

# COMPOST SPREADER



# OPERATOR'S MANUAL



Congratulations for purchasing your new Shaktiman-Cosmo Compost spreader!

This tiller has been designed and manufactured following all safety and quality requirements needed for a safe and satisfactory use over time.

A careful reading of this manual will permit you to familiarize with your new equipment, and will provide you all the tools needed to use it safely.

A proper maintenance and knowledge of the safety rules of use will allow to obtain the best performance and a long service life of the machine.



*The Safety Alert Symbol used throughout this manual and on safety decals of the machine indicates the presence of potential hazard to the operator. When you see this symbol, be alert and carefully read the message that follows it.*

The Safety Alert Symbol is used in conjunction with following Signal Words, according to the degree of possible injuries that may result operating the implement:

 **DANGER**

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

 **WARNING**

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

**IMPORTANT**

Indicates instructions or procedures that, if not observed, can cause damage to equipment or environment.

 **NOTE**

Indicates helpful information.

READ, UNDERSTAND, and FOLLOW the safety messages following the Safety Alert Symbol and Signal Words. Failure to comply with safety messages could result in serious bodily injury or death.

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## 1. ABOUT THIS MANUAL

The operator must read the manual for a correct understanding of the hazards that may present when operating the tiller, as well as for obtain optimum performance from the machine.

The manual is part of the machine, it must be kept in good condition and remain with the machine even in case of resale, until its demolition. In case of loss or damage, request a new copy to the Manufacturer or your Dealer.

The information, descriptions and illustrations in this manual describe the state of the product at the time of its publication, and may not reflect the product in the future.

The Manufacturer reserve the right to make design improvements or changes in specifications without incurring in any obligation to install them on units previously sold.

Text, illustrations and drawings of this manual cannot be disclosed or transmitted, in whole or in part, to third parties without the written permission of the Manufacturer. All rights are reserved.

## 2. INTRODUCTION

### 2.1 IMPLEMENT IDENTIFICATION

Each tiller is provided with a plate for unique identification (see position in picture below), showing with following information:

- Manufacturer name
- Product Name
- Model of machine
- Serial number
- Manufacturing year
- Mass
- Input RPM

It's recommended to note down all data shown on the plate:

Any request for assistance or information regarding the machine must be directed to the Manufacturer or Dealer always referring to the model and serial number as shown on the plate affixed to the machine.



## 2.2 INTENDED USE

The Shaktiman-Cosmo Compost spreader is designed exclusively for conventional agricultural applications and is suitable for spreading the compost or manure on the surface of the soil to increase its fertility. The machine is attached to the tractor through the tractor's 3-point linkage system.

The machine consists of:

### 1. Hopper

### 2. Spreading component

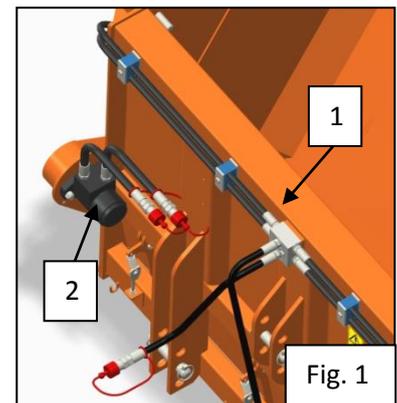
1. The hopper is made up of mild steel in which the product is filled. The base of the hopper can be lifted or lowered with the help of two double-acting pistons and cylinders mounted on both sides of the hopper. By lifting the tailgate, the products to be broadcasted come at the discharge area from where they are discharged through the opening.

### 2. The spreading component contains:

A. drum

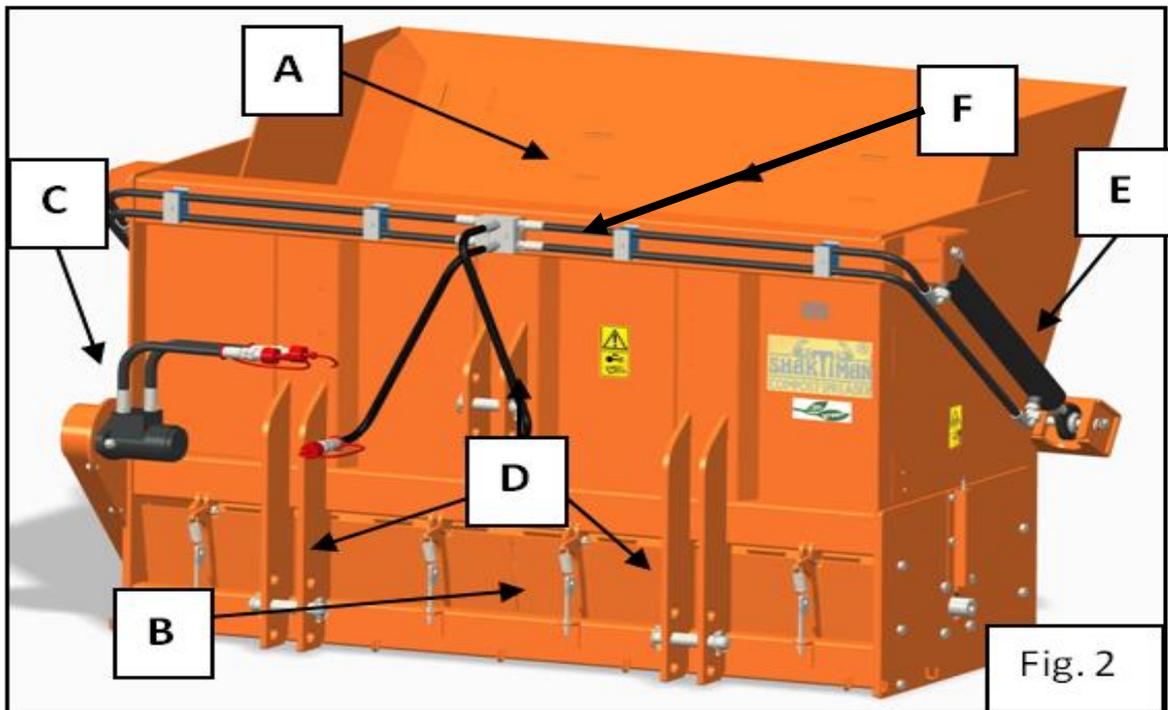
B. hydraulic motor

The drum (1) is mounted at the front side of the hopper which rotates and discharges the product. The drum gets power through the hydraulic motor (2). The hydraulic motor gets drive through the tractor hydraulic system.



### DANGER

Any use of the machine other than the intended use is non-intended use, and is to be considered as unauthorized and dangerous. The manufacturer assumes no liability for damage resulting from non-intended use.



### 2.3 MAIN PARTS DESCRIPTION

- A. Hopper
- B. Drum
- C. Motor
- D. 3-pt linkage connection point
- E. Double acting cylinder
- F. Hose pipe

 **NOTE**

To make the illustrations more clear, some images of this manual may refer to machines lacking of some components (e.g. safety devices and barriers).

## 2.4 TECHNICAL SPECIFICATION

SR NO.	SPECIFICATIONS	SHCS 1.5M		SHCS 1.8M	
		(HYD Compost)	(Tail Compost) (Small Wheel)	(HYD Compost)	(Tail Compost) (Small Wheel)
1	Working Width (mm)	1500		1800	
2	Power Required (HP)	35-45		40-50	
3	Thickness Of Compost Layer (mm)	2-10		2-10	
4	Loading Capacity (Kg)	750		900	
5	Overall Length (mm)(Close Condition)	1200		1200	
6	Overall Width (mm)	1710	1730	2010	2130
7	Overall Height (mm)	1170	1240	1170	1240
8	Three Point Hitch	Cat-II		Cat-II	
9	Weight (Kg)	568	643	608	688

