



**vaellan**<sup>®</sup>  
VEHICLES

OWNER'S MANUAL  
VAELLAN VEHICLES

## **IMPORTANT INFORMATION ABOUT VAELLAN VEHICLES**

### **Must read before operating the vehicle.**

This manual will help you understand the features of the Vaellan vehicles and how to use the vehicle safely. This manual contains all necessary safety instructions. This manual also tells you how to maintain your vehicle.

### **IMPORTANT**

This vehicle is designed for off-road use only. Using the vehicle on public roads is illegal and dangerous. The vehicle should be insured and/or registered if it is used outside a closed area. Always check your regional laws.

### **IMPORTANT**

Failure to read and non-comply with the warnings and notices in this manual may result in serious personal injury or even death.

### **Read the following notices carefully.**

#### **WARNING**

Failure to read and follow this manual can result in very serious injury or even death to the user, bystander, or person repairing the vehicle.

#### **NOTICE**

This includes additional information about the vehicle.

#### **VAELLAN VEHICLES**

Naattiantie 1A,  
40520 Jyväskylä  
Finland

## WARNING SIGNS

Read, understand, and abide by all warnings in this manual. Read, understand, and abide by all warning signs attached to Vaellan vehicles and Vaellan accessories.

Do not remove any stickers from your vehicle, as they contain important safety information. If a sticker starts to wear or ultimately comes off, request for a new sticker from our registered dealer.

## SAFETY INSTRUCTIONS

The Vaellan vehicle is not a toy and can be difficult to operate without proper training. Vaellan vehicles behave differently from other vehicles such as ATVs, motorcycles, and cars. An incident may occur suddenly, when turning, driving on a slope, or driving over obstacles unless you assess the situation properly. Serious injury or death may result if you do not follow the following instructions:

1. Read this manual and all warning signs carefully and abide by the driving instructions described.
2. Never drive or allow others to drive the Vaellan vehicle under the influence of alcohol or drugs (or if you feel unstable in any way).
3. Always wear a helmet and protective gear while driving.
4. The tethered kill switch must always be firmly attached to your clothes before starting the vehicle.
5. When you start the engine for the first time, make sure the chain is not on the sprocket. After this initial start, turn off

the engine, and then put the chain on the sprocket for any subsequent starts.

6. The vehicle may only be driven by persons over 18 years of age.
7. Check local laws for the Wheeler, Snow/Snow+, and Combo/Combo+.
8. Always follow local laws.
9. Never carry or haul a passenger with a Vaellan vehicle. The Vaellan vehicle is intended for one person only.
10. Never drive a Vaellan vehicle on roads or other public roads. Vaellan vehicles are intended for flat surfaces and closed areas only.
11. Do not operate a Vaellan vehicle near other people.
12. Do not start the engine if it is not fully assembled on to the Vaellan vehicle.
13. Do not remove or install any parts or assemblies while the engine of the Vaellan vehicle is running.
14. Adjust your driving speed to align with both your abilities and the current conditions.
15. Exercise caution while driving, especially in unfamiliar surroundings.
16. Always be vigilant while operating the vehicle.
17. Before driving on ice, always make sure that the ice is strong enough to carry the weight of the vehicle and driver. Make sure that there are no grooves, ditches, or streams in the route.
18. Avoid venturing too deep into the terrain, ensuring you can comfortably return on foot if needed.
19. Refine your driving skills by engaging in slow-speed practice sessions on level ground. When encountering slippery conditions, like icy terrain, exercise utmost caution to ensure absolute control

of your vehicle.

20. Practice turning at slow speeds before turning at higher speeds. Adhere to the correct turning procedures, as turning at higher speeds in the Vaellan vehicle may lead to tipping over. Ensure a consistently safe speed at all times.
21. Always keep both hands on handles and both feet on foot rests while driving. Ensure that your feet remain inside the vehicle at all times during operation.
22. Always inspect your Vaellan vehicle before driving to make sure it is safe to drive.
23. Always follow the maintenance instructions.
24. Never attempt any tricks or jumps while operating a Vaellan vehicle.
25. Always adhere to the specified load limit of the Vaellan vehicle. Securely load and fasten your cargo, and reduce speed gradually while towing. Only use trailers or sleds designed specifically for Vaellan vehicles for optimal performance.
26. Never alter the vehicle or use third-party accessories.
27. Do not tilt the engine beyond the tilt angle specified in the specifications to prevent damage to the engine.
28. Do not touch the engine exhaust or muffler after use, as it may cause injury.
29. Never drive the Vaellan vehicle on slopes.
30. Check the terrain carefully before driving. Never drive over rocks, stumps, fallen trees or areas that you are unfamiliar with. Sharp objects such as sticks or rocks can damage the track

and other parts of the vehicle.

31. Always use original spare parts. Other replacement parts may not be dimensioned to meet the required characteristics and may cause damage which voids the warranty.
32. Exercise caution when coming to a stop, especially in challenging terrain, as the vehicle may shift. Learn safe handling in case of track or tire slipping.
33. Always turn off the engine before refueling your Vaellan vehicle (applies to the Honda engine versions). Be careful not to spill fuel, as the fuel will melt paint and plastics.
34. Fuel vapors should not be inhaled.
35. Do not turn on or operate the engine indoors.
36. The Vaellan cover hood is designed exclusively for snow, ice, or below-freezing conditions. Do not use the cover hood in summer to prevent engine overheating.
37. Always make sure all bolts, fixing points and other handles are firmly tightened before operating the vehicle.

## NOTICE

Do not use excessive force when tightening the connection fasteners.

Be sure to follow all the assembly instructions as well as other instructions in this manual. Failure to do so will shorten the lifespan of the vehicle and voids the warranty.

## INTRODUCTION TO VAE LLAN VEHICLES

Vaellan vehicles are designed to be as simple as possible in both structure and in use. The use of a Vaellan vehicle requires compliance with the owner's and service manual.

Each user must read and understand the operating manual before using Vaellan vehicles. Vaellan vehicles can easily be transported in the truck of a car.

## STRUCTURE AND FUNCTIONS OF THE VEHICLE

The vehicle is built on a track frame or rear axle on which the motor is mounted. The frame is made from metal pipes that are attached to the track frame or rear axle with hook-like fasteners. The unit consist of multiple different pieces that can be attached to each other easily. Notice that you can drive the vehicle with optional wheels, tracks, \*Snowrollers or a combination of wheels and track. If you are uncertain on how to assemble the unit correctly please contact your local dealer or importer.

Power is transmitted to the track/wheels by drive chain from the motor. The centrifugal clutch is attached to the engine making the driving experience comfortable. Speed is controlled with the thumb throttle. The brake is a hydraulic braking system and is operated from the left handlebar. Always turn on the parking brake when vehicle is in full stop. Never leave the vehicle unattended while the engine is running.

## INTENDED USE OF THE VEHICLE

Vaellan vehicles are intended for flat surfaces and can be driven in snow, ice and terrain. All other use is prohibited. They are not intended to be operated in deep snow. Vehicles are not intended for doing tricks (such as jumps). Vaellan vehicles are not intended to be attached to accessories that are not designed by Vaellan. The vehicle can be driven on snow-free terrain, if it is fitted with a set of Vaellan wheels. Driving in snow-free terrain on a track model can wear out parts faster if driving on hard or sandy surfaces. While driving in terrain (with no snow), make sure that stones do not hit any of the critical parts of the vehicle (e.g. chain or frame parts). The vehicle contains parts that will wear over time and are not included in the warranty. These wear parts need to be replaced over time due to use. Do not drive the vehicle with damaged parts.

### WARNING

Do not drive Vaellan vehicles on public roads or public areas. Always check your local laws.

### WARNING

Do not drive Vaellan vehicles on thin ice.

### NOTICE

Do not drive at low speeds (crawl speed) for extended periods of time (>1 minute), as this causes the centrifugal clutch plates to overheat and results in rapid wear of the friction plates. This is not covered by the warranty.

## DISCLAIMER

Vaellan parts differ by region.

\* Snowrollers can also be substituted with skis. This ultimately is dependant on the region they are sold at.

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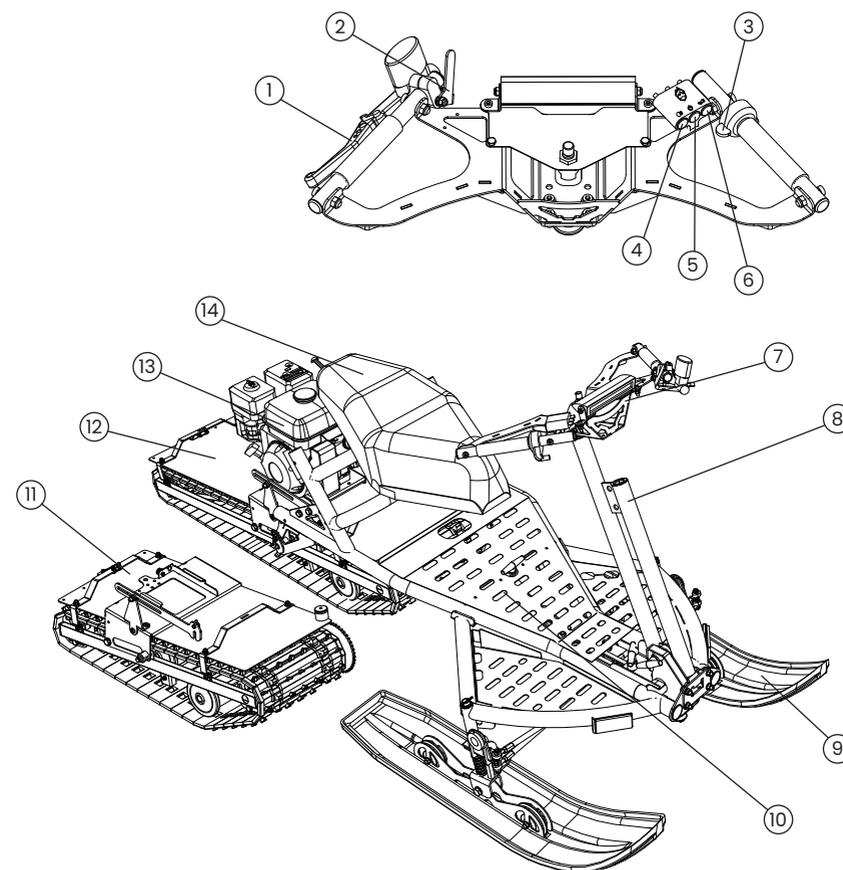
- Daily
- Every 10h of operation
- Every 50h of operation
- End of driving season
- Track tension adjustment

