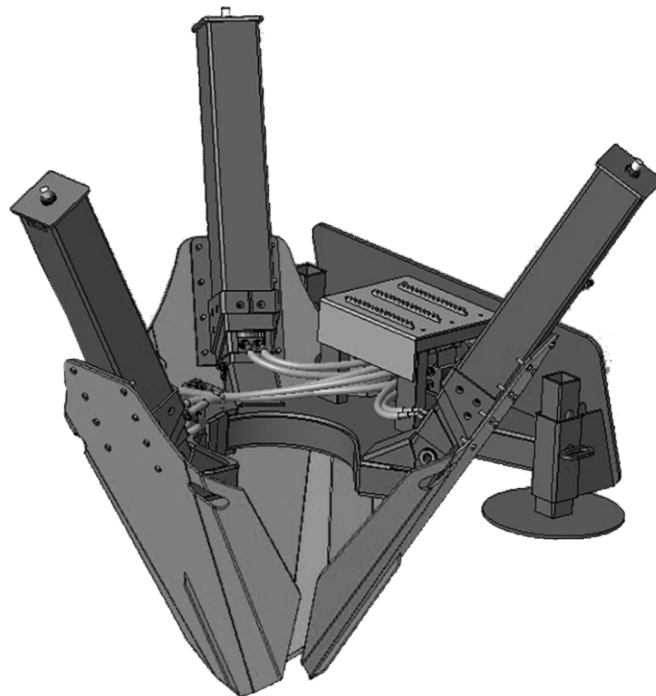


# 36" SKID STEER TREE SPADE (3 BLADES)



- 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)

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# TO THE OWNER

---

## GENERAL COMMENTS

**Congratulations for having this skid steer tree spade(3 blades) attachment!**

**Your skid steer tree spade(3 blades) attachment was carefully designed and manufactured to give you years of dependable service. Your skid steer tree spade(3 blades) attachment will require some minor maintenance(such as cleaning and lubricating) to keep it in top working condition.**

**Be sure to observe all safety precautions and maintenance procedures as described in this manual.**

## ABOUT THIS MANUAL

**This manual has been designed to help you do a better and safer job. Read this manual carefully and become familiar with its contents. Remember, never let anyone operate this unit without reading the "Safety Precautions" and "Operation Instructions" sections of this manual. Unless noted otherwise, right and left sides are determined from the position of the skid steer operator sitting in the seat facing forward.**

## SERVICE

**When service your skid steer tree spade(3 blades) attachment, pls. remember to use only manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation. To facilitate parts ordering, pls. record the model No. and serial No. of the metal plate on your unit.**

# **SAFETY PRECAUTIONS**

---

The skid steer tree spade(3 blades) attachments are designed to be easy to use and maintain. They are operated by the skid steer auxiliary hydraulics. The skid steer tree spade(3 blades) attachments mount to the toolbar or quick attach mechanism for easy mounting.

## **BEFORE OPERATION**

- 1.The operator must read the operation manual carefully before installation, operation or maintenance. Improper operation will cause the machine damaged or the operator dead.**
- 2.Read all the safe signs and safe declarations. Obey all the professional safe terms, local laws or the professional directions.**
- 3.Familiar with the skid steer tree spade(3 blades) attachment about functions, specs and operation. Replace the to-be-damaged parts in time. Make sure all the hydraulic installations and couplings connect firmly, and all the safe signs stick on the suitable positions clearly.**

## **TO THE OPERATOR**

### **WARNING! PROTECT AGAINST FLYING DEBRIS**



- 1. Always wear proper safety glasses, goggles, or a face shield when driving pins in or out, or when any operation causes dust, flying debris, or any other hazardous material.**
- 2. Don't modify the skid steer tree spade(3 blades) attachment casually.**
- 3. Should keep the machine on the flat ground when repair, far away from the transportation and other dangerous places.**
- 4. Should use the right tools to repair.**
- 5. Don't operate the machine, unless you are professional, have certificates, and familiar with its functions, specs and safe operation rules.**
- 6. Must not leave the machine when the machine is running. Must stop the engine at first and then remove the key if want to leave.**

# SAFETY PRECAUTIONS

These are common practices that may or may not be applicable to the products described in this manual.

## Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ The operator must not use drugs or alcohol as they can change the alertness or coordination of that person while operating equipment. The operator should, if taking over-the-counter drugs, seek medical advice on whether he/she can safely operate the equipment.
- ▲ Operator should be familiar with all functions of the unit.
- ▲ Make sure all guards and shields are in place and secured before operating implement.
- ▲ Keep all persons away from equipment and work area.
- ▲ Start skid steer with steering levers and hydraulic controls in neutral.
- ▲ Operate implement and loader arms from the driver's seat only.
- ▲ Dismounting from a moving unit can cause serious injury or death.
- ▲ Do not allow anyone to stand between skid steer and implement while hooking-up to implement.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Watch out for objects overhead and along side such as fences, buildings, wires, trees, limbs, etc., while transporting and operating attached implement.
- ▲ Detach and store implement in an area where children normally do not play. Secure implement by using blocks and supports.

## Look For The Safety Alert Symbol



The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to 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.

## Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

### ▲ DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

### ▲ WARNING

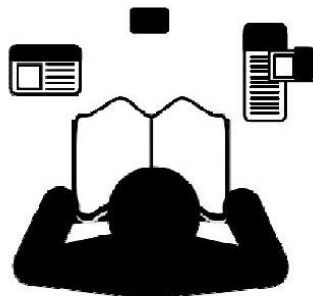
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

### ▲ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

## For Your Protection

- ▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



## Avoid Underground Utilities

### ▲ Dig Safe

- Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area.
- ▲ Be sure to ask how close you can work to the marks they positioned.





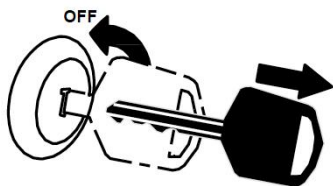
# SAFETY PRECAUTIONS

These are common practices that may or may not be applicable to the products described in this manual.

## Shutdown and Storage

### Before leaving operator's seat:

- ▲ Lower lift arms and put attachment flat on the ground.
- ▲ Turn off engine and engage parking brake.
- ▲ If included, raise seat bar and move controls until both lock.
- ▲ Remove key to prevent unauthorized starting.
- ▲ Use steps, grab-handles and anti-slip surfaces when getting on or off the loader.
- ▲ Detach and store implements in an area where children normally do not play. Secure implement by using blocks and supports.



## Transport Safely

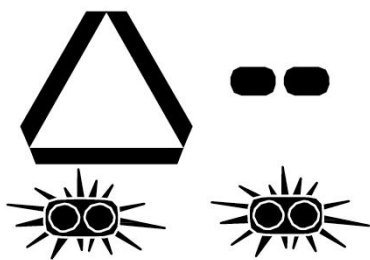
- ▲ Comply with state and local laws.
- ▲ Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- ▲ Avoid contact with any over head utility lines or electrically charged conductors.
- ▲ Always drive with load on end of loader arms low to the ground.
- ▲ Always drive straight up and down ramps with load on "uphill" side of skid steer.
- ▲ Engage parking brake when stopped on an incline.

- ▲ **IMPORTANT:** Do not tow a load That is more than double the weight of the vehicle towing the load.
- ▲ Use towing vehicle and trailer of adequate size and capacity. Secure equipment t towed on a trailer with tie downs and chains.
- ▲ Sudden braking can cause a towed trailer to swerve and upset. Reduce speed if towed trailer is not equipped with brakes.



## Use Safety Lights and Devices

- ▲ Slow moving self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.



## Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Lower attached implement to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- ▲ Allow implement to cool completely before working on it.
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Do not grease or oil implement while it is in operation.
- ▲ Inspect all parts. Make sure parts are in good condition & installed properly.
- ▲ Remove buildup of grease, oil, or debris.
- ▲ Remove all tools and unused parts from implement before operation.

