



# **GENESIS**

**RESCUE SYSTEMS**

## **HYDRAULIC SPREADER USER GUIDE**

**THIS GUIDE COVERS**

**S80-XL3 , S60-XL3**

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# **GENERAL INFORMATION**

## **About the operating manual**

This operating manual provides important information on using the hydraulic rescue cutters and combi tools. Proper compliance with all specified safety instructions and guidelines is a prerequisite for safe work.

Furthermore, adhere to the local accident prevention guidelines and general safety regulations for the region in which the devices are used.

These operating instructions must be carefully read prior to starting any work! They are an inherent part of the product and must be kept in a place that is known and accessible to personnel at all times.

This documentation contains information for operating your equipment. However, you may also find information which may not directly apply to your specific equipment.

All information, technical data, graphics and diagrams contained in these operating instructions are based on the latest data available at the time of the document's creation.

We recommend that, in addition to carefully reading through the operating manual, you be trained on handling the rescue equipment (possible applications, application tactics, etc.) by our qualified trainers.

# EXPLANATION OF SYMBOLS

## Warnings

Warnings are marked by symbols in this operating manual. The individual instructions are introduced by signal words that express the severity of the hazard.

It is essential to comply with the instructions in order to prevent accidents, injuries and damage to property.



### **DANGER!**

... indicates an imminently dangerous situation that can result in death or serious injury if not avoided.



### **WARNING!**

... indicates a potentially dangerous situation that can result in death or serious injury if not avoided.



### **CAUTION!**

... indicates a potentially dangerous situation that can result in minor or light injuries if not avoided.



### **ATTENTION!**

... indicates a potentially dangerous situation that can result in material damage if not avoided.



#### **NOTE!**

**... highlights useful tips and recommendations, as well as information for efficient, trouble-free operation.**

## **LIMITATIONS OF LIABILITY**

All information and instructions in this operating manual have been compiled in keeping with applicable standards and guidelines, the current state of technology, and our many years of knowledge and experience.

The manufacturer assumes no liability for damage due to:

- Failure to comply with the operating manual
- Unintended use
- Assignment of untrained personnel
- Unauthorized modifications
- Technical changes
- Use of non-approved replacement parts
- Use of non-original replacement parts

The actual scope of delivery can vary from the explanations and graphic representations provided in this manual in the case of special versions, or due to technical changes.

## **COPYRIGHT**

All texts, diagrams, drawings and images in this operating manual may be used without restriction and without any prior approval.



**NOTE!**

Further information, images and drawings can be found on our website  
[www.genesisrescue.com](http://www.genesisrescue.com)

## **WARRANTY CONDITIONS**

The warranty conditions can be found as a separate document in the sales documentation.

## **CUSTOMER SERVICE**

Contact your local Genesis sales representative. If you are unsure you can contact Genesis Rescue Systems direct at.

**American Rescue Technology  
2780 Culver Ave.  
Kettering, Ohio  
45429**

**Tel: 1.937.293.6240  
Fax: 1.937.293.7049  
[www.genesisrescue.com](http://www.genesisrescue.com)**



**NOTE!**

When contacting customer service please state your equipment's designation, type and production year. These details can be found on the equipment type plate.

# **SAFETY**

This section of the operating manual provides a comprehensive overview of all important safety aspects for optimal protecting operating personnel and for safe, trouble-free operation.

Significant hazards may occur if the handling and safety instructions in this manual are not complied with.

## **INTENDED USE**

The hydraulic spreaders are designed and tested exclusively for the appropriate designated purposes described here. All other activities are fundamentally prohibited.

### CONVENTIONAL DEVICES (S80-XL3, S60-XL3)

- All of the spreaders are designed as one-man devices and may therefore be operated by one person only.
- The devices serve exclusively for the opening of doors, the lifting of vehicles or other moveable loads, the pushing away and moving of vehicle parts and loads and the crushing of tubes and pillars.
- The spreader tips should be used whenever possible for crushing.
- The spreader tips can be used as a peeling tool.
- The chain set is to be used exclusively for pulling.



**WARNING!**  
Improper use can be dangerous!

**Any improper or unintended use of the devices can be hazardous!**

**Therefore, make absolutely sure that:**

» **The devices are used only for the applications stated above.**

# **RESPONSIBILITY OF THE CUSTOMER**

In addition to the health and safety instructions in this operating manual, one must adhere to the safety, accident prevention, and environmental protection guidelines for the region in which the equipment is used. Particularly applicable in this regard:

- The customer must be familiar with the applicable health and safety provisions and in a hazard analysis identify other hazards that may exist at the equipment's installation site due to the special working conditions.
- The customer must clearly regulate and specify responsibilities for installation, operation, maintenance and cleaning.
- The customer must ensure that all personnel who handle the equipment have fully read and understood the operating manual.
- In addition, at regular intervals, the operator must train personnel and inform them of the hazards of working with the equipment.

