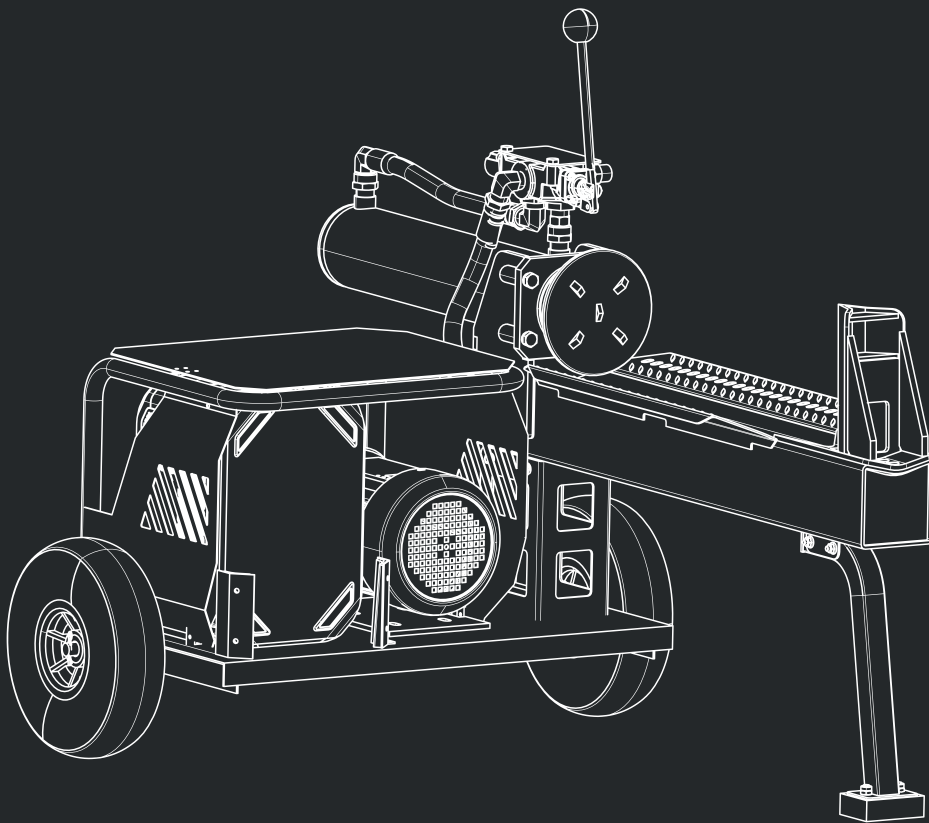




# OPS220EV

20-TON 57.6V LI-ION POWERED  
HORIZONTAL HYDRAULIC LOG SPLITTER

## USER MANUAL



 **LiFePO<sub>4</sub>**  
ADVANCED LI-ION TECHNOLOGY

<b>57.6V</b>		
<b>MAX</b>		
<b>1024</b>	<b>20</b>	<b>3500</b>
<small>WATT HOURS</small>	<small>AMP HOURS</small>	<small>CYCLES</small>

### DK2 USA WEST

3311 MEADE AVENUE STE  
E DOCK 13, LAS VEGAS, NEVADA  
89102 USA

### DK2 CORPORATE HEAD OFFICE

5330 MAINWAY  
BURLINGTON, ONTARIO  
L7L6A4 CANADA

### DK2 USA EAST

3750 SOUTH AVENUE  
NORTH UNIT, TOLEDO, OHIO  
43615 USA

# WARRANTY

---

**PLEASE DO NOT RETURN TO THE STORE**

**YOU HAVE A 1-YEAR WARRANTY AND DK2 WILL REPLACE A DEFECTIVE PART FOR FREE. CALL US AT 1-888-277-6960 FOR FAST WARRANTY PARTS AND QUESTIONS.**

## **WHAT IS COVERED – 1-YEAR LIMITED WARRANTY INCLUDED**

DK2 Inc. warrants to the original purchaser that product will be free and clear of manufacturing defects in workmanship and materials under normal use and service for a period of one (1) year from the date of the original purchase. If within one (1) year from the original date of purchase this product fails due to defect in material or workmanship, DK2 Inc. will repair, replace, or supply any covered defective part at our option. DK2 Inc. is 1-year parts only warranty no labor.

Upon expiry of one (1) year, DK2 Inc. will have no further liability related to the product. DK2 Inc. does not authorize any party, including its authorized distributors or dealers, to offer any other warranty on behalf of DK2 Inc.

## **THIS WARRANTY DOES NOT COVER OR APPLY TO:**

- a) Damage to the product due to misuse, mishandling and abuse
- b) Improper installation, maintenance and storage
- c) Expendable parts such as nuts and bolts, pins and springs, wiring and switch components, hydraulic hoses and fittings, cutting teeth, cutting chains, cutting blades, throttles, belts and tires.
- d) Normal wear and tear
- e) Consequential damage & incidental damages such as damage to persons or property

## **PROCEDURE FOR OUTDOOR POWER EQUIPMENT WARRANTY**

Within the one (1) year warranty period, the purchaser of the product can CALL **1-888-277-6960** or contact us on **www.dk2.com**. Notify us of the claimed defect and provide proof of original purchase. At this time the validity of the claim will be determined, and if approved replacement parts will be issued. No returned product will be accepted under warranty unless accompanied by an RGA# issued by DK2 Inc.

## **DAMAGED FREIGHT**

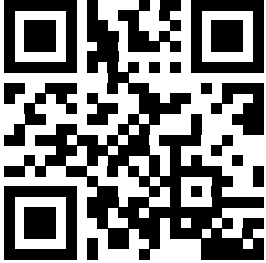
Damage to your product caused by freight mishandling is NOT covered under warranty. If your freight arrives damaged, REFUSE it. **Inspect your product when it arrives**, otherwise if you accept it, you will be responsible for filing any freight claims with the delivery company. DK2 Inc. warranty excludes damage to product.

## **RESOLUTION FOR A DEFECTIVE PRODUCT AFTER GAS AND OIL HAS BEEN ADDED.**

Call us at 1-888-277-6960 between 8am-4pm Monday to Friday EST.

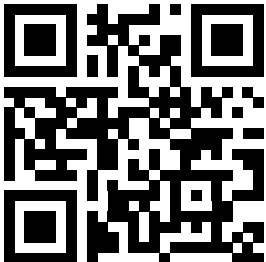
## ONLINE RESOURCES

---



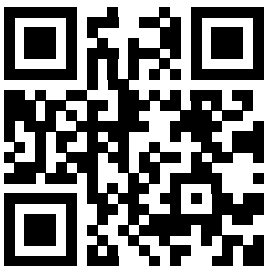
### LEARN MORE ABOUT YOUR PRODUCT

Visit your product's web page by visiting [detailk2.com/shop-battery-power-equipment/p/ops220ev-k](https://detailk2.com/shop-battery-power-equipment/p/ops220ev-k) or scan the QR code on the left.



### PURCHASING REPLACEMENT PARTS

In need of replacement parts? visit [detailk2.com/shop-parts](https://detailk2.com/shop-parts) or scan the QR code on the left.



### VIEW THIS USER MANUAL ON YOUR PHONE

Scan the QR code on the left to view this product's user manual on your mobile device.

