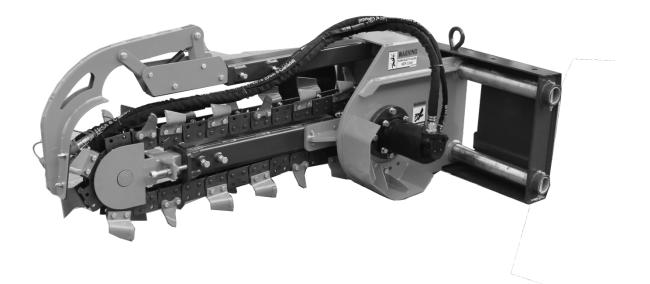


PRODUCT MANUAL

Skid Steer Side Shift Trencher

Model:TMG-SDT36S





- Please read 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

Missing parts or questions on assembly? Please call: 1-877-761-2819 or email: cs@tmgindustrial.com Do not return the product to dealer, they are not equipped to handle your requests

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GENERAL COMMENTS

Congratulations for having this skid steer side shift trencher attachment! Your skid steer side shift trencher attachment was carefully designed and manufactured to give you years of dependable service. Your skid steer side shift trencher 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 side shift trencher 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.

The skid steer side shift trencher attachments are designed to be easy to use and maintain. They are operated by the skid steer auxiliary hydraulics. The skid steer side shift trencher 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 side shift trencher 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 side shift trencher 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.

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.



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.

Look For The Safety Alert Symbol

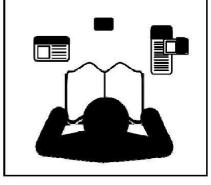
The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

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.

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

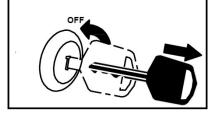
- ▲ Dig Safe Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any
- underground services in the area. ▲Be sure to ask how close you can work to the marks they positioned.



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

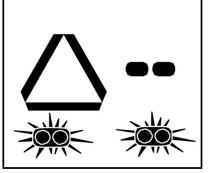
Shutdown and Storage

- 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.



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.



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.
- ▲ Usetowingvehicleandtrailerofadequa tesizeandcapacity.Secureequipmen 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 note quipped with brakes.

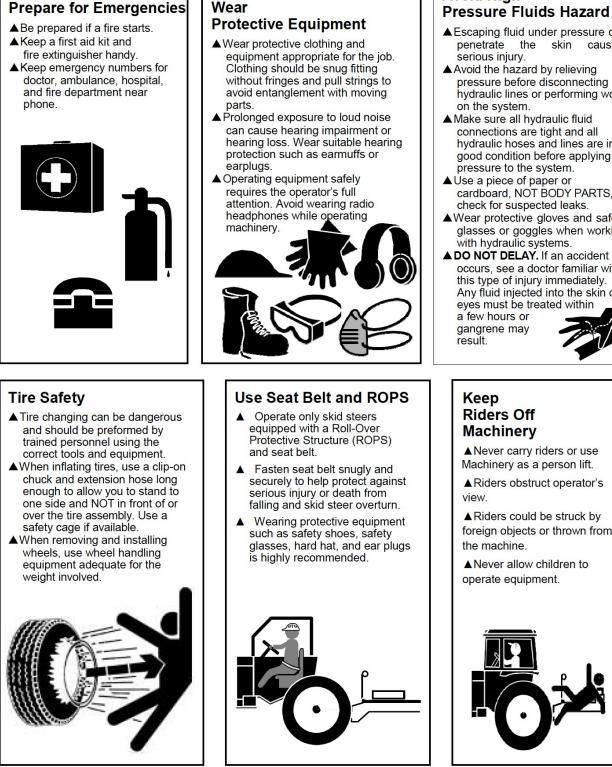


Practice Safe Maintenance

- ▲ 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
- 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.



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



Avoid High **Pressure Fluids Hazard**

- ▲ Escaping fluid under pressure can skin causing
- Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work
- ▲ 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
- occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within



