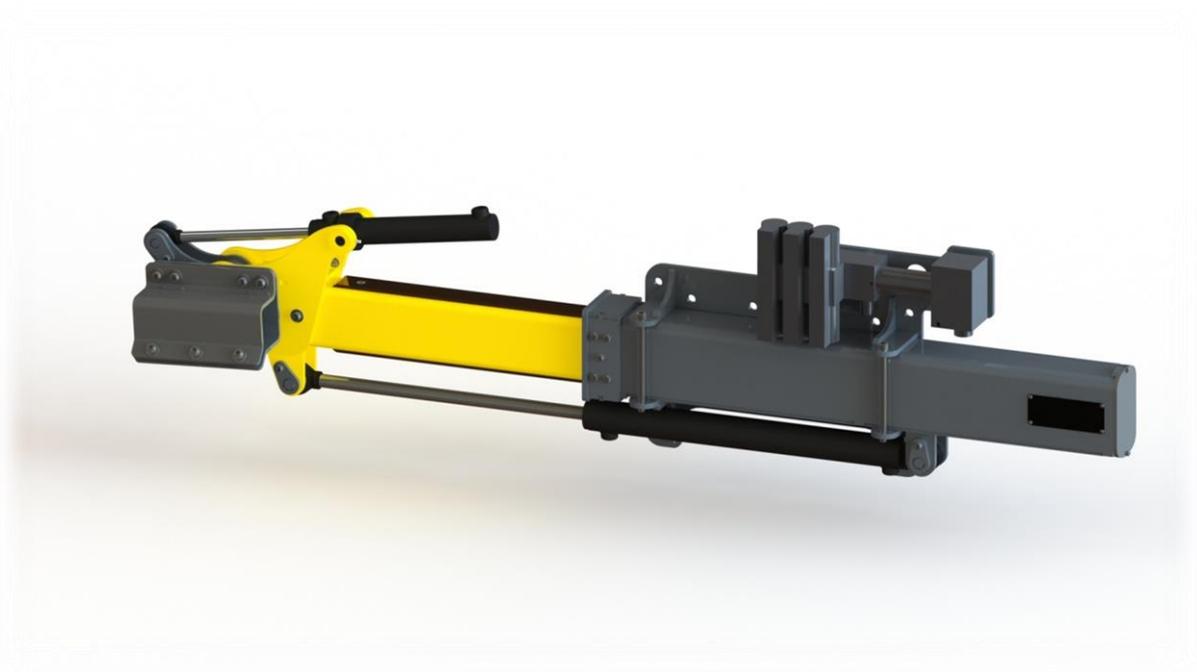


Loader arm
WLA60
User Manual



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Preface

From now on, you can get your loader even wider deployed using the WLA60.

This hydraulic arm makes it possible to mount a Becx hedge cutter to your loader. The WLA60 is designed to fit onto almost any loader. If your loader does not have the two required double-acting hydraulic valves, Becx can offer you valves + a control box-set as an option. The WLA60 is 60cm extensible and offers a 105 degrees tilt. The arm can be used left or right and can be mounted to the front or rear of your machine. Combined with the lift of your wheel loader this allows you cut nearly every hedge. The WLA60 can carry our HS130HR and HS150HR hedge cutters, and even our new HS131HR hedge cutter.



- **Carefully read this manual before using the loader arm. Always follow the safety instructions set out in chapter 3.**
- **One copy of this manual must be kept with the loader arm and must be available to the user. All important servicing sessions and any comments must be recorded and retained by the servicing company.**
- **The user is responsible for selecting a suitable tool carrier for the loader arm and its tools and for ensuring that the loader arm and tool is properly attached and connected.**

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Certificate of conformity (Ila) (copy)

We:

Becx Machines B.V.
De Sonman 35
5066 GJ Moergestel

declare entirely under our sole responsibility, that this product:

Description : Loader arm
Type : BECX WLA60
Serial number :

to which this declaration applies, complies with the provisions of the Directives:

Machinery Directive 2006/42/EC

Complies with the following standards:

