



Инструкция по эксплуатации серфборда DLE Jetboard

Поздравляем вас с приобретением серфборда DLE Jetboard!

Серфборд DLE Jetboard изготовлен из углеродного волокна, оснащен 2-тактным двигателем внутреннего сгорания и предназначен для экстремальных видов спорта.

Прежде чем начать эксплуатацию серфборда, уделите некоторое время для ознакомления с устройством DLE Jetboard и принципом его работы.

Для вашей безопасности необходимо поддерживать серфборд в исправном техническом состоянии.

Перед запуском двигателя серфборда, пожалуйста, внимательно изучите настоящую инструкцию, содержащую всю необходимую информацию о правильной эксплуатации DLE Jetboard. Очень важно выполнять проверки технического состояния серфборда перед каждой поездкой, а также проводить его техобслуживание после поездки, как это описано в данном руководстве.

Если какие-либо моменты, описанные в данном руководстве, были вами не поняты, а также в случае возникновения любых вопросов по обслуживанию серфборда, пожалуйста, позвоните за разъяснениями в центр послепродажного сервисного обслуживания (400-100-6090), или обратитесь за актуальной информацией,

размещаемой на нашем веб-сайте www.dlengine.com

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1. Instructions

Jetboard is a high performance device, not a toy.

We highly recommend that someone operating a Jetboard must be at least 16 years old. We do not recommend pregnant women, old men, or people who with hypertension and operating a Jetboard. It is necessary to wear a helmet & PFD (Personal Flotation Device) to protect yourself and others when you ride. This owner's instruction has been prepared to better acquaint you with Jetboard's various controls, maintenance, and safety guidelines. Although merely reading this information does not eliminate all hazards, understanding and application of the information provided herein will facilitate the correct use of a Jetboard.

As a Jetboard owner, you have joined a large community of riders who want to ensure that there are always good places to ride , and only ride in areas where it's legal to ride Jetboard and approved by the local authorities.

2. Safety information

1) Avoid Collisions

The most common type of accident is colliding with another vessel. In addition, collisions result in more injuries and deaths than any other type of watercraft accident. Understanding how your Jetboard operates is key to avoiding collisions. The Jetboard does not have brakes, so you must plan ahead if you are slowing to a stop. Make it slow-moving decelerate can avoid falling from the board.

2) Ride Defensively

Be aware of others in the water around you. Knowing the rules of the waterway can help keep you out of trouble. Keep a safe distance from people, objects, and other watercraft. Remember that if you are on a collision course, it's your responsibility to avoid the collision.

3) Wear a PFD (Personal Flotation Device)

It is necessary to know the importance of PFD & protective device. Any time you ride your Jetboard ,you should wear an approved PFD. A PFD is the most important piece of safety apparel because it offers the best protection against drowning. A PFD should fit you properly and securely. A brightly colored PFD will make you more noticeable in the water. We recommend you also wear appropriate protective clothing, including a wetsuit bottom or equivalent, footwear, gloves and eye protection.

4) Helmets

A helmet can offer some head protection in a collision or impact. Each time you ride, think about the conditions and environment in which you'll be riding, and you should decide for yourself whether or not to wear a helmet. But the helmet can also cause severe injuries in other situations ,so please choose a professional helmet.

5) Ride Within Your Limits

Exceeding your ability can increase the risk of losing control and causing a collision. Never ride beyond your personal ability or faster than conditions permit. Remember that alcohol, drugs, fatigue, and inattention can significantly reduce your ability to make good judgments and ride safely.

6) Keep Your Jetboard in Safe Condition

It's important to keep you Jetboard properly maintained and in safe riding condition. To help avoid problems, inspect your Jetboard before every ride and perform all recommended maintenance. Never exceed load limits, and do not remove any original equipment or modify your Jetboard in any way that would change its design or operation.

RIDE DEFENSIVELY

- 1) Maintain a safe speed and keep a safe distance away from people, objects, and other watercraft.
- 2) Do not follow directly behind other powered watercraft or boats, in case of rollover accident when suffered big waves .
- 3) Do not ride near others, in case the Jetboard out of control result others who near you gets hurt.
- 4) Avoid sharp turns or other maneuvers that make it difficult for others to avoid you or determine what direction you are going.
- 5) Avoid areas with submerged objects or shallow water.
- 6) Take early action to avoid collisions. Remember, Jetboard do not have brakes.

3、 Technical data

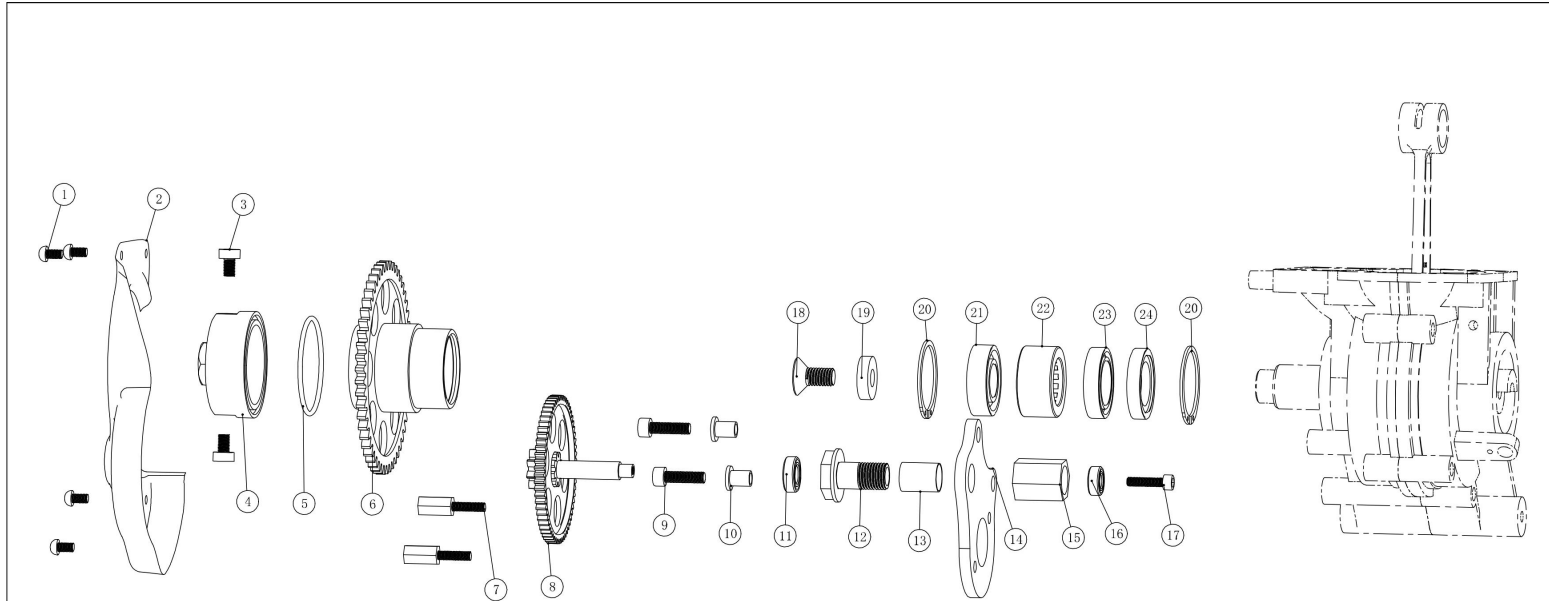
L*W*H :	1800*600*150
Weight:	19.5KG
Engine type :	Two stroke water-cooled engine
Displacement:	106CC
Power:	8KW/7500rpm
Recommended operational RPM	6700 ~ 7800rpm
Max. Speed	55km/h
Compression ratio:	13:1
Diameter * Stroke	52*50
Engine Starter:	Electronic starter
Fuel :	Unleaded petrol at least. No.92
Fuel mix ratio	50:1
Fuel tank capacity	3.0L
Recommended lubrication oil	Fully synthetic 2T lubrication oil
Ignition:	CID Electronic igniter
Spark plug:	NGK BM6A
Min. Water depth	50CM
Maximum load	100KG
Packing dimension	1900*700*300