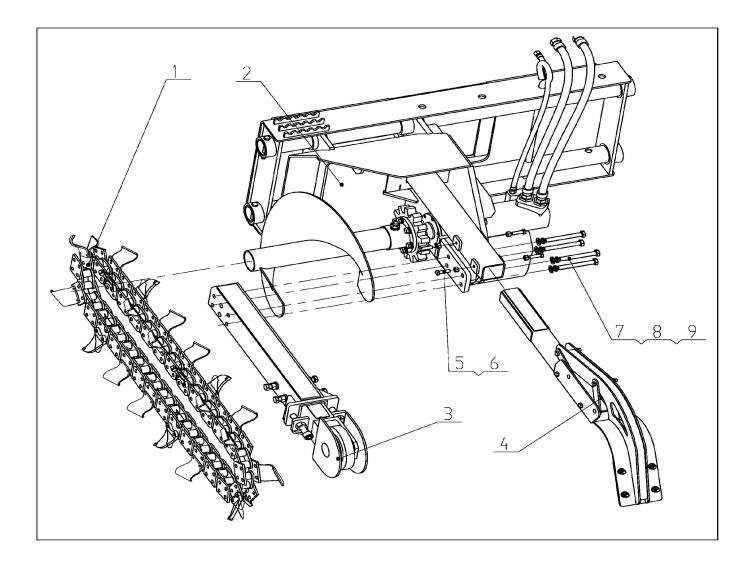
▲ Never carry riders or use Machinery as a person lift.

▲ Riders obstruct operator's

▲ Riders could be struck by foreign objects or thrown from

Never allow children to operate equipment.





S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
1	020736.06	CHAIN ASSEMBLY	1	
2		MOUNTING FRAME ASSEMBLY	1	
3		CHAIN TENSION ASSEMBLY	1	
4		SOIL PULLING PLATE ASSEMBLY	1	
5	GB/T5783-2000	HEX HEAD BOLT M12X40	2	
6	GB/T6170-2000	HEX HEAD NUT M12	2	
7	GB/T5783-2000	HEX HEAD BOLT M16X130	4	
8	GB/T97.1-1987	FLAT WASHER D16	4	
9	GB/T93-1985	SPRING WASHER D16	4	

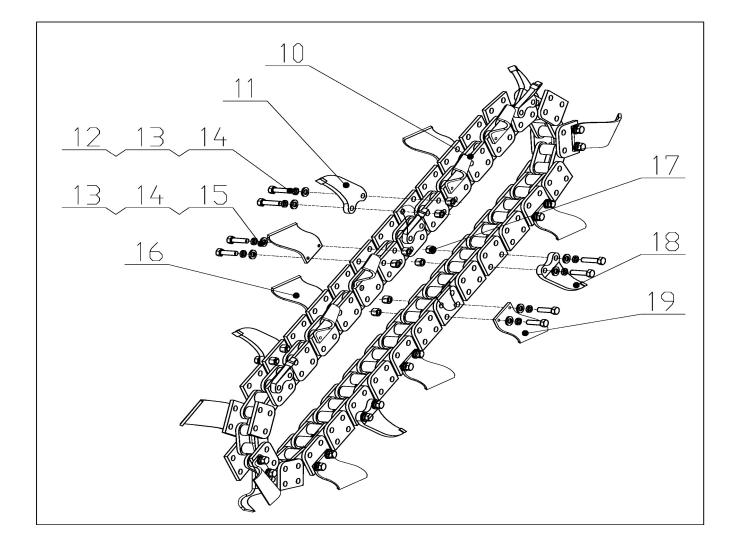


FIGURE 1 CHAIN ASSEMBLY

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
10	020736.06-05	CHAIN	1	
11	020736.06-03	LEFT ALLOY TOOTH	5	
12	GB/T 5783-2000	HEX HEAD BOLT	20	M12*35
13	GB/T 97.1-1987	FLAT WASHER D12	58	
14	GB/T 93-1985	SPRING WASHER D12	58	M12X30
15	GB/T 5783-2000	HEX HEAD BOLT	38	
16	020736.06-01	LEFT COMMONG TOOTH	10	
17	GB/T 6170-2000	HEX NUT	58	M12
18	020736.06-04	RIGHT ALLOY TOOTH	5	
19	020736.06-02	RIGHT COMMONG TOOTH	9	

