DiamaPro®
SYSTEMS

OWNER'S MANUAL

ROG-60+

RIDE-ON GRINDER

OPERATION & MAINTENANCE MANUAL

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

⚠ WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

IMPORTANT WARNINGS AND SAFETY INSTRUCTIONS

⚠ WARNING

CALIFORNIA PROP 65 WARNING

Use of this product can cause exposure to materials known to the State of California to cause cancer and/or birth defects or other reproductive harm.
www.P65Warnings.ca.gov

⚠ WARNING

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

⚠ WARNING

This product contains one or more chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

⚠ WARNING

CARBON MONOXIDE WARNING

This machine contains a fossil fuel burning engine.
Use of this product can cause exposure to Carbon Monoxide.

⚠ DANGER

Carbon Monoxide (CO) is a colorless, odorless, invisible gas. Exposure to high levels will cause headaches, dizziness, and/or death. Obey all PPE requirements including, but not limited to Personal CO Monitoring Device(s) at all times and if high levels of CO are present, vacate the area immediately.

⚠ DANGER

All internal combustion engines produce CO.
Only use this machine in work areas that are adequately ventilated.
Failure to do so will result in injury or death.

WARRANTY REGISTRATION CARD

Form must be completed and submitted within 30 days from the date of purchase.

Customer Information

First and Last Name

Company Name

Address | City | State | Zip Code

Phone Number | Email

Machine Information

Machine Type | Machine Model

Serial # | Purchase Date (dd/mm/yy)

DiamaPro® Systems
3343 Peachtree Road NE
Suite 145 #24
Atlanta, GA 30326

470-977-2323 ■ www.diamaprosystems.com ■ info@diamaprosystems.com

INTRODUCTION

Thank you for purchasing a DIAMAPRO® SYSTEMS product. This manual provides information and procedures to safely operate and maintain the DiamaPro® ROG-60+. For your own safety and protection from injury, carefully read, understand, and observe the safety instructions described in this manual. Keep this manual or a copy of it with the machine. If you lose this manual or need an additional copy, please download from our website or contact DiamaPro® Systems. This machine is designed and built with user safety in mind; however, it can present hazards if improperly operated and serviced. Please follow the operating instructions carefully. If there are any questions regarding operating or servicing of this machine, please contact DiamaPro® Systems.

Disclaimer: DiamaPro® Systems and its affiliates take no responsibility for any damage, injury or death resulting from the incorrect or unsafe use of this product. The use of this product should be undertaken by competent people only. It is the operator's responsibility to ensure that the following safety procedures are followed. If you are unsure, **DO NOT OPERATE** this product.

1. GENERAL INFORMATION

1.1 SAFETY CLASSIFICATIONS

These classifications are here to inform and alert you to potential hazards or situations to you, job site bystanders, or your equipment. Take the time to understand these classifications and pay close attention when you see these words and icons in the book or on the machine. Always carefully read and follow all instructions. ***YOUR SAFETY IS AT STAKE.***

1.1.1 Dangers

DANGER

A DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

1.1.2 Warnings

WARNING

A WARNING indicates a hazardous situation in which serious injury or death could result if the warning is ignored.

1.1.3 Cautions

CAUTION

A CAUTION indicates a hazardous situation in which injury, damage to your machine, or both could result if the caution is ignored.

1.1.4 Notices

NOTICE

A NOTICE indicates information that is important but not hazard related.

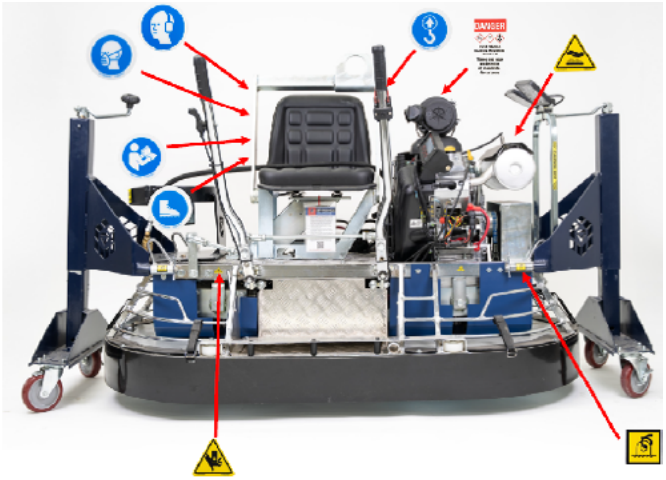
1.1.5 Helpful Tips

Helpful Tip!

A Helpful Tip indicates items that may be helpful to the operator during use of this machine.

1.2 SAFETY SIGNS

It is necessary to recognize the meaning of the signs present on the machine and keep their message readable. In case of damage replace them immediately, preventing the use of the machine. The DiamaPro® ROG-60+ bears the following safety signs (pictograms).



NOTICE SIGN "Must Read the Manual"	
INSTRUCTION SIGN "Lift Point"	
INSTRUCTION SIGN "Tie Down Point"	
HAZARD SIGN "Danger: Carbon Monoxide"	
HAZARD SIGN "Warning: Crush Hazard"	
HAZARD SIGN "Warning: Hot Surface"	
NOTICE SIGN "Mandatory Use of Ear Protection"	
NOTICE SIGN "Mandatory Use of Safety Shoes"	
NOTICE SIGN "Mandatory Use of Appropriate Respirator"	

NOTICE

Do not remove, damage or modify the pictograms on the machine. Before each work shift, check their presence and good condition. In case of deterioration, replace them, preventing the use of the machine until the replacement has taken place.

1.3 SPARE PART ORDERS

The order of replacement parts must clearly state the data necessary for their identification and the data shown on the machine identification plate. Ex.:

- Machine model
- Type
- Serial number
- Year of construction
- Description
- Requested quantity
- Shipping method
- Address, telephone number and name

For any additional information please contact the manufacturer.

2. OPERATING ENVIRONMENT SAFETY

2.1 OPERATING ENVIRONMENT

The DiamaPro® ROG-60+ can be operated within the temperature range of 41°F to 86°F (5°C to 30°C). It's crucial to avoid using the machine during rainy or snowy weather conditions. Only use this machine in work areas that are adequately ventilated.

2.2 Protection Devices

The DiamaPro® ROG-60+ is equipped with multiple safety mechanisms, including: a protective skirt and a hood that shields the tool plates, dust port with included cam locks for attachment of an appropriate HEPA-Filter dust collector(s), & an emissions monitoring device (See Section 3). These device(s) and/or system(s) safeguard the operator and any other individuals from potential harm. It is imperative not to remove them. Instead, prior to utilizing the machinery, ensure that all safety devices are appropriately installed and operational

2.3 USAGE SAFETY

The DiamaPro® Systems ROG-60+ is intended to minimize associated hazards related to its operation. Nonetheless, it is not entirely feasible to eliminate the possibility of accidents with the machine. Inexperienced or untrained operators may cause residual risks associated with but not limited to:

- Positional hazards due to improper operator posture.
- Entanglement hazards arising from the use of unsuitable work attire.
- Training hazards caused by insufficient operational training.

2.4 SAFETY MEASURES FOR PROPANE

⚠ WARNING

Always check all propane fittings are secure and no leaks are present. If leaks are present do not operate. Failure to do so may result in fire or explosion that could cause serious injury or death.

Propane or Liquefied petroleum gas (LPG) is a flammable gas with vapors that are denser than air. Like gasoline, improper handling of propane can lead to explosions. To aid in detecting leaks, propane may be mixed with an odorant that has a distinctive smell, detectable at low concentrations. When working with propane, it is essential to be aware and take necessary safety precautions. Lack of awareness could result in needless hazards. The two most significant dangers associated with propane-powered floor care machines are:

- Carbon Monoxide Poisoning:
  - Carbon monoxide poisoning is the most reported incident associated with propane-powered floor care machines, caused by excessive exhaust emissions. The symptoms include headaches, dizziness, and nausea. Engines with inadequate preventive maintenance practices, particularly those with unclean air filters and machines operated in enclosed spaces without sufficient ventilation, are a significant cause. The use of substandard, inexpensive machines without emissions control technology and improperly adjusted carburetion could also contribute to the problem.
- Overfilled Fuel Cylinders:
  - Overfilling a propane cylinder (over 80% full) can increase risks such as (but not limited to) ruptures or leaks which can cause accidents, environmental hazards, and damage to property. This practice is hazardous, imprudent, and avoidable.
- Fire Precautions
  - Be mindful of the potential risks of fire when working with propane and take standard fire-safety measures.
  - There is a likelihood of fire resulting from leakage or venting of LPG vapor from fuel cylinders or carburetion equipment.
- Explosion Precautions
  - Be mindful of the potential risks of explosion when working with propane and take standard fire-safety measures.
  - Concentration or confinement of LPG vapor in a restricted or small space may cause ignition or explosion.
  - Propane may also experience a BLEVE: Boiling Liquid Expanding Vapor Explosion.

⚠ CAUTION

Respirable crystalline silica causes damage to lungs and may cause cancer. Always wear respiratory protection during exposure. Always use appropriate dust control equipment to keep dust within OSHA and local regulation limits.

2.5 SAFETY MEASURES FOR DUST

Cutting, especially when DRY cutting, generates dust that comes from the material being cut, which frequently contains silica. **When dry-cutting, be sure to use an appropriate sized HEPA filtered dust collector.**

Silica is a basic component of sand, quartz, concrete, brick clay, granite and numerous other minerals and rocks. Exposure to excessive amount of such dust can cause the following symptoms according to NTP* and IARC*:

- Respiratory diseases (affecting your ability to breath), including chronic bronchitis, silicosis, and pulmonary fibrosis from exposure to silica. These diseases may be fatal.
- Cancer
- Skin irritation and rash

*National Toxicology Program, International Agency for Research on Cancer

Take precautionary steps:

- Avoid inhalation of and skin contact with dust, mist, and fumes.
- Wet cut when feasible, to minimize dust.
- Wear and ensure that all bystanders wear appropriate respiratory protection such as dust masks designed to filter out microscopic particles (See OSHA 29 CFR Part 1910.1200).

2.6 SAFETY MEASURES FOR CARBON MONOXIDE

⚠ DANGER

Carbon Monoxide (CO) is a colorless, odorless, invisible gas. Exposure to high levels will cause headaches, dizziness, and/or death. Obey all PPE requirements including, but not limited to Personal CO Monitoring Device(s) at all times and if high levels of CO are present, vacate the area immediately.

⚠ DANGER

All internal combustion engines produce CO. Only use this machine in work areas that are adequately ventilated. Failure to do so will result in injury or death.

Carbon Monoxide (CO) is a colorless, odorless, invisible gas formed during the incomplete combustion of carbon containing fuels such as (but not limited to) gasoline or propane. Exposure to high levels of Carbon Monoxide can cause the following symptoms:

- Nausea
- Headaches
- Fatigue
- Dizziness
- Drowsiness
- Unconsciousness
- Death

The Occupational Health & Safety Administration (OSHA) has implemented an 8-hour time-weighted average (TWA) limit of 50 Parts per Million (PPM) of Carbon Monoxide in ambient air. All occupants must leave the enclosed area if the CO concentration in said space exceeds a ceiling of 100 PPM (OSHA 1917.24(a)).

This machine is equipped with a safety device to aid in the safety of the operator. This device is NOT a substitute for a certified personal CO Monitoring device, proper area ventilation, and all other required safety devices and procedures.

2.7 EMISSIONS

All propane-powered floor care machines generate emissions. While most are innocuous, some can be hazardous, even fatal. Carbon monoxide (CO) presents the most significant danger. See the Safety Measures for Carbon Monoxide section in the Operating Environment Safety section of the manual.

2.8 AGENCIES AND REGULATIONS

All propane-powered floor care machines generate emissions. While most are innocuous, some can be hazardous, even fatal. Carbon monoxide (CO) presents the most significant danger. See the Safety Measures for Carbon Monoxide section in the Operating Environment Safety section of the manual.

- National Fire Protection Agency (NFPA):
  - To operate a propane-powered floor care machine safely, it is necessary to adhere to specific safety regulations. The NFPA is responsible for ensuring safe propane use and storage, and their Standard for Storage and Handling of LP Gas should be consulted for guidance. Copies of this publication can be obtained by contacting the NPFA in Quincy, MA at 1-800-334-3555.
  - One important regulation set forth by the NFPA #58 is that all personnel who handle propane gas must be properly trained in its safe handling and operation procedures and carry a certification from their employer or training supervisor attesting to this fact. While this requirement primarily applies to individuals who fill and transport liquid propane gas, DiamaPro® Systems recommends that operators of propane-powered floor care machines in public areas also receive proper training and certification. Although NFPA 58 8-4.5 permits the use of propane-powered floor care equipment in buildings frequented by the public, including when they are occupied, DiamaPro® Systems suggests that these machines be used when occupancy is minimal.
- California Air Resource Board (CARB) & Environmental Protection Agency (EPA):
  - While CARB and EPA establish limits for propane-powered engines used outdoors, it is important to note that approval from CARB/EPA does not indicate that the engine is safe for indoor use.
- Canadian Gas Association (CGA):
  - A limit of 1500 ppm CO in exhaust flow has been established by the CGA.
- Occupational Health and Safety Administration (OSHA):
  - When it comes to propane-powered machines, OSHA has implemented an 8-hour time-weighted average (TWA) limit of 50 Parts per Million (PPM) of Carbon Monoxide in ambient air. All occupants must leave the enclosed area if the CO concentration in said space exceeds a ceiling of 100 PPM (OSHA 1917.24(a)).
- Department of Transportation (DOT):
  - Regulations have been set forth by the DOT regarding the safety of fuel cylinders, including those utilized on propane-powered floor care machines.
- Local Agencies:
  - Before granting approval for the use of certain equipment, local law enforcement agencies such as the Fire Marshall may rely on independent testing laboratories like UL and CGA. These labs conduct extensive testing of equipment and only issue their approval after a rigorous evaluation process. While not mandatory for all law enforcement agencies, the stamp of approval from these organizations serves as an additional assurance for operators that they are working with and around safe equipment.
  - Additional rules & regulations may differ based on location. Always check with the appropriate governing body before operating machinery.

2.9 PERSONAL PROTECTIVE EQUIPMENT

When operating this machine, it is important to:

- Wear safety shoes always.
- Wear certified hearing protection to safeguard your hearing.
- Wear a certified respirator for the environment.
- Ensure that all personnel in the work area wear safety glasses with side shields.
- Wear safety gloves when changing tools.
- Dress appropriately for the work environment.
- Use certified personal Carbon Monoxide monitors.

