



SWEEPAWAY™



OWNER'S MANUAL

**SWEEPAWAY™ 1500-2200 ROTARY BROOM FOR PICKUPS,
TRACTORS & LOADERS**

This manual replaces all editions with an earlier date.

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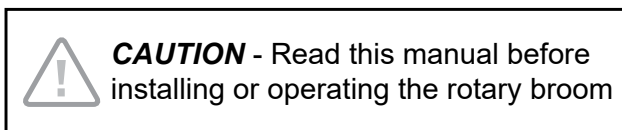
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Rotary broom parts

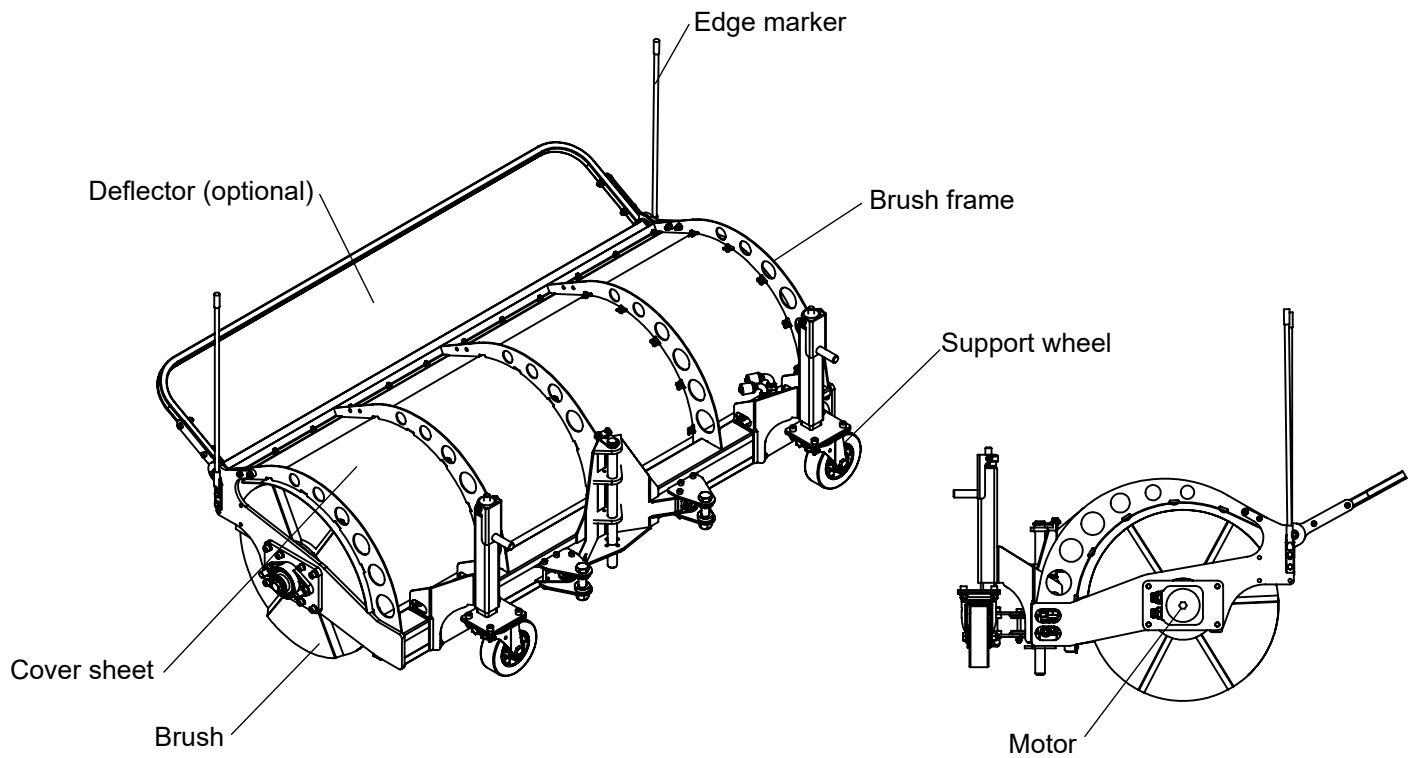


Image shows SweepAway™ 1500, width 150 cm

Technical specifications

MODEL	1500-SPL/-SL/-STR	1800-SPL/-SL/-STR	2000-SPL/-SL/-STR	2200-SPL/-SL/-STR
Width	150 cm	180 cm	200 cm	220 cm
Diameter	50 cm	50 cm	50 cm	50 cm
Oil	40 l/min	40 l/min	40 l/min	40 l/min
Weight	110 kg	130 kg	142 kg	160 kg
Rotating angle	25°	25°	25°	25°

SPL = for pickups, SL= for trucks (parallel lifting mechanism), STR = for tractors/loaders

Safety instructions

Incorrect installation and operation can lead to serious personal injury and/or damage your equipment and property. Note and ensure that you understand this manual and all the labels before installing, operating or making adjustments to the rotary broom.



WARNING

Observe these safety precautions before, during and after operating the rotary broom. You can prevent injury to persons and damage to the broom by following these precautions.



WARNING

Before operating the rotary broom:

- Read this manual before operating the rotary broom.
- Check that there are no persons within the working area when starting and operating the rotary broom.
- Make sure that your vehicle total weight is not exceeded beyond payload limits.
- Check that hydraulic components and hoses and that all the functions are working correctly.
- Check the rotary broom and its components for cracks and defects before every session.
- Replace any damaged or worn parts, a rotary broom in need of repairs or maintenance should not be operated.
- Make sure the equipment is securely and correctly mounted.
- Before service, always disconnect the battery.



WARNING

While operating the rotary broom:

- Make sure that bystanders keep a safe distance (15 m) when starting and operating the rotary broom.



WARNING

After operating the rotary broom:

- Lower the rotary broom when vehicle is parked. The hydraulic pressure can change if temperature changes, causing an unexpected broom drop which can lead to broom damage or personal injury.

Personal safety

- To prevent accidents, secure long hair and do not wear jewelry or necktie, only wear tight-fitting clothes while working on your broom or vehicle.
- Protect your eyes with safety goggles to avoid damage from battery acid, gasoline, dirt and dust.

