

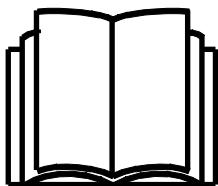
# AVANT<sup>®</sup>

## Operator's Manual for Attachment



### Push Broom

|                        |        |
|------------------------|--------|
| Product number         |        |
| 1300 mm for 200 series | A34076 |
| 1300 mm                | A34055 |
| 2000 mm                | A36453 |



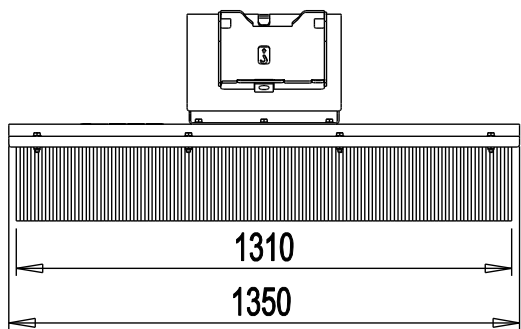
Please read this manual carefully before using the equipment, and follow all instructions.

Keep this manual for later reference.

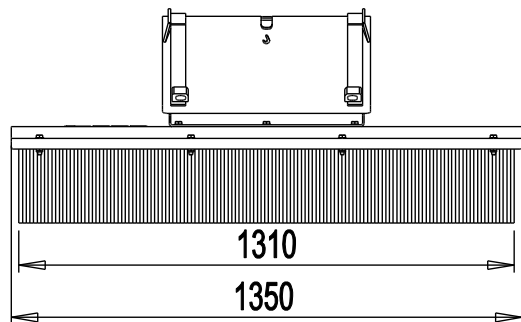
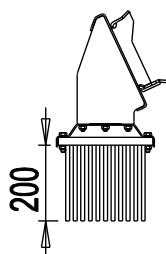
Manufacturer:

**AVANT<sup>®</sup>**  
**AVANT TECNO OY**  
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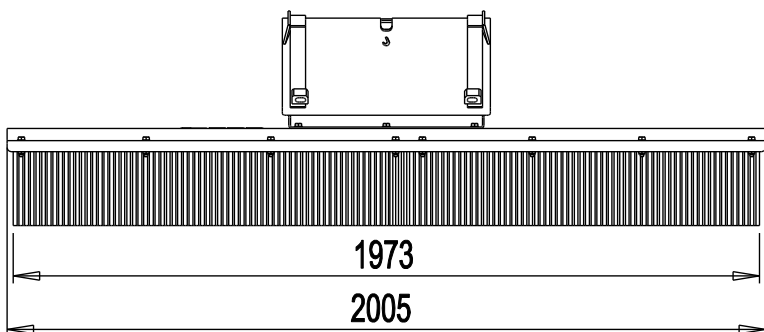
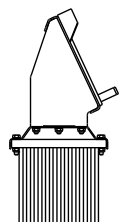
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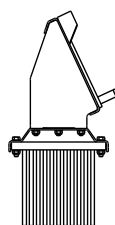
A34076



A34055



A36453



# CONTENTS

|   |           |
|---|-----------|
| <b>1. Foreword</b> .....                                      | <b>4</b>  |
| <b>2. Designed purpose of use</b> .....                       | <b>5</b>  |
| <b>3. Safety instructions for using the attachment</b> .....  | <b>6</b>  |
| <b>4. Technical specifications</b> .....                      | <b>8</b>  |
| 4.1 Safety labels and main components of the attachment ..... | 8         |
| 4.2 Safety labels and main components of the attachment ..... | 8         |
| <b>5. Attaching the attachment</b> .....                      | <b>10</b> |
| <b>6. Instructions for use</b> .....                          | <b>12</b> |
| 6.1 Checks before use .....                                   | 12        |
| 6.2 Using the Push Broom .....                                | 12        |
| <b>7. Inspections, maintenance, and service</b> .....         | <b>13</b> |
| <b>8. Warranty terms</b> .....                                | <b>13</b> |


## I. Foreword

Avant Tecno Oy 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:

|  |   |
|--|---|
|  | <p><b>WARNING:</b></p>  |
|  | <p>This safety symbol refers to important safety information in this manual. It warns of an immediate hazard that could cause serious personal injury.</p> <p>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.</p> |

### NOTICE

This signal word 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 from the 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 AVANT Push Broom is an attachment suitable for use with AVANT multi purpose loaders shown in Table 1. The push broom is a simple general purpose brush without moving parts - it simply pushes the material in front of the broom. The broom is ideal for quick clearing of smaller areas. The broom is also very useful in paving work to push sand between bricks. The brush will last long in use, and the bristle segments can be renewed as needed.

