

Operator's Manual

Trailer - TL1000

WARRANTY

This product is warranted to be free of defects in materials and workmanship under normal use and service, for a period of one year from the date of purchase, when operated and maintained in accordance with the Operating and Maintenance Instructions supplied with this unit. This warranty does not cover misuse or negligence.

Under no circumstances will the manufacturer be liable for any consequential damage or expense of any kind, including loss of profits. The manufacturer is under no circumstances liable for tractor damage of any kind. The manufacturer is not liable for the maintenance of the product. This warranty is extended only to the original purchaser. Warranty is void if repairs are attempted by anyone other than an Authorized Service Centre.

If a difficulty develops with the product, you should contact your nearest Authorized Repair Centre, or distributor. Only these locations are authorized to make repairs to the product or affect the replacement of defective parts, which will be done at no charge within a reasonable time after the receipt of the product.

Unit or parts should be returned at the customer's expense to the nearest repair location or Authorized Service Centre. Pack unit in a strong carton and pad tightly to avoid damage. Damage in-transit is not covered by warranty. Include original purchase receipt with any claim (keeping a copy for your files).

The distributor's liability under warranty is limited to repair of the product and/or replacement of parts and is given to the purchaser in lieu of all other remedies including incidental and consequential charges. There are no warranties, expressed or implied other than those specified herein.

SERIAL NUMBER LOCATION

Always give your dealer the serial number of your trailer when ordering parts or requesting service or other information.

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1 INTRODUCTION

Congratulations on your choice of TOWNSUNNY trailer. This equipment has been designed and manufactured to meet the needs of a discriminating buyer for the efficient loading materials. Safe, efficient and trouble free operation of your trailer requires that you and anyone else who will be operating or maintaining the machine, read and understand the Safety, Operation, Maintenance and Trouble Shooting information contained within the Operator's Manual.

This manual covers models TL1000. Use the Table of Contents and Index as a guide to locate required information.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your dealer, distributor or the factory if you need assistance, information or additional copies of the manuals.

OPERATOR ORIENTATION - The directions left, right, front and rear, as mentioned throughout this manual, are as seen from the driver's seat and facing in the direction of travel.

2 SAFETY INFORMATION

SAFETY ALERT SYMBOL



This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

The Safety Alert symbol identifies important safety messages on the unit and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

Accidents Disable and Kill

Accidents Cost

Accidents Can Be Avoided

SIGNAL WORDS:

Note the use of the signal words **DANGER, WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guide-lines:

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

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.

SAFETY

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

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

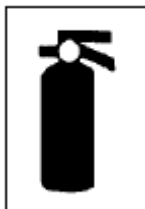
- Machinery owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually.
- The most important safety feature on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and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

2.1 GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the trailer.
2. Have a first-aid kit available for use should the need arise and know how to use it.



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



4. Do not allow riders.
5. Wear appropriate protective gear. This list includes but is not limited to:
 - A hard hat - Protective shoes with slip resistant soles - Protective goggles, glasses or face shield - Heavy gloves - Protective clothing



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



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

2.2 EQUIPMENT SAFETY GUIDELINES

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

and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the Tractor and machine Manuals. Pay close attention to the Safety Signs affixed to the Tractor and the machine.

2.3 SAFETY TRAINING

1. Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.
2. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of this equipment.
3. It has been said, "The best safety feature is an informed, careful operator." We ask you to be that kind of an operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. Accidents can be avoided.
4. **Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tractor, before assembly or operating, to acquaint yourself with the machines. If this machine is used by any person other than yourself, or is loaned or rented, it is the machine owner's responsibility to make certain that the operator, prior to operating:**
 - a. **Reads and understands the operator's manuals.**
 - b. **Is instructed in safe and proper use.**
5. Know your controls and how to stop tractor, engine, and machine quickly in an emergency. Read this manual and the one provided with your tractor.
6. Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will operate the machinery. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.

2.4 SAFETY SIGNS

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

How to Install Safety Signs:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).

- Determine exact position before you remove the backing paper. (See Section 3).
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.

