

# **PRODUCT MANUAL**

# **60-IN SKID STEER CONCRETE MIXER**

**MODEL: TMG-SCM60** 





- 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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## TO THE OWNER

## **GENERAL COMMENTS**

Congratulations for having this concrete mixer! Your concrete mixer was carefully designed and manufactured to give you years of dependable service. Your concrete mixer 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 MANAL**

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 concrete mixer, 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 concrete mixers are designed to be easy to use and maintain. They are operated by the skid steer auxiliary hydraulics. The concrete mixers 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 concrete mixer 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



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 concrete mixer 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.

## 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.

#### **A** WARNING

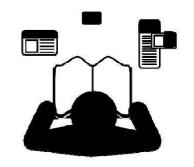
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

# **▲** 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.

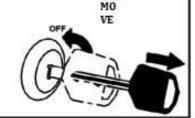


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### Shutdown and Storage

### 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.

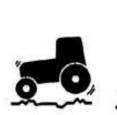


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### Transport Safely

- ▲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. Secure equipmen 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.



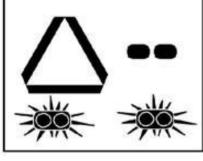






## Use Safety Lights and Devices

- ▲ Slow moving self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at pight.
- ▲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 property.
- 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.

### 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 earpluces.
- ▲ Operating equipment safely requires the operator's full attention. Avoid wearing radio headphones while operating



### 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 preformed 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.



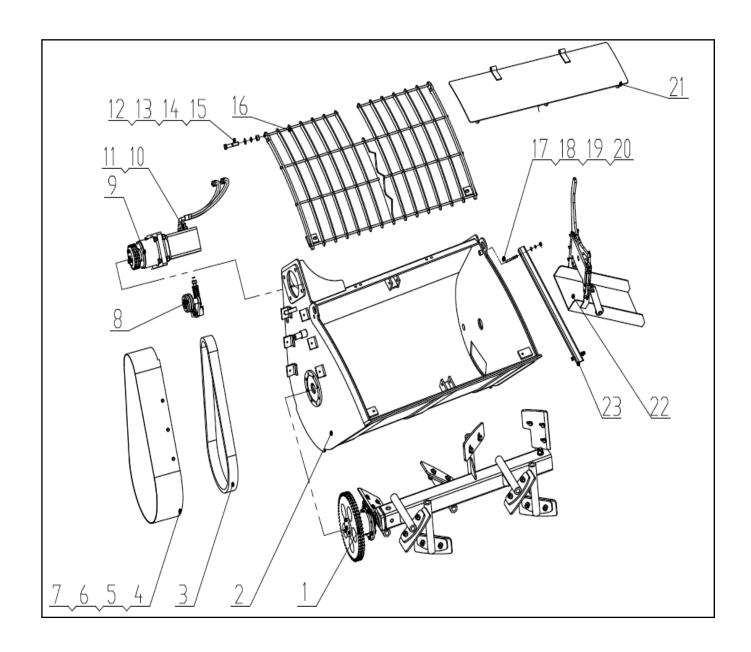
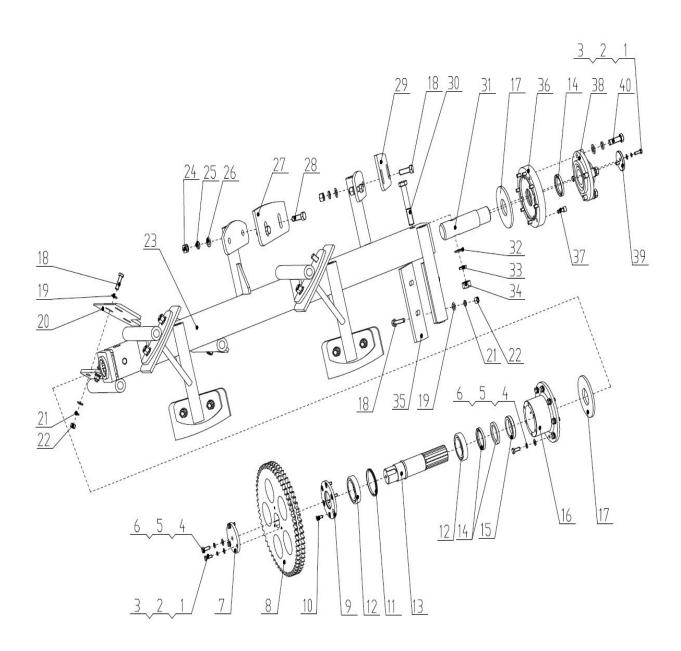