# TABLE OF CONTENTS

---




WARRANTY .....	2
ONLINE RESOURCES .....	3
TABLE OF CONTENTS .....	4
TECHNICAL SPECIFICATIONS.....	5
<b>SECTION I • SAFETY .....</b>	<b>6</b>
SAFETY CONVENTIONS .....	7
IMPORTANT SAFETY INFORMATION.....	7
SAFETY DECALS .....	8
SAFETY DEFINITIONS.....	8
SAFETY SYMBOLS .....	9
GENERAL SAFETY INFORMATION.....	11
<b>SECTION II • ASSEMBLY .....</b>	<b>14</b>
PRE-ASSEMBLY .....	15
STEP 1: BOTTOM PLATE .....	15
STEP 2: LOG TRAY.....	16
STEP 3: SUCTION HOSE.....	17
STEP 4: BASE ASSEMBLY.....	18
STEP 5: HYDRAULIC CYLINDER.....	19
STEP 6: CONNECT HYDRAULIC HOSES.....	20
STEP 7: FINAL INSTALLATION CHECK.....	20
<b>SECTION III • OPERATION.....</b>	<b>21</b>
OPERATING SAFETY & INSTRUCTIONS .....	22
HYDRAULIC OIL.....	24
STARTING THE MACHINE .....	25
STOPPING THE MACHINE .....	25
MAINTENANCE & STORAGE .....	26
TROUBLESHOOTING .....	26
<b>SECTION IV • PARTS &amp; SCHEMATICS.....</b>	<b>27</b>
SCHEMATICS .....	28
PARTS LIST .....	29

# TECHNICAL SPECIFICATIONS

<b>MODEL NUMBER</b>	<b>OPS220EV</b>
<b>BATTERY</b>	57.6V Max, 1,024Wh, 20Ah LiFePO <sub>4</sub>
<b>MOTOR</b>	2,000W (4,000W Max) 3,500 RPM cordless brushless EV-grade motor
<b>TORQUE</b>	4.1 ft/lb (5.5 Nm) rated 18.4 ft/lb (25 Nm) peak
<b>CHARGER</b>	120V AC/DC 200W
<b>WHEELS &amp; TIRES</b>	10" (25.4cm) pneumatic
<b>SPLITTING CAPACITY</b>	Ø16" (Ø40.6 cm) x 20.5" (52.1 cm)
<b>WEDGE</b>	Solid heat-treated steel
<b>CYCLE TIME</b>	7.5 seconds
<b>HYDRAULIC FLOW RATE</b>	11 GPM (41.6 LPM)
<b>HYDRAULIC FLUID TYPE</b>	AW32/AW46
<b>HYDRAULIC FLUID CAPACITY</b>	2.1 gal (8L)
<b>HYDRAULIC CYLINDER STROKE</b>	16" (40.6 cm)
<b>VALVE</b>	Auto-retract with adjustable detent
<b>COUPLER</b>	ATV/Lawn tractor towable
<b>DIMENSIONS</b>	47.2" (L) x 35" (W) x 30.7" (H) 120 cm (L) x 88.9 cm (W) x 78 cm (H)
<b>WEIGHT</b>	177.4 lb (80.5 kg)
<b>SHIPPING DIMENSIONS</b>	35.8" (L) x 23.6" (W) x 19.1" (H) 91 cm (L) x 60 cm (W) x 48.5 cm (H)
<b>SHIPPING WEIGHT</b>	187.4 lb (85 kg)
<b>WARRANTY</b>	1-year limited

# **SECTION I • SAFETY**

## SAFETY CONVENTIONS

-  **DANGER!** This indicates a hazardous situation, which, if not avoided, will result in death or serious injury.
-  **WARNING!** This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.
-  **CAUTION!** This indicates a hazardous situation, which, if not avoided, may cause minor or moderate injury.











---

### ADDITIONAL INFORMATION AND POTENTIAL CHANGES

We reserve the right to discontinue, change, and improve our products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

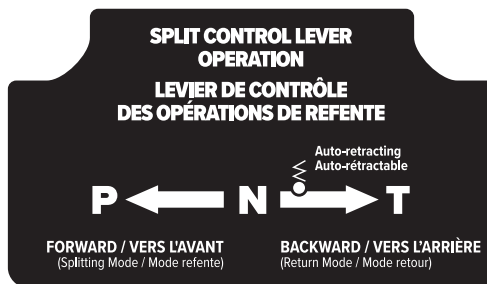
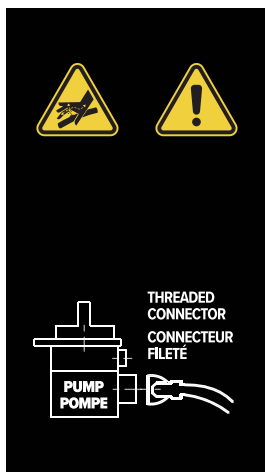
---

## IMPORTANT SAFETY INFORMATION

-  **WARNING!** Read and understand the complete User Manual before assembling or using this product. Failure to comprehend and comply with warnings, cautions and instructions for assembly and operation could result in serious injury or death. 
-  **WARNING!** Do not permit children to operate this equipment at any time. Do not permit others that have not read and understood the complete User Manual to operate this equipment. Operation of power equipment can be dangerous. It is the sole responsibility of the operator to understand the assembly and safe operation of this product.
-  **DANGER! INTENDED USE:** Do not use this machine for any purpose other than splitting wood, for which it was designed. Any other use is unauthorized and may result in serious injury or death.
-  **DANGER! PERSONAL PROTECTIVE EQUIPMENT:** When operating this machine, it is essential that you wear safety gear including goggles or safety glasses, steel-toed shoes and tight-fitting gloves (no loose cuffs or draw strings). Always wear ear plugs or sound-deafening headphones to protect against hearing loss when operating this log splitter.    
-  **CAUTION!** Do not wear loose clothing or jewelry that can be caught by moving parts of the machine. Keep clothing and hair away from all moving parts of the machine.

# SAFETY DECALS

Make sure all safety warning decals are attached and in readable condition. Please call DK2 at **1 (888) 277-6960** if you need help replacing missing or defaced safety decals.



57.6V 20-TON Li-ion LOG SPLITTER		
FENDEUSE À BOIS 20 TONNES 57.6 Volts Li-ion		
SPLITTING FORCE FORCE DE FENDAGE	MOTOR POWER PUISSANCE DU MOTEUR	CYCLE TIME TEMPS D'UN CYCLE
<b>20-TON</b> <b>20 TONNES</b>	<b>2000W</b> <b>MAX 4000W</b>	<b>7.5 SEC</b> <b>7,5 SECONDES</b>
MAX LOG LENGTH LONGUEUR MAXIMALE DES BÛCHES		MAX LOG DIAMETER DIAMÈTRE MAX DE LA BÛCHE
<b>20.5" (52.1 cm)</b>		<b>16" (40.6 cm)</b>

# SAFETY DEFINITIONS




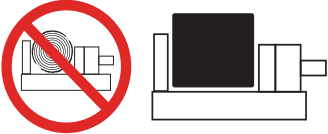

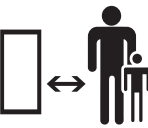

The purpose of safety decals and symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and review in order to safely operate this machine. The safety warnings do not eliminate any danger, the purpose of these warnings is to bring awareness to the dangers of the machine. The instructions or warnings they give are not substitutes for proper accident prevention measures and care while using the product.




# SAFETY SYMBOLS


Some of the following symbols are used on this product. Please study them and their meanings. Proper interpretation of these symbols will help you to operate the product in a safe and responsible manner.