NEN-EN-12100-1 Safety of machinery. Basic definitions, general design principles.
Part 1: Basic terminology, methodology
NEN-EN-12100-2 Safety of machinery. General design principles. Part 2: Technical
principles and descriptions
NEN-EN 982 Safety of machines – Safety requirements for hydraulic and
pneumatic systems and their components: Hydraulics
NEN-EN 14121-1 Safety of machines – Risk assessment – Part 1: Principles

Director; Erwin Hommen



Netherlands, Moergestel,

Date:

List of symbols

This manual uses the following symbols for all actions and situations where the safety of the operator or technician is at stake and where it is necessary to act with caution:

	Warning!
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	Explanation.
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1. Technical data

Description	Value	Unit
General		
Noise pressure	See tool carrier	dB(A)
Vibration level in normal use	n/a	
Hydraulic oil filtering requirements	10	microns
Oil for the drive	HV-46 or equivalent	
Grease for greasing cutting heads	NLGI 2	
Dimensions and weights		
Length in*	1.315	mm
Length out*	1915	mm
Width *	320	mm
Height without/ with valves	400 / 460	mm
Own weight without/ with valves *	90 / 100	kg
Attachment information		
Type	Screwable adapter plate	-
Attachment information		
Standard attachment tube	80*80	mm
Available mounting width	250	mm
Force on attachment point (see Figure 7)	2700	N
Hanging moment (see Figure 7)	1300	Nm
Connection data		
Maximum operating pressure	210	bar
Connection without valves		
Connection pressure / drains single acting (1x) ***	1/2"	
Connection pressure / drains double action (2x)	3/8"	
Drain line connection ***	3/8"	
Connection with valves		
Connection pressure / drains single acting	1/2"	
Drain line connection	3/8"	
Valve-control (2x)	12	V
Fuse	10	A
Electrical connection to loader	12V-connector	

* Exclusive tool and wheel loader

** Depending on the number of hydraulic control functions the loader features

*** For use with Becx hedge trimmer

2. Safety

2.1. General



- No modifications must be made to the loader arm.
- The user is responsible for making sure that the correct loader and adapter are used (see chapter **Fout! Verwijzingsbron niet gevonden.**). The following re important points in this regard:
- The maximum pressure and number of revolutions (oil flow) must not be exceeded. Excess pressure and excess revving can damage the machine and cause injury.
- The tool carrier must be strong and stable enough to absorb the forces and moments exerted by the loader arm safely and under all circumstances.

2.2. In use



- Consult the tool carrier manual for the noise rating. Because this is considerably louder than the loader arm itself, the noise load of the tool carrier determines the rating.
- The machinery must only be used for the activities for which it is designed.
- Persons or animals who are present in or who approach the danger zone must be stopped immediately and the weed brush must be switched off.
- If passers by disrupt the work too much, the operator can consider temporarily cordoning off the site.
- If the loader arm starts to make a different sound and/or starts to vibrate, work must stop immediately and the weed brush has to be switched off. Work can only continue after the source of the noise has been identified and resolved.
- Always complete inspection and maintenance jobs.
- The machinery must not be used for any other purposes during inspection and maintenance.
- The hydraulic feed to the loader arm must be disconnected during inspection, maintenance or cleaning to prevent accidental operation.
- Always comply with local work regulations and safety rules.
- If the machinery is used in the dark, use sufficient lighting (approx. 50 lux at the work site).