4. Safety instructions & exploded assembly drawing

Safety instructions

1. The user must be at least 16 years of age.
2. Using clean gasoline fuel, and the lubricating oil mixture that you should use is 30 to 1. Do not use the lubricating oil mixed with other different make, type, or model lubricating oil, or will cause serious carburetor blocking.
3. The engine don't run in low speed long time, or will cause serious carbon deposit on carburetor.
4. Always inspect the tube from tank to carburetor for gas leaks.
5. Caution : Checking the fuel strainer of carburetor regularly for needle damage, or will cause engine to run unstable.
6. Start the engine only in well ventilated places. Never start the engine in enclosed spaces.
7. Make sure that you have enough fuel before starting the engine, and ensure the ignition batteries are sufficiently charged.
8. Do not leave the new engine running in high speed, running in low speed 10-20 minutes first. Never leave the engine running away from the surface of the water of more than 5 seconds, there could be some permanent damage to the engine and the exhaust system.
9. Never touch any part of a running engine, and do not attempt to stop the engine with any part of the human body.
10. Do not touch uncooled cylinder and exhaust.
11. When starting the engine, please make sure that any audience are at least 5 metres away.
12. Before transporting the engine, please ensure that the fuel tank is completely empty.

Starter



启动机机构视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Hexagon socket mushroom cap screw	半圆头内六角螺钉			4	
2	Hood	齿轮防护罩			1	
3	Hexagon socket head screw	圆柱头内六角螺钉			2	
4	Oil reservoir	储油器			1	
5	O-type ring	O型密封圈			1	
6	Starter gear	启动大齿轮			1	
7	Outer six-square connecting screw rod	外六方连接螺杆			2	
8	Duplex starter gear	双联启动齿轮			1	
9	Hexagon socket head screw	圆柱头内六角螺钉			2	
10	Locating bush	定位套			2	
11	Bearing	轴承			1	
12	Duplicate gear bearing block	双联齿轮轴承座			1	

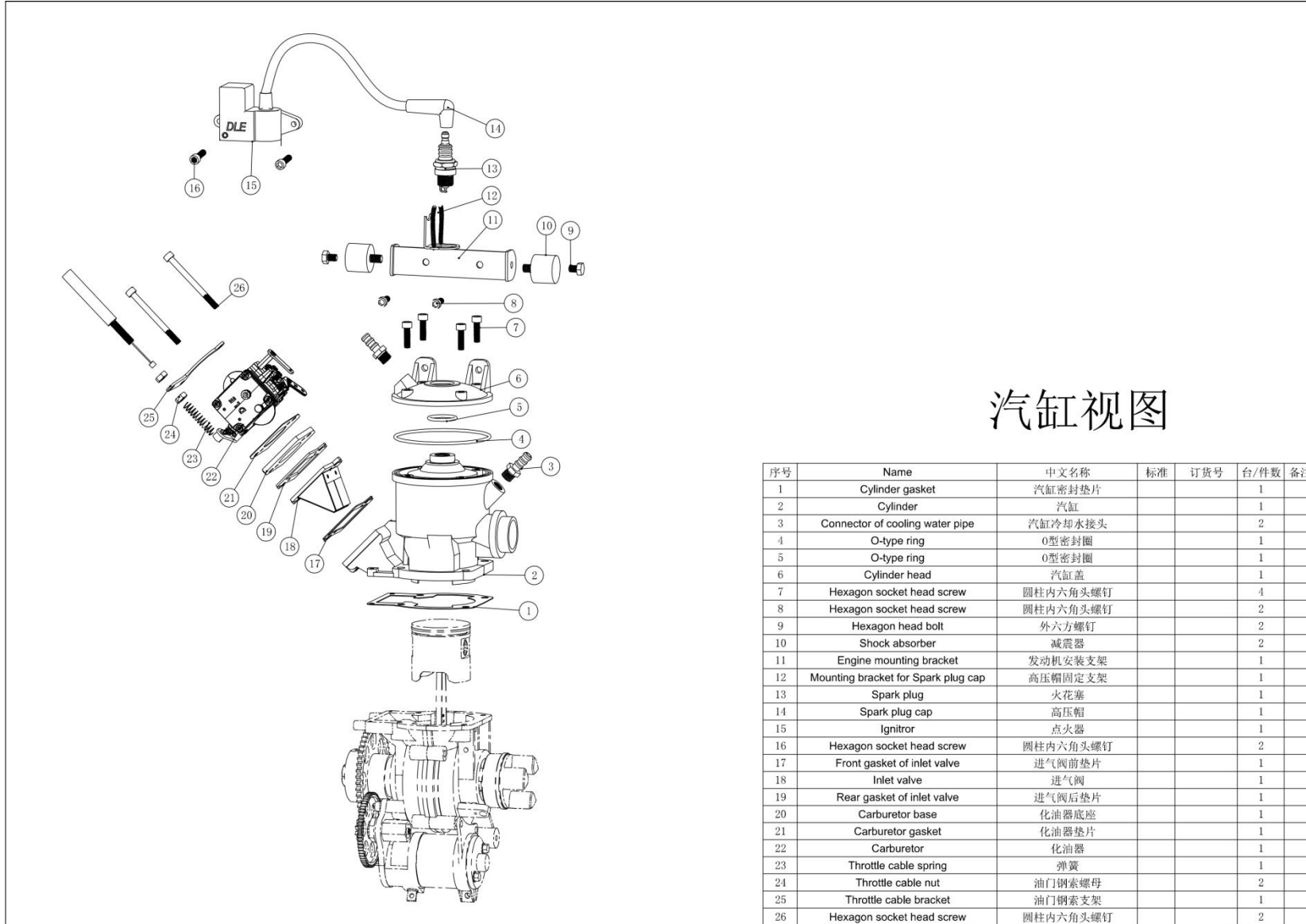
序号	Name	中文名称	标准	订货号	台/件数	备注
13	Bearing pedestal locating sleeve	轴承座定位套			1	
14	Motor bracket	电机支架			1	
15	Bearing pedestal thread insert	轴承座螺套			1	
16	Bearing	轴承			1	
17	Hexagon socket head screw	圆柱头内六角螺钉			1	
18	Countersunk socket head cap screw	沉头内六角螺钉			1	
19	Bearing tableting	轴承压片			1	
20	Ring	挡圈			2	
21	Bearing	轴承			1	
22	Isolator	单向器			1	
23	Bearing	轴承			1	
24	Oil seal	油封			1	