## **69 WARRANTY**

**STRUCTURE**

## STRUCTURE SNOW / SNOW+

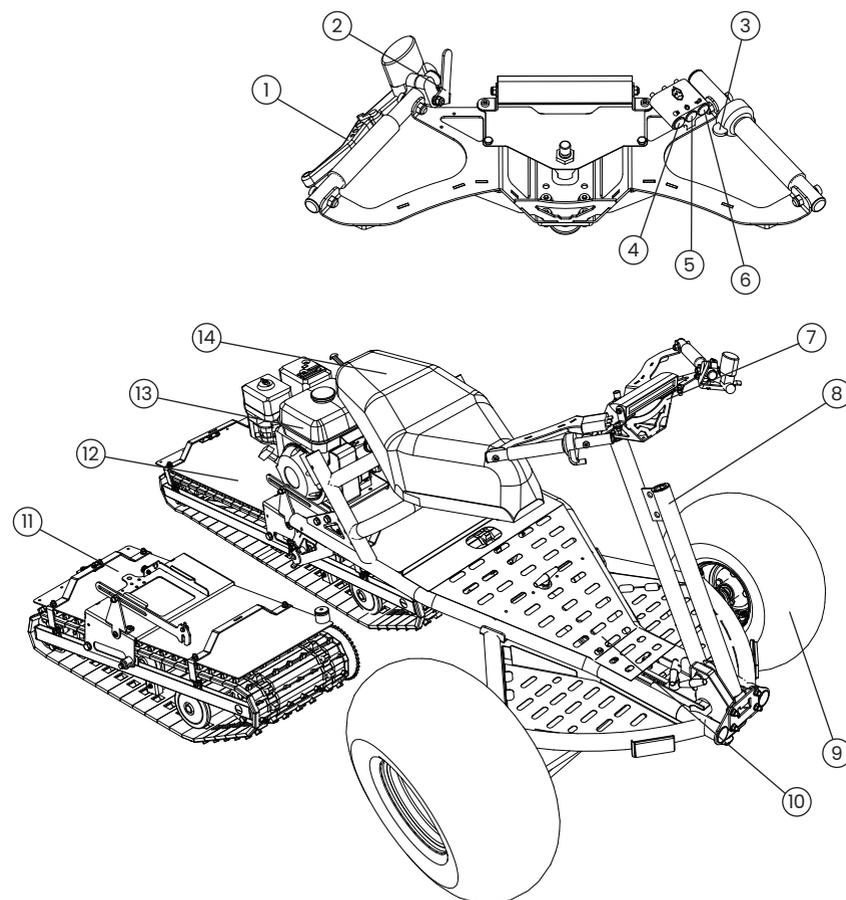
Dimensions (length/width/height) (Snow)	2100mm / 1000mm / 1100mm
Dimensions (length/width/height) (Snow+)	2500mm / 1000mm / 1100mm
Dryweight (no options) (Snow)	109kg
Dryweight (no options) (Snow+)	114kg
Load capacity (operator and payload) (Snow)	130kg
Load capacity (operator and payload) (Snow+)	130kg
Maximum towing capacity	110kg
Intended use	Light multipurpose vehicle for snow usage.
Operating angle (max)	18 degrees
Operating temperature	+40°C - (-15°C) +104°F - 5°F
Highest operating altitude	1500m
Top speed (slow transmission)	15km/h or 9 mph
Top speed (fast transmission)	20km/h or 12 mph
Engine	Honda GX200
Plug tip spacing	0,8mm
Valve clearances when cold	Intake valve 0,15+-0,02mm, exhaust valve 0,20+-0,02mm
kW (hv) / RPM	4,3 (5,8) / 3600
Fuel	E98, Fuel tank 3,1l / 93 octane, Fuel tank 0,82 gal (US)
Fuel consumption / (max)	<1l/h / (1,7l/h max) <0,26 gal (US)/h / (0,45 gal (US)/h max)
Transmission	Centrifugal clutch and chain
Motor oil	0,6l APISJ-SAE 10W-30 / 0W-40 (do not use when over 15°C/59°F)
Transmission oil	0,5l APISJ-SAE 10W-30 / 0W-40 (do not use when over 15°C/ 59°F)
Noise level	<70dB(A)



- |                    |                        |
|--------------------|------------------------|
| 1. Brake           | 8. Front frame         |
| 2. Parking brake   | 9. *Snowrollers        |
| 3. Throttle        | 10. Mid frame          |
| 4. Light switch    | 11. Short track        |
| 5. On/Off switch   | 12. Long track         |
| 6. Horn            | 13. Honda GX200 engine |
| 7. Steering device | 14. Seat               |

Dimensions (length/width/height) (Combo)	1800mm / 1260mm / 1100mm
Dimensions (length/width/height) (Combo+)	2300mm / 1260mm / 1100mm
Dryweight (no options) (Combo)	114,6kg
Dryweight (no options) (Combo+)	119,6kg
Load capacity (operator and payload) (Combo)	130kg
Load capacity (operator and payload) (Combo+)	130kg
Maximum towing capacity	110kg
Intended use	Light multipurpose vehicle for off-road usage.
Operating angle (max)	18 degrees
Operating temperature	+40°C - (-15°C) +104°F - 5°F
Highest operating altitude	1500m
Top speed (slow transmission)	15km/h or 9 mph
Top speed (fast transmission)	20km/h or 12 mph
Engine	Honda GX200
Plug tip spacing	0,8mm
Valve clearances when cold	Intake valve 0,15+-0,02mm, exhaust valve 0,20+-0,02mm
kW (hv) / RPM	4,3 (5,8) / 3600
Fuel	E98, Fuel tank 3,1l / 93 octane, Fuel tank 0,82 US gallons
Fuel consumption / (max)	<1l/h / (1,7l/h max) <0,26 gal (US)/h / (0,45 gal (US)/h max)
Transmission	Centrifugal clutch and chain
Motor oil	0,6l APISJ-SAE 10W-30 / 0W-40 (do not use when over 15°C/59°F)
Transmission oil	0,5l APISJ-SAE 10W-30 / 0W-40 (do not use when over 15°C/ 59°F)
Noise level	<70dB(A)

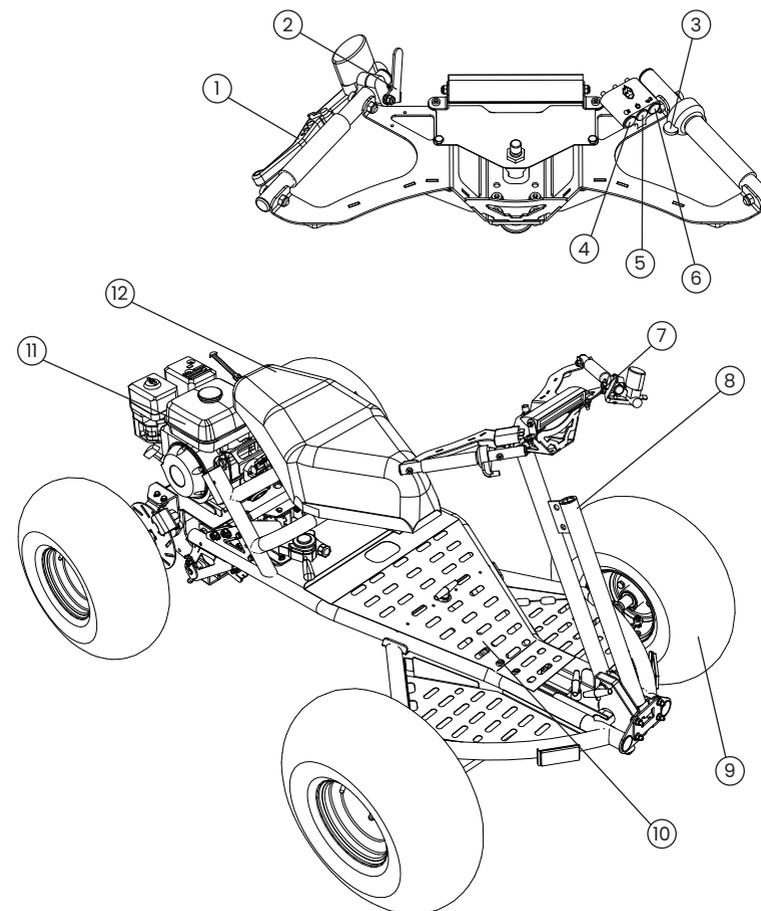
## STRUCTURE COMBO / COMBO+



- |                    |                        |
|--------------------|------------------------|
| 1. Brake           | 8. Front frame         |
| 2. Parking brake   | 9. Wheels              |
| 3. Throttle        | 10. Mid frame          |
| 4. Light switch    | 11. Short track        |
| 5. On/Off switch   | 12. Long track         |
| 6. Horn            | 13. Honda GX200 engine |
| 7. Steering device | 14. Seat               |

## STRUCTURE WHEELER

Dimensions (length/width/height)	1700mm / 1260mm / 1100mm
Dryweight (no options)	128kg
Tire pressure	0,3bar
Load capacity (operator and payload)	130kg
Maximum towing capacity	110kg
Intended use	Light multipurpose vehicle for off-road usage.
Operating angle (max)	18 degrees
Operating temperature	+40°C – (-15°C) +104°F - 5°F
Highest operating altitude	1500m
Top speed (slow transmission)	20km/h or 12 mph
Top speed (fast transmission)	25km/h or 16 mph
Engine	Honda GX200
Plug tip spacing	0,8mm
Valve clearances when cold	Intake valve 0,15+-0,02mm, exhaust valve 0,20+-0,02mm
kW (hv) / RPM	4,3 (5,8) / 3600
Fuel	E98, Fuel tank 3,1l / 93 octane, Fuel tank 0,82 US gallons
Fuel consumption / (max)	<1l/h / (1,7l/h max) <0,26 gal (US)/h / (0,45 gal (US)/h max)
Transmission	Centrifugal clutch and chain
Motor oil	0,6l APISJ-SAE 10W-30 / 0W-40 (do not use when over 15°C/59°F)
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Noise level	<70dB(A)



- |                  |                        |
|------------------|------------------------|
| 1. Brake         | 7. Steering device     |
| 2. Parking brake | 8. Front frame         |
| 3. Throttle      | 9. Wheels              |
| 4. Light switch  | 10. Mid frame          |
| 5. On/Off switch | 11. Honda GX200 engine |
| 6. Horn          | 12. Seat               |

**ASSEMBLY**

## ASSEMBLY SNOW / SNOW+

### INSTALLING THE ENGINE TO THE TRACK

1. Place the engine on the engine bed. Slide the engine until the threaded rod comes out of the engine beds corresponding hole.
2. Place the chains on the sprockets.
3. Tighten the engine to the engine bed with the engines metal T-handle (this tightens the engine into place and also tightens the chains).
4. Lock the T-handle into place with a rubber strap.
5. Set the chain cover into place.
6. Secure the chain cover with a rubber strap.