2.3. Operating personnel

	<ul style="list-style-type: none">• Operating personnel must be over 18.• Only persons who have received permission from the owner are allowed to operate the system.• Persons must only carry out jobs for which they are trained. This applies to both maintenance work and normal operations.• Personnel who operate equipment must be familiar with all possible situations that could arise.• The owner or person in charge must be told if personnel operating machinery identify faults or hazards or do not agree with safety measures.
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2.4. Safety symbols on the machine

1. 	Read the manual before use!
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2. 	Safety zone
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3. Component description

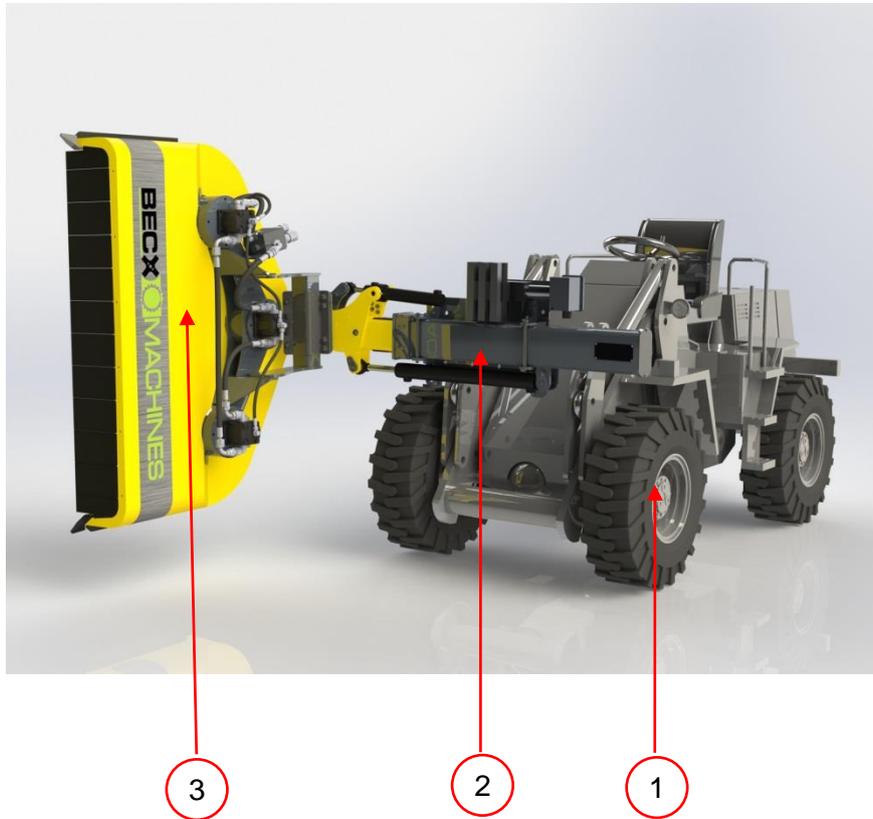


Figure 1: Overview

Figure 1	Part	explanation
1	Loader	<ul style="list-style-type: none"> The loader is not supplied. The user is responsible for using a tool carrier that is suitable for the loader.
2	Loader arm	<ul style="list-style-type: none"> The loader arm couples the tool to the loader.
3	Tool	<ul style="list-style-type: none"> The tool is not supplied. The user is responsible for using a tool that is suitable for the loader arm and loader.

