

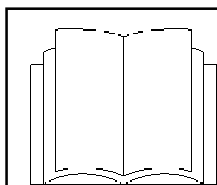
AVANT®

Operator's Manual for Attachment



Towable Sand / Salt Spreader

Product number: A415430



Please read this manual carefully before using the equipment, and follow all instructions.

Keep this manual for later reference.

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I. Foreword

Avant Tecno Oy and AS Sami would like to thank you for your purchase of this attachment for your Avant loader. It has been designed and manufactured on the basis of years of experience on product development and manufacturing. By familiarising yourself with this manual and following the instructions, you ascertain your safety and ensure the reliable operation and long service life of the equipment. Read the instructions carefully before starting to use the equipment or performing maintenance.

The purpose of this manual is to help you to:

- operate the equipment in a safe and efficient manner
- observe and prevent any hazardous situations
- keep the equipment intact and ensure a long service life

The following warning symbols are used throughout this manual to indicate factors that must be taken into account to reduce the risk of personal injury or damage to property:

	WARNING:
	This safety symbol refers to important safety information in this manual. It warns of an immediate hazard that could cause serious personal injury. Read the warning text accompanying the symbol carefully and ensure that other operators are also familiar with the warnings, since personal safety is at stake.

NOTICE

This notice mark indicates information about the correct operation and maintenance of the equipment.

Failure to observe the instructions accompanying the symbol can lead to equipment breakdown or other property damage.

With these instructions, even an inexperienced user can use the attachment and loader safely. The manual includes important instructions for experienced AVANT operators as well. Ensure that all persons using the loader have received proper guidance and familiarised themselves with the manual of the loader, each attachment that are used, and all safety instructions before using the equipment. Using the equipment for other purposes or use in any other way than described in this manual is prohibited. Keep this manual at hand throughout the service life of the equipment. If you sell or transfer the equipment, be sure to hand over this manual to the new owner. If the manual is lost or damaged, you can request a new one from your Avant dealer or manufacturer. Due to continuous product development some of the details shown in this manual may differ from your equipment. This manual contains the original instructions in English.

In addition to the safety instructions included in this manual, you must observe all occupational safety regulations, local laws, and other regulations concerning the use of the equipment. Particularly the regulations concerning the use of the equipment on public road areas must be observed. We reserve the right to change the contents of the manual without notification.

2. Designed purpose of use

The Towable Sand Spreader is an economical and easy tool for smaller areas. The spreader is well suited for winter maintenance of yards, walkways, paths, and other level areas. The best spreading result is usually achieved when using material with grain size between 4 and 8 mm. The material should not be lumped or frozen.

The spreader is coupled to trailer hitch ball of the loader. Power to the spreader shaft is taken mechanically from the wheels, so the spreader does not require any hydraulic couplings. When pulled forward, the wheels rotate the spreader shaft. When reversing, the clutches on the wheel hubs allow the wheels to rotate freely, and the spreader will not spread. Also, for crossings, the clutches can be set to transport position to prevent the doser shaft from turning. The spreader is intended to be used only while coupled to a loader, and by operating the controls of the loader only while sitting on the driver's seat of the loader. Using the spreader for other purposes or use in any other way than described in this manual is prohibited.

The attachment has been designed to require as little maintenance as possible. The operator can perform regular maintenance tasks. All maintenance work must be done using proper safety equipment. Only original spare parts must be used. Familiarise yourself with the manual's instructions regarding service and maintenance. Please contact your AVANT retailer if you have additional questions about the operation or maintenance of the equipment, or if you require spare parts or maintenance services.

3. Safety instructions for using the sand spreader

Please bear in mind that safety is the result of several factors. The loader-attachment combination is highly powerful and improper or careless use or maintenance may cause serious personal injury or property damage. Due to this, you should carefully familiarise yourself with the manuals of both the loader and the attachment before starting operation. Do not use the attachment if you have not completely familiarised yourself with its operation and the related hazards.



Misuse, careless use, or using an attachment that is in poor condition, may cause risk of serious injuries. Familiarise yourself with the controls of the loader and correct coupling procedure and correct way to operate the attachment at a safe area. Study especially how to stop the equipment in a safe manner. Read all safety precautions carefully.

Read all safety instructions carefully before handling the attachment



- Make sure that the spreader is fully locked on the trailer coupling of the loader.
- Start using the attachment slowly and calmly, and monitor the operation of the spreader.
- Practice using a towable attachment and reversing with the loader. When using a loader with articulated frame steering, precise manoeuvring of the towed attachment requires some practise.
- Never transport anything else than sanding material on the spreader.
- Always apply the parking brake of the loader when leaving the driver's seat to make sure the machine will not move.
- Uncouple the spreader only on level surface, so that it will not start to move when unlocking from trailer coupling. Completely empty spreader can be uncoupled on inclined surface, if moving of the spreader is prevented by using chocks or rocks to block the wheels.