### WARNING

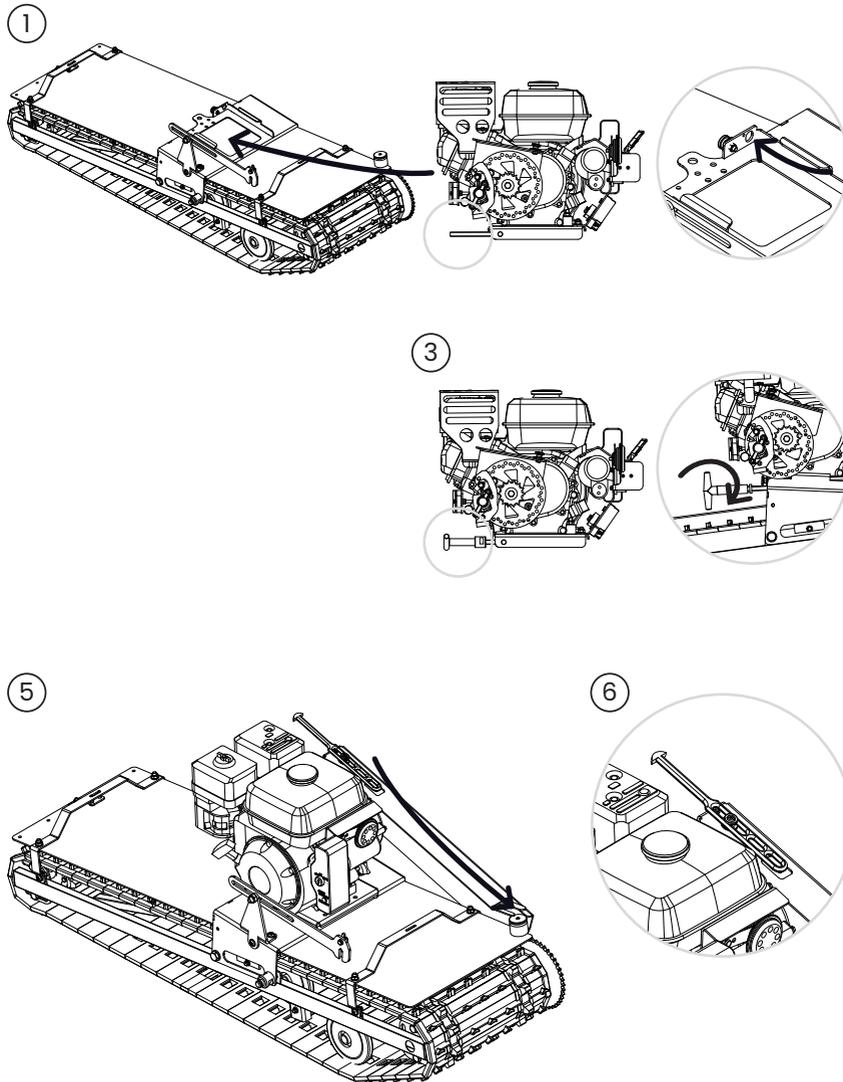
Do not tighten the chain with tools. The new chain may stretch on first use. Check the chain tension after the first runs.

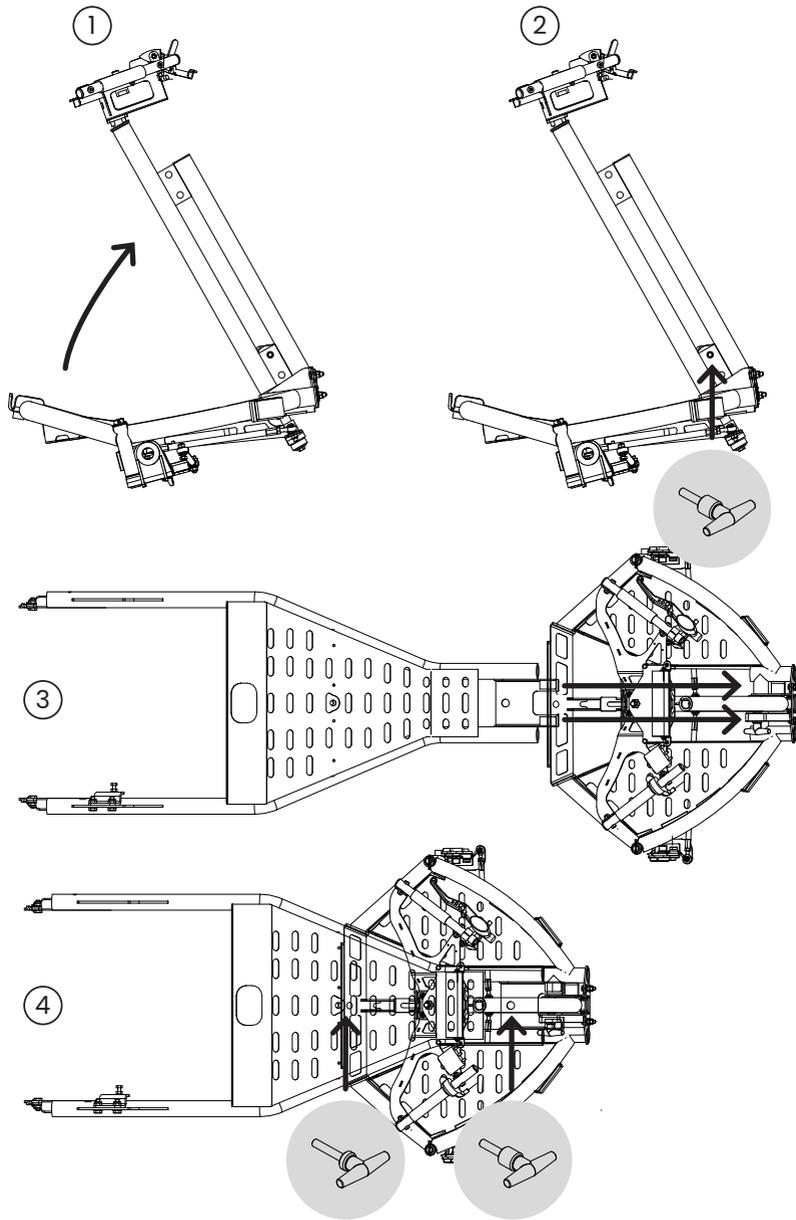
### WARNING

The free length of the chains should have 15mm clearance.

### WARNING

Testing the engine and driving without chain cover is prohibited.





### ASSEMBLING THE FRAME

1. Place the front frame on the ground and raise the steering device.
2. Secure the steering device in place with a T-handle.
3. Slide the mid frame into the front frame.
4. Secure the mid frame and front frame with two T-handles.

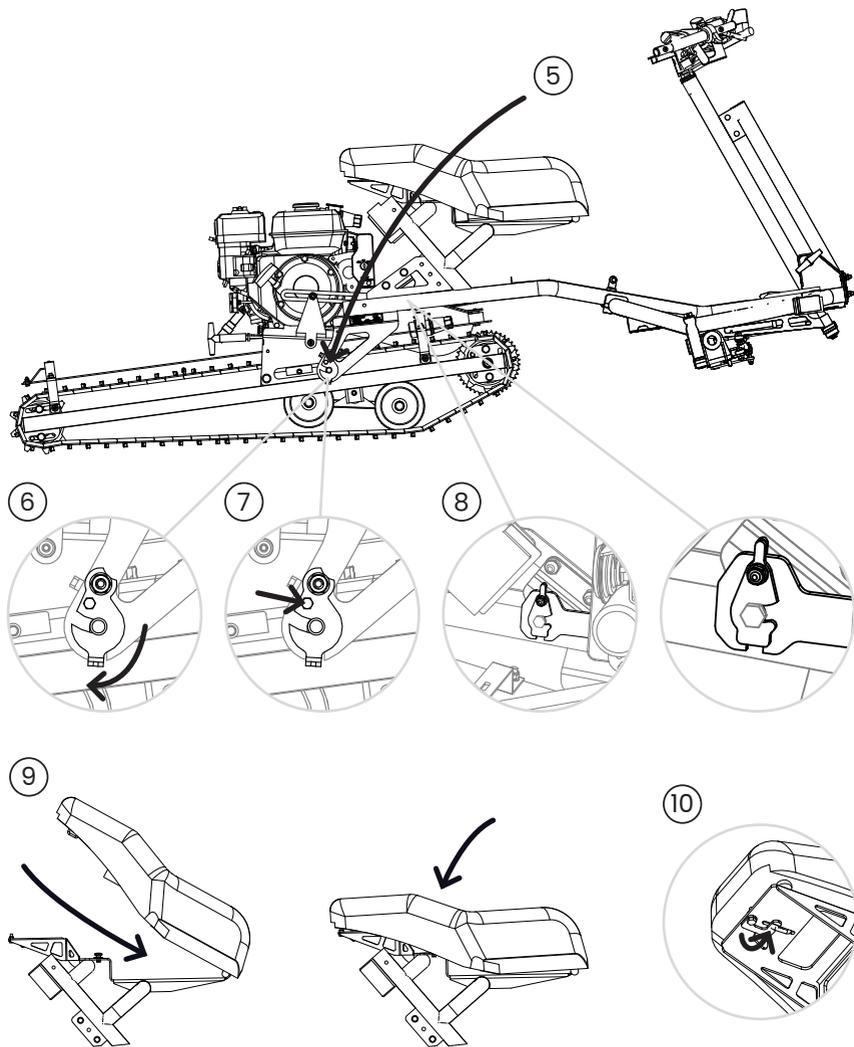
### NOTICE

There are four T-handles that are located in the Vaellan vehicle.

The engine T-handle is a metal T-handle with no plastic nut.

The remaining three T-handles differ from the engine T-handle by design and weight. They also have plastic nuts, which ensure that the T-handles are always tightened correctly without damaging the vehicles surface.

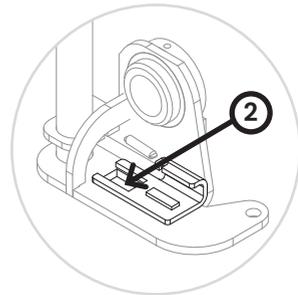
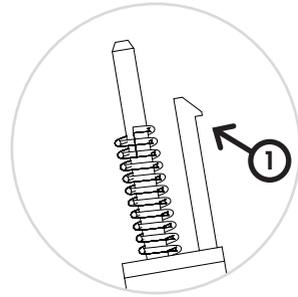
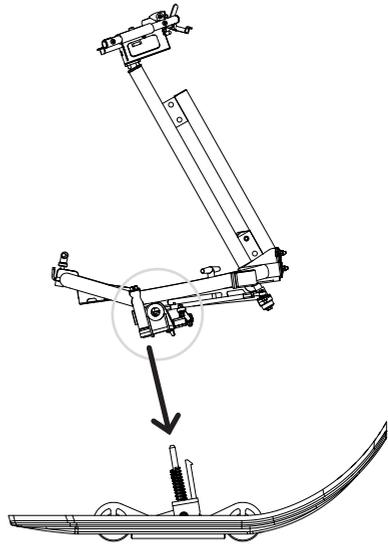
CONTINUES ON THE NEXT PAGE →



5. Connect the frame to the track by lowering the frame to the hooks of the mid frame.
6. Connect the mid frame to the track with hooks.
7. Secure the frame hooks with locking bolts.
8. Attach the swing limiter to the mid frame and lock it to the mid frame with the locking lever.
9. Place the seat on to the frame.
10. Lock the seat into place with the locking lever located under the seat.

