



# OWNERS MANUAL

## Air Seeder

### AS310, AS340 & AS360 Series

from serial number 075\*\*\*21



**Manufactured by:**

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**Dealer / Local Agent**

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20/09/2021

*A Ground Breaking Company Since 1923*



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# Introduction

Congratulations on purchasing a Taege Air Seeder! 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](http://www.dealer.Taege.com).

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

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

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

E.g. series AS300 S/No 075 360 21. RC350L ver 01.38

Thank you for purchasing a Taege Air Seeder. 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 air seeder and its associated equipment, including tractors and other machinery used in conjunction with this Air Seeder.
- 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 air seeder in normal working position.
- Keep all covers in place at all time unless removed for repairs or servicing.
- Stop the Air Seeder before making any adjustments.
- Lower Air Seeder 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 Air Seeder.
- 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 air seeder 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 Seeder while it is moving.
- Practice safe handling of agricultural chemicals including treated seed.
- Double safety chains should be used to secure Air Seeder 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 air seeder and including when filling seed / fertilizer hoppers and/or adjusting Air Seeder. This includes safety glasses, gloves, ear protection, close fitting clothing and steel capped boots.
- Visit [www.osh.dol.govt.nz](http://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 Air Seeder.

# SAFE OPERATING PROCEDURES

- Before operating the Taege Air Seeder 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 Air Seeders 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 machine should not to be used unless the operator has been trained in its safe use.
- **Before working under the machine, fit all delimiter blocks to prevent the hydraulic rams from closing in the event of a hydraulic hose failure**
- **Before working under the machine, always pin the frame stand down on machines that are uncoupled from the tractor**

# MAINTENANCE

## Daily

- Grease all grease points (see Lubrication)

## Weekly

- Check the tyne nuts and wheel nuts are tight
- 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.

# Getting the Air Seeder ready the first time

- Attach the tractor to the air seeder drawbar using the tractor lower linkage arms.
- Connect the hydraulic hoses and plug in the air seeder 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.
- Please tighten the wheel stud nuts.
- 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.



# Starting the Controller

Ensure 2 x Controller leads are connected correctly (red to red) and the Euro ("D") power plug or ("Anderson plug" if fitted) are connected to the tractor.

All hoppers are turned **OFF**. **"X"** and will only turn **ON** after they have been calibrated for the 1<sup>st</sup> time.

## Calibration (from serial number #075\*\*\*21)



1. Place the **CALIBRATION CHUTE** and **COLLECTOR BIN** under the hopper to be calibrated.

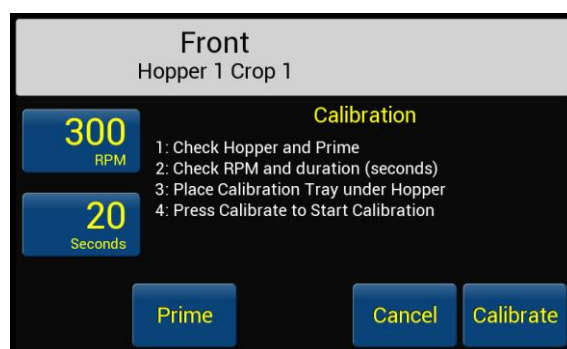


Drilling Position → Clip



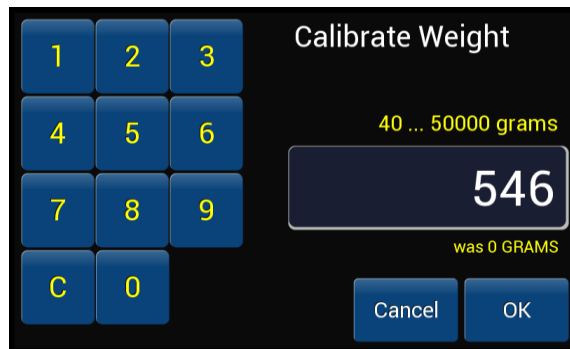
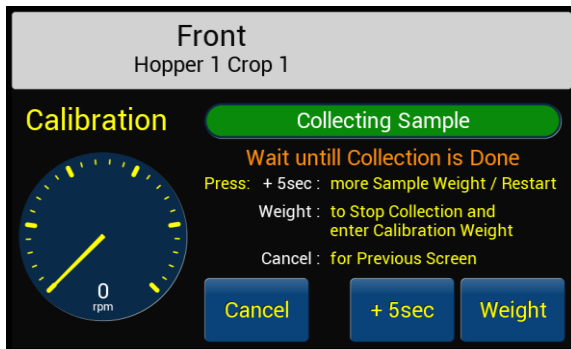
Calibration Position