2.10 TESTING

Numerous tools are available in the market for detecting toxic gases. However, only the ones specifically designed for detecting carbon monoxide resulting from combustion engines are deemed suitable for testing exhaust emissions from floor machines powered by propane. Certain instruments are meant for detecting “ambient air” and may get damaged if utilized for taking readings in the muffler or tailpipe. Hence, it is crucial to select the appropriate instrument to fulfill the testing requirements. In general, instruments that can detect readings in ppm (parts per million) ranging from 0 to 1000 are sufficient for examining ambient air, i.e., the air in the breathing zone of the operator. On the other hand, devices capable of testing carbon monoxide in the exhaust should be certified by the manufacturer for that purpose and should be able to read from 0 to at least 2000 ppm.

Some examples of instruments and systems for these purposes may include:

- Ambient Air Monitors
- Engine Exhaust Analyzers
- Gas Data Loggers

All instruments used for testing must be calibrated at the intervals recommended by the manufacturer. The test results must include the monitor’s model number and date of calibration.

3. EMISSIONS MONITORING UNIT

DiamaPro® ROG-60+ is equipped with an Emissions monitoring unit. This device is used to give the user information on the running conditions of the machine during use.
Disclaimer: All values and specifications are for a well maintained working Machine. The user must always wear proper PPE, including but not limited to personal monitoring device(s).

3.1 EMISSION MONITORING UNIT IMPORTANT NOTES

NOTICE

This EMISSION MONITORING UNIT is not a substitute for:
- A personal monitoring device
- Proper job site safety practices
- All local regulations

NOTICE

Read all instructions related to the emissions monitoring unit.
Be sure to understand all safety and environmental practices before use.

NOTICE

This emission moniorinig unit must be replaced after 5 years from installation.
Failure to do so may result in a decrease in effectiveness of the monitor.

NOTICE

TO Clean the EMISSION MONITORING UNIT, use a vacuum cleaner brush to vacuum around the openings on the monitor. The outside of the monitor may be wiped with a lint-free cloth slightly dampened with water only.
DO NOT PRESSURE WASH THE UNIT!

3.2 EMISSION MONITORING UNIT WARNINGS & CAUTIONS

DANGER

Carbon Monoxide (CO) is a colorless, odorless, invisible gas. Exposure to high levels will cause headaches, dizziness, and/or death. Obey all PPE requirements including, but not limited to Personal CO Monitoring Device(s) at all times and if high levels of CO are present, vacate the area immediately.

DANGER

All internal combustion engines produce CO.
Only use this machine in work areas that are adequately ventilated. Failure to do can result in injury or death.

CAUTION

THIS MONITOR WILL ONLY INDICATE THE PRESENCE OF CARBON MONOXIDE GAS AT THE SENSOR. CARBON MONOXIDE GAS MAY BE PRESENT IN OTHER AREAS. THIS MONITOR IS DESIGNED TO DETECT CARBON MONOXIDE GAS FROM ANY SOURCE OF COMBUSTION. IT IS NOT DESIGNED TO DETECT SMOKE, FIRE OR ANY OTHER GAS.

CAUTION

This monitor is designed to measure compliance with the U.S. Occupational Safety and Health Administration (OSHA) job site exposure limits, and does not comply with ACGIH, Cal/OSHA or NIOSH, which recommend lower exposure limits than OSHA. Consult with your local authority about the exposure limits permitted for your job site.

3.3 EMISSION MONITORING UNIT FEATURES & SPECIFICATIONS

CO MONITORING
Measures CO PPM (Parts per Million) every second, alarms above 35ppm. Automatically shuts engine down after 5 minutes above 35ppm, 4 minutes when above 200ppm, and 2 minutes when above 1200ppm.*
AFR MONITORING
Narrow band oxygen sensor produces voltage from 0v to 1v and indicates lean or rich fuel mixture.
SENSOR TYPE
Electrochemical with temperature and humidity sensors
OPERATING TEMPERATURE & HUMIDITY
0°F to 120°F @ 10% to 95% RH
SENSOR LIFE
5 years from time of installation
ELECTRICAL RATING
12 Volts

NOTICE

This SAM Safe Air Monitor has been specifically designed and programed for use with DiamaPro equipment. Any modifications to this unit or use of any other unauthorized emission monitoring units will void warranty and may not function properly.

***Disclaimer:** All values and specifications are for a well-maintained, working Machine.

3.4 EMISSION MONITORING UNIT OPERATIONS

OPERATION: The SAM Safe Air Monitor is operational once the engine is started. The SAM will begin to monitor carbon monoxide levels every 1 second.

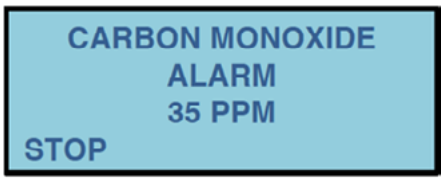
The SAM Safe Air Monitor is designed to remain on for a brief period when the ignition is turned off. DO NOT leave the key switch in the accessory position. This will prematurely drain the battery.

NOTICE

The SAM Safe Air Monitor will draw a small amount of voltage from the battery which may cause the battery to be drained if stored for long periods of time. It is always recommended to disconnect the battery when the machine is not in use.

HOME SCREEN: The HOME screen will display engine hours, rpms, and indicate that the CO and ENG AFR are OK. If the CO or ENG AFR is high, it will indicate alarm.

ALARM SCREENS: The ALARM screen will display Carbon Monoxide alarms and AFR alarms. To stop the engine, press STOP. The Engine will automatically shut down if alarms are ignored and conditions do not improve in allotted time.



If alarm signal sounds:
Immediately increase ventilation and move the machine to a clean air environment. Monitor CO PPM and AFR in the new fresh air environment. CO PPM should drop below 35PPM and AFR should be less than 500mV. If the CO PPM and/or AFR remain above 35PPM and/or 500mV and the alarm continues to sound, discontinue use of the machine, and contact your supervisor. The machine will shut down automatically if the CO PPM limit remains exceeded. If the machine shuts down, move the machine to a clean air environment, restart machine and continue operation.

3.5 LIMITATIONS OF EMISSION MONITORING UNITS

NOTICE

This EMISSION MONITORING UNIT is not a substitute for:
- A personal monitoring device
- Proper job site safety practices
- All local regulations

Carbon monoxide monitors respond to the presence of CO. They do not detect smoke. If the alarm does activate, follow instructions in the “If the alarm signal sounds”.

Carbon monoxide monitors are devices that can provide an early warning of the presence of CO. However, monitors have sensing limitations and may not always sound a warning in the presence of CO. Carbon monoxide monitors cannot sense CO that does not reach the sensor, and therefore CO monitors may not detect CO which is in another area of the building. Furthermore, the monitor may not alert someone who is in a different area than the monitor. The use of drugs and alcohol may impair one’s ability to hear the monitor.

3.6 DESCRIPTION OF AUDIBLE AND VISUAL SIGNALS

LCD READOUT	CONDITION	ALARM
AIR: OK	Indicates CO levels are below OSHA limits	If CO levels are above OSHA limits, displays HIGH CO, alarm will sound
ENGINE: OK	Indicates Engine Air Fuel Ratio is below 500mV indicating a low CO running condition and Battery Voltage is greater than 12 volts	If Air Fuel Ratio is Rich, displays RICH MIXTURE, alarm will sound, LOW VOLTAGE indicated battery voltage is below 12 volts, CHECK OIL indicates low/no oil pressure.
CO PPM:	Indicates the current CO parts per million	Alarm sounds above 35ppm. Automatically shuts engine down after 5 minutes above 35ppm, 4 minutes when above 200ppm, and 2 minutes when above 1200ppm.*
AFR:	Indicates whether the engine is running rich or lean. Below 500mV the engine is running lean, above 500mV the engine is running rich	Alarm when engine runs rich for continuous 2 minutes, engine shutdown at 5 minutes.
HRS:	Displays engine hours in tenths of an hour	
RPM:	Displays engine revolutions per minute	
BATT:	Indicates battery voltage. If voltage is below 10 volts, the display reads low voltage	

***Disclaimer:** All values and specifications are for a well-maintained,working Machine.

4. MACHINE OPERATION

4.1 SAFETY INSTRUCTIONS

4.1.1 KNOW THE RULES & YOUR EQUIPMENT

Most job sites have rules governing equipment use & maintenance. Before starting at a new work location, check with the supervisor or safety coordinator. Ask about any rules or regulations you need to abide by. OSHA enforces federal laws within the United States that apply to the safe operation, application, & maintenance of equipment on job sites. It is the employer's responsibility to comply with these laws. Do not operate this machine unless you carefully read the operations and maintenance manual.

4.1.2 RECEIVE PROPER TRAINING

Do not operate this machine unless you have received operational and maintenance training from a DiamaPro® Systems representative or from an authorized distributor for DiamaPro® Systems.

4.1.3 WEAR A PERSONAL MONITORING DEVICE FOR CARBON MONOXIDE

The operator and those in the area must ALWAYS use an approved personal carbon monoxide device.

⚠ DANGER

Carbon Monoxide (CO) is a colorless, odorless, invisible gas. Exposure to high levels will cause headaches, dizziness, and/or death. Obey all PPE requirements including, but not limited to Personal CO Monitoring Device(s) at all times and if high levels of CO are present, vacate the area immediately.

⚠ DANGER

All internal combustion engines produce CO. Only use this machine in work areas that are adequately ventilated. Failure to do can result in injury or death.

4.1.4 PROTECT YOUR FEET

Observe all applicable local, state, and federal safety regulations. Wear OSHA approved foot protection.

4.1.5 PROTECT YOUR EYES

Observe all applicable local, state, and federal safety regulations. Wear OSHA approved safety glasses.

4.1.6 PROTECT YOUR LUNGS

⚠ CAUTION

Respirable crystalline silica causes damage to lungs and may cause cancer. Always wear respiratory protection during exposure. Always use appropriate dust control equipment to keep dust within OSHA and local regulation limits.

Breathable silica may be generated by use of this product. Silica can cause severe and permanent lung damage, cancer, and other serious diseases. Do not breathe the dust. Do not rely on your sight or smell to determine if dust is in the air. Silica may be in the air without a visible dust cloud. If air monitoring equipment for silica is not provided by your employer at your work site, you MUST wear appropriate respiratory protection when using or servicing the machine. Consult your employer and OSHA regarding the appropriate respiratory protection.

4.1.7 PROTECT YOUR EARS

Observe all applicable local, state, and federal safety regulations. Wear OSHA approved hearing protection.

4.1.8 DRESS PROPERLY

Do not wear loose clothing or jewelry that can be caught in moving parts. Wear protective hair covering to contain long hair. Keep hair away from motor air vent. Rubber gloves and non-skid footwear are recommended when working outdoors.

4.1.9 AVOID A DANGEROUS ENVIRONMENT

Do not expose the machine to rain. Do not use the machine in wet conditions. Keep the work area well lit. When working at an elevated location, pay attention to articles and people below.

4.1.10 BEWARE OF HIDDEN DANGERS IN CONCRETE

Rebar or utility lines may be buried in concrete. Disconnect the power from any utility lines. If these dangers are present and are not clearly indicated, clearly mark the area.

4.1.11 KEEP WORK AREA CLEAN - DO NOT RUN OVER ANYTHING

Loose debris could be thrown from cracks. Make sure the area to be cut is clear from people and any loose objects, nuts, bolts, etc. Never run over any loose objects.

4.1.12 KEEP CHILDREN AND VISITORS AWAY

Do not allow anyone to stand in line with the grinding path. Do not let children or visitors in contact with machine or extension cord. Keep children and visitors away from the work area.

4.1.13 AVOID FLAMMABLE LIQUIDS OR GASES

⚠ WARNING

Never use machines in areas containing flammable, combustible, or explosive materials such as but not limited to lacquer, paint, benzene, thinner, gasoline, gases, and adhesive agents. Failure to do so may result in fire or explosion that could cause serious injury or death.

Diamond Tooling produces heat and sparks during operation. Never use machines in dangerous sites containing flammable, combustible, or explosive materials such as lacquer, paint, benzene, thinner, gasoline, gases, and adhesive agents.

4.1.14 AVOID CONTACT WITH HOT TOOLING AND SHROUD

⚠ CAUTION

Tooling and the machine shroud can become hot during operation and remain hot after stopped. Do not touch the tooling and shroud without proper hand protection. Failure to do so may cause injury.

The Diamond tooling and shroud become hot during operation and remain hot after stopped. Do not touch the tooling and shroud without proper hand protection.

4.1.15 KEEP FIRM GRIP ON THE MACHINE

Keep a firm hold on the handle grips and maintain control of the machine until the grinding completely stops. DO NOT tape or restrict safety handle on handle.

4.1.16 CHECK TOOLING FOR CRACKS, DAMAGE, AND MISALIGNMENT

Never use cracked, damaged, or misaligned tooling. After mounting check to see the tooling is secure.

4.1.17 DO NOT FORCE WRONG SIZE OR TYPE OF TOOLING ONTO THE MACHINE

⚠ CAUTION

Always ensure the tooling is properly secured to the tool plates. Failure to do so may cause injury to personnel and/or damage to the machine.

Running the wrong type/size of tooling can cause damage to your machine.

4.1.18 USE EQUIPMENT AND ACCESSORIES PROPERLY
Do not force a small grinder to do the job of a heavy-duty grinder. Do not use the ROG-60+ for improper applications. Never cut material for which the tooling was not designed.

4.1.19 STORE EQUIPMENT AFTER USE
The machine and tools should be stored in a dry and secure location when not in use. Keep equipment out of reach of children.

4.1.20 DO NOT FORCE
The grinder will do the job better and safer at the rate for which it was designed.

4.1.21 OBTAIN MATERIAL SAFETY DATA SHEET (MSDS) FOR ALL WORK SURFACE MATERIAL
This includes primers, all coatings, adhesives, tile, and crack filling materials, etc. Do not attempt to cut, clean out or remove material without MSDS information. Consult MSDS sheet for hazards information. Be aware that some materials are explosive such as dust.

4.1.22 DO NOT OVERREACH
Always keep proper footing and balance

4.1.23 MAINTAIN MACHINE WITH CARE
Keep machine clean and follow maintenance procedures for better and safer performance. Keep handles dry, clean, and free from oil and grease. Follow instructions for lubricating and changing accessories.

4.1.24 REMOVE ADJUSTING TOOLS
ALWAYS check to see tools (such as adjustment wrenches) are removed from the machine and are properly stored before use of the machine.

4.1.25 STAY ALERT
Watch what you are doing. Use common sense. Do not operate this machine when you are tired or fatigued.

4.1.26 DO NOT USE DRUGS, ALCOHOL, MEDICATION
Do not operate machine while under the influence of drugs, alcohol, or any medication.

