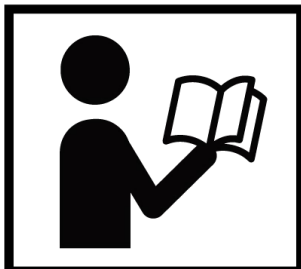


### MODEL TMG-SLG49

# Skid Steer Rotation Log Grapple



#### **⚠ WARNING**



- Please read and understand the product manual completely before assembly
- Check against the parts list to make sure all parts are received
- Wear proper safety goggles or other protective gears while in assembly
- Do not return the product to dealer. They are not equipped to handle your requests.

Missing parts or questions on assembly?

Please call: 1-877-761-2819 or email: [cs@tmgindustrial.com](mailto:cs@tmgindustrial.com)

## SAFETY

**YOU** are responsible for the **SAFE** operation and maintenance of your Skid Steer Log Grapple. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Log Grapple be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating the Log Grapple.

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Log Grapple owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually.
- The most important safety feature on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow these. Most accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think **SAFETY!** Work **SAFELY!**

## GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the Log Grapple.



2. Have a first-aid kit available for use should the need arise and know how to use it.



3. Have a fire extinguisher available for use should the need arise and know how to use it.



4. Do not allow riders.

5. Wear appropriate protective gear. This list includes but is not limited to:

- A hard hat
- Protective shoes with slip resistant soles
- Protective goggles, glasses or face shield
- Heavy gloves
- Protective clothing



6. Install and secure all guards before starting.
7. Wear suitable ear protection for prolonged exposure to excessive noise.



8. Place all controls in neutral, stop Skid Steer engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
9. Clear the area of people, especially small children, before starting.
10. Review safety related items annually with all personnel who will be operating or maintaining the Log Grapple.

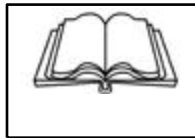
# EQUIPMENT SAFETY GUIDELINES

1. Safety of the operator and bystanders is one of the main concerns in designing and developing a machine. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you, follow them.
2. In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.
3. Replace any safety sign or instruction sign that is not readable or is missing. Location of such safety signs is indicated in this manual.
4. Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
5. **Under no circumstances should young children be allowed to work with this equipment. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.** Review the safety instructions with all users annually.
6. This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained and physically able person familiar with farm machinery and trained in this equipment's operations. If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
7. Use a Skid Steer equipped with a Roll Over Protective Structure (ROPS) and a seat belt.
8. Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**
9. Do not modify the equipment in any way. Unauthorized modification result in serious injury or death and may impair the function and life of the equipment.
10. In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the Skid Steer and machine Manuals. Pay close attention to the Safety Signs affixed to the Skid Steer and the machine.

## SAFETY TRAINING

1. Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.
2. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of this equipment.

3. It has been said, "The best safety feature is an informed, careful operator." We ask you to be that kind of an operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. Accidents can be avoided.



4. **Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your Skid Steer, before assembly or operating, to acquaint yourself with the machines. If this machine is used by any person other than yourself, or is loaned or rented, it is the machine owner's responsibility to make certain that the operator, prior to operating:**
  - a. **Reads and understands the operator's manuals.**
  - b. **Is instructed in safe and proper use.**
5. Know your controls and how to stop Skid Steer engine and machine quickly in an emergency. Read this manual and the one provided with your Skid Steer.
6. Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will operate the machinery. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.

## SAFETY SIGNS

1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety signs are available from your authorized Distributor or Dealer Parts Department or the factory.

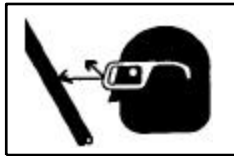
### How to Install Safety Signs:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50° F (10° C).
- Determine exact position before you remove the backing paper
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.

## HYDRAULIC SAFETY

1. Make sure that all the components in the hydraulic system are kept in good condition and are clean.
2. Replace any worn, cut, abraded, flattened or crimped hoses and metal lines.
3. Stop engine or motor, disconnect spark plug wire or unplug power cord, and wait for all moving parts to stop before servicing, adjusting, repairing or cleaning.
4. Do not attempt any makeshift repairs to the hydraulic lines, fittings or hoses by using tapes, clamps or cements. The hydraulic system operates under extremely high-pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.

5. Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.



6. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.
7. Before applying pressure to the system, make sure all components are tight and that lines, hoses and couplings are not damaged.

## STORAGE SAFETY

1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.
3. Store the unit in a dry, level area. Support the frame with planks if required.

# OPERATION



## OPERATING SAFETY

- Read Operator's Manual before using.
- Place controls in neutral, stop engine, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or maintaining.
- Do not allow bystanders within 20 feet (6 m) of machine to prevent injury from rolling logs.
- Wear appropriate safety gear including but not limited to a hard hat, safety glasses, hearing protection, safety shoes and heavy gloves.
- Operate only on level ground.
- Do not operate on hillside or when working area is cluttered, wet, muddy or icy to prevent slipping or tripping.
- Do not allow riders.
- Keep all hydraulic components in good repair.

## TO THE NEW OPERATOR OR OWNER

The Skid Steer Log Grapple is designed To grab, lift or pull any kind of wood or log. Be familiar with the machine before starting.

**In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment. It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the machine.**

**It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the machine. Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the work site. Untrained operators are not qualified to operate the machine.**

Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely and how to set it to provide Maximum field efficiency. By following the operating Instructions in conjunction with a good maintenance program, your Skid Steer Log Grapple will provide many years of trouble-free service.

## EQUIPMENT MATCHING

To insure the safe and reliable operation of the Log Grapple, it is necessary to use a Skid Steer with the correct specifications. Use the following list as a guide in selecting a Skid Steer to use on the machine.

### 1. **Horsepower:**

Although horsepower is not required to operate the Log Grapple, it does establish the total weight for machine stability. Do not exceed the Log Grapple power specifications.

### 2. **Hydraulic System:**

The Skid Steer hydraulic system must be capable of 6 gpm (23 lpm) at 2320 psi (16MPa).

**Table 1: Skid Steer HP**

Recommended Skid Steer Horsepower
23-70



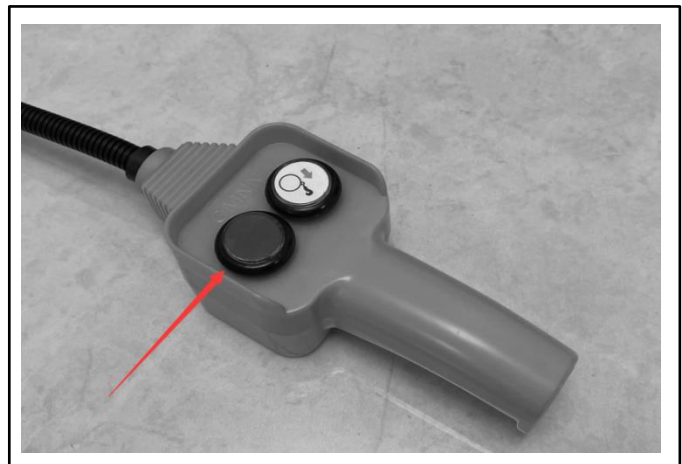
**SKID STEER (typical)**

## CONTROLS

Always review the "controls" section of the Skid Steer operator's manual to be familiar with the location, settings and function of the controls. Be familiar with the controls before starting.

### 1. **Hydraulic Controls:**

The hydraulic systems on the machine are Controlled with a priority valve system. Press the **left button** down and hold to provide oil to the grapple pivot hydraulic motor. Release the button and oil will flow to the claw Hydraulic cylinder.



**SWITCH**

## ATTACHING/UNHOOKING SKID STEER

When attaching log grapple to a Skid Steer, follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Make sure there is enough room and clearance to safely drive up to the log grapple.
3. Drive slowly and align the loader face plate to the back of the grapple frame.



