



OWNERS MANUAL

Direct Drills

300 series & 360 Series



Manufactured by:

Dealer / Local Agent

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Introduction

Congratulations on purchasing a Taege Direct Drill! Taege Engineering, a market leading agricultural company, who pride themselves on developing market leading solutions demanded by New Zealand farmers and contractors.

Taege Engineering want you to be satisfied with your drill, which has been designed and manufactured to provide years of dependable use.

By following our owner's manual (using, service, maintenance etc) the life span and the second-hand value of the machine can be extended. If you ever lend or sell this machine, make sure that the borrower or buyer gets the operator's manual, so they will also know how to properly maintain and use it. You can download additional copies of your owner's manual from www.dealer.taege.com.

The serial/chassis number of your machine are stamped and/or plated on the front right hand side of the drill, on the main chassis cross member.

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

Please quote your drill model, chassis number and controller version when seeking advice or ordering parts.

E.g. series 300 S/No 535 36 11. RC300L ver 2.52d

Thank you for purchasing a Taege Drill. Taege Engineering has a policy of continuous product development and therefore reserves the right to modify the design and appearance of products without prior notice.

Safety

- Focus on being prepared for emergencies.
- Read the operators manual carefully.
- Always follow recommended safe practices for operating this drill and its associated equipment, including tractors and other machinery used in conjunction with this drill.
- Identify and avoid un-safe terrain.
- Always use lynch pins and safety chains on all drawbar pins.
- Do not exceed 30km/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 drill before making any adjustments.
- Lower drill to 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 on drill.
- Tighten all nuts and bolts after initial use and thereafter at regular 30hr intervals.
- Tractor hydraulics should not be operated in the float position to ensure full drill 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 drill while it is moving.
- Practice safe handling of agricultural chemicals including treated seed.
- Double safety chains should be used to secure drills both on end tow, and behind the tractor.
- End-tow units with mudguards and lights for road use are available as an optional extra. (see Removing the end tow kit)
- Wear appropriate safety equipment while operating the drill and including when filling seed / fertilizer hoppers and/or adjusting drill. 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

- Before operating the Taege Drill please read the following 'Safe Operating Procedures'.
- Failure to comply with these warnings could result in serious injury.
- A careful and alert operator is the best insurance against incidents.
- Taege drills 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 please ensure that the tractor being used is fitted 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 other than the operator.
- 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.
- The drill /machine should not to be used unless the operator has been trained in its safe use.

MAINTENANCE

Daily

- Grease all grease points

Weekly

- Check the tyre nuts and wheel nuts are tight
- Check hitch points for wear. Replace when necessary.
- Replace tyres 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.

Removing the End Tow

- Position the jack stand to support the drill.
- Unhitch the drill from the towing vehicle.
- Lower the drill drawbar to allow connection to the tractor drawbar and connect the drawbar turnbuckle.
- Connect to the tractor drawbar and then connect the hydraulic hoses.
- Remove the end tow drawbar from the drill.
- Raise the drill to its highest position to allow the end tow wheels to be removed by firstly removing the locating pins and sliding the transport wheels' outwards from there mountings.
- Remove the end toe drawbar mounting clamps.
- Change the tine harrows into the working position.

Getting the drill ready the first time

- Attach the tractor to the drill drawbar using the tractor drawbar pin.
- Connect the hydraulic hoses and plug in the drill power lead to the tractor 30amp auxiliary power supply.
- Lower the jack and stow in the transport position. Unscrew the hydraulic transport screw on the drill equalizer valve and lower the drill so that the tynes are on the ground.
- You are now ready to put seed/fertilizer into the hopper/s.
- Ensure that the hydraulic hoses and wiring loom are clear of the tractor linkage and drawbar.

Understanding Calibration

Calibration ensures the correct amount of seed or fertilizer is dispersed onto an area of seed bed.

The controller has been programmed to know the sowing width of the drill, the number of wheel counts per 100m, and speeds up or slows down according ground speed.

To accurately measure by weight of the seed that is to be sown can be achieved by following the instructions on page 2 of the Controller Manual. It is important that this is accurate, the weighing scales that are provided should be used, these measures are in 1 gram increments. Please note: The hopper must be primed before being calibrated, making sure that no bridging occurs.

Calibration

Go to the RC300L Controller ver2.5xx Operators manual and follow the instructions Page 2 QUICK CALIBRATION

Drilling Speed

Taege drills have the ability to travel at faster average speeds achieving better tilth, average recommended speeds are from 8Kph to 12Kph.

Ground conditions play an important part in achieving this optimum speed. It is important to inspect your seed placement when determining optimum drilling speed.

Setting the Sowing Depth

Your Taege drill is fitted with HD Flexible “S” tynes which contact the ground at a specific pre-set angle which gives greater contour following and penetration.

- To check the sowing depth, it is recommended that you travel at your optimum drilling speed and check to make sure that seed placement is correct.
- To set the depth, fit ram collars to the hydraulic rams and making sure that the same sized collars are fitted to each side of the drill.
- Each collar size combination gives you 3mm adjustment.
- To adjust the level of the drill, turn the drawbar turnbuckle to achieve the optimum level.

