



GENESIS

RESCUE SYSTEMS

POWER UNIT USER GUIDE

M1X MINI ELECTRIC 110V; M1X MINI ELECTRIC 220V
M1X MINI ELECTRIC 110V OSC; M1X MINI ELECTRIC 220V OSC
M1X MINI HONDA; M1X MINI HONDA W/OSC

MACH III MINI SIMO; MACH III MINI SIMO DIESEL W/OSC
MACH III MINI SIMO HONDA 5,5 W/OSC

MACH III OUTLAW HONDA 6,5; MACH III OUTLAW HONDA 6,5 W/OSC
MACH III OUTLAW ELECTRIC
MACH IV SIMO WITH HOSE REEL W/OSC
MACH IV SIMO WITH COAXIAL HOSE REEL W/OSC
V-ECOSILENT W/OSC; V-ECOCOMPACT W/OSC

GENERAL INFORMATION

About the operating manual

This operating manual provides important information on using the hydraulic Power Units. 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

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**



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 devices are designed and tested exclusively for the intended applications described here. All other activities are strictly forbidden.

CONVENTIONAL DEVICES (M1X MINI ELECTRIC 110V; M1X MINI ELECTRIC 220V
M1X MINI ELECTRIC 110V OSC; M1X MINI ELECTRIC 220V OSC
M1X MINI HONDA; M1X MINI HONDA W/OSC

MACH III MINI SIMO; MACH III MINI SIMO DIESEL W/OSC
MACH III MINI SIMO HONDA 5,5 W/OSC

MACH III OUTLAW HONDA 6,5; MACH III OUTLAW HONDA 6,5 W/OSC MACH IV SIMO WITH
HOSE REEL W/OSC
MACH IV SIMO WITH COAXIAL HOSE REEL W/OSC
V-ECOSILENT W/OSC; V-ECOCOMPACT W/OSC)

- All Genesis power units are to operated with Genesis tools only.



- These devices intended use is to operate Genesis high pressure hydraulic rescue equipment.

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:

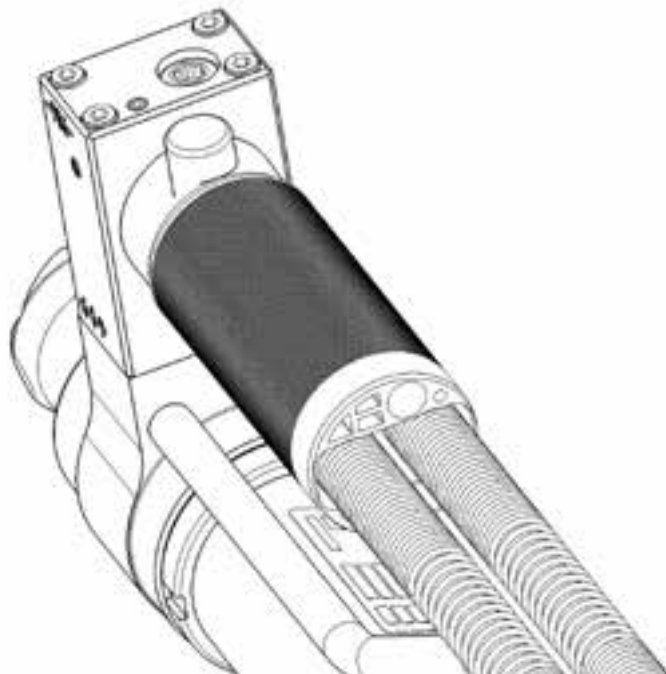
- »» Constantly monitor the device during the work procedure and set down if necessary.
- »» Inspect the hose lines and devices for damage after every use.
- »» Avoid skin contact with the hydraulic oil (wear protective gloves).
- »» Immediately remove the hydraulic oil from wounds and consult a doctor.

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.

