



AUTOGUIDE EQUIPMENT



FRONT MOUNTED POLE GRAB

MANUAL SPARE PARTS

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ORIGINAL INSTRUCTIONS

These instructions give safety and operations information regarding the use of the Front Mounted Pole Grab supplied by Autoguide Equipment. They contain the relevant information for products:

Product Code	Description	Force (<i>Tm</i>)
48592	Front Mounted Pole Grab	3.5

To ensure optimum results when operating this equipment it is very important to read this manual carefully, the information will prepare you to do a better, safer job.

Before operating the machine you should familiarise yourself with the instructions in this manual. Incorrect use can lead to damage which is not covered by the Warranty Conditions. This may create a dangerous situation or lead to unsatisfactory results.

These operating instructions **MUST** always be made available to the person or persons operating this equipment.

To assist in the ordering of spares, or other communications with our company, the serial number of the relevant equipment supplied, has been recorded below for your information.

Model No:-

Serial No:-

Date of Delivery:-



Read and understand all instructions. Failure to follow all instructions listed below may result in serious injury.



Do not allow persons to operate this product until they have read this manual and developed a thorough understanding of how the product works.



The warnings, cautions and instructions in this manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

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INFORMATION

Your Front Mounted Pole Grab has been individually built with great emphasis on quality, strength and simplicity of design and with routine care will give many years of trouble free operation.

The following instructions have been written to cover the machine. Care should be taken to ensure that you are referring to the correct section of your machine before carrying out any adjustments, or when ordering spare parts.

Like all mechanical products, regular cleaning, lubrication and maintenance will ensure a longer trouble free life. These instructions make no attempt to go beyond routine maintenance, and it is strongly advised that you contact your dealer should any major repairs become necessary.

Use only genuine service parts; non genuine parts may not meet standards required for safe and satisfactory operation.



Observe all safety information in the manual and on decals fitted to the machine and power unit.

Warnings



- Improper operation and maintenance of this machine can be hazardous and could result in serious injury or death.
- Operators and maintenance personnel should read this manual thoroughly before beginning operation and maintenance.
- Always keep this manual on the machine and be sure to read and understand it thoroughly before performing operation and maintenance.
- Some actions involved in operation and maintenance of the machine can cause serious accidents if they are not done in the manner described in this manual.
- If this manual has been lost or has become dirty and cannot be read, request a replacement manual from Autoguide Equipment Ltd.
- If you lend this machine to another person, always have that person read the operation manual and make sure that they understand the content of the manual before starting operation. Be particularly careful to ensure that they follow the safety regulations when operating.

Description

The Front Mounted Pole Grab is designed to be fitted to backhoe excavators and used for the erection of utility and telegraph poles. When fitted to the front forks, it can be used in conjunction with an auger unit on the back hoe and pole carrier above the cab to be a self contained pole erection vehicle.

Dataplate Information

The machine is fitted with a data plate with the machine specifications and information.

		AUTOGUIDE EQUIPMENT			
Stockley Road, Heddington, Wiltshire, SN11 0PS England		S/No. <input type="text"/>			
Tel: +44 (0) 1380 850885		MODEL <input type="text"/>			
email: sales@autoguide.co.uk website: www.autoguide.co.uk		YEAR <input type="text"/>			
UKCA		HYDRAULIC EQUIPMENT		CE	
MACHINE TYPE					
RATED CAPACITY	<input type="text"/>	kNm	MAX PRESSURE	<input type="text"/>	BAR
WEIGHT	<input type="text"/>	KG	MAX FLOW	<input type="text"/>	L / MIN

The information for this machine is:

Model	48592
Rated Capacity	1300 <i>KG</i>
Weight	830 <i>KG</i>
Max Pressure	200 <i>Bar</i>
Max Flow	45 <i>L / Min</i>

DECLARATION OF CONFORMITY



AUTOGUIDE EQUIPMENT



Declaration of Conformity (UKCA Marking)

UK CA

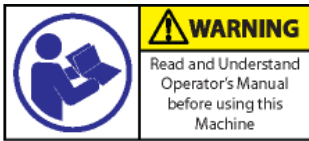
Name & Address of Manufacturer: <i>Autoguide Equipment Ltd, Stockley Road, Heddington, CALNE, Wiltshire, SN11 0PS, UNITED KINGDOM</i>	Name & Address of person to compile the Technical File: <i>Mr Adam Sandey, Lead Design Engineer, Autoguide Equipment Ltd, Stockley Road, Heddington, CALNE, Wiltshire, SN11 0PS, UNITED KINGDOM</i>
Name & Address of Authorised Representative if one has been mandated by the manufacturer: <i>N/A</i>	
Name, Address, and identification number of the Approved Body, where applicable: <i>N/A</i>	
Description of the Equipment: <i>48592 – Front Loader Pole Grab</i>	
The transposed harmonised standards (Designated Standards BS prefix) used: <i>EN ISO 12100:2010 - Safety of machinery - Human physical performance - Part 2. Manual Handling of machinery and component parts of machinery</i> <i>BS EN ISO 4413:2010 - Hydraulic fluid power — General rules and safety requirements for systems and their components</i>	
The British National standards and any technical specifications used (Specify): <i>N/A</i>	
Place of Declaration: <i>Calne, United Kingdom</i> Date of Declaration: <i>19th July 2024</i>	

I declare that the above equipment meets the Essential Health and Safety requirements of the Supply of Machinery (Safety) Regulations 2008 and 2006/42/EC Machinery Directive

Name: Mr Robert Robinson	
Position: Managing Director	

MACHINE SAFETY

The machine is fitted with numerous safety stickers highlighting the potential dangers. Please take note of these warnings as they are there to protect from dangers.



Operator Manual Must be read before operation.



Toe Protection Footwear Mandatory



Hard Hat Mandatory



High Visibility Clothing Mandatory



Eye Protection Mandatory



Gloves Mandatory



General Warning



Crush Hazard. Keep Feet Clear Of Moving Parts.



Rotating Parts – Keep Clear

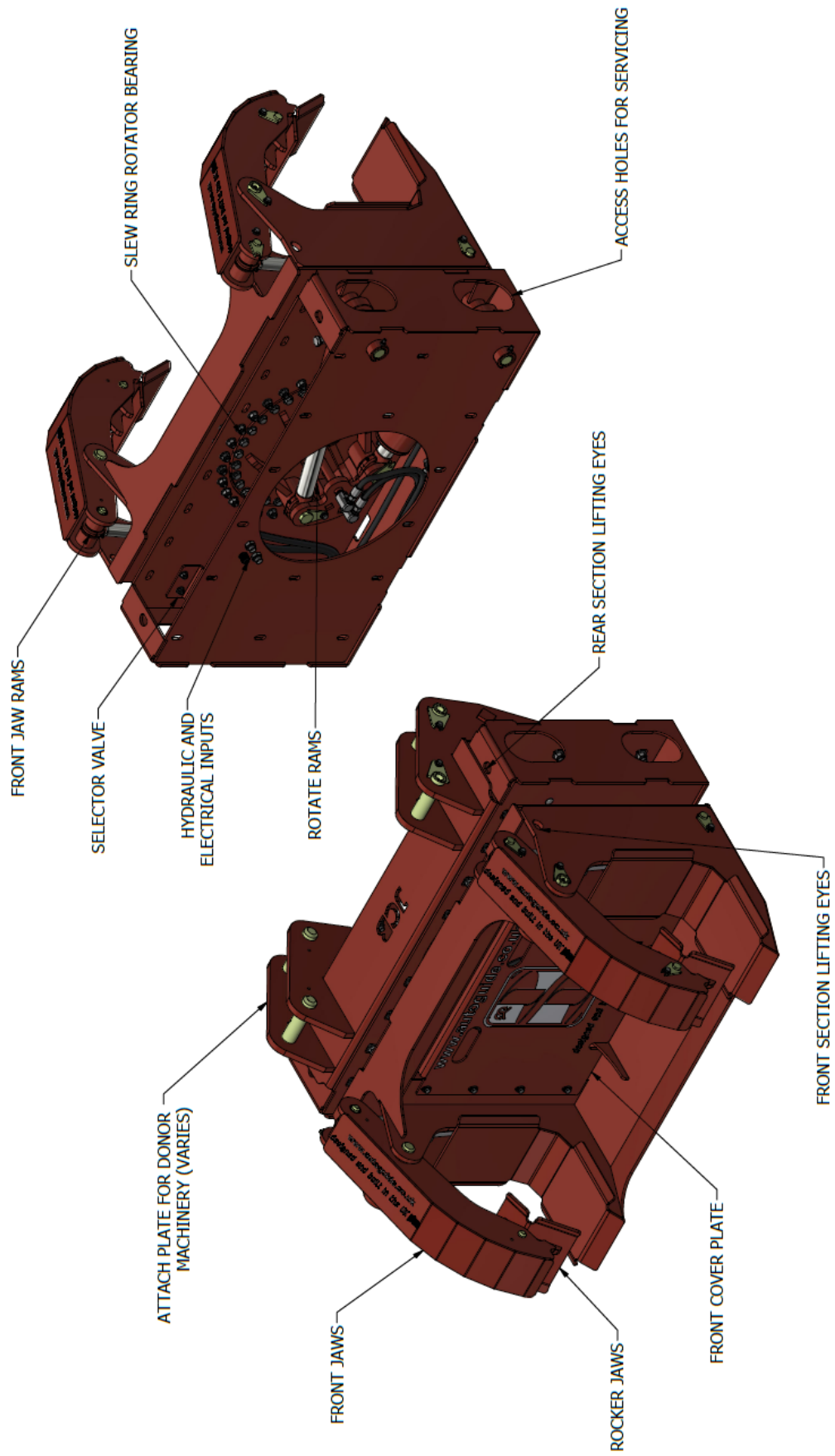


Crush Hazard. Keep Hands Clear Of Moving Parts.