4.1.27 KEEP ALL PARTS IN CORRECT POSITION
Do not operate the machine with missing or improperly mounted parts.

4.1.28 CHECK PROPANE TANKS

NOTICE

- NEVER use an overfilled or liquid propane tank, doing so will damage the fuel system of this machine.
- Always use propane from a trusted source. Poor quality propane can cause engine failure and affect the normal operation of the engine.

Verify fuel levels in propane tanks before use. Make sure the selected tank is not damaged.

4.1.29 CHECK FOR DAMAGED PARTS
Upon delivery of the machine, the staff responsible should check for its completeness and any transportation damage. Any faults must be reported immediately to the supplying company.

Verify all machine guards are in good condition and will function properly before using the machine. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect machine operation. A guard, power switch or other part that is damaged should be properly repaired or replaced by an authorized service center.

4.1.30 NEVER TOUCH MOVING PARTS
Never touch moving parts such as blades, belts, and others.

4.1.31 STOP OPERATION IMMEDIATELY IF ANY ABNORMALITY IS DETECTED
Stop using machine immediately if any abnormalities are observed during operation. Examples of abnormalities include unusual noise and vibration.

4.1.32 WHEN REPLACING A PART, USE THE SAME TYPE AND QUALITY

CAUTION

Never do maintenance on any part of the gearbox, engine, or fuels system while the machine is running. Failure to do so may cause injury or damage to the machine.

When replacing a component part with a new one, use only parts supplied by the manufacturer. Never attempt to repair a machine if you are unfamiliar with proper procedures and techniques required. Refer to this operations and maintenance manual as well as any additional instructions included from other manufacturers.

4.1.33 SAVE THESE INSTRUCTIONS
Refer to this operations and maintenance manual as well as any additional instructions included from other manufacturers.

4.2 LIFTING AND TRANSPORT

Parts of loading, handling, transport, unloading and lifting must only be carried out by qualified personnel with extensive experience of the Diama-Pro® ROG-60+ along with the relevant safety rules and regulations. The means used for handling, lifting and transport must be intact and capable of performing the required operations safely, considering the size, weight, projections, delicate parts, and the center of gravity of the machine. Avoid improper uses and maneuvers, avoid all maneuvers outside the respective field of competence and responsibility. Perform handling and lifting using only the recommended means where indicated. Always use the proper PPE. Do not place hands or other body parts under raised components.

4.2.1 LIFTING

CAUTION

Slinging / transport gear must consider the shape and volume and the mass indicated on the machine (crane or forklift truck) with a capacity greater than that to be lifted. Failure to do so may cause injury or damage to the machine.

DANGER

NEVER stand underneath the ROG-60+ when lifted. Failure to do so will cause serious injury or death in the event the machine falls.

The total weight of the machine is about 750 lbs. The lifting must be performed from the top.
To lift the DiamaPro® ROG-60+ with a crane or forklift follow the steps below:

1. The machine is equipped with a hook. The lifting is done by being anchored to this element in only a single central point as shown in the figure above.
2. Use a lifting device (crane or forklift)
3. The lifting gear must be approved for lifting, without imbalance, and with a load capacity exceeding the total weight of the machine.
4. Lift the machine and keep it as close to the ground as possible.
5. Avoid the machine tilting at an angle.
6. Move and lift the ROG-60+ with the help of one person on the ground, away from the suspended load, to give signals to the lift operator to help navigate the load when lifted.

To lift the DiamaPro® ROG-60+ with the included stands follow the steps below:

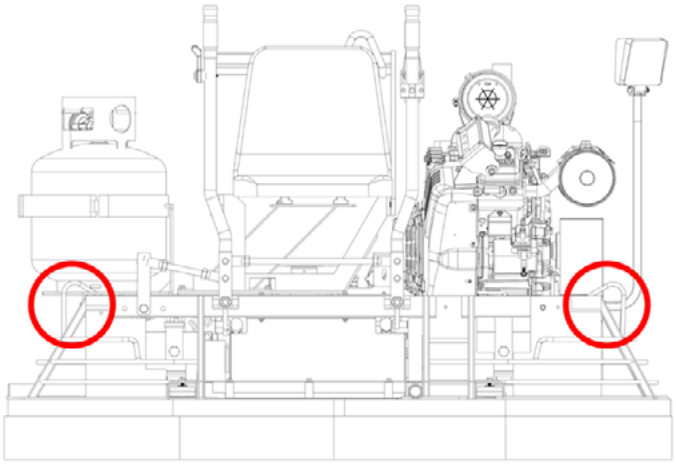
1. Place ride-on grinder stands on both right and left of machine.
2. Put in the four cotter pins to secure the stands.
3. Lock the wheels.
4. Rotate the handle to the desired height (repeat for other side).
5. Place two jack stands on the front and rear frame rail of the ride on grinder.

⚠ CAUTION

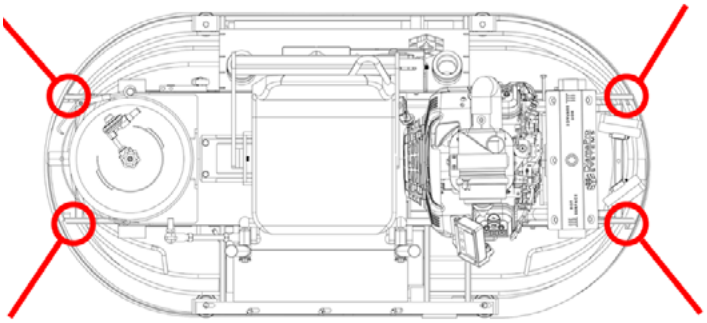
Crush Hazard! Always lock wheels and insert retaining pins before changing tooling or working under the machine. Failure to do so may cause injury or damage to the machine. NEVER change tooling with a forklift.

4.2.2 TRANSPORT

The DiamaPro® ROG-60+ is equipped with 4 tie-down loops (shown in the figure below) on each corner of the ROG-60+.



To secure the ROG-60+ for transport, be sure to lower the stands until the tool plates are evenly on the ground. Attach the appropriate straps to secure the ROG-60+ on all 4 corners as shown in the figure below.



⚠ CAUTION

Use extra care when loading and unloading the machine onto a trailer or truck. Make sure the personnel responsible for loading and unloading are familiar with the machine and the loading and unloading process. Failure to do so may cause injury or damage to the machine.

4.3 STORAGE

4.3.1 STORAGE

In case the machine is not to be used immediately, please adhere to the guidelines below:

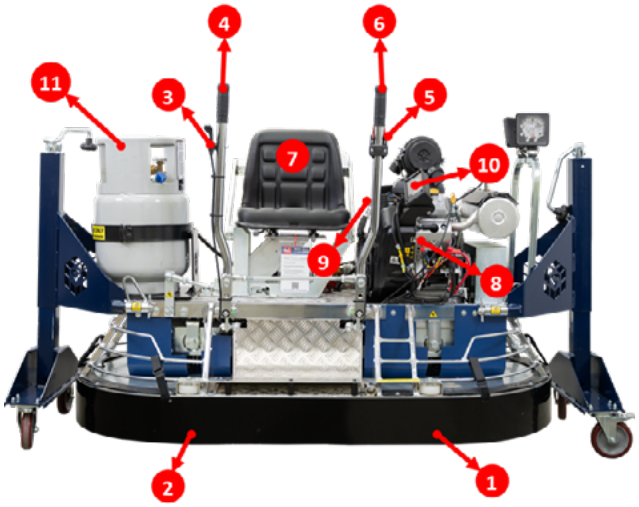
- Shut off propane tank.
- Raise the machine using the included stands with the tool plates off the floor.
- Always place the machine indoors away from areas exposed to moisture or inclement weather for storage.
- Protect unpainted parts with grease to prevent corrosion.
- Disconnect the battery.

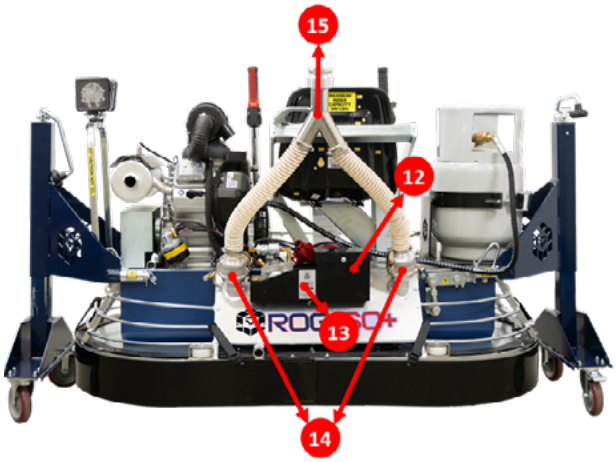
If you plan to not use the machine for a period longer than one month:

- Close the propane tank and run out any residual fuel in the engine. Remove and properly store the propane tank.
- Remove battery if long term machine storage area average temperature drops below 40°F (4°C) or above 86°F (30°C)

4.4 MACHINE CONTROLS

The DiamaPro® ROG-60+ is designed and manufactured to perform floor grinding, preparation, and polishing. To operate efficiently, the machine is equipped with two rotors: one left-rotating and one right-rotating. The engine and the operator's seat are both fixed to the machine frame, which is connected to both rotors. The use of Handles which are attached to the rotors facilitate movement. This machine may only be used by a single professional operator. All controls are operated from a sitting position.





4.5 MACHINE USE

4.5.1 WORK ENVIRONMENT

The DiamaPro® ROG-60+ can be operated within the temperature range of 41°F to 86°F (5°C to 30°C). It's crucial to avoid using the machine during rainy or snowy weather conditions. Only use this machine in work areas that are adequately ventilated. The max rider capacity is 300lbs.

⚠ CAUTION

For stability reasons it is important to use the machine on stable, relatively flat, and horizontal surface. Do not use the machine on slopes greater that 3%-4%. Failure to do so may cause injury or damage to the machine.

4.5.2 TOOL INSTALLATION

1. Securely lift the ROG-60+ until the tool plates are off the ground.
2. Ensure no debris is present on the holder or magnets.
3. Install the appropriate uniform tooling to each tool plate. Use the Velcro foam pads if using Velcro backed tooling.
4. Lower ROG-60+ till the tooling touches the ground.

4.5.3 PROPANE TANK INSTALLATION

⚠ WARNING

Always check all propane fittings are secure and no leaks are present. If leaks are present do not operate. Failure to do so may result in fire or explosion that could cause serious injury or death.

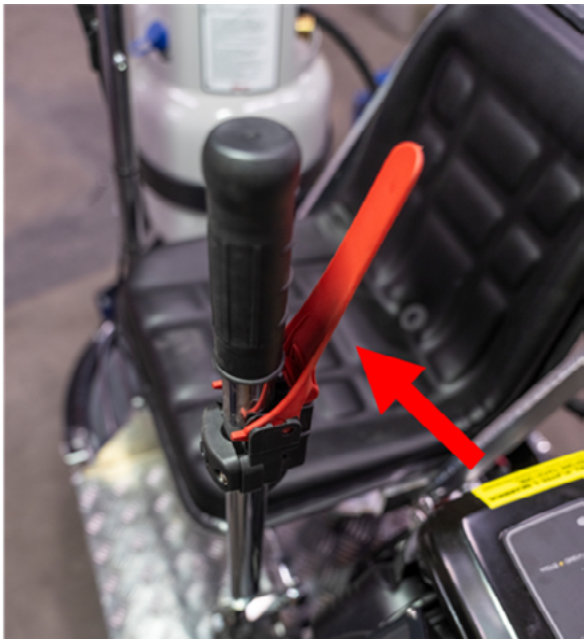
NOTICE

- NEVER use an overfilled or liquid propane tank, doing so will damage the fuel system of this machine.
- Always use propane from a trusted source. Poor quality propane can cause engine failure and affect the normal operation of the engine.

1. Choose the appropriate vertical vapor propane tank.
2. Ensure the tank valve is closed.
3. Unlatch the propane tank holder bracket.
4. Place propane tank in the tank holder.
5. Secure the latch.
6. Connect the ROG-60+ vapor supply hose securely to the propane tank.
7. Open propane tank valve and check for leaks. Shut off the propane tank immediately if leaks are detected. Move to a ventilated area and call a service center to repair.

4.5.4 STARTING PROCEDURES

1. Adjust lifting stand's height so that the machine is planted securely on the work area floor.
2. Remove and safely stow the stands and pins before beginning operation.
3. Ensure propane tank is installed and vapor supply hose is properly connected (see Section 4.5.3 for propane tank installation instructions).
4. Ensure the battery is connected.
5. Open propane tank valve. Shut off the propane tank immediately if leaks are detected. Move to a ventilated area and call a service center to repair.
6. Ensure the area is clear and ready for the machine to operate.
7. Hold the safety switch (See figure below) with your left hand.



8. Reach with your right hand to turn the ignition key to start.

Helpful Tip!

If the engine does not start, return key to on position for 5-10 seconds and retry.

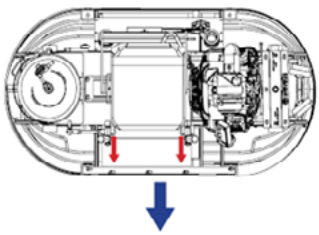
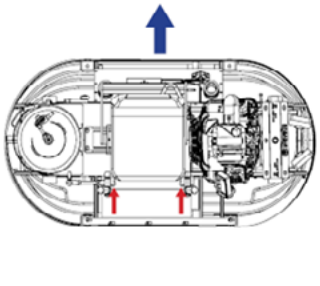
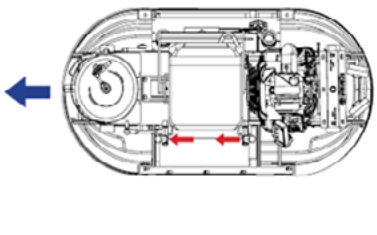
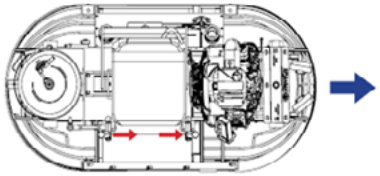
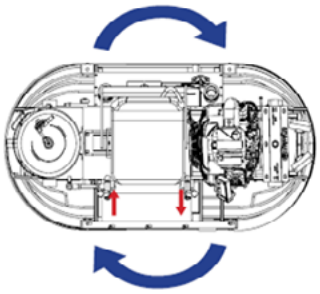
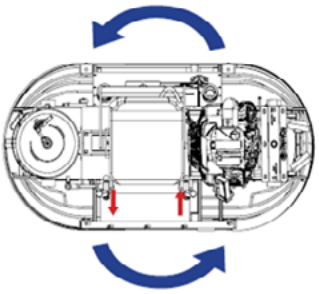
9. Return your right hand to the right control handle.
10. Quickly go to fully throttle to assist in clutch engagement.
11. Adjust throttle as needed.