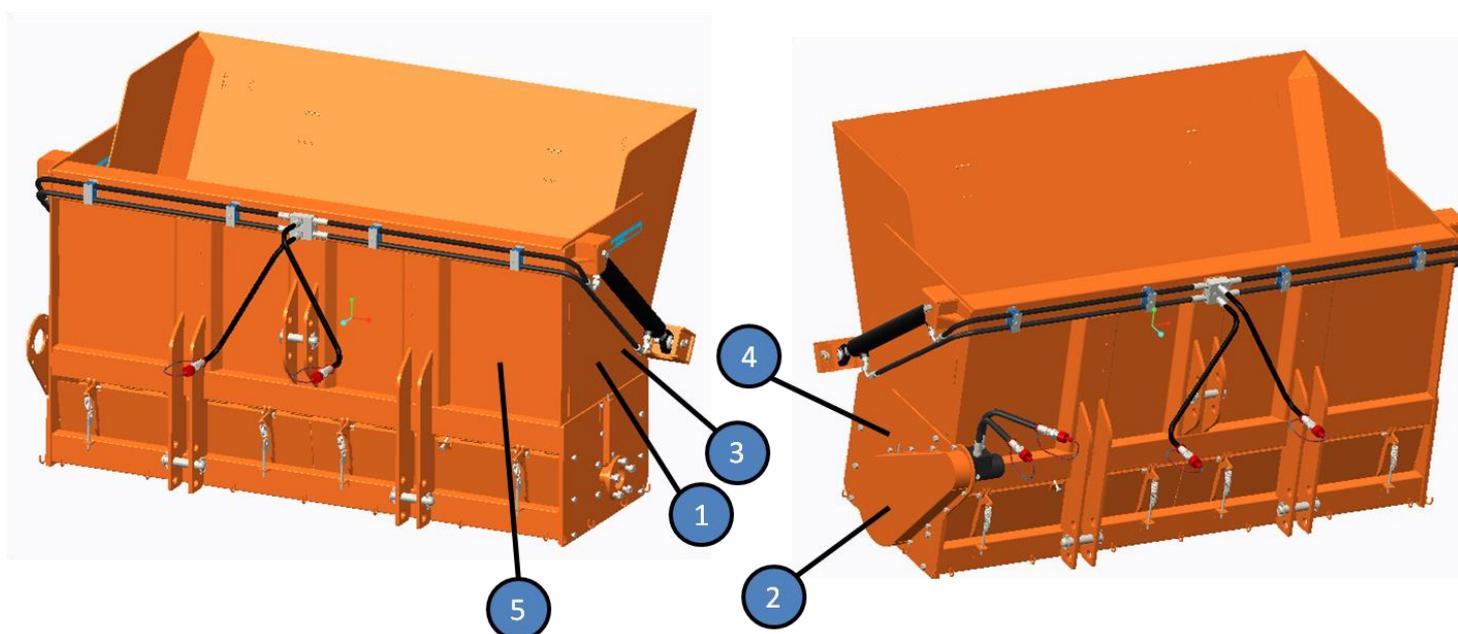
## 3. SAFETY

**Note:** In the interest of safety it is important that great care is adopted at all times during the attachment, transportation, operation and maintenance of this machine. Both the owner and the operator of the machine should read and understand the following section to ensure the safety of themselves and all other persons who enter into the close proximity of these machines.

- ⚠ In addition to the instructions stated here always abide by general safety regulations.
- ⚠ Safety and warning decals placed on the machine give important instructions for safe work - take them into consideration for your safety and the safety of others.
- ⚠ When driving on public roads always abide by traffic signs and road regulations.
- ⚠ Familiarize yourself with the controls and functions of the machine and practice them in a safe location before attempting to start work.
- ⚠ Never approach a machine whilst it is working or running – switch off the machine and wait until it has stopped fully before approaching.
- ⚠ Do not wear loose fitting clothes in the vicinity of the machine - clothes should fit tight to the user's body.
- ⚠ Check no one is near to, or on, the machine before attempting to start or transport it - ensure your visibility is kept clear at all times.
- ⚠ Never permit anyone to ride on this machine.
- ⚠ Implements should always be attached according to the manufacturer's instructions and fastened correctly to the prescribed devices using the correct components.
- ⚠ When disconnecting the machine from the tractor select a firm level site and use the support wheel.

- ⚠ Take care when connecting or disconnecting the implement – keep onlookers at a safe distance.
- ⚠ Ensure controls for the machine are positioned so the machine cannot be accidentally started during transport.
- ⚠ For transportation on the road, prepare and secure the machine according to the manufacturer's instructions.
- ⚠ Never leave the driver seat whilst the tractor or machine is running.
- ⚠ Always adjust the driving speed to suit the driving conditions. Avoid fast turning when driving uphill, downhill or across a slope. Braking performance and turning ability will be affected when implements are connected or mounted to the tractor – allow extra time for turning and braking.
- ⚠ Ensure all bystanders are kept at a safe distance from a moving or working machine.
- ⚠ Even when the machine is unattached some hydraulic or mechanical components on the machine are able to be rotated or moved by hand and are therefore capable of causing injury to fingers or hands due to trapping. Wherever possible secure these components during storage to prevent accidental injuries.
- ⚠ Always place the machine in a safe position before leaving the tractor - switch off the engine and remove the ignition key.
- ⚠ Never permit anyone between the machine and the tractor whilst it is working or when the machine is in a raised position.
- ⚠ Only use the machine on a tractor that is capable of taking its weight - use weights or ballast as required to ensure stability of the unit.
- ⚠ Always be aware at all times of the width, height and length of any machinery you are operating –especially when transporting on the public highway or near obstructions.

### SAFETY LABELS POSITION AND DESCRIPTION



SN	DECAL No.	SAFETY DECALS	DESCRIPTIONS
1	D1090		<b>WARNING! Always Read the Operator Manual</b>
2	D1040		<b>DANGER! Keep Clear-Risk of crushing when parts move or are moving</b>
3	D1038		<b>WARNING! Switch off tractor engine &amp; remove key before performing repair or maintenance</b>
4	D1091		<b>DANGER! Keep clear of articulation zone</b>
5	D1092		<b>DANGER! Keep clear off danger area between tractor &amp; machine</b>

## 4. PREPARING THE TRACTOR

### 4.1 USE YOUR TRACTOR OPERATOR'S MANUAL



**Note:** Use the proper HP of tractor for the particular model of machine. See the section technical specification

- Always refer to YOUR tractor operator's manual for specific detailed information regarding operation of YOUR equipment.
- Following tractor related information uses tractors to illustrate preparation, attachment and operational procedures.
- Use your tractor Operator Manual for detailed information, as procedures will vary by equipment.

## 4.2 TRACTOR STABILITY AND LIFTING CAPACITY CHECK

- The front counterweight may not be able to maintain tractor stability if the tractor is driven at excessive speed on rough ground with the implement raise. Drive slowly and carefully in these conditions.
- As far as road circulation is concerned, hitching equipment to the tractor to have a single unit, can alter stability and make it difficult to drive and work

When you add a machine to the tractor, you will change the weight distribution over the axles . It is therefore recommended to add suitable ballast to the front of the tractor in order to properly distribute the weight over the axles.

Calculate the ballast to be used with the following formula:

$$M \times s < 0,2 T \times i + Z (d + i)$$

$$Z > \frac{(M \times s) - (0,2 T \times i)}{(d + i)}$$

where:

i = tractor wheel inter-axis (m)

d = distance between the front axle and the front ballast (m)

s = projection of the piece of equipment from the rear axle (m)

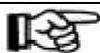
T = tractor mass (kg)

Z = ballast mass (Kg)

M = equipment mass (Kg)

At least 20% of the total tractor-equipment mass should rest on the front bridge of the tractor. It should be remembered, however, that stability can be improved with the right choice of tractor equipment coupling and with the application of ballast at the front, in the limits and methods indicated by the tractor manufacturer. Moreover, when the tractor is stopped, the machine should be lowered onto the ground. This also improves stability.

## 5. PREPARING THE IMPLEMENT



### Note:

- Tighten all bolts and nuts. See the bolt torque tables in the maintenance section.
- Before starting the Rotary Tiller check that the machine is perfectly in order, that the lubricants are at the correct level and all parts subjected to wear and deterioration are fully efficient.

## 6. ATTACHING AND DETACHING THE IMPLEMENT

### 6.1 USE YOUR TRACTOR OPERATOR'S MANUAL

- Always refer to your tractor operator's manual for specific detailed information regarding operation of your equipment.
- Following tractor related information used to illustrate preparation, attachment and operational procedures.
- Use your tractor Operator's Manual for detailed information, as procedures will vary by equipment.

### 6.2 ATTACHING AND DETACHING TO THE TRACTOR

Rotary tiller can be attached to the suitable category tractor.

Follow below procedure for attaching the rotary tiller to the tractor:

**Warning:** Trained person is required to attach and detach from the tractor. Else may cause major injury to operator and Sevier damage to equipment and tractor.