TECHNICAL DATA

VERSION ACT.11.17

ART.593.513.1 - OSC
ART.593.265.3 - STANDARD

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

WWW.GENESISRESCUE.COM

M1X MINI PUMP ELECTRIC 110V

SPECIFICATIONS - OSC

LENGTH(IN/MM) - 16.3/413
WIDTH(IN/MM) - 11.3/288
DEPTH(IN/MM) - 15.2/385
WEIGHT(LBS/KGS) - 45.2/20.5
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - LESSON 1.5HP
NO LOAD AMPERAGE - 3.7
FULL LOAD AMPERAGE - 5.0
SHIPPING WEIGHT(LBS/KGS) - 50/22.7
BOX SIZE(FT3/M3) - 6.25/.177
BOX DIMENSION(IN/MM) - 24X18X25-610X457X635

SPECIFICATIONS - STD

LENGTH(IN/MM) - 16.3/413
WIDTH(IN/MM) - 11.3/288
DEPTH(IN/MM) - 15.2/385
WEIGHT(LBS/KGS) - 45.2/20.5
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - LESSON 1.5HP
NO LOAD AMPERAGE - 3.7
FULL LOAD AMPERAGE - 5.0
SHIPPING WEIGHT(LBS/KGS) - 50/22.7
BOX SIZE(FT3/M3) - 6.25/.177
BOX DIMENSION(IN/MM) - 24X18X25-610X457X635



SPECIFICATIONS



LOOKING FOR TRAINING

TECHNICAL DATA

VERSION ACT.11.17

ART.593.512.1 - OSC
ART.593.292.0 - STANDARD

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

WWW.GENESISRESCUE.COM

M1X MINI PUMP ELECTRIC 220V

SPECIFICATIONS - OSC

LENGTH(IN/MM) - 16.3/414
WIDTH(IN/MM) - 11.5/293
DEPTH(IN/MM) - 16.8/427
WEIGHT(LBS/KGS) - 46.6/21.1
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - LESSON 1.5HP
NO LOAD AMPERAGE - 3.7
FULL LOAD AMPERAGE - 5.0
SHIPPING WEIGHT(LBS/KGS) - 50/22.7
BOX SIZE(FT3/M3) - 6.25/.177
BOX DIMENSION(IN/MM) - 24X18X25-610X457X635

SPECIFICATIONS - STD

LENGTH(IN/MM) - 16.3/414
WIDTH(IN/MM) - 11.5/293
DEPTH(IN/MM) - 16.8/427
WEIGHT(LBS/KGS) - 46.6/21.1
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - LESSON 1.5HP
NO LOAD AMPERAGE - 3.7
FULL LOAD AMPERAGE - 5.0
SHIPPING WEIGHT(LBS/KGS) - 50/22.7
BOX SIZE(FT3/M3) - 6.25/.177
BOX DIMENSION(IN/MM) - 24X18X25-610X457X635



SPECIFICATIONS



LOOKING FOR TRAINING

TECHNICAL DATA

VERSION ACT.11.17

ART.593.511.3 - OSC
ART.593.197.5 - STANDARD

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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M1X MINI PUMP GAS

SPECIFICATIONS - OSC

LENGTH(IN/MM) - 18/457
WIDTH(IN/MM) - 10.7/273
DEPTH(IN/MM) - 18.5/470
WEIGHT(LBS/KGS) - 46.5/21.1
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - 4 Stroke / HONDA 3.0 HP
NO LOAD AMPERAGE - NA
FULL LOAD AMPERAGE - NA



SPECIFICATIONS - STD

LENGTH(IN/MM) - 15/382
WIDTH(IN/MM) - 11/280
DEPTH(IN/MM) - 15.3/389
WEIGHT(LBS/KGS) - 39.7/18
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - HONDA 3.0 HP
NO LOAD AMPERAGE - NA
FULL LOAD AMPERAGE - NA



SPECIFICATIONS

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TECHNICAL DATA

VERSION ACT.3.2016

ART.593.569.5 - OSC
ART.059.991.3D - STANDARD

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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MACH III MINI SIMO DIESEL STANDARD OR OSC COUPLERS