3.1. Attachment

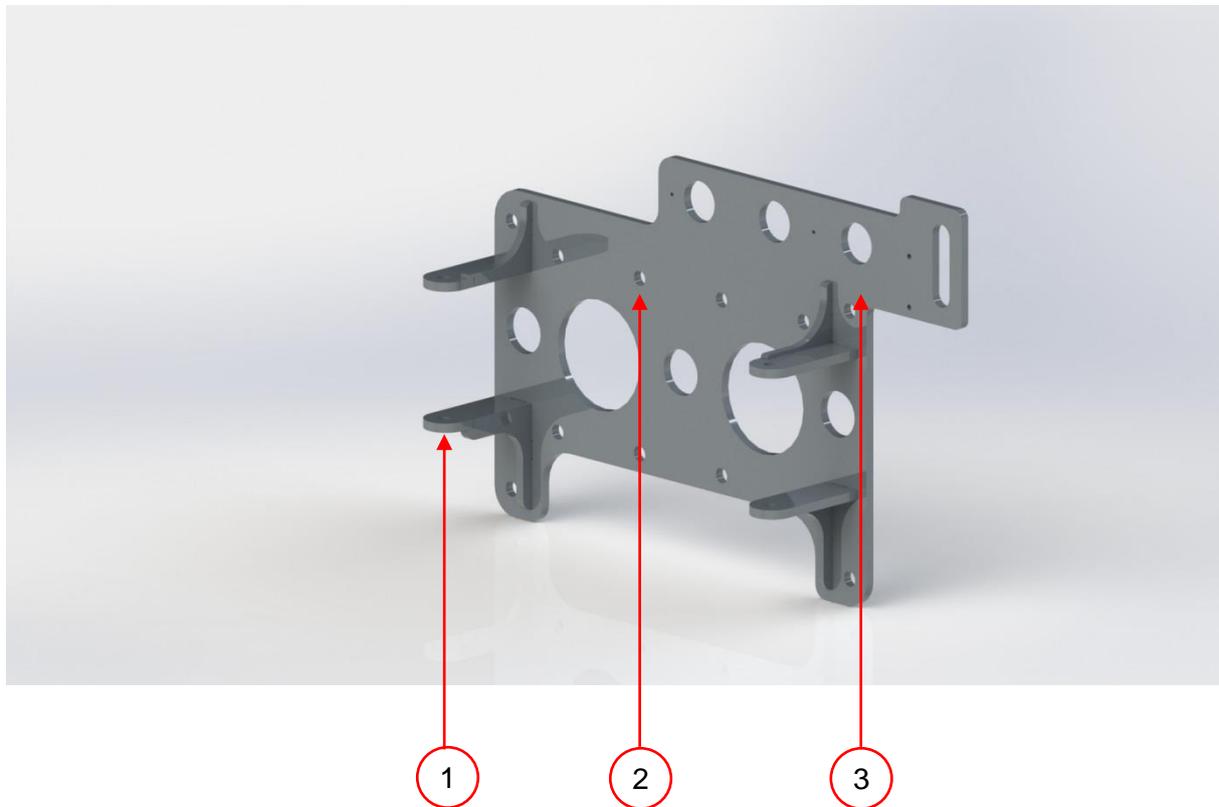


Figure 2: Attachment plate

Figure 2	Part	Explanation
1	Arm clamp	<ul style="list-style-type: none"> The actual support arm is attached by means of clamps on the adapter plate. This is done with the two mounting bolts
2	Adapter plate	<ul style="list-style-type: none"> Using a minimum of 4 of the 12 fixing holes WLA60 can be attached to almost any loader. It is preferred to use the holes on the sides of the plate
3	Valve block connection	<ul style="list-style-type: none"> If the version including control valve is provided, this is located at the appropriate position. In the version without valve block this section on the adapter plate is not present.