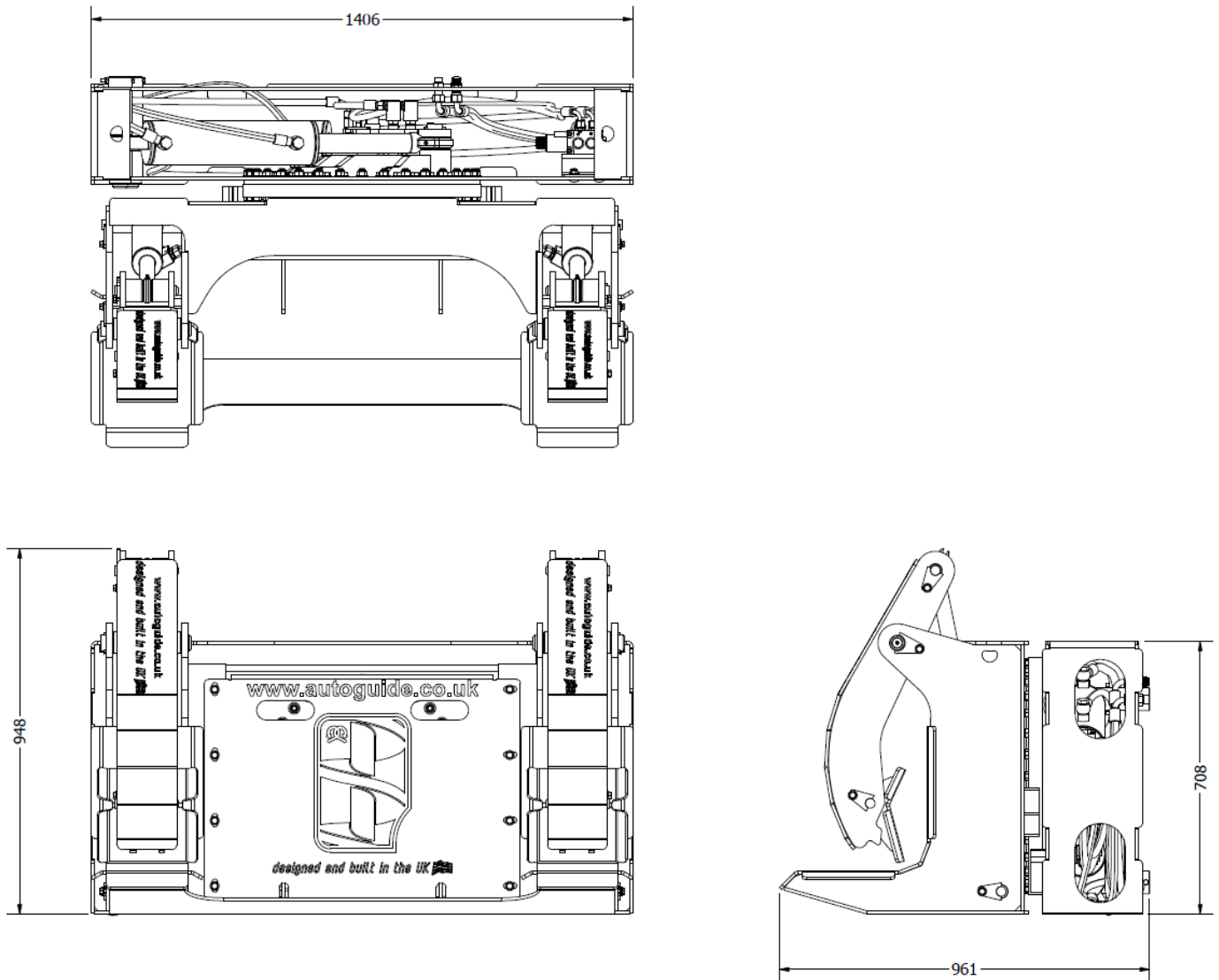
Bystanders Keep a Safe Distance

MACHINE FAMILIARISATION



TECHNICAL DATA

Dimensions



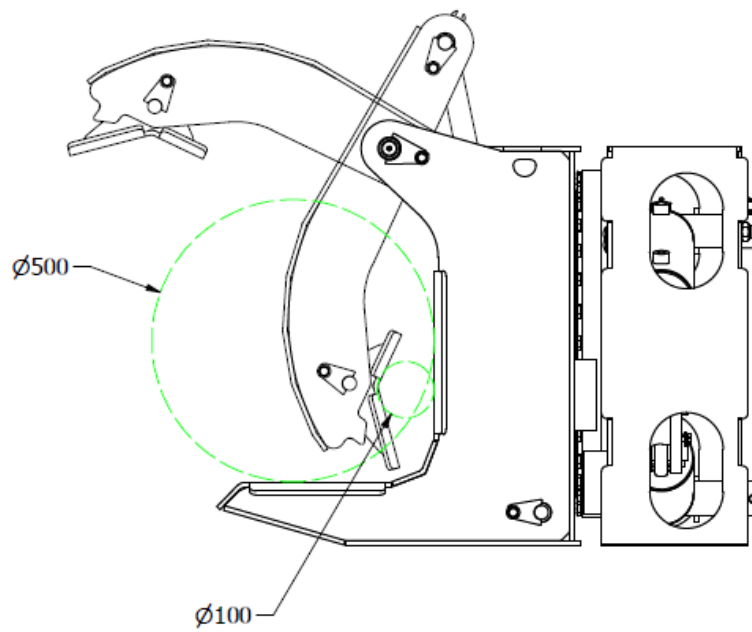
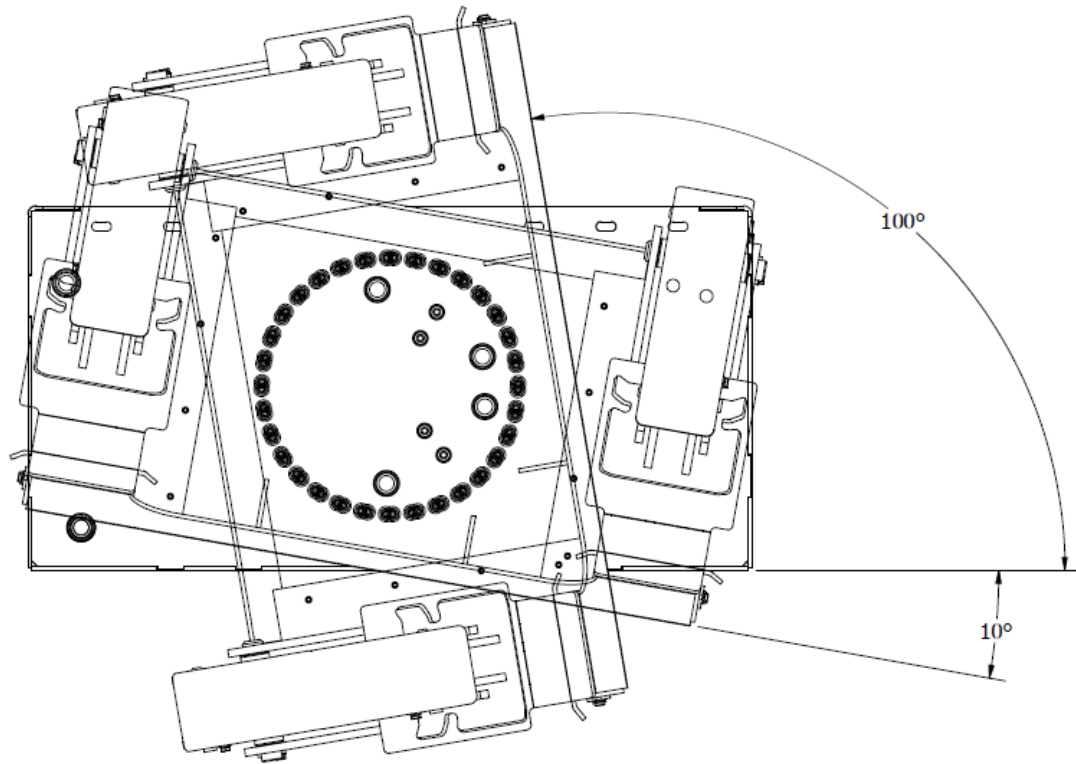
Weight

The weight of the pole grab is 830kg.

The weight of the backplate varies by machine. A list of common backplates is below:

Part Number	Machine	Weight (kg)
50539	JCB 4/3CX with Quick Hitch	250
55435	CAT 444	190
48604	JCB 4/3CX	180
53872	CAT444 with Quick Hitch	180

Freedom of Movement



MACHINE OPERATION

General Precautions



Failure to follow these general safety precautions may lead to a serious accident.



The safe operation of this machine is the responsibility of the operator, who should be familiar with the principles of pile installation, the power unit and all safety practices before starting operations.

Safety Rules

- Only trained and qualified personnel or personnel authorised by the company (or superior) can operate and maintain the machine.
- Read and understand this operator's manual prior to operating the machine and keep it in a convenient place for future reference.
- Follow all safety rules, prohibitions, precautions, procedures and instructions when operating or performing maintenance on the machine and pay careful attention to safety.
- Operating the machine when you are not in good physical condition reduces the power of judgment needed to avoid danger and leads to accidents.
- People in the following conditions should not operate the machine.
 - People who cannot operate normally because they are ill, or suffering from the effects of medication.
 - People who have been drinking
 - Pregnant women
- All oil spills, however small must be cleaned up straight away to prevent becoming a slip hazard.
- Ensure daily checks are completed prior to machine use.

Safety Features

- Be sure that all guards and covers are in their proper position. Have guards and covers repaired if damaged.
- Improper use of safety features could result in serious bodily injury or death.

Personal Protection

- Always wear properly fitting clothes which allow ease of movements.
- Avoid loose clothing, towels, jewellery and loose long hair. They can catch on controls or in moving parts and cause injury or death.
- Also, do not wear oily clothes; they can easily catch fire.
- A hard hat, non-slip safety shoes, safety glasses and gloves are advised when performing routing maintenance.
- It is advised that no untrained persons be allowed on the site whilst the machine is in operation.

How Not to Use the Machine

- The machine should only be used for its intended purposes.
- The machine should not be used to “pull” poles out of the ground.
- When gripping poles, both jaws must always be used. Using a single jaw to grip poles is not advised.