2.5 PREPARATION

- Never operate the tractor and machine until you have read and completely understand this manual, the Tractor Operator's Manual, and each of the Safety Messages found on the safety signs on the tractor and machine.
- Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing or jewellery to be around equipment.
- **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!** Tractors with or without equipment attached can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the Operator's position exceeds 80db. Noise over 85db on a long-term basis can cause severe hearing loss. Noise over 90db adjacent to the Operator over a long-term basis may cause permanent, total hearing loss. **NOTE:** Hearing loss from loud noise (from tractors, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime without hope of natural recovery.
- Operate the machine only with a tractor equipped with an approved Roll-Over-Protective Structure (ROPS). Always wear your seat belt. Serious injury or even death could result from falling off the tractor --- particularly during a turnover when the operator could be pinned under the ROPS or the tractor.
- Clear working area of stones, branches or hidden obstacles that might be hooked or snagged, causing injury or damage.
- Operate only in daylight or good artificial light.
- Be sure machine is properly mounted, adjusted and in good operating condition.
- Ensure that all safety shielding and safety signs are properly installed and in good condition

2.6 OPERATING SAFETY

1. Please remember it is important that you read and heed the safety signs on the machine. Clean or replace all safety signs if they cannot be clearly read and understood. They are there for your safety, as well as the safety of others. The safe use of this machine is strictly up to you, the operator.
2. All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows

reasonable safety practices. The manufacturer has designed this trailer to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.

3. If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.
4. Personal protection equipment including hard hat, safety glasses, hearing protection, safety shoes, and tight gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving. Do not allow long hair, loose fitting clothing, or jewellery to be around moving parts.
5. Always use two people to handle heavy, unwieldy components during assembly, installation, removal or moving.
6. Never place any part of your body, fingers, hands, feet, etc. where it would be in danger if movement should occur during assembly, installation, operation, maintaining, repairing, removal or moving. Keep others away.
7. Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
8. Do not allow riders on the machine or tractor at any time. There is no safe place for any riders.
9. Before you operate the machine, check over all pins, bolts, connections and hydraulic components to be sure all are securely in place and tight. Tighten or replace any leaking, damaged or worn parts immediately.
10. Do not allow anyone who is not familiar with the safety rules and operation instructions to use this machine.
11. Never allow children to operate or be around this machine.
12. Operate controls only when seated in the tractor's seat.
13. Be sure operating area is clear of others during machine operations.
14. Never carry people in the trailer or on any portion of the trailer or trailer attachments.
15. Travel speed should be such that complete control and machine stability is maintained at all times.
16. Where possible, avoid operating near ditches, embankments and holes.
17. Reduce speed when turning, crossing slopes, and on rough, slick or muddy surfaces.
18. Avoid sudden stops.
19. Never adjust or perform maintenance on the trailer or tractor with the unit in motion, or with hydraulic line connected to trailer.
20. Do not stand, walk or work under a raised trailer or attachment unless it is securely blocked or held in position.

21. Accidental movement of a control lever or leak in the hydraulic system could cause the trailer to drop, or attachment to dump, causing severe injury.
22. Before applying hydraulic pressure, make sure all hydraulic connections are tight and components are in good condition.
- 23.** The trailer can bear 1 ton weight, please do not overload.
- 24.** Add recommended wheel ballast or rear wheel weights for increased stability. Set both front and rear wheel treads to the widest recommended width to assure best stability.
25. Whenever the machine is not in operation, lower the trailer and set the tractor brakes, disengage drive, put all controls in neutral, shut the engine off, and remove the ignition key before leaving the tractor.
26. Make sure that when parked, trailer stands are on a hard level surface with all safety devices engaged to prevent trailer from falling and being damaged or injuring someone.
27. When working on slopes, set the brakes. Shift down before you start up or down a hill with a heavy load.
28. Avoid “free wheeling”.
- 29.** Before leaving the tractor, stop the engine, put all controls in neutral, engage the parking brake and remove the key from the ignition.
30. **Remember** Move slowly! Always use care and common sense! Be careful for your own sake and for that of others.

2.7 HYDRAULIC SAFETY

1. Make sure that all the components in the hydraulic system are kept in good condition and are clean.
2. Replace any worn, cut, abraded, flattened or crimped hoses and metal lines.
3. Stop engine or motor, disconnect spark plug wire or unplug power cord, and wait for all moving parts to stop before servicing, adjusting, repairing or cleaning.
4. Do not attempt any makeshift repairs to the hydraulic lines, fittings or hoses by using tapes, clamps or cements. The hydraulic system operates under extremely high-pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.
5. Wear proper hand and eye protection when searching for a highpressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.
6. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.
7. Before applying pressure to the system, make sure all components are tight and that lines, hoses and couplings are not damaged.
 - Think SAFETY! Work SAFELY!