**Caution:** Implement should always be parked on level ground for attaching and detaching to tractor safely and easily.



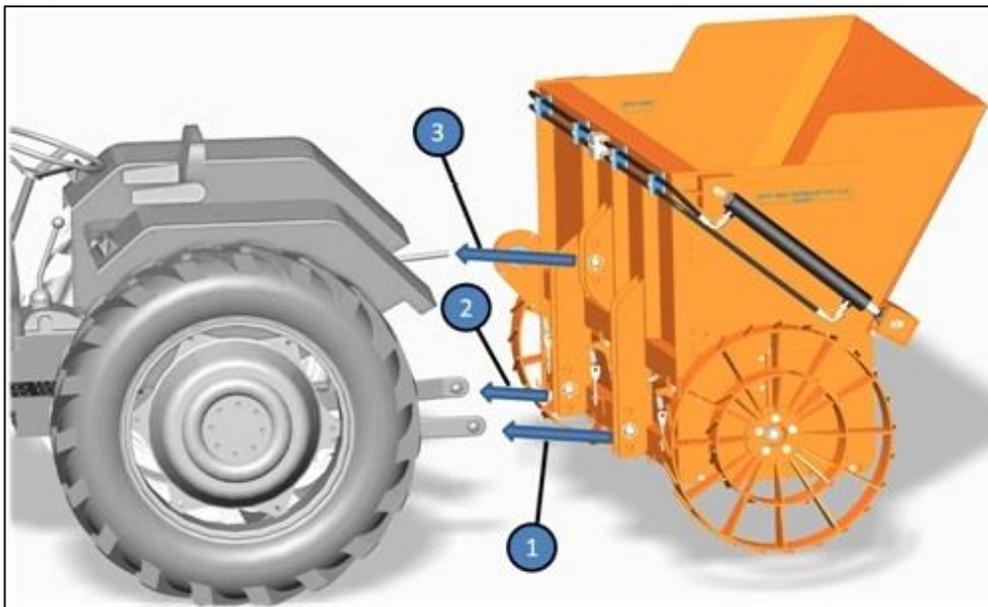
**Caution:** Before attaching equipment to the tractor, check for any accessories fitted on tractor like drawbar, swinging drawbar, automatic hitch etc for any hindrance, restriction, proper functioning and free up and movement of equipment. If required remove accessories before attaching equipment.



Note: Horse power rating of tractor depends on the size of implement. See in section "Technical Specifications".

Follow the following instructions to connect the 3-pt hitch to the tractor

1. Back tractor up to the machine until lower links are aligned with hitch clevises on the machine.
2. Secure tractor's lower links to the lower hitch clevises (1 and 2) of the machine using hitch pins.
3. Secure tractor's top link to the top hitch point (3) of the machine using. Adjust tractor top link in order to level the machine.



### 6.3 Hydraulic connection

The motor gets power from the tractor hydraulic system. The hose pipe (1) & (2) of the motor is connected through the tractor hydraulic system.

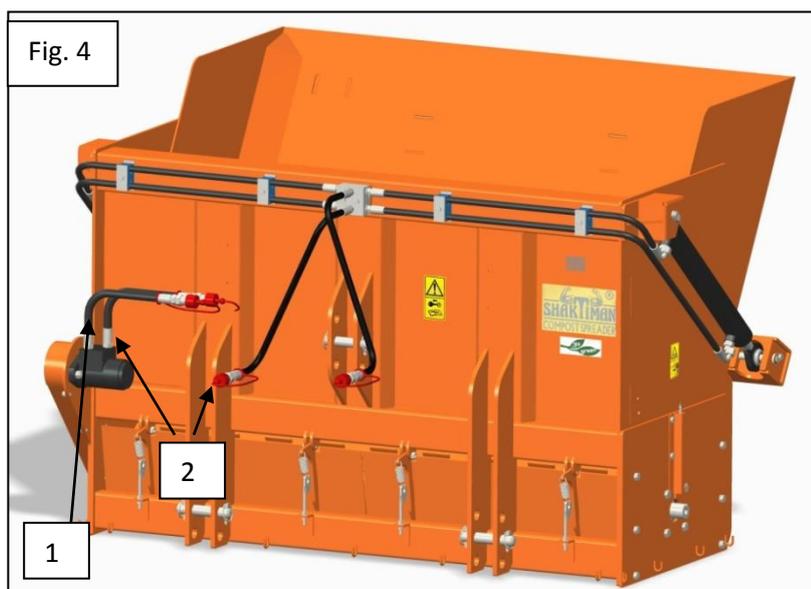
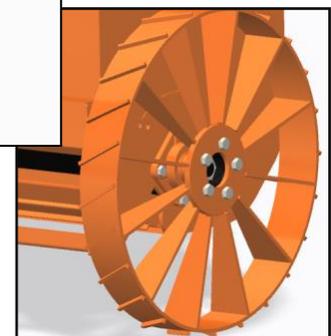


Fig. 4

### 6.4 Ground Wheel Connection



While using with ground wheel on both end of Drum, Wheel can be fitted as show below.

## 7. TRANSPORTING

### 7.1 TRANSPORT SAFELY



**CAUTION:** When transporting on a public road or highway, use accessory lights and devices to provide adequate warning to operators of other vehicles. Contact with electrical cables can cause severe injury or death. When transporting or operating the machine, make sure to avoid contact with electrical lines. When transporting the implement, always travel at a speed that allows adequate control of steering and stopping.



**CAUTION:** When transporting the implement on a smooth surface road, do not operate the tractor at more than 20 km/h (12 mph). Reduce speed considerably when traveling over uneven ground. Make sure that there is no one near the implement.

In the transport position, be sure to determine the amount of implement travel behind the tractor when turning corners. Be aware of width and height limits to avoid collisions with bridges and other vehicles.

Comply with the following recommendations:

- Use tractor with sufficient capacity to maintain control. Install adequate ballast on the tractor.
- Couple tractor brake pedals together.
- If the tractor has a safety ROLL-GUARD™ canopy, keep your seatbelt fastened during transport operations.
- Engage a lower gear when going down steep hills or grades; never coast down hills.
- Always use the warning lights, day and night, when operating on public roads. Keep the reflectors clean and visible.
- Prevent collisions between other road users and slow-moving equipment operating on public roads.
- Frequently check for traffic from the rear, especially in turns, and use turn signal lights.
- Stopping distance increases with the speed and weight of mounted loads, and on slopes. Observe these recommended maximum travel speeds or the local speed limit that might be lower. Do not go faster than 20 km/h (12 mph).
- Ensure that the load does not exceed the recommended weight distribution. Add ballast while complying with tractor limits, lighten the load or use a heavier tractor.
- Be especially careful when transporting the machine in adverse conditions, when turning and when operating on slopes.

## 7.2 TRANSPORTING

**IMPORTANT:** Always disengage PTO before raising the Rotary Tiller to transport position.



**CAUTION:** When travelling on public roads whether at night or during the day, use accessory light and devices for adequate warning for operators of other vehicles.

- When raising the machine to the transport position, be sure that propeller shaft does not contact with tractor or machine.
- Adjust the tractor's three point hitch height so that the machine blades are not lifted more than 30 cm off the ground to prevent damage to the propeller shaft.
- Reduce tractor speed while turning and leave enough clearance so the Tiller does not contact obstacles such as building, trees and fences.
- Select a safe level ground speed when transporting from one area to another. When travelling on roadways, transport in such a way that faster moving vehicles may pass you safely.
- When travelling on rough or hilly terrain, shift tractor to lower speed.

## 8. OPERATING THE IMPLEMENT

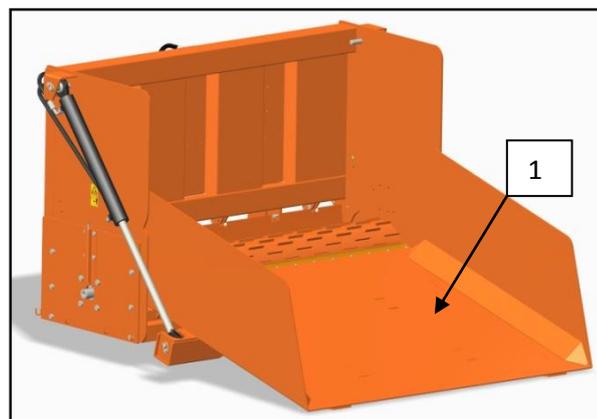
### 8.1 USAGE

The Shaktiman-Cosmo Compost spreader is designed exclusively for conventional agricultural applications and is suitable spreading the compost of manure on the surface of the soil to increase its fertility. The machine is attached with the tractor through the tractor's 3- point linkage system.