- Also read the safety instructions of the loader from the operator's manual of the loader. Get familiar with the controls of the loader and how to drive it safely, and also note that slippery surfaces may influence handling of the loader.



Always keep a safety distance of at least two metres to other persons. Note that the broom may throw stones, gravel, or other objects found in the area at high speed. Do not allow others to get near the broom.

Remember to wear proper protective clothing:



- The noise level at the driver's seat may exceed 85 dB(A). Wear hearing protection while working with the loader.



- Wear safety boots while working with the loader.



- Wear protective gloves.

4. Technical specifications

Table I – Towable Sand / Salt Spreader - specifications

Product number	A415430
Working width:	1000 mm
Other dimensions:	1395 / 1895 / 735 mm
Empty Weight:	85 kg
Capacity	230 l
Tyre pressure:	2 bar
Compatible AVANT loaders:	200-700 series loaders

 Avant Tecno Oy Ylötie 1 FIN-33470 YLÖJÄRVI	
TYPE	No.
kg	
Made in EU Manufactured by AS Sami Tule 20, 76505 Saue, Estonia www.avanttecno.com	
2014	

Identification plate of the attachment

5. Assembly of the spreader

Depending on transport requirements, the wheels and drawbar may be separated from the spreader. Also the spreading doser adjustment bolt must be fitted before using the spreader.

5.1. Assembling the spreader

Fitting the wheels:

The wheels (1) must be set on the shaft so that their filling valves are on the inner side of the wheel. The correct orientation of the wheels must be observed because of the clutches welded on the wheel rims, so that the spreader will work correctly; rotating the doser shaft when driving forward, and allowing the wheels to rotate freely when reversing. The wheel is locked to the shaft (2) with locking pin (3). The nut of the clutch locking pin must be tightened so that the clutch will operate smoothly.

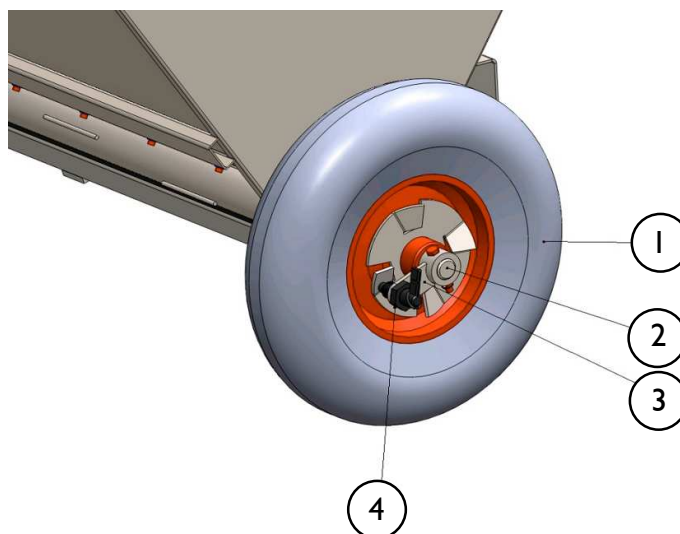


Figure 1 – Installing the wheels

Installing the drawbar:

To install the drawbar, first a support bracket (1) is fitted to the spreader with two bolts as shown in figure 2. Then the drawbar (2) is fitted to the spreader with three bolts and to the support bracket (1) with one bolt and nut.

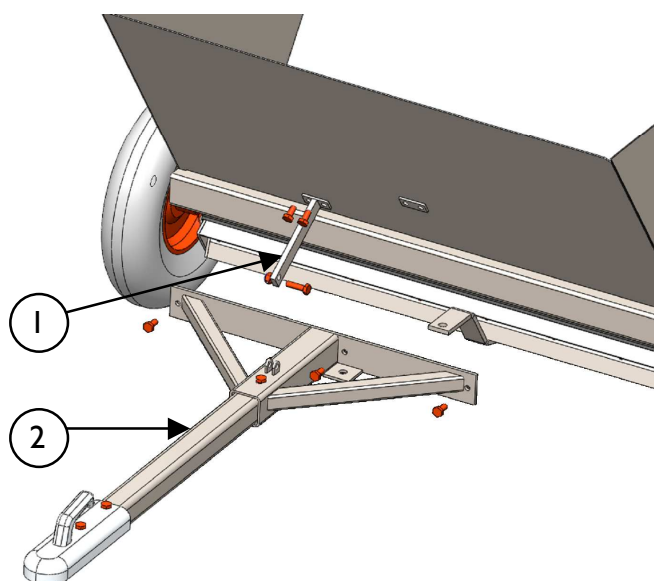


Figure 2 – Installing drawbar

Fitting the doser adjustment bolt:

After fitting the drawbar, make sure that the doser adjustment plate (1) can move unobstructed. If necessary, adjust its fitting bolts (2).