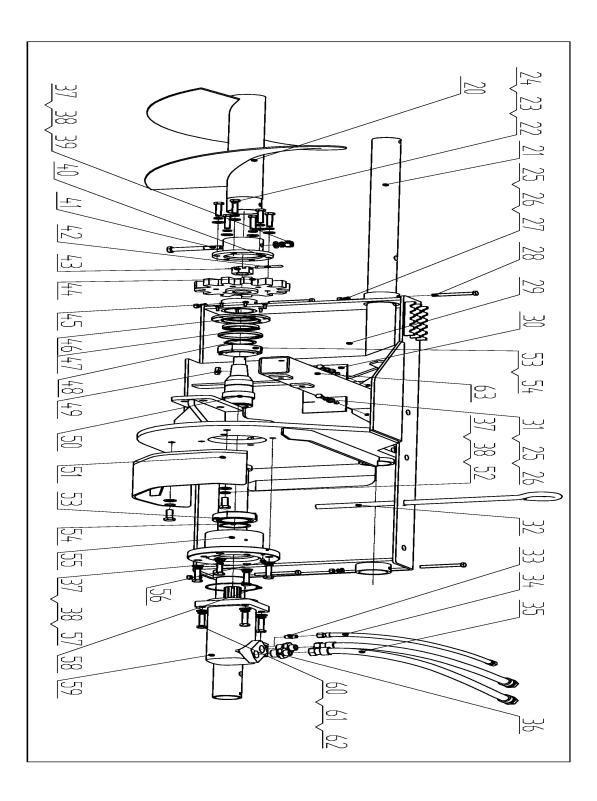


FIGURE 2 MOUNTING FRAME ASSEMBLY

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
20	0207361.03.01	ROTATION AUGER	1	
21	020724.00-1	STEEL PIPE	2	
22	GB/T 97.1-1987	FLAT WASHER D12	6	
23	GB/T 93-1985	SPRING WASHER D12	6	
24	GB/T5783-2000	BOLT	6	M12X55
25	GB/T97.1-1987	FLAT WASHER D10	6	
26	GB/T93-1985	SPRING WASHER D10	6	
27	GB/T 6170-2000	NUT	4	M10
28	GB/T 5782-2000	BOLT M	4	10X110
29	020724.01	MOUNTING BRACKET PLATE	1	
30	020724.00-10	ASH DAMPER	1	
31	GB/T 5783-2000	BOLT	2	M10X20
32	020724.00-2	POSITION ROD	1	
33	IE10LM14X1.5ED	END STRAIGHT JOINT	1	
34	F381CACA101005-2000BSG	HOSE	1	
35	F381CACA181810-2000BSG	HOSE	2	
36	IE18LM33X2ED	END STRAIGHT JOINT	2	
37	GB/T 97.1-1987	FLAT WASHER D16	11	
38	GB/T 93-1985	SPRING WASHER D16	11	
39	GB/T 6170-2000	NUT M16	1	
40	020724.04	ROTATION AUGER FIXED FLANGE	1	

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
41	GB/T 5782-2000	BOLT	1	M16X130
42	GB91	SPLIT PIN	1	D8X50
43	GB/T 9459	SLOTTED HEX NUT	1	M30X2
44	020724.07	CHAIN WHEEL	1	
45	GB2673	HEX SOCKET COUNTERSUNK HEAD SCREW	6	M6X16
46	0207S36.02.01.01-01	COVER PLATE	1	
47	HG2811-1996	SKELETON SEAL	1	FB70X90-10
48	0207S36.02.01.01-02	SPACER	1	
49	GB/T 1096-1979	FLAT KEY	1	12X8-32
50	0207361.03.02-01	TRANSMISSION SHAFT	1	
51	020724.11	LIMIT PLATE	1	
52	GB/T 5783-2000	BOLT	6	M16X45
53	GB/T 297-1994	TAPERED ROLLER BEARING 33014	2	
54	GB894.1	AXIAL SPRING COLLA D70	2	
55	0207361.03.02.01	BEARING SEAT	1	
56	JB/T 7940.1-1995	OIL CUP	1	M8X1
57	GB/T 5783-2000	BOLT	4	M16X50
58	GB3452.1-1992	O RING	1	128X3.55
59	BM6-191M1024	HYDRAULIC MOTOR	1	
60	GB/T 97.1-1987	FLAT WASHER D14	4	
61	GB/T 93-1985	SPRING WASHER D14	4	
62	GB/T 5783-2000	BOLT	4	M14X55
63	020736.01	CONNECTION DEVICE	1	

