



CONQUEST
EQUIPMENT
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OPERATOR'S MANUAL

Wobbly CA1600
Tow Behind Rubber Tire Roller

Serial # _____

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Introduction

To our customers

Thank you for choosing a Conquest product for your application. At Conquest Equipment we pride ourselves in the equipment we manufacture and distribute.

We believe our product is, without exception, the industry standard. Meticulous care has been taken to ensure that this machine will meet rigorous production and service requirements. Using up-to-date CAD modeling software, complemented with finite element analysis, you can be satisfied that our products will meet and exceed your requirements.

We would like to say that our team consists of seasoned, long-term, dedicated employees. With our strategically located sales and service locations we can respond quickly from to any questions you may have.

Foreword

This manual is intended as a guide for the use and maintenance of the Wobbly CA1600 Tow Behind Roller. Please keep it with the operator at all times. **Replace immediately if it becomes lost.**

The design of the Conquest Wobbly is an industry favourite for soil, aggregate and asphalt compaction.

Product

Specification Chart

Item	Measurement
A Overall width of compaction zone	88" (2.24 m)
B Height of machine	51" (1.29 m)
C Length outside of tires	137" (3.48 m)
D Length including hitch	199" (5.05 m)
E Empty Weight	4100 lbs (1855 KG)
F Capacity (Level)	120 ft3 (3.4 m3)
G Tow vehicle requirement	40 HP/Wobbly minimum**

** will vary with terrain and soil conditions

Compaction Data

Ballast Qty	Load Per Tire LBS (KG)
6000 lbs (approx. 2 yds) (2715 KG)	462 (209)
9000 lbs (approx. 3 yds) (4072 KG)	692 (313)
12,000 lbs (approx. 4 yds) (5430 KG)	923 (418)
15,000 lbs (approx. 5 yds) (6787 KG)	1154 (522)
18,000 lbs (approx. 6 yds) (8145 KG)	1385 (627)

Safety

Conquest's policy is to produce products that are safe and reliable. However, even when using well-engineered equipment, there will always be an element of risk. To minimize the risks and to promote safety at all times, this section of the operator's manual details a number of safety rules that must always be followed and obeyed.

IMPORTANT! When it comes to safety, nothing will ever replace a careful operator. This Operators' Manual is the primary source for maintaining optimum performance from the Wobbly. It is imperative that the operator reads and understands all the safety information in this manual before proceeding. Failure to follow the instructions or heed the warnings could result in injury or death. **Proper care is your responsibility.**

Conquest cannot anticipate every possible circumstance that might involve a hazard. The hazard alerts in this publication and on the product are therefore not all inclusive. If a tool, procedure, work method, or operating technique not specifically recommended by Conquest is used, you must satisfy yourself that it is safe for you and others. You should also ensure the Wobbly will not be damaged or made unsafe by the operation, maintenance, or repair procedures you choose.

- It is the obligation of the operator to make sure that all warning decals are in place on the machine and that they are readable. Contact your distributor or Conquest for replacement manuals or decals.
- Should there be any information or instructions in this manual that are not in compliance with local laws and regulations in force in the country or region where this equipment is operated, the local laws and regulations must take precedence.

General Safety Precautions

▲WARNING!

The operator of this machine must have sufficient knowledge and instructions before he/she operates the machine.

Untrained operators may cause severe injuries or even fatalities. It is important that you read and follow the instructions of this Operator's Manual.

- Never use a machine that has no Operator's Manual available. Learn and understand the safety signs and symbols on the machine and the operator instructions before you begin to use the machine.
- Wear protective clothing. Know and use the protective equipment that is to be worn when operating equipment. Hard hats, protective glasses, protective shoes, gloves, reflector type vests and ear protection are types of equipment that may be required.
- Operate the machine only when physically fit and not under the influence of alcohol or drugs.
- Avoid loose fitting clothing, loose or uncovered long hair, jewelry and loose personal articles. These can get caught in moving parts.
- Make sure all guards and other protective devices are in place, secured and not damaged, before operating equipment.
- Before starting, walk completely around the machine. Make sure there is no one next to, under or on the machine. Warn any personnel nearby that you are starting up.
- Keep a first aid kit and a multi-purpose fire extinguisher on or near the machine and know



how to use them. Know where to get help.