Unauthorised Modification

- Any modifications made without authorisation from Autoguide Equipment can adversely affect the performance of the machine and they may also create hazards.
- Before making a modification, consult Autoguide Equipment. Autoguide Equipment will not be responsible for any injury or damage caused by any unauthorised modification.

Noise and Vibration Reduction

The attachment is powered using the auxiliary hydraulic circuit from the base machine. Noise can be reduced by reducing the engine speed and running the machine at the required level for the hydraulic performance required. This is unique to each machine.

Operator Position

- The operator should be seated in the cab with seatbelt fastened at all times when the machine is running.
- Any additional trained banksman must stay a minimum of 10m distance from the pole grab and be wearing the appropriate PPE at all times.

Set Up

Machine Requirements

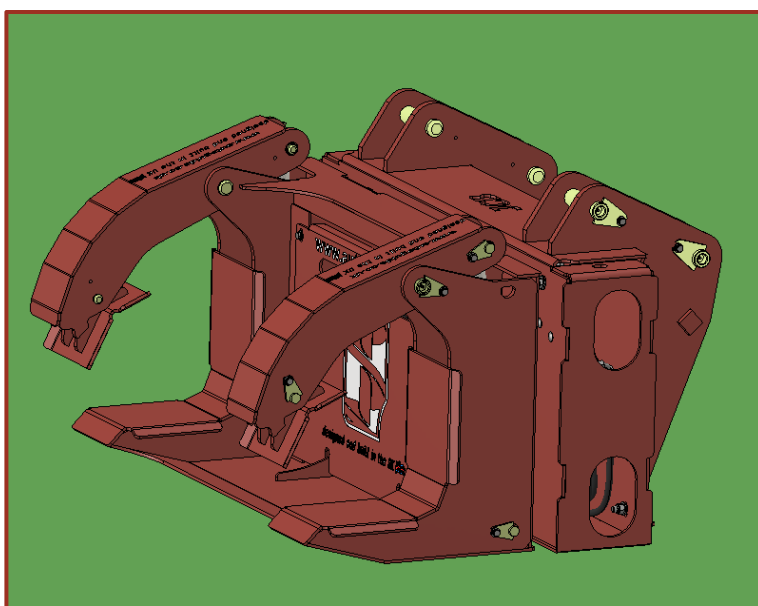
The hydraulic requirements of the donor machine to operate this machine is a single double acting circuit, capable of producing up to 200bar of pressure and 45 litres per minute of flow. Any excess pressure or flow must be restricted to prevent damage to the attachment.

The electrical requirements of the donor machine to operate this machine is a 12V electrical feed. This can be taken from the fuse board, a suitable point on the wiring harness or a 12V cigarette style plug in the cab if available.

Attaching to the Donor Machine using Pins



1. Ensure that the Pole Grab is positioned on even and level ground.
2. Remove the pins from the attach frame.

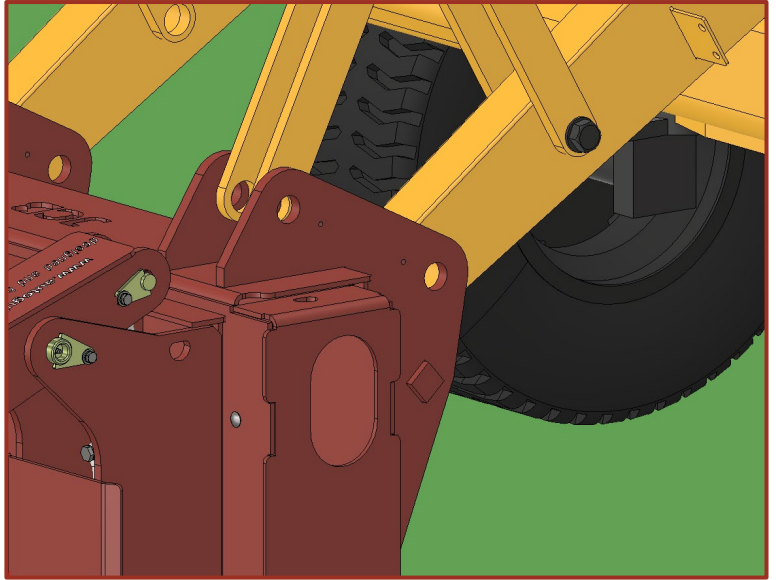


3. Remove the bucket or attachment from the front of the donor machine following manufacturers guidelines.

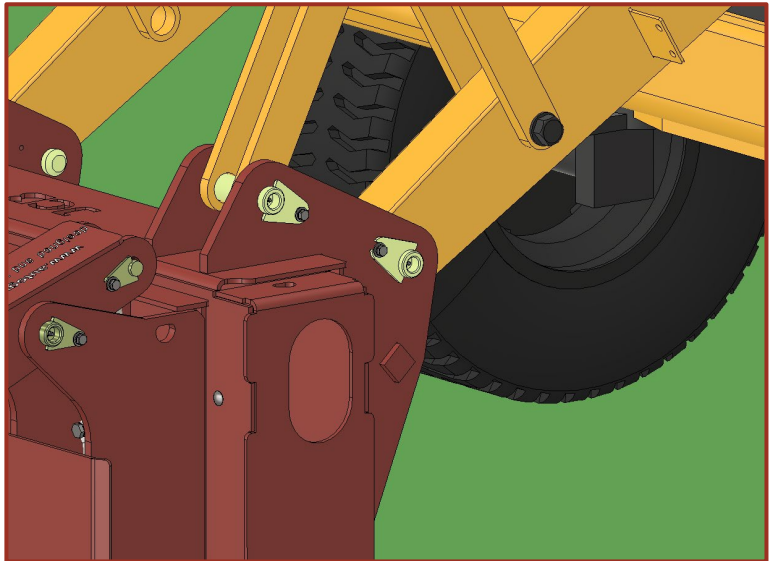


4. Drive the donor vehicle up to the pole grab and position the front forks and so that they align with the holes on the pole grab.

Switch off the donor machine, depressurise the auxiliary hydraulic circuit and isolate.



5. Insert the pins that connect the pole grab to the donor machine and secure.



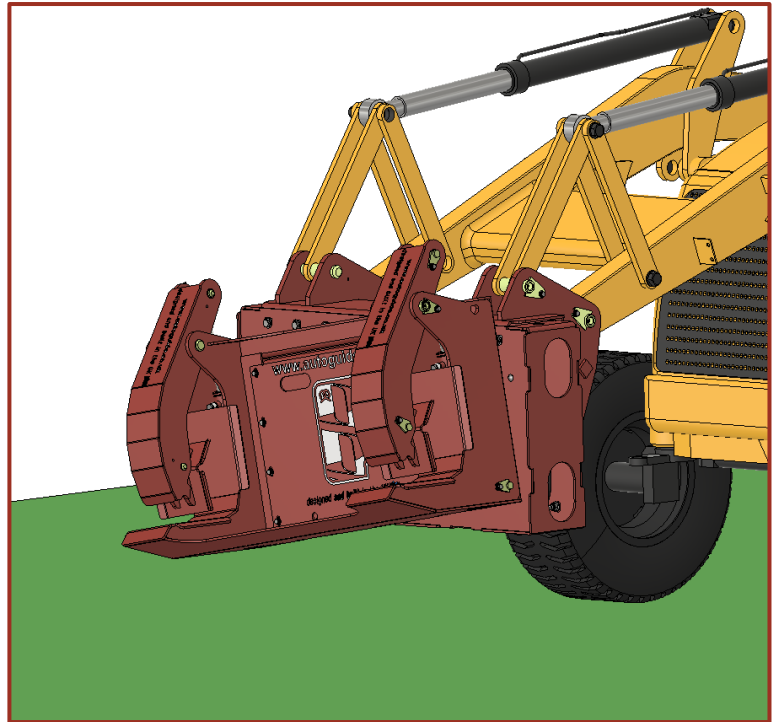
Not cleaning the quick couplers may enable dirt to enter the system and damage the hydraulic motor and valve, reducing performance and efficiency.

6. Connect the hydraulic quick couplers to the auxiliary circuit, and electric plug to the socket.



Check to ensure nobody is working on the machine before switching the isolator on.

7. Switch the donor machine on and test the function of the pole grab. Ensure the jaws move in both directions to their full extent and the grab rotates in both directions to its full extent.



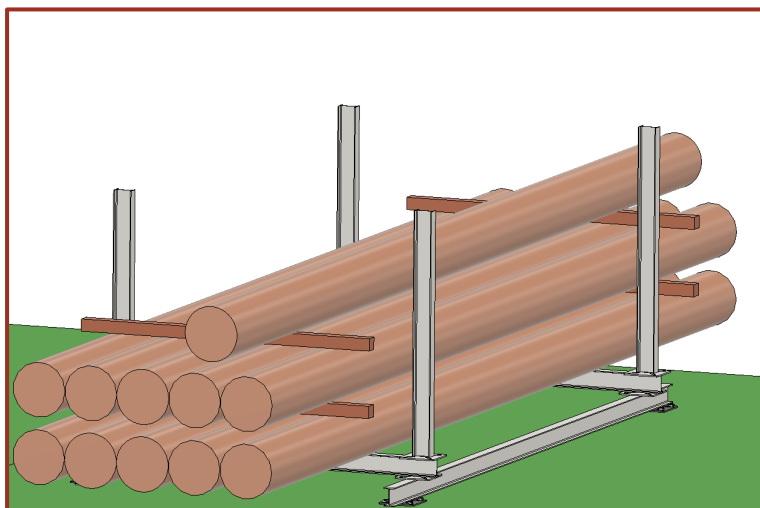
Attaching to the Donor Machine using a Quick Hitch

Attaching to a quick hitch follows a similar process. Steps 4 and 5 can be replaced following the Quick hitch manufacturers instructions for coupling to the attachment instead of using loose pins.