**Moreover, the customer is responsible for ensuring that the equipment is always in technically faultless condition. Consequently, the following applies:**

- After each use, and at least once a year, a visual inspection of the equipment must be carried out by a trained individual (according to GUV-G 9102 or country-specific guidelines).
- Every three years, or if you have doubts about the safety or reliability of the equipment, functional testing and stress testing must be carried out (according to GUV-G 9102 or country-specific guidelines).

# OPERATING PERSONNEL

The following qualifications are cited in the operating instructions for the various activity areas:

- **Trained individual**  
is informed through training offered by the customer about the tasks assigned to him and the possible dangers of improper conduct.
- **Specialist**  
is someone who, due to specialized training, skills and experience, as well as knowledge of the applicable stipulations by the manufacturer, is capable of executing the tasks assigned to him or her and of independently recognizing possible hazards.



## **WARNING!**

Inadequate training can result in injuries!  
Improper handling of the equipment can lead to serious injury or material damage.

Therefore, make absolutely sure to:

- » allow particular tasks to be carried out only by the persons stated in the relevant chapter of this manual.
- » When in doubt, call in specialists immediately.



## **NOTE!**

The equipment may not be used by personnel who have consumed alcohol, medication or drugs!

# PERSONAL PROTECTIVE EQUIPMENT

Wearing personal protective equipment (PPE) is essential to minimize the risks to operating personnel when working with the hydraulic rescue devices. It is essential to wear the following protective clothing for all work:



## Protective work clothing

Tight-fitting work clothing with tight sleeves and no protruding parts must be worn when working. It mostly serves to protect against entanglement by moving equipment parts.



## Safety shoes

Steel-toed safety shoes must always be worn as protection against heavy falling parts and from slipping on slick surfaces.



## Work gloves

Work gloves must be worn when working with the equipment to provide protection from sharp edges and shards of glass.



## Helmet with face shield

A helmet with face shield must be worn for protection against flying or falling parts and shards of glass.



## Protective goggles

Protective goggles must also be worn in addition to the face shield in order to protect the eyes from flying objects.

**The following must also be worn for certain work:**



## Ear protectors

In addition to the basic protective equipment, ear protectors must also be worn to protect your hearing.

# SPECIFIC HAZARDS

The hazards arising from the risk analysis are listed in the following section.

Follow the safety instructions listed here and the warnings in the other sections of this manual to minimize potential health hazards and avoid dangerous situations.

## ELECTRICITY



### **DANGER!**

**Danger of fatal electric shock!**

There is an imminent life-threatening danger if live parts are touched. Damage to insulation or to specific components can pose a fatal hazard.

Therefore:

- » If the insulation is damaged, immediately disconnect the power supply and arrange for repairs.
- » Allow only qualified electricians to work on the electrical equipment.
- » For all work on the electrical equipment, it must be disconnected from the power source, and it must be checked that the device is powered off.
- » Prior to maintenance, cleaning and repair work, the power supply must be switched off and secured to prevent it from being switched back on again.
- » Do not bypass or disable fuses. When changing the fuses, ensure that they have the correct amperage.
- » Keep moisture away from live parts. This can lead to a short-circuit.

## NOISE



### **WARNING!**

**Noise can damage hearing!**

The noise occurring in the work area can cause severe hearing damage.

Therefore:

- »» You should also wear ear protectors when carrying out certain noise-producing tasks.
- »» Do not stay in the hazardous area longer than necessary.

# HYDRAULIC POWER



## WARNING!

Hydraulic power hazard!

Serious injury can result due to the released hydraulic forces and escaping hydraulic oil.

Therefore:

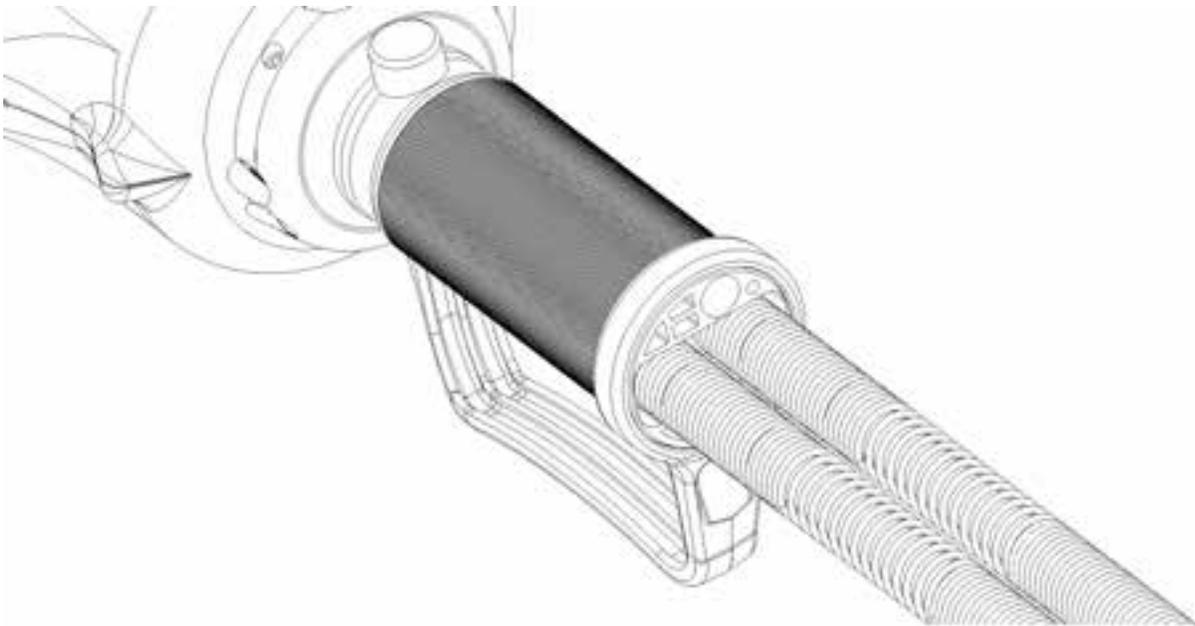
- »» Constantly monitor the device during the work procedure and set down if necessary.
- »» Inspect the hose lines and devices for damage after every use.
- »» Avoid skin contact with the hydraulic oil (wear protective gloves).
- »» Immediately remove the hydraulic oil from wounds and consult a doctor.