**ALIGNING**



**Top Lip**

4. Tilt the face plate forward and drive into the frame with the top of the face plate mating into the upper lip.



**Tilting**

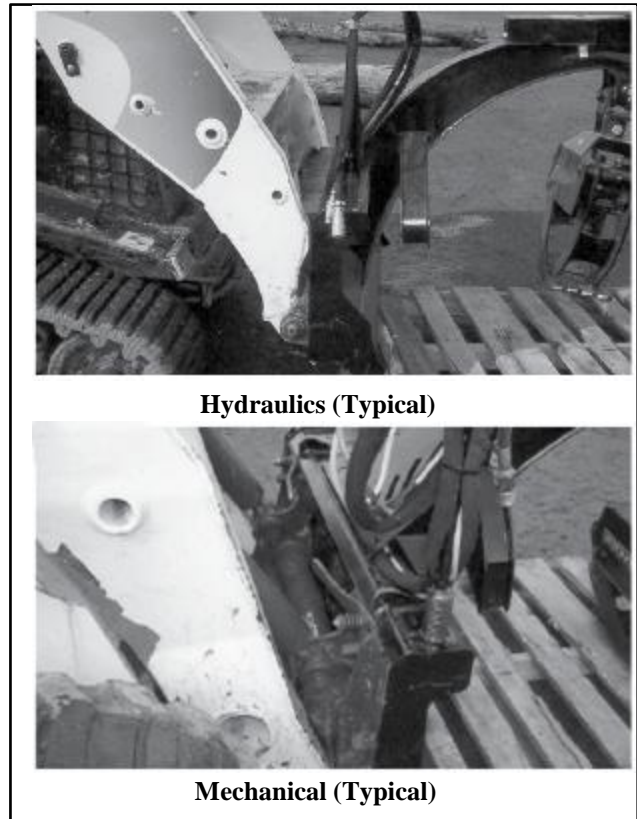


**Engaged**

**FACE PLATE**



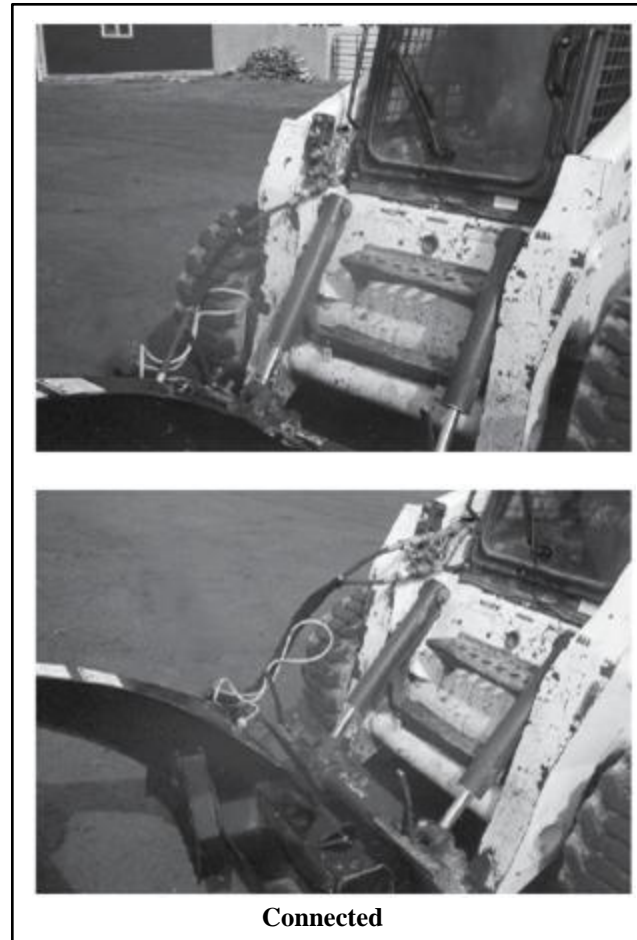
5. Engage the loader face plate lock pins.



#### LOCK PINS

6. Connect the hydraulics:

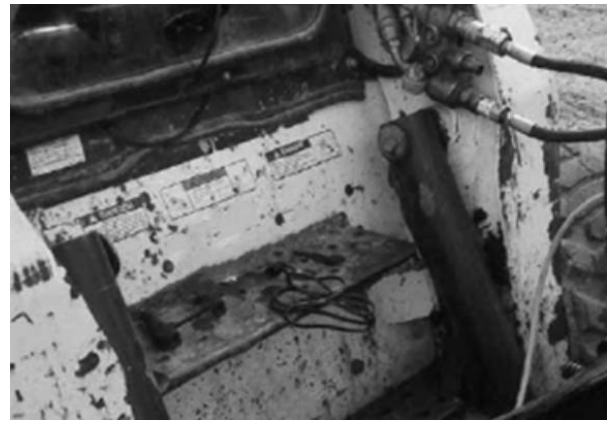
- a. Use a clean rag or paper towel to clean the dirt from the couplers on the hose ends and on the skid steer.
- b. Connect the hoses to the skid steer couplers. Be sure the couplers are securely seated.
- c. Route and secure the hoses along the frame with clips, tape or plastic ties to prevent binding and pinching. Be sure to provide slack for tilting.