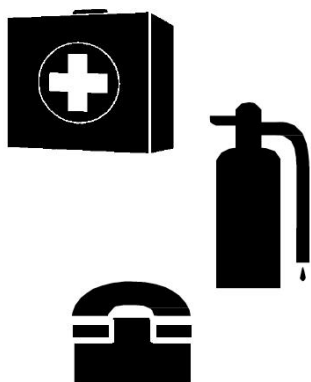


# SAFETY PRECAUTIONS

These are common practices that may or may not be applicable to the products described in this manual.

## Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital, and fire department near phone.



## Wear Protective Equipment

- ▲ Wear protective clothing and equipment appropriate for the job. Clothing should be snug fitting without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the operator's full attention. Avoid wearing radio headphones while operating machinery.



## Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work on the system.
- ▲ Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ **DO NOT DELAY.** If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result.



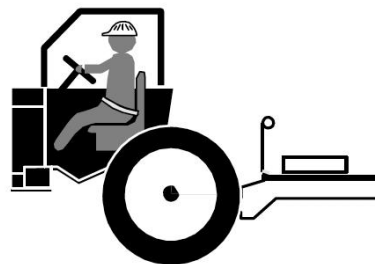
## Tire Safety

- ▲ Tire changing can be dangerous and should be performed by trained personnel using the correct tools and equipment.
- ▲ When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- ▲ When removing and installing wheels, use wheel handling equipment adequate for the weight involved.



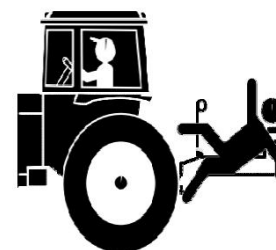
## Use Seat Belt and ROPS

- ▲ Operate only skid steers equipped with a Roll-Over Protective Structure (ROPS) and seat belt.
- ▲ Fasten seat belt snugly and securely to help protect against serious injury or death from falling and skid steer overturn.
- ▲ Wearing protective equipment such as safety shoes, safety glasses, hard hat, and ear plugs is highly recommended.