Helpful Tip!

If the ROG-60+ is not moving after full throttle, the operator may need to shift the handles to get the unit moving. If unit still does not move, bring throttle down and turn off the machine. Call technical support for assistance.

4.5.5 GRINDER OPERATION

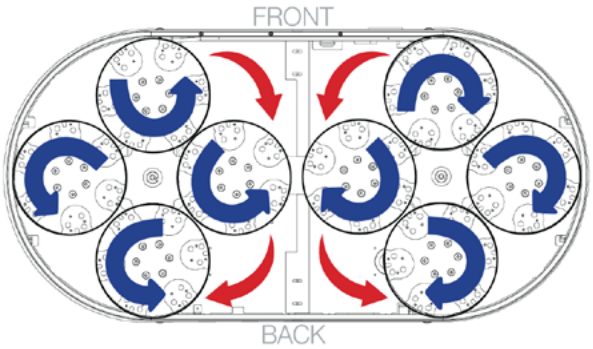
To move the ROG-60+, the operator must slowly and smoothly move the steering handles. To stop the grinder movement, set the handles back into the rest position. Refer to the table below for directional controls.

		
MOVE FORWARD Push handles forward.	**MOVE BACKWARD** Pull handles backward.	**MOVE RIGHT** Push handles to the right.
		
MOVE LEFT Push handles to the left.	**ROTATE RIGHT** Push left handle forward & pull right handle backward	**ROTATE LEFT** Push right handle forward & pull left handle backward

Helpful Tip!

Use the machine at a slower speed in an open area until you feel comfortable with the steering and operation of the ROG-60+

The ROG-60+ uses a passive planetary system. This allows the plates to rotate opposite of the spinning arms. See Image below for example.



4.5.6 SHUT DOWN PROCEDURES

To stop the ride-on grinding machine, following the steps below:

1. Bring the accelerator to idle speed.
2. Bring the steering handles in an upright position.
3. Close the throttle activating the black lever.
4. Close the propane tank valve.
5. Wait for Grinder to shut off.
6. Turn the ignition key off.

If storing the machine, follow section 4.3.1 in this manual for proper procedures.

5. MAINTENANCE & REPAIR

⚠ CAUTION

During the execution of maintenance tasks, you must wear the following P.P.E.: CUT RESISTANT GLOVES, SAFETY GLASSES AND SAFETY SHOES. For certain types of activities (lubricant filling-up) make use of airway protection equipment as indicated in the residual risks.

⚠ CAUTION

Before carrying out the maintenance of DiamaPro® Systems ROG-60+ make sure you understand the contents of this manual.
Please contact the manufacturer for further explanations and information.
Failure to do so may cause injury or damage to the machine.

⚠ CAUTION

Never do maintenance on any part of the gearbox, engine, or fuels system while the machine is running. Failure to do so may cause injury or damage to the machine.

Before carrying out the maintenance of the machine make sure you understand the contents of this manual. Please contact the manufacturer for further explanations and information. Maintenance workers must possess the skills required by this manual, as well as the mental and physical requirements necessary and sufficient to maintain and operate the machine. To ensure the functionality and durability of the machine daily maintenance must be performed, carrying out operations in compliance with the safety requirements. Only the authorized dealer can adjust and perform operations that are not assigned to the operator. It is forbidden to make adjustments and interventions during machine operation. Before performing any maintenance operation disconnect the machine from the power sources and wait for the cooling of the hot parts (engine, spark-plug area, air filter area, etc.)
Follow the safety steps below before performing any maintenance or repairs:

- Follow all safety decals and placards.
- Ensure all fuel sources are turned off and / or removed.
- Ensure the key switch is turned to the off position.
- Disconnect the battery quick connection.
- Wear all the necessary PPE.
- Always utilize provided stands with safety pins installed correctly on all 4 corners when lifting and / or changing of tooling or foam pads.
- Secure all wheel locks to prevent unwanted movement during service or storage.
- If machine operation is required for troubleshooting task ensure appendages are clear of any rotational parts, pinch points, and crush zones.
- Allow machine to properly cool for engine related tasks.

It is also recommended for proper maintenance to:

- Thoroughly clean the DiamaPro® ROG-60+. If in doubt about how to perform occasional repairs, contact our Technical Support or an authorized dealer.
- Perform a thorough cleaning from processing residues upon finishing the job.

NOTICE

Avoid splashing water on engine and all electronics during cleaning. Cover when possible. ALWAYS ensure the engine is cooled before covering.

5.1 SCHEDULED MAINTENANCE

Good maintenance requires constant and methodical control of all parts of the machine and adaptation of tests to its actual usage. Periodic inspections are crucial to keep the machine efficient and reduce repairs and any resulting dangers.
We recommend that you have your DiamaPro® ROG-60+ serviced by an authorized dealer or a DiamaPro® Systems technician every 500 hours.
Note: frequency is taken over considering a working day of 8 hours.

⚠ CAUTION

Some operations of maintenance / replacement of worn components may only be carried out by the authorized dealer or the manufacturer's technician. They are reported later in this publication. Please note that failure to comply with the requirements of maintenance represents a possible MISUSE or PROHIBITED USE and relieves the manufacturer from any liability for damage to persons and property.

OPERATION	HOUR INTERVAL																		
	8-50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Check gearbox seals for leaks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Change oil & oil filter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Inspect gear oil (left & right side). Add or replace oil if needed	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Inspect drive belt tension	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Replace air filter & pre-filter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Replace spark plugs		X		X		X		X		X		X		X		X		X		X
Inspect gear oil		X		X		X		X		X		X		X		X		X		X
Check valve clearance & adjust if necessary					X					X					X					X
Replace belts					X					X					X					X
Replace plate bearings					X					X					X					X
Check battery with load tester. Replace if needed					X					X					X					X
Inspect clutch pads										X										X
Inspect drive belts. Replace if needed					X					X					X					X
Replace clutch																				X
Replace gear oil if needed																				X

BEFORE EACH USE:
Check pre-filter & air filter for dirt and debris. Clean or replace if needed. Inspect bearings for proper rotation grease or replace if needed. Check oil & oil level. Add oil if low or replace oil & oil filter if needed. Inspect control arms & pivot points. Grease as needed. Inspect machine for damage.

NAME OF OPERATION	FREQUENCY	PERSON IN CHARGE	OPERATING INSTRUCTIONS	STATE OF MACHINE
MECHANICAL PARTS				
Inspect engine air filter	Daily		Inspect engine air filter & pre-filter especially if machine is operating in dusty environments. If filter or pre-filter is dirty or clogged, replace.	Machine stopped / Power sources disconnected
Check for wear of drive transmission belts, cardan shaft (drive shaft) greasing	Weekly		Follow the procedures in Section 5.2.4 in case of breakage or important wear of the belts to provide for their replacement.	Machine stopped / Power sources disconnected
Spark plug cleaning	Weekly		If you need a replacement, refer to the engine manual attached to this publication. Be careful when removing the spark-plug:  • Wait for the engine to cool down; • Remove the cap; • Remove the spark-plug down away from the spark-plug holder (because spark may be triggered). • Check spark plug gap (0.030 in, 76 mm)	Machine stopped / Power sources disconnected
Check clutch wear	Weekly		If clutch shoes need replacement, please contact DiamaPro® Systems.	Machine stopped / Power sources disconnected
Gearboxes	In case of leaks and at the time of installation	In case of breakage or faults that cannot be resolved and require the replacement of the component, REFER TO SKILLED LABOR (AUTHORIZED DEALER)	The gearboxes are sealed upon assembly; if you notice oil leaks, carefully find out their origin because there may be leaks from other sources. If the leaks come from the gear-box, contact our technical service or a qualified technician. Clean any oil leaks at the bottom of the grinder. For a possible change of the lubricant due to leaks or for the topping up oper-ations, use the following type of lubricant: MOBIL SHC 630 (DP-GH-SCH630). **CAUTION** IT IS FORBIDDEN TO REPLACE THE GEARBOX. REFER TO THE MANUFACTURER OR THE AUTHORIZED DEALER.	Machine stopped / Power sources disconnected
Check propane level and supply	Prior to each start		**CAUTION** It is recommended to make sure that the propane contains no water and not to use mixtures or diesel. Perform this operation in a well ventilated environment and away from possible sources of heat or flames. Make use of specific P.P.E. (mask). REFER TO THE ENGINE MANUAL.	Machine stopped / Power sources disconnected

NAME OF OPERATION	FREQUENCY	PERSON IN CHARGE	OPERATING INSTRUCTIONS	STATE OF MACHINE
MECHANICAL PARTS				
Engine oil level and filter check and possible replacement	At each start		The engine oil can be verified via dipstick. The transmission fluid inspection windows are viewable from underneath on either side. Check the manufacturer's instructions present in the component's manual (attached to this manual) and in Section 5.2.2 of this manual.	 Machine stopped / Power sources disconnected
Battery	Daily/Weekly		The ROG-60+ is equipped with a maintenance free battery. DO NOT TRY TO FILL. Clean the two battery poles to remove oxidation. For battery replacement refer to Section 5.2.1 of this publication. It is recommended to disconnect the battery via quick-disconnect (rear under seat) when storing or transporting the machine	 Machine stopped / Power sources disconnected
General cleaning	Daily	 P.P.E. USE	Wash the dirty parts with a brush and water. Moisten the parts exposed to the cement with disarming oil (never fuel oil); Do not lubricate the rubber parts subjected to motion (belts, etc).	 Machine stopped / Power sources disconnected
Plate bearings	Daily/Weekly	 P.P.E. USE	Inspect tooling plate bearings before each use. For optimal performance, it is recommended to grease heads daily. Heads MUST be greased weekly and after each cleaning to ensure proper function. This service can be performed using lithium grease via grease fitting on each bearing body. Inspect tooling plate bearings before each use. Keep the bearing free of contaminants.	 Machine stopped / Power sources disconnected
SAFETY SYSTEMS				
Safety systems (fixed guards)	Daily		Please note the requirement to perform the checking and recording of verifications of safety components every 6 months.	 Machine stopped / Power sources disconnected
Check Integrity of pictograms	At the shift start			 Machine stopped / Power sources disconnected

5.2 ROUTINE & ADDITIONAL MAINTENANCE

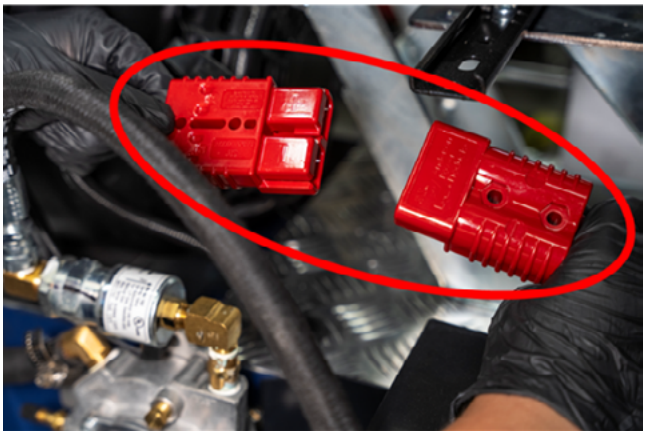
5.2.1 BATTERY REPLACEMENT & MAINTENANCE

To stop the ride-on grinding machine, following the steps below:

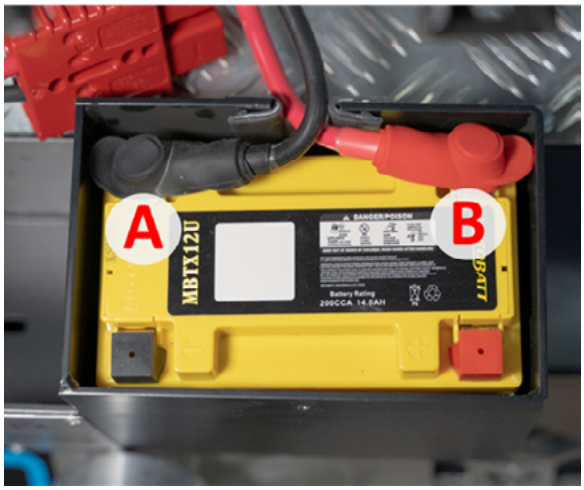
WARNING

- Always check both battery terminals are securely connected with terminals boots. Loose or exposed battery terminals can result in a spark which could lead to fire or explosion that could cause serious injury or death.
- Always check battery cables and wires for damage. Damaged cables can cause fire which could cause serious injury or death.
- Do not short-circuit the positive and negative terminals of the battery. Doing so may result in fire or explosion that could cause serious injury or death.

1. Disconnect the battery by means of the quick disconnects.



2. Remove the enclosing lid by removing the retaining screw.
3. Remove the connection terminals (a) and (b) taking care to remove first the negative, black color (a) to prevent possible damage.



4. Remove the battery and replace it with a battery having the same specifications.

CAUTION

Replace only with manufacturer recommended battery (P/N: W4359) Use of non-OEM Battery may result in harm to user, damage to the machine, and/or violation of the machine's warranty.

Helpful Tip!

The OEM battery is non-spillable and does not require fill maintenance.

5. Replace all terminal boots and enclosing lid.

When charging a battery be sure to follow these steps below:

1. Disconnect the battery by means of the quick disconnects.
2. Remove the enclosing lid by removing the retaining screw.
3. Using a multi-meter battery voltage can be determined. If it is less than 11v the battery may require charging or replacement.
4. Remove the battery and set it on a safe stable surface.
5. Connect the battery charging clamps firmly to the correct terminal posts.
6. Repeat steps 3 when complete. If the battery is less than 11v battery may need to be replaced.

CAUTION

NEVER jump start the ROG-60+ using a vehicle as the voltage source could damage the system. Failure to comply represents a MISUSE or PROHIBITED USE and may result in harm to user, damage to the machine, and/or violation of the machine's warranty.

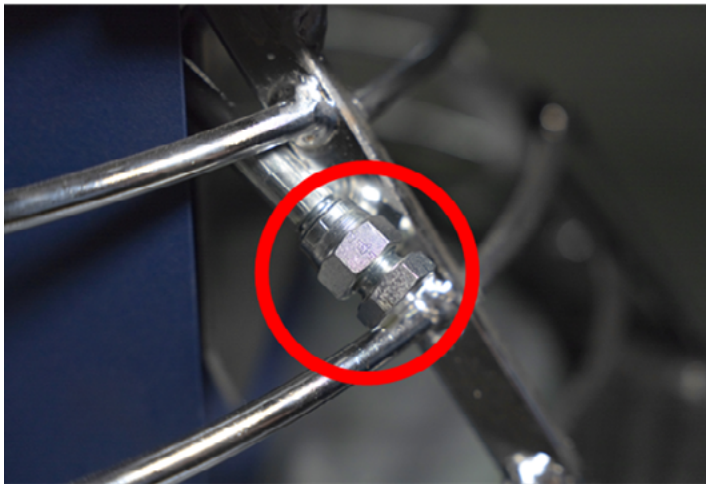
NOTICE

Only recharge the battery in a dry environment. Protect the contacts from dirt and moisture stagnation. Don't spray with water.