Then the doser adjustment bolt (3) and its spring (4) can be fitted. Before using the spreader, make sure that the adjustment bolt is not tightened too much, as overtightening may cause the sand to drain from the spreader.

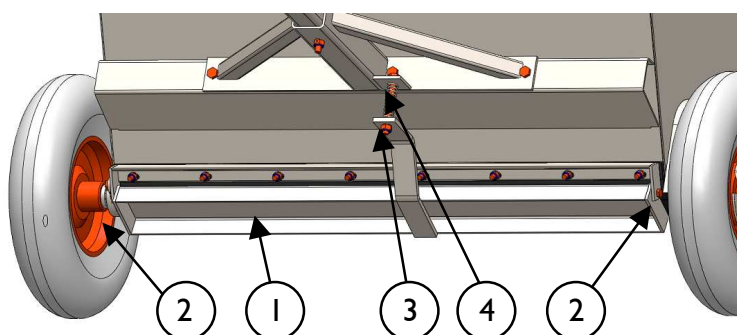


Figure 3 – Doser adjustment bolt

5.2. Attaching the spreader to the loader

The spreader is attached to the trailer coupling of the loader, available as an option. The drawbar is locked on the trailer coupling when the locking handle is parallel with the drawbar.

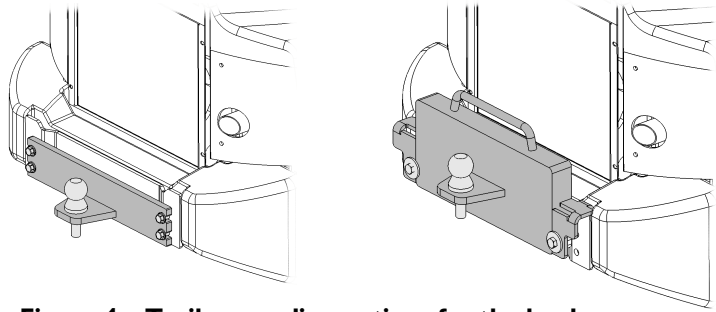


Figure 4 – Trailer coupling options for the loader

NOTICE

If using the removable extra weights on the loader, use only a single weight that has the trailer coupling welded on it. Using multiple removable counterweights may damage the fixings of the counterweights also in normal use of the spreader.

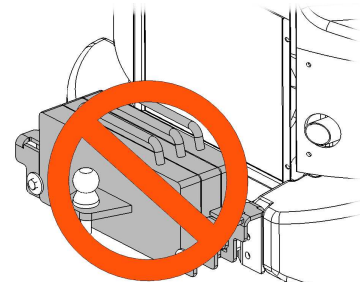


Figure 5– Using multiple rear weights is prohibited



A poorly fitted trailer coupling or counterweight may cause a hazardous situation as the spreader becomes separated or swings. Make sure that the trailer coupling, its fitting plate and the counterweight or rear plate of the loader are fixed properly and that all related fastening screws are tightened properly.

5.3. Uncoupling and storage of the spreader

To prevent moving of the spreader the spreader can be uncoupled only on level surface. The wheel clutches must be engaged before uncoupling the spreader. If there is material left in the spreader, the uncoupling must be done carefully to avoid unexpected swinging of the drawbar. Before uncoupling mix the material in the spreader so that the spreader is loaded evenly. Make sure the spreader will stay still while in storage.

NOTICE

Always cover the spreader. Protect the spreader from rain and clear snow from the spreader before using it. This reduces the possibility of the material getting frozen and the spreader becoming clogged.

6. Instructions for use

Check the attachment and the operating area before beginning work. Quick inspection of the attachment before starting to use it is part of ensuring safety and the best performance of the equipment. Practise the use of the spreader in an open and safe area. If you are unfamiliar with the loader to be used, it is recommended to practice its use without any attachments.