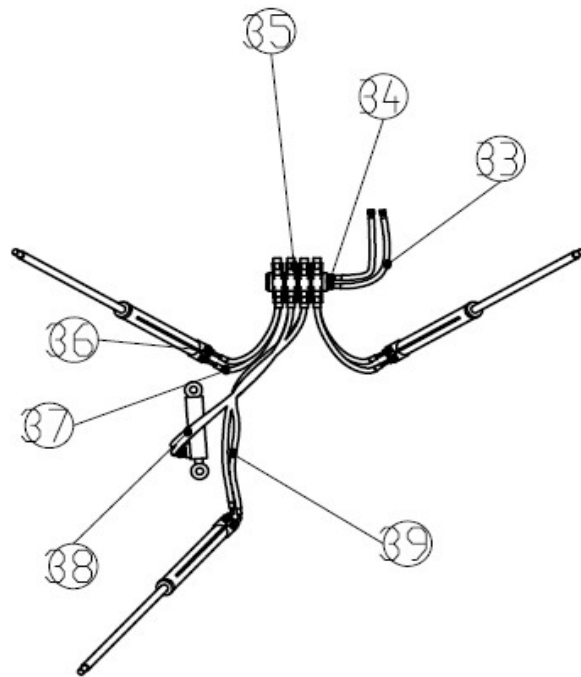
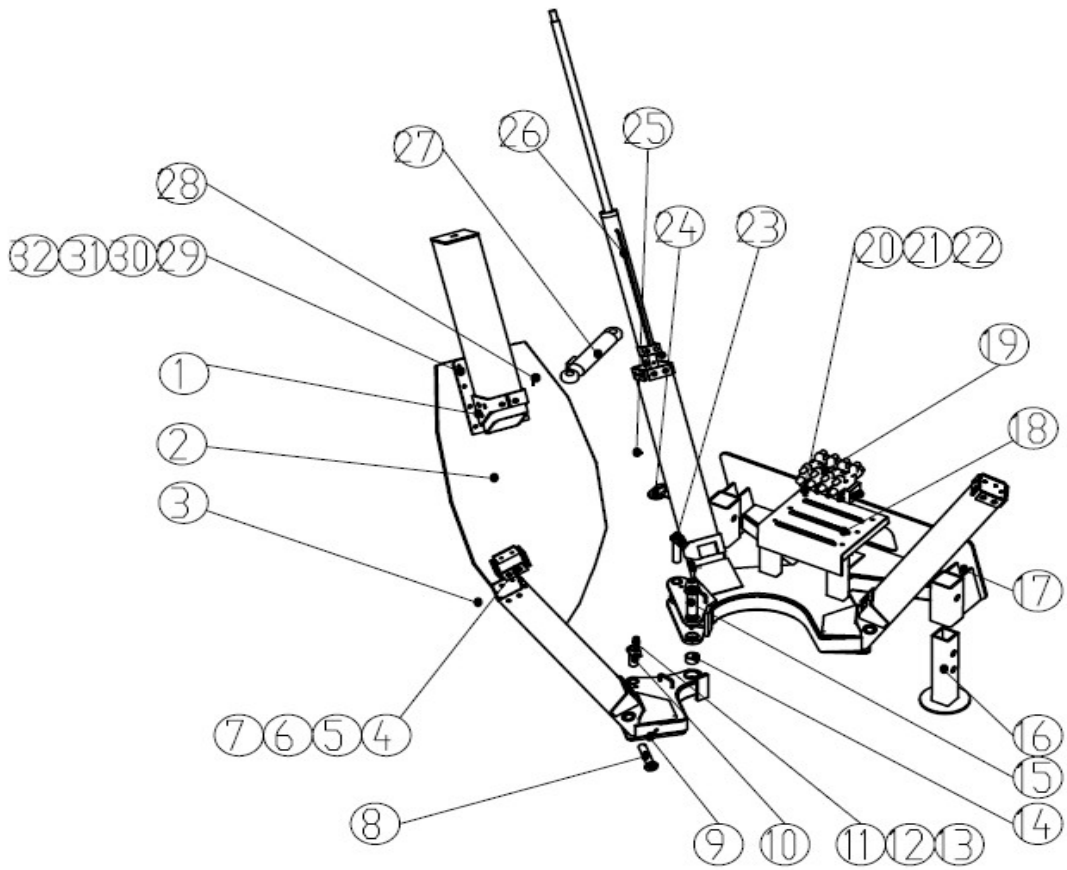


## Keep Riders Off Machinery

- ▲ Never carry riders or use Machinery as a person lift.
- ▲ Riders obstruct operator's view.
- ▲ Riders could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children to operate equipment.



# **SKID STEER TREE SPADE(3 BLADES) ASSEMBLIES**





# **SKID STEER TREE SPADE(3 BLADES) ASSEMBLIES**

<b>PART NO.</b>	<b>S/N. NUMBER</b>	<b>PART DESCRIPTION</b>	<b>QTYS</b>	<b>NOTE</b>
1	050236.02	BLADE ARM	3	
2	050236.03	EDGE BLADE	3	
3	GB/T 2673-2000	SOKET HEAD CAP SCREW	24	M8*12
4	050236.00-01	NYLON A	3	
5	050236.00-02	NYLON B	3	
6	050236.00-03	NYLON C	6	
7	050236.00-04	NYLON D	12	
8	050236.00-05	PIN	3	
9	050236.10	ROTARY PART	1	
10	050236.09	PIN	1	
11	GB/T 5783-2000	HEX HEAD CAP SCREW	3	M12*25
12	GB/T 97.1-1987	FLAT WASHER 12	3	
13	GB/T 93-1985	SPRING WASHER 12	3	
14	504030	SELF LUBRICATING BEARING	2	
15	050236.08	PIN	1	
16	050236.05	SUPPORTING LEG	2	
17	050236.01	FRAME	1	
18	050236.13	PEDAL	1	
19	050236.12-1	MANIFOLD BLOCK	1	
20	GB/T 5783-2000	HEX HEAD CAP SCREW	6	M10*25