FIGURE 1-1 CONCRETE MIXER ASSEMBLIES

			I	
S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
1	031004.01-01	MIXING AUGER ASSEMBLIES	1	
2	031004.01-02	BUCKET	1	WELDMENT
3	031004.01-03	CHAIN	1	
4	031004.01-04	COVER	1	WELDMENT
5	031004.01-05	BOLT M8*25	6	GB/T 5783-2000
6	031004.01-06	FLAT WASHER D8	6	GB/T 97.1-2002
7	031004.01-07	SPRING WASHER D8	6	GB/T 93-1987
8	031004.01-08	TENSIONER SET	1	
9	031004.01-09	BEARING SEAT	1	
10	031004.01-10	END STRAIGHT JOINT	3	
11	031004.01-11	OIL HOSE	3	
12	031004.01-12	BOLT M16*80	2	GB/T 5783-2000
13	031004.01-13	FLAT WASHER D16	2	GB/T 97.1-2002
14	031004.01-14	SPRING WASHER D16	2	GB/T 93-1987
15	031004.01-15	NUT M16	2	GB/T 6170-2000
16	031004.01-16	FENCE	1	WELDMENT
17	031004.01-17	BOLT M10*85	2	GB/T 5783-2000
18	031004.01-18	FLAT WASHER D10	2	GB/T 97.1-2002
19	031004.01-19	SPRING WASHER D10	2	GB/T 93-1987
20	031004.01-20	NUT M10	2	GB/T 6170-2000
21	031004.01-21	COVER	1	WELDMENT,OPTIONAL
22	031004.01-22	LATERAL DISCHARGE OPENING ASSEMBLIES	1	
23	031004.01-23	SQUARE TUBE	1	



**FIGURE 1-2 MIXING AUGER ASSEMBLIES** 

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
1	031004.02-01	BOLT M8*25	5	GB5783
2	031004.02-02	FLAT WASHER D8	5	GB5783
3	031004.02-03	SPRING WASHER D8	5	GB93
4	031004.02-04	BOLT M10*25	9	GB5782
5	031004.02-05	FLAT WASHER D10	9	GB97.1
6	031004.02-06	FLAT WASHER D10	9	GB93
7	031004.02-07	RETAINING RING	1	
8	031004.02-08	CHAIN WHEEL	1	
9	031004.02-09	BEARING END COVER	1	
10	031004.02-10	HEXA.COUNTERSUNK HEAD SCREW M8*20	6	GB2673
11	031004.02-11	SPACER BUSH	1	
12	031004.02-12	BEARING	2	
13	031004.02-13	DRIVEN SHAFT	1	
14	031004.02-14	SEALING RING	3	
15	031004.02-15	NYLON BUSH	1	
16	031004.02-16	BEARING SEAT	1	
17	031004.02-17	RUBBER PLATE	1	
18	031004.02-18	OUTER HEXAGON BOLT M12*45	5	GB5783
19	031004.02-19	FLAT WASHER D12	10	GB97.1
20	031004.02-20	ROTATING BLADE A	1	
21	031004.02-21	SPRING WASHER D12	5	GB93
22	031004.02-22	OUTER HEXAGON BOLT M12	5	GB6170
23	031004.02-23	MIXING AUGER	1	
24	031004.02-24	NUT M16		

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
25	031004.02-25	SPRING WASHER D16	10	GB93
26	031004.02-26	FLAT WASHER D16	10	
27	031004.02-27	ROTATING BLADE B	4	
28	031004.02-28	BOLT M16*45	10	GB5782
29	031004.02-29	ROTATING BLADE C	1	
30	031004.02-30	OUTER HEXAGON BOLT M20*135	1	
31	031004.02-31	SHAFT	1	
32	031004.02-32	FLAT WASHER D20	1	
33	031004.02-33	SPRING WASHER D120	1	
34	031004.02-34	NUT M20	1	
35	031004.02-35	ROTATING BLADE D	1	
36	031004.02-36	BEARING SEAT	1	
37	031004.02-37	HEXAGON SOCKET HEAD M10x25	6	
38	031004.02-38	MOUNTING BEARING	1	
39	031004.02-39	BACKING BOARD	1	
40	031004.02-40	BOLT M16x50	4	GB5782