#### HYDRAULICS

**7. Install the Hydraulic Controller in the cab:**

- a. Clip the plastic ties securing the wiring harness to the mast for shipping if this is the first time the grapple is mounted.



**Ties Cut**

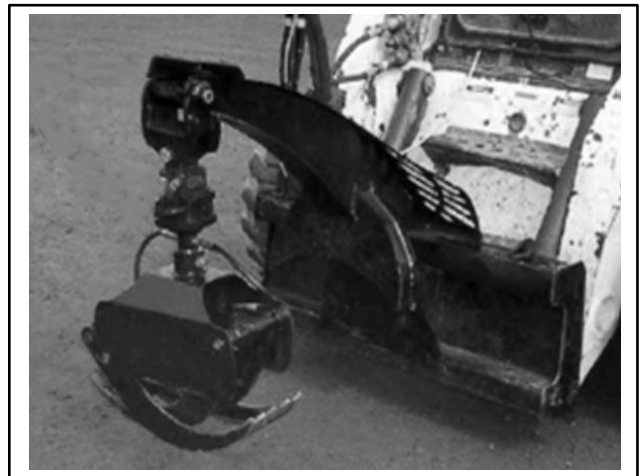
- b. Secure in the cab in a position convenient to the operator.
- c. Route and secure the hoses along the frame with clips, tape or plastic ties to prevent binding and pinching. Be sure to provide slack for tilting.



**Installed**

**HYDRAULIC CONTROLLER**

8. Raise the grapple.



**MOUNTED**

9. Reverse the above procedure when unhooking.

## FIELD OPERATION



# OPERATING SAFETY

- Read Operator's Manual before using.
- Place controls in neutral, stop engine, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or maintaining.
- Do not allow bystanders within 20 feet (6 m) of machine to prevent injury from rolling logs.
- Extend stabilizers to support frame during loading and unloading.
- Wear appropriate safety gear including but not limited to a hard hat, safety glasses, hearing protection, safety shoes and heavy gloves.
- Operate only on level ground.
- Do not operate on hillside or when working area is cluttered, wet, muddy or icy to prevent slipping or tripping.
- Do not allow riders.
- Keep all hydraulic components in good repair.

The Log Grapples attach to a Skid Steer and use the Skid Steer hydraulics to open and close the grapple claws. However the operator has the responsibility of being familiar with all operating and safety procedures and following them.

Each operator should review this section of the manual at the start of the season and as often as required to be familiar with the machine. When using, follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Attach the machine to the Skid Steer.
3. Review the location and function of controls on the Skid Steer.
4. Review the work site and plan the operation before starting.
5. Drive to the work site and position the grapple appropriately for the application.



**Parallel**



**Right Angle**

### POSITIONING

7. **Starting:**

- a. Align the Skid Steer and grapple with the logs, poles or wood.
- b. Back the grapple claws over one end of the log.
- c. Open the grapple claws and lower the grapple over the log.



**Positioning**

- d. Close the grapple.



- e. Raise the loader and log.



**Lifting**

**STARTING**

8. **Stopping:**

Lower the loader to the ground and open the claws when stopping. Turn engine off.



**STOPPING**

9. **Log Placement:**

The grapple can be used in many ways to lift or move logs. Some typical uses include lifting one end and dragging or moving as desired or moving forward and placing the log pivot frame over the end of the log to lift the entire log.

- a. Single log.



**End**



**Under Pivot**

**SINGLE LOG**

- b. Multiple logs.



**End**



**Under Pivot**

**MULTIPLE LOGS**

**10. Log Fulcrum:**

The machine is designed with a ledge on the frame next to the mounting frame that can be used as a fulcrum to lift the entire log or tree.

To utilize the lift feature provided by the fulcrum, follow this procedure:

- a. Fully open the claws.
- b. Position the loader in the down position until the grapple frame is just above the ground.
- c. Drive forward until the log or wood butts against the frame.
- d. Stop forward motion.
- e. Close claws.
- f. Slowly raise loader to determine if the skid steer has sufficient stability to lift/move the log without tipping forward.