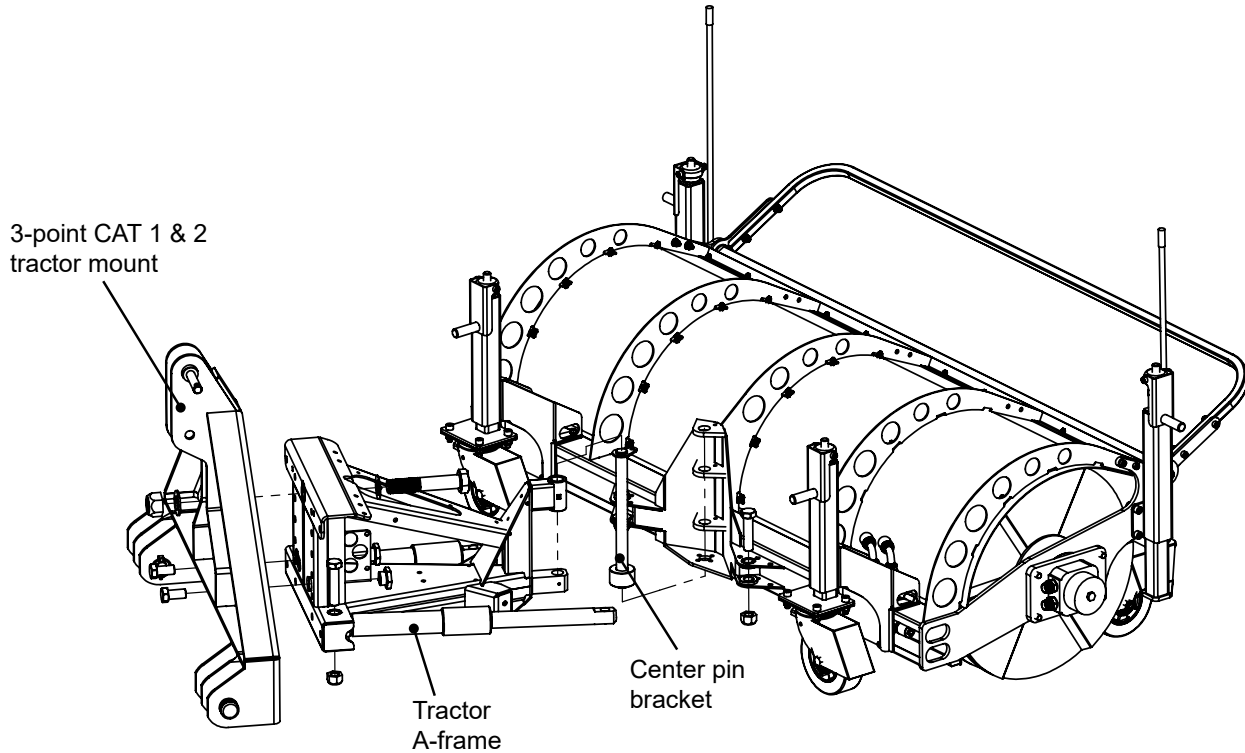
Warning and caution labels

Please become familiar with these warning and caution labels on the broom.



Installation instructions - Tractor

1. Attach the A-frame to the broom with the center pin bracket and lock nuts.
2. Attach the A-frame to the tractor mount with bolts.



3. Lubricate grease fittings with a good quality multipurpose grease (see page 8-9).
4. Attach the hydraulic hoses to the hose brackets (see image 1).
5. Connect the hydraulic hoses from the broom and A-frame to the vehicle.

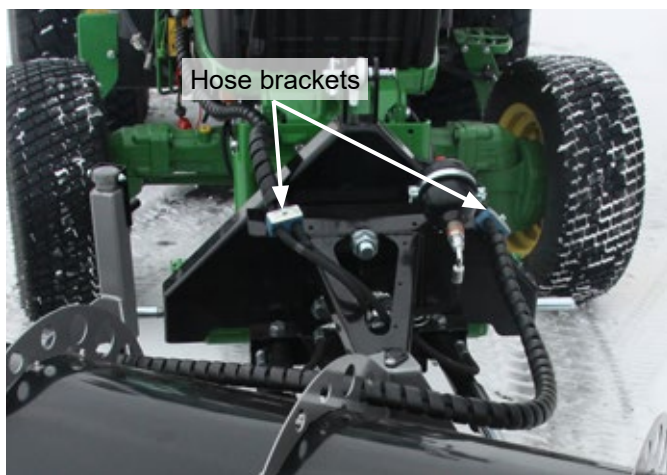


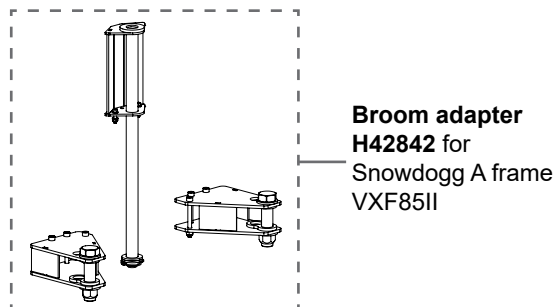
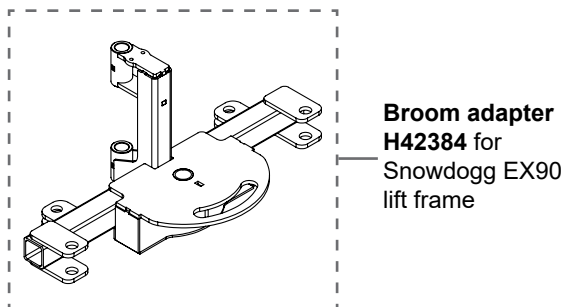
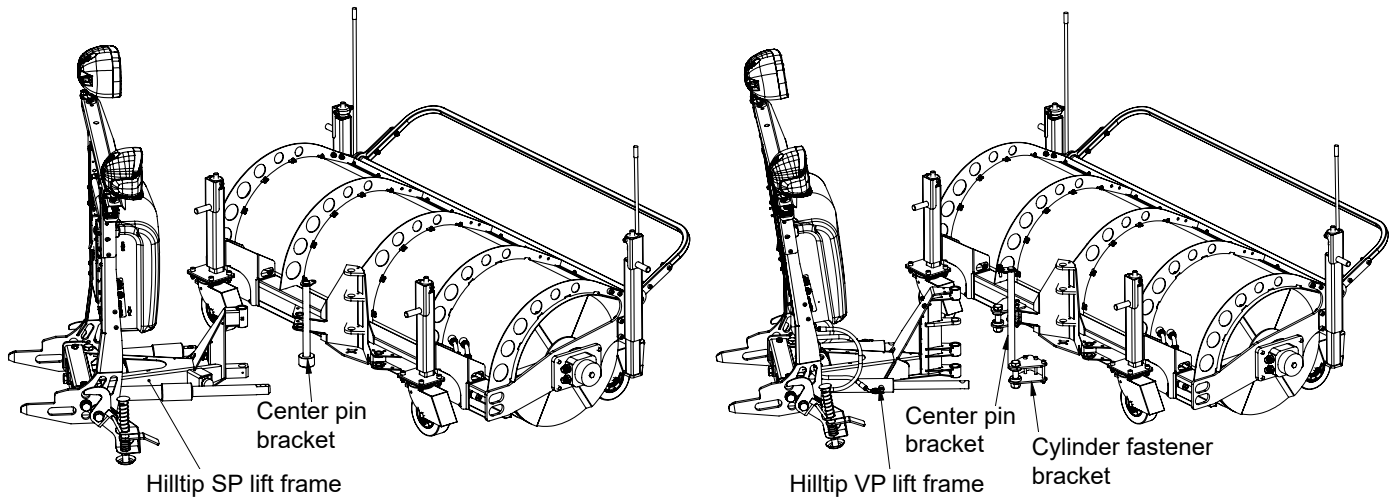
Image 1



Image 2

Installation instructions - Pickup

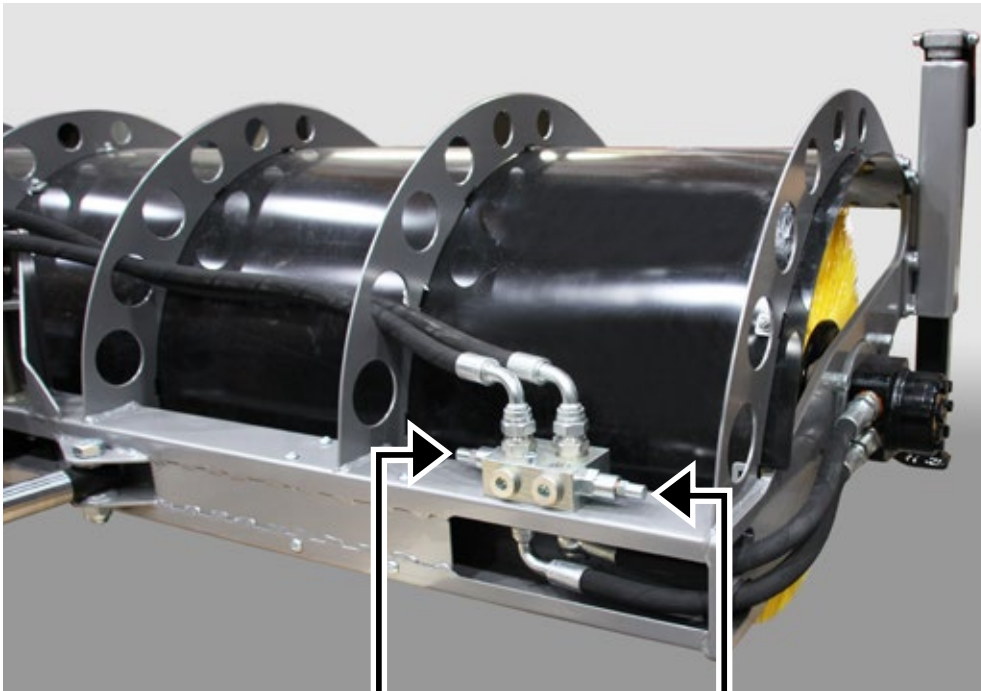
1. Attach the lift frame to the broom using the center pin bracket, cylinder fastener bracket (only VP) and lock nuts. If you don't have Hilltips lift frame, you have the option to attach the broom with an adapter. See pictures below.