# **SKID STEER TREE SPADE(3 BLADES) ASSEMBLIES**

<b>PART NO.</b>	<b>S/N. NUMBER</b>	<b>PART DESCRIPTION</b>	<b>QTYS</b>	<b>NOTE</b>
21	GB/T97.1-1987	FLAT WASHER D10	6	
22	GB/T93-1985	SPRING WASHER D10	6	
23	050236.06	PIN	1	
24	050236.04	PIN	2	
25	GB/T2673-2000	SOKET HEAD CAP SCREW	36	M8*16
26	050236.11	DEPTH ADJUSTABLE CYLINDER	3	cylinder inner diameter:50mm rod diameter:30mm stroke:720mm shortest distance:980mm
27	050236.07	SWING CYLINDER	1	cylinder inner diameter:50mm rod diameter:30mm stroke:115mm shortest distance:355mm
28	GB/T97.1-2000	FLAT WASHER D30	3	
29	GB/T5783-2000	HEX HEAD CAP SCREW	24	M12*40
30	GB/T97.1-1987	FLAT WASHER D12	24	
31	GB/T93-1985	SPRING WASHER D12	24	
32	GB/T5783-2000	OUTER HEX NUT M12	24	
33	F381CACF151508-2000SG	HOSE	2	Length:2m Fitting:G1/2
34	IE15LM27X2	END STRAIGHT JOINT	2	
35	SVH-G02-C2-D12-20	SOLENOID VALVE	4	
36	IE10LM18X1.5	END STRAIGHT JOINT	16	
37	F381CACD101005-550SG	HOSE	4	
38	F381CACF101005-850SG	HOSE	2	
39	F381CACF101005-1200SG	HOSE	2	

# OPERATION INSTRUCTIONS

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The tree spade can dig the trees with the Max. tree trunk diameter 150mm, and tree ball diameter 900mm.

Attach the tree spade to the toolbar or quick attach mechanism of your skid steer loader.

(1) Let shovel blade 1 to 3 retract to the top end, and adjust left and right supporting legs up by the adjustable holes, to their supporting plates, but lower than the bottom surface of the open and close arms, avoid the supporting legs having the interference when the bottom surface of the open and close arms come to the bottom.

(2) Let the open and close arms open to the maximum, and then start the skid steer loader, make the dome-type centre of the tree spade coincide with the centre of the tree trunk, and then operate the skid steer loader to make the open and close arms of the tree spade parallel and close to the ground.

(3) Press the close button to close the open and close arms towards inside.

(4) Shovel blade 1 moves first, press the "one click" button (all the buttons on the control panel are clicking control), shovel blade 1 declines, dropping to 1/3 of the full stroke cylinder, from the shovel blade 1 to 3, the three cylinders' stroke are 720mm.

# OPERATION INSTRUCTIONS

---

(5)As followed, shovel blade 3 moves, press the "three clicks", shovel blade 3 declines, dropping to 1/3 full stroke cylinder.

(6)As followed, shovel blade 2 moves, press the "two clicks", shovel blade 2 declines, dropping to 1/3 full stroke cylinder.

(7)Repeat the steps from (4),(5),(6) to let the shovel blades decline to 1/3 of the stroke cylinder.

(8)Repeat the steps from (4),(5),(6) to let the shovel blades decline to full of the stroke cylinder.

Operate the arms of the skid steer loader to lift the tree spade, let the tree spade along with the tree out of the ground, the operator will move the tree to the designated place.

Select the "one up", "two up", "three up", to let the shovel blade rise, and then let the tree separate from the tree spade, finally, complete the transplanting task.