Handling and Installing Poles

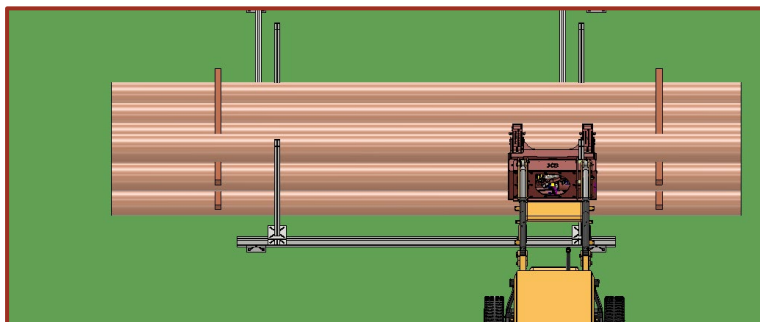
1. Ensure the size and weight of the pole does not exceed the maximum capacity of the Handler/Power unit.

Ensure poles are stored in accessible positions so they can be picked up easily and without the need for manual intervention. If poles are stacked, ensure spacers are used with adequate 'chocks'.

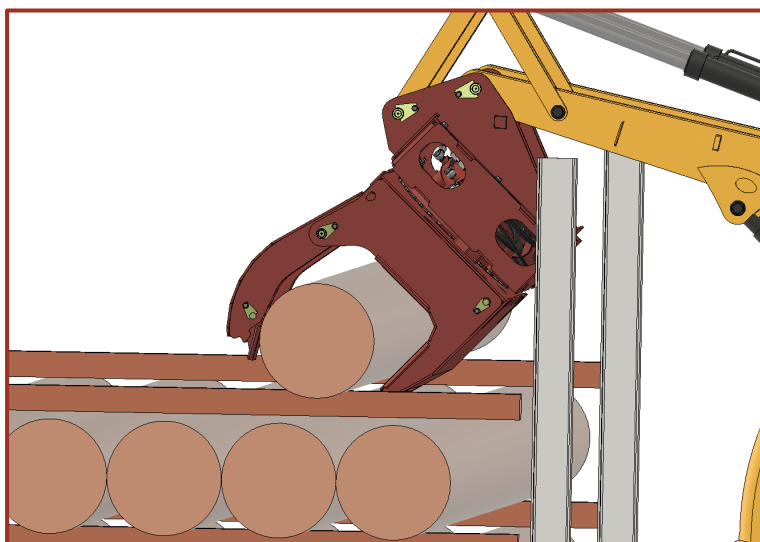


Ensure the area is free of bystanders before operating the equipment

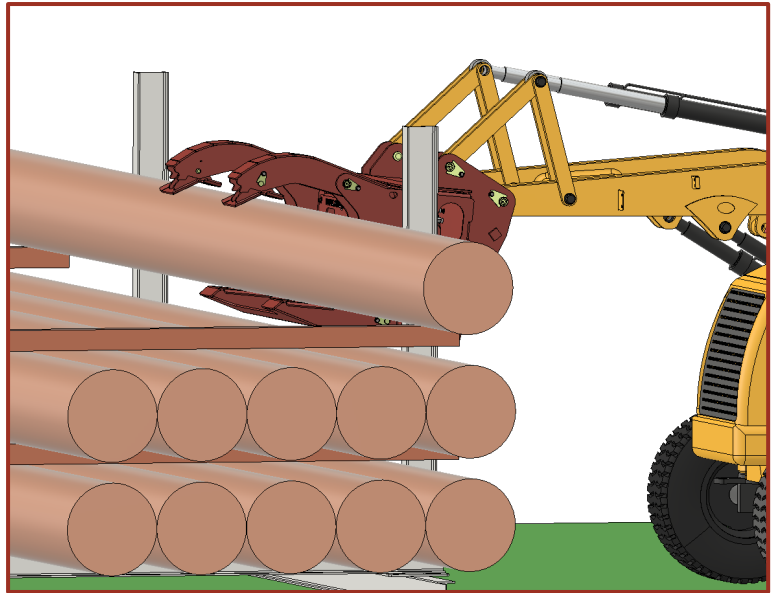
2. Align the donor machine with the pole so that so that the length to be planted is protruding to the right as viewed by the operator in the cab.



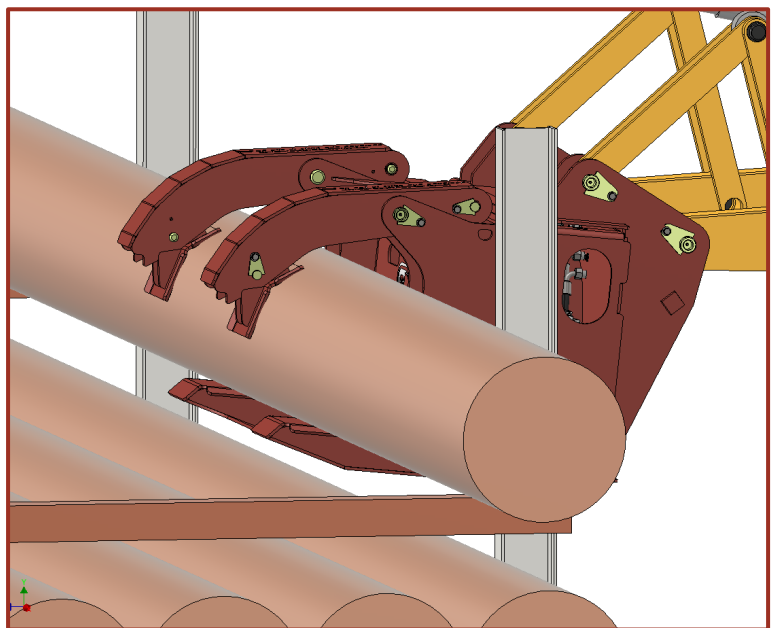
3. With the jaw arms open, manoeuvre to the pole and using the front arms of the donor machine position the jaw frame under pole.



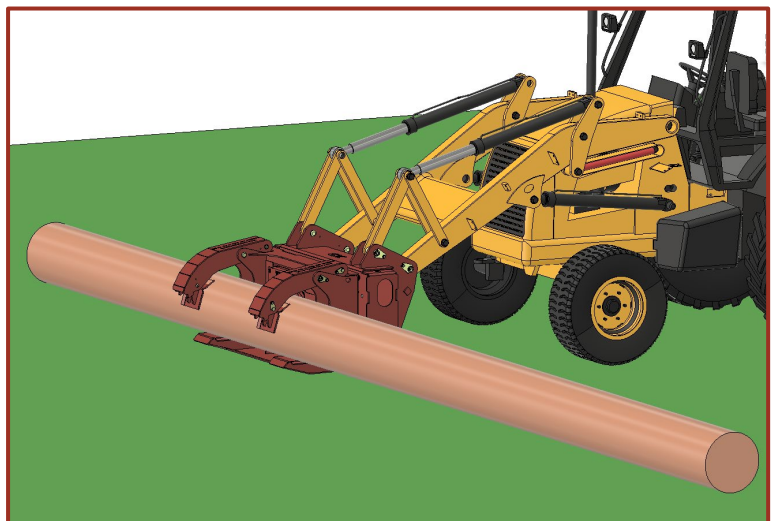
4. Tilt the grab backwards to roll the pole into the jaw frame.



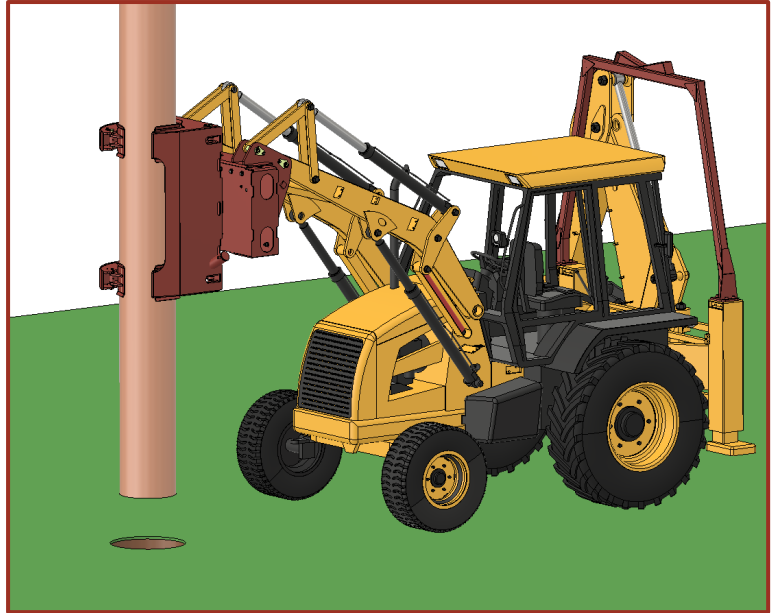
5. Shut the jaw arms to clamp the pole in the grab.



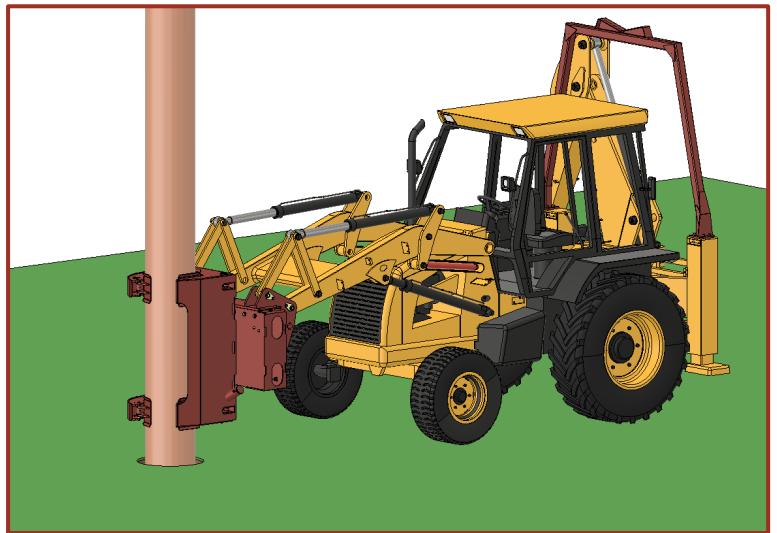
6. Manoeuvre the donor machine and pole grab to remove the pole from the store and lower the grab so it sits on the ground when not in use.