SYMBOL	DEFINITION
	<p><b>Read Operator’s Manual in its entirety.</b> To reduce the risk of injury, user must read and understand operator’s manual before using this product.</p>
	<p><b>Eye and Ear Protection.</b> Always wear safety goggles or safety glasses with side shields, and as necessary a full face-shield as well as full ear protection when operating this product.</p>
	<p><b>Footwear.</b> Always wear safety shoes or work boots when operating the machine.</p>
	<p><b>Gloves.</b> Always wear non-slip, heavy-duty protective gloves when operating this product.</p>
	<p><b>Safety Alert.</b> Precautions that involve your safety</p>
	<p><b>Risk of Fire.</b> Fire can cause severe burns or death. Do not add fuel, oil or hydraulic fluid while the product is operating or still hot. Shut down the product and wait for the product to cool before refilling fuel, oil, or hydraulic fluid tanks.</p>
	<p><b>Skin Injection Hazard.</b> Hydraulic oil under high pressure can penetrate your clothes and skin. Make sure all fittings are fully seated and tightly secured before applying pressure. Relieve system pressure before servicing.</p>
	<p><b>Hand Crush Hazard.</b> Always keep hands away from wedge and the ram. Moving parts can crush or cut.</p>
	<p><b>Foot Crush Hazard.</b> Always keep feet away from the wedge and the ram. Moving parts can crush or cut.</p>


SYMBOL	DEFINITION
	<p><b>Hot Surface.</b> To reduce the risk of injury or damage, avoid contact with any hot surface.</p>
	<p><b>Open Flame Alert.</b> Fuel, oil, and hydraulic fluid are extremely flammable and explosive. Keep fuel, oil, and hydraulic oil away from open flames, sparts, pilot lights, heat, and other potential ignition sources.</p>
	<p><b>Hold logs on sides when loading.</b> Keep hands and feet away from cylinder, wedge, and partially split logs.</p>
	<p>Never place hands or any part of the body between a log and any part of the log splitter. Do not split logs against the grain. Split logs end-to-end in the direction of the grain only.</p>
	<p><b>Toxic Fumes.</b> Burning hydraulic fluid contains chemicals that can harm the body or cause respiratory or nervous system damage, such as lung disease, asthma, or chronic bronchitis. Hydraulic fluid is known to the State of California to cause cancer, birth defects and other reproductive harm. Read more at <a href="https://www.p65warnings.ca.gov/">https://www.p65warnings.ca.gov/</a></p>
	<p><b>Clearance.</b> Keep all objects including others at least 10 feet (3 meters) from this machine. Only one person should operate the log splitter and load the logs.</p>
	<p><b>Never operate on an incline.</b> Make sure the splitter is on a level surface. Block tires and ensure support leg is secure to prevent unintended movement of the log splitter during operation.</p>


# GENERAL SAFETY INFORMATION

 **DANGER! GENERAL SAFETY:** Failure to follow warnings, cautions, assembly and operation instructions in the User Manual may result in serious injury or death.


 **DANGER! READ THE USER MANUAL BEFORE OPERATION**


- **Do not** permit children to operate this equipment at any time. Do not permit others that have not read and understood the complete User Manual to operate this equipment.
- Keep all people and pets a minimum of 10 feet away from the work area when operating this machine. Only the operator is to be near the machine during use.
- **Do not** operate the machine when under the influence of alcohol, drugs, or medication.
- **Do not** allow a person who is tired or otherwise impaired or not completely alert to operate this machine.


 **DANGER! PREPARATION OF THE LOG:** Both ends of the log should be cut as square as possible to prevent the log from rotating out of the splitter during operation. Do not split logs greater than 20.5" (52.1 cm) in length.

 **DANGER! WORK AREA**

- **Do not** operate the machine on icy, wet, muddy or otherwise slippery ground. **ONLY** operate your machine on level ground. **Operating on a slope could cause the machine to roll over or logs to fall off of the equipment, which could result in injury.**
- **Do not** operate the log splitter in an enclosed area.
- **Do not** move the machine over hilly or uneven terrain without a tow vehicle or adequate help.
- Use a tire chock or block on wheels to prevent movement of the log splitter while in operation.
- Operate the log splitter in daylight or under good artificial light.
- Keep the work area free of clutter. Remove split wood from around the log splitter immediately after each use to avoid potential tripping.

 **WARNING! CRUSH HAZARD:** The wedge is dangerous, keep all limbs away from the wedge and endplate at all times during operation. Failure to follow this instruction can lead to serious injury.

 **WARNING!** High-pressure hydraulic oil can break skin and cause severe injury. Make sure all fittings are seated firmly and tightly secured before applying pressure. Relieve system of pressure before servicing.

 **DANGER**

- **Make sure the operator knows how to stop and disengage the controls before operating.**
- **Do not place hands or feet between the log and splitting wedge during forward or reverse stroke. Serious injury or death could result.**
- **Do not** straddle or step over the log splitter during operation.
- **Do not** reach or bend over the log splitter to pick up a log.
- **Do not** attempt to split two logs on top of each other.

- **Do not** attempt to cross split a log.
- **Do not** Attempt to load your log splitter when the ram or wedge is in motion.
- Use your hand to operate the control lever on the valve. Do not use your foot, a rope or any extension device.
- **Do not** move the log splitter while the motor and/or battery are running
- **Never leave the equipment unattended while the motor and/or battery are running.** Shut off the motor and battery even if you are leaving the log splitter for a short period of time.
- Avoid contact with hot areas of the machine during operation or after running to prevent burns.



### **WARNING! REPAIR AND MAINTENANCE**

- **Do not operate the log splitter when it is in poor mechanical condition or in need of repair.** Before each use, check that all nuts, bolts, screws, hydraulic fittings and hose clamps are tight.
- **Do not** alter the log splitter in any manner. Any alteration will void the warranty and could cause the log splitter to be unsafe to operate. Perform all recommended maintenance procedures before using the log splitter. Replace all damaged or worn parts immediately.
- **Do not** tamper with the motor and/or battery to run at excessive speeds. The maximum power is preset by the manufacturer and is within safety limits.
- Turn off the motor and battery before performing any service or repair on the log splitter.
- Remove the battery AC cable before performing any service or repair on the machine.  
**Always check the level of hydraulic oil before operation.**
- Replacement parts must meet manufacturer's specifications.



**WARNING! HYDRAULIC SAFETY:** The hydraulic system of the log splitter required careful inspection along with the mechanical parts. Be sure to replace frayed, kinked, cracked or otherwise damaged hydraulic hoses or hydraulic components.

- **Check for hydraulic fluid leaks** by passing a piece of paper or cardboard underneath or over the area of the leak. **Do not check for leaks with your hand. Fluid escaping from the smallest hole, under pressure, can have enough force to penetrate the skin causing serious injury or death.**
- **Seek professional medical attention immediately if injured by escaping hydraulic fluid.** Serious infection or reaction can develop if medical treatment is not administered immediately.
- Relieve all pressure by shutting off the motor and battery and moving the valve control handle back and forth should it become necessary to loosen or remove any hydraulic fitting.
- **Do not** remove the cap from the hydraulic tank or reservoir while the log splitter is running. **The tank could contain hot oil under pressure which could result in serious injury.**
- **Do not** adjust the hydraulic valve. The pressure relief valve on the log splitter is preset at the factory. **Only a qualified service technician should perform this adjustment.**



### **CAUTION! FIRE PREVENTION**

- **Do not** operate the log splitter near an open flame or spark. **Hydraulic oil is flammable**

**and can explode.**

- **Do not** fill the hydraulic oil while the motor and battery are running. Allow the motor and battery to rest and cool before refueling.
- **Do not** smoke while operating or refueling the log splitter. Hydraulic fluid is flammable.
- Keep a Class B fire extinguisher on hand when operating this log splitter in dry areas as a precautionary measure against possible flying sparks.

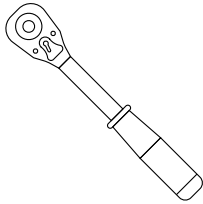
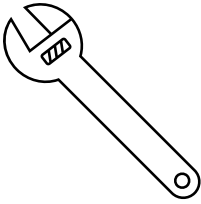
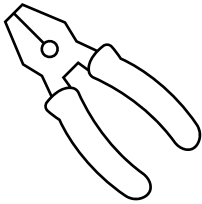
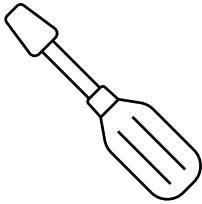


**CALIFORNIA PROPOSITION 65 WARNING:** Petroleum products (hydraulic fluid) can expose you to chemicals including toluene and benzene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Read more at <https://www.p65warnings.ca.gov/>.