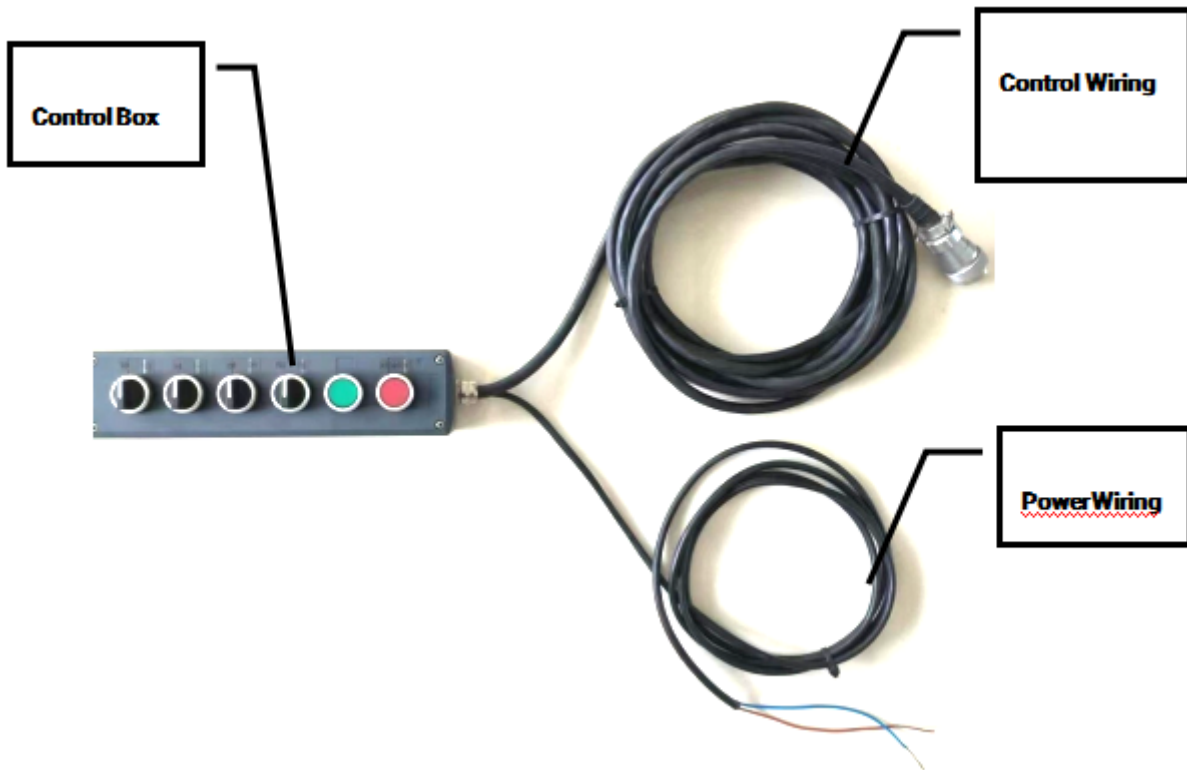


# OPERATION INSTRUCTIONS

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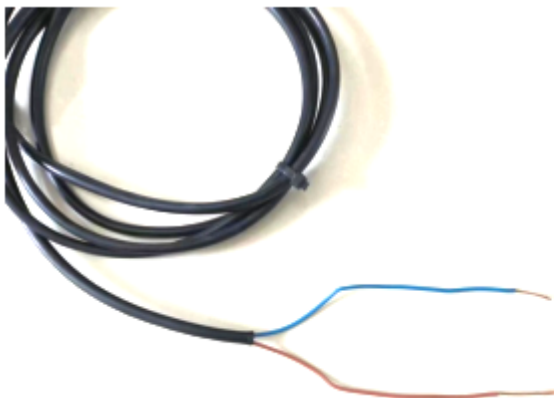
## About Wiring Harness Connection

### Wiring Harness



**Step 1: Connect the power wiring of the control box with the power supply of the host machine.**

Can distinguish the positive and negative terminals as the different colors shown in the following sketch.