2. Attach the broom to vehicle with the Quick hitch system (see instructions on page 11).
3. Lubricate grease fittings with a good quality multipurpose grease (see page 12-13).
4. Attach the hydraulic hoses using a hose kit (H22555, sold separately) or a locally produced fastening kit to the vehicle.
5. Connect the hoses to the HPU-unit.



Adjustments



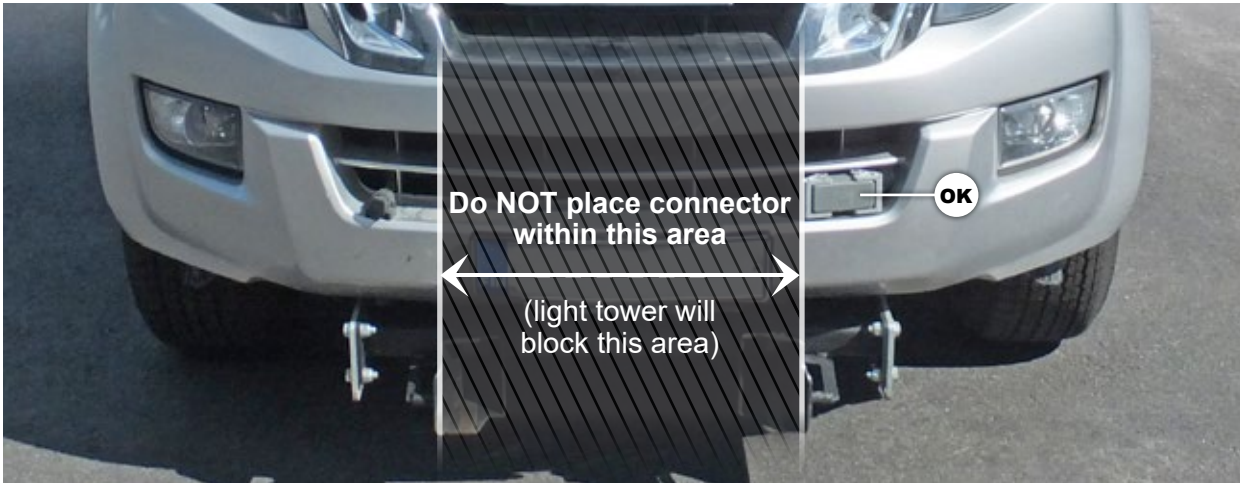
Dual cross relief valves

Factory setting: 110 bar (1595 psi)

Max: 170 bar (2465 psi)

Pressure increases 30 bar/turn (435 psi/turn)

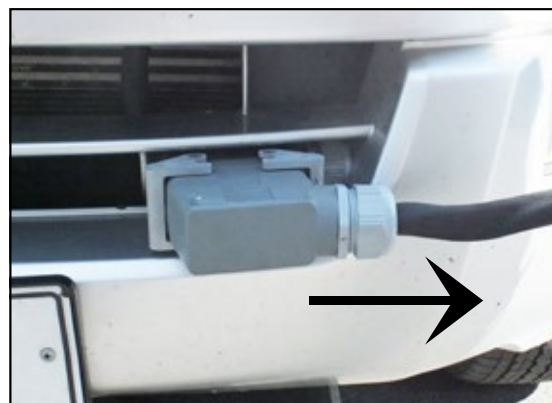
Broom harness placement on pickup (Hilltip lift frame)



1. Fasten the connector to the bracket with four bolts.

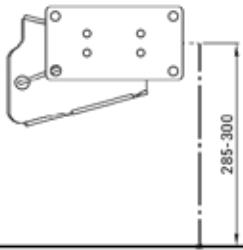


2. Fasten the connector-assembly far into the bumper to make it less visible



3. Harness should point outwards

Pickup pushbeam installation height (Hilltip lift frame)



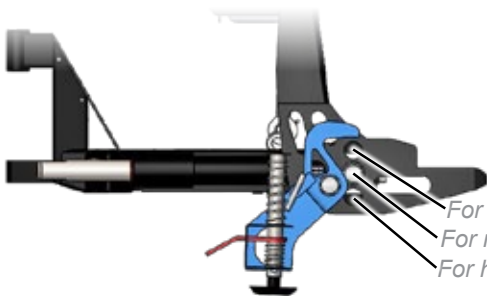
Optimal pushbeam installation height is 285-300 mm

i NOTE
A-frame should be horizontally aligned when broom is attached to vehicle and lowered to the ground.

High installation: 325-340 mm
Normal installation: 285-300 mm
Low installation: 225-260 mm

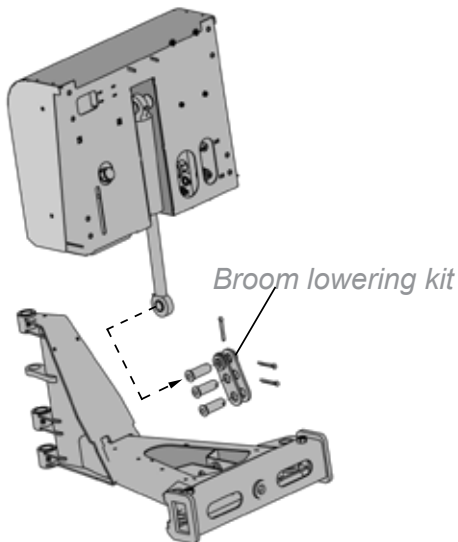
Optional pickup broom lowering kit (Hilltip lift frame)

Use the broom lowering kit if pushbeam is mounted higher than normal installation height.



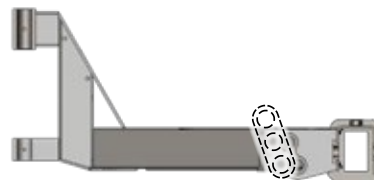
For low installation height
For normal installation height
For high installation height

1 Insert bolt in the lowest height adjustment hole.



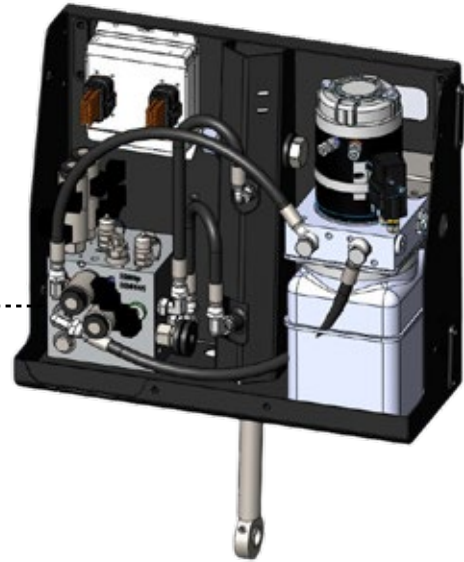
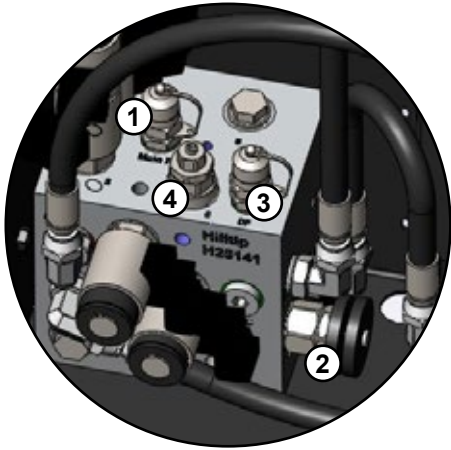
Broom lowering kit