### 8.2 Loading the machine

Follow the following steps for proper loading the machine:

- Keep the tractor to the compost area.
- Actuate the hydraulic lever to lower down the tailgate (1) to the lowest position.



- Back the tractor slowly to load the compost



- Lift the tailgate to the upper to keep the compost in the centre of the hopper



Note: When loading the chemical broadcaster ensure the manure is loaded evenly in the hopper.  
Do not overload the machine.

## 8.2 FIELD OPERATION

- To start work, raise the tailgate by operation of its hydraulic ram.
- Connect the motor hose pipe to the tractor to rotate the motor and hence the drum.
- Operate the control to slowly start the spreading drum
- As the manure or compost comes into contact with the spreading drum increase the motor speed to the desired setting and begin forward movement with the tractor.
- Although speed of forward travel primarily determines the amount of spread, other factors will also have an affect such as, drum speed, manure's specific weight and the load height. With practice and experience the operator will soon be able to determine the optimum settings and work speed required to achieve the desired spread.
- When working the machine always avoid sharp turns. Stop operation of the machine and disengage.
- When the load has been spread, switch off the motor, once the spreading drum have stopped turning operate the control for the hydraulic ram to place the tailgate into its down position – the machine is now ready for transport.

## 8.3 PARKING

The following steps should be done when preparing to store the tiller or unhitch it from the tractor.

- Park the Rotary Tiller on level and fined ground.
- Shut off tractor engine and engage parking brake.
- Set parking stand to desired height to maintain tiller in proper height for re-hook up and install pin to lock in place.
- Unhitch from tractor.
- Remove propeller shaft.

## 9. LUBRICATION AND MAINTENANCE

### 9.1 SAFE LUBRICATION AND MAINTENANCE OF THE MACHINE



**CAUTION:** To avoid serious injuries or death from unexpected machine movement, locate the machine on a level surface before performing any maintenance work. Lower the machine to the ground or support the raised machine with adequate blocks before performing any maintenance work. If the machine is connected to the tractor, apply the parking brake and/or place the transmission in PARK, shut off the engine and remove the key.

### 9.2 LUBRICATION AND MAINTENANCE PROCEDURES



**CAUTION:** Do not clean, lubricate or adjust the machine while it is moving.

**IMPORTANT:** The recommended maintenance intervals are based on normal operating conditions; in severe or unusual conditions it may be necessary to lubricate more frequently. Perform the lubrication and maintenance procedures indicated in this section at the start and end of each season.

Clean the grease fittings before using a grease gun. Replace any missing or damaged grease fittings immediately. If the new grease fitting does not accept grease, remove it and inspect the adjacent parts for failures. Proper lubrication of the Rotary Tiller at each point (A) at the 08-hour intervals pointed out in this manual, using the grease and/or oil recommended, will prolong the service life of your machine. Failure to perform the above may result in failures as well as loss of time and money.

#### Weekly or Every 50 Hours Work

1. Lubricate the side drive chain.
2. Check and tighten all nuts and bolts.
3. Grease the axle bearing with grease.
4. Check the chain tensioner.

#### Every 400 Hours Work

1. Remove the spring of chain skid to ensure the correct tension of chain. If not found in right condition, change it.

### 9.3 METRIC BOLT AND SCREW TORQUE VALUES

Bolt or Screw size	Class 4.8		Class 8.8 or 9.8		Class 10.9		Class 12.9	
	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry	Lubricated	Dry
	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm
M6	4.7	6	8.9	11.3	13	16.5	15.5	19.5
M8	11.5	14.5	22	27.5	32	40	37	47
M10	23	29	43	55	63	80	75	95
M12	40	50	75	95	110	140	130	165
M14	63	80	120	150	175	220	205	260
M16	100	125	190	240	275	350	320	400
M18	135	170	265	330	375	475	440	560
M20	190	245	375	475	530	675	625	790
M22	265	330	510	650	725	920	850	1080
M24	330	425	650	820	920	1150	1080	1350
M27	490	625	950	1200	1350	1700	1580	2000
M30	660	850	1290	1630	1850	2300	2140	2700
M33	900	1150	1750	2200	2500	3150	2900	3700
M36	1150	1450	2250	2850	3200	4050	3750	4750



**Note:** Torque values listed are for general use only, based on the strength of the bolt or screw.

**Do not use these values if a different torque value or tightening procedure is given for a specific application.**

### 9.4 General Maintenance

- Check tightness of all nuts and bolts on a regular basis and retighten if required.
- Grease the machine with Lithium based grease.
- Check chain tension at the lubrication intervals and tighten if necessary;
- Clean and wash the machine at the end of every use; manure can rapidly cause rusting of components so it is especially important to keep the machine clean and well lubricated.

### 9.5 Post Storage Maintenance

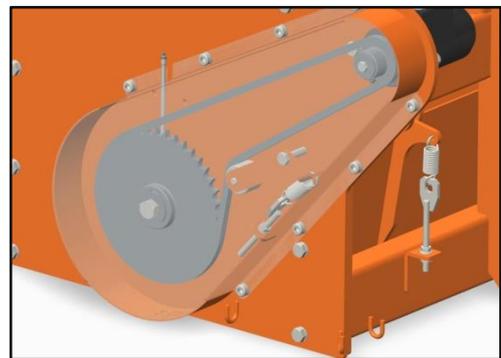
- At the start of a new seasons work the following checks should be made
- Check and lubricate all drive chains.
- Fully lubricate the machine
- Check the hydraulic hose pipe and hydraulic control

### 9.6 Cleaning and Washing

- The machine should always be washed immediately after use and always prior to storage.
- If a high pressure washer is to be used ensure the jet nozzle is kept few distance away from the surface of the machine; some washers are extremely high powered and capable of removing paint work

### 9.7 Adjusting the chain

- For adjusting the chain of the Machine chain tensioner is provided.



### 9.8 STORAGE

- At the end of the working season or when the tiller will not be used for a long period, it is good practice to clean off any dirt or grease that may have accumulated on any of the moving parts. Check the blades for wear and replace
- If necessary, inspect the implement for loose, damaged or worn parts and adjust or replace if needed.
- Repaint parts where paint is worn or scratched to prevent rust.
- Drain gearbox and side drive oil. Drain oil in gearbox by removing the bottom drain plug.
- Lastly cover implement with a plastic sheet and store in a clean, dry place.

### 9.9 SCRAPPING

In case of scrapping, the machine must be disposed in appropriate and authorized sites, according to local legislation.

Before scrapping, separate plastic parts from rubber parts, aluminum, steel, etc.

Recover and dispose any exhausted oils to authorized centers for oil collecting.

## **10.0 WARRANTY**

M/s TIRTH AGRO TECHNOLOGY PVT. LTD. offer the following warranty to the purchaser of SHAKTIMAN-COSMO COMPOST SPREADER mentioned herein above subject to the conditions set out herein after provided the SHAKTIMAN-COSMO COMPOST SPREADER shall be in the possession of and used by such purchaser as from the date of delivery.

M/s TIRTH AGRO TECHNOLOGY PVT. LTD. warrants its products for a period of six (6) months and will replaced at its factory and any part of parts there of that shall be returned, with transportation charges prepaid and which, when examined by us, shall disclose if to be defective, but this warranty shall not apply to implements or parts that have been subjected to negligence, of accident, or that have been altered or repaired or used with non-genuine parts.

### **CONDITIONS**

- 1) The purchaser of SHAKTIMAN-COSMO COMPOST SPREADER will strictly follow the instructions given in the instruction manual, provided by the company along with the SHAKTIMAN-COSMO COMPOST SPREADER at the time of delivery. Changes if any, resulting in improper usage will not be covered by the warranty. This warranty will automatically terminate on the expiry of warranty period of six months even the SHAKTIMAN-COSMO COMPOST SPREADER may not be in use for any time during the warranty period for any reason whatsoever including any technical reasons and time taken for such repairs / replacements of parts, and in transit, whether under this warranty or otherwise shall not be excluded from the warranty period.
- 2) While the company will make every effort to carry out repairs / replacements of parts under this warranty as soon as possible. It is expressly made clear that the company shall not be liable to do within any specific period of time.  
In the event of repairs / replacement of any parts, this warranty will thereafter continue to remain in force only for the unexpired period of time.
- 3) It is entirely left to company discretion to affect repairs / replacements of parts at the site of delivery or at the service points of its branches of authorized

representatives or its works in RAJKOT. The defective parts which has/have been agreed to be replaced, should be returned to the company without any further claim.