## SAFETY DEVICES

### Safety valve for SKS couplings

If the return line is not correctly coupled such that the oil cannot return then a safety valve integrated into the control handle actuates in order to protect the equipment and the operator. This causes hydraulic oil to seep harmlessly from the end of the handle.

Move the switching valve on the hydraulic power unit immediately to the „0“ position and connect the coupling parts together correctly.



# **HOW TO RESPOND IN THE EVENT OF DANGER OR ACCIDENTS**

## Preventive measures

- Always be prepared for accidents
- Keep first aid equipment (first aid kit, blankets, etc.) at hand
- Familiarize personnel with accident alarms, first aid gear, and emergency equipment
- Keep entryways clear for emergency vehicles

## **In the event of an accident**

- Shut down equipment immediately
- Initiate first aid measures
- Get people out of the danger zone
- Inform the responsible parties at the site of the incident
- Notify a doctor and/or the fire brigade
- Clear entryways for emergency vehicles

# SIGNAGE

The equipment bears the following WARNING label.



Comply with the operating manual

Do not use the marked equipment until you have read this operating manual.



## **WARNING!**

**Danger of injury due to illegible symbols!**

Over time, stickers and symbols on the equipment can become soiled or otherwise illegible.

Therefore, make absolutely sure to:

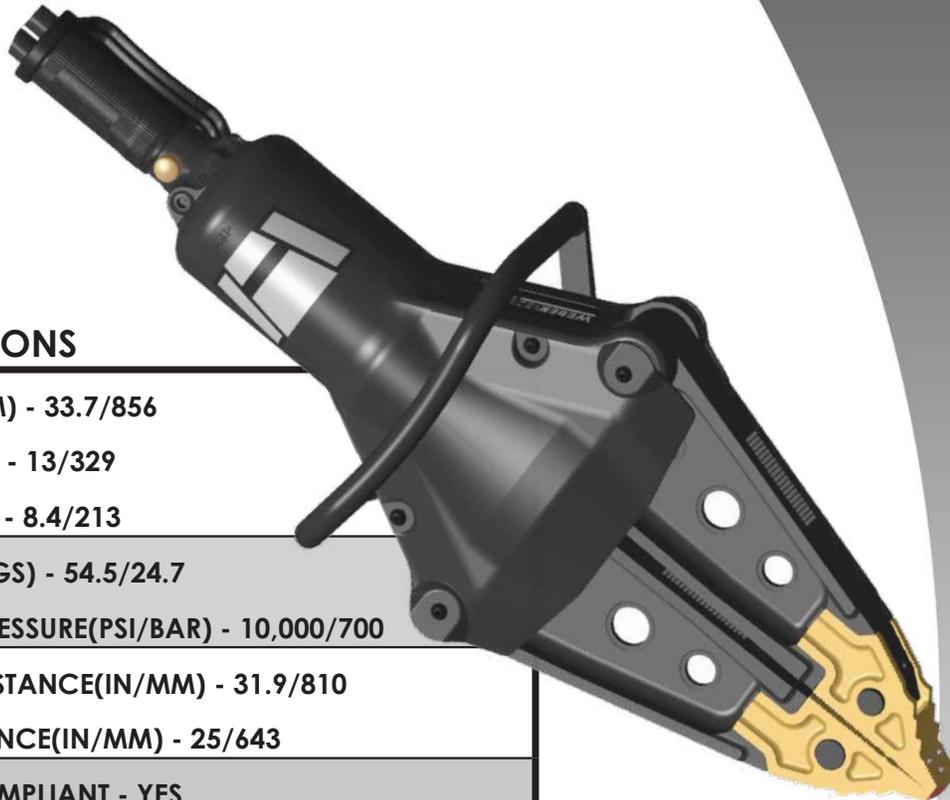
- » Keep all safety, warning and operating information on the device easily legible.
- » Replace damaged signs and stickers immediately.