## **SECTION II • ASSEMBLY**

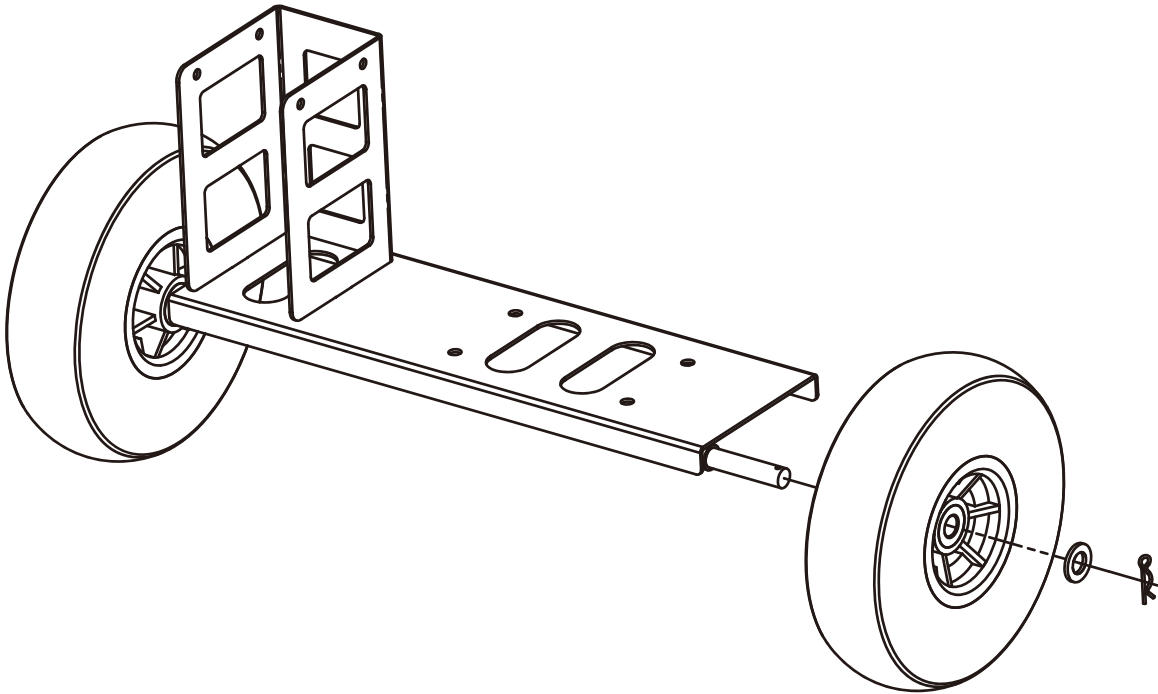
# PRE-ASSEMBLY

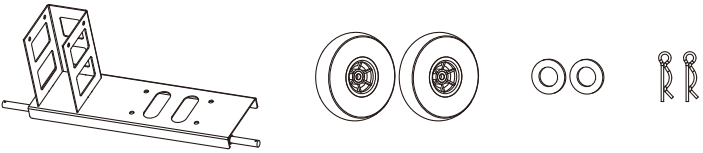
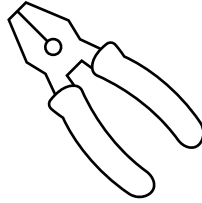
This machine comes in pre-assembled kits to simplify the assembly process.

REQUIRED ASSEMBLY TOOLS			
			
10 mm and 16 mm Ratchet wrenches	22 mm and 27 mm wrenches	Needlenose pliers	Screwdriver

## STEP 1: BOTTOM PLATE

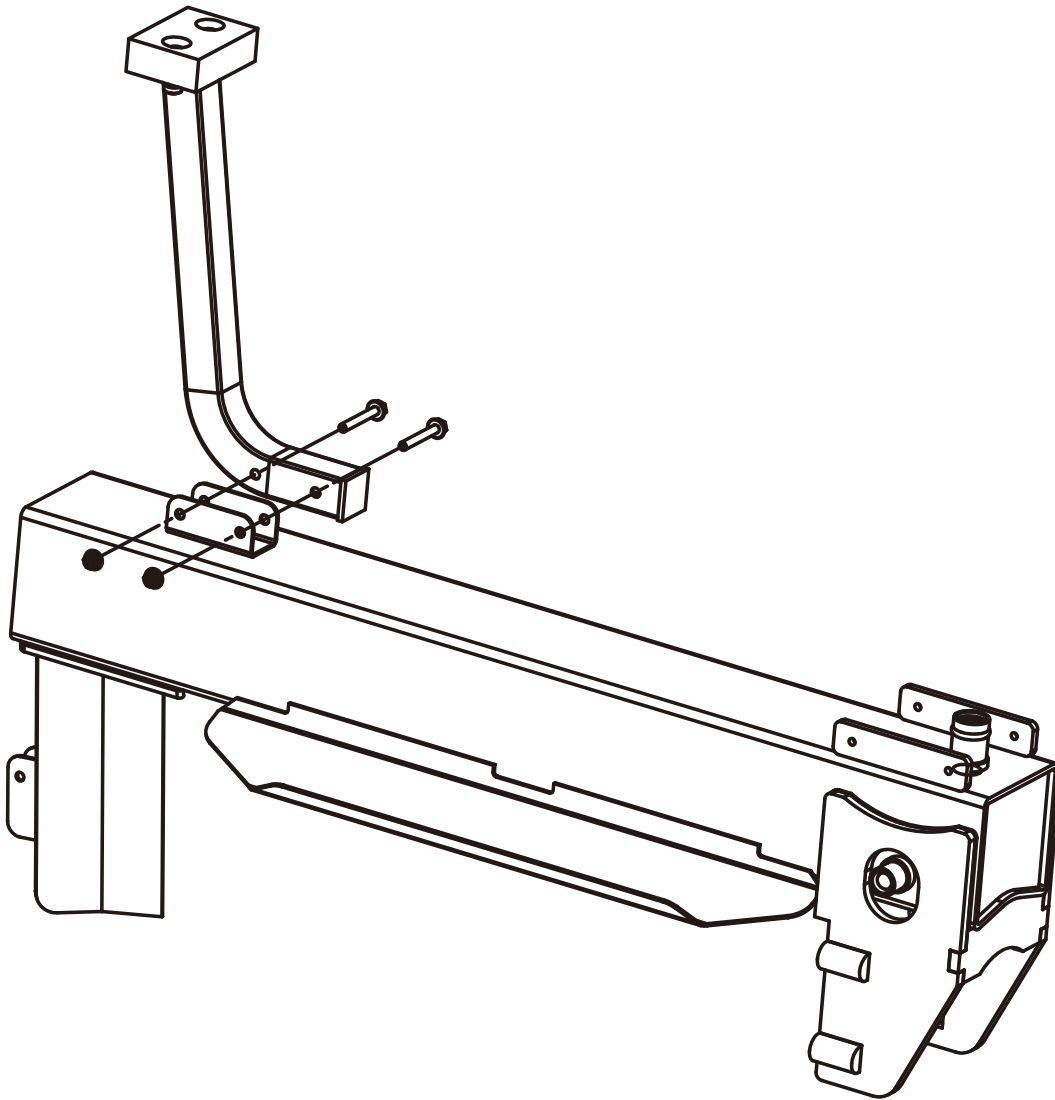
Install the 10" wheels (3) to the bottom plate (6) using flat washers (2) and R-pins (1).

