

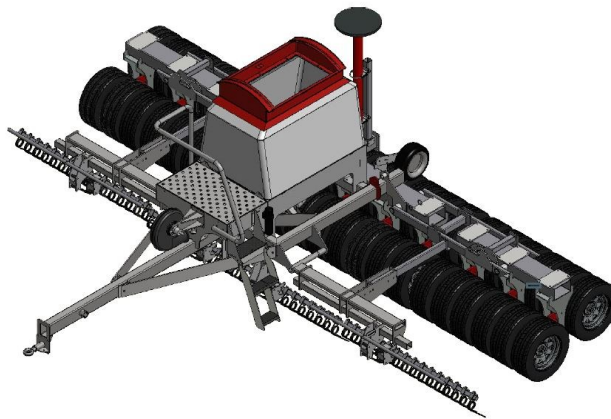
Owners Manual

TAEGE ENGINEERING LIMITED

(www.taege.com)



Series 600 ATR Air Tyre Roller



Specializing in the Design and Manufacture of Innovative Farm
Equipment

Manufactured by:

Dealer / Local Agent

:

Taege Engineering Ltd

Main West Road,
Sheffield 7500

New Zealand

Ph: 64 3 318 3824

Fax: 64 3 318 3646

E-mail: sales@taege.com

www.taege.com

Introduction

This manual sets out the technical information for your guidance in the proper use and servicing of this implement.

Extra copies can be downloaded from **www.taege.com**.

The serial/chassis number are stamped and/or plated on the front left hand side of the drill, on 100 x 100 RHS chassis cross member under the rear hopper.

Reference to the right and left hand side of the drill is as you see it from behind the drill looking toward the tractor.

Be sure to quote the drill model, chassis number and Controller version number when seeking advice and/or ordering spare parts.

E.g. Series 600 Model 600ATR Serial/No 005 600 14 ver2.52d

Thank you for buying a **TAEGE** Air Tyre Roller we pride ourselves with over 50 years of specializing in the design and manufacture of innovative farm machinery.

Your Air Seeder has been carefully designed and manufactured to provide years of dependable service, given normal care and proper operation.

Safety

- ❑ Focus on being prepared for emergencies.
- ❑ Read the operators manual carefully.
- ❑ Always follow recommended safe practices for operating this Air Tyre Roller and its associated equipment.
- ❑ Including tractors and other machinery used in conjunction with this Air Tyre Roller.
- ❑ Identify and avoid un-safe terrain.
- ❑ Always use lynch pins and safety chains on all drawbar pins.
- ❑ Do not exceed 20km/hr while towing the drill in normal working position.
- ❑ Keep all covers in place at all time unless removed for repairs or servicing.
- ❑ Stop the Air Tyre Roller before making adjustments.
- ❑ Lower Tyne harrows to the ground or put on stands when working around or under the machine.
- ❑ Ensure tractor electrics are disconnected and/or turned off and machine hydraulics disconnected when working or repairing the Air Tyre Roller.
- ❑ Tighten all nuts and bolts after initial use and thereafter at regular 30 hr intervals.
- ❑ It is recommended that the tractor hydraulics should not be operated in the float position. This is to ensure full penetration and proper contour following.
- ❑ Put the safety lockout stays (spacers) on the wheel rams so they are locked in the fully extended position while transporting.
- ❑ Watch for moving parts and stay well clear of Air Tyre Roller while it is moving.
- ❑ Practice safe handling of agricultural chemicals including treated seed.
- ❑ Wear appropriate safety equipment while operating the drill and including when filling seed / fertilizer hoppers and/or adjusting Air Tyre Roller.
- ❑ This includes safety glasses, gloves, ear protection, close fitting clothing and steel capped boots.
- ❑ Visit www.osh.dol.govt.nz for additional guidance and instruction on safe practices in the rural sector and/or other sectors targeted for the intended use of this drill.