SPECIFICATIONS

LENGTH(IN/MM) - 18.3/464
WIDTH(IN/MM) - 15.2/385
DEPTH(IN/MM) - 19.0/484
WEIGHT(LBS/KGS) - 101.4/46
OPERATING PRESSURE(PSI/BAR) - 10,000/700
HYDRUALIC FLUID TYPE - MINERAL
FLUID CAPACITY(QT/L) - 4.3 / 4
ENGINE TYPE - DIESEL
OVERDRIVE - YES
NFPA 1936 COMPLIANT - YES

SPECIFICATIONS



LOOKING FOR TRAINING

TECHNICAL DATA

VERSION ACT.11.17

ART.593.510.5 - OSC
ART.059.991.3E - STANDARD

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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MACH III MINI SIMO ELECTRIC 220V STANDARD OR OSC COUPLER



SPECIFICATIONS

LENGTH(IN/MM) - 17.2/436
WIDTH(IN/MM) - 12.6/319
DEPTH(IN/MM) - 17.6/447
WEIGHT(LBS/KGS) - 68/31
OPERATING PRESSURE(PSI/BAR) - 10,000/700
HYDRUALIC FLUID TYPE - MINERAL
FLUID CAPACITY(QT/L) - 4.3 / 4
ENGINE TYPE - ELECTRIC
NO LOAD AMPERAGE - 4.5 A
FULL LOAD AMPERAGE - 8 A
NFPA 1936 COMPLIANT - YES

SPECIFICATIONS



LOOKING FOR TRAINING

TECHNICAL DATA

VERSION ACT.11.17

ART.593.509.1 - OSC
ART.059.991.4H - STANDARD

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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MACH III MINI SIMO HONDA 5.5 STANDARD OR OSC COUPLERS



SPECIFICATIONS

LENGTH(IN/MM) - 17/432
WIDTH(IN/MM) - 13.5/343
DEPTH(IN/MM) - 20/508
WEIGHT(LBS/KGS) - 66/30
OPERATING PRESSURE(PSI/BAR) - 10,000/700
HYDRUALIC FLUID TYPE - MINERAL
FLUID CAPACITY(QT/L) - 4.3 / 4
ENGINE TYPE - 5.5 HP HONDA GX120
OVERDRIVE - YES
NFPA 1936 COMPLIANT - YES

SPECIFICATIONS



LOOKING FOR TRAINING

TECHNICAL DATA

VERSION ACT.11.17

ART.593.508.1 - GAS
ART.593.508.1E - ELECTRIC

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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MACH III OUTLAW OSC

This pump features two tool connections and two tool simultaneous use. The Mach III Outlaw has two separate pumping circuits that operate independently. The Mach III Outlaw has our patented Overdrive feature. This feature allows one tool to be used at twice the speed by combining the flow from both pump circuits into one, giving that tool more power to cut or spread.

SPECIFICATIONS - HONDA 6.5

LENGTH(IN/MM) - 20/508
WIDTH(IN/MM) - 15/381
DEPTH(IN/MM) - 19.5/495
WEIGHT(LBS/KGS) - 70.5/32
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - HONDA 6.5 HORSEPOWER
NO LOAD AMPERAGE - N/A
FULL LOAD AMPERAGE - N/A

SPECIFICATIONS - ELECTRIC

LENGTH(IN/MM) - 22/559
WIDTH(IN/MM) - 12/305
DEPTH(IN/MM) - 20/508
WEIGHT(LBS/KGS) - 96/43.5 WITH FLUID
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - LESSON ELECTRIC (220V)
NO LOAD AMPERAGE - 10.5
FULL LOAD AMPERAGE - 18.5



SPECIFICATIONS



LOOKING FOR TRAINING

TECHNICAL DATA

VERSION ACT.11.17

ART.593.338.2 - GAS
ART.593.338.2E - ELECTRIC

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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MACH III OUTLAW STANDARD