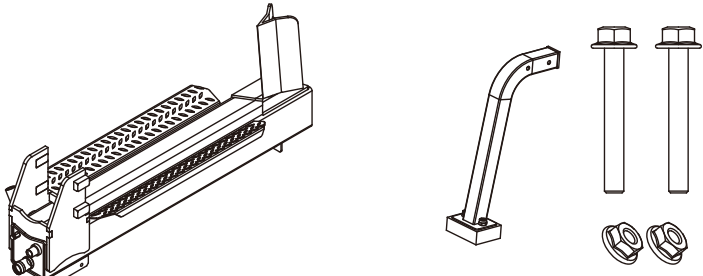
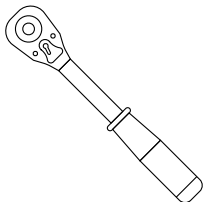


REQUIRED PARTS	REQUIRED TOOLS
	
Bottom Plate (6), 10" wheel (3), flat washer (2), R-pin (1)	Needlenose Pliers

## STEP 2: LOG TRAY

Install the support bar (21) to the log tray (16) using M6 x 45 mm hexagon flange bolts (20) and M6 flange nuts (17).

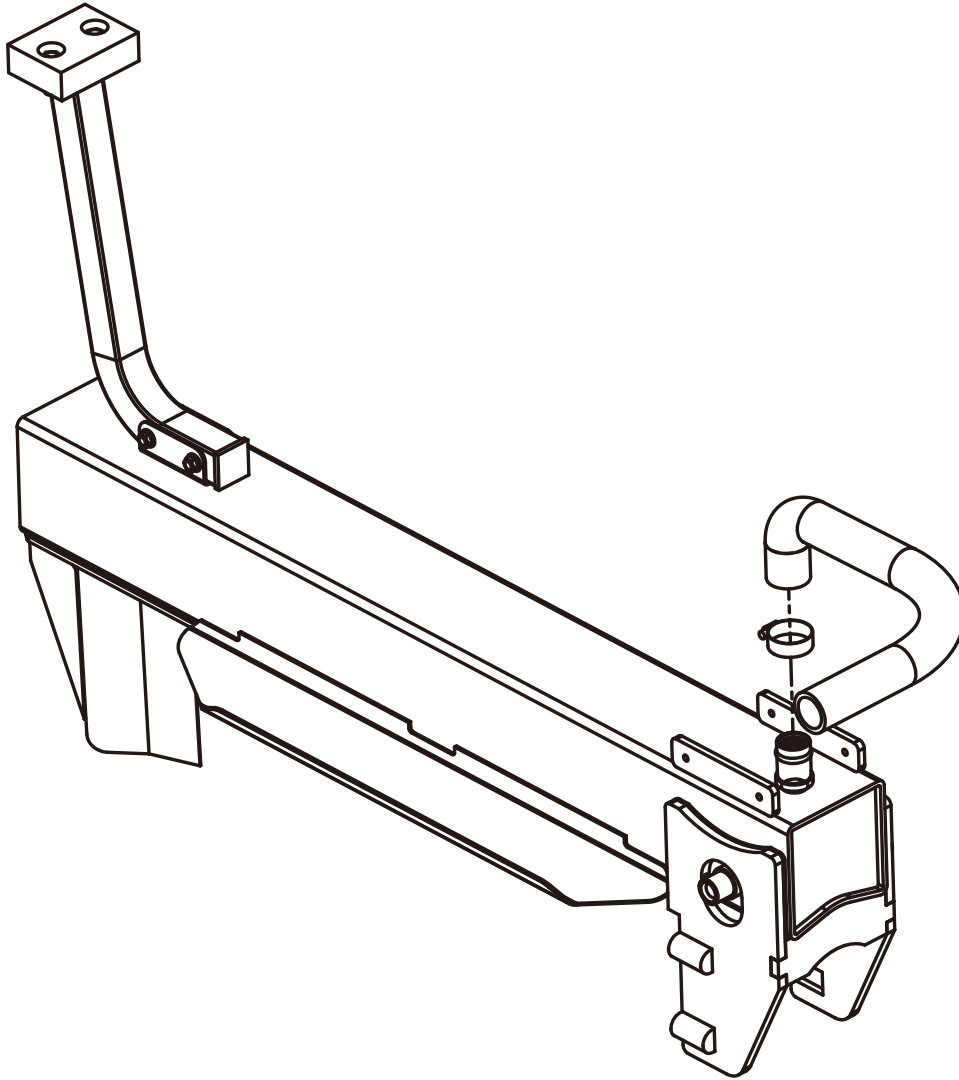


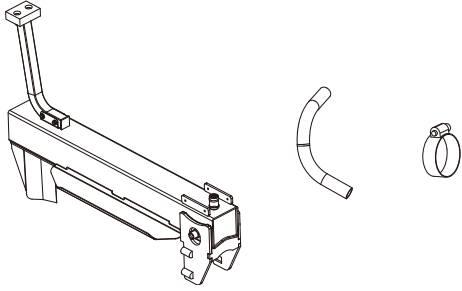
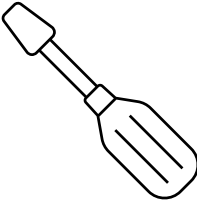
REQUIRED PARTS	REQUIRED TOOLS
	
<p>Log tray (16), support bar (21), M6x45 mm Hexagon flange bolt (20), M6 flange nut (17)</p>	<p>10mm ratchet wrench</p>



## STEP 3: SUCTION HOSE

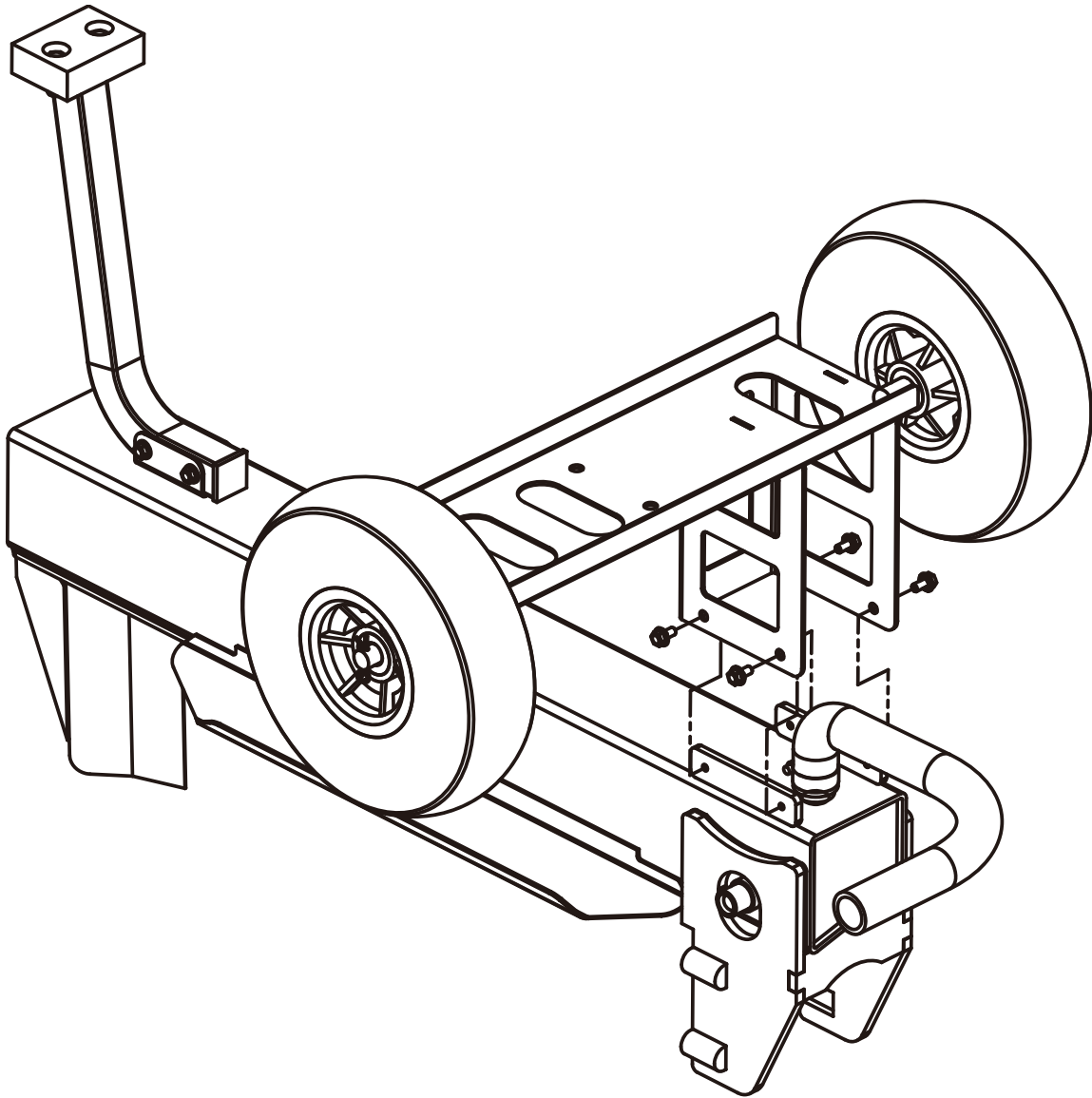
Insert the filter (11) into the log tray (16) and seal with the elastic ring (10). Install the suction hose (9) to the log tray (16) using the hose clamp (8).