SAFE OPERATING PROCEDURES FOR **TAEGE Air Tyre Rollers**

Before operating the Taege Air Tyre Roller please read the following:

Failure to comply with these warnings could result in serious injury. A careful and alert operator is the best insurance against incidents. Taege Air Tyre Rollers are designed to be safe to operate.

- Do not wear loose clothing, unrestrained long hair, jewellery or anything which could entangle in components or limit your vision.
- Never work or walk or allow any person/child under the equipment.
- If travelling on the road, the tractor must comply with the necessary lights, turn signals and all other legally required equipment.
- No person is ever to be between the tractor and this implement.
- **No person/child is to climb or ride onto this implement at any time.**
- When parking or before working on the machine. Stop the tractor on a firm level surface and apply the parking brake. Lower the machine to the ground and switch off the engine. Remove the key for added safety. Disconnect the 12vdc power supply.
- The machine should not to be used unless the operator has been trained in its safe use.

MAINTENANCE

Daily

- Grease all grease points (see Lubrication page 10)

Weekly

- Check the tyne nuts and wheel nuts are tight at all times
- Check hitch points for wear. Replace when necessary.
- Replace tynes if bent only by those recommended by the manufacturer.

STORAGE

- Store in shed away from vehicle or pedestrian traffic.
- Ensure machine is empty to eliminate rodent damage to rollers as this is not covered by warranty.

Warranty

From the date of purchase your **TAEGE** machine is covered by a 12-month warranty period for faulty parts and/or workmanship.

Ensure your dealer completes and returns a warranty certificate within 7-days of date of purchase

Send to

Taege Engineering Ltd
Main West Road
Sheffield 7500
New Zealand.

On delivery record the following **Basic Information**

Model:.....

Chassis Number:.....

Delivery Date:.....

Owner: Dealer:.....

Check for shipping damage. In cases of shipping damage, ask dealer to arrange for appropriate claim to be lodged immediately.

Ensure the attached registration / warranty validation card has been completed.

Place owners copy of warranty in safe place.

Check that the Dealers copy of the warranty has been correctly filled out and returned to the manufacturer.

Contact your dealer if you have any further queries.

Disclaimer

Drilling or Seeding with Taege® machines in conditions normally outside of the germination tolerances of the seed concerned cannot be expected to give satisfactory results.

Every attempt has been made to ensure the correctness of information and diagrams in this manual. Consequently, Taege Engineering Ltd will not be responsible for any damage or consequential loss arising out of misinterpretation of, or failure to follow, recommended practices and procedures. Nor will Taege Engineering Ltd be liable for any damage caused by, or arising out of modification or misuse of its product. Taege Engineering Ltd reserves the right to change technical details and prices without prior notice.

A full copy of Taege Engineering Ltd warranty document is available from sales@taege.com upon request.

Getting the Air Tyre Roller ready the first time

Attach the tractor to the Tyre Roller drawbar using the tractor drawbar using the correct size drawbar pin.

IMPORTANT

Always couple the hydraulic "RETURN" hose first and un-couple the hydraulic "RETURN" hose last.

Connect all the hydraulic hoses and plug in the tyre roller power lead to the tractor 30amp auxiliary power supply.

Ensure that the hydraulic hoses and wiring loom are clear of the tractor linkage and drawbar.

Stow the Jack stand in the transport position.

You now ready to put seed/fertilizer into the hopper/s.

Release the securing hook on the hopper cover and roll the cover to the open position, after filling the hopper, reverse this procedure.

Calibration

Calibration is the method by which you depend to put the correct amount of seed or fertilizer on an area of seed bed.

The controller has been programmed to suit the sowing width of the Air Tyre Roller, the distance settings, and has the ability to speed up and slow down according to the ground speed.

What the operator needs to do "is to accurately measure by weight of the seed that is to be sown". This is done by reading and following the instructions on page two of the **Controller Manual**. It most important that this is accurate, that the weighing scales that are provided be used, these scales measure in one gram increments. Care must be taken to prime the hopper before calibrating, make sure that no bridging occurs in the hopper.