**ART.108.980.1**



**GENESIS**  
RESCUE SYSTEMS  
THE NEXT GENERATION OF EXTRICATION

## S60-XL3 SPREADER



### SPECIFICATIONS

LENGTH(IN/MM) - 33.7/856

WIDTH(IN/MM) - 13/329

DEPTH(IN/MM) - 8.4/213

WEIGHT(LBS/KGS) - 54.5/24.7

OPERATING PRESSURE(PSI/BAR) - 10,000/700

SPREADING DISTANCE(IN/MM) - 31.9/810

PULLING DISTANCE(IN/MM) - 25/643

NFPA 1936 COMPLIANT - YES

NFPA 1936 LEVEL RATING - N/A

LOWEST SPREADING FORCE(LBF/KN) - 14,175/63

HIGHEST SPREADING FORCE(LBF/KN) - 19,057/84.7

LOWEST PULLING FORCE(LBF/KN) - 10,170/45.2

HIGHEST PULLING FORCE(LBF/KN) - 14,250/63.5

DATE: 4.2.2019

REV (1)

PBY: GCC



**ART.108.980.2**

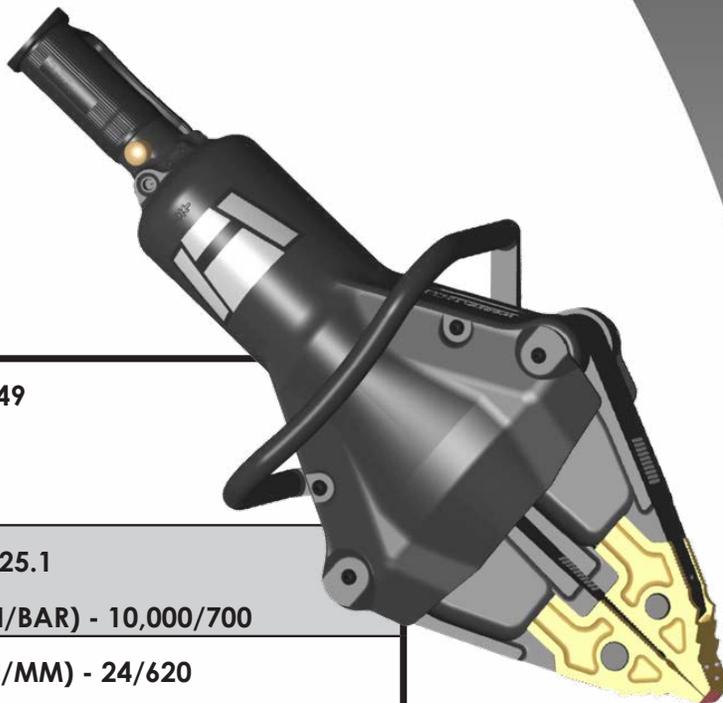


**GENESIS**

RESCUE SYSTEMS

THE NEXT GENERATION OF EXTRICATION

## S80-XL3 SPREADER



### SPECIFICATIONS

LENGTH(IN/MM) - 29.5/749
WIDTH(IN/MM) - 13/329
DEPTH(IN/MM) - 8.4/213
WEIGHT(LBS/KGS) - 55.3/25.1
OPERATING PRESSURE(PSI/BAR) - 10,000/700
SPREADING DISTANCE(IN/MM) - 24/620
PULLING DISTANCE(IN/MM) - 17.5/444
NFPA 1936 COMPLIANT - YES
NFPA 1936 LEVEL RATING - N/A
LOWEST SPREADING FORCE(LBF/KN) - 19,733/87.7
HIGHEST SPREADING FORCE(LBF/KN) - 25,988/115.5
LOWEST PULLING FORCE(LBF/KN) - 13,500/60
HIGHEST PULLING FORCE(LBF/KN) - 21,555/95.8

DATE: 4.2.2019	REV (1)
PBY: GCC	



# OPERATING CONDITIONS

The permissible operating temperature range for the spreader lies between -20° C/-4 F and +80° C/176 F. Reliable operation cannot be guaranteed outside of this range.

## **Underwater operation**

The spreader can also be used under water. Do not exceed the maximum submersion depth of 40M / 130 FT with this. At this depth the water pressure still has no influence on the hydraulic pressure in the equipment and the hoses.



### **NOTE !**

After underwater use in saltwater, the equipment must be completely disassembled and cleaned. With fresh water complete cleaning is sufficient.

# TYPE PLATE

On all spreader devices, the type plate is located on the body. It shows the serial number, production date, nominal pressure and device designation.

# DESIGN AND FUNCTION

## Overview of Conventional Hydraulics



- 1 Spreader Tips
- 2 Protective cover
- 3 Hand grip
- 4 Push Button
- 5 Body
- 6 Control Handle
- 7 Arm

### Brief description

Hydraulic spreaders are specially designed rescue equipment for spreading, squeezing and pulling. They are used for rescuing trapped or enclosed accident victims.

Driven by a hydraulic power unit it is possible to open doors, lift vehicles and other moveable loads, push away and move vehicle parts and loads and crush tubes and pillars with the spreaders.