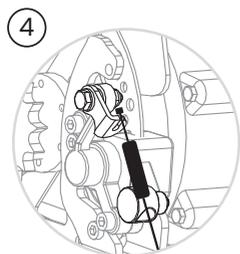
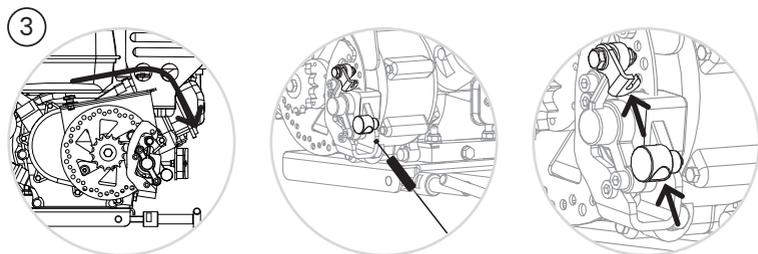
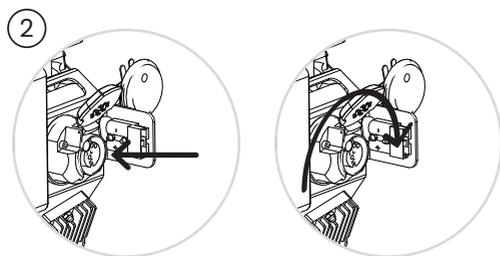
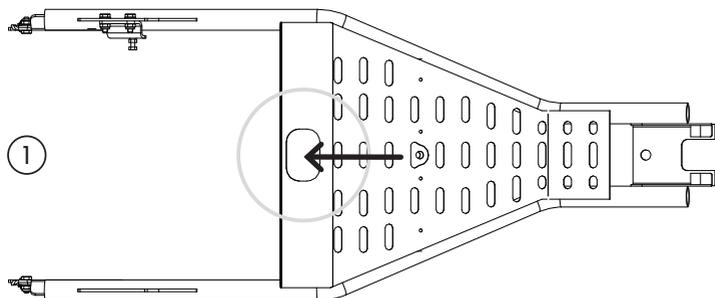
**WARNING**

Do not operate the unit without the locking bolts.



### INSTALLING \*SNOWROLLERS

1. Place springs on the \*snowrollers (as shown in pictures).
2. Attach the \*snowrollers to the frame by placing them underneath the frame and arranging them so that they are in line with the ski and tire connection.
3. Secure the \*snowrollers into place by pushing them down. The \*snowrollers make a clear "click" sound when they are secured into place.
4. Ensure that the ski bracket (1) is above the locking slide (2).



### CONNECTION OF WIRING HARNESS

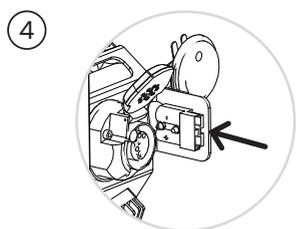
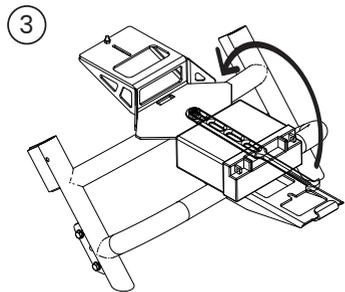
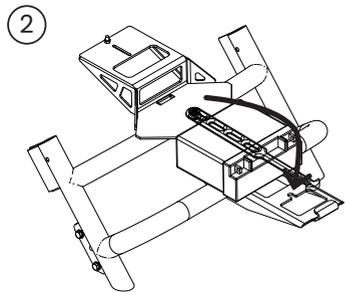
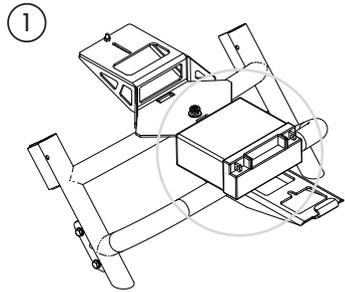
1. Thread the brake cylinder and electric cable connector through the hole in the mid frame (shown in picture).
2. Attach the electric cable connector to the connector on the motor. The electrical connector is placed in corresponding grooves and is rotated into place.
3. Attach the brake cylinder to the brake caliper next to the gear case.
4. Attach the brake cylinder to the brake caliper. Insert the brake cylinder pin into the brake caliper groove.
5. Check that the brake returns to normal and does not drag (adjust if necessary with the aluminum adjustment nut).

### NOTICE

The brake cylinder needs to be stored under the engine cover hood when not in use. It should always be clean and tested before starting the engine.

### NOTICE

The brake cylinder needle should move about 12mm.



### INSTALLING THE BATTERY

1. Place the battery under the seat (as shown in picture).
2. Tighten the battery into place with a rubber strap. Install the battery tight enough to prevent the battery from moving.
3. Weave the cord over the top of the mid frame (as shown in picture).
4. Plug the battery into the engine to the corresponding outlet.

#### WARNING

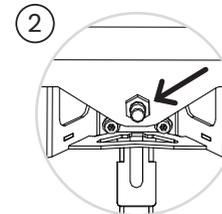
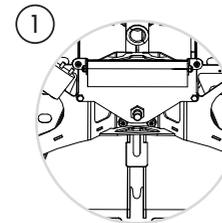
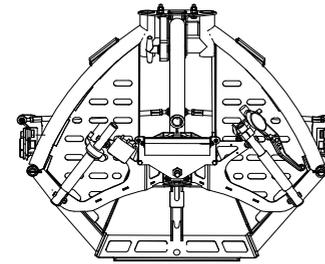
If the battery rubs into metal structures, the shell may burst which can result in corrosive battery acid leaking out.

#### WARNING

Always store the battery upright and fully charged.

#### WARNING

The battery may discharge if left out for a long period of time.



### INSTALLING THE KILL SWITCH

1. Locate the kill switch tether mount on the steering device.
2. Pull the mount and slide the kill switch tether between the plastic plates.
3. Release the mount by letting go. This locks the kill switch tether into place.
4. Check that the kill switch tether works by pulling it off the mount when the engine is turned on and the vehicle is in full stop and the parking brake is on.

#### NOTICE

The kill switch tether must be installed each time the engine is started.

#### NOTICE

Always attach the kills switch tether to your clothes before starting the vehicle.

#### NOTICE

Do not operate vehicle without proper use of kill switch. The engine turns off when the kill switch tether is pulled off.

## ASSEMBLY COMBO / COMBO+

### INSTALLING THE ENGINE TO THE TRACK

1. Place the engine on the engine bed. Slide the engine until the threaded rod comes out of the engine beds corresponding hole.
2. Place the chains on the sprockets.
3. Tighten the engine to the engine bed with the engines metal T-handle (this tightens the engine into place and also tightens the chains).
4. Lock the T-handle into place with a rubber strap.
5. Set the chain cover into place.
6. Secure the chain cover with a rubber strap.

### WARNING

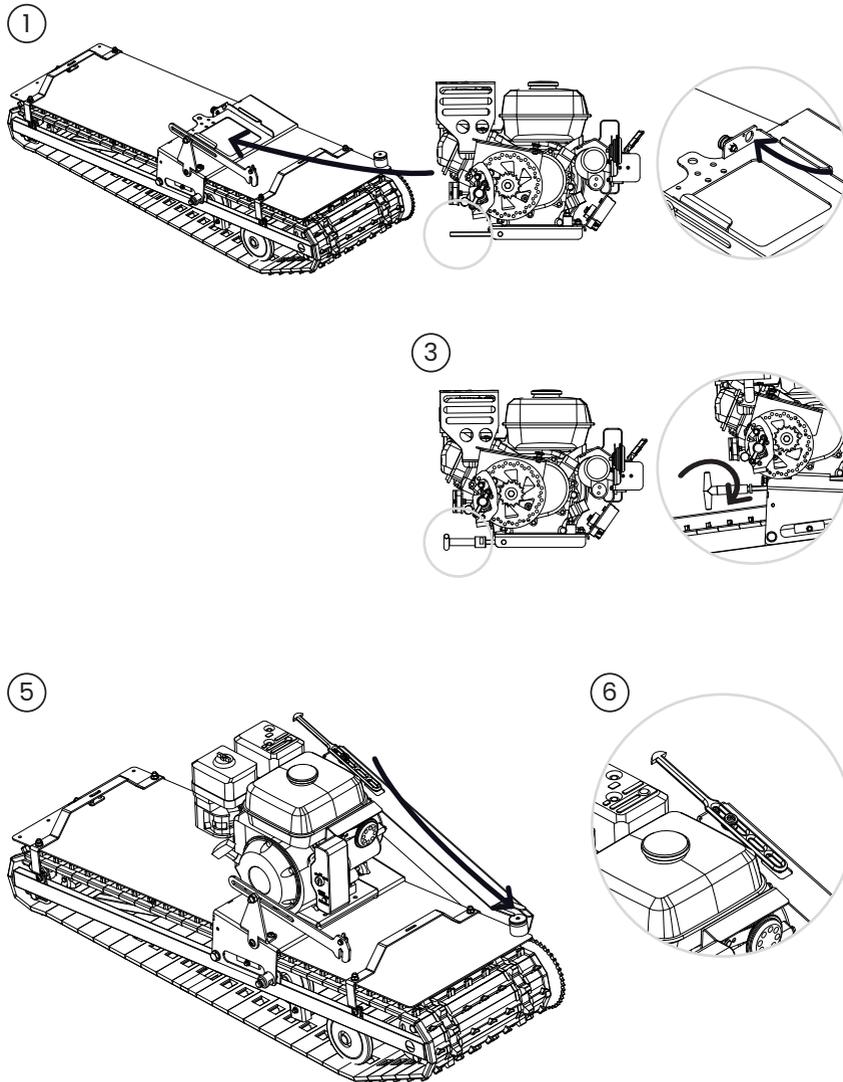
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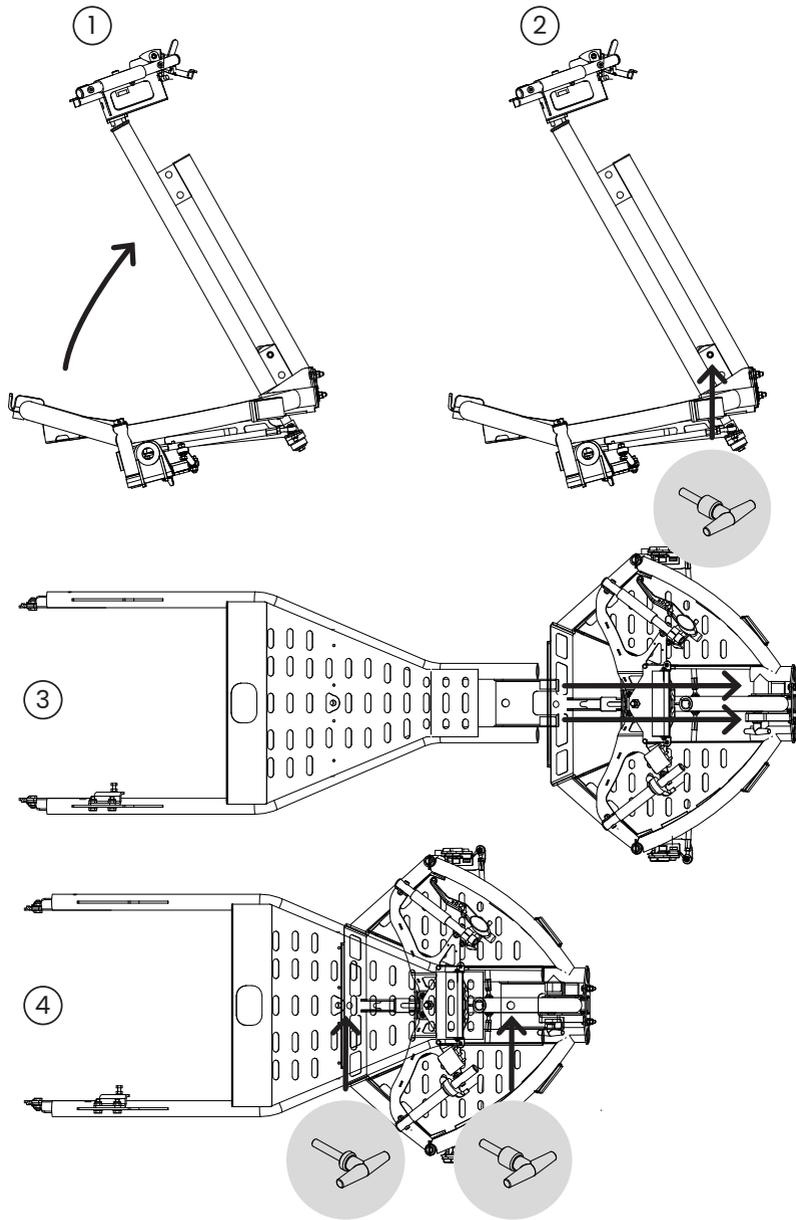
### WARNING

The free length of the chains should have 15mm clearance.