- Emptying the machine is especially dangerous. Make sure any ground personnel are at least 20 meters from the unit when dumping.

Practice Safe Maintenance

- Avoid unauthorized machine modifications – never substitute alternate parts not intended for the application. This could create hazardous situations or machine failure. Conquest engineering must approve all machine modifications; they can affect product reliability and machine stability.
- Use only lifting devices with rated capacity to safely support the expected weight you are lifting.
- All lifting devices (straps, slings, chains, ratchet blocks, etc.) must comply with applicable local regulations and certifications. Conquest cannot accept responsibility for the use of sub-standard equipment and work practices.

Welding and Grinding Work

IMPORTANT! A fire extinguisher should be easily accessible during all welding work.

Welding repairs are to be performed by a certified welder with proper service instructions. Know the material to be welded and select the correct welding procedure and materials (electrodes, rods, wire) that will provide a weld metal strength equivalent to the parent material.

- Move the machine to a clean, safe area before welding, grinding or using an oxy/acetylene torch on it. This type of work should only be done in a clean area and not in places that contain combustible liquids, such as fuel tanks, hydraulic pipes or similar.
- Work with extra care when welding, grinding or torch cutting near flammable objects.
- Welding on painted surfaces releases dangerous fumes and results in a poor weld joint that can result in failure and potential accidents. Always remove paint from areas to be welded.

Work on Painted Surfaces

Heated paint gives off poisonous gases. Therefore, paint must be removed from an area with a radius of at least 4" (10 cm) before carrying out welding, grinding or gas cutting. In addition to the health hazard, the weld will be of inferior quality and strength if the paint is not removed.

Rubber and Plastics

▲ WARNING!

When heated, rubber and plastics can give off substances that are hazardous to personal health and the environment.

The following safety instructions must be followed:

- Do not weld or cut with a torch near polymer materials (plastics, urethane, and rubber) without first protecting them from the heat.
- Never burn polymer materials when scrapping them.
- Be careful when handling machines that have been exposed to fire or other intense heat. Always use gloves, protective safety glasses and breathing protection.

▲ WARNING!

Do not allow any unauthorized person to operate or carry out any type of maintenance.

▲ WARNING!

No adaptations or modifications to the Wobbly are allowed unless agreed upon by Conquest engineering. Written approval must be received beforehand.

Check the carrier owner's manual. Further precautions may be required.

▲ CAUTION!

Use only original Conquest spare parts.

Transportation Safety

The Wobbly does not have brakes. The tow vehicle must have brakes sufficient enough to safely transport and stop the Wobbly roller(s) across the terrain to be compacted, including on steep inclines.

Do not use the Wobbly to transport personnel or equipment. In doing so it could cause injury or death to personnel or damage to the equipment.

Operation

General

The roller is a multi-wheeled unit that carries ballast and is used to compact soils. Instructions for the compaction of the soils should be obtained from specification requirements for the project.

- Hitch the Wobbly to the tow vehicle using a proper size pin with a pin retainer
- For multi-roller use, up to (4) Wobblies can be hitched together using the supplied pin and retainer.
- Fill the Wobbly with loose aggregate material. Never load with dirt, clay, steel, metals or corrosive material.
- Tow the roller in straight lines along the area to be compacted.
- Maintain a constant speed below the maximum tow speed of 8 km/h (5 mph) when loaded and 16 km/h (10 mph) when empty.
- Reduce speed when executing a turn to compact in the opposite direction.
- Observe roller(s) carefully when turning to prevent contact between tow vehicle and roller and between rollers when more than one roller is being towed. (Minimum inside turning radius is 15')
- Exercise caution and reduce speed when traversing ditches or slopes.
- Empty the Wobbly out the rear by lifting on the hitch. Take care to ensure the lifting equipment and chains have rated capacity for the weight. **Never roll the Wobbly onto its side or top as this can cause structural damage!**



Transport

- The roller is intended to be towed in a forward direction only.
- Do not attempt to operate the tow vehicle in reverse as it will cause the roller(s) to jack-knife.
- When transporting on public roads obey all local laws and be sure to have all required signage, lighting, escort vehicles, etc present.
- Do not exceed 25 km/h (15 mph) when transporting.