2 Install the plow lowering kit bracket according to the pictures.



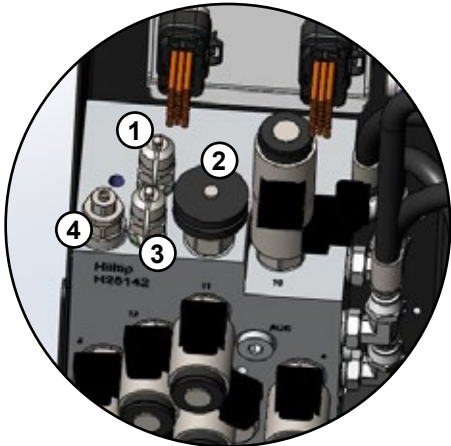
Motor valve (Hilltip lift frame)

Straight plow



- 1. Main pressure
- 2. Adjust drop speed
- 3. Down pressure gauge port
- 4. Down pressure adjustment

V-plow



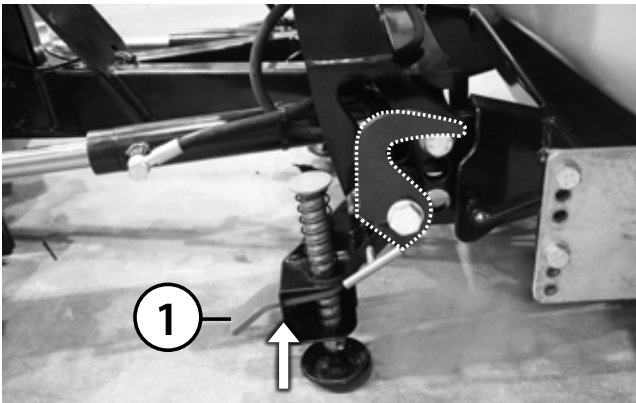
Hilltip Quick hitch instructions (pickup broom)



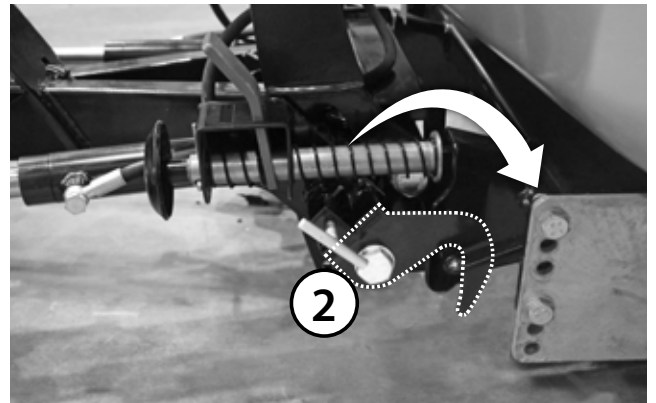
1 Broom must be standing steady on the ground



2 Align car and broom, slowly drive car forward



3 Fit the broom horns in receiver push beam, pull handle (1) up, the shoe will lift off the ground



4 Pull and hold the lock pin out (2), rotate handle up and release lock pin

Maintenance

- ! WARNING**
- Maintenance of the rotary broom:**
- Before removing or replacing any electrical components, always disconnect the battery.
 - Use a piece of cardboard or wood to detect a suspected hose leak. Do NOT use your hand to locate it, hydraulic fluid can damage your skin.

- ! CAUTION**
- Do not operate a damaged rotary broom or a broom in need of maintenance.
 - Clean the rotary broom after each use.

i NOTE

You must follow all the steps in this maintenance checklist for warranty to be valid.

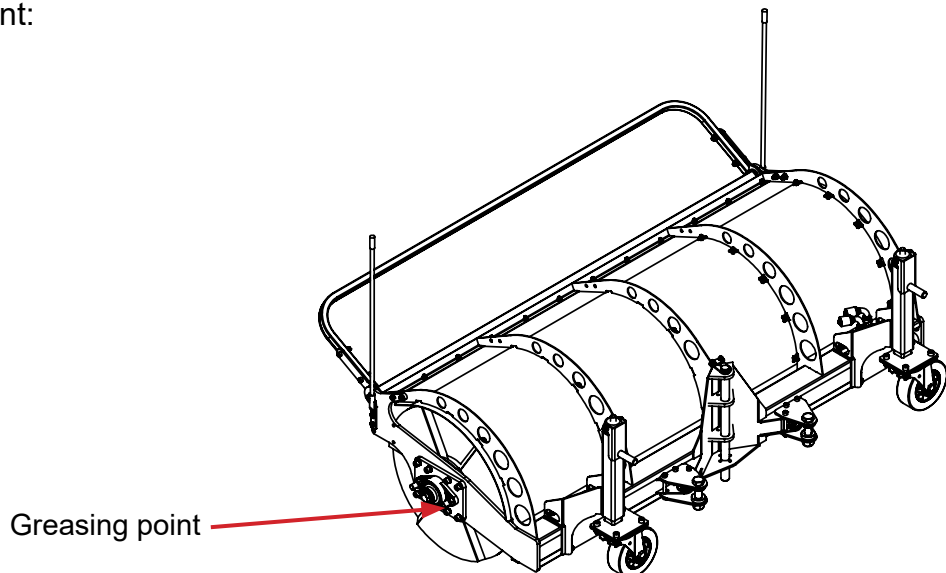
Daily maintenance
Check the general condition of broom, and repair the possible damage.
Check the condition of the hydraulic hoses and connectors and replace them if necessary.

Periodical maintenance checklist (check weekly in high-season)
Lubricate grease fittings with a good quality multipurpose grease.
Check that the bolts and nuts are tightened.

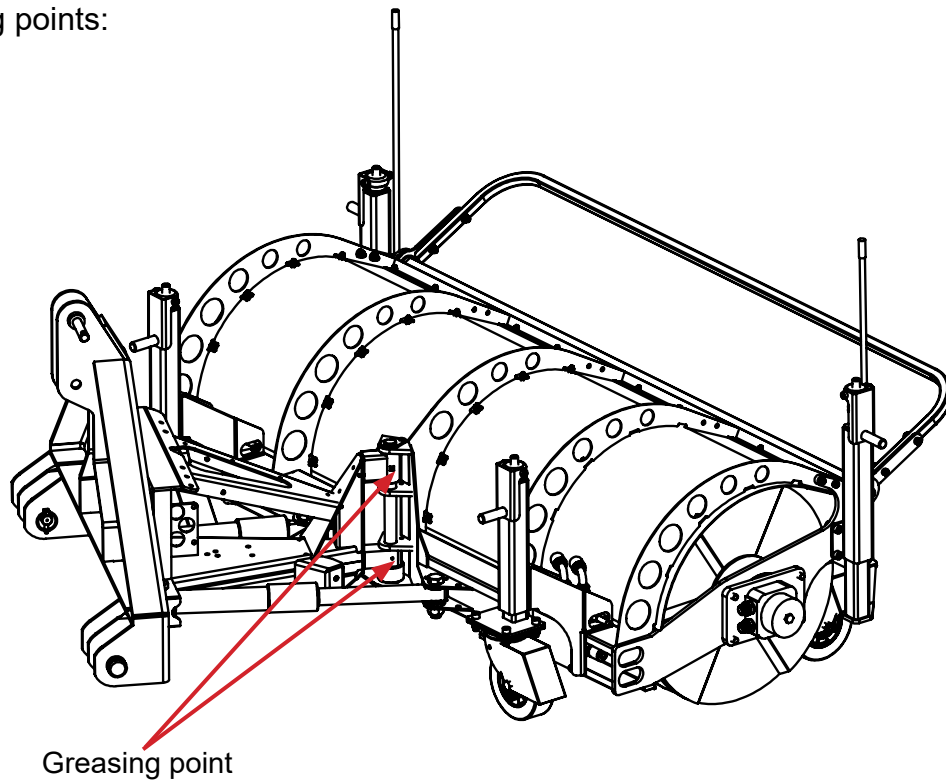
Greasing point

Grease fittings should be lubricated approximately every 20 operating hours.