### WARNING

Testing the engine and driving without chain cover is prohibited.





### ASSEMBLING THE FRAME

1. Place the front frame on the ground and raise the steering device.
2. Secure the steering device in place with a T-handle.
3. Slide the mid frame into the front frame.
4. Secure the mid frame and front frame with two T-handles.

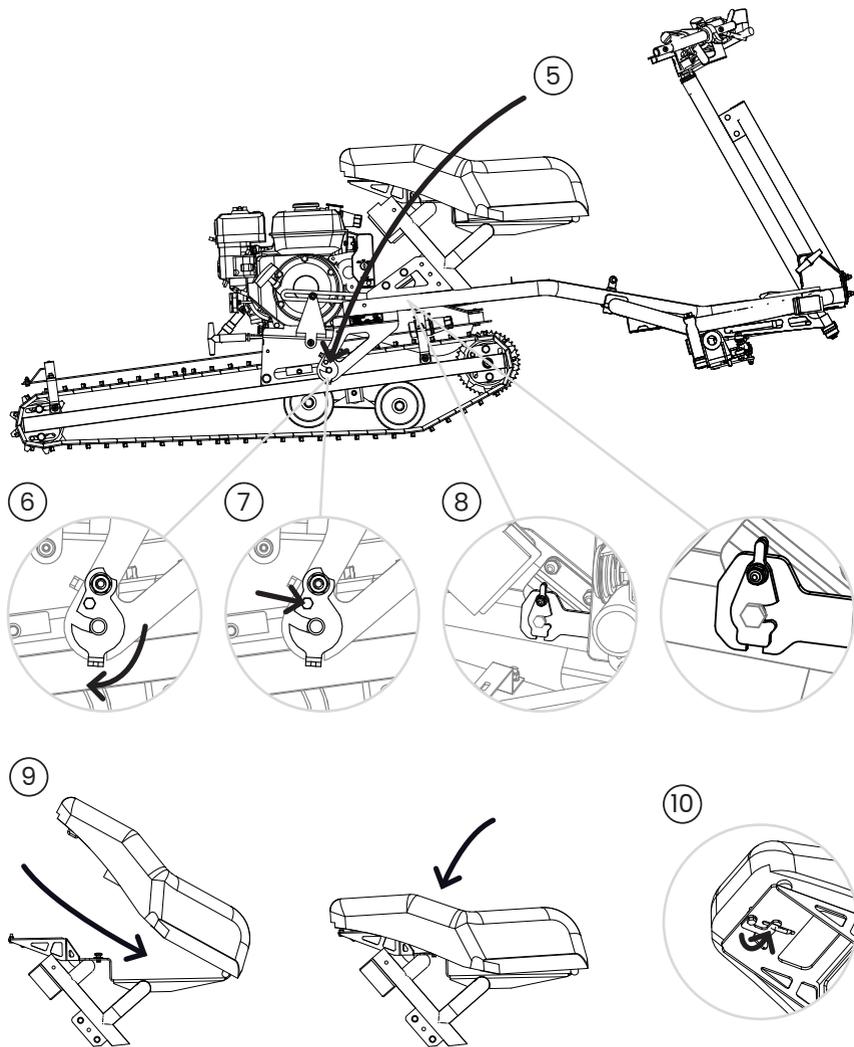
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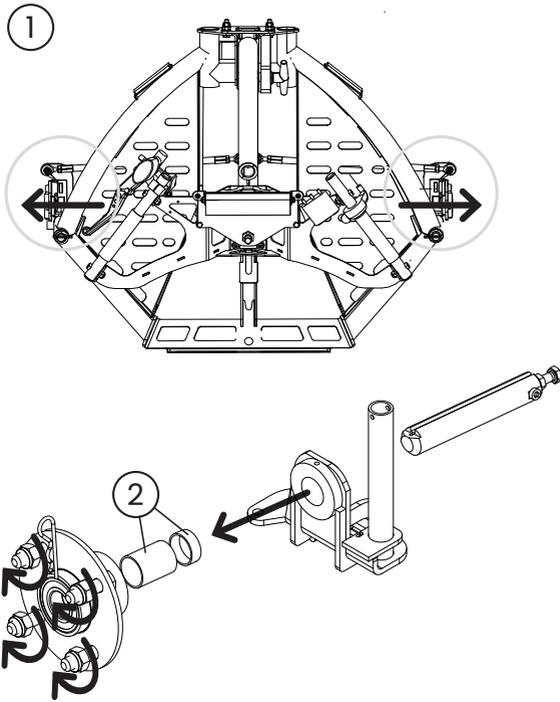
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5. Connect the frame to the track by lowering the frame to the hooks of the mid frame.
6. Connect the mid frame to the track with hooks.
7. Secure the frame hooks with locking bolts.
8. Attach the swing limiter to the mid frame and lock it to the mid frame with the locking lever.
9. Place the seat on to the frame.
10. Lock the seat into place with the locking lever located under the seat.

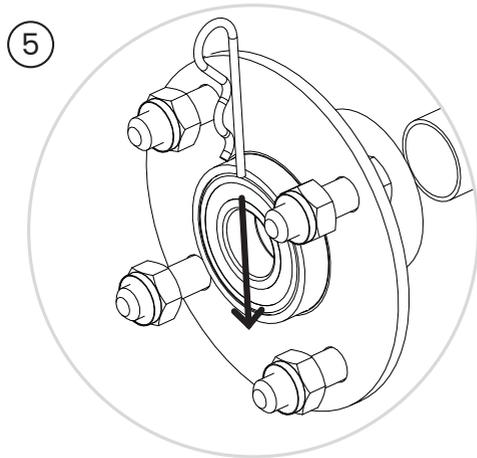
**WARNING**

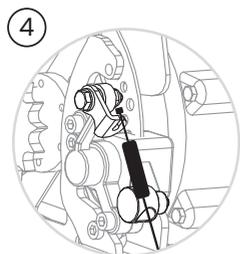
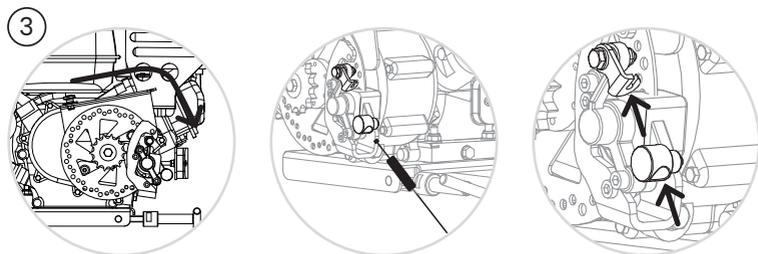
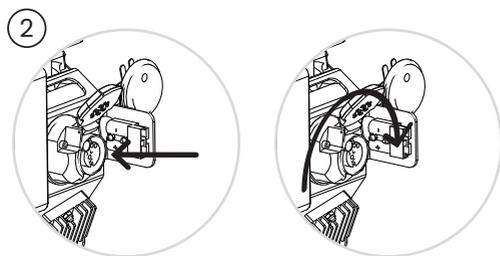
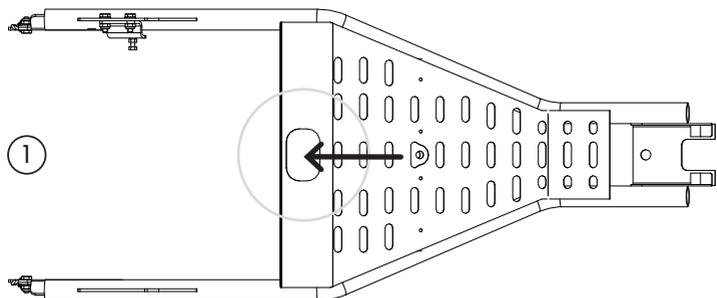
Do not operate the unit without the locking bolts.



### INSTALLING THE FRONT WHEELS

1. Place the wheel axle through the tire mounting hole. Slide the axle from inside to out.
2. Place both spacers on the axle. Spacers must always be in place when driving. The axle width can be adjusted by removing spacers during transport. In this case, the Wheeler fits into narrow trailers.
3. Place the wheel hubs on the axle.
4. Place the wheel on the wheel hub. Check the direction of the rotation on tire and tighten the nuts (the wheels valve should point outwards).
5. Lock the wheels into place with locking pins.





### CONNECTION OF WIRING HARNESS

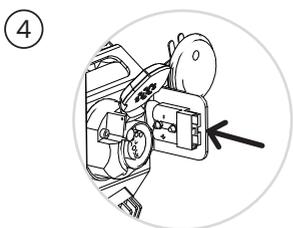
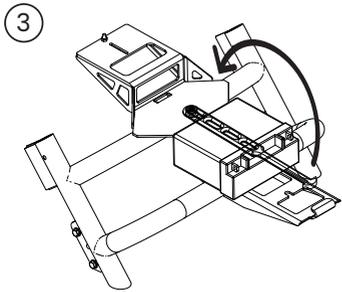
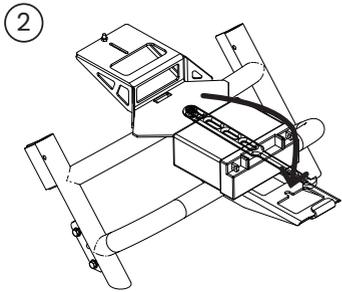
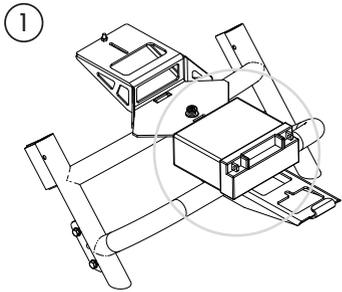
1. Thread the brake cylinder and electric cable connector through the hole in the mid frame (shown in picture).
2. Attach the electric cable connector to the connector on the motor. The electrical connector is placed in corresponding grooves and is rotated into place.
3. Attach the brake cylinder to the brake caliper next to the gear case.
4. Attach the brake cylinder to the brake caliper. Insert the brake cylinder pin into the brake caliper groove.
5. Check that the brake returns to normal and does not drag (adjust if necessary with the aluminum adjustment nut).