**Fulcrum**



**Positioning**



**Lifting**

**LOG FULCRUM**

**Grapple Rotation:**

The grapple is designed with a hydraulic motor between the frame and the claw assembly. Use the motor to position the claws at right angles to the log/tree to allow the claws to grasp the material. Use the selector switch and hydraulic control in the cab to turn, rotate and position the claw assembly as required.



**Parallel**



**Right Angle**



**Parallel**



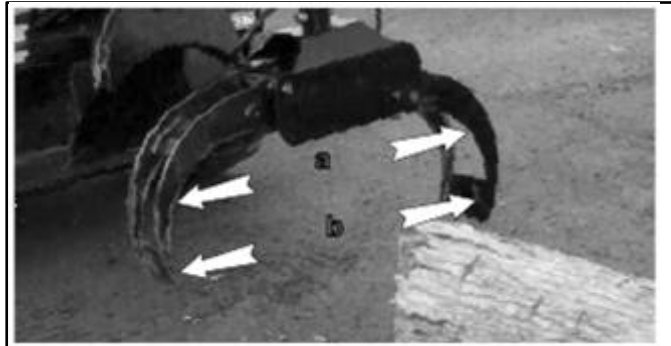
**Right Angle**

**GRAPPLE ROTATION**

13. **Log Size:**

The jaws of the Log Grapple do not open as large as the inside portion of the claws. Do not overload the frame. Measure the size of the log ahead of time to determine if the log is too large.

- a. Jaw width.
  
- b. Claw width.



**Sizing**



**Claws Closed**

**LOG SIZE**

14. **Stability:**

Skid Steer machines are designed with a short wheel base to allow for a small turning radius. A short wheel base does not provide for a heavy counterbalance feature when lifting a large/long log or tree. Lift slowly and carefully the first time to determine the stability of the system. Carry load close to the ground to keep the machine's center of gravity as low as possible.



**Testing Stability**



**Load Stability**

**STABILITY**



15. **Balancing:**

When picking up a load at right angles to the skid steer, lift slowly at first to check that the load is balanced from side to side. Re-position grapple to balance load as required.



Single



Multiple

**BALANCING**

16. **Operating Hints:**

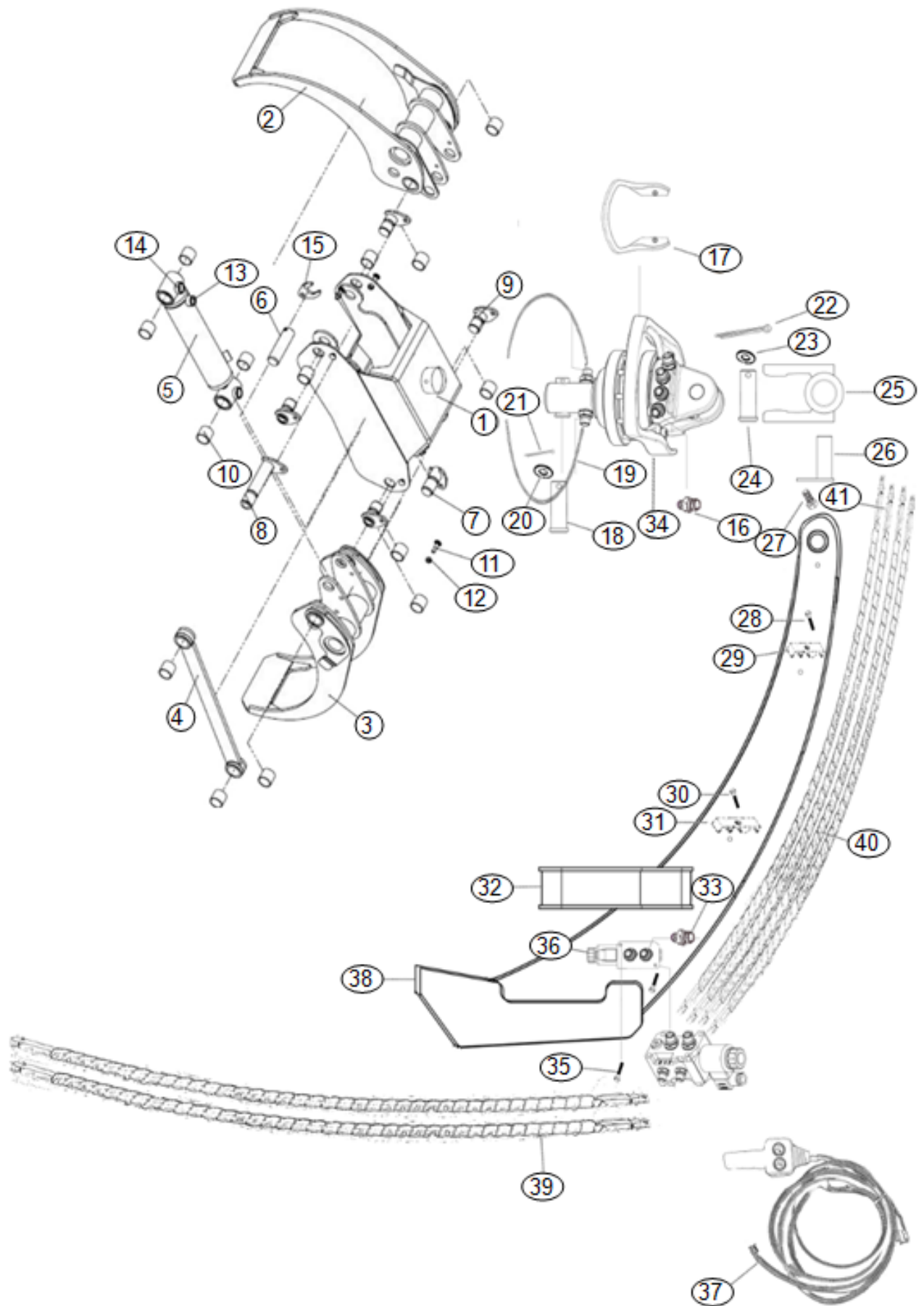
- a. Do not overload the machine by trying to pick up a log that is too heavy. Use an alternative method to move the log.
- b. Skid Steer power units are designed with a short wheel base to allow for sharp turns. As a result they do not have a large weight to counter balance a log that is being lifted. Lift carefully and slowly to determine if the unit has sufficient stability before moving load.
- c. Do not exceed the recommended size of the Skid Steer for the grapple. A Skid Steer that is too large can overload the frame and cause failures.
- d. Use the fulcrum frame to fully lift each log or tree.