7. To install a pole, position it standing upright above the hole that has been augured in preparation.

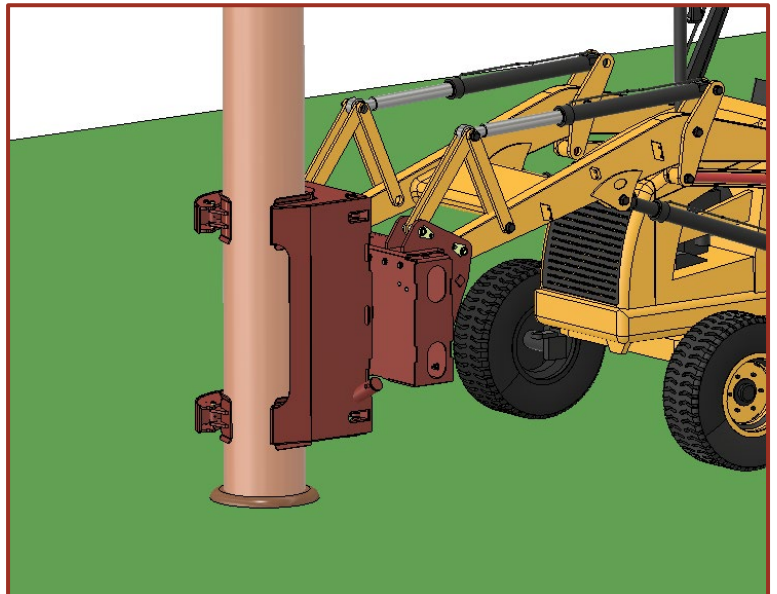


8. Lower the pole into the hole until it touches the bottom by lowering the front forks of the donor machine.



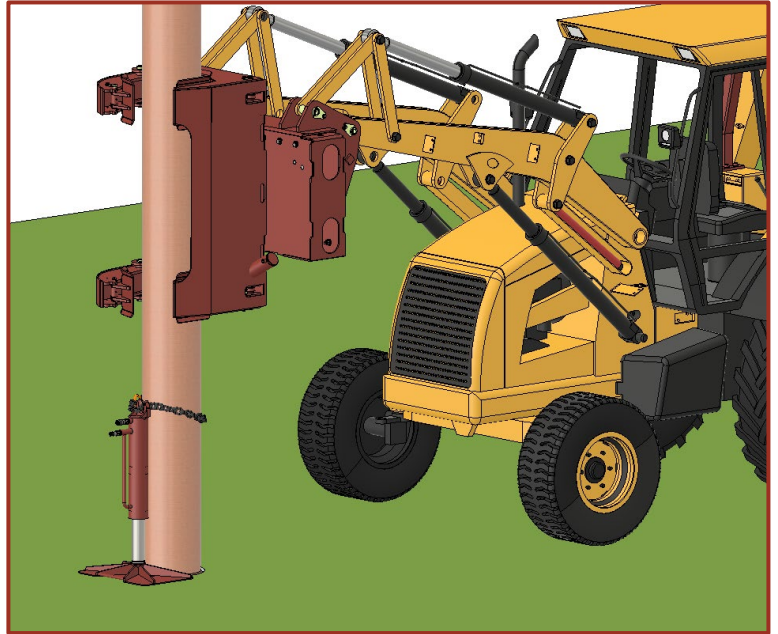
The jaws should not be released and the pole allowed to fall to the bottom of the hole.

9. Backfill around the hole and ensure it is tamped down at regular intervals to provide adequate support to the pole before releasing the jaws.



Removing a Pole

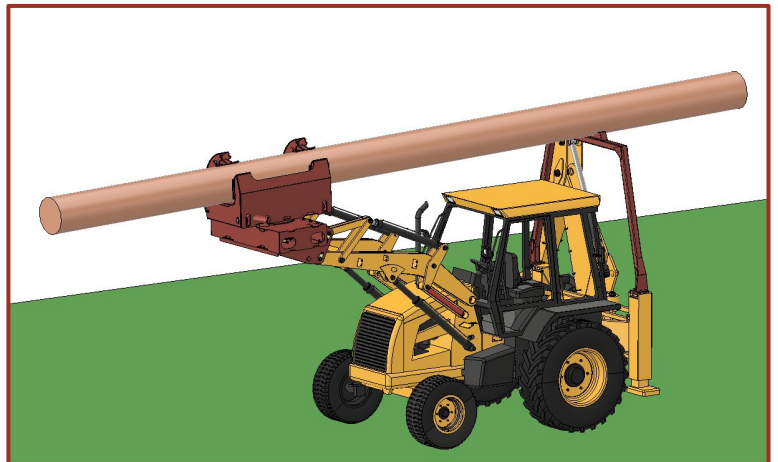
When removing a pole, do not use the pole grab to pull the pole out of the ground. A pole jack should always be used to extract the pole whilst the pole grab is used to hold and support during the process.



Transportation

If travelling with the pole, it is recommended to use a pole cradle above the cab.

To position the pole in the frame, raise the grab so that the pole can rotate without hitting the ground and align the pole with the direction of the donor machine. With the front forks in the air, tilt the grab back until the pole rests on the frame.



SERVICE INFORMATION

Service Schedule

The service schedule of machine items is as follows:

Service Item		Service Interval			
		10 Hours <i>Daily</i>	50 Hours <i>Weekly</i>	200 Hours <i>Monthly</i>	1000 Hours <i>Annually</i>
Hydraulics	Hydraulic Oil Level	Visual Inspection			Change
	Hydraulic Hoses	Visual Inspection			Thorough Examination
	Quick Couplers	Visual Inspection			
	Hydraulic Rams		Visual Inspection		
Other	Fasteners	Visual Inspection		Re-Torque	
	Ram Bearings		Lubricate		
	Main Slew Bearing		Lubricate		
	Clips and Pins	Visual Inspection			
	Metalwork	Visual Inspection			Thorough Examination

Daily Service Items

Pole Grab Daily Check Sheet

Serial No. _____ Date _____

Name _____ Signature _____

Item	Description	Tick
Bolt Torque	<i>All tight and present. No signs of corrosion.</i>	
Hydraulics	<i>All hoses in good condition. No leaks</i>	
Quick Couplers	<i>Couplers in good condition and free from dirt</i>	
Clips and Pins	<i>All pins present, in good condition and functioning as designed</i>	
Metalwork	<i>All in good condition, handles straight, holes round and not elongated. No broken welds</i>	
Lubrication	<i>All pins, ram bearings and slew bearing lubricated adequately</i>	

Bolt Tightening

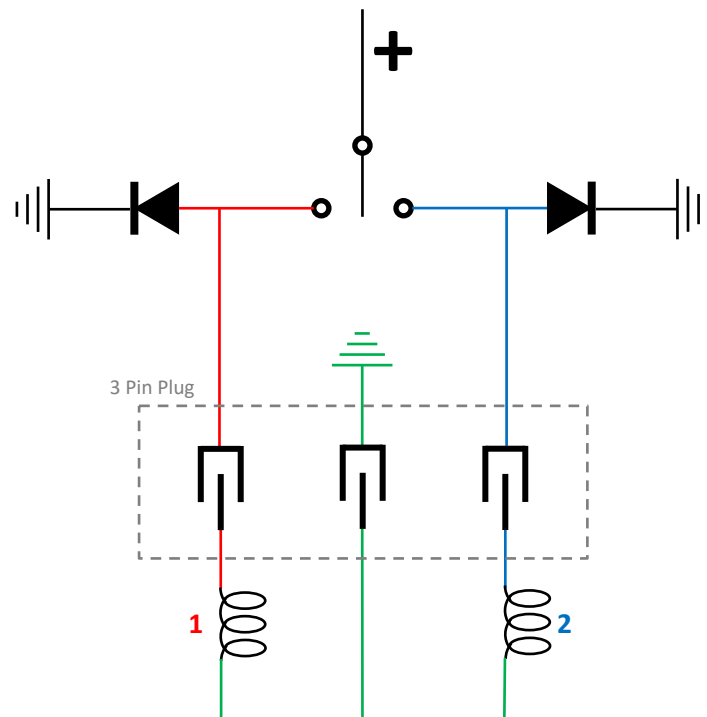
Due to the nature of the environment in which the 400H is used, it is possible the bolts can work loose during operation. It is therefore critical that all bolts and grub screws are re-torqued at regular intervals.

If tightening the bolts please use the torque values listed in the table below.

Bolt Size	Tightening Torque (Nm)		
	Hex Head Bolt Grade 8.8 – Zinc Plated	Cap Head Bolt Grade 12.9	Bolt in Aluminum Tapped hole
M6	8	16	6
M8	20	40	17
M10	40	80	33
M12	70	140	60
M14	112	225	94
M16	175	350	-
M18	241	480	-
M20	341	680	-
M24	590	1150	-
M30	1171	2300	-

Electronic System

24V Electronic System



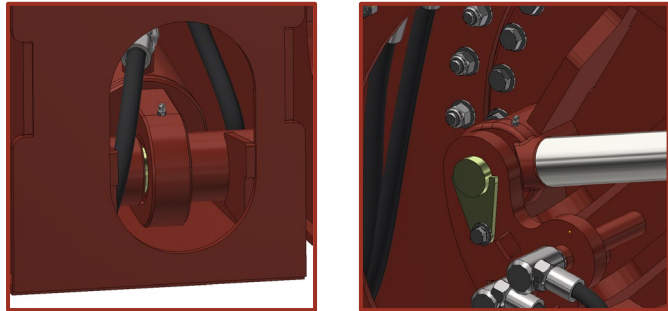
Lubrication

There are multiple grease points located on the machine. It is important that these grease points are all lubricated frequently, either after every 250 hours of service or monthly, whichever is first. Steps should be taken to clean up excess grease.