AVAILABLE IN

- OSC
- Flat Face

SPECIFICATIONS - HONDA 6.5

LENGTH(IN/MM) - 20/508
WIDTH(IN/MM) - 15/381
DEPTH(IN/MM) - 19.5/495
WEIGHT(LBS/KGS) - 70.5/32
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - HONDA 6.5 HORSEPOWER
NO LOAD AMPERAGE - N/A
FULL LOAD AMPERAGE - N/A

This pump features two tool connections and two tool simultaneous use. The Mach III Outlaw has two separate pumping circuits that operate independently. The Mach III Outlaw has our patented Overdrive feature. This feature allows one tool to be used at twice the speed by combining the flow from both pump circuits into one, giving that tool more power to cut or spread.

SPECIFICATIONS - ELECTRIC

LENGTH(IN/MM) - 22/559
WIDTH(IN/MM) - 12/305
DEPTH(IN/MM) - 20/508
WEIGHT(LBS/KGS) - 96/43.5 WITH FLUID
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
ENGINE - LESSON ELECTRIC (220V)
NO LOAD AMPERAGE - 10.5
FULL LOAD AMPERAGE - 18.5



SPECIFICATIONS



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TECHNICAL DATA

VERSION ACT.3.2016

ART.593.255.6P - GAS
ART.593.254.8 - ELECTRIC

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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MACH III TRIPLEX STANDARD COUPLERS

SPECIFICATIONS - ELECTRIC 220V

LENGTH(IN/MM) - 18.8/478
WIDTH(IN/MM) - 15.5/394
DEPTH(IN/MM) - 19.5/495
WEIGHT(LBS/KGS) - 92/41.7
OPERATING PRESSURE(PSI/BAR) - 10,000/700
HYDRUALIC FLUID TYPE - MINERAL
FLUID CAPACITY(QT/L) - 4.3 / 4
ENGINE TYPE - LESSON 3HP
NO LOAD - 10.5 A
FULL LOAD - 18.3 A
OVERDRIVE - YES
NFPA 1936 COMPLIANT - YES

SPECIFICATIONS - HONDA 5.5

LENGTH(IN/MM) - 18.5/470
WIDTH(IN/MM) - 16.5/419
DEPTH(IN/MM) - 19.5/495
WEIGHT(LBS/KGS) - 76/34.5
OPERATING PRESSURE(PSI/BAR) - 10,000/700
HYDRUALIC FLUID TYPE - MINERAL
FLUID CAPACITY(QT/L) - 4.3 / 4
ENGINE TYPE - 5.5 HP HONDA GX120
OVERDRIVE - YES
NFPA 1936 COMPLIANT - YES



LOOKING FOR TRAINING

TECHNICAL DATA

VERSION ACT.11.17

ART.593.645.4

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

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V-ECO COMPACT | HONDA



SPECIFICATIONS

LENGTH(IN/MM) - 16.1/410

WIDTH(IN/MM) - 12.6/320

DEPTH(IN/MM) - 16/409

WEIGHT(LBS/KGS) - 52.7/23.9

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

OVERDRIVE - YES

ENGINE - 3 HORSE POWER HONDA

SPECIFICATIONS



LOOKING FOR TRAINING

ART.593.531.8

CERTIFICATIONS

- NFPA 1936:2015 COMPLIANT
- ISO 9001:2008

GENESIS

RESCUE SYSTEMS

WWW.GENESISRESCUE.COM

V-ECOSILENT POWER UNIT



This pump features two tool “hot swappable” connections and two tool simultaneous use. The Eco-Silent power unit has two separate pumping circuits that operate independently. The Eco-Silent has our patented Overdrive feature. This feature allows one tool to be used at twice the speed by combining the flow from both pump circuits into one, giving that tool more power to cut or spread. Most of all the Eco-Silent power unit is quiet with a decibel range of 63.9 to 79.6 dB at 1 meter (3.2 ft).