2.8 STORAGE SAFETY

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

2.9 TRANSPORT SAFETY

1. Comply with state and local laws governing highway safety and movement of machinery on public roads.
2. The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
3. At all times, when driving the tractor and equipment on the road or highway under 20 mph (32kph) use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem. Do not exceed 20 mph (32 kph). Reduce speed on rough roads and surfaces.
4. Plan your route to avoid heavy traffic.
5. Always install transport locks, pins or brackets before transporting.
6. Do not drink and drive
7. Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing roadways.
8. Turn into curves or go up or down hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the tractor's weight is on the front wheels to maintain safe steering. Slow down on rough or uneven surfaces.
9. Never allow riders on either tractor or machine.
10. Do not run into frozen dirt piles, frozen manure piles, ice, etc. Serious and costly damage may result to both the trailer and the tractor.
11. Keep hands, feet and clothing away from all moving parts.
12. Care must be taken with your trailer cylinders. Always keep cylinders in a retracted position when the trailer is not in use to guard against rust and contamination which may cause damage to the cylinder rods or hydraulic system.

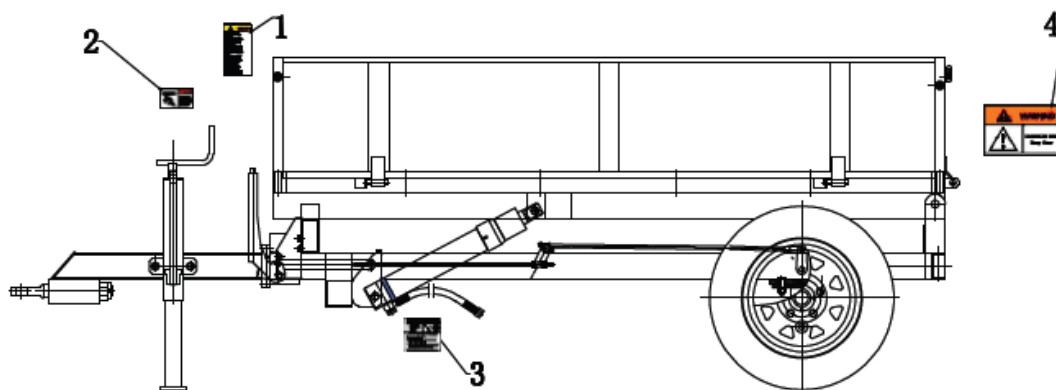
2.10 MAINTENANCE SAFETY

1. Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
2. Follow good shop practices.
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are properly grounded.
 - Use adequate light for the job at hand.
3. Make sure there is plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
4. Before working on this machine, shut off the engine, set the brakes, and remove the ignition keys.

5. Never work under equipment unless it is blocked securely.
6. Use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance work.
7. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.
8. A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.
9. Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
10. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.

2.11 Safety Decals

Care of Safety Decals Keep safety decals clean and free of obstructing material. Replace damaged or missing safety decals with new decals from your dealer. If a component with a safety decal(s) affixed is replaced with a new part, make sure new safety decal(s) are attached in the same locations as the replaced components.



CAUTION

To Avoid Injury or Machine Damage:

1. Read and understand Operator's Manual BEFORE operating.
2. Lower implement to the ground, place all controls in neutral, stop engine, set park brake, remove ignition key, and wait for all moving parts to stop BEFORE servicing, repairing, adjusting, or unplugging.
3. Stand clear when implement is in operation.
4. DO NOT allow riders or operate implement in vicinity of other persons, animals, or buildings.
5. Keep all safety guards and devices in place. Keep hands, feet, hair, and clothing away from moving parts.
6. Escaping hydraulic fluid can cause serious injury, keep all hydraulic lines, fittings, and couplers tight and free of leaks before using.
7. Ballast tractor per tractor operator's manual.
8. DO NOT allow children or unqualified persons to operate equipment.
9. Implements with smooth input shaft gearboxes must have snap ring in place to ensure proper PTO shaft connection.
10. Review safety instructions annually.
11. Transporting requires secured safety locks, safety chain, proper lighting, and lower speeds.



REMEMBER - If safety signs have been damaged, removed, become illegible or parts replaced without signs, new signs must be applied. New signs are available from your authorized dealer.