### NOTICE

The brake cylinder needs to be stored under the engine cover hood when not in use. It should always be clean and tested before starting the engine.

### NOTICE

The brake cylinder needle should move about 12mm.



### INSTALLING THE BATTERY

1. Place the battery under the seat (as shown in picture).
2. Tighten the battery into place with a rubber strap. Install the battery tight enough to prevent the battery from moving.
3. Weave the cord over the top of the mid frame (as shown in picture).
4. Plug the battery into the engine to the corresponding outlet.

#### WARNING

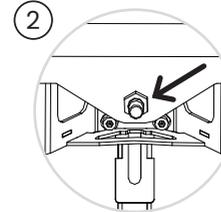
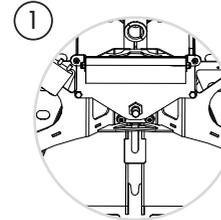
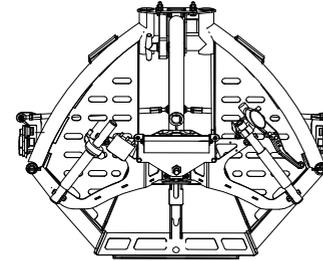
If the battery rubs into metal structures, the shell may burst which can result in corrosive battery acid leaking out.

#### WARNING

Always store the battery upright and fully charged.

#### WARNING

The battery may discharge if left out for a long period of time.



### INSTALLING THE KILL SWITCH

1. Locate the kill switch tether mount on the steering device.
2. Pull the mount and slide the kill switch tether between the plastic plates.
3. Release the mount by letting go. This locks the kill switch tether into place.
4. Check that the kill switch tether works by pulling it off the mount when the engine is turned on and the vehicle is in full stop and the parking brake is on.

#### NOTICE

The kill switch tether must be installed each time the engine is started.

#### NOTICE

Always attach the kills switch tether to your clothes before starting the vehicle.

#### NOTICE

Do not operate vehicle without proper use of kill switch. The engine turns off when the kill switch tether is pulled off.

## ASSEMBLY WHEELER

### ASSEMBLING THE FRAME

1. Place the front frame on the ground and raise the steering device.
2. Secure the steering device in place with a T-handle.
3. Slide the mid frame into the front frame.
4. Secure the mid frame and front frame with two T-handles.

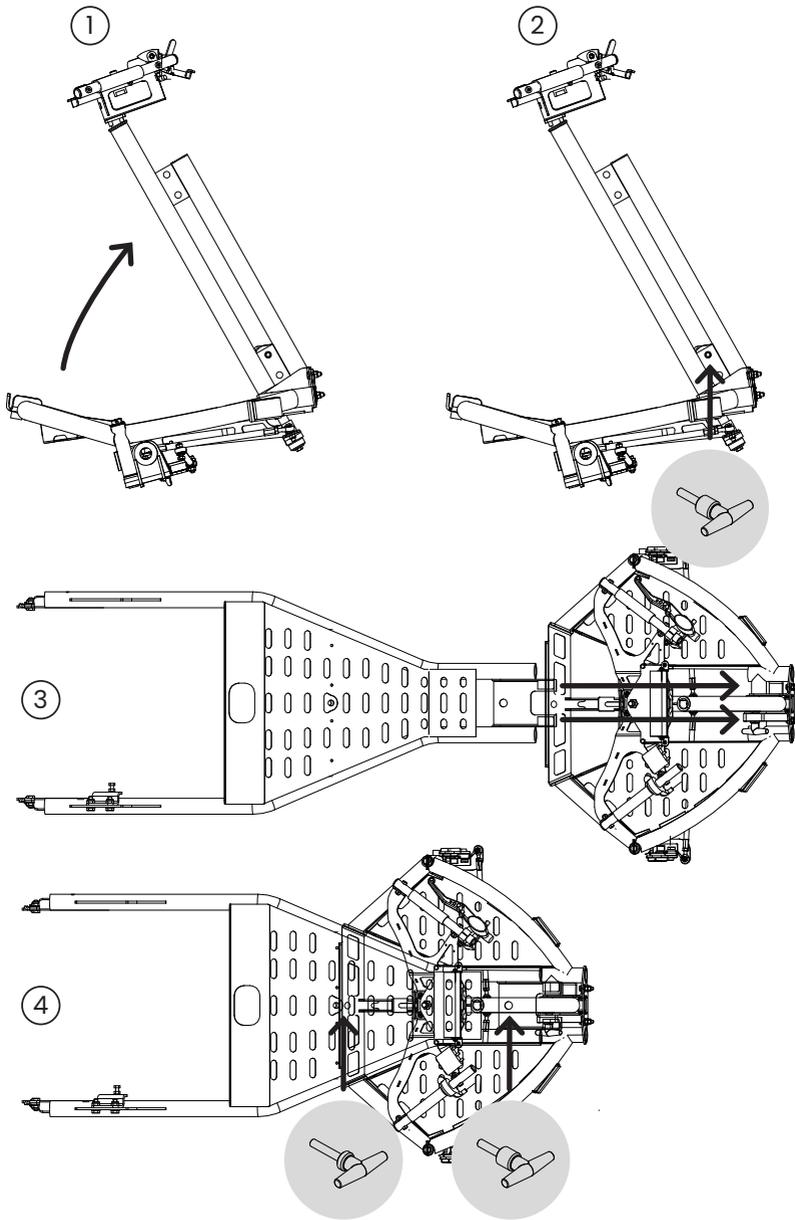
### NOTICE

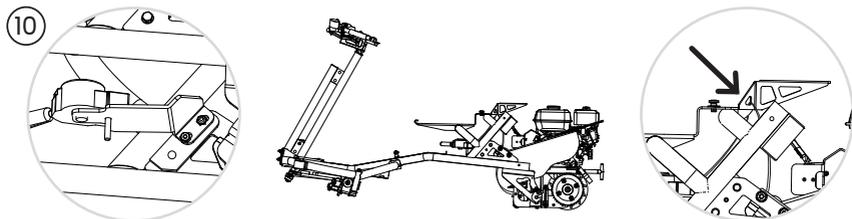
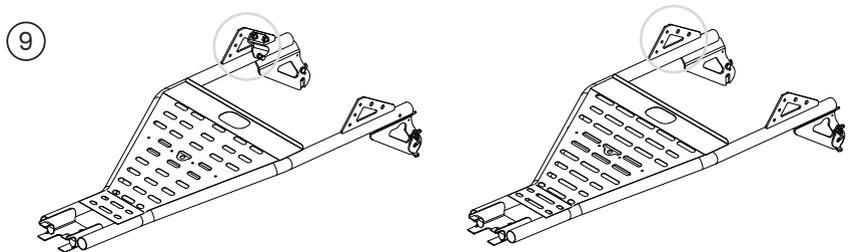
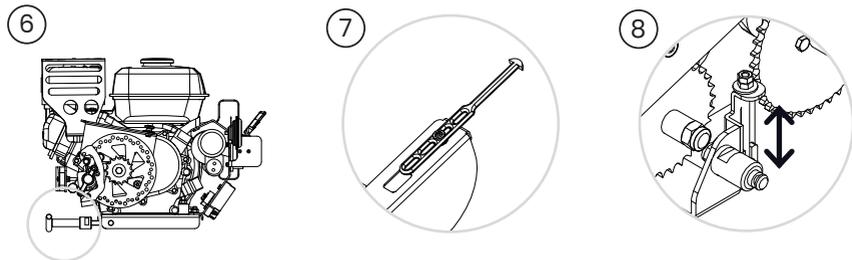
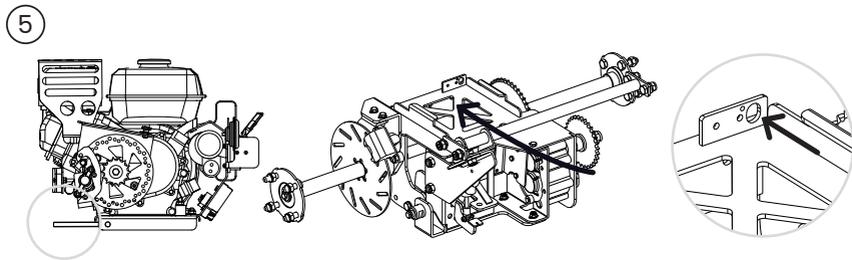
There are four T-handles that are located in the Vaellan vehicle.

The engine T-handle is a metal T-handle with no plastic nut.

The remaining three T-handles differ from the engine T-handle by design and weight. They also have plastic nuts, which ensure that the T-handles are always tightened correctly without damaging the vehicles surface.

CONTINUES ON THE NEXT PAGE →



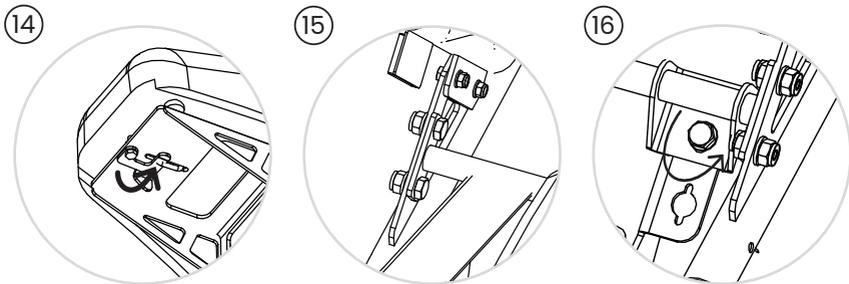
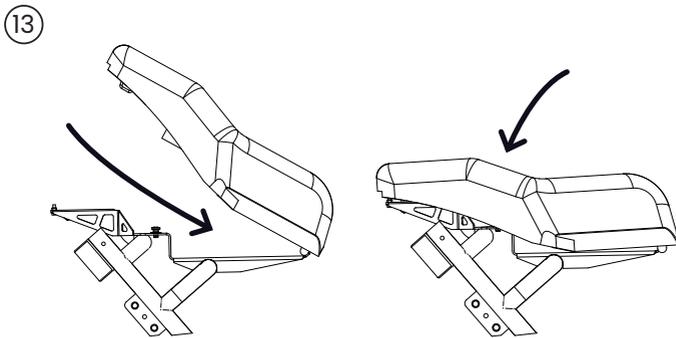
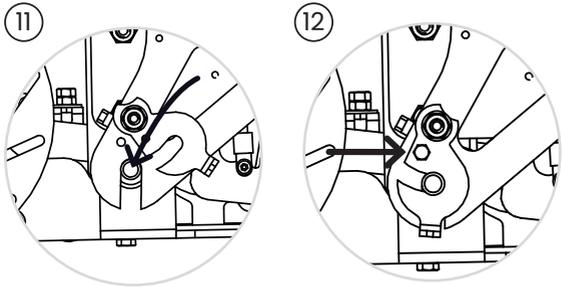


5. Place the engine on the rear axle's engine bed. Slide the engine until the threaded rod comes out of the allocated hole located in the engine bed.
6. Place the chains on the sprockets and tighten the engine to the engine bed with a metal T-handle (this tightens the engine into place and also tightens the engine chain). Lock the T-handle into place with a rubber strap.
7. Place the chain cover into place and secure it with a rubber strap.
8. The gear box chain tension can be adjusted with the chain tension roller. Loosen the the chain tension rollers bolt. Chain tension is adjusted by the height of the roller.
9. Remove the swing limiter bracket from the mid frame.
10. Attach the gear lever to the frame with two bolts (as shown in the picture). Weave the cables through the frame and attach them to the frame with a ziptie, which ensures that they won't get in the way of operating the vehicle.