5.2.2 OIL CHANGE

Refer to the engine manual attached and to the MAINTENANCE CHAPTER OF THIS PUBLICATION. The oil filling must be performed with the machine off after waiting for the cooling of hot parts.

1. First proceed by draining the oil pan by unscrewing the nut on the drain tube that is closest to the exhaust, visible in the following figure



2. Once fully drained recap the drain tube.

Helpful Tip!

Tilting the unit towards the engine side offsetting the lifting legs can accelerate the draining process.

3. Remove the old oil filter and replace it with a new certified Oil Filter (ROG-60V9135).

4. Locate and remove the oil fill cap on the front valve cover. Then add 1.5 quarts of 10w30 oil.

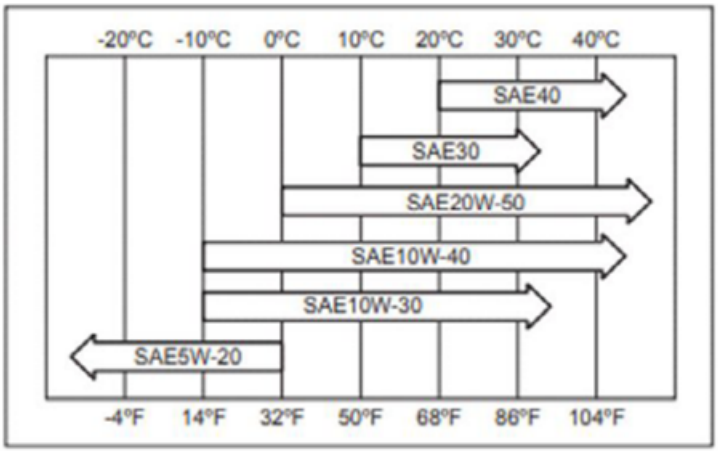
5. Verify the oil level on the graduated dipstick.
6. Re-secure the oil fill cap back on the valve cover.

Oil Viscosity

Choose the viscosity according to the temperature as follows:

NOTICE

TO AVOID DAMAGE TO THE MACHINE STRICTLY follow the engine manufacturer's recommended oil in the manual provided with the machine. 10W-30 is recommended.



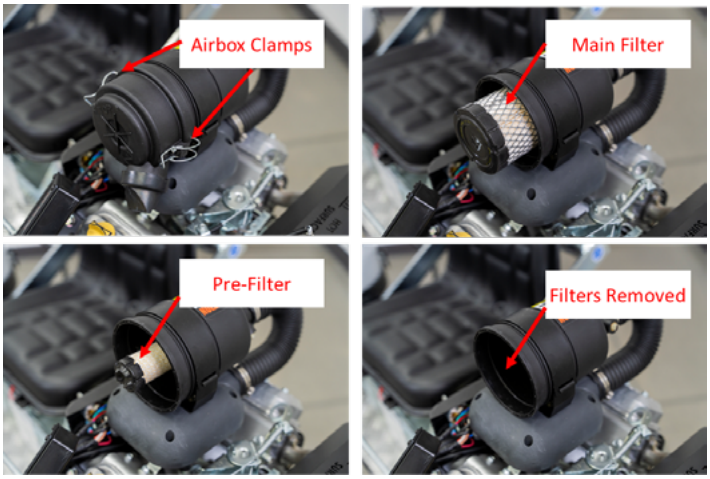
Helpful Tip!

Although 10W-30 engine oil is the recommended oil for most conditions, the oil viscosity may need to be changed to accommodate atmospheric conditions. Please contact the authorized dealer if running machine in extreme conditions for the correct oil choice.

5.2.3 Air Filter Change

It is recommended to always check the engine air filter and prefilter before each job. If during inspection the air filter is dirty or clogged follow the steps below:

1. Remove the airbox lid by using the two clamps on the sides.
2. Remove the main filter.
3. Inspect the pre-filter, remove & replace if needed.
4. Replace main filter.
5. Reattach and clamp the airbox lid.



5.2.4 Belt Change

To tension the belts please refer to step 3 below. If, by visual inspection, it appears that the belts are worn or cracked, replace them both, operating as follows:

1. Start by removing the light bar and clutch cover(s). All the items mount from the two bolts on the side.
2. Disconnect the light bar wiring connector and set the bar aside.
3. Use an appropriate tool on the tensioning screw (See image below) by turning counterclockwise to release tension and allow the removal of belts (to tension turn this bolt clockwise). Secure the tension bolt in place by tightening the lower jam nut.

4. Remove the worn belts by turning the pulley, by leveraging with a tool to remove the belt to be replaced and replace it with another of the same size.
5. Mount the new belts by rotating the pulley to position it correctly.
6. Reinstall the previously removed clutch covers and light bar.

5.2.5 Gearbox Service

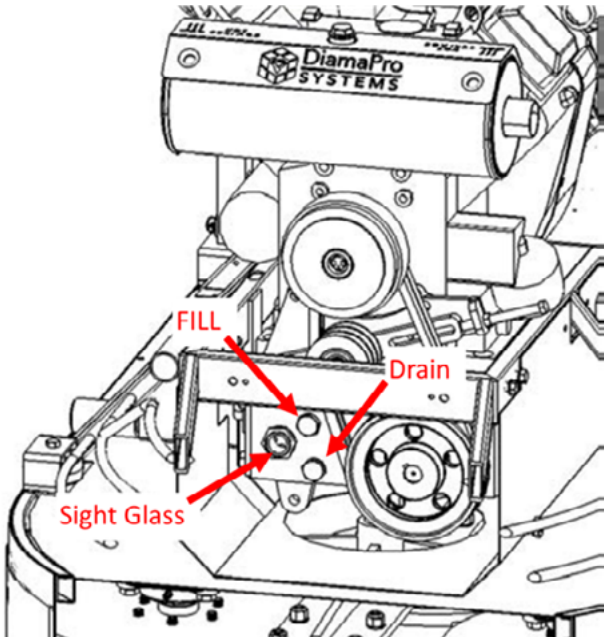
The machine is equipped with two gearboxes. Periodically check the oil level of the gearboxes and top off as needed. There are two caps on the visible sides of the two gearboxes: sight glass reveals the oil level of the box itself. If oil is present underneath the machine, perform a thorough cleaning and check the origin of the leak. If topping off is necessary, proceed as follows:

1. Remove the fill cap from the gearbox.
2. Add gear oil as needed until visible in sight glass. (Recommended half-way)

NOTICE

TO AVOID DAMAGE TO THE MACHINE STRICTLY follow the manufacturer's recommended oil in the manual provided with the machine.
Mobil SHC 630 Gear Oil (DP-GH-SHC630) is recommended.

3. Replace fill cap.
4. Repeat the same operations from the opposite side of the machine.
5. When performing a system flush utilize the drain cap first to remove all gear oil. Then reinstall the drain cap.
6. Then, follow the refill steps above.



5.3 NOTES ON DISMANTLING

Regarding dismantling activities, there are no security-related or environmental problems. In case you wish to proceed with the dismantling of the various machine parts, it is necessary to pay attention to their movement, considering the respective masses to be handled. In the case of machines used in working environments it is necessary to dispose of the electrical and electronic products, if any, contained in them in accordance with the current legislation.

NOTICE

Do not dispose into the environment products which are not biodegradable, lubricant oils and relevant filters as well as non-ferrous parts (rubber, PVC, etc.). Perform their disposal in accordance with the laws in force and before taking care of this disposal, consult your authorized dealer in order to check whether there are specific programs of withdrawal.

NOTICE

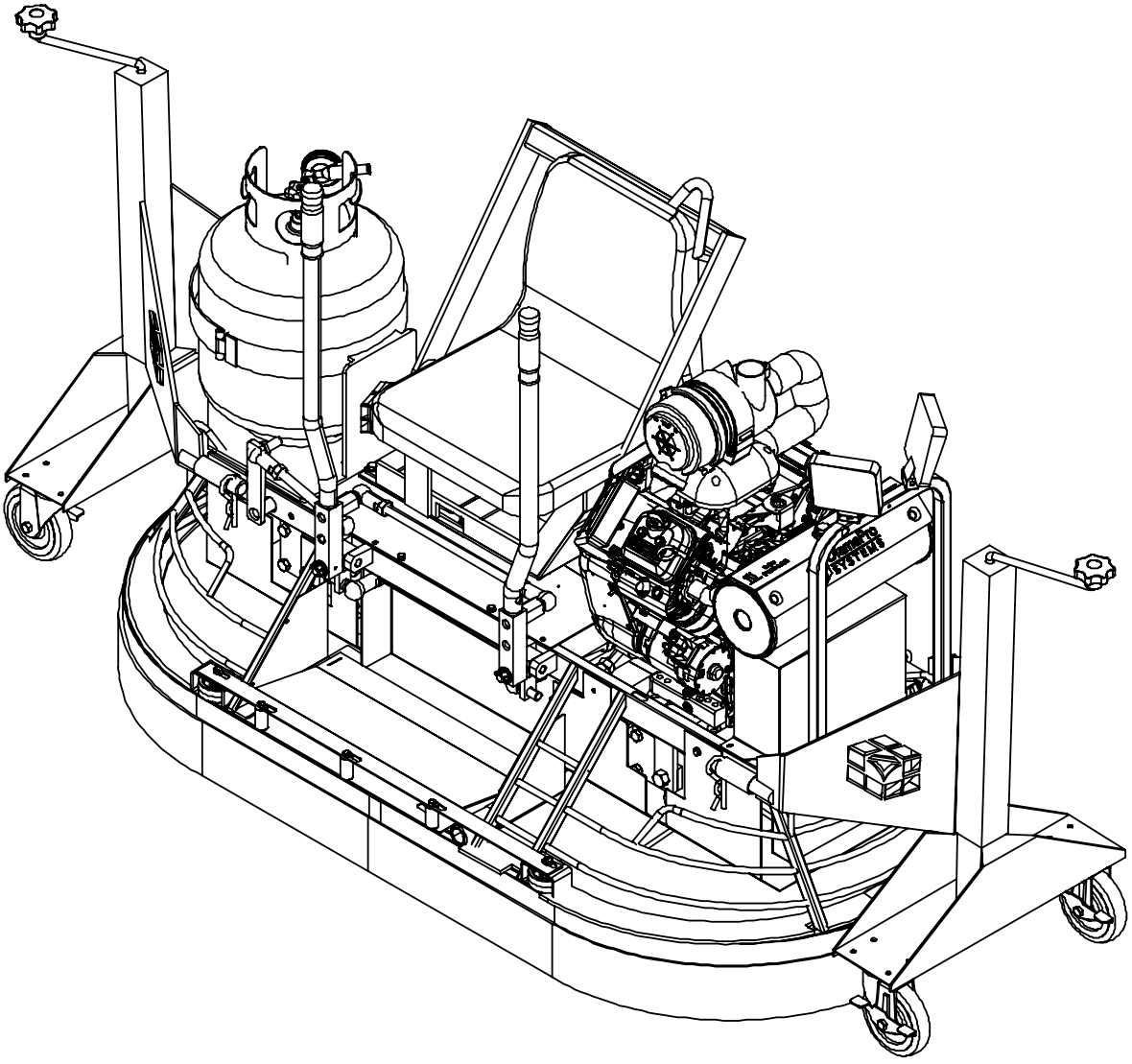
At the time of dismantling, the user shall be required to recover the identification plate of the equipment to prevent the machine from being put back into service without its guards because the
MANUFACTURER IS NO LONGER HELD RESPONSIBLE.

ISSUES	CAUSES	REMEDIES
Grinder oil leakage	Gearbox cover screws are loose	Tighten the screws
	Faulty Seals	Contact the authorized service
	Oil seals on central and lateral shaft worn	Contact the authorized service
	Engine oil leakage	Contact the authorized service
Engine doesn't start	Low Fuel	Fill the fuel tank suitable for the engine used
	Fuel tap closed	Open the propane valve (*)
	Propane filter clogged	Replace the filter (*)
	No spark	Clean the spark plug and if necessary, replace it (*) Check the connection pin (*)
	Flooded engine / ignition trouble	Unscrew the spark plug and dry it
Engine speed falls	Accelerator broken or bent	Replace accelerator cable
	Engine trouble	Contact the authorized service
	Dirty carburetor	Contact the authorized service
	Clogged air filter	Clean or replace air filter (*)
Grinder goes neither forward nor backward	Broken tie rod (internal or external tie rods)	Replace tie rod (internal or external tie rods)
	Retainer clip of tie rods is broken or unthreaded	Replace the clip if broken
	Swivel support seized	Contact the authorized service
Grinder steers neither to the right nor to the left	Broken ball joints	Replace the ball joints (Contact the authorized service)
	Rim supports broken	Replace rim supports (Contact the authorized service)
	Steering holders out of housing	Adjust steering supports (Contact the authorized service)
Grinder jumps on the floor	Central shaft bent (blocked cover plate or cross)	Contact the authorized service
	Steering control is not perfectly vertical	Adjust the position of the steering control
With the engine revved, the rotors do not turn	Loose and/or worn transmission belts	Tighten the transmission belts or replace them
	Brake linings or clutch pads worn	Replace the brake linings or pads