2. Select (on the computer top line) which hopper to calibrate by touching the   arrows at the top of the screen.

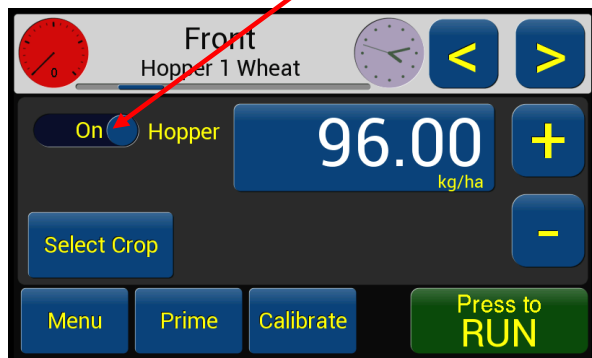


3. Touch the **CALIBRATE** button and on the next screen **HOLD** the **PRIME BUTTON** for approx. 5 seconds to see product being delivered.

4. Empty the bin and replace back under the chute
5. Touch the **Calibrate** button to see 20 seconds of product delivered.



6. Weigh the product **IN GRAMS**.
7. Touch the **WEIGHT** button and enter the amount weighed
8. Touch the **OK** button and check you have entered the amount correctly then touch **OK** again.
9. If this is the first calibration, touch the **“Off”** to turn **“On”**.



10. Enter the sowing rate by touching the kg/ha and putting in the sowing rate or +/-
11. Replace the calibration chute / flap to the drilling position and **“ Clip the chute into the drilling position”** with the clip at the bottom of the chute. (see the arrow on drilling position photo)
13. Select other hoppers to be calibrated by repeating the setup procedure again from number 1



# Calibration check

1. At anytime you can test the calibration setting by using the following method.
2. Choose the hopper and crop to be tested.
3. Lift the wheel or jockey wheel into a free running position
4. Then on the controller screen press "Menu"
5. On the menu screen press "Area Reset"
6. Press "Yes"
7. Press "Back"
8. Press
9. Move the wheel in the direction of travel until the "ha" on the controller records 0.010 ha and then stop the wheel. Weigh the amount of product, this should equal about 100th of the "kg/ha" target seeding weight

If there is more than a 10% difference. **Recalibrate**

If you are testing a double hopper system, you may need to turn off the hoppers you are not testing to save spilling the contents during the test.

Do this by turning the levers on the other gearbox/s to the horizontal position or by turning the hoppers off on the controller.

Always remember to turn the hoppers on again.

# Calibration continued -

Calibration ensures the correct weight of seed or fertilizer is spread on an area of seed bed. The controller has been programmed to know the sowing width of the Air Seeder, the distance travelled, and can speed up or slow down according 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 4 of the **Controller Manual**. It most important that this is accurate, and the weighing scales provided are used, these scales measure in 1 gm increments. Please prime the hopper before being calibrated, ensuring no bridging occurs.

When calibrating an Air Seeder ensure that sufficient seed is weighed.

E.g. Small seeds at least 1.00Kg

Cereals 2 Kg

Fertilizer 2 -3Kg

**Always disconnect the controller when not in use.**

**Always disconnect the power source, the controller and cables to the motor when welding on the machine.**

## Travelling Speed

Taege Air Seeders 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 and air speed when inspecting seed placement and seed bounce.

## Setting the Sowing Depth

Your Taege Air Seeder is fitted with HD Flexible “S” tynes which contact the ground at a specific preset angle which gives greater contour following and ground penetration.