- 4) The warranty shall not cover any consequential or resulting liability, damage or loss arising directly or indirectly out of any defect in the SHAKTIMAN-COSMO COMPOST SPREADER. This warranty shall be strictly limited to repairs and replacement of defective parts specified in the warranty at our end, and does not cover any reimbursements of labor charges for any repairs so earned out at dealer/client end.
- 5) This warranty shall not be extended in any case forwards payments of any monetary consideration whatsoever of replacement or return of the SHAKTIMAN-COSMO COMPOST SPREADER as a whole. The purchaser of SHAKTIMAN-COSMO COMPOST SPREADER wills itself fully responsible for model selection and series for purchasing machine.
- 6) This warranty does not cover excise duty, CST or state sales tax and octroi and other local taxes payable on any of the parts which the company may supply or repairs free of cost during the warranty period.

This warranty also does not cover the cost of packaging, to and fro freight and transportation charges etc., on the defective SHAKTIMAN-COSMO COMPOST SPREADER or other parts of the SHAKTIMAN-COSMO COMPOST SPREADER sent to the company's work in RAJKOT or to the service station or its branches or its AUTHORIZED Representative.

- 7) **THIS CONTRACT WILL BE INEFFECTIVE AND INOPERATIVE IF:**
  - a. The SHAKTIMAN-COSMO COMPOST SPREADER has not been delivered, assembled, started and put into operation by the company or it's Authorized Representative.

- b. The duly filled up warranty card is not in our possession within 15 days from the date of delivery.
  - c. The SHAKTIMAN-COSMO COMPOST SPREADER or any parts thereof is subjected to neglect, fire, flood or other acts of God or if in the company's opinion any damage has caused to the SHAKTIMAN-COSMO COMPOST SPREADER or transportation.
  - d. The original numbers are removed, obliterated or altered from the unit.
  - e. Any attempt is made to have the repairs executed by a person or persons, other than the company or its authorized representative.
  - f. Any defect is not informed immediately to the company or its authorized representative, any alteration in warranty card is made.
- 8)
- a. Any changes in the location of the SHAKTIMAN-COSMO COMPOST SPREADER or in its ownership thereof during the warranty period must be intimated in writing to the company or its Authorized Representative ten days before the change. Failure to do so will absolve the company from the obligation under this warranty.
  - b. Further, in the case of shifting for the continuation of the warranty, the SHAKTIMAN-COSMO COMPOST SPREADER has to be inspected by the company or its Authorized Representative before shifting from the original location and before using it at the new location. The inspection free levied by the company's Authorized Representative as well as the cost of rectification of any damage in transit, detected in the above inspection, and shall be borne by the Purchaser / Owner, If at the time of restarting, the SHAKTIMAN-COSMO COMPOST SPREADER is found to be in working order by the company or its Authorized Representative, this warranty shall continue to be in force for the remaining period of the warranty.

- c. Damage to the SHAKTIMAN-COSMO COMPOST SPREADER or any part thereof caused, during shifting or transportation is not covered by this warranty.
- 9) The company's employees or its Authorized Representative have no authority to vary the terms of this warranty and the company is totally accountable and authorized in lieu of the warranty or the company's decision is final.
- 10) The agreement of the warranty is executed in Rajkot and claims if any, shall be made only before the courts having jurisdiction in Rajkot and no claim shall be made against the COMPANY outside Rajkot, notwithstanding that the SHAKTIMAN-COSMO COMPOST SPREADER may have been sold or delivered or any stipulation or commitment in respect of thereof may have been made elsewhere.
- 11) This warranty is given in lieu of all other guarantees and condition expressed or implied by law or by the any person purporting to act on behalf of the COMPANY and excludes every condition, warranty or guarantee not herein expressly set out.

**Note: The parts / materials that are not covered by the warranty are as follows:**

1. **Paint**
2. **Bearing**
3. **Rubber Parts**
4. **Gaskets**
5. **Fasteners**
6. **Fabrication**

#### **10.1 WHEN THE WARRANTY BECOMES VOID**

Besides the cases specified in the supply agreement, the warranty shall in any case become void:

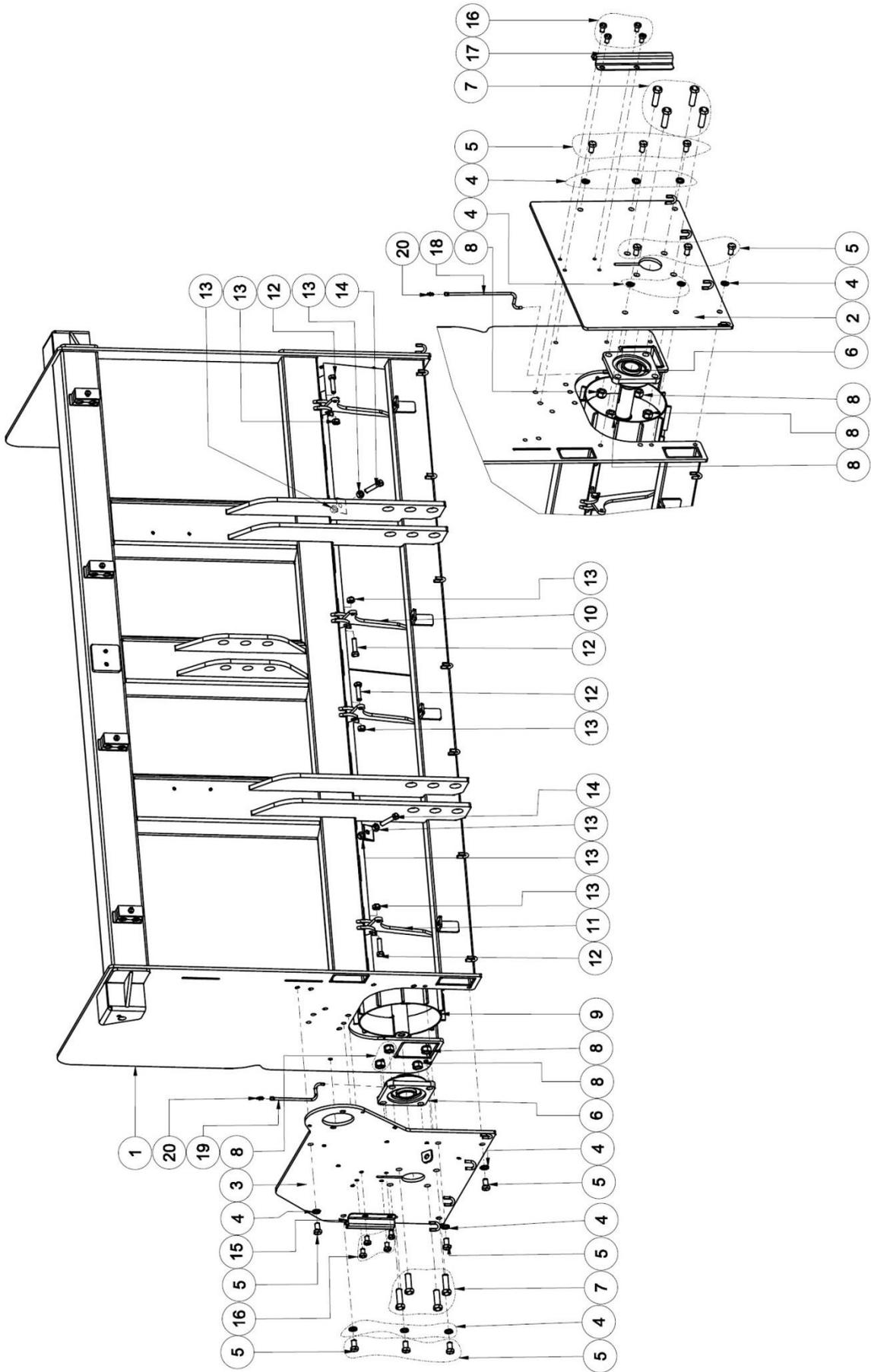
- When the implement has been used beyond the specified power limit as given in the technical data chart.
- When following repairs made by the customer without authorization from the manufacturer or owing to instillation of spurious spare parts, the machine is subjected to variations and the damage can be ascribed to these variations.

- Whenever the user or anyone else on his behalf applies equipment to the machine that has not been expressly approved by the manufacturer.
- When the user failed to comply with the instructions in this manual book.