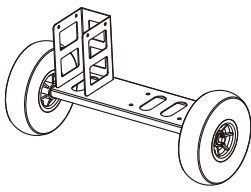
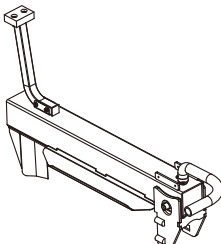

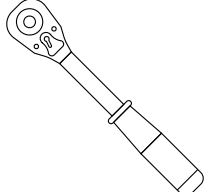


REQUIRED PARTS	REQUIRED TOOLS
	
<p>Log tray (16), filter (11), elastic ring (10), suction hose (9), hose clamp (8)</p>	<p>Screwdriver</p>

## STEP 4: BASE ASSEMBLY

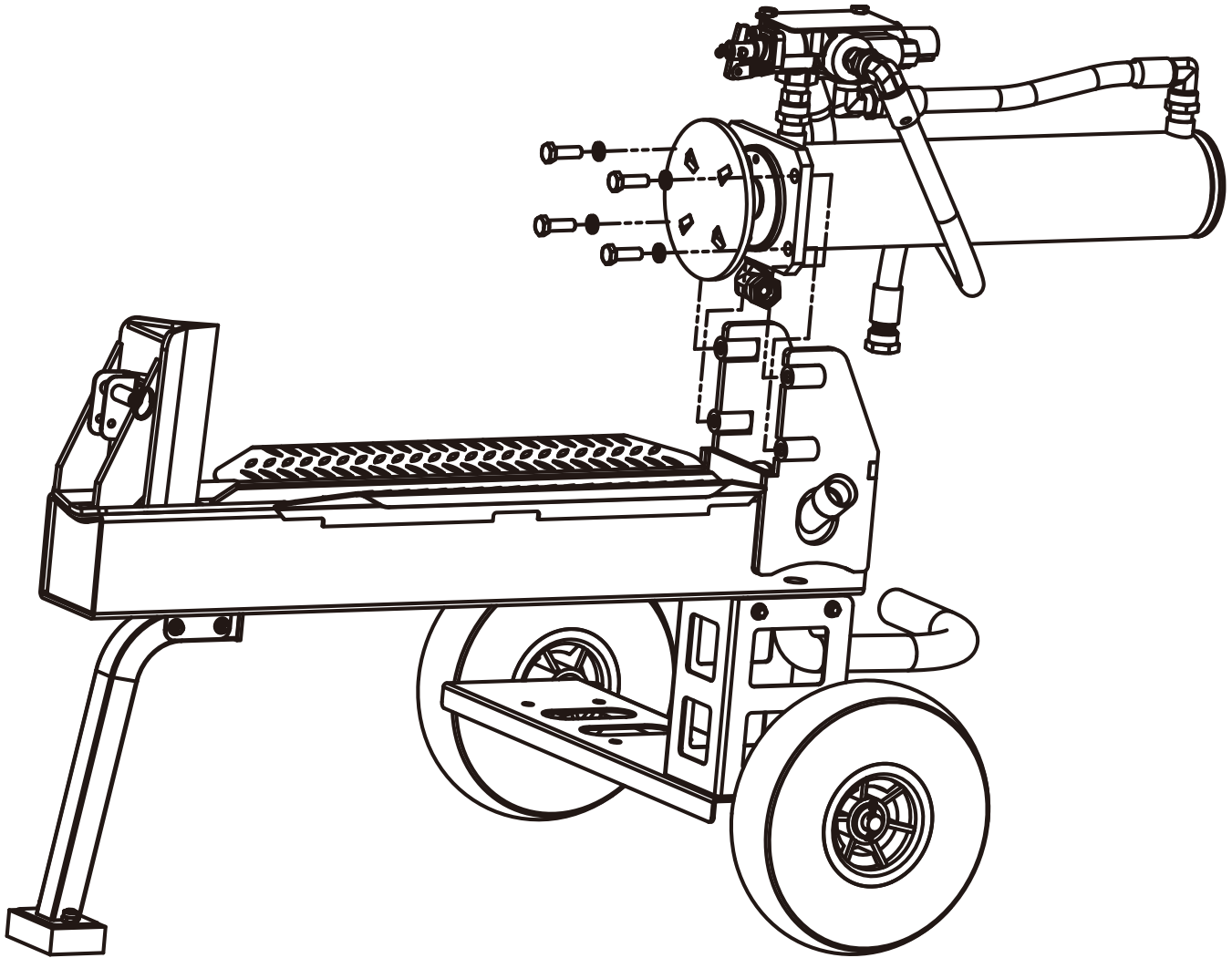
Install the bottom plate (6) to the log tray (16) using M8x20 mm hexagon flange bolts (7) and M8 flange nuts (4) torque tightened to 7-9 ft/lb.



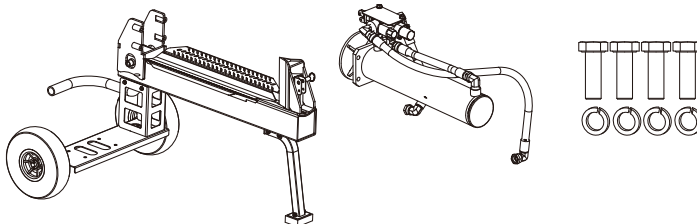
REQUIRED PARTS			REQUIRED TOOLS
			
Bottom plate (6), log tray (16), M8x20 mm hexagon flange bolt (7), M8 flange nut (4)			10mm ratchet wrench

## STEP 5: HYDRAULIC CYLINDER

Install the hydraulic cylinder kit (12) to the base (step 4) using M10x30 mm hexagon bolts (15) and Ø10 mm spring washers (14) torque tightened to 33-44 ft/lb.