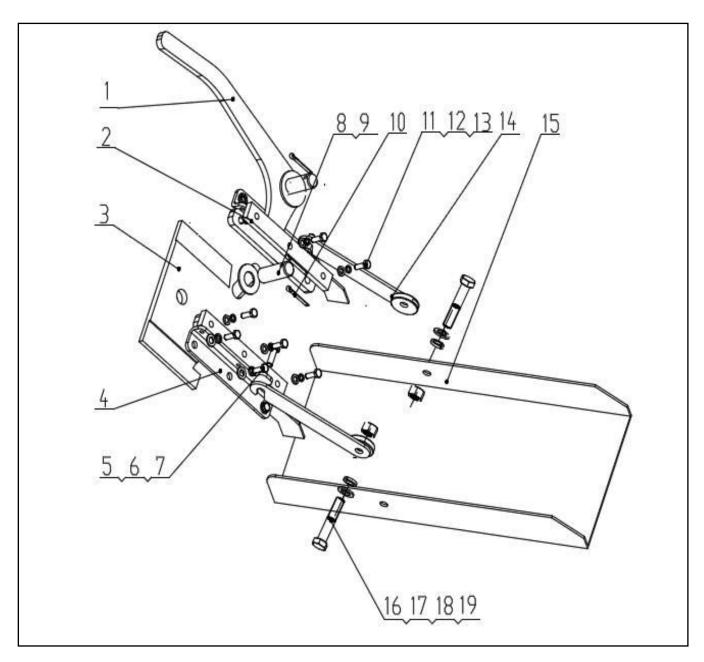


FIGURE 1-3 LATERAL DISCHARGE OPENING ASSEMBLIES

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
1	031004.03-01	HANDLE	1	
2	031004.03-02	NYLON PLATE	2	
3	031004.03-03	SIDEDISCHARGE GATE	1	
4	031004.03-04	PRESS PLATE	2	
5	031004.03-05	<b>BOLT M10*25</b>	6	GB/T 5783-2000
6	031004.03-06	FLAT WASHER D10	6	GB/T 97.1-2002
7	031004.03-07	SPRING WASHER D10	6	GB/T 93-1987
8	031004.03-08	FLAT WASHER D24	2	GB/T 97.1-2000
9	031004.03-09	PIN	2	
10	031004.03-10	OPEN PIN D5*40	2	GB/T 91
11	031004.03-11	<b>BOLT M8*25</b>	6	GB/T 5783-2000
12	031004.03-12	FLAT WASHER D8	6	GB/T 97.1-2002
13	031004.03-13	SPRING WASHER D8	6	GB/T 93-1987
14	031004.03-14	HANG PLATE	2	
15	031004.03-15	MATERIAL PLATE	1	
16	031004.03-16	BOLT M12*40	2	GB/T 5783-2000
17	031004.03-17	FLAT WASHER D12	2	GB/T 97.1-2002
18	031004.03-18	SPRING WASHER D12	2	GB/T 93-1987
19	031004.03-19	NUT M12	2	GB/T 6170-2000