3 LUBRICATION AND MAINTENANCE

Lower the trailer to the ground and relieve pressure in trailer hydraulic lines prior to performing any service or maintenance operations on the tractor or trailer. Refer to "Lubrication and Maintenance Chart" for quick reference to maintenance operations. Check the tractor hydraulic system as outlined in the tractor operator's manual.

Note: When checking hydraulic system oil level, the trailer should be on the ground and bucket fully retracted (all cylinders in retracted position).

Grease all trailer pivot points daily (10 hours). Refer to tractor operator's manual for lubricant recommendations. Inspect hydraulic hoses, connections, control valve and cylinders for evidence of leakage.

Lubrication and Maintenance Chart

Item	Service	Service Interval
Hydraulic system oil level	Check	Daily / 10 hours
Hydraulic system oil / filter	Replace	As specified in tractor operator's manual
Tire inflation	Check	Weekly / 50 hours
Trailer pivot points	Lubricate	Daily / 10 hours
Trailer hydraulic lines, hoses, connections	Check for leaks, wear	Daily / 10 hours
Lift cylinder rod packing	Check for seepage, service as needed	Daily / 10 hours
Pivot pin bolts and dust covers	Check, replace if missing	Daily / 10 hours
mid-mount lock pin and R pin	Check, replace if necessary	Daily / 10 hours
Trailer mount hardware	Check visually	Weekly / 50 hours

Lubricate with pressure gun using grease as recommended in tractor operator's manual.

4 SPEICIFICATION

4.1 Machanical

MODEL	TL1000
Dimensions (L×W×H)	2000×1200×350mm
Structure weight	250Kg
Max Load Capacity	1000Kg
Drawbar type	A-frame
Number of axles	1
Wheel position	Inside
Tire size	165R or customer request

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

4.2 HYDRAULIC FITTING TORQUE

Tightening Flare Type Tube Fittings

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut until snug.
4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
		(N.m)	(lb-ft)	(Flats)	(Turn)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4	1/8

4.3 Bolt Torque

The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

ENGLISH TORQUE SPECIFICATIONS

Bolt Diameter	Bolt Torque					
	SAE 2		SAE 5		SAE 8	
	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	200	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650

METRIC TORQUE SPECIFICATIONS

Bolt Diameter	Bolt Torque			
	8.8		10.9	
	N.m	lb-ft	N.m	lb-ft
M3	0.5	0.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11

M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	744
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710

Torque figures indicated above are valid for non-greased or non-oiled threads and heads otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