Crankcase

曲轴箱视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Hexagon head bolt	外六角螺钉			2	
2	Shock absorber	减震器			2	
3	O-type ring	O型密封圈			1	
4	Crank case	曲轴箱			1	
5	Bearing	轴承			2	
6	Crankshaft assembly	曲轴总成			1	
7	Hexagon socket head screw	圆柱头内六角螺钉			1	
8	Oil seal	油封			1	
9	Coupling fixing sleeve	联轴器固定套			1	
10	Hexagon socket head screw	圆柱头内六角螺钉			3	
11	Hexagon socket head screw	圆柱头内六角螺钉			2	
12	Coupling	联轴器前			1	
13	Hexagon socket head screw	圆柱头内六角螺钉			1	
14	Hexagon socket head screw	圆柱头内六角螺钉			1	
15	Sensor	传感器			1	
16	Motor hoop bracket	电机抱箍支架			1	
17	Hexagon socket head screw	圆柱头内六角螺钉			1	
18	Starter motor	启动电机			1	
19	Hexagon socket head screw	圆柱头内六角螺钉			1	
20	Needle bearing	滚针轴承			1	
21	Piston pin	活塞销			1	
22	Piston	活塞			1	
23	G-type circlip	G型卡簧			2	
24	Piston ring	活塞环			2	
25	Hexagon socket head screw	圆柱头内六角螺钉			4	
26	Hexagon socket head screw	圆柱头内六角螺钉			2	
27	Cooling water pipe connector	冷却接头			1	
28	Hoop	抱箍			2	
29	Drain-pipe	排水管			1	
30	Drainage plug	排水堵头			1	