Comment: When calibrating an Air Tyre Roller ensure that sufficient seed is weighed.

E.g.

Small seeds at least 1.00Kg

Cereals 2 Kg

Fertilizer 2 -3Kg

Calibration

Go to the RC300L Controller ver2.5x Operators manual and follow the instructions

Page 2 **QUICK CALIBRATION**

**Always disconnect the controller when not in use.
Always disconnect the power source when welding on the machine.**

Travelling Speed

Taege Air Tyre Rollers are able to travel at faster average speeds, the recommended speeds are from 8Kph to 14Kph.

Ground conditions play an important part in achieving this optimum speed.

Setting the Sowing Depth

Your TAEGE Air Tyre Roller is fitted with HD Flexible Tyne Fingers which contact the ground and can be set at three different angles to give optimum contour following and trash clearance.

It is important to inspect seed placement after determining the optimum ground speed. Please check the seed depth.

We recommended that you travel at a speed that gives the correct seed placement.

When inspecting seed placement, take into account seed bounce and harrow depth, change this by adjusting the bolts on the parallel bars of each harrow linkage making sure that the adjustment is the same on each unit.

Setting the Fan Speed

Your TAEGE Air Tyre Roller is fitted with a hydraulically driven fan with air cooling and an "rpm" sensor.

Adjust the fan speed by using the tractor's hydraulic flow control.

Optimum fan speed varies with the seed type, so always check and make sure that seed placement is correct.

The fan speed is set to 2900rpm at the factory (see page 10).

Drill Operation

Once you have set the correct depth, mount the tractor and start drilling by turning the RC300L Controller to **RUN**. You will see a moving indicator on the top right hand of the controller display which indicates engaged operation. When you lift the drill at the end of a drilling run, the air seeder will automatically stop sowing seed and the indicator will stop moving, and start again when the drill is lowered. Check the air speed "RPM" for any variation in speed this shows in both "RUN/STOPPED" mode. Further information is available on the screen by pressing the OK button in the **RUN** mode.

Emptying the Hopper

To empty the hopper, pull the blanking plate that is situated above the metering sponges to the closed position, remove the metering cassette, place a receptacle under the hopper outlet, put the chute in position and push the slide to the open position. The hopper will now gravity empty.

Removing Metering Cassette Assemblies

Release the clamps on either side of the metering cassette after putting the blanking plate into position closed position, then pull out the cassette. Reverse the procedure to re-assemble.

When assembling the metering unit you may need to align the driver dogs inside the metering assembly.

Bolted Connections

All bolts should be re-tightened after the first day or 50Ha of use. Thereafter the tyne and tip bolts should be checked at regular intervals (i.e. daily or every 100 to 400 ha). Nyloc nuts should be replaced or a spring washer added if the nyloc nuts have been removed more than once.

Hydraulic System

Your Taeye Air Seeder is fitted with a double acting hydraulic system with phasing rams and hydraulically driven turbine (fan).

Care must be taken when coupling the machine to the tractor, ensuring that you are clear of all overhead power wires and that all persons are clear of the machine.

The hydraulic couplings are fitted with colour coded plugs and caps which indicate the hydraulic circuit being used.

IMPORTANT Always couple the hydraulic "RETURN" hose first and un-couple the hydraulic "RETURN" hose last.

- 1. UNMARKED** = Larger **return hose** from oil cooler.
- 2. UNMARKED** = Turbine (fan).
- 3. GREEN** = Raise and lower. This circuit has an isolating valve to be used when the machine travelling on the road or when the machine is disconnected from the tractor.
- 4. RED** = Raising or lowering the right and left wing units.
The tractor raise and lower hydraulics should be operated without using the float option for optimum ground penetration and contour following this ensures that the ground wheels remain in contact with the ground at all times.
- 5. YELLOW** = **1st** Auxillary for rear implement (if fitted).
- 6. BLUE** = **2nd** Auxillary for rear implement (if fitted).