Rotary broom greasing point:



A-frame greasing points:



Storage

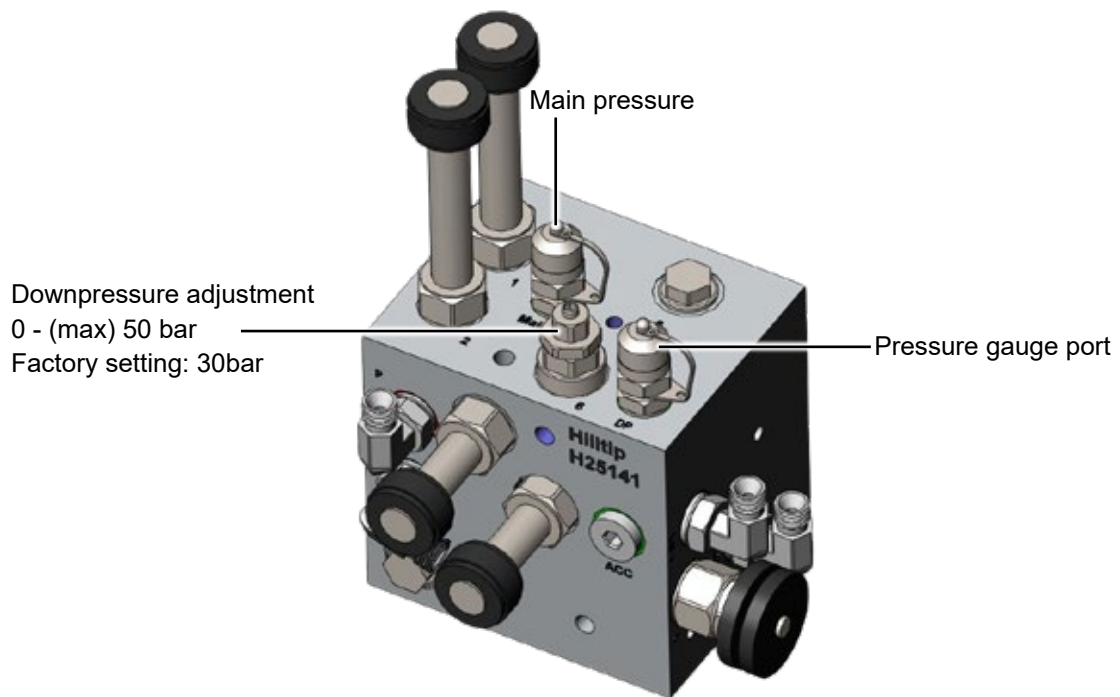
Apply to these recommendations before placing your rotary broom in off-season storage to maintain it in a good condition.

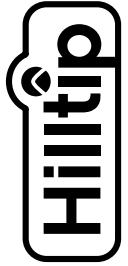
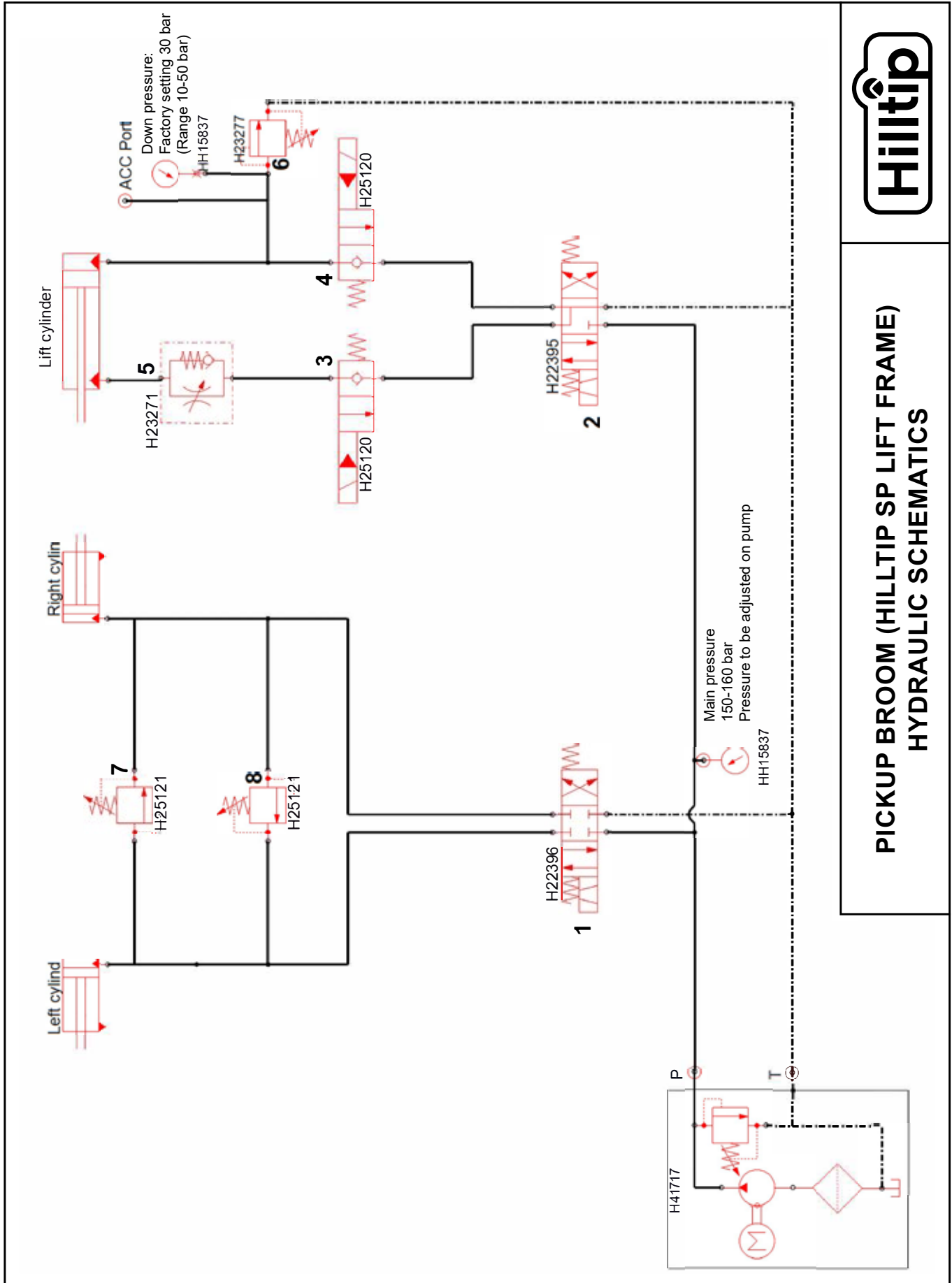
- Clean the rotary broom thoroughly
- Make all the necessary repairs
- Lubricate grease fittings with a good quality multipurpose grease
- Store the broom in a dry place
- Protect broom bristles from direct sunlight during storage periods

Broom valve electrical functions (Hilltip SP lift frame)

Blade movement	Angle right	Angle left	Down pressure	Raise	Lower	Idle	Float
MOTOR			*				
#1a							
#1b							
#2a							
#2b			*				
#3							
#4							