Maintenance

General

Description	Qty	Procedure	Interval	Specification
Oscillation pins	6	Grease	Monthly or 100 hrs	N/A
Wheel hubs	13	Grease	Monthly or 100 hrs	N/A
Wheel nuts	78	Torque	Per manual	125 ft/lb
Strike plate spacer	1	Replace	1000 hrs or as required	Per manual
Main pin pivot sleeve	1	Replace	1000 hrs or as required	Per manual
All bolts and pins		Check	Annually	N/A

Wheel Bearing and Seal Replacement

- Using a clean work surface secure the assembly in a vice.
- Disassemble the entire hub including bearing races
- Inspect the grease fitting on the pivot hub. Replace if necessary.
- Clean all components thoroughly prior to re-assembly. Replace parts which are damaged or worn. Replace all bearings, cones and seal. Grease bearings using proper equipment.
- Tighten the spindle nut with a wrench until snug. Check the resistance in the wheel hub turning it on the spindle. Loosen the spindle nut and re-tighten it by hand. Install the cotter pin so that the spindle nut cannot turn on the spindle.
- Install the hub cap and reinstall assembly to machine.

Wheel Nuts

- Wheel nuts should be tightened to a torque of 125 ft. lbs.
- Check in the first 10 hours of operation and every 50 hours thereafter.
- Replace wheel nuts and studs if they have become loose or damaged.

Replacement Parts

Part Number	Qty/Wobbly	Description
WHL1566	13	Wheel – 15x6x6
AT8590	13	Tire - 8.5/90-15K smooth
3031	1	Strike plate spacer
3030	1	Main pin pivot sleeve
SZZJ2Z00N004	1	Single spindle ass'y
AZZJ2Z00N001	6	Double spindle ass'y
61LZJ2003	13	Replacement hub
69J2ZZD004	1	Single spindle
68J2ZZD001	6	Double spindle
4681048	6	Wobbly assembly
573Z961	78	Stud Nut 9/16" 18UNF
572Z966	78	Stud 9/16" 18UNF
98608A2	13	Grease Nipple 45 Degree
59948510	13	Outer Cup for Taper Roller Bearing
59848548	13	Outer Cone for Taper Roller Bearing
56106901	13	Dust Cap
5490902	13	Grease Seal
59925520	13	Inner Cup for Taper Roller Bearing
59825580	13	Inner Cone for Taper Roller Bearing
986Z141	6	Grease Nipple Straight 1/4-28UNF

Warranty

Conquest Equipment products are warranted to be free from defects in workmanship for two years from the date of purchase. Warranty is void on products and components that have been modified or repaired without the prior consent of Conquest.

Conquest warranty does not cover damage from misuse, accidents, lack of service, or negligence or damage to the attachment or surrounding environment.

Claims are limited to replacement parts and a reasonable labor amount. Warranty does not cover service mileage, downtime or replacement of attachment. Factory replacement parts must be used.

WARRANTY PROCESS

1. Contact Conquest to request a Warranty Claim Form.
2. Once Warranty Claim Form is received along with pictures, Conquest will evaluate for repair.
3. RGA number will be assigned and replacement part sent prepaid, ground freight and invoiced.
4. Defective parts need to be returned prepaid to Conquest for warranty consideration. Upon inspection, account will be credited for defective part.

Please call Conquest with any questions regarding warranty. 1 (306) 994-2400