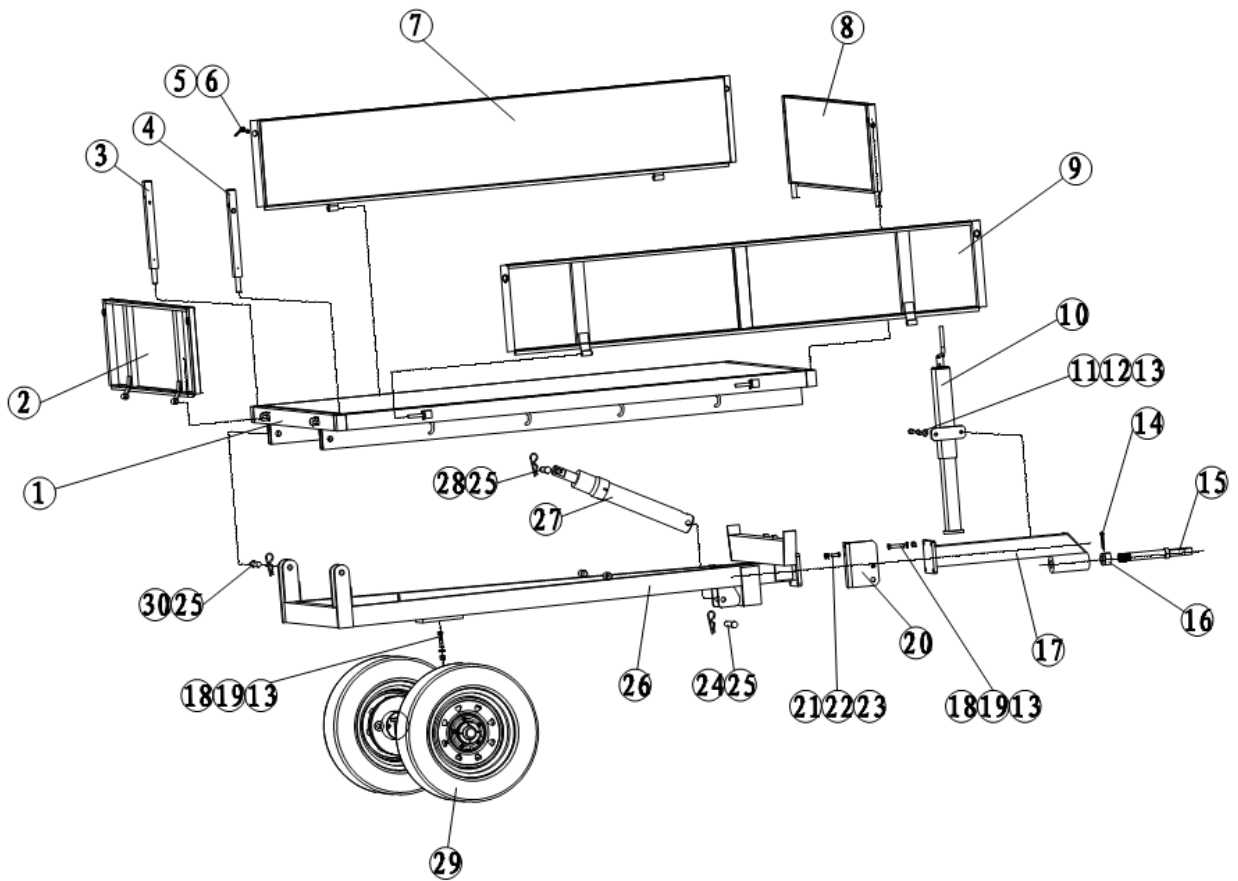
5 TROUBLE SHOOTING

Trouble	Possible causes	Shootings
Lifting cylinder not working	1. Transmission short of lube oil (oil level below the lower scale line on dipstick).	Replenish oil.
	2. Hydraulic hoses connected improperly.	Check and correct hydraulic hose connections.
	3. Low system pressure supplied from hydraulic pump.	Check system pressure. Replace or repair pump.
	4. Control valve linkage broken.	Inspect. Repair as required.
	5. Hydraulic hose or tube line blockage.	Check for evidence of damage to hoses or tube lines that would block flow of oil between cylinder and control valve.
	6. Cylinder piston assembly defective (not sealing).	Check cylinder for internal leakage as described in service section under cylinder leakage tests.
	7. Control valve blockage	Inspect for blockage. Disassemble valve if necessary.
Abnormal sound	1. Nuts and bolts got loose or lost.	Tighten the loose ones and make up the missing ones.
	2. Insufficient lube oil causing dry friction.	Add oil when necessary.
	3. Incorrect lube oil in use or impurity in oil.	Replace with the oil of correct specification.

Excessive foam in oil tank	1. Improper hydraulic oil usage.	Refer to Tractor operator's manual and replace hydraulic oil using recommended hydraulic oil.
	2. Oil below specific level	Refill oil to the specific level
	3. Air leaking into suction side of hydraulic pump.	Check for loose or defective connections between reservoir and hydraulic pump.
Abnormal noise of the oil pump	1. Excess foam in oil tank.	Replenish oil and bleed air
	2. Oil intake pipe or oil filter clogged.	Clean oil filter and intake pipe.
Oil leakage	1. O-ring damaged...	Replace rubber oil seal.
	2. Gasket damaged.	Replace with a new one.
	3. Loose hydraulic connection.	Tighten loose connections.
	4. Control valve spool or body damaged or worn.	Replace control valve.
	5. Cylinder rod packing set leakage.	Check cylinders for leakage. Repair as needed.