3.2. Mechanical components

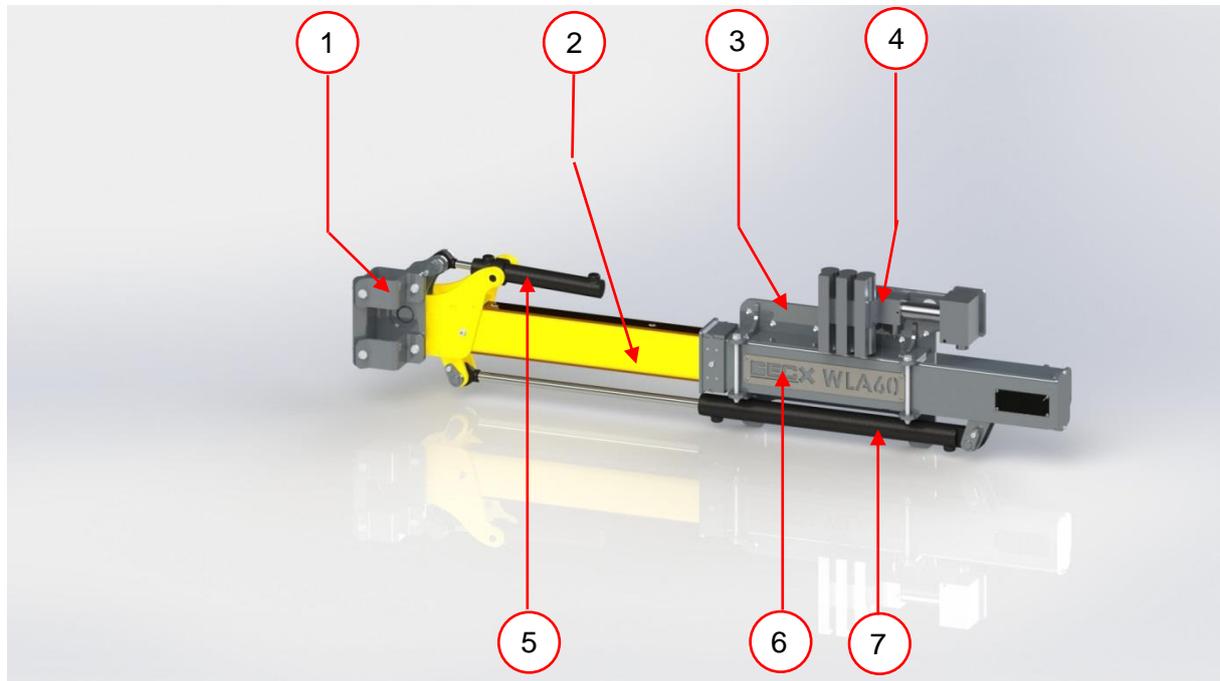


Figure 3: General overview of the mechanical components

Figure 3	Part	Explanation
1	Clamp	<ul style="list-style-type: none"> With this clamp, the tool, for example a Becx hedge cutter, can be coupled to the arm
2	Side-shift	<ul style="list-style-type: none"> By side-shifting this part, the tool can be moved to the left or right.
3	Adapter plate	<ul style="list-style-type: none"> Using a minimum of 4 of the 12 fixing holes WLA60 can be attached to almost any loader. It is preferred to use the holes on the sides of the plate
4	Valve block	<ul style="list-style-type: none"> Optionally, the control valve can be supplied. This converts to one single-acting hydraulic function to two double-acting functions and a single-action function.
5	Cylinder to rotate	<ul style="list-style-type: none"> By using this cylinder the tool will be rotated up to 110 degrees. This can be used to switch between the cutting on top, or on the side of the hedge.
6	Base	<ul style="list-style-type: none"> This section is the base of the arm. This connects all the components together.
7	Side-shift cylinder	<ul style="list-style-type: none"> By using this cylinder, the tool can be side-shifted up to 60cm to the left or right

	<p>ATTENTION!</p> <ul style="list-style-type: none"> Depending on the loader, this arm can be delivered with two double-acting electric functions. By default, the machine is delivered without valve block, but with the necessary hydraulic fittings and hoses supplied. See the supplied electrical and hydraulic diagrams for your model. It is the responsibility of the user to link the machine in the right manner to the tool and loader.
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3.3. Wear- and grease parts loader arm