**Negative - (Blue Color)**

**Positive + (Brown Color)**



# OPERATION INSTRUCTIONS

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## Step 2: Control Wiring Connection of Control Box



**Take Out the Control Wiring**



**Lift One Aviation Plug**



**Lift the other Aviation Plug from Solenoid Valve of Tree Spade**



**Insert both Plugs Together**



**Tighten the Nut**

# MAINTENANCE INSTRUCTIONS

---

1. Always keep the clean hydraulic oil, keep the hose joint clean, if the hydraulic oil is mixed with dirt, it will possibly cause the whole operation system abnormally.

2. Daily check all hydraulic lines, make sure the connection of the hydraulic line good, the pipe without distortion, wear, cracking, no loose joint to leak.

3. Daily inspect the tree spade oil level, and refuel timely.

4. Daily inspect all parts of the machine, make sure all the parts are connected stably and reliably.

5. If the paint off or damage, repaint timely, to prevent rust.

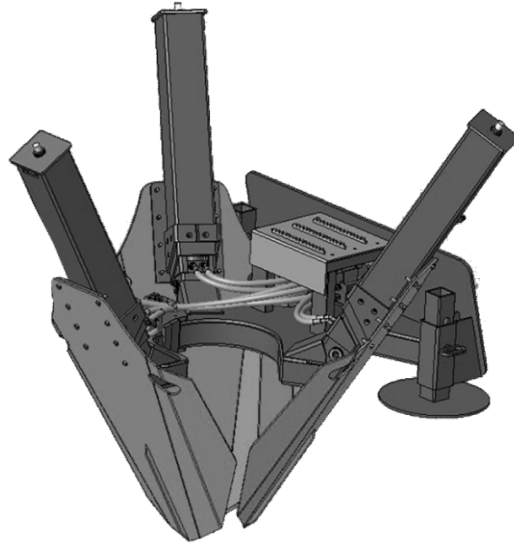
6. Check all the fasteners whether loose, and tighten them promptly.