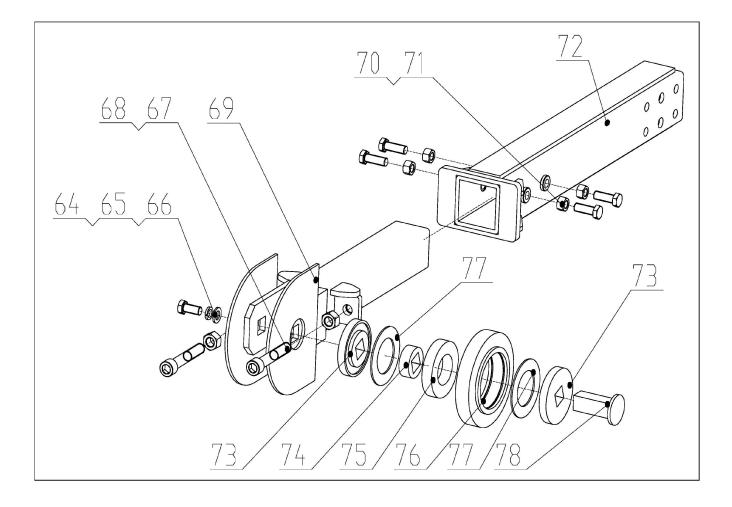


FIGURE 3 CHAIN TENSION ASSEMBLY

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
64	GB/T 97.1-1987	FLAT WASHER D16	1	
65	GB/T93-1985	SPRING WASHER D16	1	
66	GB/T5783-2000	BOLT	1	M16X30
67	GB70.1-2000	HEX SOCKET HEAD BOLT	2	M20X130
68	GB/T6170-2000	NUT	2	M20
69	020736.08	CHAIN TENSIONER	1	
70	GB/T5783-2000	BOLT M16X45	4	
71	GB/T 6170-2000	NUT M16	4	
72	020736.03	MOVABLE DEVICE	1	
73	020724.00-7	SPACER	2	
74	020724.00-6	INNER SHAFT	1	
75	GB/T672	DEEP GROOVE BALL BEARING 6212	1	
76	020724.00-5	IDLE WHEEL	1	
77	GB/T893.1-2000	CIRCLIP FOR HOLE 110	2	
78	020724.00-8	PIN	1	

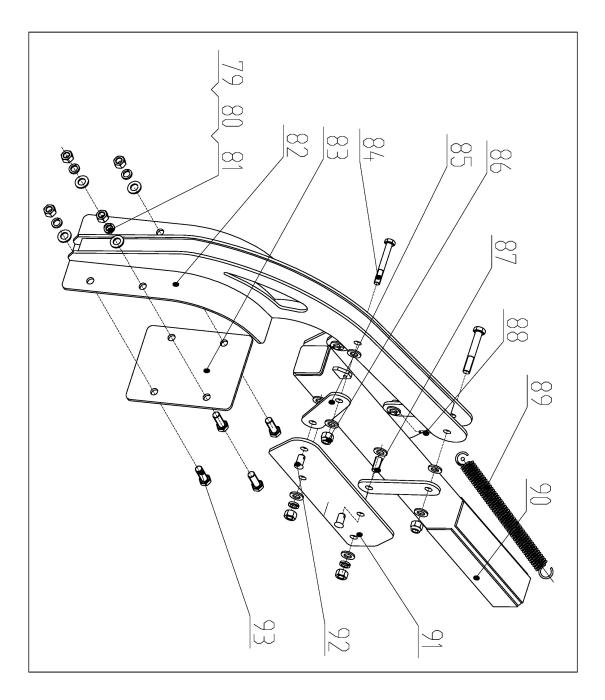


FIGURE 4 SOIL PULLING PLATE ASSEMBLY

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
79	GB/T 97.1-1987	FLAT WASHER D12	20	
80	GB/T93-1985	SPRING WAHSER D12	6	
81	GB/T6170-2000	NUT	6	M12
82	020736.05.01	SOIL PULLING PLATE SUPPORT	1	
83	020724.00-4	NYLON PLATE	1	
84	GB/T 5783-2000	BOLT	2	M12X80
85	020736.05-02	CONNECTION PLATE	4	
86	GB/T 889.1-2000	LOCK NUT	2	M12
87	GB/T 5783-2000	BOLT	2	M12X90
88	GB/T91	SPLIT PIN	4	3.2X20
89	020736.05-03	TENSION SPRING	1	
90	020736.04	EXPANSION PIPE	1	
91	020736.05-01	SIDE SUPPORT PLATE	2	
92	GB 882-87	PIN	4	12X20
93	GB/T 5783-2000	BOLT	4	M12X35

The trencher can dig a trench with 900mm depth and 200mm width. Attach the trencher to the toolbar or quick attach mechanism of your skid steer loader.

RAISING OR LOWERING THE TRENCHER

Raise or lower the trencher by raising or lowering the skid steer loader arms through their appropriate skid steer controls.

Caution-Raising process should avoid touching high shelves, telephone lines or branches, once touch a telephone line may cause serious injury or death.

TILTING THE TRENCHER

Tilt the trencher up or down by tilting the toolbar or attachment plate back or forward through its skid steer controls. We recommend a 65 degrees angle for general trenching as measured from the ground level(the horizon).

STARTING OR STOPPING THE TRENCHER

Power to the trencher is supplied by oil from the skid steer auxiliary hydraulic system, which passes through the hydraulic hoses and into the trencher's hydraulic motor. The trencher itself has no one on or off control, but is operated by the skid steer auxiliary hydraulic control mechanism. To start the trencher, engage the auxiliary hydraulics. To stop the trencher, disengage the auxiliary hydraulics.

