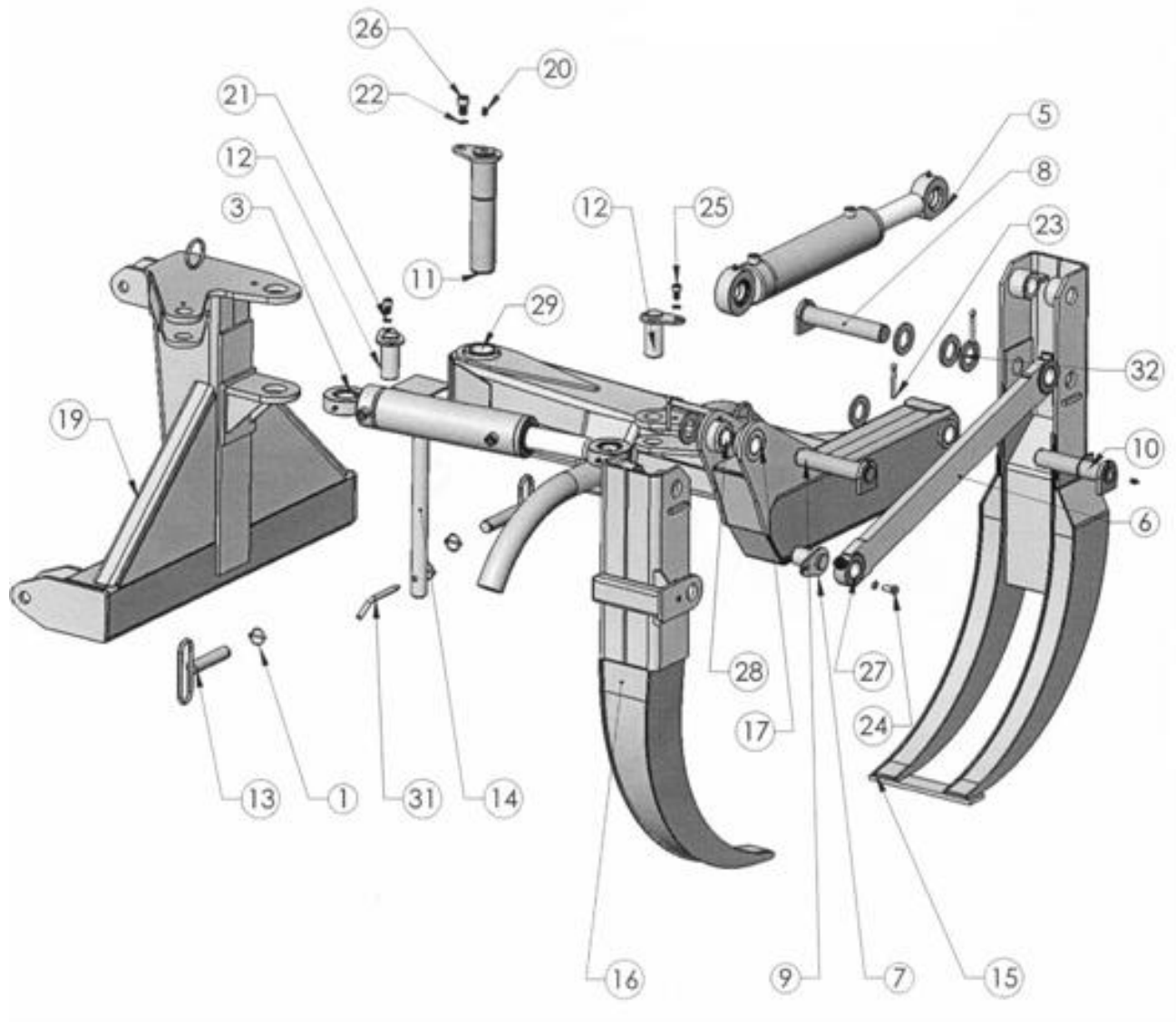


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15: VALBY SGR76 PARTS BREAKDOWN



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16: SPARE PARTS LIST

Pos#	Part #	Name	Qty
1	862150	Lynch pin	3
3	287060	Cylinder	1
5	287065	Cylinder	1
6	291861	Guide bar	1
7	291871	Shaft	1
8	291872	Shaft	1
9	291873	Shaft	1
10	291874	Shaft	1
11	291875	Shaft	1
12	291876	Shaft	2
13	291877	Shaft	2
14	291862	Support leg	1
15	291863	Outer claw	1
16	291864	Inner claw	1
17	291865	Body	1
19	291866	Rack	1
20	548100	Grease nipple	8
21	816050	Self-locking washer	3
22	816100	Self-locking washer	1
23	861518	Split pin	3
24	843060	Screw 12x25	1
25	843050	Screw 12x20	2
26	845140	Screw 16x25	1
27	821358	Bushing 4030	2
28	821378	Bushing 4040	4
29	821658	Bushing 5550	2
31	818622	Pin	1
32	818620	Washer	5
	782800	Seal Kit	



Notes



Notes

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Notes

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Thank you for your purchase...

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