# STORAGE INSTRUCTIONS

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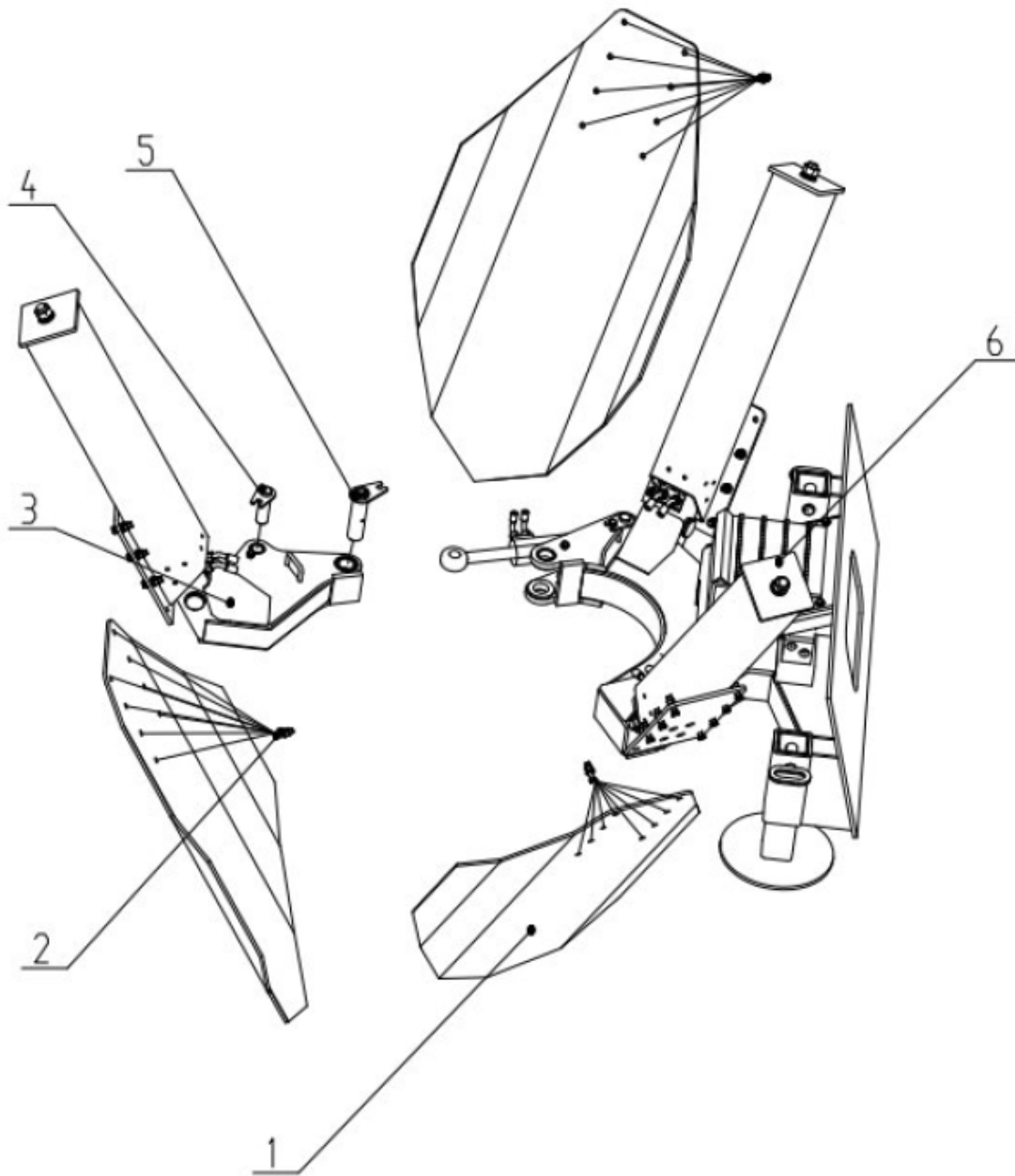
1. Clean all the debris, all mud, dirt and grease.
2. Inspect the unit for bent, loose, cracked, damaged or missing parts, Order any parts required, and make the necessary repairs to avoid delays when starting next season.
3. Tighten all loose nuts, bolts, screws and hydraulic connections.
4. Touch up all the unpainted and exposed areas with paint to prevent rust.
5. Replace security labels and tags if damaged, or in unreadable condition.
6. Connect the hydraulic couplers together or use the oil nuts to block the hydraulic hoses.
7. Check the motor for proper lubricant level.
8. Coat the digging chain with a thin covering of oil. Operate chain for a short period to work the oil into the pins.
9. Should put the device in the dry non-corrosive place. If in nude outside, will shorten its life.
9. All three blades should be fully retracted, while pull out of pins of the legs, make the support legs
10. stretch down a height adjustment hole, and then plug the pins, the host and equipment connections, convenient for the next use when the host machine and the tree spade are connected.

# SPECIFICATIONS



MODEL	TMG-ST36
TOTAL WIDTH (MM)	1780
TOTAL LENGTH(MM)	1815
TOTAL HEIGHT (MM)	1825
Fit TREE TRUNK DIAMETER (MM)	0-150
TREE BALL DIAMETER AVAILABLE(MM)	0-900
WORKING FLOW(L/MIN)	20-65
DIGGING DEPTH(MM)	≤700
WEIGHT (KG)	680
MAX. PRESSURE (MPA)	12-21

# Installation Feature



6		050236-6	Main Body Frame	1			
5		050236-5	Pin No. 2	1			
4		050236-4	Pin No. 1	1			
3		050236-3	Swing Part	1			
2		050236-2	M12*45	24			
1		050236-1	Cutting Blade	3			