The speed of movement of the spreader arms is controlled by the greater or lesser degree of force applied to the pushbutton on the handle. The maximum spreading force is only applied when the pushbutton is fully depressed.

# HYDRAULIC SUPPLY

## Power units and pumps

Only Genesis Rescue power units and hand pumps may be used to drive the cutters. Equipment from other manufacturers can only be used under certain conditions. Therefore always consult with us before operating a device with a power unit from another manufacturer!



### **ATTENTION !**

**Before using pumps and power units from other manufacturers always contact Genesis Rescue or an authorised dealer. Incorrect application can lead to hazardous situations for which we cannot accept any liability!**

## Hoses

The connection of the device with the power unit is carried out via high pressure hoses. Hoses are available in lengths of 25FT,50FT,100FT. As the length of the hoses increases so too does the associated pressure loss. With a line length of 100FT this pressure loss remains acceptable and has no significant effect.



### **CAUTION !**

**Do not use damaged hoses !**

**With damaged hoses there is a danger of escaping hydraulic medium under pressure, or of the hoses whipping around.**

**Therefore:**

**»»» The hoses should be subjected to a visual inspection (leak-tightness, surface damage such as kinks) after every use and at least once per year.**



- »»» Every three years, or in the event of doubts about the safety or reliability, carry out an additional functional and load test (as per GUV-G 9102 or specific national directive).
- »»» Replace hoses every 10 years! The date (code letters or quarter/year) is specified on the hose bonding.
- »»» Ensure that the hoses are not exposed to tension or torsion (turning).
- »»» Do not kink the hoses or draw them over edges (smallest bend radius 1.5").
- »»» Do not subject the hoses to high temperatures.
- »»» Protect hoses from contact with materials that can cause damage to the outer covering e.g. acids, alkalis, or solvents.

## Hydraulic oil

All cutters are designed and tested for Genesis hydraulic oil ID No. 804932. This oil possesses a particularly high purity level and also works flawlessly at temperatures below zero, down to -20° C/-4 F.



### NOTE !

In addition to the oil mentioned above we recommend:

- »»» AERO Fluid 41 (Shell)
- »»» Univis HVI-13 (Esso)
- »»» Aero-hydraulic 520 (Total)
- »»» Hydraulik DB (Castrol)
- »»» Renolin/MR310 (Fuchs)

# EQUIPMENT CONNECTIONS

OSC

## **Connecting:**

Remove the protective cap from the coupling male and the coupling female (Fig. 1). Conflate Single coupling male and female in the bayonet catch (Fig. 2). Hold coupling female on the black slew ring and turn clockwise until the coupling snaps in (Fig. 3). Put protective caps together (Fig. 4). You don't have to switch the power unit to position 0 to connect or disconnect the coupling!

## **Disconnecting:**

Remove the protective caps. Hold coupling female on the black slew ring and turn anticlockwise direction. Turn the black slew ring until you can release the coupling easily. Put protective caps to coupling male and the coupling female.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

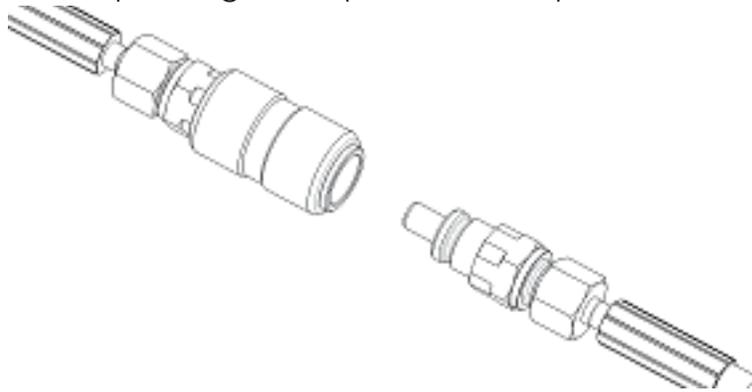
# PLUG-IN COUPLING

## Connecting:

Remove the protective cap from the coupling male. Take hold of the coupling female by the knurled sleeve cover and pull out the protective plug. With one hand take hold of sleeve cover of the coupling female, with the other grasp the coupling male (black) by the hex nut, and press the sleeve cover slightly against the coupling male until the ball bearings engage. Twisting the male coupling slightly when pressing together eases the coupling process.

## Disconnecting:

Grasp the coupling male (black) by the hex nut with one hand and with the other take hold of the sleeve cover and draw it back. The disconnecting will cause a few drops of hydraulic oil to escape. Plug in the protective caps immediately.



### CAUTION !

When coupling SKS connections the power unit operating lever must be in the „0“ position.



### NOTE !

A pressure relief connector is fitted to the hydraulic power units and the hand pump, with which a few drops of oil can be discharged from the hoses. This permits re-coupling following pressure increases in de-coupled equipment.

In this case simply insert the pressure relief connector into the coupling sleeve and turn the knurled screw to the right until oil leaks out.

# USE OF THE CONTROL HANDLE



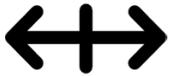
The cutter can be operated by the pushbutton on the control handle. The speed of movement of the shearing blades is controlled precisely by the greater or lesser degree of force applied to the pushbutton. The maximum cutting force is only applied when the pushbutton is fully depressed.