6.1. Inspections before use

- Check the wheels, clutches, and the general condition of the spreader before each day of use. Refer to Chapter 7 for maintenance instructions and see the instructions regarding the loader from the operator's manual of the loader.
- Before each use, check the operation of the broom and ensure that the spreader shaft can rotate freely. Check that there is no string or other foreign material coiled around the shaft.
- Check that the contact surfaces of the clutches on the wheel rims are clean and lubricated. If the surface is dirty or not greased, see Chapter 7 for maintenance instructions.

6.2. Using the spreader



Ensure that the loader and the attachment are used in a safe and intended manner. Operate the attachment only when sitting on the driver's seat. Do not allow children to operate the machine.



Operate the controls of the loader carefully and calmly during operating the equipment. Drive slowly especially on slippery surfaces.

Controlling the spreading:

The spreader can be set to roll freely with the clutches on the wheels (A). When the free running mode is needed, set the locking pins to pulled position.

NOTICE

Make sure that both clutches are set similarly to avoid overloading a single pin.

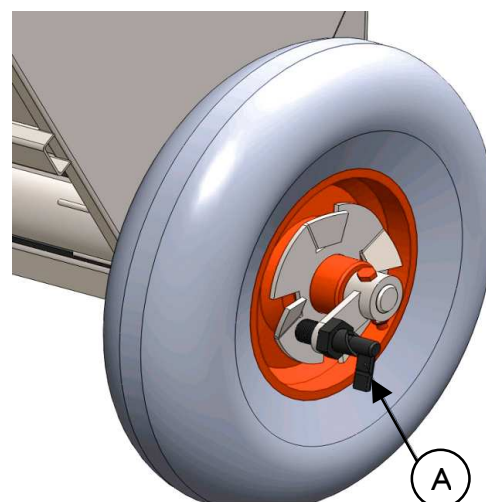


Figure 6 – Wheel clutch pins

Adjusting the spreading rate:

The amount that the spreader spreads at each rotation of wheels depends on the size of the spreaded material and of the position of the doser adjustment plate. The spreader will spread more material when the doser plate adjustment nut is tightened.

7. Maintenance and servicing

The attachment has been designed to be as maintenance free as possible. Continuous maintenance of the broom consists of regular cleaning and monitoring the general condition of the spreader. You may use a pressure washer and mild detergent to wash the spreader. However, avoid spraying directly at the rain cover or the labels on the attachment. The following maintenance procedures must be done regularly:

- The wheel shafts and clutches must be cleaned and lubricated regularly. Also the clutch surface on the wheel rim must be lubricated lightly.
- Before longer storage periods clean the attachment, touch up paint where needed and lubricate the wheel hubs and clutch surfaces. Also check the tyre pressure.

If the spreader does not function normally, first check the wheels, clutch pins, and the condition of the doser shaft. Clean the spreader thoroughly and remove possible trash coiled around the doser shaft. Contact service if the spreader does not work normally after thorough cleaning.

If the spreader becomes clogged because of ice and frozen material in the spreader, take the attachment to a warm place to allow it to melt. If possible, remove material from the spreader first. Do not use any chemicals to melt the spreader, and do not hammer the spreader to avoid damaging it.

8. Warranty terms

AS SAMI guarantees a warranty period of twelve (12) months for the product as of the date of purchase.

- Material and manufacturing defects that occur during the warranty period are covered by the warranty.
- Repair work is compensated for only if the manufacturer itself does not carry out the repairs.
- The manufacturer either repairs or replaces the defective parts.
- The manufacturer will reimburse the cost of parts purchased by the client only if the manufacturer agreement to this.
- Sub-contracted parts enjoy a warranty provided by their manufacturer.
- Warranty service does not extend the warranty period.
- Any damage caused by operation in a negligent manner or exceeding the approved specifications detailed in this manual is excluded.

The warranty excludes:

- consumables (e.g. blades, etc)
- downtime or any other consequential loss or damage
- transport costs (travel and freight costs)
- overtime pay or mission allowances

The warranty excludes damage resulting from:

- negligent or improper use of the product
- failure to observe the operating and maintenance requirements set by the manufacturer
- normal wear and tear
- abnormal operating conditions
- overloading or use for other non-intended purposes
- lack of maintenance and checks
- repair works which are below standard
- using other than SAMI original spare parts and equipment
- long storage time at the distributors' warehouses (e.g. paint defects or corrosion)
- The manufacturer does not accept any responsibility for interruption of work or any other consequential loss resulting from any failure of the product.

All warranty terms apply only to a new sand spreader purchased from a distributor authorised by AS SAMI. The warranty does not apply to resold sand spreaders. If a defect occurs, please contact the manufacturer or authorised distributor. Be sure to have at hand the year of manufacture / serial number of the product, see the manufacturer's data plate.



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