Drill Operation

- Once you have set the correct depth set, mount the tractor and start drilling by turning the Controller to RUN.
- When you lift the drill at the end of a drilling run, the drill will automatically stop sowing seed and then start when the drill is lowered.

End of Day

Follow the instructions on the page 'Run to Empty' in the RC300L Controller ver2.5xx Operators manual.

Removing Sponge Bar Assemblies

- Lift the flaps on either side of the seed/fertilizer hoppers and secure them in the raised position using the locking tabs mounted on either side of hoppers in the centre.
- Push down the Taege Snap locks and remove the sponge bars by putting sideways pressure on the bar (away from the motor) until it clears the drive shaft.
- Repeat the procedure for the other sponge bar/s.

Fitting the Sponge Bar Assemblies

- Locate the plain end of the sponge bar within the spring-loaded bearing on the side of the drill under the seed/fertilizer hoppers applying sufficient even pressure along the bar.
- Depress the spring in the bearing block so the collar on the motor end of the roller bar clears the end of the slotted driven shaft on the other end of the drill.
- Release the pressure on the bar, allowing the collar to engage with the drive shaft.
- Rotate the sponge bar assembly until the roll pin locates in the slot on the drive shaft.
- In this position, all the sponges should be in line with the hopper openings.
- Check that all sponges are secure on the shaft.

Always fit the furthest away sponge bar first and make sure that the sponge bar located correctly at both ends.

They should align with the hopper openings. When the second bar is fitted, align the sponges with each other. If adjustment is needed, loosen with a 3mm Allen key and align making sure both sponge bars are fully engaged with the motor end drive.

Bolted Connections

All bolts and grub screws should be re-tightened after the first day or 10 ha of use. Thereafter the tyne and tip bolts should be checked at regular intervals (i.e. every 50 - 100 ha). Nyloc nuts should be replaced or a spring washer added after they have been removed more than once.

Hydraulic System

Your Taege Drill is fitted with a double acting hydraulic system and flow divider. The tractor hydraulics must be operated without using the float option for optimum ground penetration and contour following, ensuring the driving ground wheel remains in contact with the ground at all times.

Later drills have phasing rams. (No flow divider.)

Setting the Flow Divider (equalizer valve)

- Connect both hose to the tractor hydraulics.
- Unscrew the lockout tap on the flow divider.
- Raise the drill to its highest position. If the drill is uneven, unscrew the flow divider setting valve 3x turns, raise and lower the hydraulics two or three times and then with the hydraulics in its raised position, screw in the flow divider setting valve screw.
- Raise and lower the drill several times to ensure that the system is operating correctly.
- Then adjust the tractor flow control for speed.

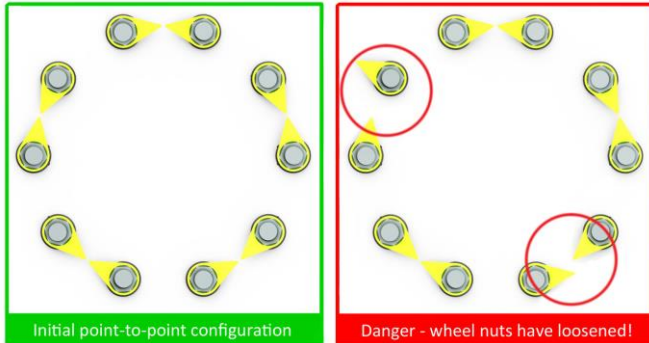
Tyre Pressure

The recommended tyre pressure is 26 -28.5Kpa (18-20psi) for the land wheels.

The drill will bounce excessively if the land wheel tyres are over inflated.

Wheel Nut Indicators

- Checkpoint®: High visibility loose wheel-nut indicators.
- Wheel nuts torque setting 300Nm
- Indication below shows before and after.



Lubrication

- Grease the hydraulic ram pivot and axle pivot points every day or 25 Ha using a high-pressure grease gun; remainder every 100 Ha.
- Pump sufficient grease into pivot points until fresh grease becomes visible and extruded around the central shaft.

DO NOT LUBRICATE NYLON BUSHES AND/OR 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.

Wheel Scrapers

Always check the clearance between land wheel scraper and the land wheel tyre. If a jockey wheel is fitted, check the scraper clearance.

Jack Stand

Always check that the jack is stored correctly.

Daily Maintenance

Electrical Connections	<ul style="list-style-type: none">• Drill to tractor auxiliary connection• Lead connections• Wiring loom for damage
Drawbar	<ul style="list-style-type: none">• Drawbar pin located and pinned
Bolts	<ul style="list-style-type: none">• Drawbar lynch pins• All bolts• Top baffle tri-nuts
Tynes	<ul style="list-style-type: none">• Tyne tip bolts• Dropper hose connections
Hopper	<ul style="list-style-type: none">• Sponges for damage
Hydraulics	<ul style="list-style-type: none">• Hose connections• Oil leaks• Hydraulic rams
Wheels	<ul style="list-style-type: none">• Tyre inflation (pressure)• Scraper distance
Jack stand	<ul style="list-style-type: none">• Correct position
Lubrication	<ul style="list-style-type: none">• Grease daily where necessary

NOTES



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 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.