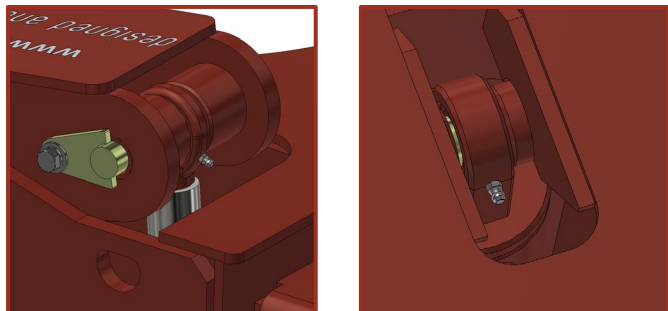


List of Grease Points:

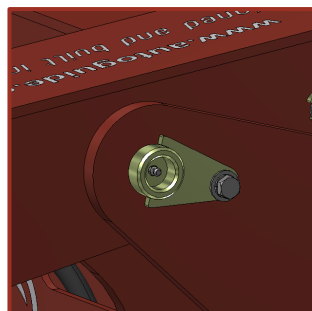
Rotate Rams spherical ends



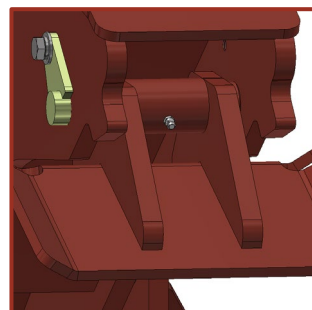
Jaw Ram spherical ends



Jaw Pivot Pins

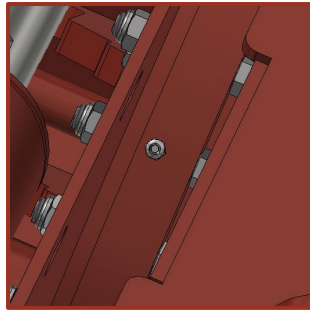


Rocker Jaw Bosses



Slew Ring Bearing – 4 grease points

When lubricating the slew ring bearing it is recommended to lubricate all 4 points with two/three pumps of a grease gun before rotating 15 degrees and repeating the process to prevent over-greasing and bursting the seals.



TROUBLESHOOTING

Symptom	Possible Cause	Action
No hydraulic movement	No oil flow	Check that quick release couplers are correctly engaged and locked together. Check that powerpack hydraulic system is operating correctly and has sufficient oil of the correct grade.
	Pressure relief valve set too low	Check hydraulic pressure on auxiliary circuit from donor machine
	No Electronic supply	Check the 12V supply to the switch and wiring to the socket on the donor machine.
	No electronic signal to solenoid valve	Check the 12V wiring to the solenoids
	Solenoids not activating	Replace the solenoid coil
Unexpected Rotation	Spool Valve leaking	Replace the spool valve
	Spool Valve not returning to neutral	Replace the spool valve
	Excessive Hydraulic Flow	Check the specification of the donor machine to ensure hydraulic flow is within limits of pole grab.
Slow rotation	Insufficient oil flow from donor machine	Check that donor machine hydraulic system is operating correctly and has sufficient oil of the correct grade.
	Hoses too small for flow	Ensure minimum 3/8" Hydraulic feed hoses are being used to reduce back pressure.
Hydraulic rams jerky	Cold oil	Let powerpack run with the flow on to allow time for the engine and oil to warm up
	Air in pipes	Check oil in powerpack reservoir.
Oil leaks	Loose Fittings	Check and tighten hydraulic fittings.
	Damaged Hoses	Replace if leaking. Ensure suitable hose of the correct pressure rating is used.
	Pressure Too High	Ensure powerpack supply is suitable for the machine specifications and that they do not exceed the maximum flow and pressure on the data plate.

Please contact Autoguide Equipment if there are any issues that cannot be resolved with the advice above.



AUTOGUIDE EQUIPMENT



SERVICING

Autoguide Equipment prides itself not only on the quality of its products but also on the comprehensive support it provides to you, our customers. As part of our commitment to ensuring maximum performance and longevity, Autoguide offers servicing for all products within our extensive range. Whether it's hydraulic powerheads, augers, or other machinery, customers can rely on Autoguide for top-notch maintenance.

One of the standout features of Autoguide's servicing is its flexibility. Customers have the option to have their equipment serviced either on-site or at Autoguide's well-equipped workshop. This flexibility ensures minimal disruption to operations, as customers can choose the option that best suits their needs and schedule. Whether it's a routine check-up or addressing specific issues, Autoguide's team of skilled technicians is dedicated to delivering prompt and reliable servicing to keep equipment running smoothly.

With Autoguide Equipment, customers not only invest in cutting-edge machinery but also in the assurance of ongoing support and maintenance, maximising the value and efficiency of their equipment over the long term.



+44 (0)1380 850885



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END OF LIFE

When the machine reaches the end of its useable lifetime it is important that the independent elements of the machine are reused, recycled or disposed of suitably.

Component	What to do?
Metals	All metals should be recycled with an appropriate scrap metal merchant, preferable sorted into metal type.
Electronics	All electrical components should be recycled at an appropriate facility according to the WEEE Directive and Regulations 2013
Oils	Oil waste is classed as Hazardous and therefore must be stored separately and according to legal regulations (that differ dependent on country). It must be disposed of by a suitable Waste Oil collection company.
Hydraulic Hoses	Hydraulic hoses should be drained of oil, metal ends removed and then recycled with a suitable specialist recycling company. Metal ends can be sent to metal recycling centres.
Plastics	All plastics should be sorted into recyclable and non recyclable and then either sent to suitable recycling facilities or landfill.

WARRANTY

Coverage

Autoguide Equipment warrants the product against defects in materials and workmanship for 12 months from the date of purchase, applicable to the original purchaser only, when paid in full.

What's Covered

We will repair or replace, at our discretion, any defective parts or the entire product during the warranty period, free of charge determined as defective by Autoguide. The customer is responsible for returning the product for warranty inspection to the Autoguide's facility. Parts should not be delivered without the prior agreement from Customer Services. Autoguide are not liable for any associated costs relating to a warranty failure. Parts repaired or replaced by Autoguide are then covered by this warranty for the remainder of the original warranty as if such parts were original parts.

Exclusions

Damage resulting from misuse, abuse, unauthorised modifications, normal wear and tear, or external causes is not covered. This warranty is void if any attempt is made to make field repairs unless these have been preapproved, or the data plate has been removed.

Obtaining Service

Contact Customer Services for warranty service, providing proof of purchase, product serial number (located on the data plate) and a description of the problem.

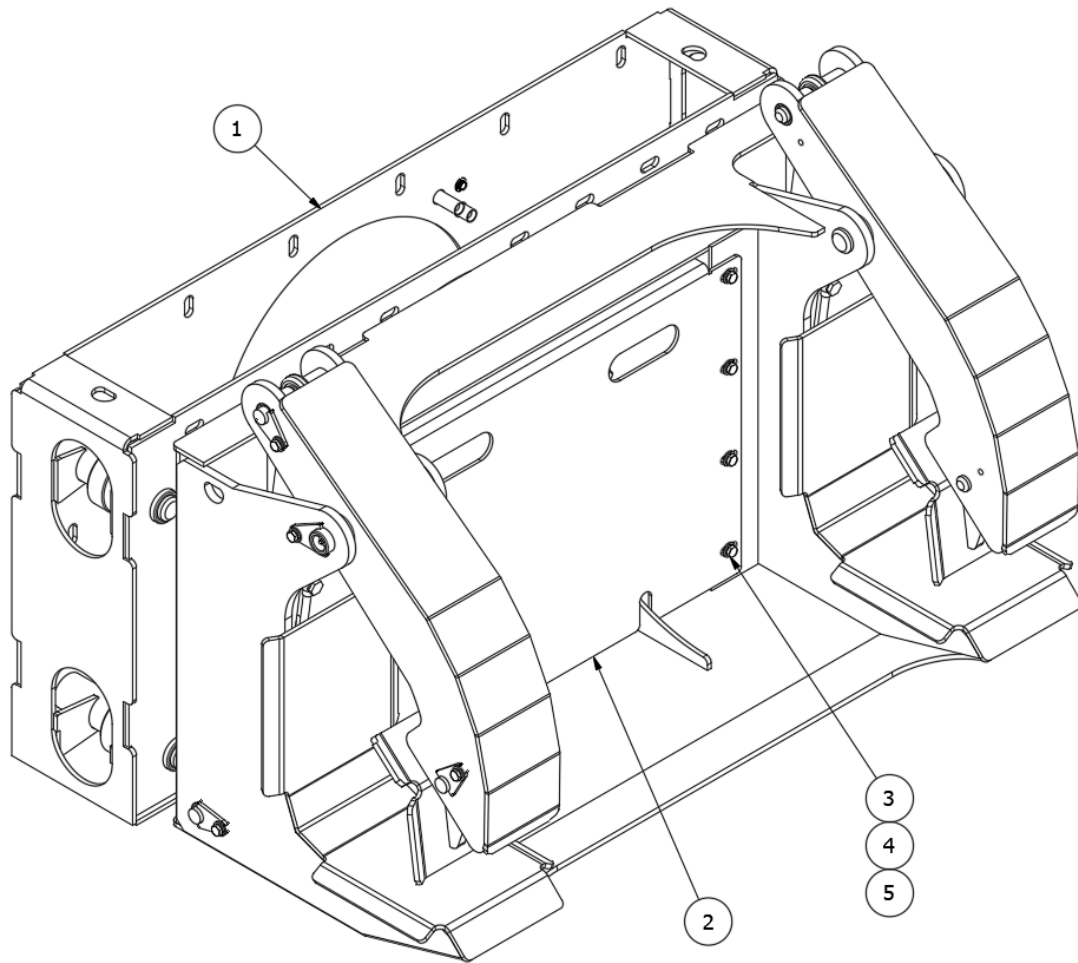
Limitation of Liability

Autoguide Equipment shall not be liable for incidental, consequential, or special damages arising from product use.