Closing the spreader



The spreader is closed with the upper curved (concave) end of the button, which is marked with the following symbol:

Opening the spreader



The primary motion direction of the device (opening) is triggered by pressing the lower tapered (convex) end of the button. The direction of movement is marked on the equipment with the symbol:

## **Dead-man's switching**

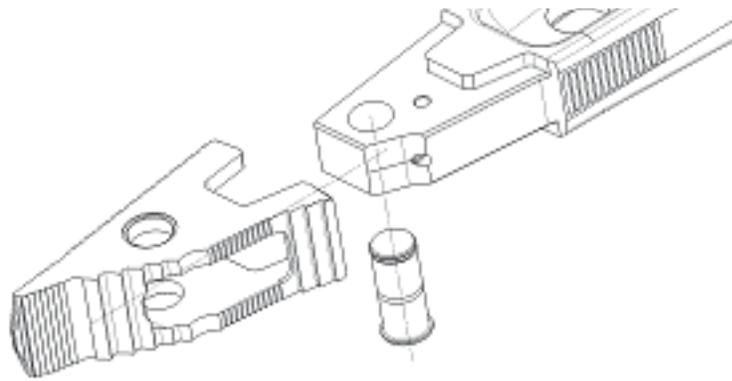
If the pushbutton is released then it returns to the neutral position automatically. With this, the device stops still in any position (including under load).

# CHANGING THE SPREADER TIPS

The spreader tips are secured with pivot pin in the spreader arms. In order to change, press out the studs secured by a spring-loaded ball. After changing the tips, push the collar studs back in again. When doing this ensure that the studs are correctly fitted (completely pressed in).

Fitting the bracket for the chain set is identical. The chain lock must be fitted with the lock facing upwards.

The pivot pin of spreader tips for use with S 35 and S 53 features a protection against loss, it can not be separated from the tips.



# POSSIBLE APPLICATIONS

## Safety information



### **WARNING!**

Never reach between the spreader arms!



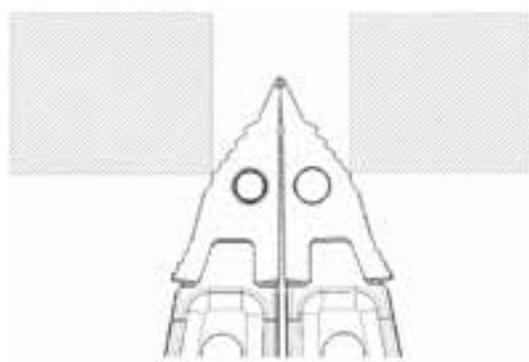
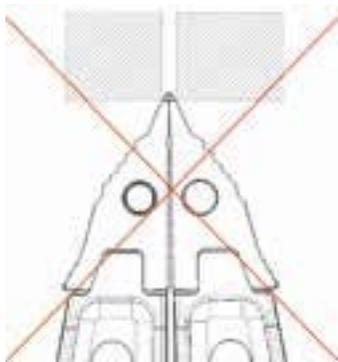
### **WARNING!**

During any work with battery-powered devices, voltage-carrying parts can break or fly off, thereby endangering people. Uninvolved parties must therefore remain a safe distance away or stay in the danger zone only as long as necessary.

## SPREADING

The spreading function's uses include opening doors, lifting vehicles and other movable loads, pushing vehicle parts away, and squashing tubes and beams. For this, the vehicle must be stably stabilized and supported.

To prevent any sliding during spreading, the arms and tips are fluted inside and out. Whenever possible, the tips should be used only to enlarge a gap, because repositioning the spreader prevents slipping.



# **PULLING**

After the chain set has been mounted on the spreader tips, the combi device can also be used for pulling.

For this, the chains must be tightly tensioned and must be tensed only in the pulling direction. To tension the chain, only one lock can be pressed in, so that the chain can be pulled through the holder.

If the range of movement is not sufficient, tension chains or other means must be used so that the spreader can be reopened and the chain re-tensioned.

**ATTENTION!**

Store the pulling chains with locks mounted about 4-8 in from the end. Check the chains prior to every use. Check that the weight does not stress the tip of the hook, but lies in the middle of the hook instead.

- » Do not make any repairs on your own.
- » Do not stress the chains beyond the permitted load carrying capacity.
- » Do not load with a jerking movement.
- » Do not galvanize or paint the chains.
- » Do not shorten the chain by knotting it.
- » Do not subject the chains to heat stress.
- » Use the chains and accessories only between  $-40^{\circ}\text{F}$  and  $+392^{\circ}\text{F}$ .
- » During all maintenance work, observe the applicable safety regulations
- » Chains must only be used for lashing. Lifting loads is not permitted.