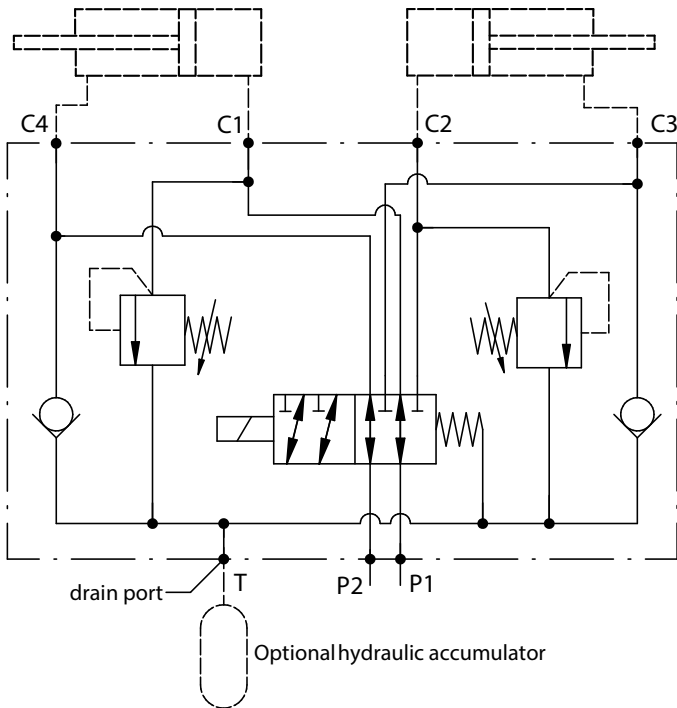
1* = Goes low after 30 sec.





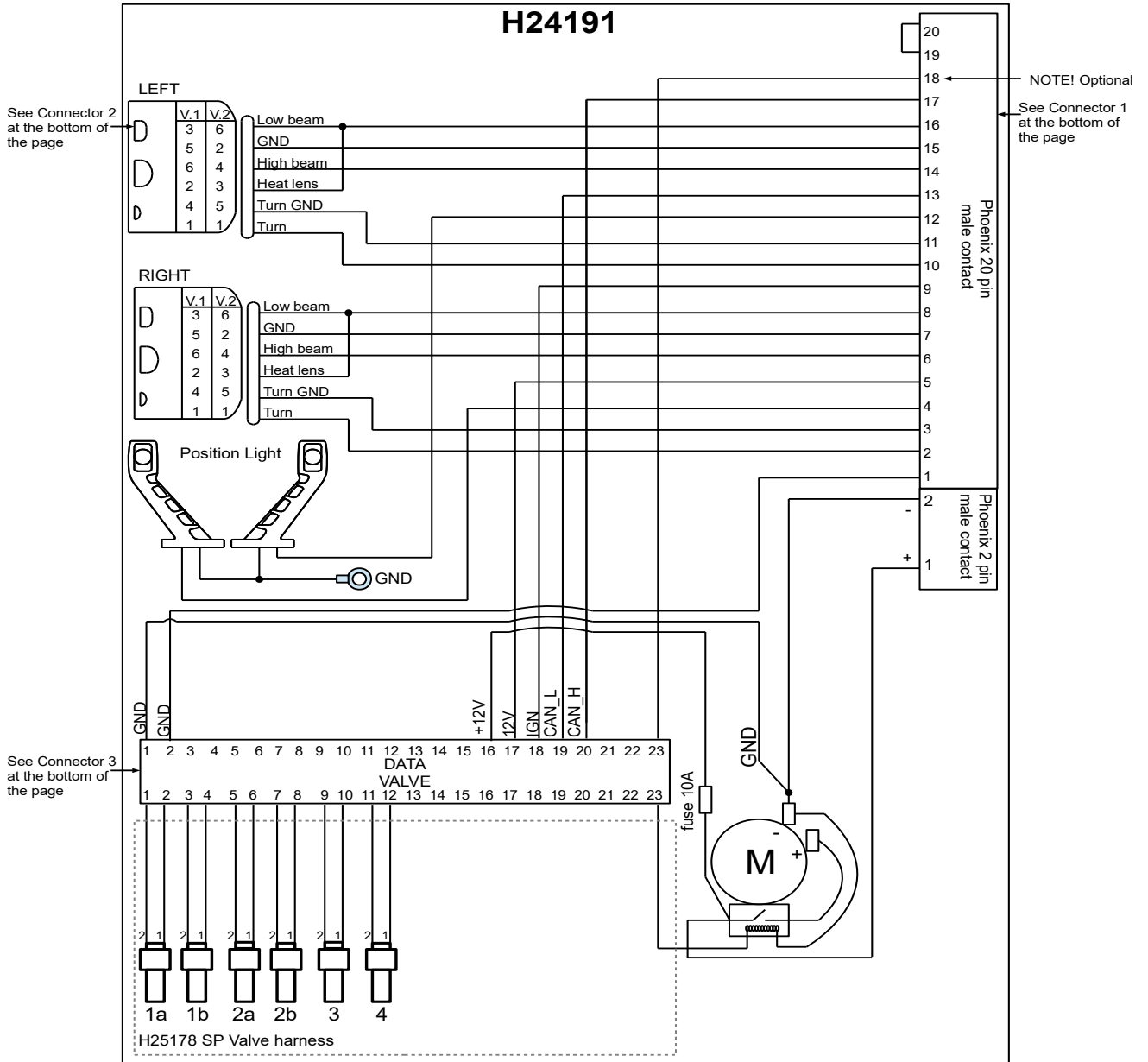
**PICKUP BROOM (HILLTIP SP LIFT FRAME)
HYDRAULIC SCHEMATICS**

Hydraulic schematics for electrical valve kit H25973 (12V) and H25974 (24V)

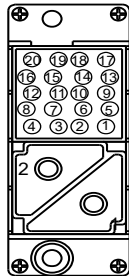


- **P1** and **P2** are hoses from the tractor
- **C1** and **C4** should be connected to the brush motor
- **C2** and **C3** should be connected to turn cylinder.

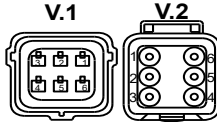
Pickup Broom side electrical schematics (Hilltip SP lift frame)