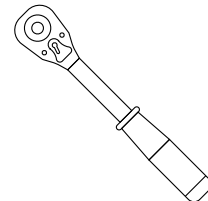


### REQUIRED PARTS



Base (step 4), hydraulic cylinder kit (12), M10x30 mm hexagon bolt (15), Ø10 mm spring washer (14)

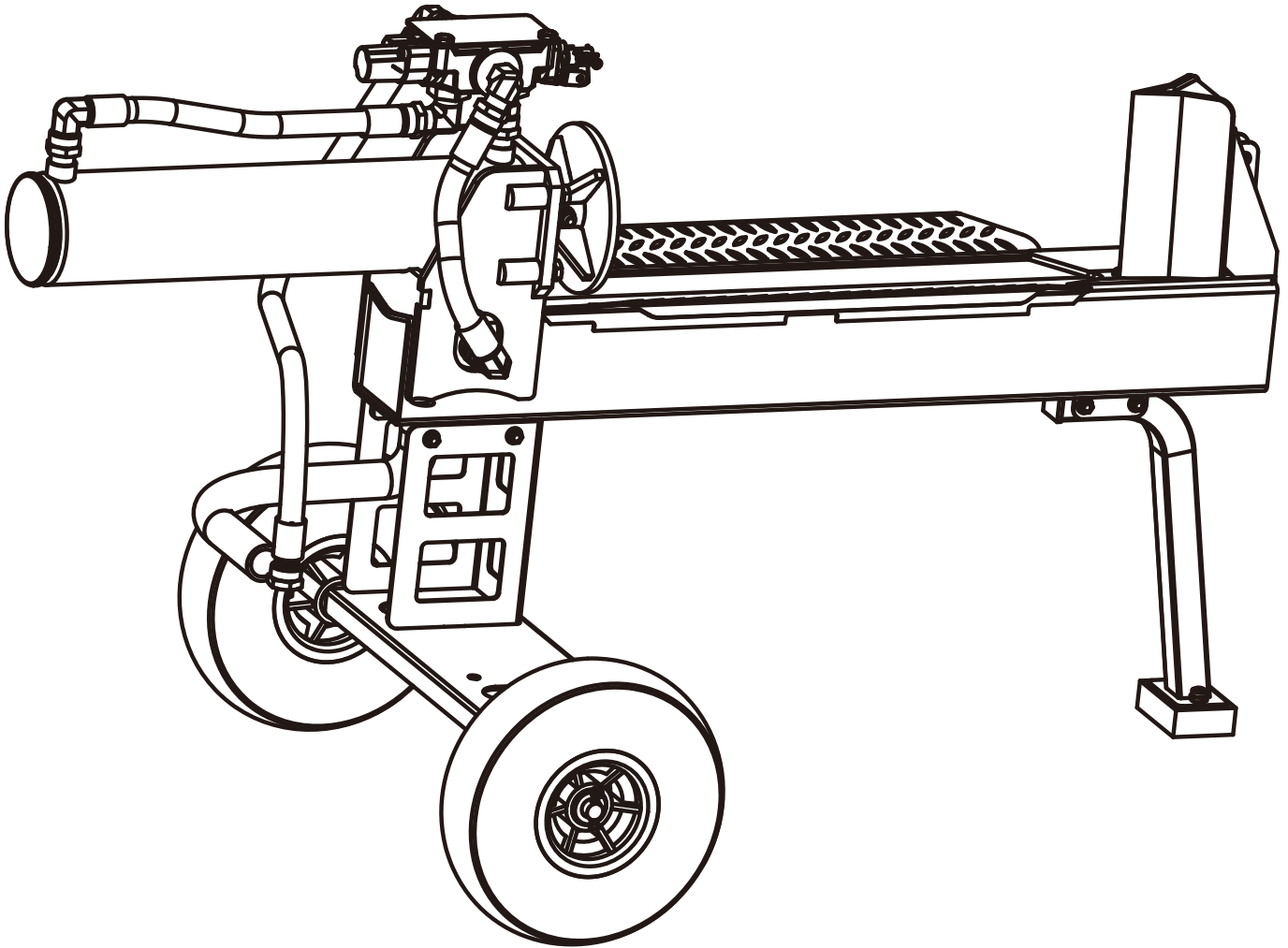
### REQUIRED TOOLS



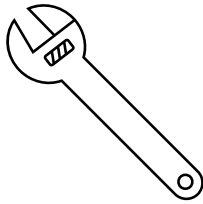
16mm ratchet wrench

## STEP 6: CONNECT HYDRAULIC HOSES

Connect the hoses to their respective places and torque tighten to 59 ft/lb.



### REQUIRED TOOLS




22 mm-27 mm wrench


## STEP 7: FINAL INSTALLATION CHECK


Check tightness of all fittings, nuts and bolts prior to filling the log splitter with fluids.


## **SECTION III • OPERATION**


# OPERATING SAFETY & INSTRUCTIONS


 **DANGER!** Read and understand the complete User Manual before assembling or using this product! Failure to comprehend and comply with warnings, cautions, and instructions for assembly and operation could result in serious injury or death.


 **DANGER!** Do not permit children or untrained persons to operate this equipment at any time.

 **DANGER!** Do not permit others that have not read and understood the complete User Manual to operate this equipment. Operation of power equipment can be dangerous. It is the sole responsibility of the operator to understand the assembly and safe operation of this product.


 **DANGER!** Never leave the machine unattended with the motor and battery running.

 **DANGER!** Never operate the machine when under the influence of alcohol, drugs, or medication.

 **DANGER!** Many accidents occur when more than one (1) person operates the log splitter. If a helper is assisting in loading logs, never actuate controls until the helper is clear of the splitting area.










 **WARNING!** Never allow anyone to ride on the machine during use or operation.

 **WARNING!** Never transport cargo on the log splitter.

 **DANGER! HIGH FLUID PRESSURES ARE CONTAINED IN HYDRAULIC LOG SPLITTERS.** Pressurized hydraulic fluid escaping through a pin hole opening can puncture skin and cause severe bleeding, resulting in blood poisoning. Therefore, the following instructions should be heeded at all times:

- Be sure to confirm all hose connections and hose clamps are tight before each use. It is possible for connections to loosen over time from vibration.
- Do not operate the unit with frayed, kinked, cracked or damaged hoses, fittings or tubing.
- Stop the motor and battery and relieve the hydraulic system pressure before changing or adjusting fittings, hoses, tubing, or other system components.
- Do not adjust the pressure settings of the pump or valve. The factory presets are tested for optimal system performance. Tampering with, or modifying these settings will render your product warranty null and void.
- Do not check for leaks with your hand. Leaks can be detected by passing cardboard or wood over the suspected area. Look for discoloration. If injured by escaping fluid, see a doctor immediately. Serious infection or allergic reaction can develop if proper medical treatment is not administered immediately.

 **CAUTION!** Keep the operation area clear for safe, secure footing.

-  **WARNING!** Always keep hands and feet clear of moving parts.
-  **WARNING!** Hydraulic oil is highly flammable. Make sure you comply with local state and federal codes. Take appropriate fire safety equipment to the area of operation.
-  **WARNING!** Log splitters should be used only for splitting wood. Do not use for other purposes under any circumstance.
-  **WARNING!** When loading a ram-type log splitter, place your hands on the sides of the log, not the ends. Never place your hands or any part of your body between a log and any part of the splitter.
-  **WARNING!** Only split wood with the grain. **Never** split perpendicular to the grain.
-  **WARNING!** On ram-type log splitters, never attempt to split more than one log at a time unless the ram has been fully retracted and a second log is necessary to complete the splitting of the first log.
-  **WARNING!** On ram-type log splitters when the logs are not squared, the longest portion of the log should be rotated down and the most squared end placed against the ram.
-  **WARNING!** Use only your hand to operate the log splitter controls, never use any other part of your body to operate the controls.
-  **DANGER! Do not** refill the hydraulic reservoir until the motor and battery are turned off and the machine has completely cooled.