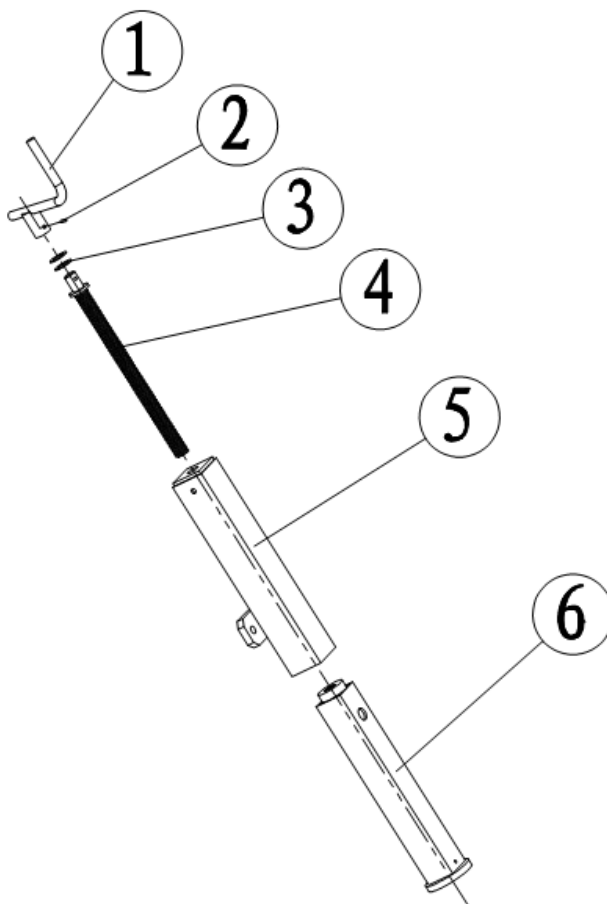
6 PARTS ILLUSTRATION

5.1 Trailer Assembly



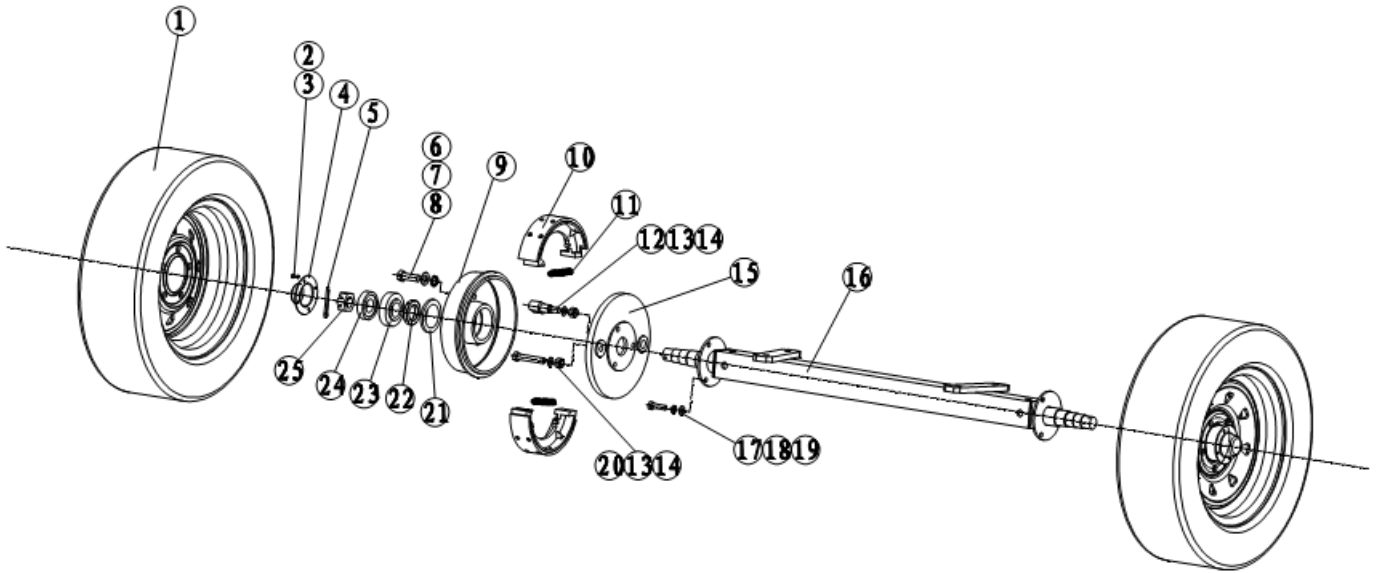
项 目 号 NO.	零件代号 Part NO.	零件名称	Name&Specifications	数 量 Quantity	备 注 Remark
1	TR100.021	箱底焊合件	Boom board	1	
2	TR100.020	后门焊合件	Rear board	1	
3	TR100.022	左门柱焊合件	Left stake	1	
4	TR100.019	右门柱焊合件	Right stake	1	
5	TR100.017	门锁组合件	Gate Lock	6	
6	GB/T6170-00	螺母 M8	Nut M8	6	
7	TR100.023	左侧门焊合件	Left board	1	
8	TR100.016	前门焊合件	Front board	1	
9	TR100.018	右侧门焊合件	Right board	1	
10	TR100.002	撑脚总成	Stand leg assembly	1	
11	GB/T5783-00	螺栓 M12X40	Bolt M12X40	2	
12	GB/T93-87	弹垫 12	lock washer 12	6	
13	GB/T97.1-02	平垫 12	Plain washer 12	10	
14	GB/T91-00	开口销 6.3X50	Cotter pin 6.3X50	1	
15	TR100.101	连接圆头	Connection	1	
16	GB/T6178-86	开槽螺母 M30	slotted nut M30	1	
17	TR100.010	牵引架焊合件	Drawbar frame weldment	1	
18	GB/T5782-00	螺栓 M12X50	Bolt M12X50	8	
19	GB/T889.1-00	防松螺母 M12	Locknut M12	8	
20	TR100.012	手闸固定板	Brake fixed plate	1	
21	GB/T5783-00	螺栓 M10X30	Bolt M10X30	2	
22	GB/T93-87	弹垫 10	Lock washer 10	2	
23	GB/T97.1-02	平垫 10	Plain washer 10	2	
24	TR100.109	伸缩缸座销	cylinder pin	1	
25	TR100.107	R 销	R pin	4	
26	TR100.015	三角座焊合件	Chassis	1	
27	TR100.014	伸缩油缸	Cylinder	1	
28	TR100.108	伸缩缸顶销	Pin	1	
29	TR100.003	车轮总成	Wheels assembly	1	
30	TR100.113	翻箱销	Pin	2	