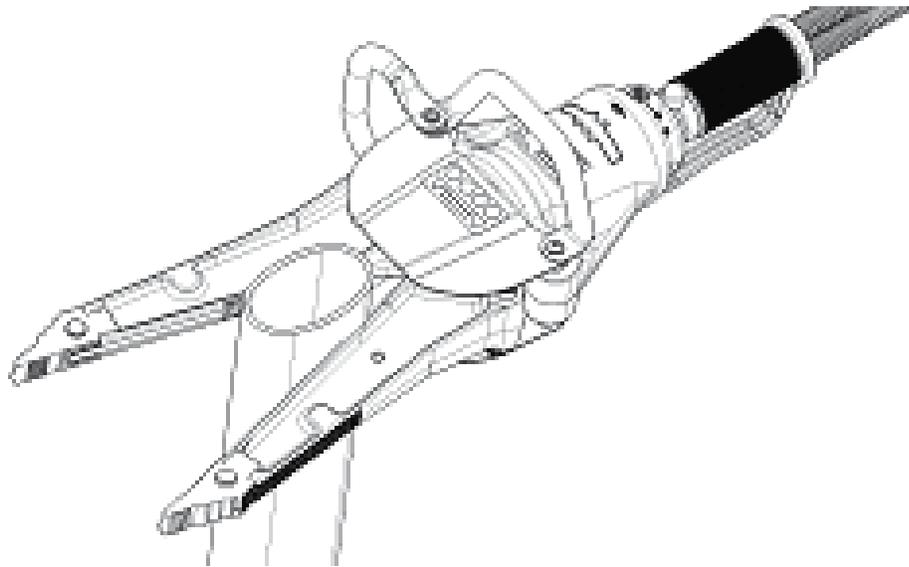
**ATTENTION!**

Chains must not be used if:

- » Deformations, cracks, signs of corrosion are present.
- » The wire diameter of the chain link has decreased by 10% of the nominal thickness.
- » An individual chain link has been permanently stretched.
- » An individual link has been enlarged by more than 2%.
- » The internal chain pitch over a measuring distance of 11 chain links has increased by more than 2%.

# CRUSHING (SPREADERS, COMBI DEVICES)

Pipes and other hollow profiles are crushed by closing the spreader arms. With combi devices, however, crushing is only to be performed in the tip area.



## **ATTENTION!**

Material to be crushed can suddenly jump away.  
Do not remain in the work area of the spreading and combi devices!

# LIFTING

The spreader can also be used for lifting vehicles or other movable loads. Care must be taken to secure the load against slipping away and to position the spreader tips far enough apart under the load to prevent slipping. The load being lifted must be constantly monitored (tipping, rolling away or changing position). Also, the lifted load must immediately be propped up and supported in a suitable way.

# PEELING

In order to create entry points in bus accidents, train accidents, silos etc. it is possible to use the spreader tips as a peeling tool.

# TRANSPORT, PACKAGING AND STORAGE

## Safety information



### **CAUTION!**

Incorrect transport can cause damage!  
Improper transport can cause significant material damage.

Therefore:

- » Proceed with caution when unloading the packages, and observe the symbols on the packaging.
- » Do not fully open and remove the package until it has reached its actual storage location.

## Transport inspection

Upon receipt, the delivery should be checked immediately for completeness and damage during transport so that a quick remedy can be performed, if necessary.

If there is visible external damage, please proceed as follows:

- Do not accept the delivery, or only accept it with reservation.
- Note the extent of the transport damage on the transport documents or on the transport company's delivery note.
- File a complaint.



### **NOTE!**

Report any defect as soon as it is detected.  
Claims for damages can be directed to our customer service department.

# DISPOSAL OF PACKAGING



All packaging materials and disassembled parts (transport protection) must be disposed of properly, in accordance with local regulations.

# STORAGE

The equipment must be stored in a dry and dust-free environment, where possible. Avoid direct UV radiation to the hoses.



## **CAUTION!**

The equipment must be stowed securely in the mountings provided in order to avoid damage during transit, etc.

# INSTALLATION AND COMMISSIONING

## Safety information



### **WARNING!**

Danger of injury due to improper operation!  
Improper operation can cause serious injury or material damage.

Therefore, make absolutely sure to:

- » All operating steps are executed in keeping with the information in this operating manual.
- » All covers and protective devices are installed and in proper working order prior to starting work.

## Personal protective equipment

Wear the protective equipment for all work!



### **NOTE!**

Special reference is made where it is necessary to wear additional protective equipment for certain work with or on the device.

# CHECKING

Inspect the Cutter devices for damage. If the cutting device is not in pristine condition, it must not be used! In this case, immediately contact your supplier.

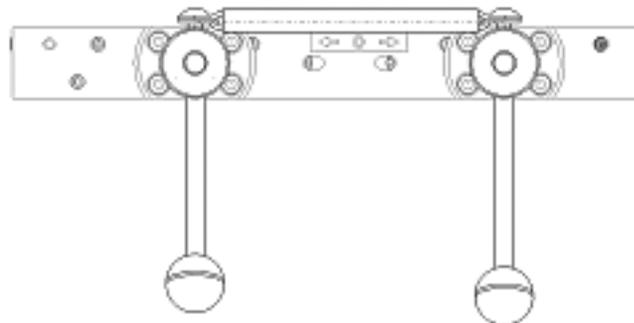
- Check the blades (damage)
- Check the control handle including pushbutton (function)
- Check the couplings (damage, dirt)
- Check the hand grip (securely fastened)
- Check the protective cover (damage)
- Check the hoses (damage)

# INSTALLATION

Move both control levers on the hydraulic power unit to the „0“ position, pull off the dust protection cover on the coupling and connect the hydraulic hoses with the cutter as described in chapter 4.4. In order to avoid contamination then recouple the protective caps.