SPECIFICATIONS

LENGTH(IN/MM) - 22.8/580
WIDTH(IN/MM) - 11.6/295
DEPTH(IN/MM) - 17.5/445
WEIGHT(LBS/KGS) - 55/24.9
OPERATING PRESSURE MAX(PSI/BAR) - 10,000/700
FLUID CAPACITY - .71/2.7
ENGINE - 4 STROKE GAS
NO LOAD AMPERAGE - NA
FULL LOAD AMPERAGE - NA

SPECIFICATIONS



LOOKING FOR TRAINING

OPERATING CONDITIONS

The permissible operating temperature range for the power unit lies between -4° F and 176° F. Reliable operation cannot be guaranteed outside of this range.

TYPE PLATE

On all Power Units, the type plate is located on the resevoir. It shows the serial number, production date, nominal pressure and device designation.

DESIGN AND FUNCTION

Overview of Conventional Hydraulics



- 1 H-Frame
- 2 Reservoir
- 3 Gas Cap
- 4 Handle
- 5 Engine
- 6 Air Filter Housing

Brief description

This power unit is designed to operate rescue tools with a “maximum operating pressure” of 10,000 psi or higher and use mineral base hydraulic fluid.

HYDRAULIC SUPPLY

Power units and pumps

Only Genesis Rescue hydraulic tools and hand pumps may be used with the Genesis power unit. 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 hydraulic tools from other manufacturers always contact Genesis Rescue or an authorized 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 various lengths. As the length of the hoses increases so too does the associated pressure loss. With a line length of 50 yards 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 40 mm).
- »»» 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.



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 counter clockwise 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

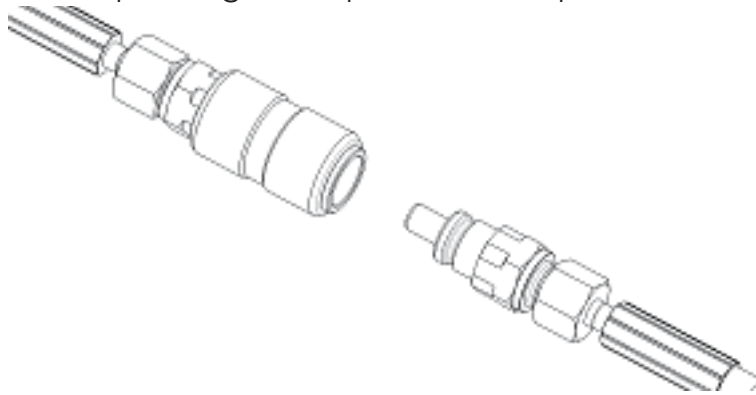
PLUG-IN COUPLING

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 !

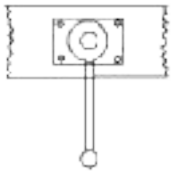
A pressure relief connector is fitted to the hydraulic power units and the hand pump, with which a few drops of oil can be discharged from the hoses. This permits re-coupling following pressure increases in de-coupled equipment.

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.

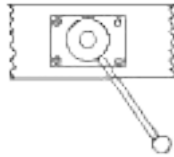
USE OF THE POWER UNIT



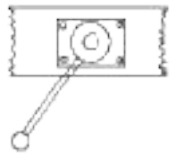
It is very important to read and understand how the pump valve works. This will prevent future problems. The following diagrams show the different positions of the pump control valve.



Neutral Position: Used when starting or stopping the engine, or when changing tools.



Right Tool: Allows operation of the tool connected to the right hose.



Left Tool: Allows operation of the tool connected to the left hose.

Starting the pump

1. Check for adequate hydraulic fluid level.
2. Put pump valves in neutral position.
3. Start engine. (According to Engine Manual) Hoses can be connected before or after starting engine.

Changing Tools While Pump is Operating

Tools can be changed while the pump is operating. Move the pump lever to the neutral position and disconnect the tool. Attach different tool and move lever to "on" position. Tool will be ready to use.