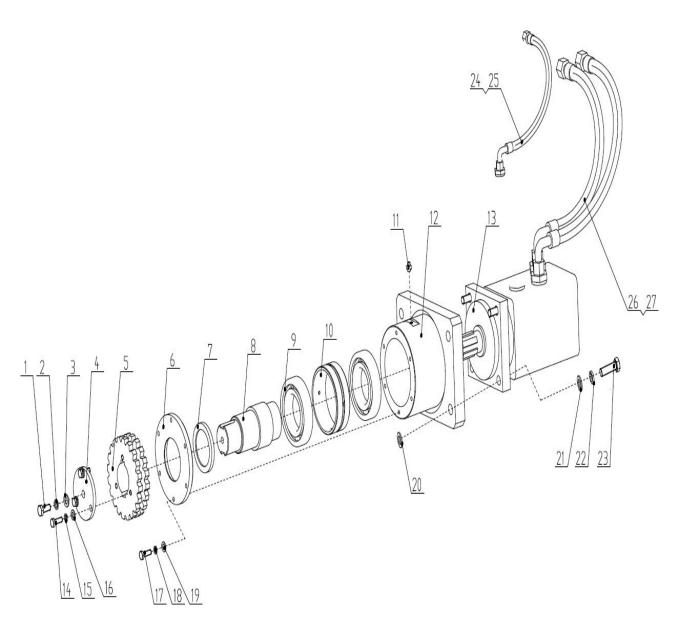


FIGURE 1-4 BEARING SEAT ASSEMBLIES

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
1	031004.01-09-01	BOLT M10x25	1	GB5782
2	031004.01-09-02	FLAT WASHER D10	1	GB97.1
3	031004.01-09-03	SPRING WASHER D10	1	GB93
4	031004.01-09-04	BACK PLATE	1	
5	031004.01-09-05	SMALL CHAIN WHEEL	1	
6	031004.01-09-06	COVER	1	
7	031004.01-09-07	SEALING RING	1	
8	031004.01-09-08	DRIVING SHAFT	1	
9	031004.01-09-09	BEARING	2	
10	031004.01-09-10	SPACE BUSH	1	
11	031004.01-09-11	OIL CUP	1	
12	031004.01-09-12	BEARING SEAT	1	
13	031004.01-09-13	MOTOR	1	MOTOR USED SEALS
14	031004.01-09-14	BOLT M8x25	3	GB5782
15	031004.01-09-15	FLAT WASHER D8	3	GB97.1
16	031004.01-09-16	SPRING WASHER D8	3	GB93
17	031004.01-09-17	OUTER HEXAGON BOLT M6*35	6	GB5783
18	031004.01-09-18	SPRING WASHER D6	6	GB97.1
19	031004.01-09-19	FLAT WASHER D6	6	GB93
20	031004.01-09-20	NUT M16	4	GB6170
21	031004.01-09-21	FLAT WASHER D16	4	GB97.1
22	031004.01-09-22	SPRING WASHER D16	4	GB93
23	031004.01-09-23	OUTER HEXAGON BOLT M16*80	4	GB5782
24	031004.01-09-24	DICHARGE OIL PIPE	1	
25	031004.01-09-25	END THROUGH	1	
26	031004.01-09-26	MAIN OIL PIPE	2	
27	031004.01-09-27	END THROUGH	2	