When using the OSC coupling, coupling can also be carried out without pressure („0“ position on power unit not necessary).

When operating a hydraulic power unit observe the operating instructions for the equipment!



# SHUT-DOWN (END OF WORK)

After work is over, the blade tips must be placed one above the other to prevent injury. The blades of the cutting device must not be completely closed, as otherwise tension will build up in the device.



## **NOTE !**

**With combi tools, drive the spreader arms to within a few millimetres of each other in order to relieve the hydraulics.**

Then the equipment can be disconnected providing that the power unit control lever is in the „0“ position. Care must be taken to ensure that no dirt ends up on the coupling and that the protective caps are immediately fitted.

# SERVICE

## Safety information



### **WARNING!**

Risk of injury due to improperly performed maintenance work!

Improper maintenance of the equipment can cause serious injury or material damage.

Therefore, make absolutely sure to:

- » Only let qualified personnel carry out maintenance work.
- » Make sure the installation site is organized and clean! Loose components and tools lying around are sources of danger.
- » Wear protective gloves for all work!

# CARE AND MAINTENANCE

## PREVENTATIVE MAINTENANCE

Genesis recommends that all hydraulic rescue tools be serviced by a certified factory technician at a frequency of once every 12 months. Just like a vehicle this crucial maintenance ensures the tool functions at top performance and safety. Your sales representative can answer any question you may have.

*We recommend only qualified personnel carry out maintenance.*

## GENESIS PREVENTATIVE MAINTENANCE PROGRAM

**The following are recommended service intervals for Genesis tools.**

### **Each Use**

- Equipment should be wiped down to remove debris
- Clean male and female couplers
- Clean Spreader arms and tips
- check whipends for damage
- check spreader arms and tips for damage
- Lubricate blades, pins and toggles with WD40 or equivalent

### **Weekly Inspections and Maintenance**

- Check all couplers and fittings for tightness
- Run each tool and build pressure
- Check handles and guards, tighten if necessary
- Torque centerbolt on cutters

# CARE AND MAINTENANCE

## Annual Maintenance

- Change and replace the engines oil
- Change and replace the hydraulic fluid
- Test the engines performance
- Change the spark plug
- Clean and replace the air filter
- Lubricate moving parts
- Pressure check all lines and fittings
- Check opening and closing pressure
- Disassemble and examine all critical components
- Check the power units operating pressure
- Check all valves
- Provide loaner equipment during service
- Provide a detailed report



### **ATTENTION!**

Prior to all maintenance work, the equipment must be cleaned of any dirt so that it does not get into the hydraulic system. The cleaning can be carried out using a conventional citrus cleaner or using WD 40.



### **NOTE!**

**If there are any problems with the maintenance of the devices, contact your local sales representative.**

# TROUBLE SHOOTING

Fault	Possible cause	Remedial measures
Equipment fails to deliver full performance	Control buttons not fully depressed	Fully depress control buttons
Equipment delivers no power or moves in the opposite direction to that commanded	Pressure line (P) and return line (T) were transposed when hoses or couplings were replaced	Change round, repair by authorised customer service
Spreader cannot be coupled	Pressure build-up due to heating (only SKS coupling) Coupling is damaged or heavily soiled	Drain a little oil out of the equipment with the pressure relief plug, see chapter 4.3 (only SKS coupling)
Oil escaping at the control handle (hole between the hoses)	Return hose is not correctly coupled (only SKS coupling)	Move power unit control lever to the "0" position and couple correctly (only SKS coupling)
Equipment non-functional despite actuating the control buttons	Pressure hose is not coupled	Move power unit control lever to the "0" position and couple correctly (only SKS coupling)
Spreader exhibits movement in the opposite direction under load	Check non-return valve	Have the equipment checked by authorised customer services
Oil discharge on the hoses or their bondings	Hoses leaking, possibly due to damage	Repair by authorised customer service
Degradation of the surfaces of the hoses	Contact with aggressive chemical fluids	Repair by authorised customer service
Oil escaping at the coupling halves	Coupling leaking	Replace coupling, repair by authorised customer service

# **DECOMMISSIONING/RECYCLING**

After the end of the normal service life, the equipment must be professionally disposed of. Individual parts can, however, certainly be used again.

The hydraulic oil must be completely drained and collected. Make sure that the hydraulic oil is disposed of separately!

For disposal of all device components and packaging materials, the disposal conditions of the specific location apply.

Do not discard electric tools with household waste!



**NOTE!**

Please ask your supplier about disposing of the device.



**GENESIS**

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**GENESIS RESCUE SYSTEMS**

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