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.

Electric Mach III Outlaw Part # ART.593.338.2E Installation Parameters

This hydraulic pump must have a dedicated 20 amp circuit breaker. Wattage draw will be no less than 3,000 watts. The pump must have 5,000 watts dedicated specifically.

- Voltage: 220 - 240 VAC
- Recommended wire size:

Wire Gauge	Linear Foot
12	10'
10	14'
8	24'

- Circuit Breaker Service Size: 20 amps
- minimum 3,000 watts and 5,000 watts maximum

The plug (if used) must be capable of handling the voltage and amperage.

- minimum specification 20 amp 250V plug
- recommended specification 30 amp 250V plug

CHECKING

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

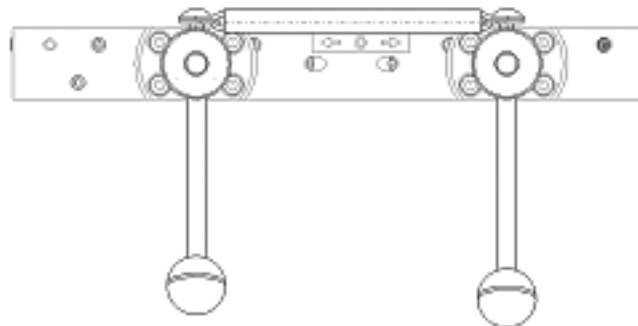
- Check the OSC/Standard Connections (damage)
- Check For Leaks (damage)
- Check the couplings (damage, dirt)
- Check the Frame (securely fastened)
- Check the hoses (damage)

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 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, visually inspect the power unit. Check fluid levels.

- Wipe down all equipment to remove debris
- Clean male and female couplers
- Check hydraulic fluid level
- Check engine fluid levels (See Engine Manual)



NOTE !
Unit may become HOT !

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

In the interest of permanent operational readiness, the following measures are essential:

- Each time the device is subjected to a load, but at least once a year, the equipment and the accessories must be visually inspected. Special attention must be paid to spreader tips, joints, blades, hoses, and coupling halves.
- Every three years, or if there are doubts about the safety or reliability of the equipment, functional testing and stress testing must also be carried out (according to GUV-G 9102 or country-specific guidelines).
- After every loading, the lubrication of the movable parts and pins must be inspected and sprayed with Fin Grease OG.



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.

MAINTENANCE SCHEDULE

A precise maintenance plan with testing intervals, regulations and results can be requested from your sales representative.



NOTE!

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

TROUBLE SHOOTING

Problem	Possible Cause	
Power unit fails to build pressure.	External leak in system.	Check all connections and components.
Power unit fails to build pressure.	Internal leak in pump or valve.	Contact dealer or American Rescue Technology.
Power unit fails to build pressure.	Internal leak in system component.	Repair or replace leaking component.
Rescue tool will not open or close.	Valve not in pressure position.	Move valve lever into pressure position.
Rescue tool will not open or close.	Load exceeds tool rating.	Decrease load or use higher capacity tool.
Rescue tool will not open or close.	Flow blocked by loose coupler connection.	Release pressure and check coupler connections.
Rescue tool will not open or close.	Fluid level too low.	Fill reservoir to proper level.
Rescue tool will not open or close.	Filter screens clogged.	Remove reservoir. Clean or replace filter screens.
Rescue tool will not open or close.	Pump or valve failure	Contact dealer or American Rescue Technology.
Rescue tool opens and closes erratically.	Air in fluid.	Tighten connections. Purge air from system.
Rescue tool opens and closes erratically.	External hydraulic leak Relief valve failure	Repair or replace damaged components. Purge air.
Rescue tool opens and closes erratically.	Pump worn or damaged	Contact dealer or American Rescue Technology.
Rescue tool opens and closes erratically.	Sequencing valve failure	Contact dealer or American Rescue Technology.

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

RESCUE SYSTEMS

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