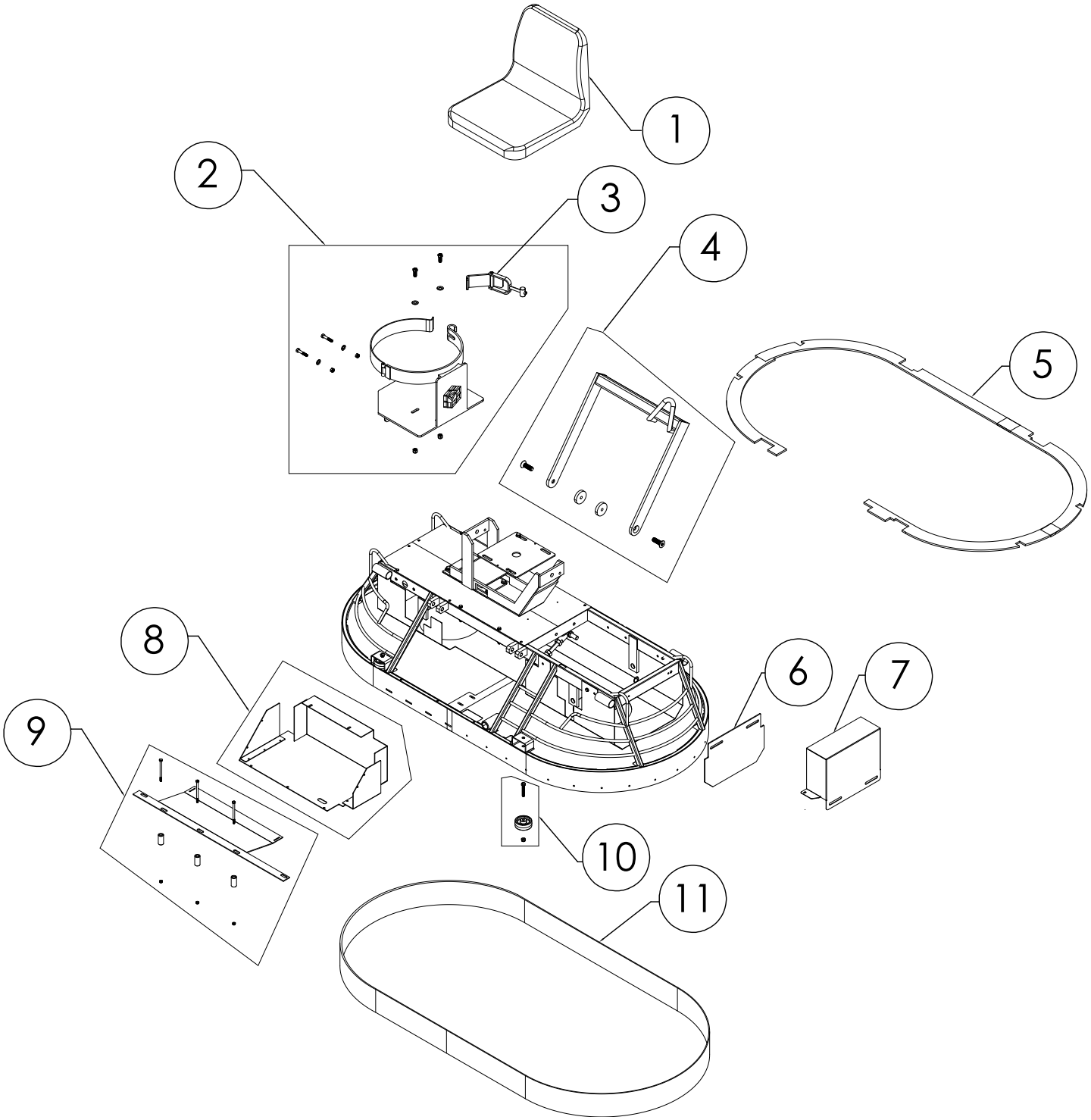
(*) REFER TO THE ENGINE MANUAL

DiamaPro® SYSTEMS

ROG-60+ PARTS LIST



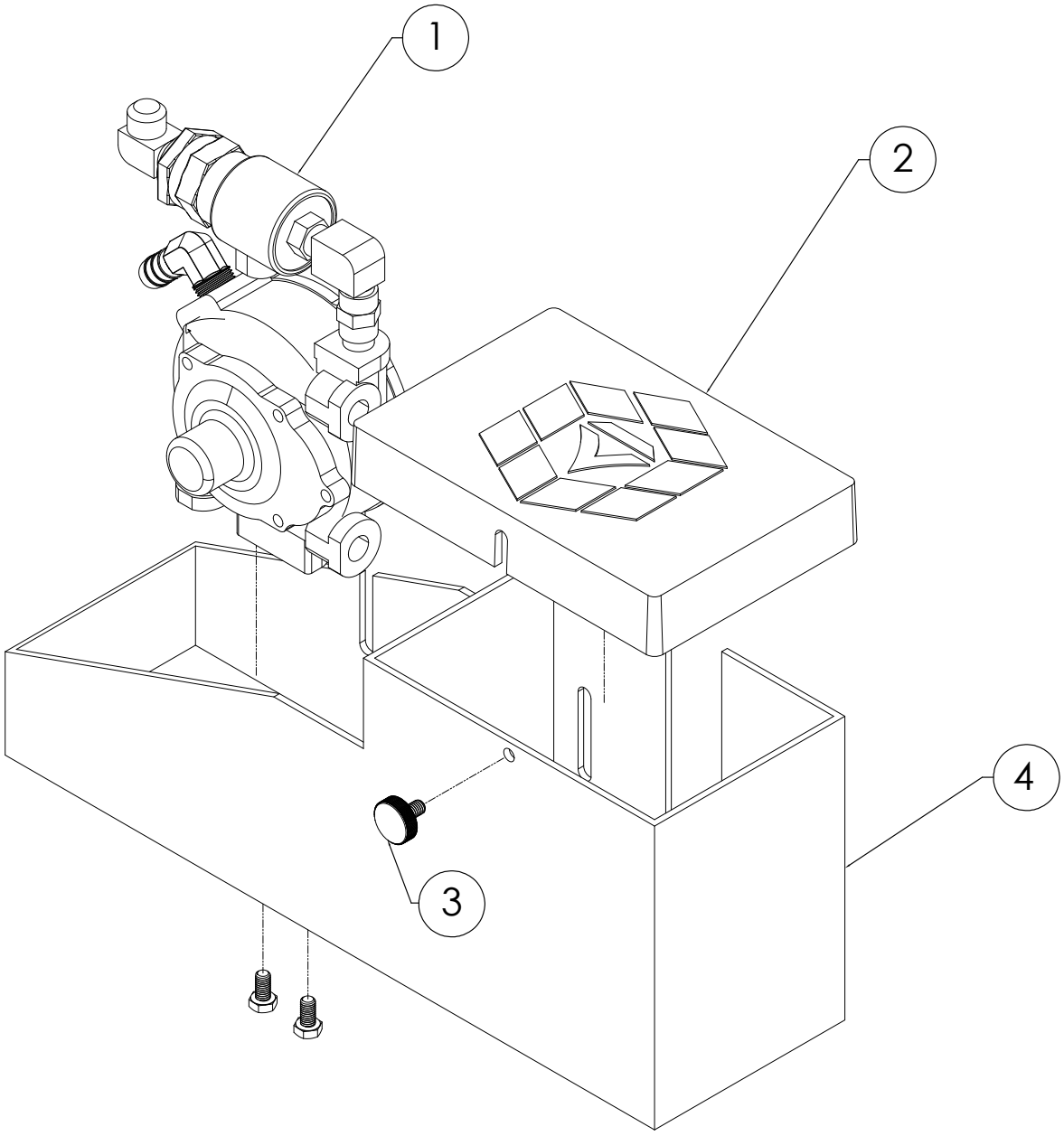
FRAME



FRAME

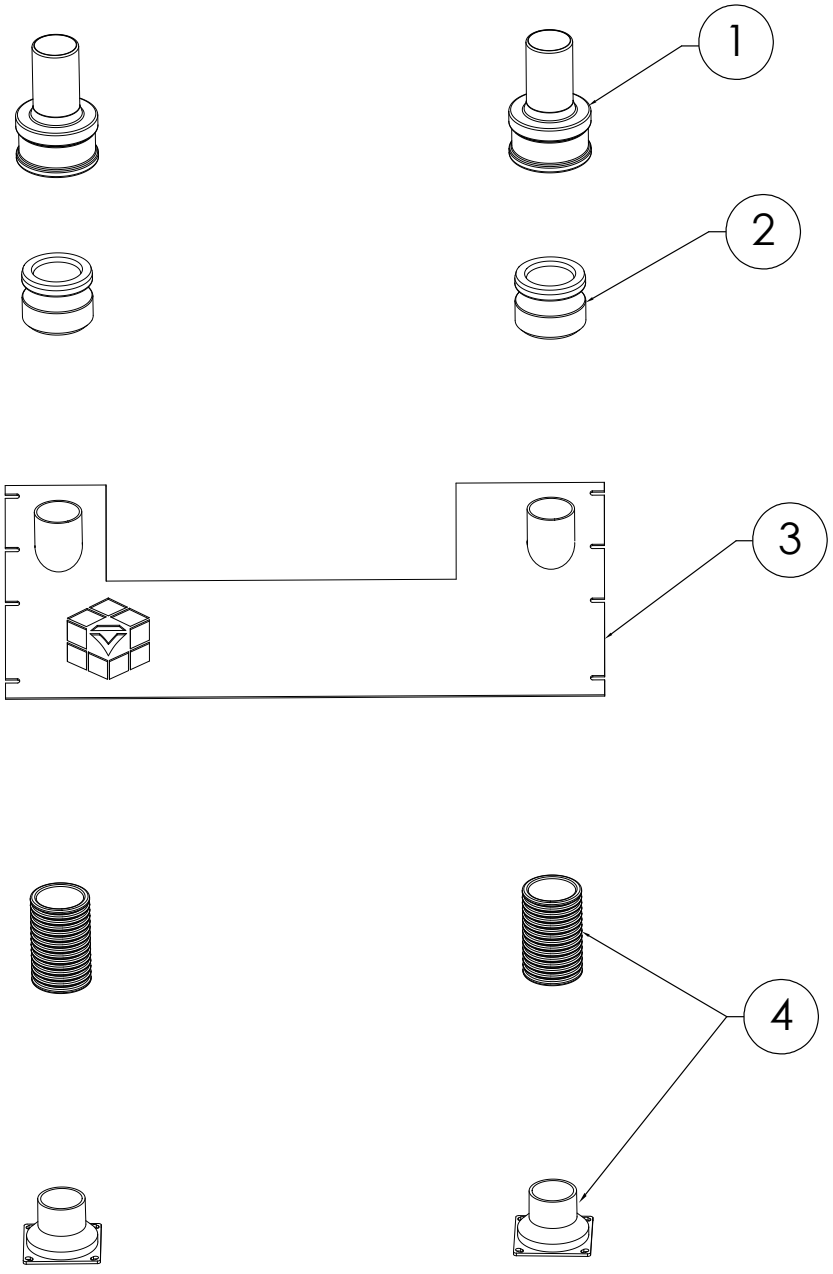
ITEM NO.	PART NUMBER	DESCRIPTION
1	ROG-600453	Seat
2	ROG-60D009-K	Propane Tank Bracket Assembly
3	DP-GH-D009	Tank Bracket Clasp Separate
4	ROG-603392	Lift Hook Assembly
5	ROG-601970-K	Top Dust Gasket Assembly
6	ROG-600460	Lower Pulley Cover
7	ROG-600459	Upper Clutch Cover
8	ROG-601514-K	Front Floor Plate Assembly
9	ROG-60D010-K	Foot Rest Assembly
10	ROG-602218-K	Roller Assembly
11	ROG-606029	Dust Skirt
NP	ROG-600598	LED Lights
NP	ROG-60A282-K	Dust Skirt Straps Set of 6
NP	VAPOR-TANK-STEEL-20#-B	Propane Tank

BATTERY & REGULATOR MOUNT ASSEMBLY



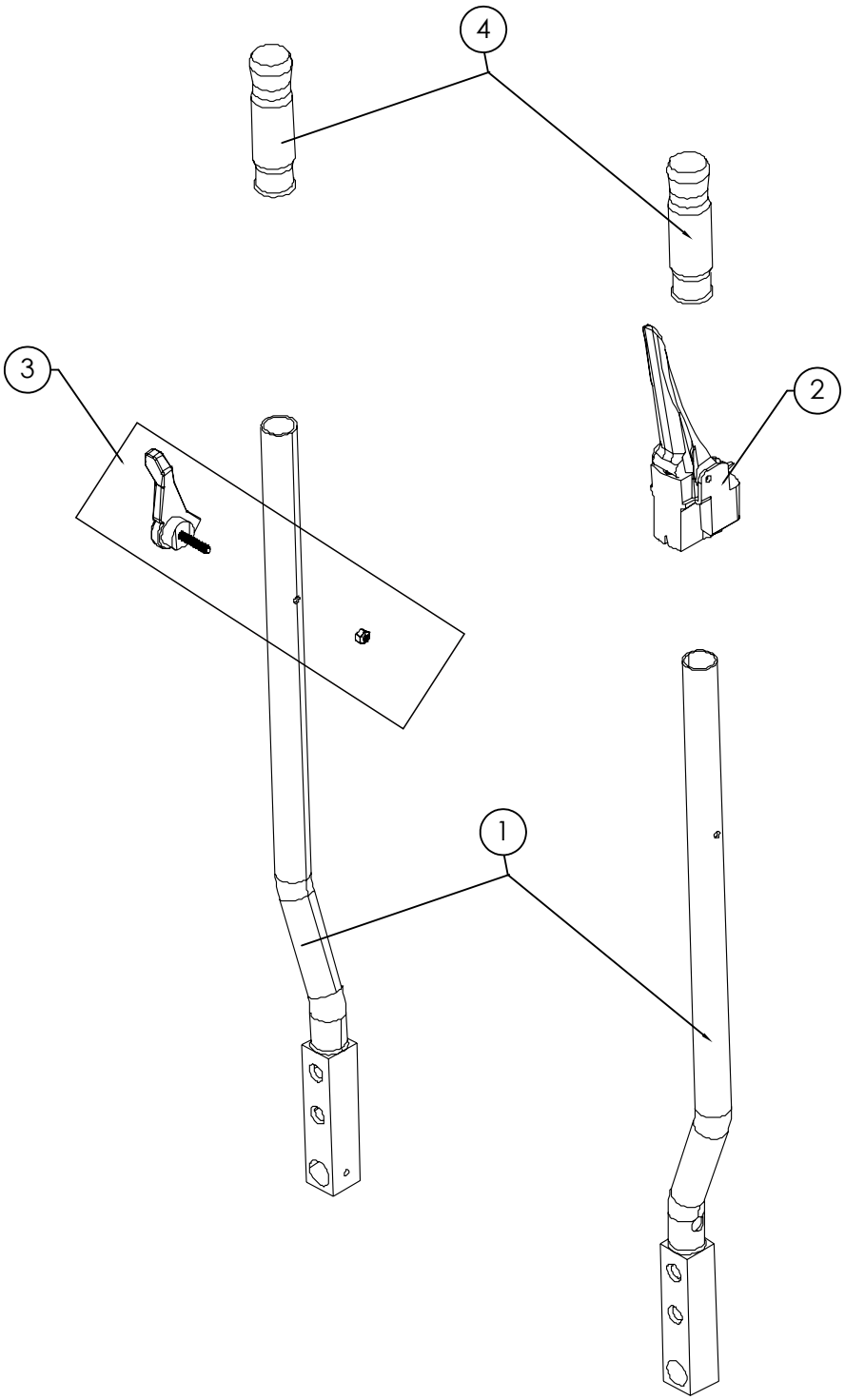
ITEM NO.	PART NUMBER	DESCRIPTION
1	ROG-60E005	Regulator Assembly
2	DP-GH-6933	Battery Box Lid
3	DP-GH-A571	Battery Box Lid Screw
4	ROG-60D008	Battery Box & Regulator Mount
NP	ROG-60P5977	Battery Cable Assembly
NP	W4359	Battery