Start the trencher, make its chain start to rotate, lower to the ground, and then let the skid steer loader move backward slowly while trenching.

TRENCHER SPEED CONTROL

The power of the trencher is supplied by the skid steer's auxiliary hydraulics. Trencher speed and power are determined by the flow of oil coming out of the auxiliary system, which in turn is dependent upon skid steer engine speed. To increase trencher speed, increase skid steer engine speed, on the contrary, to decrease trencher speed, decrease skid steer loader speed.

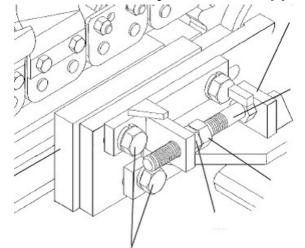
When first starting a trench throttle down the skid steer engine to half throttle. This will reduce the shock to the skid steer and trencher when the digging teeth first contact the ground. Once the trench is started, set the engine back to the full throttle. For the general use, operate the trencher with skid steer engine at full throttle to provide maximum power to the auxiliary hydraulics.

SPIRAL HEIGHT

The spiral is fixed to the trencher mainframe and has no separate adjustment. To raise the spiral, raise the trencher as previously described. This will raise the spiral to leave the dirt or spoil closer to the trencher.

CHAIN TENSION ADJUSTMENT

When trenching, the digging chain tension should be adjusted to let the chain is as loose as possible, without jumping off the sprocket or Idler wheel. In the left of the trencher arm end, should have an adjustment bolt with a jam nut, to tighten the chain, need rotate the adjustment bolt to the proper position, and turn the standard nut to the adjustment bolt, will push the boom out and thus tighten the chain. To loosen the chain, just use the opposite method.



SIDE SHIFT ADJUSTMENT

Lift the working arm of your skid steer loader to make the trencher 10cm away from the ground. This trencher has the side shift function. Pull out the side shift lock pin, adjust the side shift distance as needed, and lock it with the lock pin again.

NOTE 1:

It is common for your trencher to need its digging chain tightened after the first 10 to 20 minutes of operation as the chain and sprocket seat themselves.

NOTE 2:

Don't trench stones or hard soils, to prevent damage to the digging teeth of the trencher. If the digging teeth wear severely, should replace them timely, to ensure the normal work. To ensure the operation quality, should let the trencher work in the dry soil.

NOTE 3:

Its teeth are worn parts. Please replace them regularly (according to the service environment)!

NOTE 4:

Please pay attention to protect the product name plate. If it is incomplete or lost, this will not be guaranteed.



Never work on, or make adjustments to any part of the trencher while the unit is running. You could get caught in the digging teeth which could cause severe injury or death.



WARNING! Check the prospective trenching area for hidden utility lines before operating the trencher. Contacting a utility line with the trencher could cause electrocution resulting in death. Call all utility companies and have them plot out all their lines first. If you damage a utility line, shut off the equipment at once and contact the affected utility immediately.

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 trencher 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.

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.

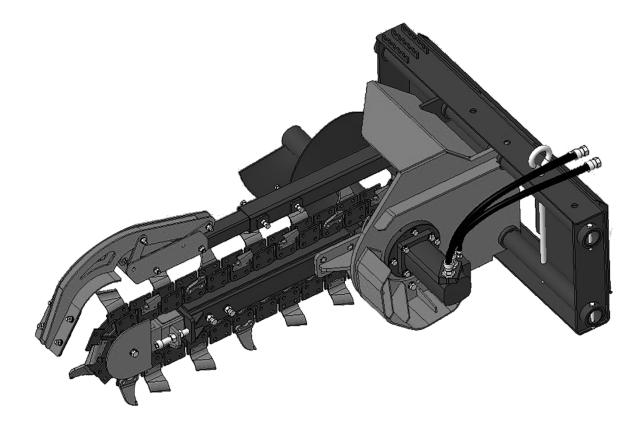
5. Replace security labels and tags if damaged, or in unreadable condition.

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.



MODEL	TMG-SDT36S
TOTAL LENGTH (MM)	1990
TOTAL WIDTH (MM)	1330
TOTAL HEIGHT (MM)	767
TOTAL WEIGHT (KGS)	425
@65°TRENCHIGN DEPTH (MM)	900
TRENCHING WIDTH (MM)	200
SYSTEM FLOW (L/MIN)	80-110
MAX. PRESSURE (MPA)	21