Connector 1:
Phoenix 20-pin plow side connector



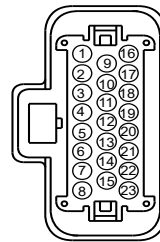
Connector 2:
Plow light connector



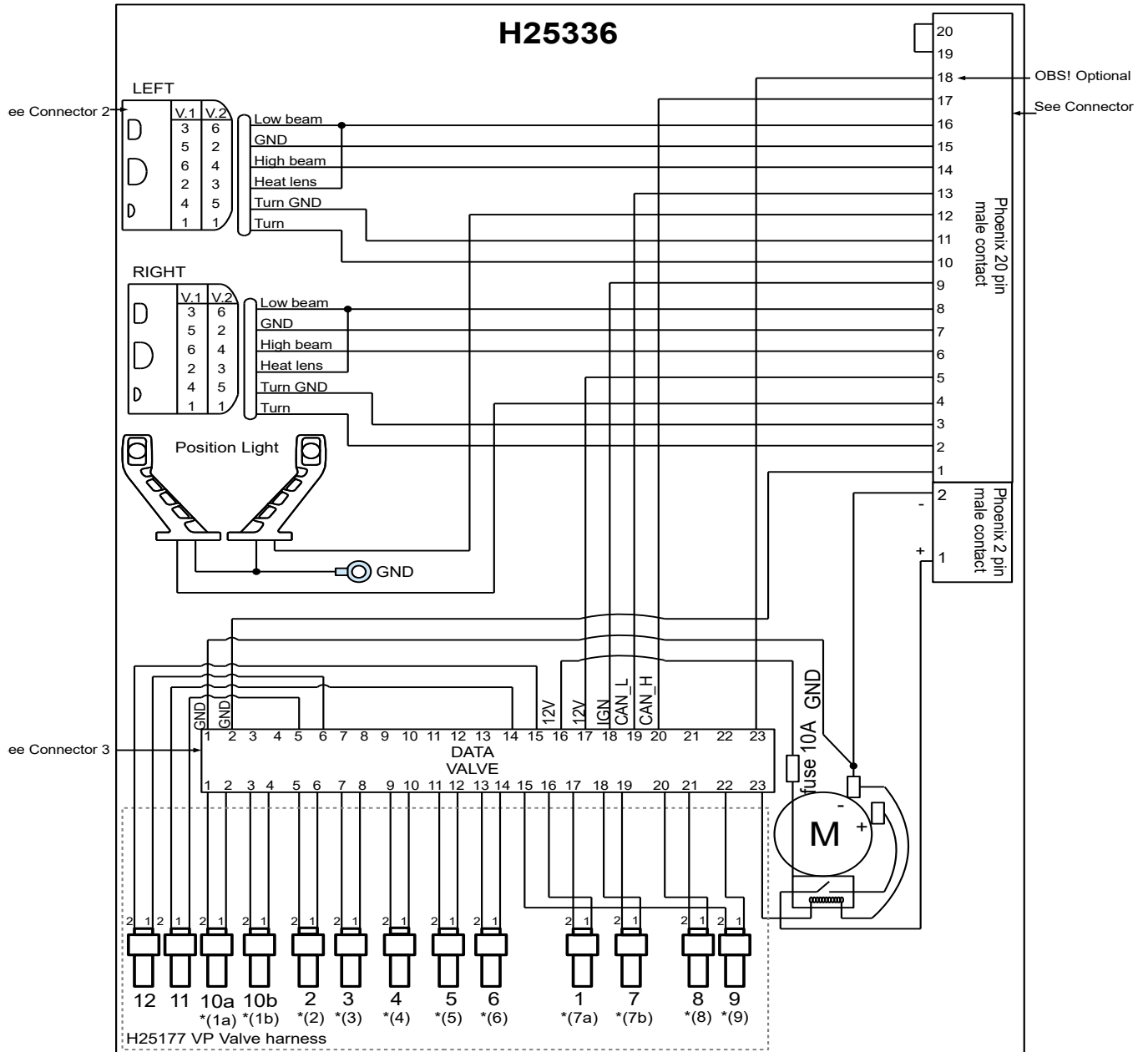
V.1 V.2

1	1	Turn
5	2	GND
2	3	Heat lens
6	4	High beam
4	5	GND (turn)
3	6	Low beam

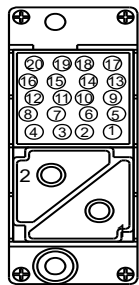
Connector 3:
23-pin connector



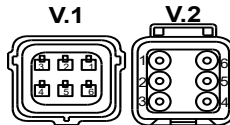
Pickup Broom side electrical schematics (Hilltip VP lift frame)



Connector 1:
Phoenix 20-pin plow side connector

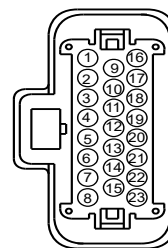


Connector 2:
Plow light connector



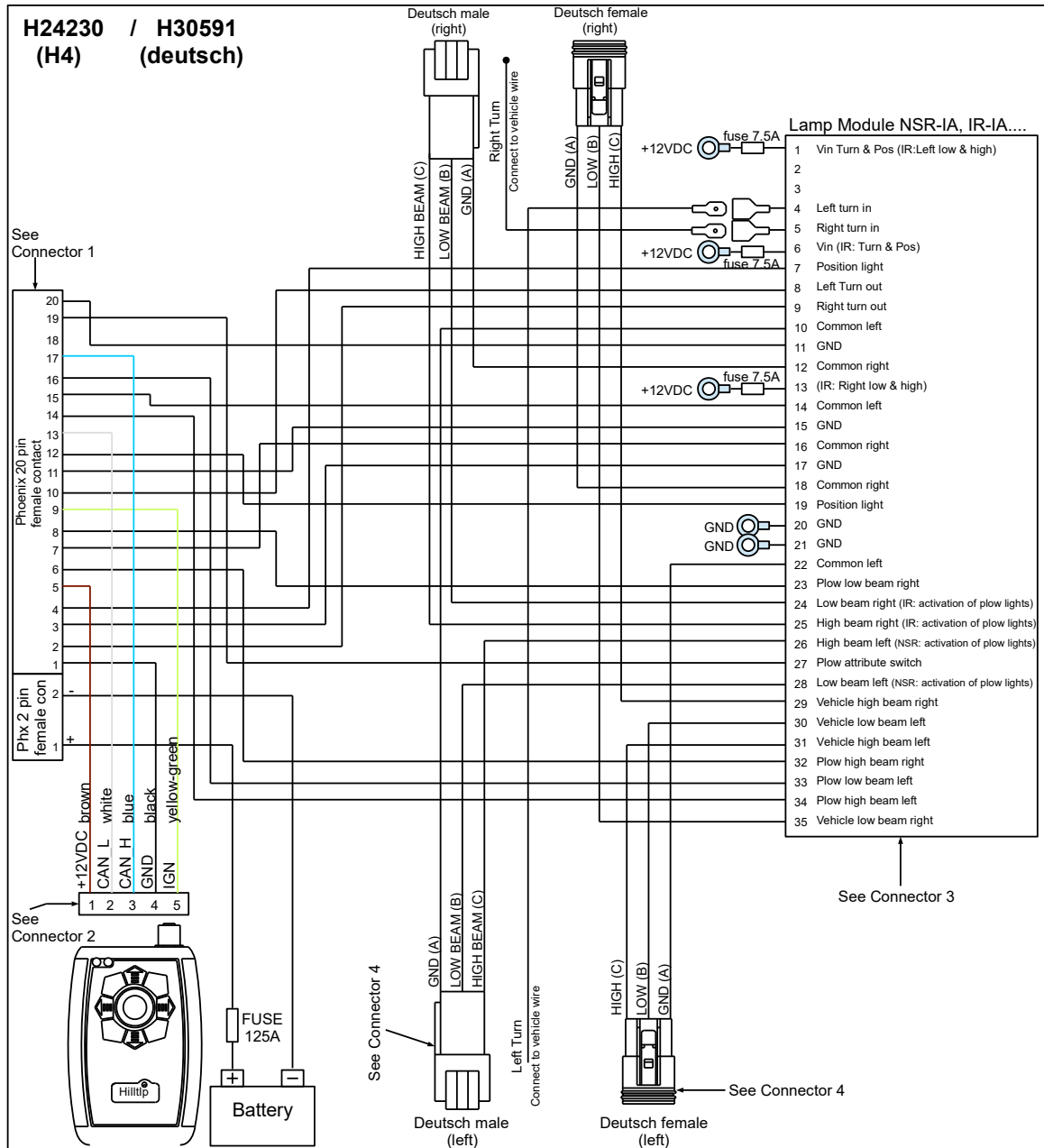
V.1	V.2	
1	1	Turn
5	2	GND
2	3	Heat lens
6	4	High beam
4	5	GND (turn)
3	6	Low beam

Connector 3:
23-pin connector

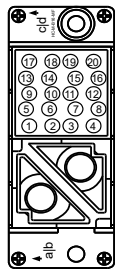


* Plows produced before 2017. Numbering on valve block V1 (H23270).