**STABILITY**

**LIFTING**





NO.	Name	Part Number	QTY
1	Head	SGLG-0001	1
2	Wide arm	SGLG-0002	1
3	Narrow arm	SGLG-0003	1
4	Movement connecting	SGLG-0004	1
5	Cylinder	SGLG-0005	1
6	Medium pin	SGLG-0006	1
7	Short pin	SGLG-0007	1
8	Long pin	SGLG-0008	1
9	Head pin	SGLG-0009	4
10	Cylindrical bronze bush	SGLG-0010	12
11	Screw	SGLG-0011	7
12	Fork hexagonal nut M8	SGLG-0012	7
13	Fitting	SGLG-0013	2
14	Grease nipple	SGLG-0014	9
15	Pin fork	SGLG-0015	7
16	Fitting, adapter, BSP 3/8"	SGLG-0016	4
17	Hose protection	SGLG-0017	1
18	Bush	SGLG-0018	1
19	Hose, to grapple head	SGLG-0019	2
20	Gasket	SGLG-0020	1
21	Clip	SGLG-0021	1
22	Clip	SGLG-0022	1
23	Gasket	SGLG-0023	1
24	Bush	SGLG-0024	1
25	Shackle	SGLG-0025	1
26	Bush	SGLG-0026	1
27	Bolt	SGLG-0027	1
28	Bolt for Hose Clamp	SGLG-0028	1
29	Hose Clamp	SGLG-0029	1
30	Bolt for Hose Clamp	SGLG-0030	1
31	Hose Clamp	SGLG-0031	1
32	Log Pivot Fulcrum	SGLG-0032	1
33	Fitting, adapter, BSP 3/8"	SGLG-0033	6
34	Motor, 360° Rotation	SGLG-0034	1
35	Bolt	SGLG-0035	2
36	Solenoid valve, 12V	SGLG-0036	1
37	Wire harness with control	SGLG-0037	1
38	Mounting frame	SGLG-0038	1
39	Hose, to skid steer	SGLG-0039	1
40	Hose, motor rotation	SGLG-0040	2
41	Hose, to grapple head cylinder	SGLG-0041	2