**NOTICE**

The free length of the chains should have a clearance of 15mm.

**CONTINUES ON THE NEXT PAGE** →



11. Connect the midframe to the rear axle by lowering it onto the hooks of the rear axle.
12. The midframe is set into place with the locking plates. Secure the locking plates with locking bolts.
13. Place the seat on to the frame.
14. Lock the seat into place with the locking lever located under the seat.
15. Tighten the bolts and nuts of the rear axles cross bar. The bolts on the cross bar are assembled from inside to out.
16. Attach the rear axle to the cross bar with a bolt.

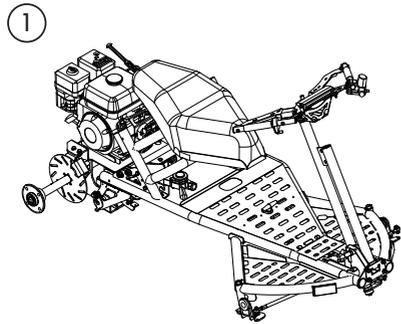
**WARNING**

Remember to screw in the locking bolts before operating. Do not operate the vehicle without the locking bolts in place.

**WARNING**

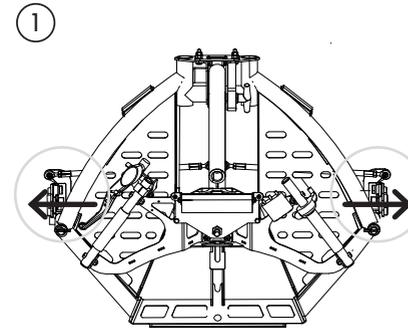
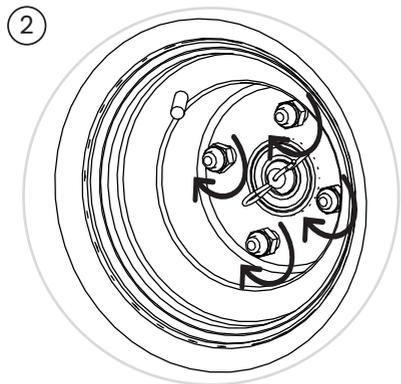
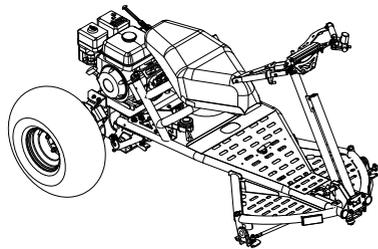
When installing the engine, make sure that the rear axle is properly supported to prevent falling.

Do not tighten the chain with tools. The new chain may stretch on first use. Check the chain tension after the first runs.



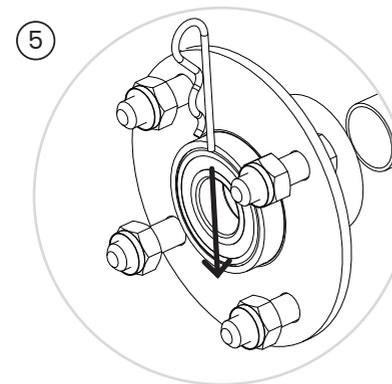
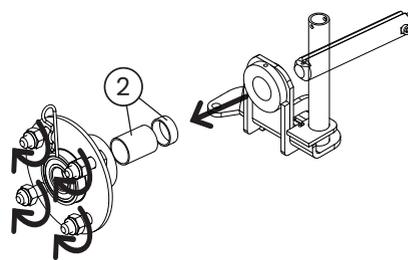
### INSTALLING THE REAR WHEELS

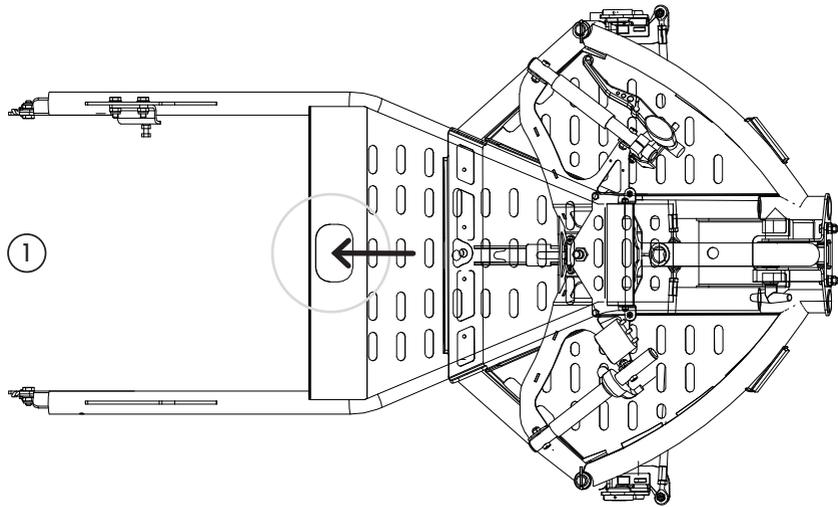
1. Place the wheel on the wheel hub. Check the direction of the rotation on tire.
2. Tighten the nuts (the wheels valve should point outwards).



### INSTALLING THE FRONT WHEELS

1. Place the wheel axle through the tire mounting hole. Slide the axle from inside to out.
2. Place both spacers on the axle. Spacers must always be in place when driving. The axle width can be adjusted by removing spacers during transport. In this case, the Wheeler fits into narrow trailers.
3. Place the wheel hubs on the axle.
4. Place the wheel on the wheel hub. Check the direction of the rotation on tire and tighten the nuts (the wheels valve should point outwards).
5. Lock the wheels into place with locking pins.





### CONNECTION OF WIRING HARNESS

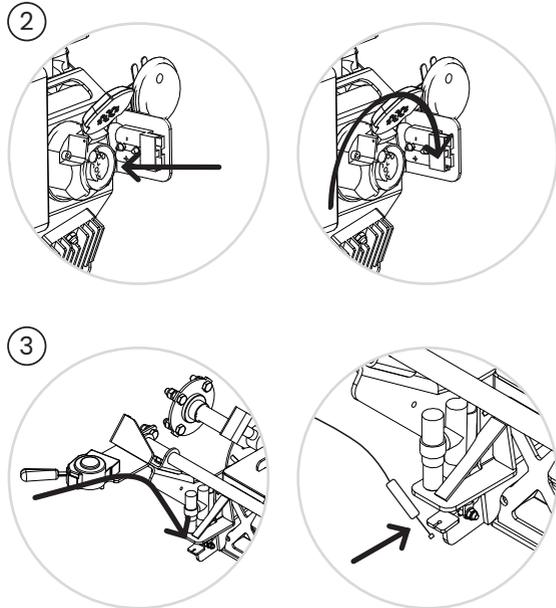
1. Thread the brake cylinder and electric cable connector through the hole in the mid frame.
2. Attach the electric cable connector to the connector on the motor by rotating it into place.
3. Attach the brake cylinder to the brake caliper's lever. Insert the brake cylinder pin into the brake lever's groove.
4. Check that the brake returns to normal and does not drag (adjust if necessary with the aluminum adjustment nut that is attached to the brake cylinder).

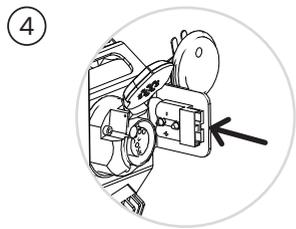
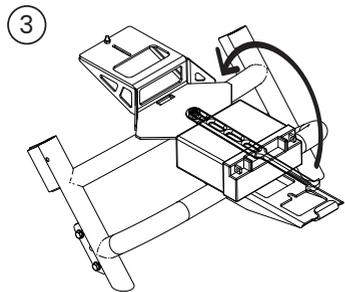
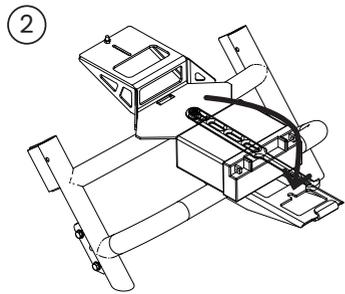
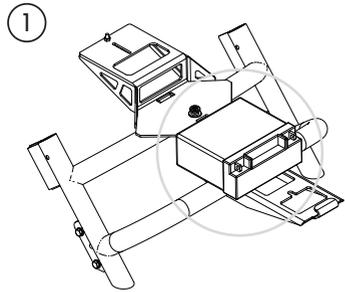
### NOTICE

The brake cylinder needs to be stored under the engine cover hood when not in use. It should always be clean and tested before starting the engine.

### NOTICE

The brake cylinder needle should move approximately 12mm.





### INSTALLING THE BATTERY

1. Place the battery under the seat (as shown in picture).
2. Tighten the battery into place with a rubber strap. Install the battery tight enough to prevent the battery from moving.
3. Weave the cord over the top of the mid frame (as shown in picture).
4. Plug the battery into the engine to the corresponding outlet.

#### WARNING

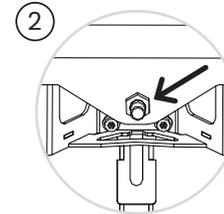
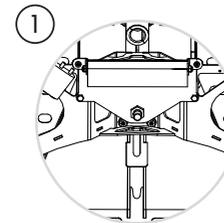
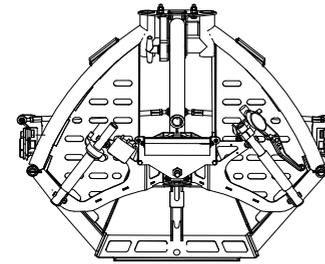
If the battery rubs into metal structures, the shell may burst which can result in corrosive battery acid leaking out.

#### WARNING

Always store the battery upright and fully charged.

#### WARNING

The battery may discharge if left out for a long period of time.



### INSTALLING THE KILL SWITCH

1. Locate the kill switch tether mount on the steering device.
2. Pull the mount and slide the kill switch tether between the plastic plates.
3. Release the mount by letting go. This locks the kill switch tether into place.
4. Check that the kill switch tether works by pulling it off the mount when the engine is turned on and the vehicle is in full stop and the parking brake is on.

#### NOTICE

The kill switch tether must be installed each time the engine is started.

#### NOTICE

Always attach the kills switch tether to your clothes before starting the vehicle.

#### NOTICE

Do not operate vehicle without proper use of kill switch. The engine turns off when the kill switch tether is pulled off.

**HANDLING**

# HANDLING

## PRECAUTIONS

Check that the engine is placed on a level surface to ensure correct readings.

Before starting a new engine, make sure that the engine oil and transmission oil are filled to the correct level. The correct engine oil must be used for the engine (check technical details). When checking the oil level with the dipstick, turn the dipstick fully closed in order to get the correct reading. Never mix different types of oils. This causes engine damage. Using wrong oil voids warranty.

Check that the fuel tank is refueled. Do not fill the tank to the brim, otherwise fuel will spill over during use and transportation. Fill the tank to the mark shown in the tank.