DUAL VAC PORT



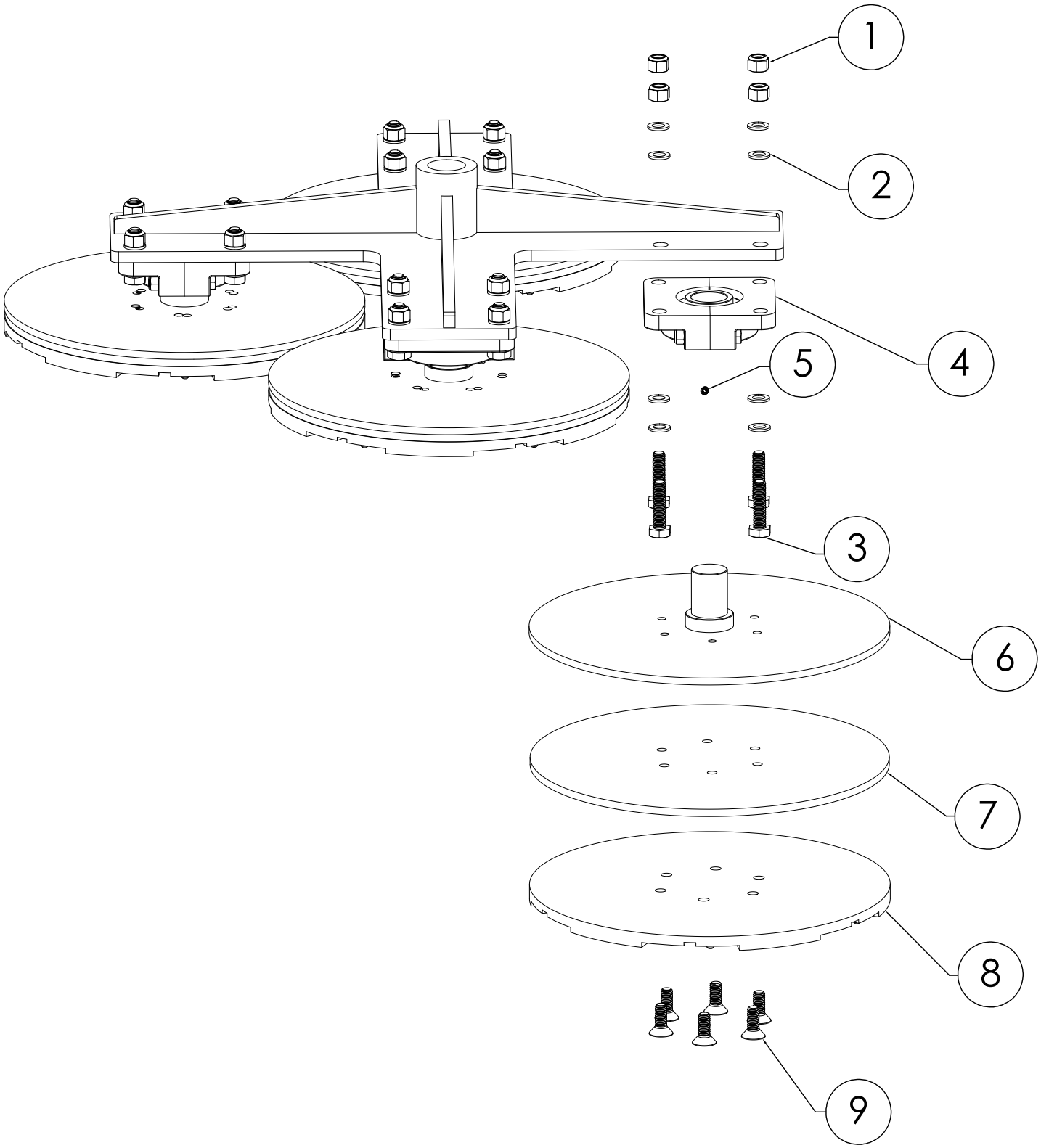
ITEM NO.	PART NUMBER	DESCRIPTION
1	DP-C2520	Female Cam-lock
2	DP-A250	Male Cam-lock
3	ROG-60D012	Dual Vacuum Port Plate
4	ROG-60N065	Lower Port & Connecting Hose
NP	ROG-60G001-K	Y-Connector Kit

CONTROL HANDLE ASSEMBLY



ITEM NO.	PART NUMBER	DESCRIPTION
1	ROG-601978	Control Arm
2	ROG-601191	Safety Switch
3	ROG-601510	Throttle Lever Assembly
4	ROG-601192	Handle Grip Set

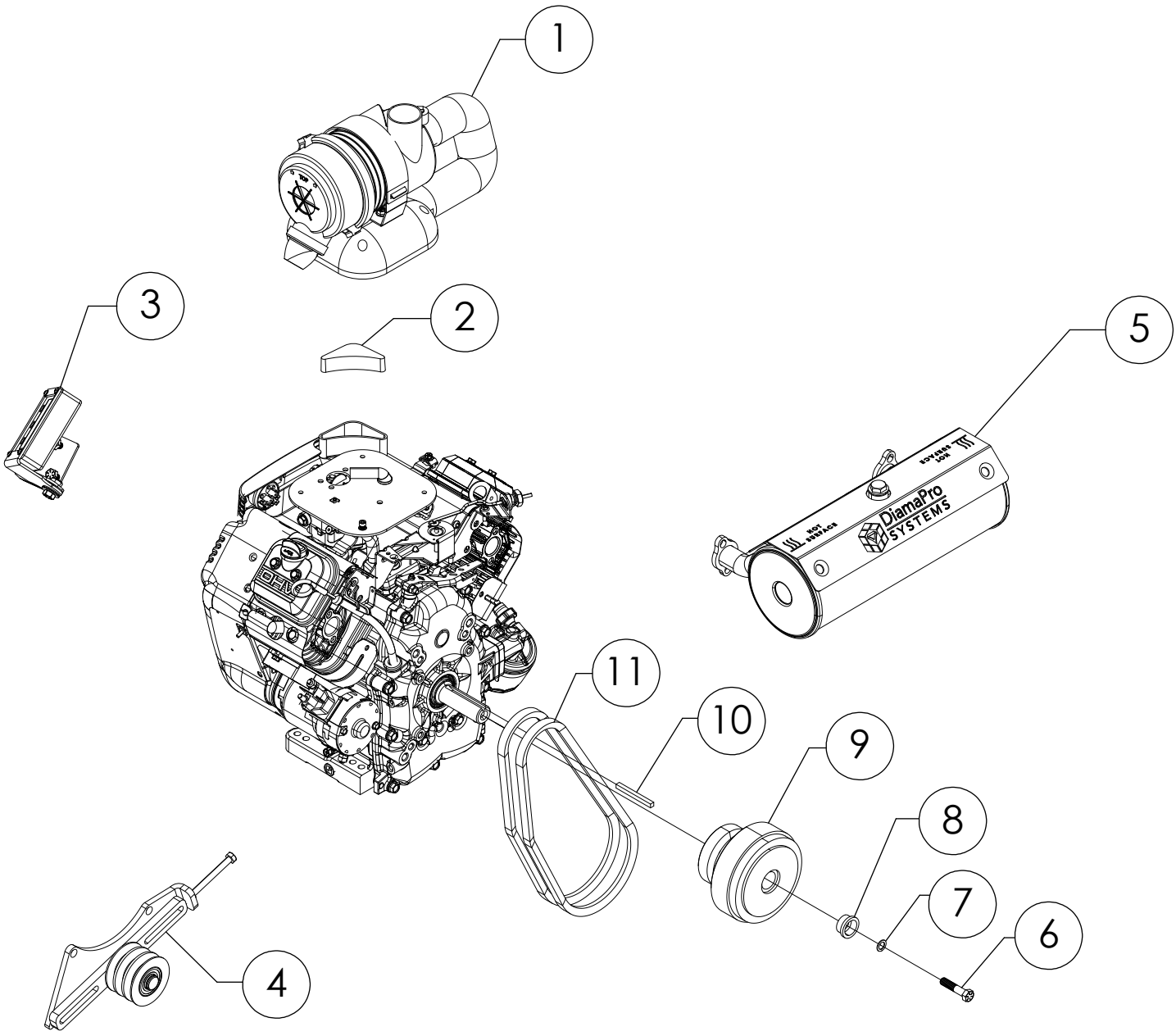
TOOL PLATE ASSEMBLY



TOOL PLATE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION
1	ROG-600035	Bearing Nylock (Set of 4 Needed per Tool Plate Assembly)
2	ROG-600145	Bearing Washer (Set of 8 Needed per Tool Plate Assembly)
3	ROG-600517	Bearing Bolts (Set of 4 Needed per Tool Plate Assembly)
4	ROG-60K206-K	Greaseless Bearing Assembly (For use on ROG-60+ Only)
4*	ROG-602287	Greased Bearing (Not for use on ROG-60+)
5	DP-GH-A510	Bearing Set Screw
6	ROG-6017005	Tool Plate Holder
7	ROG-60R012	Tool Plate Bushing (For use on ROG-60+ Only)
8	ROG-60L0125	Tool Plate
9	DP-GH-A845	Tool Plate Bolts (Set of 6 Needed per Tool Plate Assembly)
NP	ROG-60L0126	Foam Plates