General Terms & Conditions: Refer to our standard T&C's <https://www.autoguideequipment.co.uk/tcs-ag-v2-8>

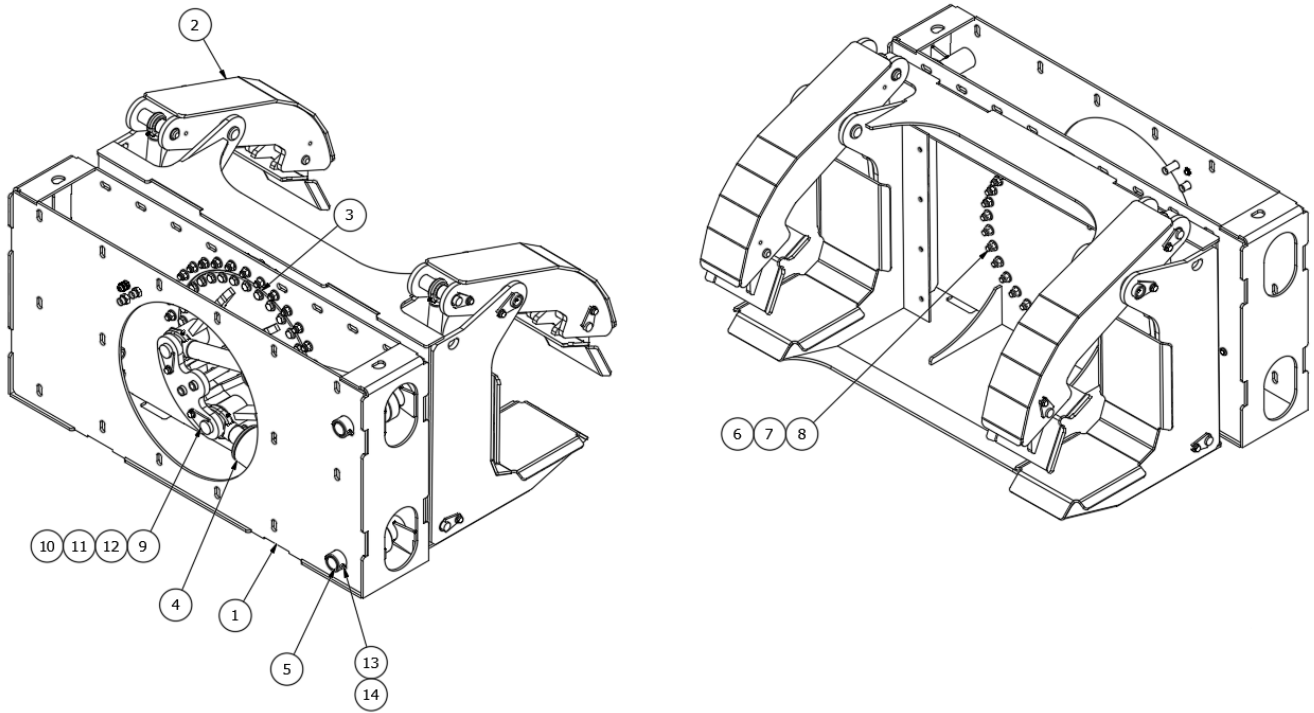
SPARE PARTS

Pole Grab Assembly



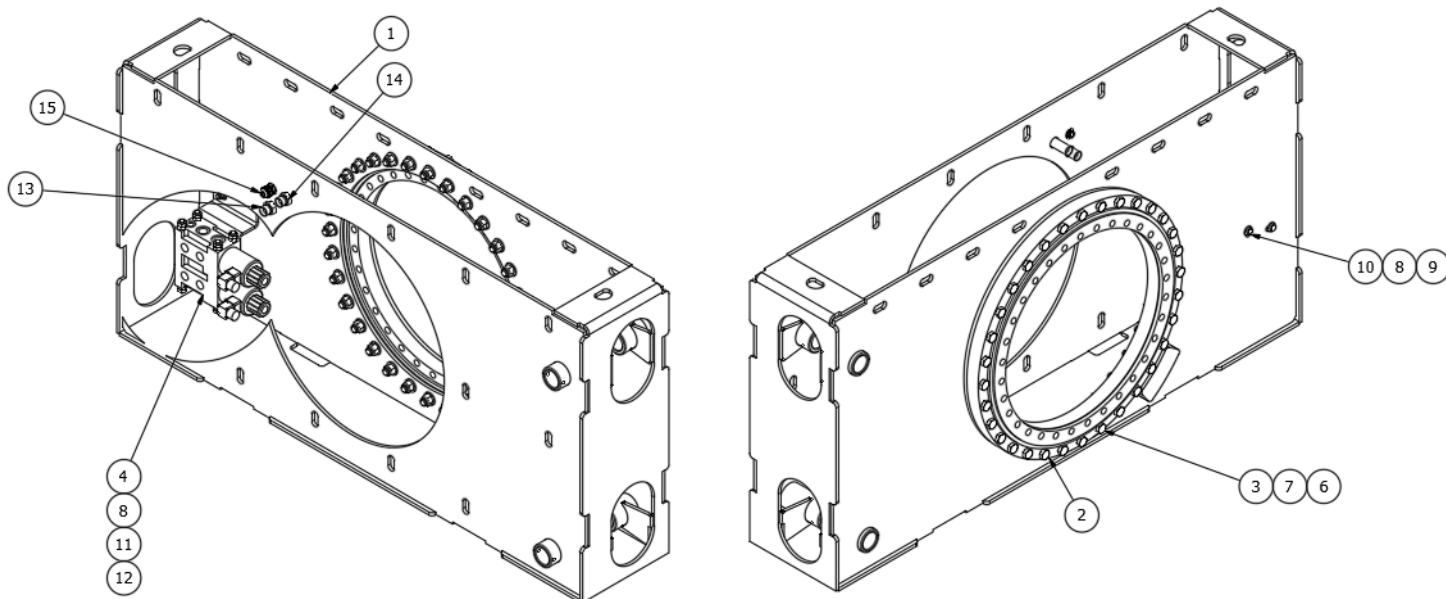
No.	Code	Description	Quantity
1	48593	Pole Grab Assembly Stage 1	1
2	48645	Cover Plate	1
3	01158	Bolt Set M10 x 30	8
4	02702	Washer M10	8
5	02525	Washer Spring M10	8
6	48660	Pole Grab Electronics	1

Pole Grab Sub Assembly



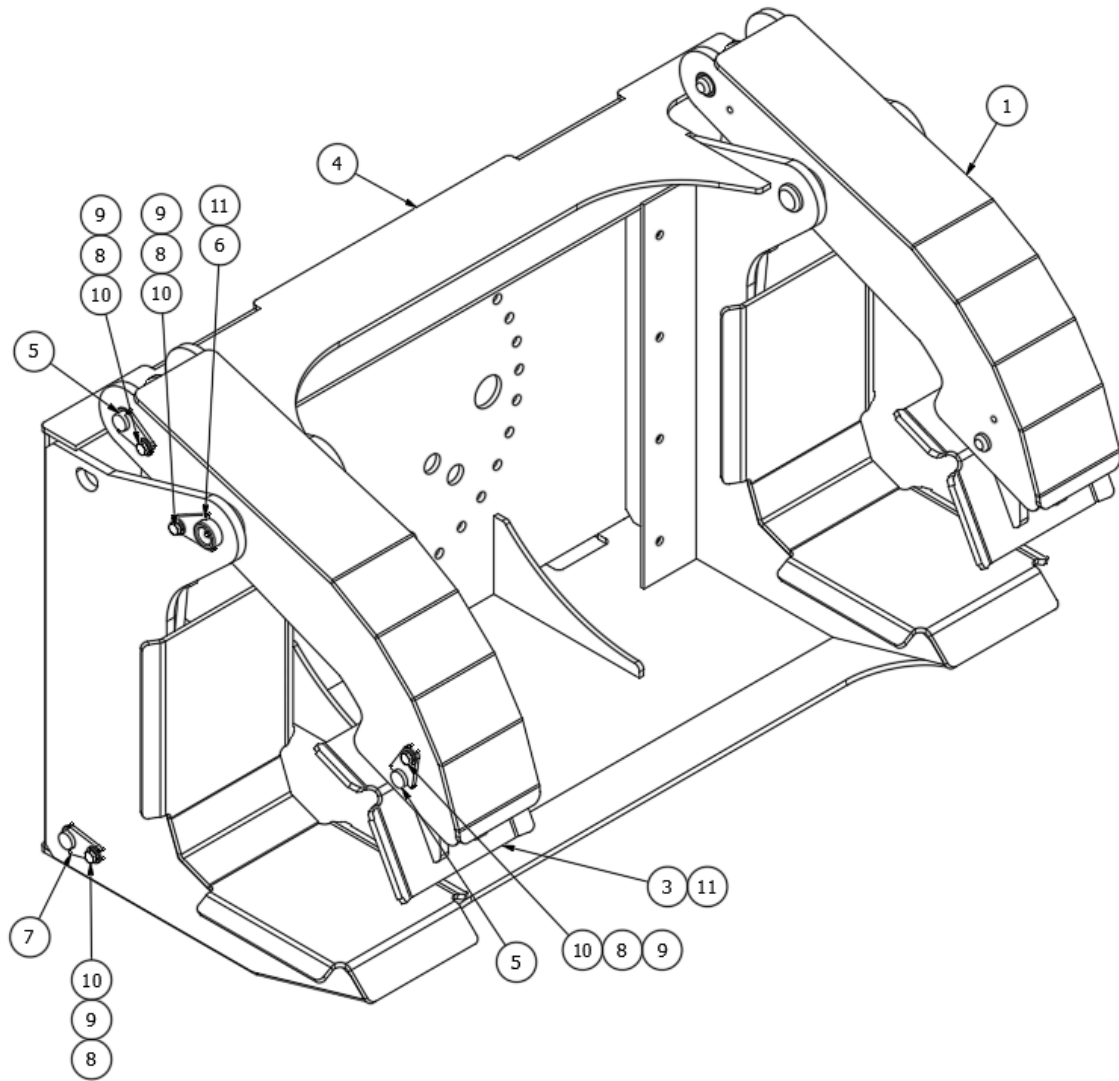
No.	Code	Description	Quantity
1	48595	Mount Frame Assembly	1
2	48601	Jaw Frame Assembly	1
3	48588	Rotator WA Stage 3	1
4	12254	Pivot Ram	2
5	48614	Rotate Ram Butt Pin	2
6	03008	Washer M14	64
7	03006	Nut Nyloc M14	32
8	10877	Bolt Hex M14 X 100	32
9	48590	Rotate Ram Head Pin WA	2
10	02702	Washer M10	2
11	02525	Washer Spring M10	2
12	01158	Bolt Set M10 X 30	2
13	02455	Bolt Hex M8 X 70	2
14	02496	Nut Nyloc M8	2