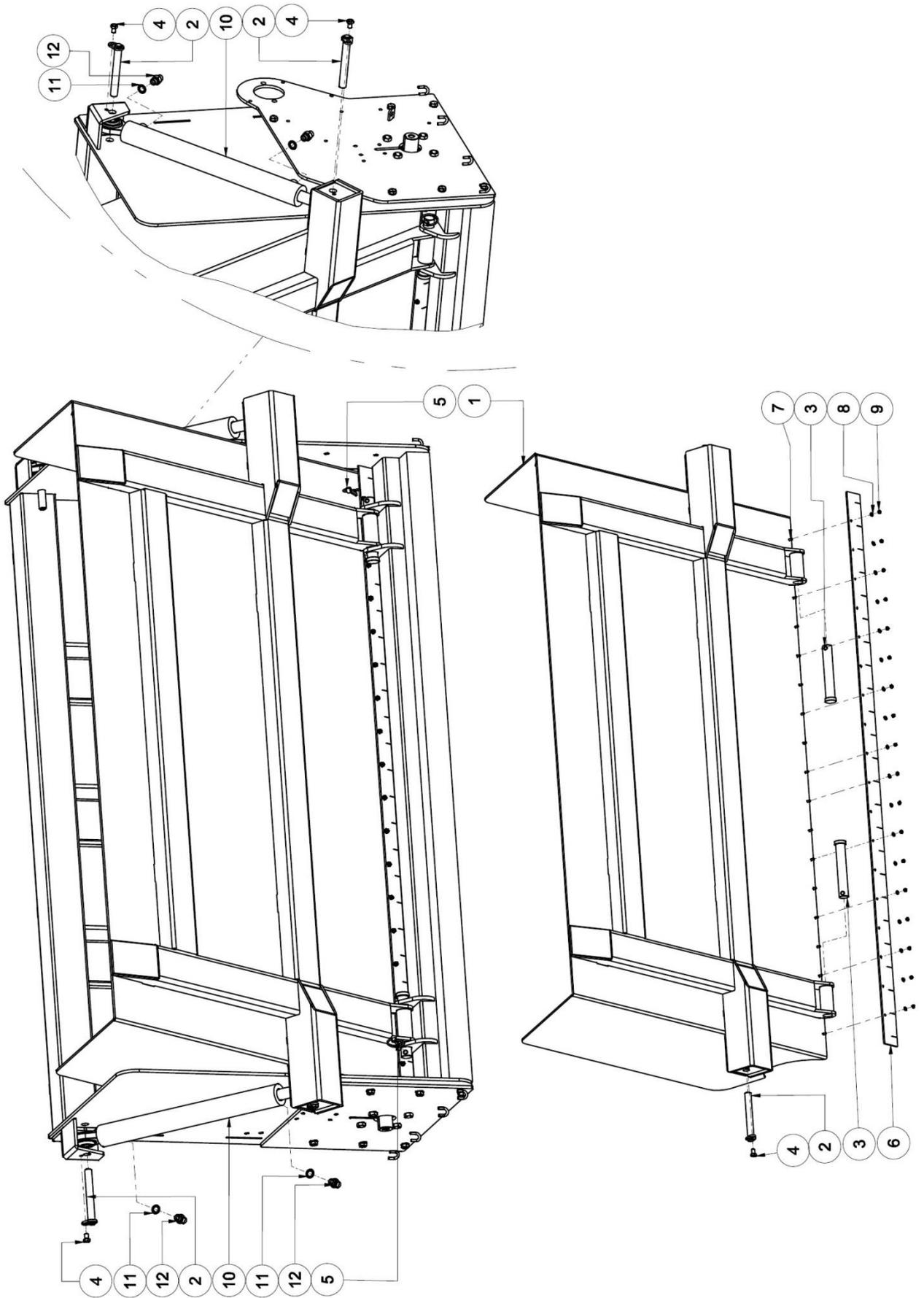
# **Part's manual**

## **Compost spreader**

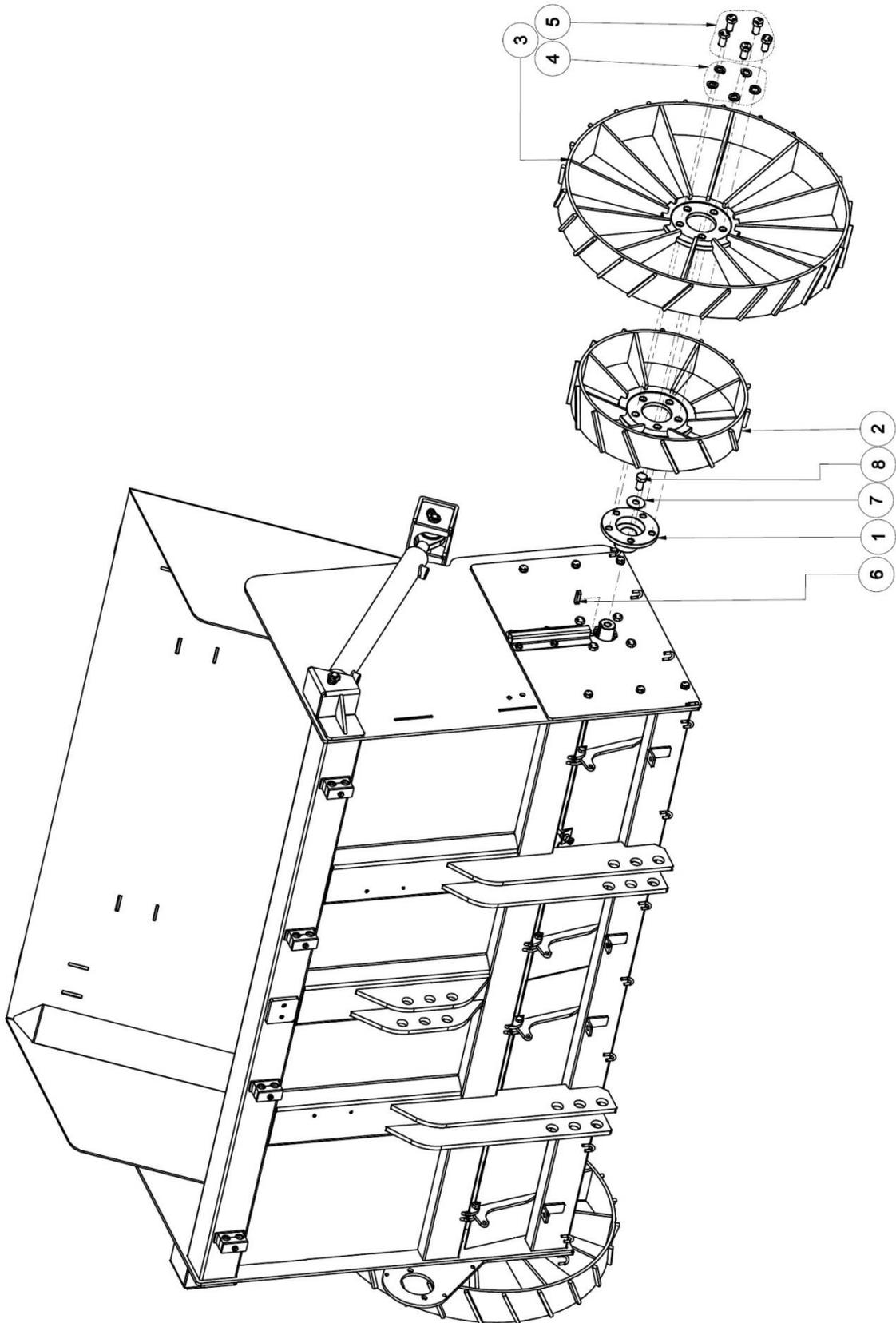
<b>Main Frame Assembly (SHCS)</b>			
<b>Sr No.</b>	<b>Part no</b>	<b>Description</b>	<b>Qty.</b>
1	9585	FRONT PLATE COMP 1.5M-2 (SHCS)	1
	9624	FRONT PLATE COMP 1.8M-2 (SHCS)	
2	9586	LH PLATE COMP (SHCS)	1
3	9587	RH PLATE COMP (SHCS)	1
4	1306	SPRING WASHER 12mm	12
5	8370	HEX BOLT M12 X 1.75 X 20(FT)(8.8)	12
6	23024	SQ FLANGE UNIT UCF 208 WITH BALL BEARING	2
7	2207	HEX BOLT M14 X 1.50 X 45	8
8	1302	NYLOCK NUT M14X1.50 (DIN-982)	8
9	9623	METAL DRUM COMP WITH STRIP 1.5M (SHCS)	1
	9627	METAL DRUM COMP WITH STRIP 1.8M (SHCS)	
10	9591	SUTTER LH COMP (SHCS)	1
	9628	SUTTER LH COMP 1.8M (SHCS)	
11	9592	SUTTER RH COMP (SHCS)	1
	9629	SUTTER RH COMP 1.8M (SHCS)	
12	10196	HEX BOLT M10 X 1.50 X 40	4
13	1299	HEX NUT M10 X 1.50	8
14	25252	HEX BOLT M10 X 1.50 X 55 (FT)(8.8)	2
15	9632	GRESING PIPE SAFETY GUARD SMALL (SHCS)	1
16	25073	HEX BOLT M10 X 1.50 X 15	8
17	9619	GRESING PIPE SAFETY GUARD (SHCS)	1
18	9620	GRESING PIPE BIG (SHCS)	1
19	9621	GRESING PIPE SMALL (SHCS)	1
20	20188	GREASE NIPPLE M6 X 1	2