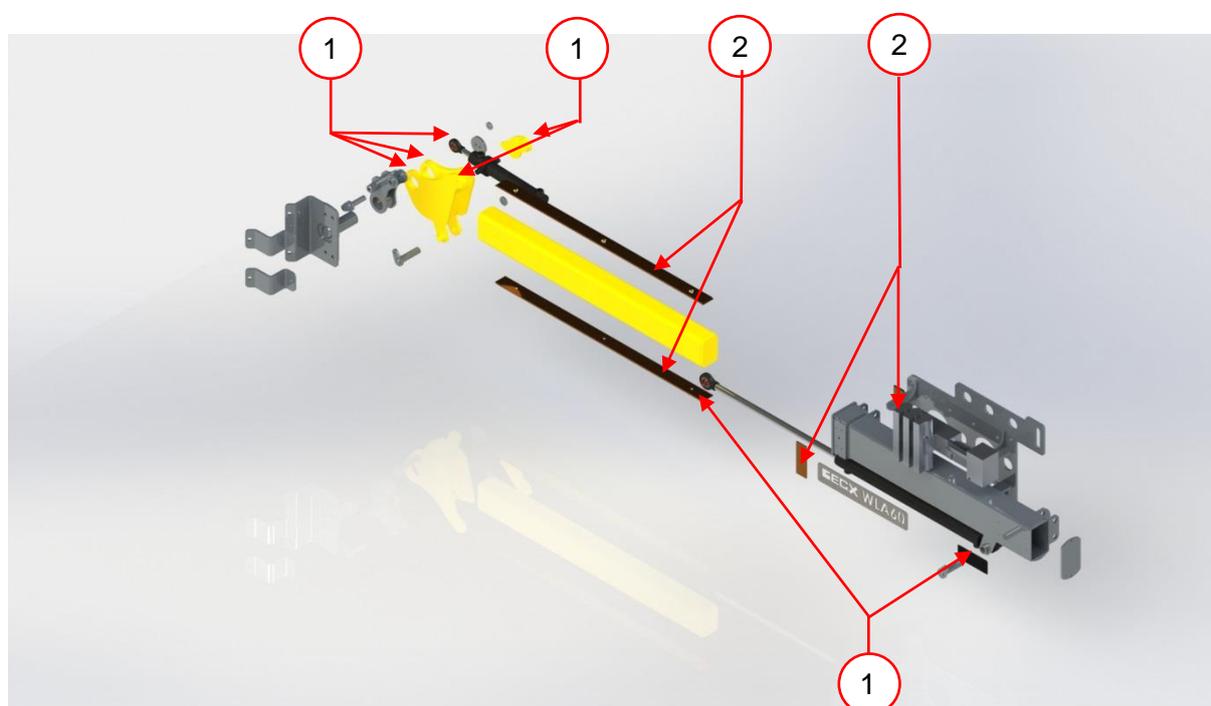


Figure 4: Overview wear- and grease parts loader arm

Figure 3	Part	Explanation
1	Grease points	<ul style="list-style-type: none"> Squeeze grease into the grease nipples on the cutting heads. See Chapter 1: Technical data or the grease specification
2	Wear strips	<ul style="list-style-type: none"> During use, these parts will wear out. When the strips are worn onto the screw heads, these parts should be replaced per set (4 strips)