Adjusting the air turbine (fan) using the tractor flow control

The air turbine (fan) is hydraulically driven with pressure protection for the oil cooler.

The turbine (fan) is set to a maximum of 2900rpm at the factory.

Turbine (fan) "RPM" is indicated on the rate controller (RC300L).

Flow rate should be adjusted using the tractors flow control.

Adjust the tractor flow control as follows:-

1. Set the tractor RPM to the expected operating speed.
2. Adjust the flow control on the tractor hydraulic valve until the rpm on the rate controller (RC300L) slows.
3. Then adjust the flow control until maximum rpm of 2900 is achieved. Do not over adjust.
4. Then adjust the "rpm" down to the desired operating rpm.

Please discuss with your dealer and ensure that the tractor being used has sufficient L/min to operate the machine.

Tyre Pressure

The recommended tyre pressures are shown on the respective manufactures websites. Generally 250 – 490 Kpa (18-35psi)

The drill will bounce excessively if the wheels are over inflated.

Jockey wheel maximum pressure cold. 22 psi (1.5 bar).

Lubrication

Air Seeder Series 600 has 16 grease points, lubricate as follows:

Grease the hydraulic ram pivot points (6) every day or every 200Ha

Grease the LH & RH wing pivot points (4) every day or every 200Ha

Grease the linkage points every day (6) or every 200Ha

Grease the wheel hubs monthly.

Always use a high pressure grease gun.

Pump sufficient grease into pivot points until fresh grease becomes visible and extruded around the central shaft.

The jockey wheel has sealed bearings.

DO NOT LUBRICATE NYLON BUSHES AND/OR NYLON BEARINGS

This makes an abrasive paste that will accelerate wear. This applies to all nylon bearings, bearing hangers and snap locks on the seed and fertilizer hoppers.

Jack Stand

Always check that the jack is stored correctly.

Daily Maintenance

Electrical Connections	Air Tyre Roller to tractor auxiliary connection Lead connections Wiring loom for damage	
Drawbar	Lower linkage bar lynch pins	
Bolts	All bolts	
Tynes	Tyne tip bolts Dropper hose connections	
Hopper	Sponges for damage	
Hydraulics	Hose connections Oil leaks Hydraulic rams	
Wheels	Tyre inflation (pressure)	
Jack stand	Correct position	
Lubrication	Grease daily where necessary	

NOTES

Warranty Certificate

From the date of purchase your **TAEGE** machine is covered by a 12-month warranty period for faulty parts and/or workmanship.

Ensure your dealer completes and returns a warranty certificate within 7- days of date of purchase.

Send to

Taege Engineering Ltd
Main West Road
Sheffield 7500
New Zealand.

Dealer Name and Address

On delivery record the following **Basic Information**

Model:.....

Chassis Number:.....

Delivery Date:.....

Owner: Dealer:.....

Check for shipping damage. In cases of shipping damage, ask dealer to arrange for appropriate claim to be lodged immediately.

Ensure the attached registration / warranty validation card has been completed.

Place owners copy of warranty in safe place.

Check that the Dealers copy of the warranty has been correctly filled out and returned to the manufacturer

Contact your dealer if you have any further queries.

Disclaimer

Drilling with Taege® seed drills in conditions normally outside of the germination tolerances of the seed concerned cannot be expected to give satisfactory results.

Every attempt has been made to ensure the correctness of information and diagrams in this manual. Consequently, Taege Engineering Ltd will not be responsible for any damage or consequential loss arising out of misinterpretation of, or failure to follow, recommended practices and procedures. Nor will Taege Engineering Ltd be liable for any damage caused by, or arising out of modification or misuse of its product. Taege Engineering Ltd reserves the right to change technical details and prices without prior notice.

A full copy of Taege Engineering Ltd warranty document is available from sales@taege.com upon request.