



USER AND INSTALLATION MANUAL

SideShift Implement Frame

(Original Instructions)





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Preface

This user and installation manual is meant for operators responsible for installation of the SideShift Implement Frame. This manual contains important instructions on installing, using and maintenance of the SideShift Implement Frame, which must be followed.

While every effort has been made to ensure the accuracy of this document, SBG Precision Farming assumes no responsibility for omissions and errors. Nor liability assumed for damages resulting from the use of information contained herein.

Any comments or questions can be sent to info@sbg.nl.

SBG Precision Farming or any of its suppliers will accept no liability for physical or material damage caused whilst using the SideShift Implement Frame system.

The installed SBG systems produces less than 70 dBA.

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Disclaimer



Warning!:

Always switch off the tractor before installing or repairing hydraulic and electrical components of the SideShift Implement Frame.



Warning!

The system contains moving parts! Make sure the immediate environment is clear of people before operating the system



Warning!

Always wear personal protective equipment when operating/adjusting/repairing the system outside of the tractor cabin.



Warning!

In case of system failure or breakdown switch of the tractor and disconnect the electrical power source to avoid further damage. Contact SBG for further instructions on how to repair your system.



Warning!:

The safety instructions contained in the manuals of the tractor and implements must be complied with at all times.



Warning!:

The SideShift Implement Frame contains moving components. Keep clear of any moving components when in use.



Warning!:

It is strictly prohibited to use the SideShift system on public roads.



Warning!:

It is strictly prohibited to leave a driving vehicle unattended whilst the SideShift system is in use. The driver is always responsible for the direction and course of the vehicle.



Warning!

The SBGuidance control system is not able to detect and avoid obstacles. If there is an obstacle in your path, you yourself will always need to take action for it to be avoided.



Warning!

Only allow authorized/qualified persons to operate the system. Authorized/qualified persons are defined as: persons who have read and understood the manual, have been given instructions by a product specialist, and who are both physically and mentally fit and able to operate the system.



1. Introduction

This user and installation manual is intended for installing the SBG SideShift Implement Frame between tractor and implement. This installation manual only applies to SideShift Implement Frame.

This user and installation manual contains information and instructions relating to the following parts:

- Storage and in-use configurations
- Safety precautions

2. SideShift Implement Frame

The SideShift Implement Frame is used between tractor and implement. The SideShift cylinder gives 300mm side-to-side movement on the implement.

! *When in use, storage support legs should be removed.*

! *Only use the SideShift function when driving. Moving the cylinder with an implement stuck in the soil, could damage the SideShift Implement Frame.*

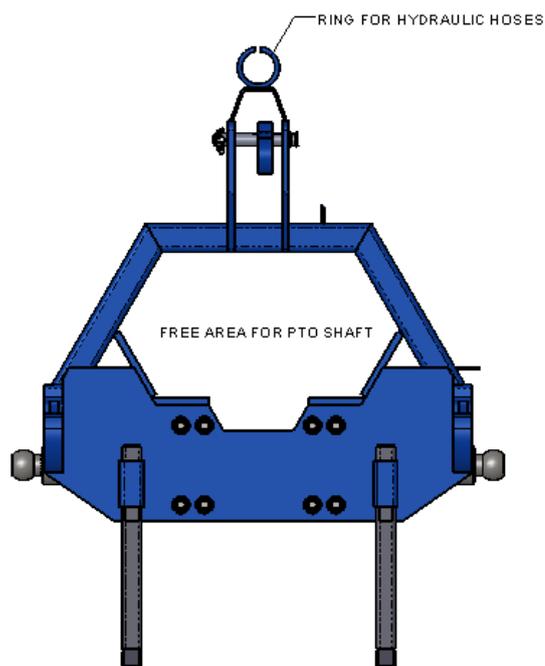
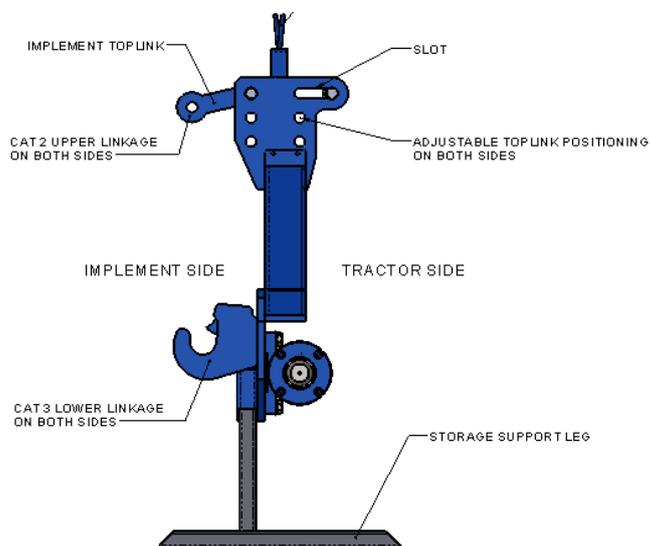
The SideShift Implement Frame uses CAT3 lower linkage on both tractor and implement side. Upper linkage (toplink) uses CAT2.