5.2 stay bar Assembly



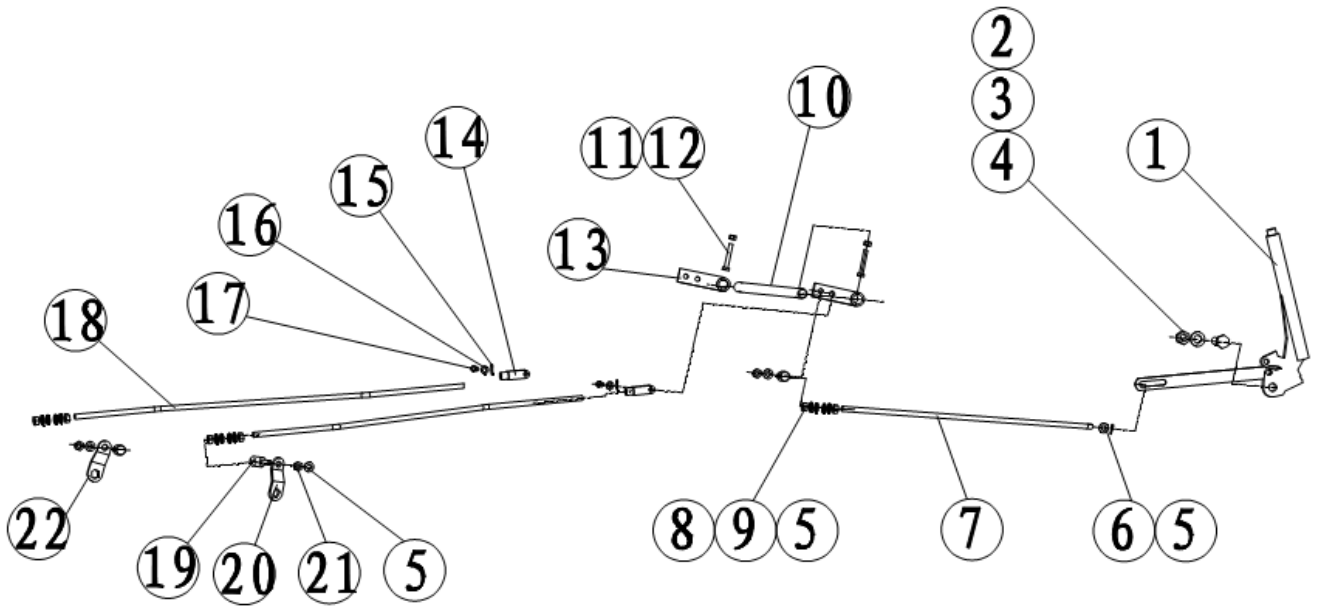
项目号 NO.	零件代号 Part NO.	零件名称	Name&Specifications	数量 Quantity	备注 Remark
1	TR100.038	手柄焊合件	Handle weldment	1	
2	GB/T879.1-00	弹性销 5X26	pin 5X26	1	
3	TR100.300	垫片	Washer	2	
4	TR100.036	丝杆焊合件	Screw weldment	1	
5	TR100.035	外管焊合件	Outer pipe weldment	1	
6	TR100.037	内管焊合件	Inner pipe weldment	1	