Check the sowing depth. We recommended that you travel at your optimum drilling speed and make sure that the seed placement is correct.

Set the depth, by changing the ram collars on the hydraulic rams. Making sure that the same number and sized collars are fitted to each hydraulic ram shaft.

Each collar size combination gives you increments of 4mm adjustment.

Adjust the level of the air seeder, using the top link.

# Setting the Fan Speed

Your TAEGE Air Seeder is fitted with a hydraulically driven fan with cooling and “rpm” sensor. Adjust the fan speed to suit the seed type being used by adjusting the flow control on the tractor hydraulic control. Optimum fan speed is variable so check and make sure that seed placement is correct. The fan speed is set between 2800rpm & 2900rpm at the factory. This speed setting may need to be adjusted for heavier sowing rates. (Contact your dealer for instructions).

# Air Seeder Operation

Once you have set the correct depth, mount the tractor and start drilling by turning the Controller to **GO**. You will see a moving indicator at the top 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, then start again when the drill is lowered. Check the air speed “RPM” for any variation in speed this shows in both “**GO/STOP**” mode. Further information is available on the screen..

# Emptying the Hopper

To empty the hopper, pull the blanking slide 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 the calibrate position and push the slide to the open position. The hopper will now gravity empty. “Run to Empty” may also be used.

# Removing Metering Cassette Assemblies

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

When refitting the cassette assembly unit you may need to re-aligned the driver dogs inside the cassette assembly.

# Bolted Connections

All bolts should be checked for tightness and re-tightened after the first day or 50Ha of use. Thereafter the tyre 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.

## 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 between 2800rpm & 2900rpm at the factory.

**The turbine (fan) speed must never exceed 4000rpm.**

Turbine (fan) "RPM" is shown on the Controller.

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 slows.
3. Then adjust the tractor flow control until desired rpm is achieved.

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

## Hydraulic System

Your Taege Air Seeder is fitted with a double acting hydraulic system with phasing rams and hydraulically driven turbine (fan) and travelling diverter valve (optional)

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 "RETURN" hose first and un-couple the "RETURN" hose last.**

**BLACK** = Larger **return hose** from oil cooler.

**BLACK** = Turbine (fan).

**GREEN** = Raise and lower. This circuit has an isolating valve and a flow valve to be used when the machine travelling on the road or when the machine is disconnected from the tractor.

**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 always.

**YELLOW** = 1<sup>st</sup> Auxillary for rear implement (if fitted).

**BLUE** = 2<sup>nd</sup> Auxillary for rear implement (if fitted).

## Tyre Pressure

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

The air seeder will bounce excessively if the wheels are over inflated.

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

## Lubrication

Air Seeder Series 480 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.
- 2pt linkage

### **DO NOT LUBRICATE NYLON BUSHES AND/OR NYLON BEARINGS**

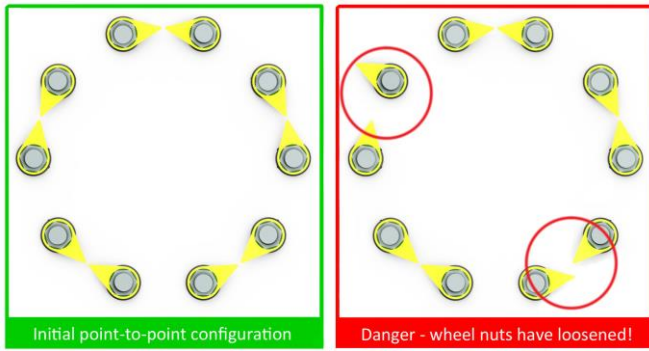
This makes an abrasive paste that will accelerate wear. This applies to all nylon bearings, bearing hangers and snap locks on the seed and fertilizer hoppers.

# Jack Stand

Always check that the jack is stored correctly.

# Wheel Nut Indicators

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



# Daily Maintenance

Electrical Connections	Drill 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)
Wheel nuts	Check tightness
Jack stand	Correct position
Lubrication	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 S7500  
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 Air Seeders 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](mailto:sales@taege.com) upon request.