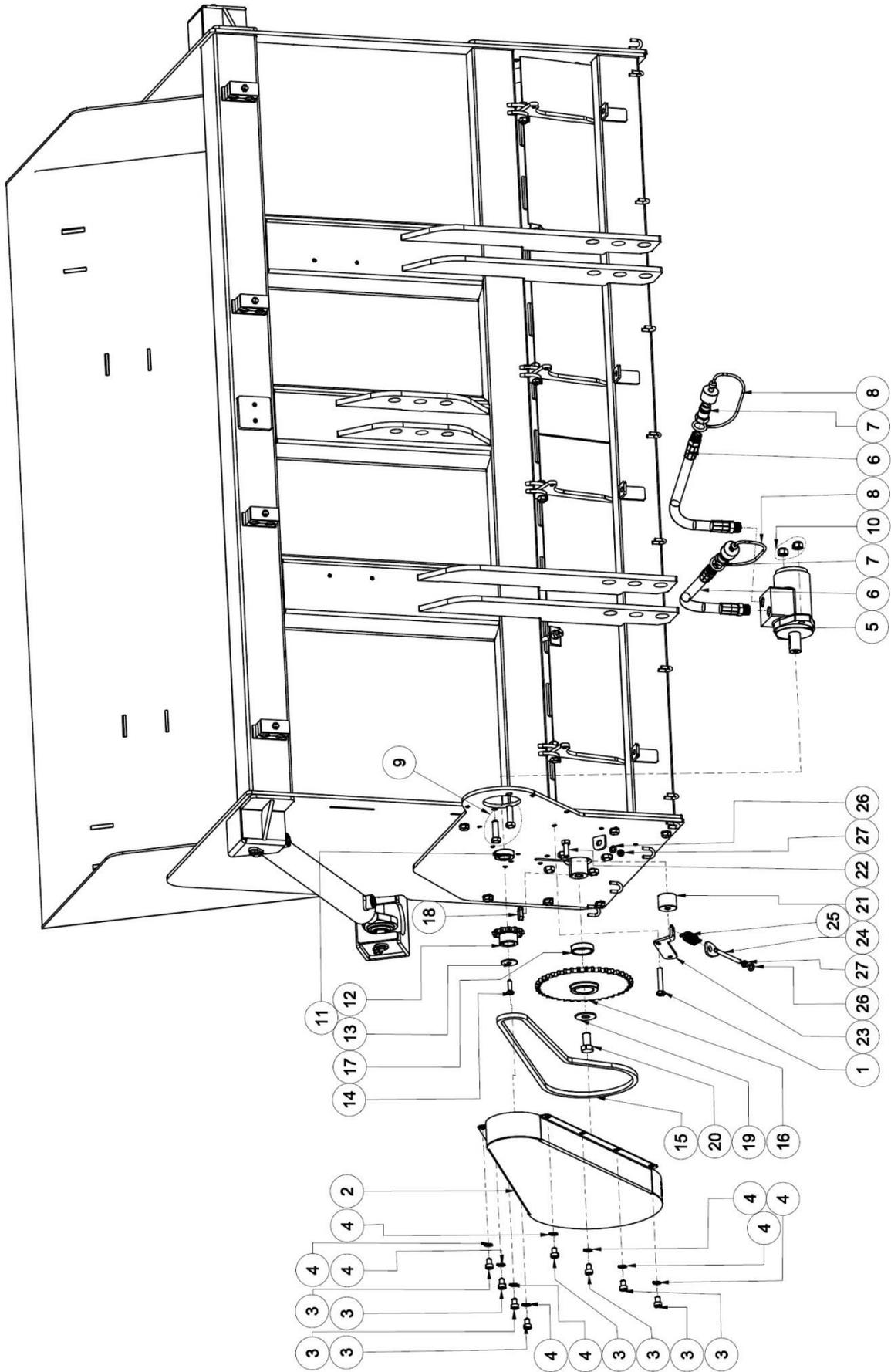
<b>Bottom Plate and Hyd . Jack Assembly (SHCS)</b>			
<b>Sr No.</b>	<b>Part no</b>	<b>Description</b>	<b>Qty.</b>
1	9588	BOTTOM PLATE COMP 1.5M (SHCS)	1
	9625	BOTTOM PLATE COMP 1.8M (SHCS)	
2	9615	JACK MOUNT PIN COMP NEW (SHCS)	4
3	9565	FRAME & BOTTOM PLATE CONNECTOR PIN(SHCS)	2
4	25073	HEX BOLT M10 X 1.50 X 15	4
5	1218	LINCH PIN	2
6	9593	BOTTOM PLATE RUBBER STRIP 1.5M (SHCS)	1
	9626	BOTTOM PLATE RUBBER STRIP 1.8M (SHCS)	
7	21758	HEX BOLT M5 x 0.8 x 15 (For SHCS 1.5M)	16
		HEX BOLT M5 x 0.8 x 15 (For SHCS 1.8M)	18
8	20226	PLAIN WASHER 5MM (For SHCS 1.5M)	16
		PLAIN WASHER 5MM (For SHCS 1.8M)	18
9	21380	HEX NUT M5 x 0.8 (For SHCS 1.5M)	16
		HEX NUT M5 x 0.8 (For SHCS 1.8M)	18
10	9584	HYD. CYL. 60X30X450 DOUBLE ACTION (SHCS)	2
11	9609	DUTY SEAL 3/8	4
12	9553	NIPPLE 3/8" BSP STD	4