Mount Frame Assembly



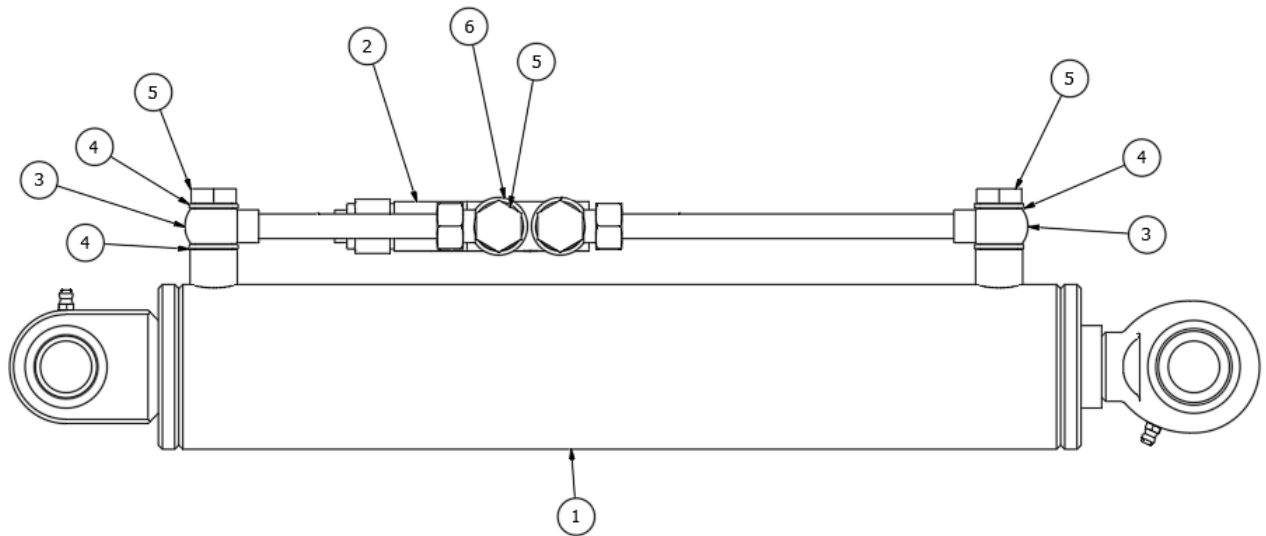
No.	Code	Description	Quantity
1	48594	Mount Frame WA	1
2	10523	Ring Bearing	1
3	11964	Bolt Hex M14 X 75	32
4	10802	Valve	1
5	48659	Valve Mount	1
6	03008	Washer M14	32
7	03006	Nut Nyloc M14	32
8	02977	Washer M8	8
9	02496	Nut Nyloc M8	2
10	02992	Bolt Set M8 X 30	2
11	02521	Washer Spring M8	4
12	02449	Bolt Set M8 X 20	4
13	04578	Bulkhead 1/2" MM BSP	1
14	02242	Bulkhead 1/2" MM BSP EXT	1
15	11771	Gland Cable M016 Black	1

Jaw Frame Assembly



No.	Code	Description	Quantity
1	48605	Arm WA	2
2	48596	Jaw Ram Assembly	2
3	48586	Jaw WA	2
4	48599	Jaw Frame WA Stage 2	1
5	48597	Jaw Pin WA	4
6	48606	Arm Pin WA	2
7	48591	Ram Pin WA	2
8	02702	Washer M10	8
9	02525	Washer Spring M10	8
10	02329	Bolt Set M10	8
11	02137	Grease Nipple M6X1	4

Jaw Ram Assembly

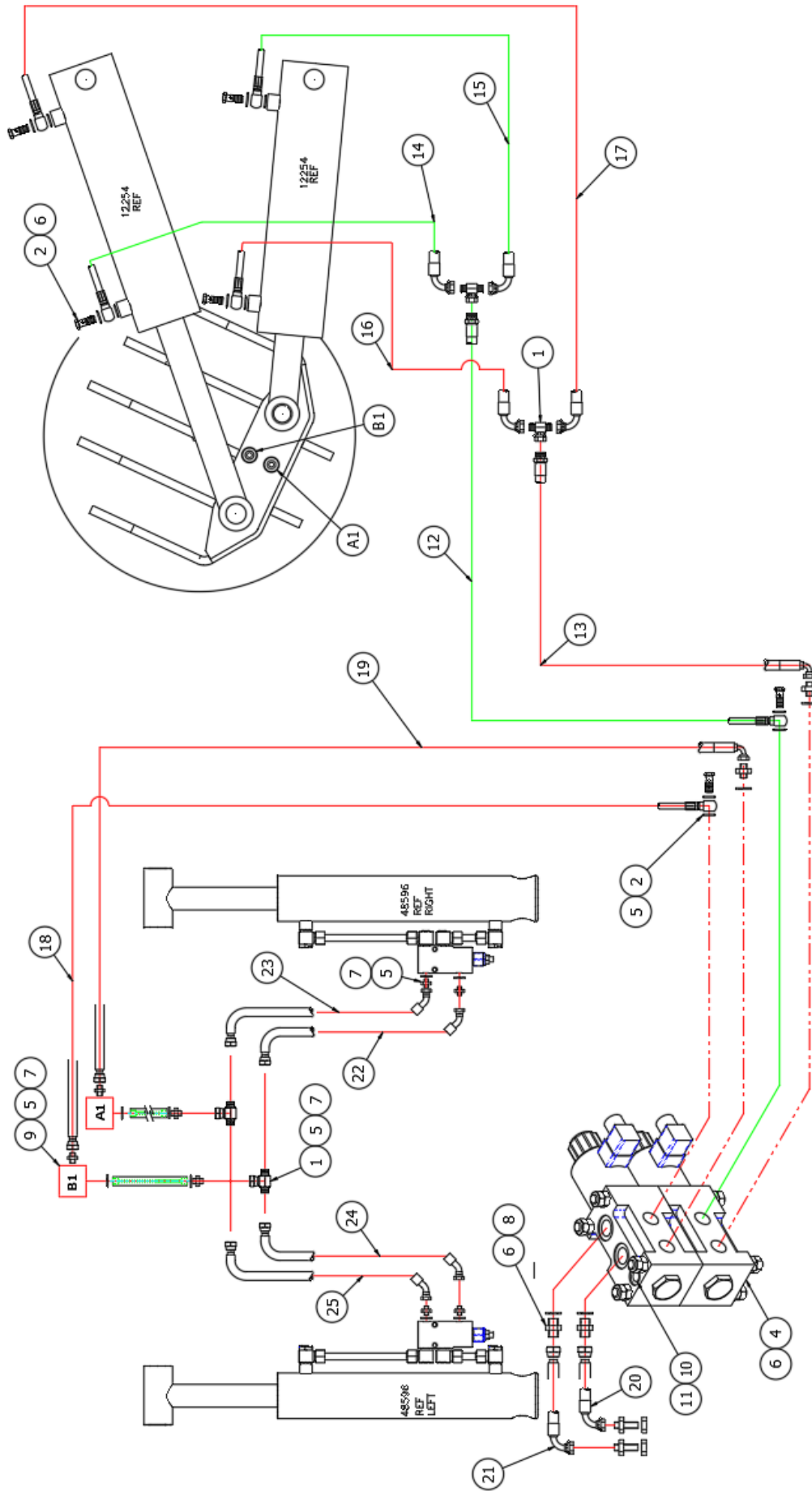


No.	Code	Description	Quantity
1	12253	Pivot Ram	1
2	10828	Valve	1
3	11954	Fitting 3/8" Banjo Tube 199L	2
4	01812	Seal Bonded 3/8"	8
5	05601	Fitting 3/8" Banjo Bolt	4
6	11956	Fitting 3/8" Banjo Nut Olive	2

Pole Grab Electronics

No.	Code	Description	Quantity
1	04999	12V LED Indicator	2
2	10830	Socket 110V 16A 3 Pin	1
3	10727	Plug 110V 16A 3 Pin	1
4	03984	Switch Toggle On-Off-On	1
5	11972	Switch Rocker On-Off-On	1
6	11971	Switch Rocker Lens Actuator	1

Pole Grab Hydraulics



No.	Code	Description	Quantity
1	01133	Tee 3/8" MMF BSP	4
2	01923	Fitting 1/2" Banjo Bolt	4
3	05601	Fitting 3/8" Banjo Bolt	2
4	01677	Plug 3/8"	2
5	01812	Seal Bonded 3/8"	20
6	2182	Seal Bonded 1/2"	8
7	01095	3/8" MM Adaptor	10
8	01096	3/8"-1/2" MM Adaptor	2
9	10787	Swivel BSP 3/8" 90 Deg	2
10	01813	Seal Bonded 004	1
11	02132	Plug 004	1
12	48878	Hose 1	1
13	48879	Hose 2	1
14	48880	Hose 3	1
15	48881	Hose 4	1
16	48882	Hose 5	1
17	48883	Hose 6	1
18	48884	Hose 7	1
19	48885	Hose 8	1
20	48886	Hose 9	1
21	48887	Hose 10	1
22	48888	Hose 11	1
23	48889	Hose 12	1
24	48890	Hose 13	1
25	48891	Hose 14	1



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