4. Hydraulic schemes

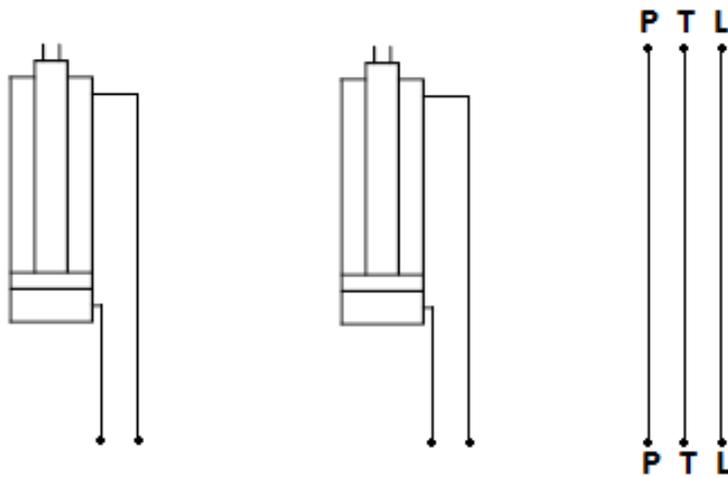


Figure 5: Hydraulic scheme – without valve block

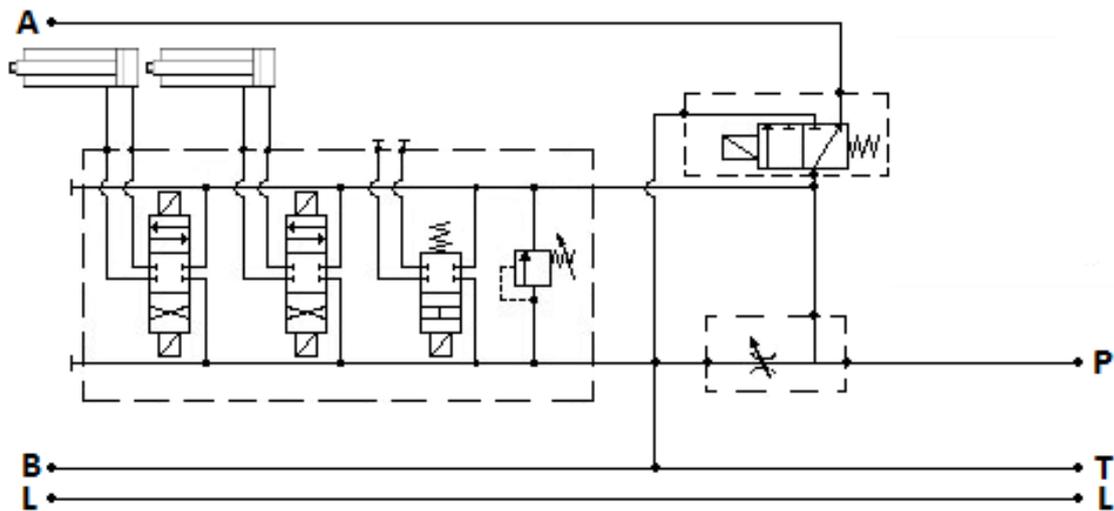


Figure 6: Hydraulic scheme – with valve block

5. Operations

5.1. Assembly and adjustment of the loader arm

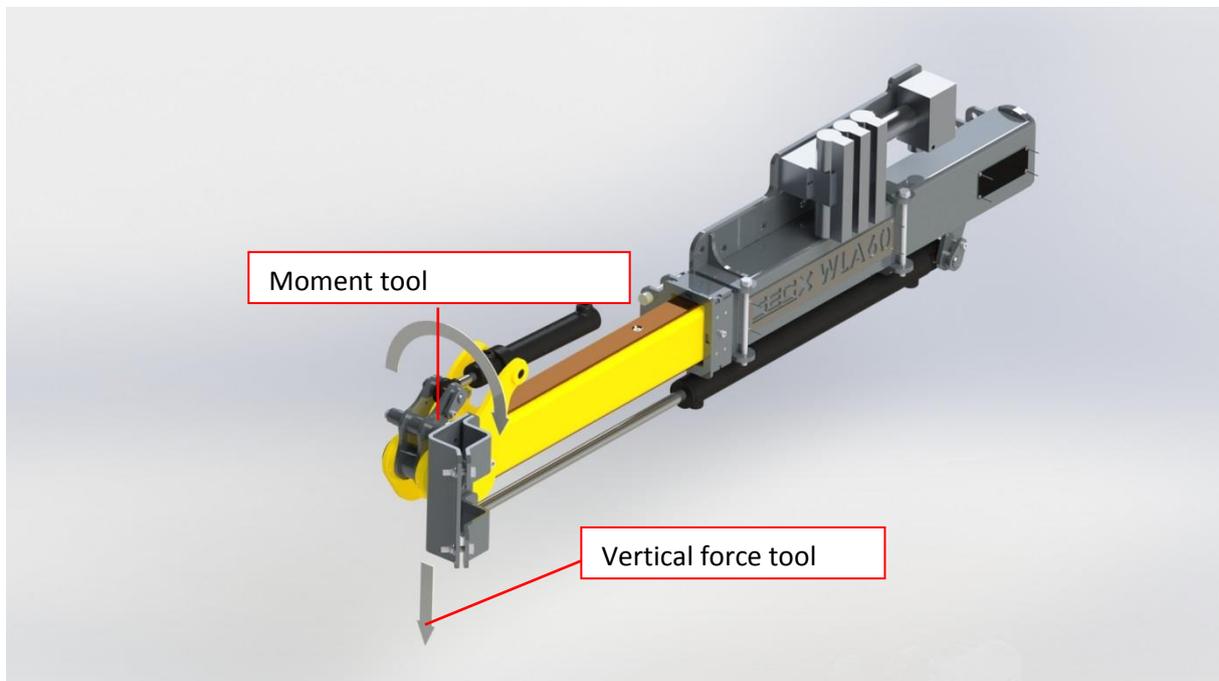


Figure 7: maximum forces arm and tool

No.	What to do	Action	Result
1	Select the correct tool carrier and lifting arm 	<ul style="list-style-type: none"> • Make sure that the tool carrier and lifting arm are sufficiently strong and stable for the weed brush (see chapter 1: Technical data for the load when lifting and the exerted moment of the lifting). • Make sure that the maximum pressure and number of revolutions (oil flow) are not exceeded. • Make sure that the correct rapid attachment connections are installed. • Make sure that the correct clasp is used. 	Ignoring the stated values can result in damage to equipment and injury to persons.
2	Connect the loader arm to the loader mechanically	<ul style="list-style-type: none"> • Make sure the base is vertical • Connect the adapter plate (Figure 3:3) with at least 4 of the provided 12 connection holes to the loader. • Place the base (Figure 3:6) on the desired position on the adapter plate. Depending on the preference of the user, it can be mounted on different positions. • Lock the base properly 	

2	Connect the hoses	<ul style="list-style-type: none">• Connect the rapid attachment connections for the feed line, return line and drain line.	
3	Adjust the hydraulic system	<ul style="list-style-type: none">• Adjust the setting of the hydraulic aggregate so that the maximum pressure and number of revolutions cannot be exceeded.• This will depend on the type of tool carrier that is used. Please refer to the manual of the tool carrier.	

5.2. Carry out the works.

	<ul style="list-style-type: none">• Observe the safety-instructions in chapter Fout! Verwijzingsbron niet evonden..• Observe the manual of the loader for the correct operation of the control functions.• Observe the manual of the loader the right safety-instructions.
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6. Maintenance