Depending on the tractor and implement being used, the topline can be adjusted to the right height. It's important to mount the implement topline as horizontal as possible. When using an implement with support wheels, the topline slot (on tractor side) should be used to make sure the implement can move freely.

! *Make sure to close the lower linkage hooks on both SideShift Implement Frame and tractor.*

i *SideShift Implement Frame should be as vertical as possible when in use.*

i *Ring for hydraulic hoses should be used at all times to keep them clear of any moving parts.*





i *Tractors lower linkage stabilizers should be tightened when using SideShift Implement Frame. When working with implements that are stuck in the soil quite a bit, make sure the lower linkage stabilizers have some play.*

When using an implement with a PTO, the PTO shaft should go through the free area in the SideShift Implement Frame. Depending on the implement and the angle of the PTO shaft, this area is limited.

! *Test to see if the PTO shaft clears the SideShift Implement Frame when cylinder is moved from side to side.*

! *Always make sure the SideShift cylinder is in center position when lifting the implement. The lifting height is limited depending on the PTO positioning.*

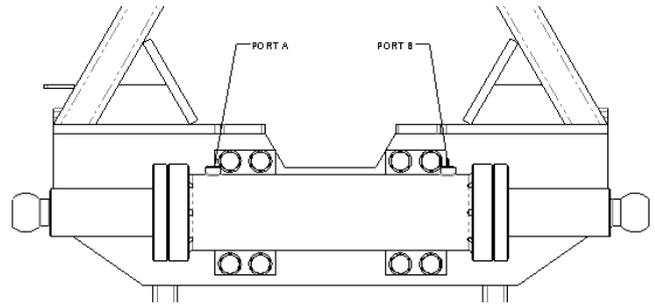


3. Hydraulic Installation

The cylinder used on the SideShift Implement Frame is a double-acting cylinder. It has 2 G1/2" (BSP thread) hydraulic ports (A and B).

i Use 1/2" BSP banjo bolts and fittings to install hydraulic hoses to the cylinder. This is a neat way to make sure the hoses clear the PTO shaft and leaves enough clearance between the fitting and the SideShift Implement Frame.

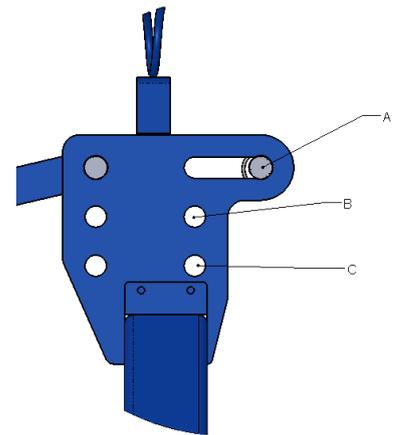
! Make sure the hoses can't get stuck between the cylinder and the frame or hits the PTO shaft as the frame moves from side to side.



4. Maximum Load

4.1. Lifting

The maximum load the SideShift Implement Frame can handle, depends on the center of gravity of the implement. The closer to the 3-point the center of gravity is, the higher the weight of the implement can be. Below is a reference table which can be used to check the maximum load.

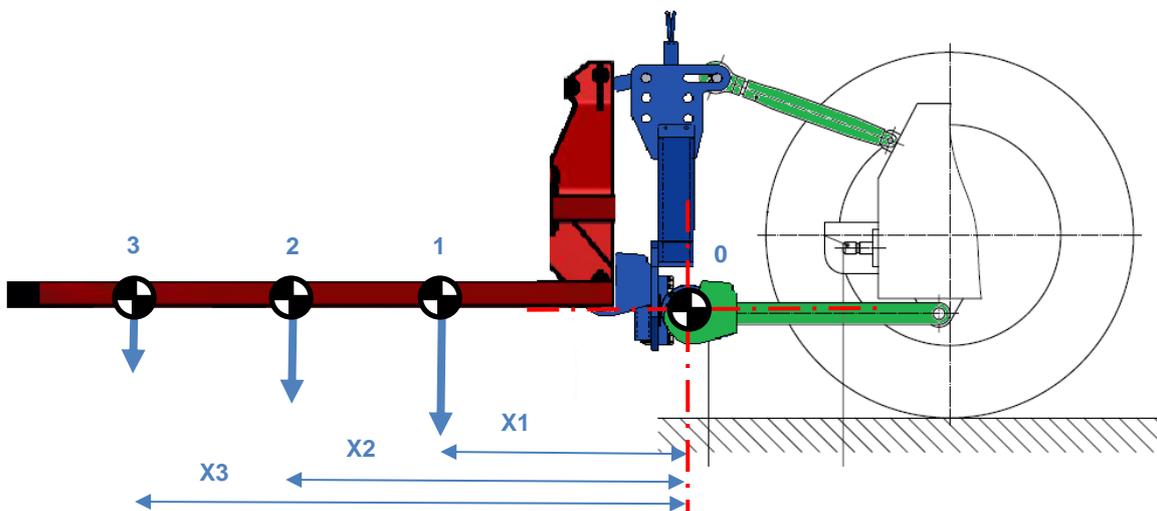


! When using implements that are stuck in the soil, be careful to not engage the auto steering of tractor (and implement) when still far of the desired line!