# HYDRAULIC OIL

---



**CAUTION!** Oil must be added to the hydraulic reservoir before starting or operating.



**DANGER!** Do not remove the hydraulic oil cap when the motor and battery are running or hot. Hot oil can escape causing severe burns. **Always** allow the log splitter to cool completely before removing the hydraulic oil cap. High fluid pressure and temperatures are created in hydraulic log splitters. Hydraulic fluid will escape through a pin-size hole opening and can puncture skin.



**DANGER!** Inspect the hydraulic system regularly for possible leaks. **Never** check for leaks with your hand while the system is pressurized. **Always** allow the machine to cool completely before checking for leaks. Seek medical attention immediately if injured by escaping fluid.

To check hydraulic oil level, insert the dipstick into fill neck until it stops. Remove and read level. Do not thread dipstick into fill neck when checking oil. When the outdoor temperature is below 32°F, Dexron III transmission fluid can be used.

1. Make sure the log splitter is on a flat, level surface.
2. Remove the dipstick from the oil tank.
3. Add 1.6 gallons of AW32 or AW46 hydraulic oil
4. Check hydraulic oil level with oil dipstick. The oil level should be on the dipstick.
5. Tighten the dipstick.
6. Start the battery and motor.
7. Extend and retract the cylinder to purge air from the hydraulic system. Cylinder motion should be smooth and continuous.
8. Hydraulic oil can be added appropriately when the cylinder thrust is insufficient.



**WARNING! FOR SAFETY REASONS, HYDRAULIC OIL IS NOT INCLUDED WITH YOUR MACHINE.**



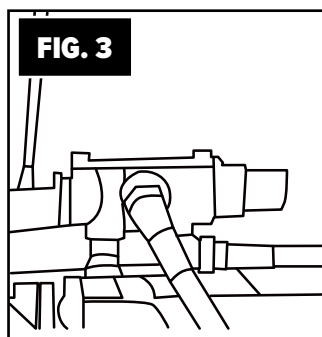
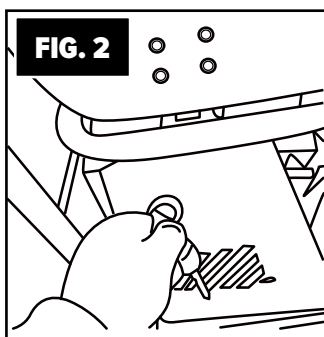
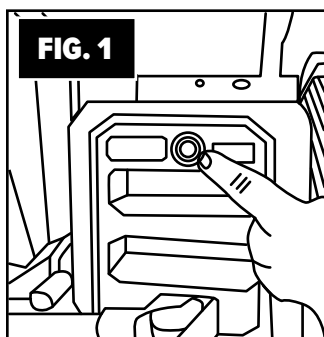
## STARTING THE MACHINE

**⚠ WARNING!** Before starting the machine, hydraulic oil must be added, if hydraulic oil has not been added yet, please review “**HYDRAULIC OIL**”.

1. Press the power button on the battery to turn on the power supply (**FIG. 1**).
2. Turn the switch key on the side of the battery and motor shroud (**FIG. 2**).

The machine will start up, with control valve handle operational, which controls ram thrust (**FIG. 3**).

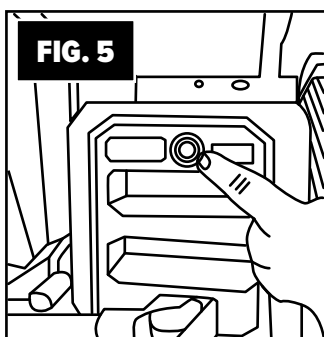
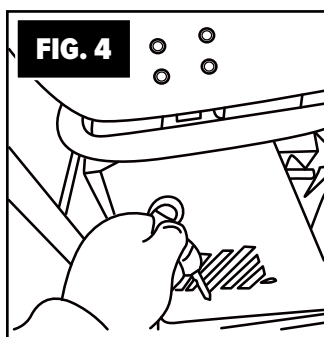
**NOTE:** Battery power level is shown on the battery, periodically check your battery power level.



## STOPPING THE MACHINE

1. Turn the switch key on the side of the battery and motor shroud to stop the motor (**FIG. 4**).
2. Press the power button on the battery to turn off the power supply (**FIG. 5**).

The machine will stop completely.



## MAINTENANCE & STORAGE

1. Always shut off the power source while repairing or adjusting the splitter.
2. Clean debris from the motor, and inspect it regularly.
3. Clean debris from movable parts.
4. Inspect the machine before each use to ensure all nuts and bolts are tight and the machine is in working condition, the motor vibration can loosen screws and bolts over time.

## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Wedge movement is slow or erratic.	Air in the hydraulic oil system.	Purge air by extending and retracting the wedge several times until smooth.
	Debris lodged in beam guides.	Clear debris from beam.
	Low hydraulic oil.	Check oil level and add as needed.
	Hydraulic oil is not continuous.	Add hydraulic fluid.
Oil leak from cylinder.	Faulty cylinder rod seal.	*Call DK2 for replacement part.
	Scored or bent cylinder rod.	*Call DK2 for replacement part.
	Loose hydraulic fitting.	Tighten hydraulic fitting.
	Faulty combination washer seal on cylinder hydraulic fitting.	*Call DK2 for replacement part.
Wedge will not extend or retract.	Faulty control valve.	*Call DK2 for replacement part.
	Faulty hydraulic pump.	*Call DK2 for replacement part.
	Low hydraulic oil.	Check oil level and add as needed.
Excessive bouncing while towing.	Under-inflated tires.	Inflate tires to proper pressure. Refer to tire sidewall.
The hose is twisted after tightening.	The hose rotates.	Clamp the hose sleeve with pipe pliers and tighten the joint with a wrench.
The valve stem springs back multiple times.	There is air in the hydraulic hoses.	Unscrew oil dipstick to vent.

\*If you have a defective part, please email [support@detailk2.com](mailto:support@detailk2.com) or call **1 (888) 277-6960**.

# **SECTION IV • PARTS & SCHEMATICS**



# PARTS LIST

NO.	PART NO.	DESCRIPTION	QTY
1	OPS220EV01H23	R-pin	2
2	OPS220EV02H23	Flat washer	2
3	OPS220EV03H23	10" wheel	2
4	OPS220EV04H23	M8 flange nut	4
5	OPS220EV05H23	M8x40 mm hexagon flange bolt	4
6	OPS220EV06H23	Bottom plate	1
7	OPS220EV07H23	M8x20 mm hexagon flange bolt	4
8	OPS220EV08H23	Hose clamp	2
9	OPS220EV09H23	Suction hose	1
10	OPS220EV10H23	Elastic ring	1
11	OPS220EV11H23	Filter	1
12	OPS220EV12H23	Hydraulic cylinder kit	1
13	OPS220EV13H23	Oil dipstick	1
14	OPS220EV14H23	Spring washer	4
15	OPS220EV15H23	M10x30 mm hexagon bolt	4
16	OPS220EV16H23	Log tray	1
17	OPS220EV17H23	M6 flange nut	3
18	OPS220EV18H23	Handle	1
19	OPS220EV19H23	M6x35 mm hexagon flange bolt	1
20	OPS220EV20H23	M6x45 mm hexagon flange bolt	2
21	OPS220EV21H23	Support bar	1
22	OPS220EV22H23	Motor	1
23	OPS220EV23H23	Hydraulic oil inlet hose	1
24	OPE100	Battery*	1
25	OPS220EV25H23	Shroud	1

\*Battery (24) sold separately **unless** kit model (OPS220EV-K) is purchased.