The attachment is maintenance free, except for cleaning, monitoring its condition, and occasional paint retouch if needed. Larger repair work must be left for professional maintenance. Please contact your AVANT retailer if you have additional questions about the operation or maintenance of the equipment.

**Table 1 - Push Broom - Compatibility with Avant loaders**

| Avant  | 216<br>218<br>220 | 220 <sub>series 2</sub><br>225 | 313S<br>320S<br>320S+ | 419<br>420 | 520<br>R20<br>525LPG<br>R28<br>528 | 630<br>R35<br>635<br>640 | 745<br>750<br>760i |
|--------|-------------------|--------------------------------|-----------------------|------------|------------------------------------|--------------------------|--------------------|
| A34076 | •                 | -                              | -                     | -          | -                                  | -                        | -                  |
| A34055 | -                 | •                              | •                     | •          | •                                  | •                        | •                  |
| A36453 | -                 | •                              | •                     | •          | •                                  | •                        | •                  |

### 3. Safety instructions for using the attachment

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, all operators must carefully familiarise themselves about correct use and the operator's 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, correct coupling procedure, and the 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***



- When attaching an attachment to the loader, **ensure that the locking pins of the loader's quick attach plate are in the lower position and that they have locked the attachment to the loader.** Never lift or move an unlocked attachment.
- The Push Broom is designed to be used by one operator at a time. Do not let others near the danger area of the equipment when it is in use.
- Always transport the attachment as low as possible to keep the centre of gravity low, and keep the telescopic boom retracted during driving.
- Always drive very slowly and carefully. Hitting any obstacle can result in sudden stopping of the loader - check the operating area and mark any floor obstacle that could be hit with the broom.
- Keep the angle of the fork relative to the floor small to help avoiding sudden stopping of the loader if the forks hit an obstacle.
- Pay attention to the surroundings and any other persons and machines moving in the vicinity. Pay attention to the contours of the terrain and other hazards, such as branches and trees that can reach to the driver's area, loose rocks, and slippery surfaces.
- Ensure that ventilation is sufficient when operating indoors. Do not operate the loader in closed spaces regardless of the engine or fuel type. Exhaust gases may concentrate to hazardous levels.
- Use the attachment only for its intended purpose. Other use may create unnecessary safety risks, and the equipment may get damaged.
- Make sure that the loader is equipped with necessary safety components, and that they are in working condition. Seat belt must be used. If there are specific hazards related to the operating area, use appropriate safety equipment.
- Also read the safety instructions and correct use of the loader from the operator's manual of the loader.



Never stay in the area between the loader and the attachment - risk of crushing. The boom or attachment may move unexpectedly even if the loader has been shut down. Keep a safe distance from the hazard area and from any moving component.

**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 protective gloves.



- Wear safety boots whenever working with the loader.



Wear respirator mask when operating in dusty conditions.

**Safe position of the attachment, before going near the loader boom**

Always set the attachment to a safe position before going near the attachment. Safe position will prevent unintentional movements of the attachment and the loader boom. Keep in mind that the attachment can move even if the engine of the loader is turned off. Safe position:

- Lower the boom completely down and lower the attachment flat on the ground.
- Shut down the loader engine and lock the parking brake. Prevent unintended use.

## 4. Technical specifications

**Table 2 - Push Broom - Technical specifications**

| Product number          | A34076                | A34055  | A36453  |
|-------------------------|-----------------------|---------|---------|
| Width                   | 1300 mm               | 1300 mm | 2000 mm |
| Weight:                 | 34 kg                 | 34 kg   | 67 kg   |
| Brush type:             | 200 mm nylon bristles |         |         |
| Suitable Avant loaders: | See Table 1           |         |         |

### 4.1 Safety labels and main components of the attachment

Listed below are the labels and markings, which must be visible on the equipment. Replace the warning labels, if they have become unclear or if they have detached completely. New labels are available via your retailer or contact information provided on the cover.



The warning labels contain important safety information and they help to identify and remember the hazards related to the equipment. Replace damaged or missing warning labels with new ones.

### 4.2 Safety labels and main components of the attachment



A46771



A46772



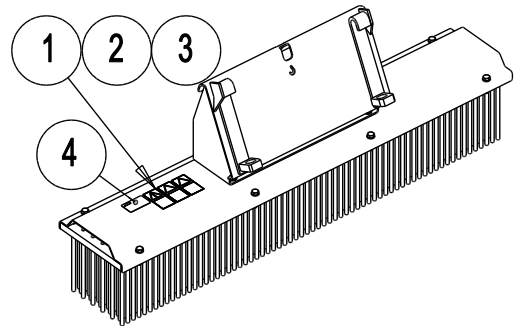
A46799

|  |   |    |
|--|---|----|
| Avant Tecno Oy<br>Ylötie 1<br>FIN-33470 YLÖJÄRVI |   |    |
| TYPE   | No.   |    |
| kg   | Max load  | kg |
| 2015   | <i>Made in EU</i><br><a href="http://www.avanttecno.com">www.avanttecno.com</a> |    |