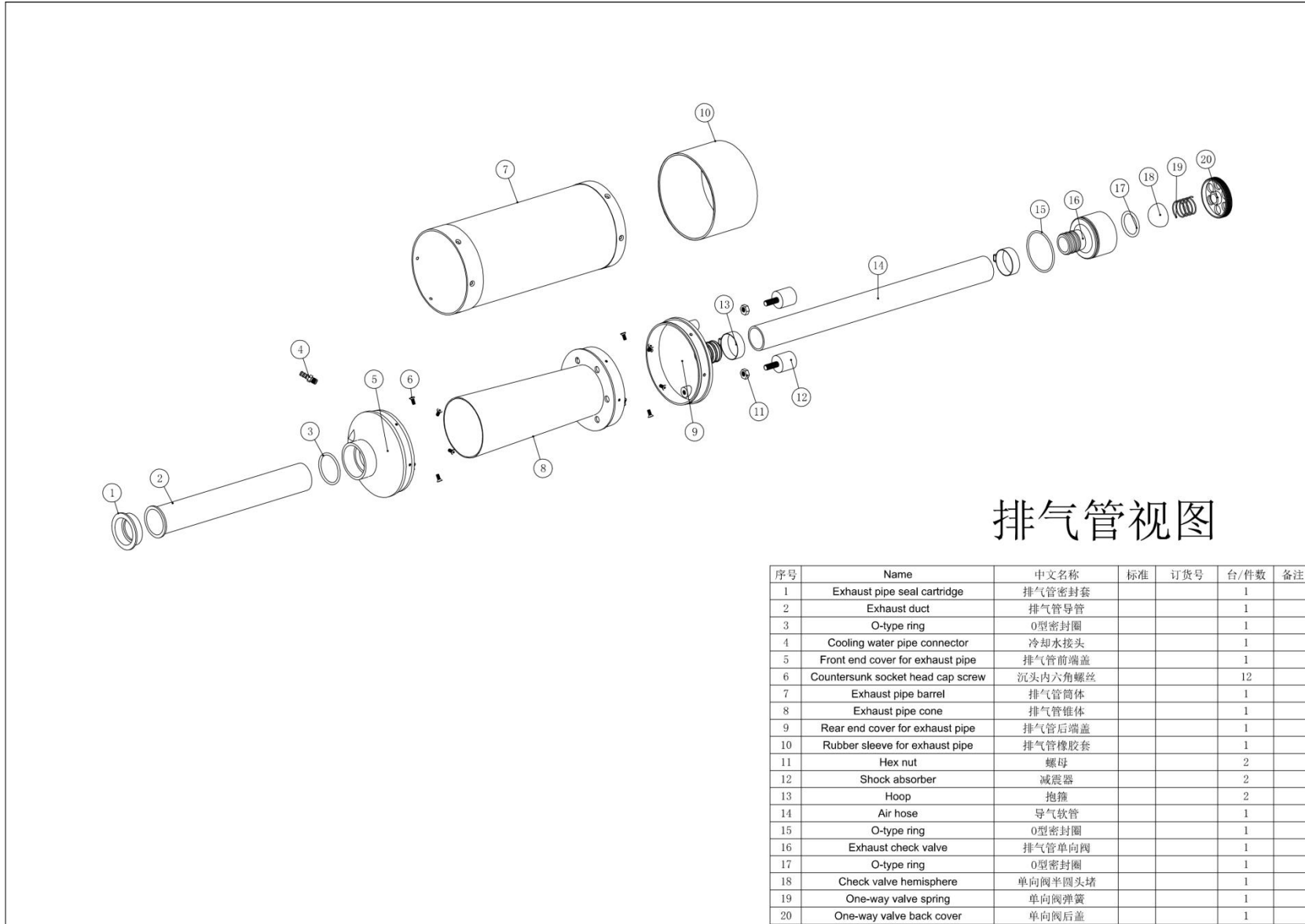
Cylinder



汽缸视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Cylinder gasket	汽缸密封垫片			1	
2	Cylinder	汽缸			1	
3	Connector of cooling water pipe	汽缸冷却水接头			2	
4	O-type ring	O型密封圈			1	
5	O-type ring	O型密封圈			1	
6	Cylinder head	汽缸盖			1	
7	Hexagon socket head screw	圆柱内六角头螺钉			4	
8	Hexagon socket head screw	圆柱内六角头螺钉			2	
9	Hexagon head bolt	外六角螺钉			2	
10	Shock absorber	减震器			2	
11	Engine mounting bracket	发动机安装支架			1	
12	Mounting bracket for Spark plug cap	高压帽固定支架			1	
13	Spark plug	火花塞			1	
14	Spark plug cap	高压帽			1	
15	Ignitor	点火器			1	
16	Hexagon socket head screw	圆柱内六角头螺钉			2	
17	Front gasket of inlet valve	进气阀前垫片			1	
18	Inlet valve	进气阀			1	
19	Rear gasket of inlet valve	进气阀后垫片			1	
20	Carburetor base	化油器底座			1	
21	Carburetor gasket	化油器垫片			1	
22	Carburetor	化油器			1	
23	Throttle cable spring	弹簧			1	
24	Throttle cable nut	油门钢索螺母			2	
25	Throttle cable bracket	油门钢索支架			1	
26	Hexagon socket head screw	圆柱内六角头螺钉			2	

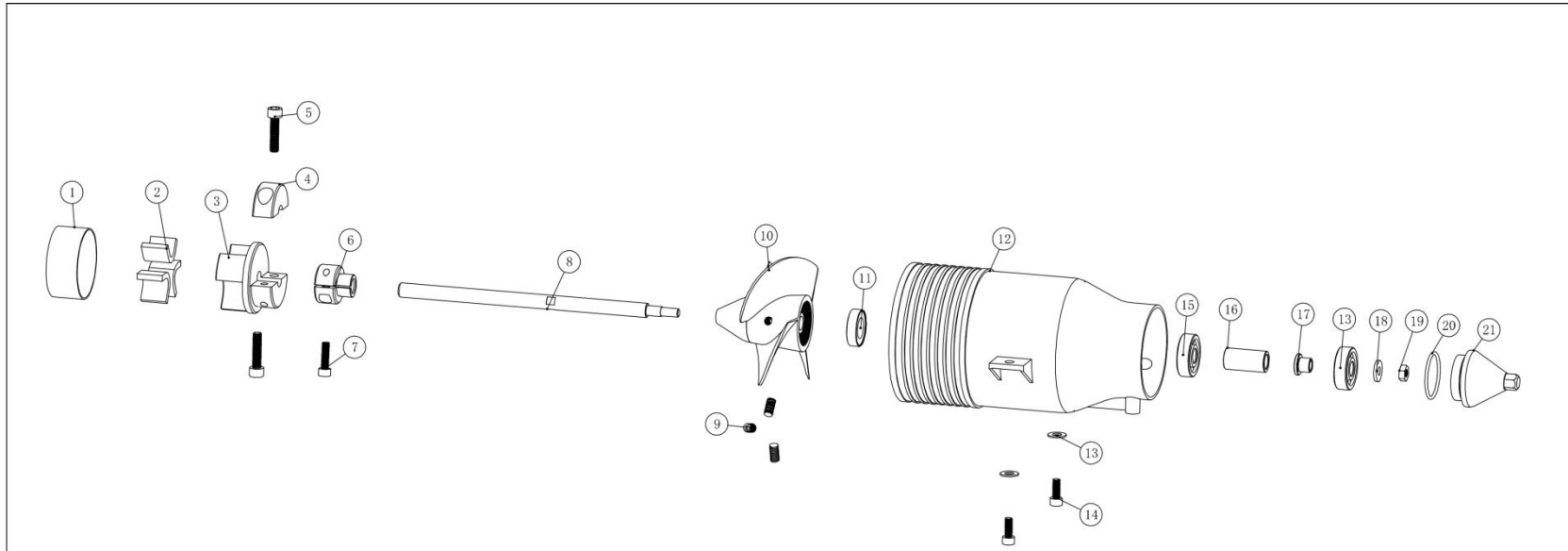
Exhaust pipe



排气管视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Exhaust pipe seal cartridge	排气管密封套			1	
2	Exhaust duct	排气管导管			1	
3	O-type ring	O型密封圈			1	
4	Cooling water pipe connector	冷却水接头			1	
5	Front end cover for exhaust pipe	排气管前端盖			1	
6	Countersunk socket head cap screw	沉头内六角螺丝			12	
7	Exhaust pipe barrel	排气管筒体			1	
8	Exhaust pipe cone	排气管锥体			1	
9	Rear end cover for exhaust pipe	排气管后端盖			1	
10	Rubber sleeve for exhaust pipe	排气管橡胶套			1	
11	Hex nut	螺母			2	
12	Shock absorber	减震器			2	
13	Hoop	抱箍			2	
14	Air hose	导气软管			1	
15	O-type ring	O型密封圈			1	
16	Exhaust check valve	排气管单向阀			1	
17	O-type ring	O型密封圈			1	
18	Check valve hemisphere	单向阀半球头堵			1	
19	One-way valve spring	单向阀弹簧			1	
20	One-way valve back cover	单向阀后盖			1	

Propulsion device



推进器视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Coupling carbon fiber tube	联轴器碳纤维管			1	
2	Shock pad	减震胶垫			3	
3	Rear section of coupling	联轴器后段			1	
4	Coupling clamping block	联轴器夹紧块			1	
5	Hexagon socket head screw	圆柱内六角头螺钉			2	
6	Coupling lock sleeve	联轴器锁紧套			1	
7	Hexagon socket head screw	圆柱内六角头螺钉			1	
8	Drive shaft	传动轴			1	
9	Hexangular set screw	内六角平端螺钉			3	
10	Impeller	叶轮			1	
11	Oil seal	油封			1	
12	Thruster cylinder	推进器筒体			1	
13	Flat gasket	平垫片			2	
14	Hexagon socket head screw	圆柱内六角头螺钉			2	
15	Bearing	轴承			2	
16	Spacer bushing	轴承隔套			1	
17	Bearing bush for thruster	轴承衬套			1	
18	Flat gasket	平垫片			1	
19	Nut	螺母			1	
20	O-type ring	O型密封圈			1	
21	Rectifier end cover	整流端盖			1	

About Propulsion device

Check that there are no obstacles or debris obstructing the jet intake grate, propeller, and driveshaft. Remove any debris you might find. If while riding, the Jetboard does not run with sufficient power or strong vibration, stop the engine immediately and check the pump for obstructions or debris and remove anything you might find there before restarting the engine.

WARNING !