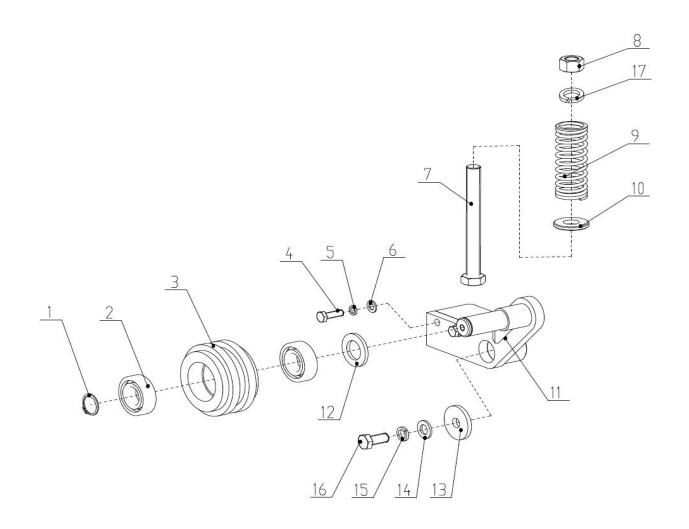


FIGURE 1-5 TENSIONER SET ASSEMBLIES

S/N	PART NO.	PART DESCRIPTION	QTYS	NOTE
1	031004.01-08-01	EXTERNAL RETAINING RING D25	1	GB/T 894
2	031004.01-08-02	DEEP GROOVE BALL BEARING 6205	2	GB/T 276
3	031004.01-08-03	TENSIONING WHEEL	1	
4	031004.01-08-04	OUTER HEXAGON BOLT M8*25	2	GB5783
5	031004.01-08-05	FLAT WASHER D8	2	GB97.1
6	031004.01-08-06	SPRING WASHER D8	2	GB93
7	031004.01-08-07	OUTER HEXAGON BOLT M16*150	1	GB5783
8	031004.01-08-08	OUTER HEXAGON NUT M16	1	GB6170
9	031004.01-08-09	COMPRESSION SPRING	1	
10	031004.01-08-10	FLAT WASHER D16	1	GB97.1
11	031004.01-08-11	SUPPORT FRAME		
12	031004.01-08-12	FLAT WASHER D24	1	GB97.1
13	031004.01-08-13	LOCKING PLATE	1	
14	031004.01-08-14	FLAT WASHER D12	1	GB97.1
15	031004.01-08-15	SPRING WASHER D12	1	GB93
16	031004.01-08-16	OUTER HEXAGON BOLT M12*20	1	GB5783
17	031004.01-08-17	SPRING WASHER D16	1	GB93

## **OPERATION INSTRUCTIONS**

The concrete mixer has the lateral discharge hole with manual opening. It can help to realize much more quickness and high efficiency to discharge the material. Attach the concrete mixer to the toolbar or quick attach mechanism of your skid steer loader.

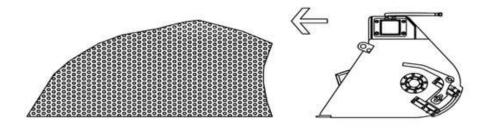
### RAISING OR LOWERING THE CONCRETE MIXER

raise or lower the concrete mixer by raising or lowering the skid steer loader arms through their appropriate skid steer controls.

### THEORY OF OPERATION

The mixing shaft rotates around its axis generating a convective movement of the material, which is therefore perfectly mixed due to the special design of the auger flights. Connected through a chain drive, and orbital hydraulic motor transfers motion to the shaft. The material is constantly pushed toward the left side where it can be discharged through the lateral discharge hole with manual opening.

The capacity of mixing material is up to rated lifting capacity of the skid steer loader and the concrete weight per cubic meter.



### PAY ATTENTION TO THE FORBIDDEN ITEMS

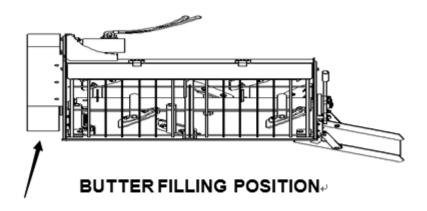
- Mix the asphalt.
- -Mix the material with a diameter over 20mm.
- -Any kind of grinding activity.
- -Use the mixer to dig, tow, pull or tear.
- -Put hands inside the mixer or slide tools into the mixer during operation.
- -Remove the protection of the grill

## 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 concrete mixer 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. The gear chain should be lubricated every 3 months.

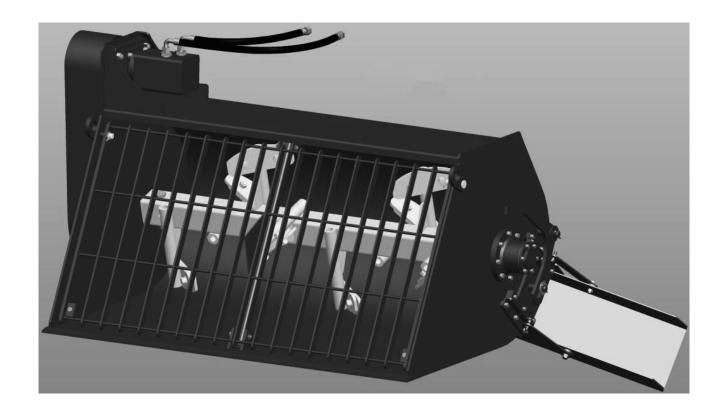
## STORAGE INSTRUCTIONS

- 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. Should put the device in the dry non-corrosive place. If in nude outside, will shorten its life.

# **SPECIFICATIONS**



MODEL	TMG-SCM60
TOTAL LENGTH (MM)	1850
TOTAL WIDTH (MM)	1340
TOTAL HEIGHT (MM)	1235
TOTAL WEIGHT (KGS)	575
BUCKET CAPACITY (CBM)	0.45
SYSTEM FLOW (L/MIN)	60-80
MAX. PRESSURE (MPA)	21
DISCHARGING MATERIAL FORM	FRONT OR SIDE DISCHARGING