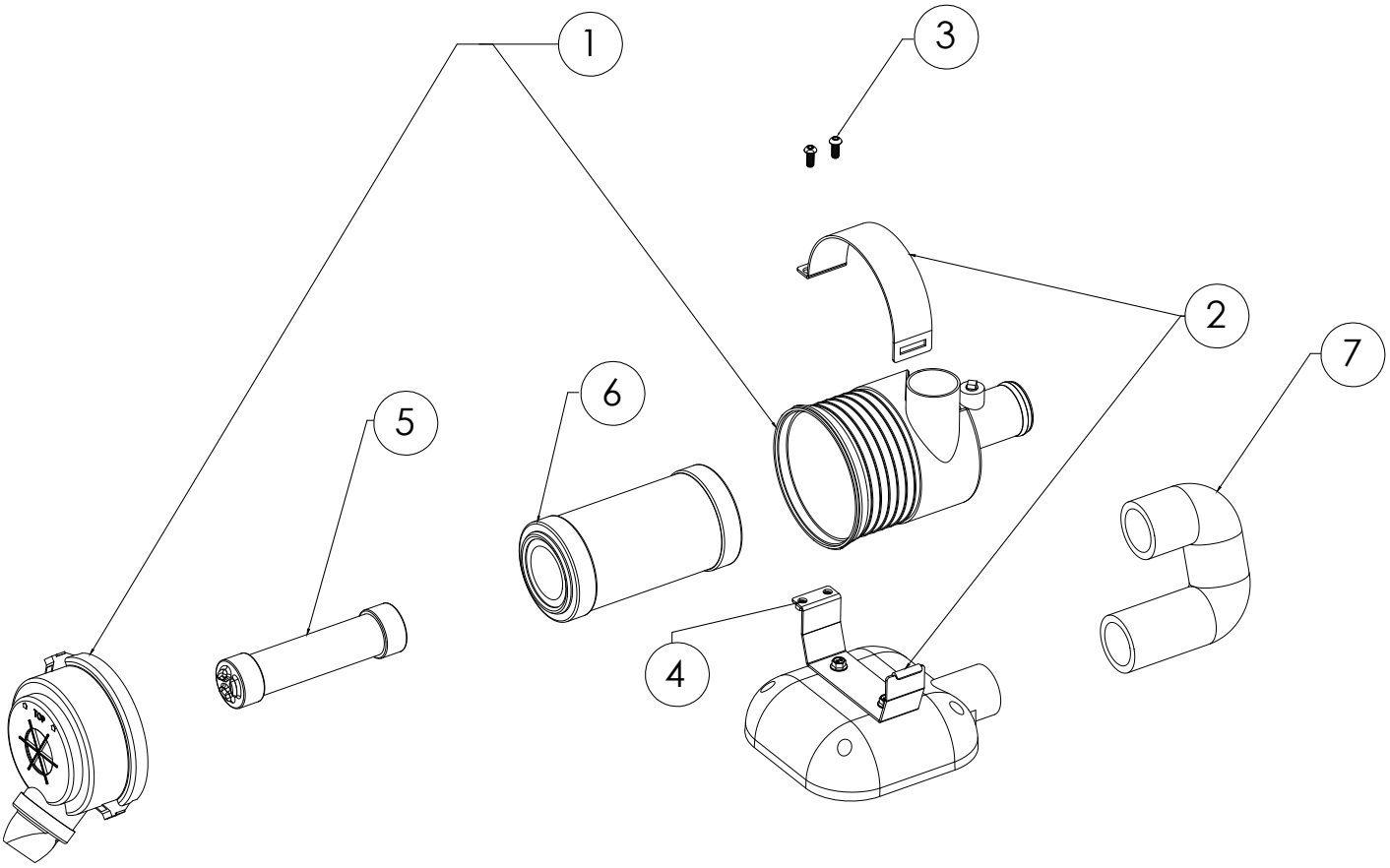
18 HP ENGINE



18 HP ENGINE

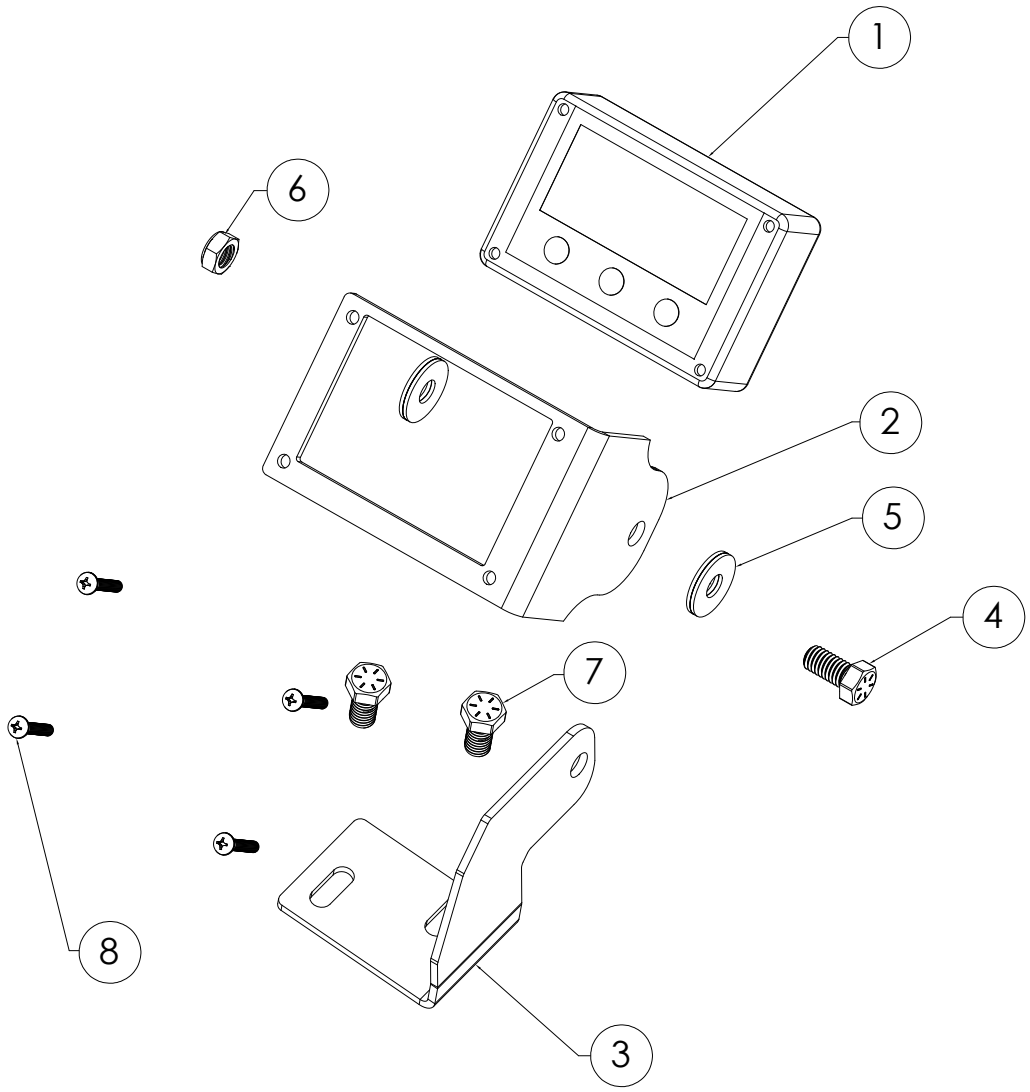
ITEM NO.	PART NUMBER	DESCRIPTION
1	ROG-60N063-K	Airbox Assembly (detail view on Pg. 31)
2	ROG-60N064	Air Plug
3	ROG-60EMU-A	SAM Assembly (detail view on Pg. 32)
4	ROG-601369	Tensioner Assembly
5	ROG-60E002-K	Catalytic Exhaust Assembly
6	ROG-600529	Clutch Bolt
7	ROG-601078	Clutch Washer
8	ROG-600406	Clutch Spacer
9	ROG-601815	Clutch Assembly
10	ROG-601330	Clutch Key
11	ROG-601661	Clutch Belt Set
NP	DP-GH-ISWK	Ignition Switch
NP	ROG-60V0048-G1-K	Full ROG-60+ Replacement Engine

AIR BOX ASSEMBLY



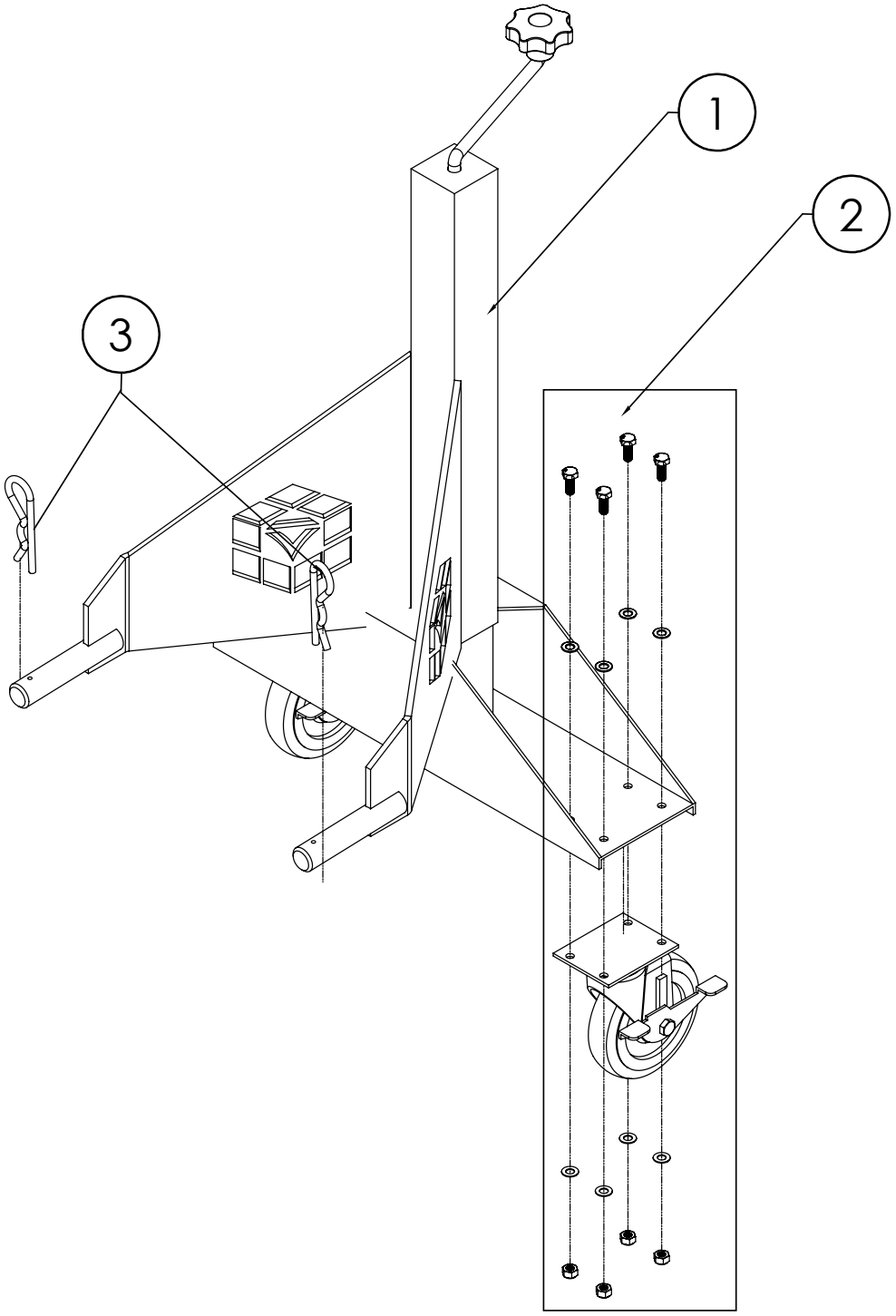
ITEM NO.	PART NUMBER	DESCRIPTION
1	ROG-60H150	Air Filter Housing
2	ROG-60H146-K	Clamp Assembly
3	DP-GH-A540-1	Clamp Bolts
4	DP-GH-A029	Clamp Nut
5	ROG-60H147	Pre-Filter (For use on ROG-60+ Only)
6	ROG-60H148	Main Filter (For use on ROG-60+ Only)
6*	ROG-60V9138-K	ROG-60 Air Filter Kit (Includes Pre-Filter) (Not for use on ROG-60+)
7	DP-GH-5K28	Air Box Connecting Hose

SAM ASSEMBLY



ITEM NO.	PART NUMBER	DESCRIPTION
1	DP-EMS-H	SAM Unit
2	ROG-60D001	SAM Faceplate Bracket
3	ROG-60D002	SAM Mount Bracket
4	DP-GH-A622	Pivot Bolt
5	DP-GH-A103	Cushion Washers (Set of 2 Needed)
6	DP-GH-A031	Pivot Nut
7	DP-GH-A525	Mounting Bolts (Set of 2 Needed)
8	DP-GH-A204	SAM Mounting Screws (Set of 4 Needed)
NP	DP-GH-S014	Diode
NP	DP-GH-OPS	Oil Pressure Switch
NP	DP-GH-O2S	O2 Sensor

STAND ASSEMBLY

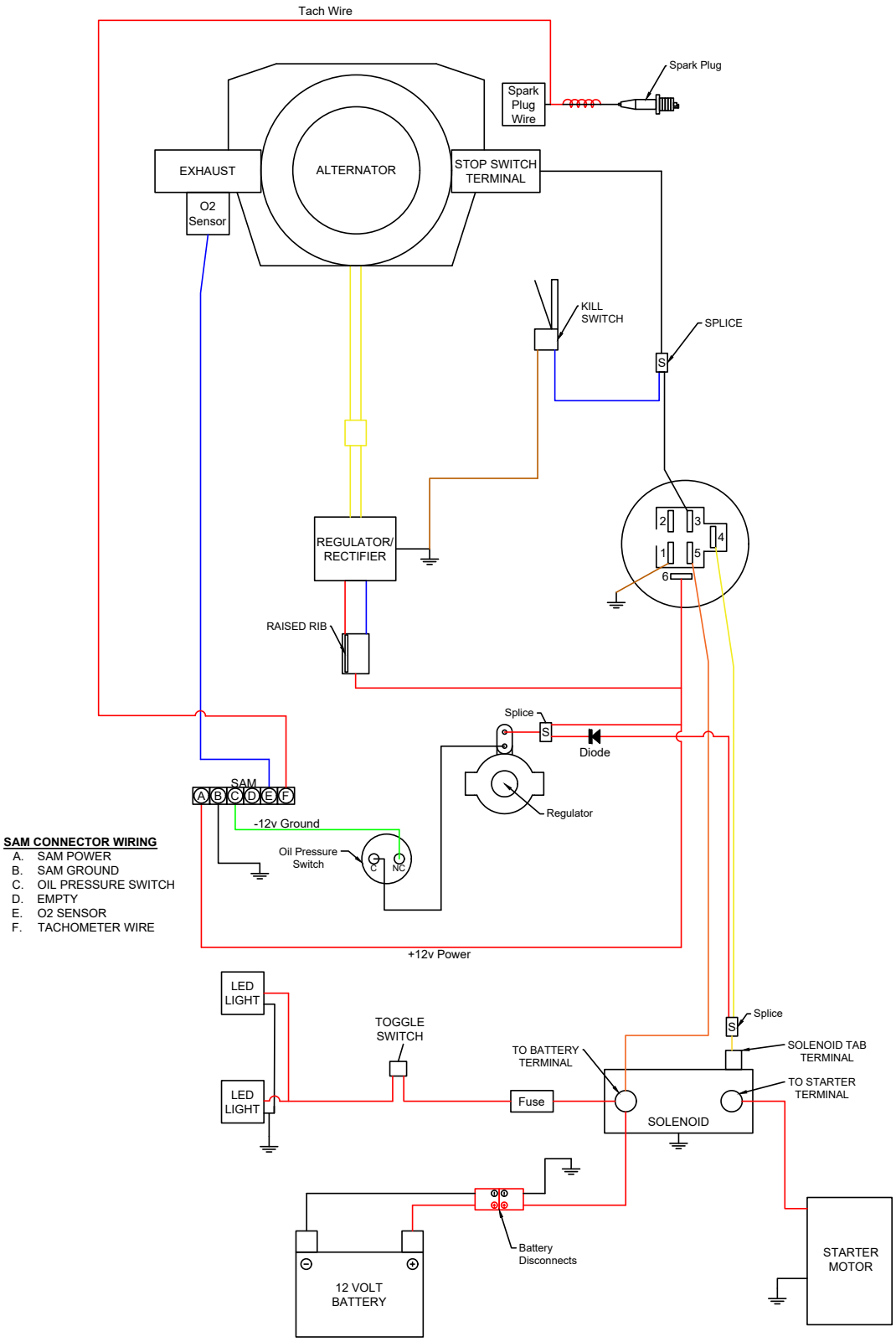


ITEM NO.	PART NUMBER	DESCRIPTION
1	ROG-60T995	Lifting Stand Assembly (Includes 2x ROG-60C955-K & 2x DP-GH-A087)
2	ROG-60C955-K	Caster Kit
3	DP-GH-A087	Cotter Pin

ROUTINE MAINTENANCE PARTS

PART NUMBER	DESCRIPTION
ROG-607938	Spark Plug (Set of 2 Needed)
ENGINE OIL	10w-30 Oil
ROG-60V9135	Oil Filter
ROG-60H147	Air Pre-Filter
ROG-60H148	Main Air Filter
DP-GH-SHC630	Transmission Fluid

ROG-60+ WIRING DIAGRAM



Disclaimer: Any modifications (including but not limited to bypassing safety systems, removal of components, additions of components, etc.) to the electrical systems of this product **WILL VOID THE WARRANTY**. DiamaPro® Systems and its affiliates take no responsibility for any damage, injury or death resulting from modifications to this product.

Customer Acknowledgment and Assumption of Responsibility for Modification to any Product.

Customer expressly acknowledges that modification of any equipment, machines, or other products purchased from Niagara Machine, Inc. ("Niagara"), including but not limited to DiamaPro Systems Products (collectively, "Products") through the attempted or actual use or misuse, adjustment, alteration, application of additional components, removal of provided components, repairs or attempted repairs by Customer (collectively, "Modifications") can lead to Product malfunction causing serious risks. Such risks include, but are not limited to, Product damage, bodily injury, death, or loss of or damage to property. Customer agrees that Customer is solely responsible for any Modifications Customer performs on any Product purchased from Niagara, and that Niagara is not responsible and will not be held liable for any claims, damages, or injury arising from Modifications by Customer, including Customer's employees, subcontractors, agents, representatives, affiliates, and assigns, to any Product purchased from Niagara. Customer further acknowledges and agrees that any Modification(s) to a Product may, at DiamaPro Systems' and/or Niagara's election, void any warranty applicable to the Product.

Customer agrees that, to the greatest extent permitted by law, Customer shall indemnify, hold harmless and, at Niagara's request, defend (with counsel reasonably approved by Niagara), Niagara, Niagara's parent, subsidiaries, affiliates and the officers, directors, employees and agents of Niagara (individually and collectively "Niagara Indemnitees") from and against, and pay or reimburse them for any and all third-party claims, losses, damages, liabilities, lawsuits and expenses (including reasonable attorneys' fees) relating to bodily injury, death, or loss of or damage to property caused by or arising from any Modification to a Product by Customer, its employees, subcontractors, agents, representatives, affiliates, and assigns (individually and collectively, "Customer Group"), with respect to the Products Customer purchases from Niagara.

Customer acknowledges that Customer has read and understands these terms, and voluntarily assumes full and sole responsibility for any and all effects arising from any Modification to a Product by Customer Group.

DiamaPro® SYSTEMS

DiamaPro® Systems
3343 Peachtree Road NE
Suite 145 #24
Atlanta, GA 30326
470-977-2323