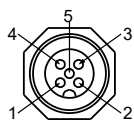
Vehicle side electrical schematics (Hilltip SP/VP lift frame)



Connector 1:
Phoenix 20-pin vehicle side connector

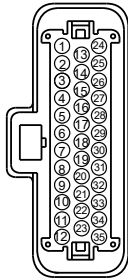


Connector 2:
Connector to joystick (male)



1. +12VDC
2. CAN_L
3. CAN_H
4. GND
5. Activation

Connector 3:
35-pin main connector

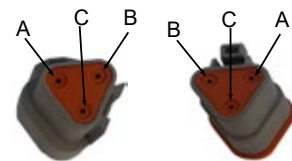


H4 connector



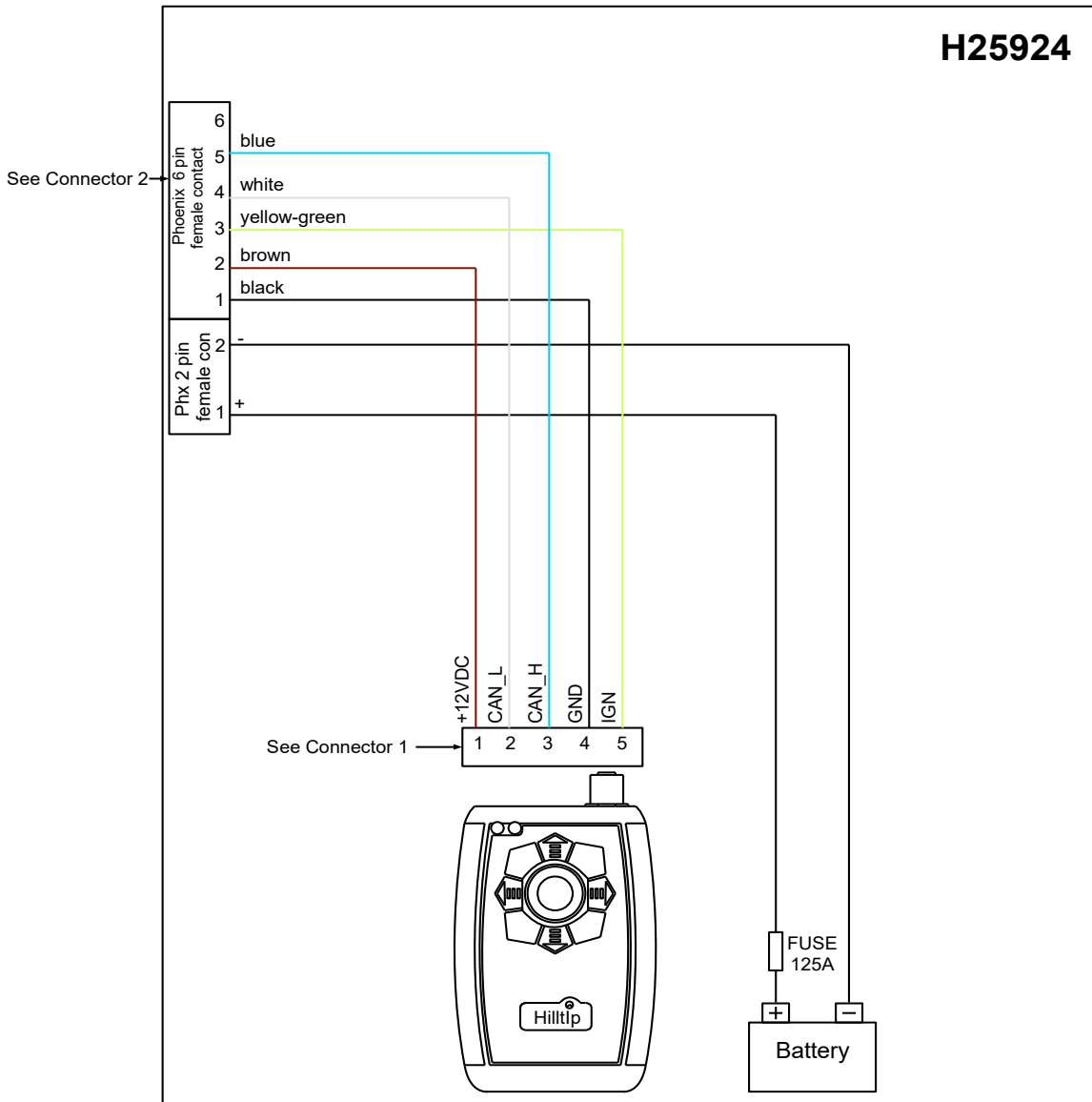
1. GND
2. Low beam
3. High beam

Connector 4:
or Deutsch connector

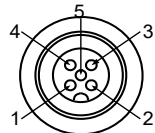


- A. GND
- B. Low beam
- C. High beam

Vehicle side UTV electrical schematics (Hilltip SUTV/VUTV lift frame)

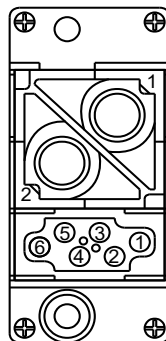


Connector 1:
Connector to joystick (male)



- 1. +12VDC
- 2. CAN_L
- 3. CAN_H
- 4. GND
- 5. Activation

Connector 2:
Phoenix 6-pin vehicle side connector



WARRANTY INFORMATION

This warranty replaces all previous warranties

Warranty

This Limited Warranty applies to SweepAway™ rotary brooms, its spare parts and additional equipment (from now on referred to as the "product"), purchased from Hilltip or an authorized dealer.

What does this limited warranty cover?

This Limited Warranty covers any defects in material or workmanship under normal use during the Warranty Period.

During the Warranty Period, Hilltip, or an authorized dealer will repair or replace, at no charge, products or parts of a product that proves defective because of improper material or workmanship, under normal use and maintenance.

How long does the coverage last?

The Warranty Period for the product purchased from Hilltip, or an authorized dealer is two (2) years from the date of purchase. The warranty period for a replacement part is one (1) year from the date of replacement or repair.

How to obtain warranty on your product?

Make sure your dealer has registered your product. In order to obtain service under this warranty the product must be registered with the end user's contact details (name, address, e-mail address and phone number).

What does this limited warranty not cover?

- Improperly installed parts.
- Damage caused by usage that is not in accordance with product instructions.
- Modification of the product, and/or the vehicle, is entirely at the purchaser's risk.
- This warranty does not include compensation for the drive to the service spot.
- Any damage in transit will be the responsibility of the carrier or at the risk of the purchaser.
- Hilltip will not provide replacement equipment or cover rental costs while your equipment is out of service.

This Limited Warranty does not cover any problem that is caused by:

- Misuse, neglect, accident, improper installation, maintenance or storage, or repair or alternation by anyone except Hilltip or an authorized dealer.

What do you have to do?

To obtain warranty service, you must first contact us or your authorized dealer. The purchaser must notify Hilltip or an authorized dealer within ten (10) days after any defect in the product becomes known during the warranty period.

What will we do to correct problems?

Hilltip, or an authorized dealer will repair or replace the part at no charge using either new or refurbished replacement parts.



DECLARATION OF CONFORMITY

Manufacturer's & Assambler's Name: **Oy Hilltip Ab**

Manufacturer's & Assambler's Address: **Pukkisaarentie 6, FIN-68600 Pietarsaari, Finland**

Equipment Description: Hilltip SweepAway™ rotary broom

Equipment Model Designation: Hilltip SweepAway™ 1500 SPL/SL/STR, 1800 SPL/SL/STR, 2000 SPL/SL/STR und 2200 SPL/SL/STR

Equipment applications: Pickup, Truck and Tractor

The equipments specified above are manufactured, where applicable, in conformity with provisions of the normative document according to the following directives and standards, in addition to relevant Road Traffic Regulations in European countries:

- 2006/42/EC
- EN 15432-1
- 2009/433/EG
- ECE R10

I, the undersigned, hereby declare that the equipments specified above, that have been assambled by Oy Hilltip Ab, conforms to the above directives and standards

Pietarsaari, 04 February 2025

Signature:

Printed Name: Tom Mäenpää

Title: CEO

Installer's Name:

Installer's Address:

Type:

Serial number:

Year of installation:

I, the undersigned, hereby declare that the equipment installation to the vehicle specified above conforms to the directive 2006/42/EC and relevant Road Traffic Regulations.

DATE:

Signature:

Printed:

Title:



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Finland

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