Attachment identification plate

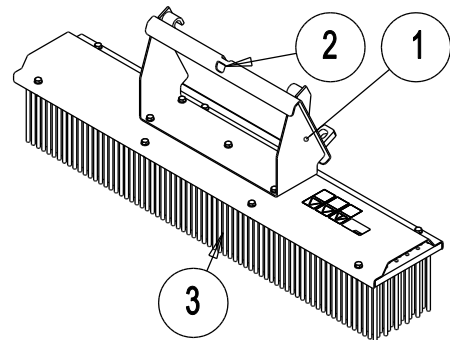
**Table 3 - Decal locations and warning messages**

|   | Decal  | Warning message  |
|---|--------|--|
| 1 | A46771 | Read instructions before use.  |
| 2 | A46772 | Crushing hazard - Do not go under a raised attachment; stay away from raised equipment.        |
| 3 | A46799 | Beware of thrown objects; keep a safe distance from the equipment (at least <SafetyDistance>). |
| 4 |        | Attachment identification plate  |



**Table 4 - Main components of the Push Broom**

|   |                                  |
|---|----------------------------------|
| 1 | Frame with quick attach brackets |
| 2 | Lifting point                    |
| 3 | Nylon brush, replaceable         |



## 5. Attaching the attachment

Attaching the attachment to the loader is quick and easy, but it must be done carefully. The attachment is mounted to the loader boom by using the quick attach plate on the loader boom and the counterpart on the attachment.

If the attachment is not locked to the loader, it may detach from the loader and cause a hazardous situation. The loader must not be driven and the boom must never be lifted when the attachment has not been locked. To prevent hazardous situations, always follow the coupling procedure shown below. Also remember the safety instructions shown in Chapter 3. The attachment is mounted to the loader as follows:



Make sure that an unlocked attachment will not move or fall over. Do not stay in the area between the attachment and the loader. Mount the attachment only on level surface.

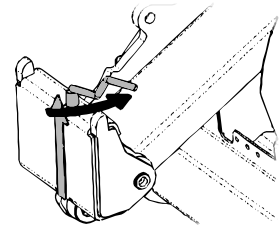
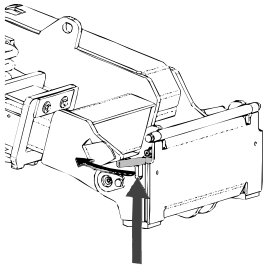
Never move or lift an attachment that has not been locked.

### 200-700 series loaders:

### 200 (series 1) loaders:

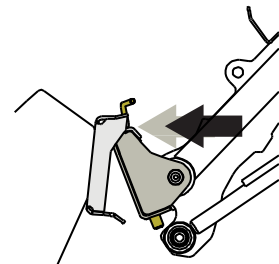
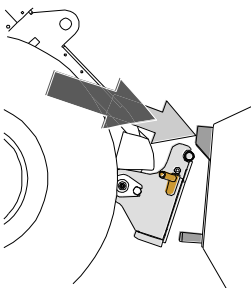
#### Step 1:

- Lift the quick attach plate locking pins up and turn them backwards into the slot so that they are locked in the upper position.
- If your loader is equipped with a hydraulic attachment locking system, see additional instructions about the use of the locking system from the relevant manuals.
- Ensure that the hydraulic hoses (and the electric harness, if applicable) are not in the way during installation.

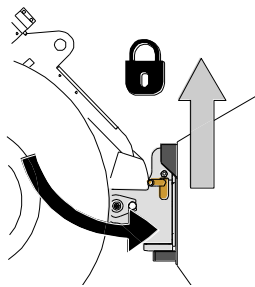


#### Step 2:

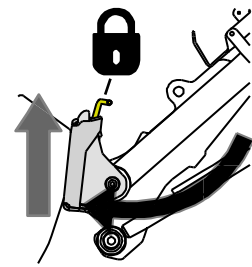
- Turn the quick attach plate hydraulically to an obliquely forward position.
- Drive the loader onto the attachment. If your loader is equipped with a telescopic boom, you can utilise this.
- Align the upper pins of the loader's quick coupling plate so that they are under the corresponding brackets of the attachment.