The vehicle should only be operated in the correct temperatures (see technical data). In very cold conditions, the electric start may not supply high enough speed to start the engine. When this is the case, start the engine using a starting rope.

If you notice a fault or damage to the engine, do not use the vehicle. Contact your authorized dealer.

Always start the engine without the chain and with the chain cover on before operating the vehicle.

## STARTING NEW ENGINE

1. A new engine must be run in. This ensures the engine a long lifespan.
2. When running in a new engine, you must avoid driving on higher RPM.
3. When running in a new engine, you must use **at least** two tanks of fuel.
4. The engine idle can be adjusted from the black Phillips screw, which is located in the carburetor.

## STARTING AND STOPPING ENGINE

Always attach the kill switch tether to your clothing before starting the vehicle. Check that the hydraulic brake is correctly installed in the brake position near the engine sprocket. Check that the brake fluid is in correct level and that the brake is functioning correctly.

Check the throttle and brake lever operation. Make sure that they both move freely and that they return to right position. Never start the engine if the throttle and brake levers do not work properly. Always clean ice or snow from the engine before starting.

Check that the brakes work properly while operating the vehicle in slow speed. If the throttle lever is damaged (in the wrong position), it can cause the vehicle to suddenly surge forward after starting the engine – always start the engine without the chain and chain cover installed. For example, the throttle lever may be frozen and cause the unit to start moving without operating the throttle lever.

If the linkage does not work properly, the engine should be warmed up and allowed

to dry. Do not use the vehicle if you suspect damage to throttle or brake system. Contact your local authorized dealer.

Open the fuel tap and, if necessary, switch the choke on. In the electric start version, apply the brake at the same time as starting the vehicle with the key. In case of a non-electric starter, pull the starting rope while pressing the brake. Allow the engine to warm up for a while and then close the choke. To start, press the throttle. Braking is done by pressing the brake lever. Fully pressed brake lever can be locked with parking brake lever (see page 61).

**Always turn off the engine by pressing the middle button** on the switch board (located on the steering device) (check vehicle structure in this owner's manual).

## NOTICE

Prolonged engine idling (>5 minutes) should be avoided.

## NOTICE

If water gets into the fuel tank, it will cause malfunctions and may freeze in the carburetor, which prevents the engine from starting.

## NOTICE

The choke must be turned off immediately after warm up, since driving while the choke is on will result in high fuel consumption. This will also foul the spark plug.

## NOTICE

If the engine starts to smoke and feels inefficient – clean the engine air filter.

## NOTICE

To turn off the engine: remove the kill switch tether, press the kill switch, or turn the key to turn off the engine. You can also shut down the engine by pressing the middle button on the switch board. When the engine is switched off, the fuel tap must be closed.

## NOTICE

Disconnect the battery quick connector if the vehicle is turned off for over two hours.

## DRIVING AND OPERATING

Always check the following before operating a Vaellan vehicle:

- Parts are secured into place
- Reflectors are in good condition
- Lights work properly
- Brakes work properly
- Parking brake works properly
- Motor kill switch works properly (the motor should turn off when the clip is pulled off)
- Steering (turn the steering to its extreme positions)
- \*Snowrollers/Wheels are secured into place.

Always turn on the lights while operating a Vaellan vehicle to ensure you are noticed. The light switch can be found on the switch board (located on the steering device). The switch board also includes the horn and main power switch.

Take a comfortable position on the seat, hold on to the steering device, and place your feet on to the footrests on the front frame. Slowly press on the throttle to start

moving. You can stop the vehicle by releasing the throttle or by pressing the brake. For safety reasons, do not use any third-party accessories or parts other than those approved by Vaellan Ltd.

If the vehicle sinks into deep snow, remove the wet snow from between the track and the rest of the vehicle immediately. Do not push the Vaellan vehicle from the steering device, as this will cause damage to the steering device.

If snow gets stuck between the starter rope and the starter rope is frozen, do not try to force the rope or it may break. Remove the starter rope housing and clean the rope. Always use the electric start first.

If the vehicle cannot be started or cannot be driven, tow the vehicle at a maximum speed of 5 km/h (3 mph).

#### Towing:

1. Remove the chain from the motor.
2. If towing a Vaellan Wheeler, switch the gear to neutral.
3. Tow the vehicle from the lower part of steering column (if you do not have a additional Vaellan front grab installed).
4. Pull the vehicle forward.

#### SWITCHING GEARS

You can change the maximum speed of you Vaellan vehicle by changing the engine sprocket.

Vaellan vehicles are equipped with a 14-teeth sprocket. You are able to purcha-

se additional 16- and 12- teeth sprockets from Vaellan's authorized dealers. The 16-teeth sprocket is used when driving on icy surfaces, frozen lakes, or hard snow. The 12-teeth sprocket is used when towing or driving outside trails.

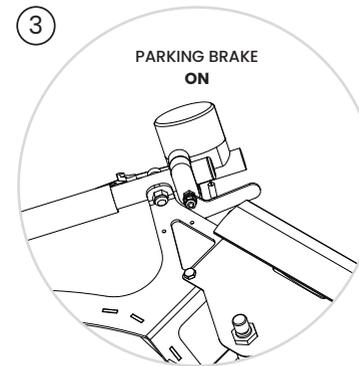
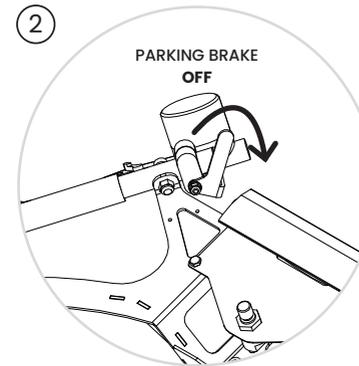
#### Changing sprocket:

1. Turn off the engine.
2. Remove the chain from the engine.
3. Remove the bolt that holds the sprocket on the engine shaft.
4. Pull on the sprocket to remove it.
5. Position the new sprocket so that the sprocket teeth are furthest from the engine.
6. Check that the key remains in the key groove (some versions have an accessory sprocket spacer).
7. Place the sprocket mounting bolt at the end of the axle.
8. Add locktite and tighten the bolt (25Nm).

#### DISASSEMBLY AND STORING

Disassembly of the vehicle takes place in reverse order. Remember that the engine and battery must be kept upright at all times and that the engine might be hot after use.

The Vaellan vehicle can be stored as disassembled parts or as a whole. Protect the vehicle from the elements by storing it with a cover or storing it inside. This ensures that the vehicle does not deteriorate over time.



#### HOW TO USE THE PARKING BRAKE

1. Press down on the brake.
2. Turn the parking brake lever forward (90 degrees).
3. Slowly let go of the brake. The parking brake is now locked (facing forward).
4. To release the parking brake, simply press down on the brake or pull the parking brake lever to its original position (facing up).

**MAINTENANCE**

# MAINTENANCE

## Daily:

- Check for any oil or fuel leaks. Add oil and fuel if needed
- Check the oil level in the engine and gearbox
- Check the chain tension.

## Every 10 hours of operation:

- Lubricate the chain with chain spray (note that the chain and sprocket wear out faster if lubrication is not done)
- Check the tightness of the screw connections.

## Every 50 hours of operation:

- Check the condition of the brake pads (replace when necessary)
- Check tire pressures
- Check track tension (tighten when necessary)
- Check the chain alignment when the chain is tightened. If necessary, adjust by loosening the engine mounting bolts and turning the engine. Then tighten the bolts.

## End of driving season:

- Wash and dry the vehicle
- If the paint has worn at some points, sand and repaint the damaged areas. Get the correct shade from your local authorized dealer
- Check rollers and bearings on track and tires, replace if necessary
- Service the engine. Adjust valve clearances and plug. Change oils in engine and transmission
- It is advisable to have the engine serviced annually by an authorized service center
- If you do the annual maintenance

yourself, collect the drained oil and take it to a hazardous waste collection point. Oil is harmful to nature and should not be allowed to enter the environment

- The vehicle must be protected from the rain. Always store in a dry place with effective ventilation (due to possible fuel vapor)
- If the vehicle is not used for a long time, charge the battery with the optional maintenance charger every three months
- It is advisable to fill the fuel tank with alkylate petrol and then run the engine for a few minutes
- Normal gasoline will not remain good when unused in the engine for a long time. It may cause running problems or prevent the engine from starting.

## Track tension adjustment:

Contact your local dealer.

**WARRANTY**

# WARRANTY

## WARRANTY

The manufacturer strives for continuous quality improvement in design and production. These guarantees quality products for end users.

Vaellan vehicles offers a limited warranty on all new vehicles sold to the original purchaser for a period of one year from the date of the purchase. This warranty covers defects in materials and workmanship related to non-wearable parts.

This warranty does not cover damage resulting from misuse, neglect, accidents, or any other external causes. It also does not cover wear and tear on parts that will wear out over time, such as tires, brakes, or battery. This warranty does not cover travel, hourly costs or freight costs related to maintenance. Warranty only includes parts.

To be eligible for warranty coverage, the vehicle must be used for its intended purpose and in accordance with all applicable laws, regulations, and operating instructions. Any modifications or alterations to the vehicle voids the warranty.

This warranty is non-transferable and applies only to the original purchaser. Vaellan Vehicle reserves the right to make changes and improvements to its products without obligation to install such changes or improvements on previously sold vehicles.

Service must be performed by a manufacturer-authorized service center in accordance with the service schedule. The manufacturer is not responsible for travel or installation costs incurred or any other third-party costs. All warranty claims should

be reported to your Vaellan dealer.

## NOTICE

The warranty only covers the parts covered by the warranty but not their installation or shipping.

## NOTICE

This warranty does not cover parts that have been damaged by improper stacking, neglect of maintenance, misuse, negligence, or self-inflicted accident.

## WHAT THIS WARRANTY DOES NOT COVER

Damage or failure caused by neglect of service, misuse of the device, negligence, use contrary to the manual, modifications to the device, accidents or if the device has been used with non-original parts. The warranty also does not cover damage caused by renting, borrowing, driving on snow-free hard ground with a track or skis, or damage caused by hitting a rock, stump, or other hard object. The warranty also does not cover defects caused by competitive use. This warranty does not cover parts that wear out during normal use, such as a spark plug, chain, track, or tires. The warranty also does not cover indirect costs or the costs of delivering the unit or part of the device for service. The warranty also does not cover the cost of shipping and packing parts when shipping parts to the customer. The warranty is only valid for the first owner who is marked as a buyer.



## **DISPOSAL OF THE PRODUCT**

The product should be disposed of in accordance with local requirements. The engine contains oil that is dangerous to nature. The battery contains dangerous acids. Ask your local recycling center for disposal instructions.

### **EU DECLARATION OF CONFORMITY**

Manufacturer: Vaellan Ltd., Naattiantie 1A, 40520 Jyväskylä

Brand: Vaellan

Model: Vaellan

We declare that the device meets the requirements of the following directives: 2006/42 / EC, 2004/108 / EC, 97/68 / EC, 2001/95 / EC and complies with the following harmonized standards: EN ISO 12100-2010.

In Jyväskylä on 1 January 2024.

Tatu Virtanen

Head of R&D, Mother and Father of Vaellan products  
Vaellan Ltd.

201911

OWNER'S MANUAL  
**VAELLAN VEHICLES**