Position Top link

		A	B	C
Center of Gravity	Distance	0.7m	0.64m	0.575m
Position 0	0	4500	4500	4500
Position 1	X1 = 0.5 m	2625	2526	2407
Position 2	X2 = 1 m	1853	1756	1643
Position 3	X3 = 1.5 m	1432	1346	1247
				all in KG

Table 1: Reference Table maximum load on SideShift Implement Frame

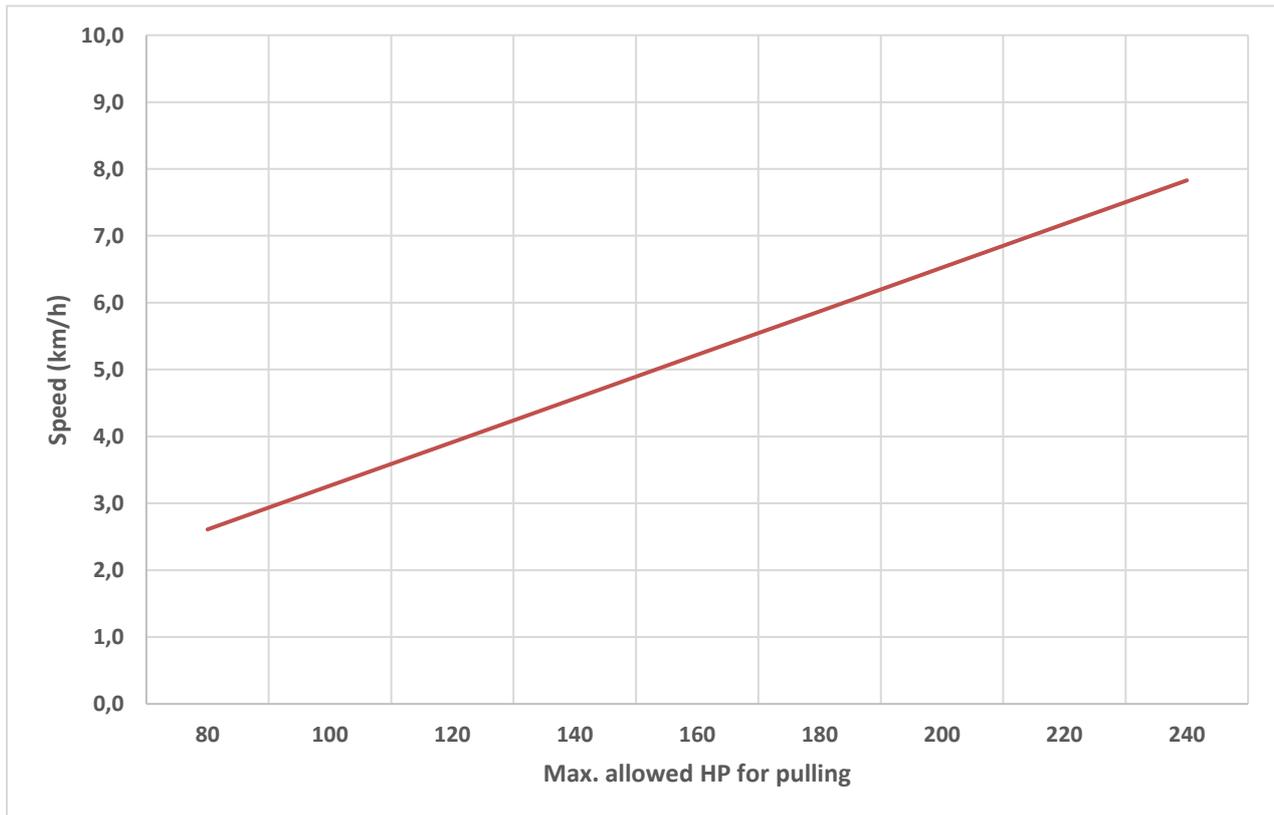




4.2. Horsepower limitations

Pulling an implement creates soil resistance. This creates a force on the SideShift cylinder. This force should never exceed 45kN.

The maximum allowed HP for pulling the implement is limited and also depends of the speed of operation. The total HP of the tractor may of course be higher than that, as long as the power is not used for pulling.



5. Maintenance

When put in storage, fit the storage support legs with its pins. The long side of the support legs should be at the cylinders side to prevent tipping over.

i *To prevent rust forming on the SideShift cylinder whilst in storage, grease the cylinders piston.*