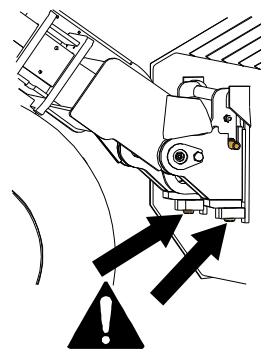
**Step 3:**



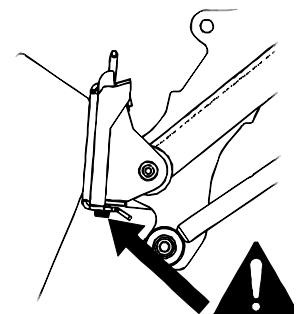
- Lift the boom slightly – pull the boom control lever backward to raise the attachment off the ground.
- Turn the boom control lever left to turn the bottom section of the quick attach plate onto the attachment.
- Lock the locking pins manually or lock the hydraulic locking.
- **Always check the locking of pins.**



An attachment that has not been completely locked to the loader may fall on the boom or towards the operator, or fall under the loader during driving, causing loss of control of the loader. Never move or lift an attachment that has not been locked.



**200-700 series loaders**



**200 (series 1) loaders**



Excessive tilting or lifting of an unlocked attachment increases the risk of tipping the attachment over. Do not use the automatic locking of the locking pins when the attachment is lifted more than one metre from the ground. If the locking pins do not return to the normal position when tilting, do not tilt or raise the attachment any more. Lower the attachment on the ground and secure the locking manually.

## 6. Instructions for use

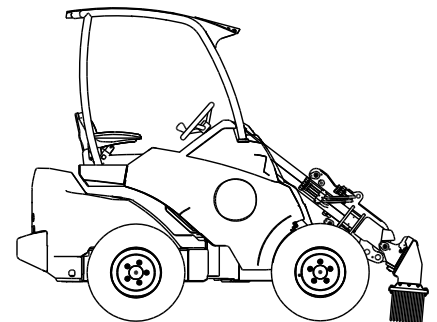
Practise the use of the attachment and its controls in an open and safe area. If you are unfamiliar with the loader in use, it is recommended to practice its use without any attachments.

### 6.1 Checks before use

- Ensure that bystanders are at a safe distance when operating the equipment. Do not let anyone to enter danger area of the boom or to stay directly in front of the loader. Also make sure that it is safe to reverse with the loader. Never assume that bystanders will remain where you last saw them; especially children are often attracted to the moving equipment.
- Check the general condition of the attachment and the loader, and check for possible hydraulic oil leaks. The attachment must not be used, if there is a fault in the hydraulic system of the loader or the attachment. Refer to Chapter 7 for maintenance instructions.
- Operate the attachment and the controls of the loader only when seated on the driver's seat. Ensure that the loader and the attachment are used in a safe manner and as intended. Do not allow children to operate the equipment.
- Never operate the loader or attachments while under the influence of alcohol, drugs, medication that may impair judgement or cause drowsiness, or if not otherwise medically fit to operate the equipment.
- Remember correct working methods and avoid leaving the driver's seat unnecessarily.

### 6.2 Using the Push Broom

The push broom performs the best when the broom is adjusted to a suitable position and when light load is applied on it. The correct position of the broom depends of the material being moved and surface type.

**NOTICE**

Avoid pressing the brush too much to avoid damaging and quick wearing of the bristles.

Do not press the broom so that the front end of the loader would lighten significantly.

**NOTICE**

Do not leave the brush against the ground when it is attached to the loader. The weight of the boom could cause permanent bending of the bristles. Remove the brush from the loader for storage.

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## 7. Inspections, maintenance, and service

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Clean the attachment regularly to prevent accumulation of dirt which is more difficult to remove. You may use a pressure washer and a mild detergent. Do not use strong solvents, and do not spray directly at the labels on the attachment.

Do not store the attachment directly against the ground for long periods; place it on blocks of wood or on a pallet, for example. For longer storage periods touch up the paint where needed and grease the lubrication points.

Also the metal structures of the attachment must be inspected regularly. Check visually for damages and inspect the quick attach brackets and their surrounding area carefully. The attachment must not be used if it is deformed, cracked, or torn.

Welding repairs are only allowed to be carried out by professional welders. When welding, only methods and additives suited for steel used in bucket must be used. For more information about repairs contact your nearest service point.

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## 8. Warranty terms

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Avant Tecno Oy grants a warranty of one year (12 months) from the date of purchase for the attachment it manufactures.

**The warranty covers repair costs as follows:**

- Work costs are covered, if the repair is not performed at the factory.
- The factory replaces any defective components or consumables.

The factory may reimburse the price of components purchased by the customer in special cases that have been agreed in advance.

**The warranty does not cover:**

- Normal maintenance work or parts and consumables required for it.
- Damages caused by unusual operating conditions or ways of use, negligence, structural changes made without the consent of Avant Tecno Oy, use of non-original parts or lack of maintenance.
- Consequences of a defect, such as interruption of work or other possible additional damages.
- Travel and/or freight costs caused by the repair.



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