5.3 Wheel Assembly



项 目 号 NO.	零件代号 Part NO.	零件名称	Name&Specifications	数 量 Quantity	备 注 Remark
1	TR100.041	后车轮	Tyre	2	
2	GB/T65-00	开槽螺钉 M4X10	Screw M4X10	8	
3	GB/T97.1-02	平垫 4	Plain washer 4	8	
4	TR100.353	轮轴端盖	Wheel shaft shell cover	2	
5	GB/T91-00	开口销 5X50	Cotter pin 5X50	2	
6	GB/T5783-00	螺栓 M14X35	Bolt M14X35	10	
7	GB/T93-87	弹垫 14	Lock washer 14	10	
8	GB/T97.1-02	平垫 14	Plain washer 14	10	
9	TR100.355	轮毂外壳	Hub	2	
10	TR100.350	刹车盘	Brake shoe	4	
11	TR100.351	拉簧	spring	4	
12	TR100.354	刹车转轴	Brake shaft	2	
13	GB/T97.1-02	平垫 12	Plain washer 12	4	
14	GB/T889.1-00	防松螺母 M12	Hex. Nut M12	4	
15	TR100.356	轮毂内壳	Inner crust	2	
16	TR100.040	后轮轴焊合件	Axle weldment	1	
17	GB/T5783-00	螺栓 M10X35	Bolt M10X35	6	
18	GB/T97.1-02	平垫 10	Plain washer 10	6	
19	GB/T889.1-00	防松螺母 M10	Lock nut M10	6	
20	GB/T5782-00	螺栓 M12X70	Bolt M12X70	2	
21	HG4-692-67	骨架油封 72X55X8	Seal 72X55X8	2	
22	TR100.352	轴承挡圈	Bearing retainer ring	2	
23	GB/T297-94	轴承 30207	Bearing 30207	2	
24	GB/T297-94	轴承 30206	Bearing 30206	2	
25	GB/T6178-86	开槽螺母 M27	Slotted nut M27	2	

5.4 Braking System Assembly



项 目 号 NO.	零件代号 Part NO.	零件名称	Name&Specifications	数 量 Quantity	备 注 Remark
1	TR100.011	手闸组合件	Hand brake	1	
2	GB/T5783-00	螺栓 M16X50	Bolt M16X50	1	
3	GB/T97.1-02	平垫 16	Plain washer 16	1	
4	GB/T889.1-00	防松螺母 M16	Hex. Nut M16	1	
5	GB/T97.1-02	平垫 10	Plain washer 10	10	
6	GB/T91-00	开口销 3.2X25	Cotter pin 3.2X25	1	
7	TR100.110	L 杆	L rod	1	
8	GB/T6170-00	螺母 M10	Nut M10	9	
9	GB/T93-87	弹垫 10	Spring washer 10	6	
10	TR100.105	刹车轴	Brake shaft	1	
11	GB/T5782-00	螺栓 M8X40	Bolt M8X40	2	
12	GB/T5782-00	防松螺母 M8	Hex. Nut M8	2	
13	TR100.013	刹车连接套焊合件	connector	2	
14	TR100.104	连接叉	Linkage fork	2	
15	GB/T91-00	开口销 3.2X25	Cotter pin 3.2X25	2	
16	GB/T97.1-02	平垫 8	Plain washer 8	2	
17	TR100.112	销钉	Pin	2	
18	TR100.111	双折杆	Linkage rod	2	
19	TR100.106	刹车活接头	Linkage	3	
20	TR100.103	右吊耳	Right linkage plate	1	
21	GB/T889.1-00	防松螺母 M10	Hex. Nut M10	3	
22	TR100.102	左吊耳	Left linkage plate	1	