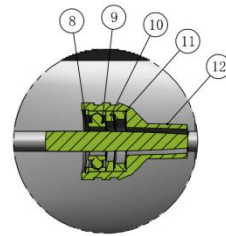
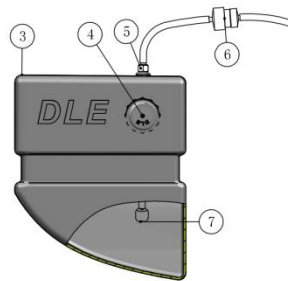
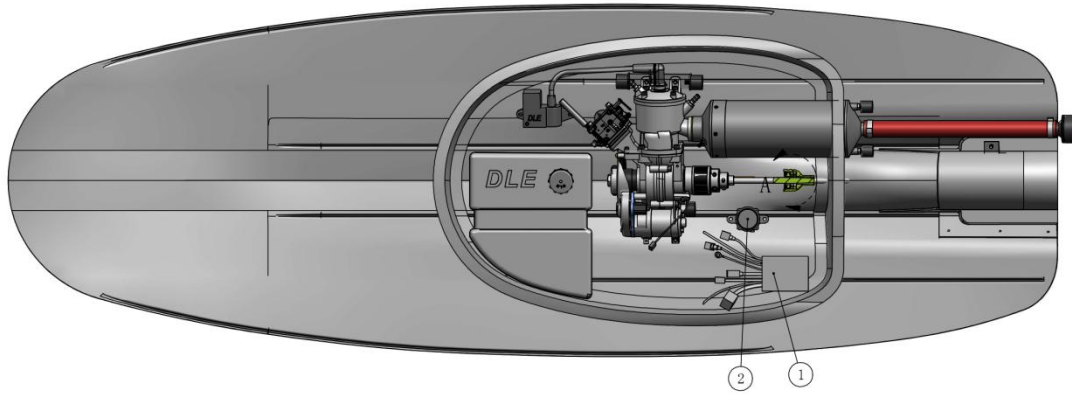


1. You must install cooling hose , cause too high temperature would make engine damage if without cooling hose.
2. Cleaning the one-way valve regularly, and ensure that the installation direction is correct.



板体视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Cable adjuster nut	拉绳螺栓			1	
2	Bolting pad	螺栓垫片			2	
3	Cable adjuster screw	拉绳螺钉			1	
4	Rubber sleeve	橡胶套			1	
5	Bellows flange	波纹管法兰压板			1	
6	Rubber bellows	橡胶波纹管			1	
7	Hexagon socket mushroom cap screw	半圆头内六角螺钉			4	
8	Carbon fiber tube	碳纤维管			1	
9	Control handle	手柄			1	
10	Bracelet + start key	手环钥匙			1	
11	Handle silicone pad	拉手垫片			4	
12	Hexagon socket head screw	圆柱头内六角螺钉			4	
13	Handle	拉手			2	
14	Hatch-cover lock catch	舱盖锁紧扣			4	
15	Hatch-cover locking column	舱盖锁紧柱			4	
16	Hatch-cover lock pad	垫片			4	
17	Hatch cover	舱盖			1	
18	D-type sealing strip	D型密封条			1	
19	Hexagon socket mushroom cap screw	半圆头内六角螺钉			16	
20	Latch collar	锁紧座			4	
21	Cylindrical pin	锁紧销			4	
22	Circuit breaker	断电总成开关			1	
23	Drain Connector	排水嘴			2	
24	Hexagon socket mushroom cap screw	半圆头内六角螺钉			8	
25	Foot strap	脚套			2	
26	Foot pad	脚垫			2	
27	Hull	冲浪板板体			1	
28	Hexagon socket head cap screw	圆柱头内六角螺钉			2	
29	Side fin	侧鳍			2	
30	Half-round head self-tapping screw	半圆头内十字螺钉			3	
31	Mounting plate for tail fin	尾鳍安装板			1	
32	Hexagon socket mushroom cap screw	半圆头内六角螺钉			8	
33	Tail fin	尾鳍			1	

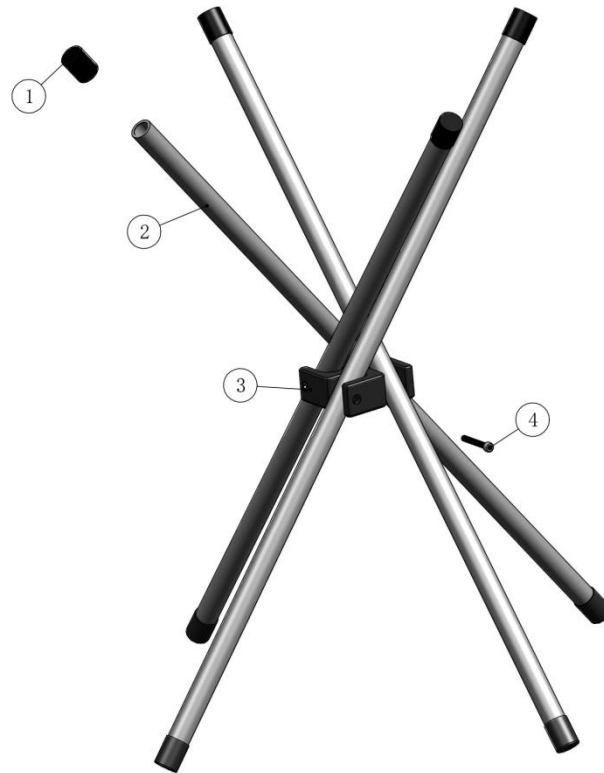


DETAIL A
SCALE 1:2

舱内机构视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Controller	控制器			1	
2	Water pump	水泵			1	
3	Fuel tank	油箱			1	
4	Fuel tank cap	油箱盖			1	
5	Screws for fuel tank	油箱螺丝组件			1	
6	Oil filter	油滤			1	
7	Heavy hammer	重锤			1	
8	Elastic collar	弹性挡圈			1	
9	Bearing	轴承			1	
10	Spacer	隔垫			1	
11	Oil seal	油封			1	
12	Bearing bracket	轴承座			1	

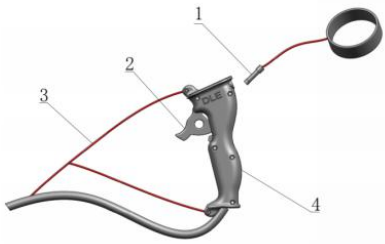
Bracket



支架视图

序号	Name	中文名称	标准	订货号	台/件数	备注
1	Supporting tube rubber sleeve	支架管橡胶套			8	
2	Supporting tube holder	支架管			4	
3	Mounting bracket	支架座			1	
4	Hexagon socket head screw	圆柱头内六角螺钉			4	

Control handle



Throttle: Check for free movement of the throttle and adjust if necessary. This can be done by pushing down on the throttle lever to determine if it moves smoothly without sticking, and snaps back automatically to the engine idle position when released. The throttle cable runs from inside the handle and connects to the carburetor.