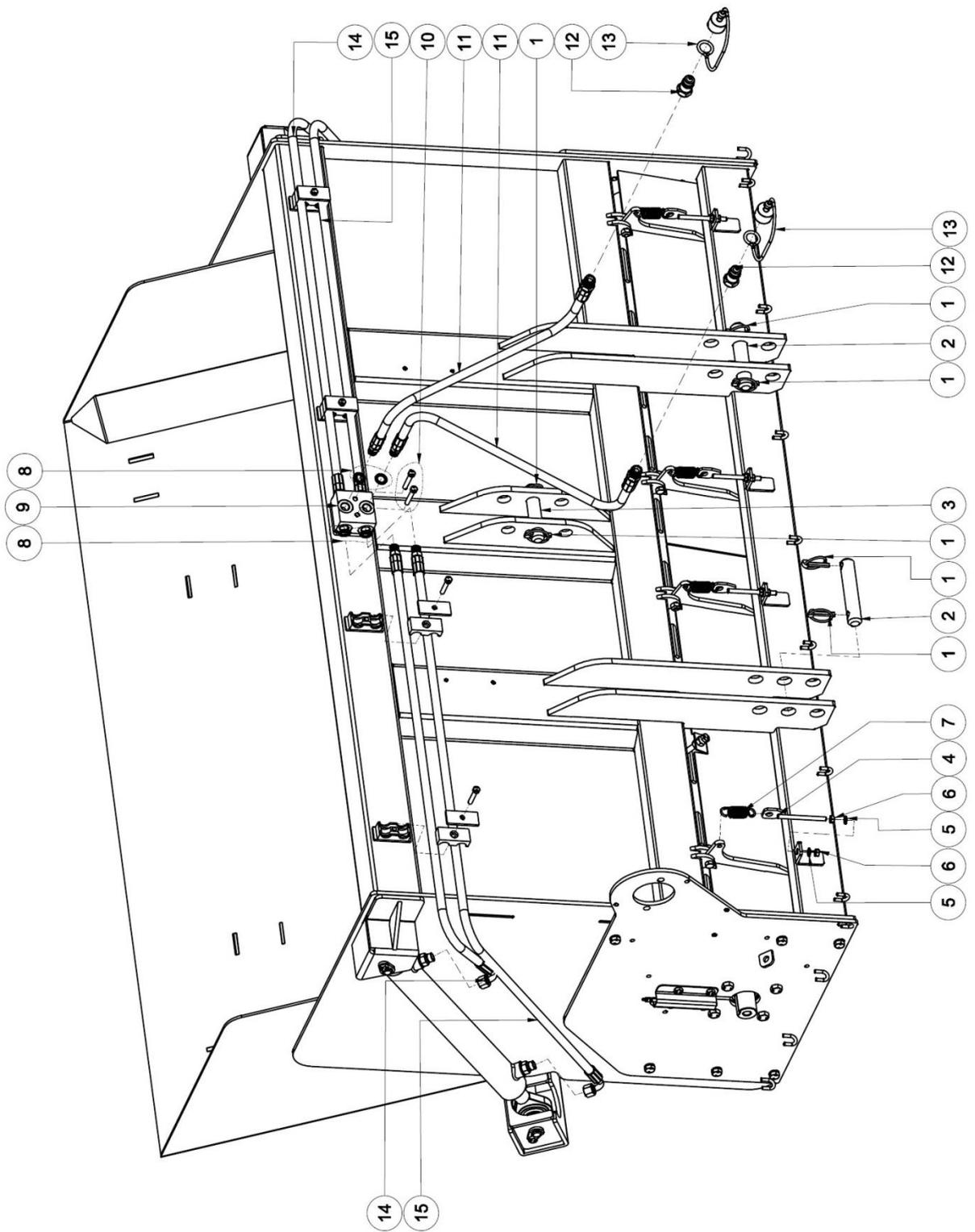
<b>Side Wheel Assembly (SHCS)</b>			
<b>Sr No.</b>	<b>Part no</b>	<b>Description</b>	<b>Qty.</b>
1	9613	WHEEL MOUNTING FLANGE NEW (SHCS)	2
2	9512	WHEEL COMPLETE 450 LH (SLCS)	1
	9513	WHEEL COMPLETE 450 RH (SLCS)	1
3	9510	WHEEL COMPLETE 740 LH (SLCS)	1
	9511	WHEEL COMPLETE 740 RH (SLCS)	1
4	1308	SPRING WASHER 16mm	10
5	8202	HEX BOLT M16 X 2 X 30	10
6	11076	PARALLEL KEY 12 X 8 X 40	2
7	17979	LOCKING PIN HOLDER (BIG) (SHR)	2
8	1162	HEX BOLT M16 X 1.50 X 30 (FT)(10.9)	2



<b>Chain Side Unit Assembly (SHCS)</b>			
<b>Sr No.</b>	<b>Part no</b>	<b>Description</b>	<b>Qty.</b>
1	25252	HEX BOLT M10 X 1.50 X 55 (FT)(8.8)	1
2	9590	CHAIN COVER COMP NEW-2 (SHCS)	1
3	8111	ALLEN BOLT M10 X 1.50 X 15	8
4	1304	SPRING WASHER 10mm	8
5	9534	HYD MOTOR 80CC X 25D(SHCS)	1
6	9525	HYD PIPE 1/2" BSPMALE 2.5M	2
7	8290	QUICK COUPLING 1/2" MALE	2
8	18269	QRC PLASTIC CAP (1/2 BSP) FEMALE	2
9	10195	HEX BOLT M12 X 1.75 X 40	2
10	1209	NYLOCK NUT M12X1.75 (DIN-982)	2
11	9571	SPROCKET 12 TEETH BACK SPACER (SHCS)	1
12	18294	12 TEETH SPROCKET (M)(BLR)	1
13	9572	SPROCKET 12 TEETH LOCK SPACER (SHCS)	1
14	8171	HEX BOLT M8 X 1.25 X 25	1
15	9599	CHAIN 5/8"-88 LINK	1
16	9598	SPROCKET 41 TEETH NEW (SHCS)	1
17	9616	42 SPROCKET BACK SPACER (SHCS)	1
18	11075	PARALLEL KEY 12 X 8 X 28	1
19	17979	LOCKING PIN HOLDER (BIG) (SHR)	1
20	1162	HEX BOLT M16 X 1.50 X 30 (FT)(10.9)	1
21	9595	CHAIN ROLLER (SHCS)	1
22	10181	HEX BOLT M10 X 1.50 X 30	1
23	9594	PULLY ARM (SHCS)	1
24	9597	TENSIONER ROD STUD COMP (SHCS)	1
25	9596	SUTTER SPRING (SHCS)	1
26	8064	PLAIN WASHER 8mm	2
27	8181	HEX NUT M8 X 1.25	2



<b>Hyd. Connection Assembly (SHCS)</b>			
<b>Sr No.</b>	<b>Part no</b>	<b>Description</b>	<b>Qty.</b>
1	1218	LINCH PIN	6
2	7046	BRACKET PIN (Dia28X150) (SRP)	2
3	7049	TOP MAST PIN (Dia25X130) (SRP)	1
4	9597	TENSIONER ROD STUD COMP (SHCS)	4
5	8064	PLAIN WASHER 8mm	8
6	8181	HEX NUT M8 X 1.25	8
7	9596	SUTTER SPRING (SHCS)	4
8	9609	DUTY SEAL 3/8	6
9	23015	HYD. DISTRIBUTOR VALVE 3/8"(JUMBO)	1
10	8156	HEX BOLT M8 X 1.25 X 50	2
11	11584	3/8R2 HYD PIPE 1/2"BSPM+3/8" BSPM X 2.5M	2
12	8290	QUICK COUPLING 1/2" MALE	2
13	18269	QRC PLASTIC CAP (1/2 BSP) FEMALE	2
14	9607	PIPE 3/8 93CM BSP 3/8 SW 90° SW BSP 3/8 (For SHCS 1.5)	2
	23019	HYD. HOSE R1AT F90° 3/8"-FD 3/8",L=1600 (For SHCS 1.8)	2
15	9608	PIPE 3/8 143CM BSP 3/8 SW 90° SW BSP 3/8 (For SHCS 1.5)	2
	23019	HYD. HOSE R1AT F90° 3/8"-FD 3/8",L=1600 (For SHCS 1.8)	2



## 12. EC DECLARATION OF CONFORMITY

In accordance with the EC Machinery Directive 2006/42/EC

The company

Tirth Agro Technology Pvt. Ltd.  
(An ISO 9001:2008 Certified Company)  
National Highway – 27, Nr. Bharudi Toll Plaza,  
Gondal Road At.: Bhunava – 360311 Ta. Gondal,  
Dist.: Rajkot. State: Gujarat- INDIA.  
Phone: + 91 (2827) 661637  
e-mail: info@shaktimanagro.com

hereby declares that the machine:

Type: SHAKTIMAN-COSMO COMPOST SPREADER  
Model: SHCS

satisfies the basic safety and health requirements established by European Directive 2006/42/EC.

Harmonized standards used:

EN ISO 12100:2010  
Safety of machinery - General principles for design - Risk assessment and risk reduction

EN ISO 4254-1:2009  
Agricultural machinery - Safety - Part 1: General requirements

EN ISO 13857:2008  
Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs

Other technical standard used:

ISO 11684:1995  
Tractors, machinery for agriculture and forestry, powered lawn and garden equipment -  
Safety signs and hazard pictorials - General principles

Rajkot,  
Ashwin Gohil / Hasmukh Gohil  
Chairman / Managing Director







**Tirth Agro Technology Pvt. Ltd.**

"SHAKTIMAN", Sondaggio n. 108/1,  
Plot No. B, NH-27, Nr. Bharudi Toll Plaza,  
Bhunava (Village), Taluka: Gondal,  
Dist.: Rajkot – 360311,  
Stato: Gujarat- INDIA.  
Telefono: + 91 (2827) 661637 / 270537  
Fax: + 91 (2827) 270457  
e-mail: [info@shaktimanagro.com](mailto:info@shaktimanagro.com)  
[www.shaktimanagro.com](http://www.shaktimanagro.com)

**Distribuito da:**

Cosmo Srl  
Via Laghi d'Avigliana 117, Busca 12022 (CN)  
Tel. +39 0171 946654  
E-mail: [imcosmo@cosmosrl.com](mailto:imcosmo@cosmosrl.com)