	<ul style="list-style-type: none"> • Only components supplied or approved by the manufacturer must be used for replacement or repair of parts. • Always disconnect the loader arm from the feed lines when work is carried out on the machinery. This is done by disconnecting the rapid attachments. • Only persons who can show that they have adequate knowledge of mechanical and hydraulic machinery through their training and experience are allowed to carry out maintenance work. • The installation can be cleansed with a high pressure cleanser, never point directly at hydraulic components.
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Weekly maintenance

No.	What to do	Action	Result
1	Tightening bolts	<ul style="list-style-type: none"> • Check and tighten all bolts 	
2	Visual check	<ul style="list-style-type: none"> • Visually check the construction and hydraulic aggregate for damage and cracks. • Check cylinder-rods for damages and dirt. 	
3	Wear strip check	<ul style="list-style-type: none"> • Check if the strips are worn onto the bolt heads (see chapter 3.3), if so, replace all 4 strips. 	
4	Grease	<ul style="list-style-type: none"> • Squeeze grease into the grease nipples. These are located at all pivot points. • See 1 Technical data for type 	

Annual maintenance

No.	What to do	Action	Result
1	Inspect	Check following parts for damage, cracks and looseness: <ul style="list-style-type: none"> • Connections. • Hoses. • Couplings. • Pivot points. • Wear strips. 	

7. Failure analyses

	Breakdown	Remedy
1	Not enough hydraulic power available	<ul style="list-style-type: none">• Check the hydraulic hoses.
2	After switching on, the tool does not run	<ul style="list-style-type: none">• Check that the hydraulic hoses are correctly connected.
3	Switching between hydraulic functions doesn't work	<ul style="list-style-type: none">• Check the electrical circuit.• Check the operation of the control valve.

If the fault cannot be solved by following the above recommendations, consult your dealer or maintenance department.

8. Removal

When replacing parts or at the end of the part's lifecycle, please ensure that all materials are disposed of, destroyed or recycled in a legal and environmentally friendly way.