Test procedure:

1. Press down fully on the thumb throttle and release several times.

2. Check to see if thumb throttle returns automatically to the rest/idle position.

3. If throttle can't return automatically to the engine idle position when released, then don't ride the Jetboard, and check the throttle cable and angle of handle immediately

starter key(启动钥匙): Throttle control lever (油门控制杆); handle (手柄); cord (拉绳)

Maintenance for control handle



1. Hold or hang the handle in an elevated, vertical position and spray a generous amount of WD-40, inside the throttle lever aperture and down the throttle cable while pressing and releasing the throttle lever several times. Keep the handle in this vertical position for at least five minutes to give the lubricant time to flow down the throttle cable.

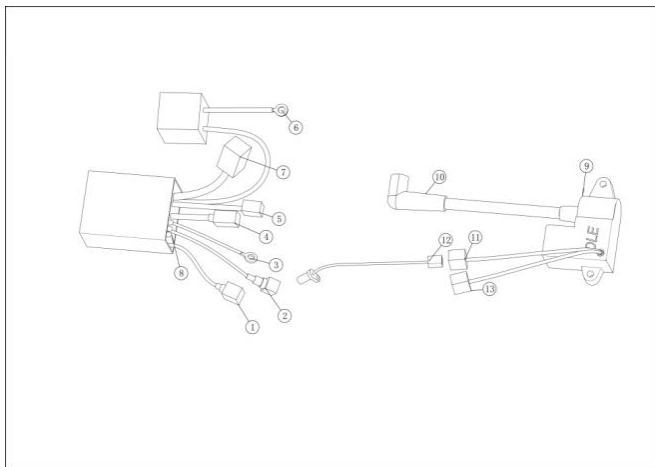
2. Spray a generous amount of WD-40 on the throttle cable where it attaches to the carburetor, and pressing down and releasing the throttle several times.

Controls system

Notice:

1. Inspect the control system connection before use , and ensure the connection is correct .
2. The control system must not be immersed in water for a long time.
3. No unauthorized control system is allowed to disassemble.

Controller specification

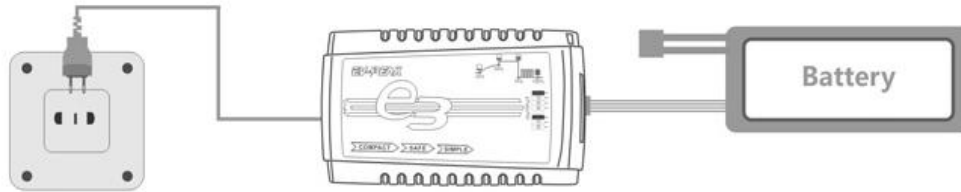


Name	DLE Jetboard ECU
Model	ECU-2017
Size	86mm*60mm*60mm
Battery capacity:	12.5V 5200mAh
Rated power	65Wh
Input voltage	12V
Low-voltage alarm	8.5V

NO.	Name	Color/category	Connect components	Remark
1	Water pump connector	Black & red, two cores (fine)	Water pump	The blue and black is negative, green and brown is positive
2	Ignitron connector	Black & red,, two cores (fine)	Ignitron 13	The brown one is positive, and the blue one is negative
3	Ground	Black No.12	Engine case	
4	Throttle handle interface	White, two cores (fine)	Throttle handle	
5	Electric breaking switch interface	Blue, black, yellow, three cores	Electric breaking switch	If long time no use, please disconnect the charger from the power source.
6	Starter motor connector	Red No.12	Starter motor	
7	Charging interface	Black, four cores (coarse)	Charger	
8	Power LED	Red, green		Red light bright means normal work; the green light bright means stay in idle state.
	Low voltage LED	LED flash		Low battery, need to charge the battery , or will failure to start the engine.
9	Ignitron			
10	Spark plug cap		Spark plug	
11	Sensor connector		Sensor 12	
12	Sensor		11	
13	Ignitron connector		Control system 2	

Charger

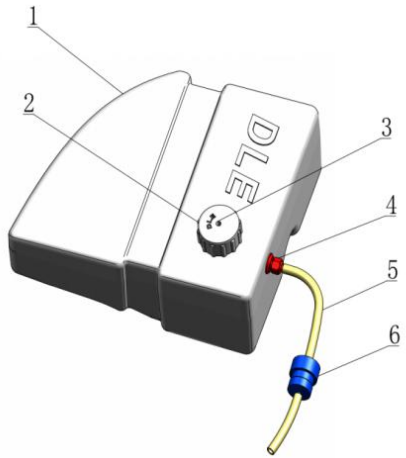
充电示意图



Charge procedure:

1. After connect the charger to the power supply, insert the power cable into 3S connector.
2. Through LED light to judge whether it is in standby/charging/full charged/default mode. There are four LED lights which separately indicate the battery power is 25%、50%、75%、100%.When it is in standby model, 25%/75% and 50%/100% will flash alternately. During charging : The 25% & 50% LED will light long time and 75% LED will flash while charging between 50% and 75%; Four LEDs all light up when the charging is 100% completed, at this time you should remove the battery. If the power light flashes means input voltage abnormal ,you should check it immediately and solve the problem.
3. You should keep the charger dry , never put it in dark wet places long term .

Fuel tank



- **Fuel mixture**

Please use unleaded gasoline 92 # or above, do not use ethanol petrol

We recommend that you use FD grade 2-stroke fully synthetic oil (MOTUL 710), cause low-quality fuel may lead to the engine performance degradation, or even make the engine damage.

The mixture that you should use is between 40 :1 ~ 50:1, when breaking in an engine the mixture should be 30:1, and in normal running status it should be 50:1 (which is volume ratio, not weight ratio); it can last one hour on a tank of fuel.

Notice : The Mixture oil should use as soon as possible, don't store it long term. If long term storage may lead to the carburetor fuel passage blocking, or even engine damage.

1.油箱 Fuel tank; 2.油箱盖Fuel tank cap; 3.单向阀one way valve ;

4.油嘴组件 Nipple components ; 5 油管 Fuel line; 6 fuel filter

5. Basic procedure for operation

Developing your riding skills is an on-going process. Even if you have ridden other watercraft, take time to become familiar with how the Jetboard operates and handles. For your safety, practice riding the Jetboard in calm water close to shore. Do not ride farther out until you get accustomed to the Jetboard .

How to open the bracket

1. folds together the bracket.

2. Hold the medium part of bracket with your left hand, and hold the top of bracket with your right hand then turn it count clockwise.
3. Hold on the diagonal bracket and open it.
4. If used improperly may cause the bracket damage.



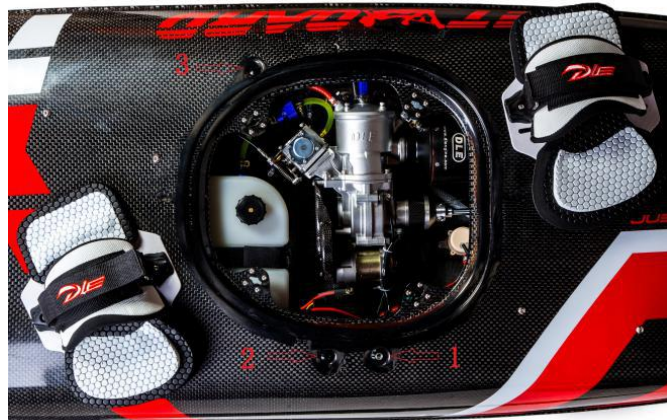
Installation of tail fin and side fins



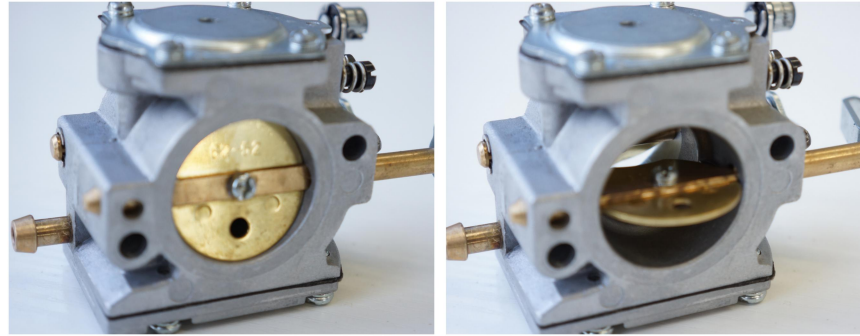
1. For the tail fin and side fins, you should put on the tail fin first, and make sure that the cooling hose and propulsion installation is correct. (Note: Riding without fitted cooling hoses will cause overheating that could damage or destroy the engine); the next thing you need to do is put on the 2 side fins.

2. Inspect power supply and fuel, and make sure all components and screws are tight and in the right position.

3. After connecting with the power supply, as long as the LED stays green, it should be normal. After the insertion of the starting key into the switch box, the LED staying red means it is in normal status. Please charge the battery if the LED begins to flicker when the battery is low; if the LED does not light, it means a connection or control system error. When long periods are not used, you need to put the start key in the electric breaking switch hole (fig 1,) and make sure to turn off the power.



1. Electric breaking switch 2. Pump drain outlet 3. Drain outlet for cooling water

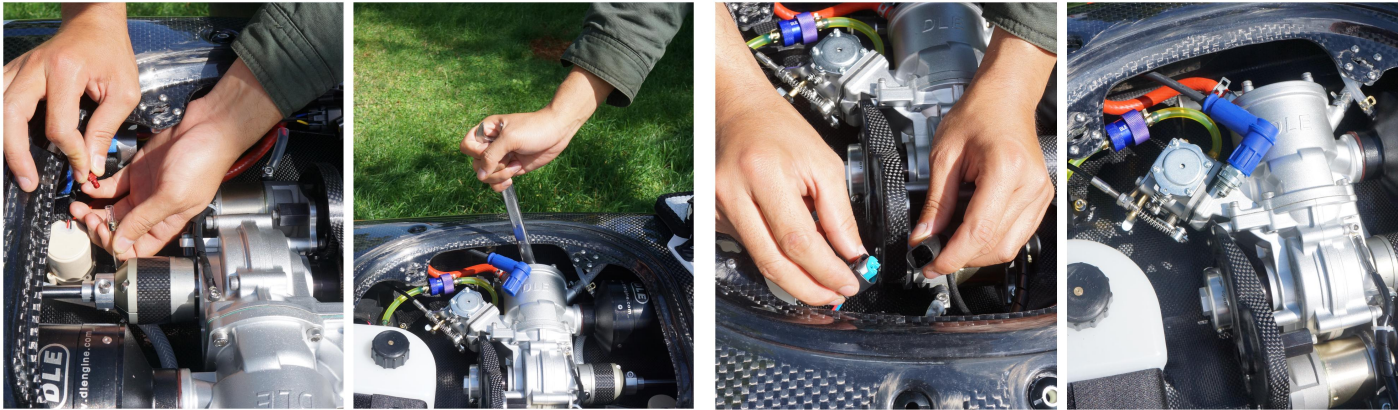


closed

open

5. Close the carburetor choke, open the full throttle, and insert the start key, after 5 seconds the engine will start automatically (Usually you should repeat this process 1-2 times then can make the fuel from tank pump to the engine). You should pull out the key after hear the explosive sound. Then open the choke, letting go of the throttle, and insert the start key after 5 seconds the engine will in idle status. If the engine does not start, you might need to repeat the process again, make maximum 3 attempts and then wait few minutes. If this happen, what we should to do first is to eliminate possible causes, such as water in the engine or water in the cylinder, except the engine is new. If the engine has not started successfully after 3 attempts, mostly because oil spill inside your engine, and you need to drain the excess fuel from engine compartment as following steps:

How to drain the excess fuel from the engine compartment ?



- ① Open the drainage switch, see fig 1.
- ② Remove the spark plug to check if oil spill inside your engine; if the spark plug was soaked with oil, you should shake out as much oil as you can and make it dry.
- ③ Disconnect the sensor switch, make the igniter unable to work. If there is fuel inside the engine area , it could cause a fire may result of casualties.
- ④ Install the spark plug into spark plug cap (see fig 3.), connect the spark plug to engine,and avoid to damage the control system. Insert the start key to control handle, check the spark plug for flame out when starting the engine, if it doesn't flame out please inspect sensor or igniter, and replace it in time if necessary.
- ⑤ You should tilt the board at a forty-five degree angle and start the engine 2 or 3 times to make sure that the extra petrol out of the hull if there is much fuel inside the engine.
- ⑥ Install the spark plug which you have just cleaned to the cylinder.Note:Must be install the drainage switch.
- ⑦ Open the choke, insert the start key to start the engine.
- ⑧ If the engine still refuses to start, refer to the section "If Your Engine Quits or Won't Start" which on page 26.

5. If not use the Jetboard when you have a rest on the shore, you should put the start key in electric breaking switch hole. When the Jetboard not use for more than 10 minutes, you must start the engine if you want to ride again. Please repeat step 4 if failure to start the engine, delay starting time interval can protect your start motor and save electricity.

6.The throttle lever controls the speed of Jetboard. The throttle lever will automatically return to the idle status when the lever is released.

7.The start key should be worn around the rider's wrist where rider holds control handle. The advantage of this is that if the rider falls off the Jetboard or away from the control handle, the engine will shut off immediately when the start key is pulled from the engine kill switch. To prevent an accidental engine start up, remove the magnetic plug from the engine kill switch whenever the Jetboard is not being operated, and put it in electric breaking switch case (See Fig 1 on page 20),which can make your Jetboard last longer time .

8. Install the Jetboard cover .On first use , running in low speed 10-20 minutes until the engine reaches its optimal when first use, then can adjust to high speed.



9.**Notice** : Spray a generous amount of WD-40 on all board components before use. Must be use the fresh water to clean the engine and hull after operated in seawater, and ensure that all water is completely out of the hull. At this time, it is possible that there is water inside the engine, you should drain out all the water. (Please refer the Chapter **How to correct the problem" Water in the engine "**, page 27) Then start the engine to drain out the cooling water from cylinder and exhaust pipe. Putting WD-40 on engine appearance, and then an appropriate amount of WD-40 is filled into the carburetor to retard internal parts rusting , restart the engine and ensure that the WD-40 is flow into the crankcase internal components.

10. Don't reattach the sealing cover immediately after ridding , there could be some permanent damage to the engine and the electronic system cause of the steam.

11.Disconnect the charger from the power source when the Jetboard is not being operated over 2 days ,which can extend the battery life.

12.Before transporting the engine, please ensure that the fuel tank is completely empty. once per1800 operation

WRNING : Renew lubricating oil once per 10 minutes operation.

1. Remove the screw for oil reservoir.
2. Use a syringe to inject lubricating oil to the oil reservoir, and the oil reservoir capacity is 10 ml.
3. Install the lock screw , and check if any leakage.
4. The oil from oil reservoir has an effect of one-way bearing lubrication; if without lubrication ,may result in internal parts damage

Note: Please follow the direction of arrow to turn when remove the oil reservoir.



Launching the Jetboard

Launching from Shallow Water:

Place the Jetboard about 50M of water and while standing beside the Jetboard, position one knee on the deck to stabilize the board and hold the handrail firmly. Use your other hand to insert start key, when the Jetboard starts up and adjust right throttle according to your own weight , until the Jetboard with enough power then you can lift yourself up on to the deck.

Launching from Deep Water:

You should practice launching in shallow water before attempting to launch in deeper water. When you fall and/or shut off the engine while operating in deep water, do not immediately remount the Jetboard. While floating in the water on either side of the Jetboard, grasp the handle, insert start key, until the Jetboard with enough power then you can lift yourself up on to the deck.(Performing this remounting procedure as promptly as possible will help keep the interior of the Jetboard's hull dry.) Note: If after trying start 3 times still failure to start the engine, please stop starting the engine, or will cause the start motor or other parts damage.It is possible that there is water inside the engine, you need to drain out water then can ride again.

IMPORTANT!

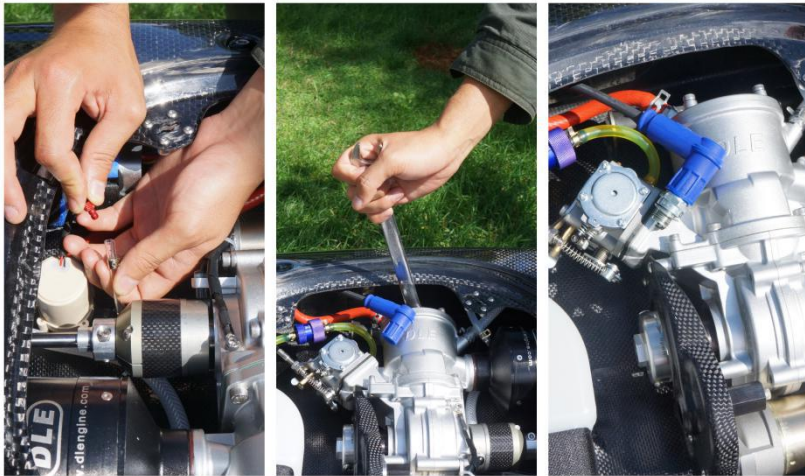
When you get accustomed to control your Jetboard's direction and throttle ,you should adjust the gravity center according to boat's gesture while you are ridding. When the nose of the Jetboard rises up ,it means that your gravity center too near the rear board, you should lean into the nose of the Jetboard. On the contrary, if your gravity center too near the front board, the connection area between the board bottom and water will increase , which may led to more resistance during ridding and make the ridding speed can't reach its optimal state.

5. Common faults and trouble shooting

The engine does not start	Checklist	How to fix
	If the fuel, battery is sufficient	Supplement fuel , replace battery or charge battery in time .
	Check to see if the power connection is correct.	Replace the incorrect connector
	Verify wet of spark plug	Replace new spark plug or make it dry
	Inspect ignition for flame out	Inspect at least the above three rules
	Inspect sensor for damage	Replace or maintenance
	Inspect if any water inside the cylinder	Water draining
	Verify electronic starter for damage	Replace or maintenance
	Inspect drawn cup needle roller bearing for damage	Replace or maintenance
	Inspect impeller for plastic foreign matter	Clean impeller
	Inspect the oil supply to carburetor.	Clean carburetor
	Inspect exhaust pipe for gas loose	Replace or maintenance
	If appear cylinder scoring	Replace or maintenance
Engine with high vibration and	Checking items	How to fix
	Inspect engine mounting for loose or missing nuts, bolts and screws	Replace or maintenance
	Inspect engine shock pads for breakage	Replace or maintenance
	Inspect coupling rubber pad for damage	Replace or maintenance
	Inspect coupling for damage	Replace or maintenance
	Inspect propeller blade for loose or missing screws	Replace or maintenance
	Inspect impeller for deformation / breakage	Replace
	Inspect impeller for foreign objects	Clean impeller

	noise	Inspect exhaust for loosen	Maintenance
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How to correct the problem" Water in the engine "



1. Open the drain valve ,see fig1.
2. Remove the spark plug, and shake out as much water as you can and make it dry, then install the spark plug to spark plug cap. Note: Connect the spark plug to engine,and avoid to damage the control system
3. We should tilt the board at a forty-five degree angle and restart 2-3 times to make sure that the extra water out of the engine.
4. Close the drain valve, reattaching the spark plug and spark plug cap.
5. If failure to restart the engine you will realize that there is water inside your engine, and you might need to repeat the above process again.

Adjustment for carburetor needle

Factory setting: Rotate the needle counter-clockwise 1 lap when in low speed(L) , rotate the needle counter-clockwise 1.25 laps when in high speed(H).



“L”needle used for oil supply when in low speed ,“H” needle used for oil supply when in high speed .The needle is very precision, if you apply a lot of pressure may lead to the carburetor damage. **Do not adjust the needle without authorization, the factory settings of our carburetor can start engine normally and can satisfy the operation conditions in most areas.** You may need to fine turn the carburetor because of a little influence caused by the altitude and temperature changing. If the transition from low speed to high speed is difficult , you can press the “L”needle slightly harder counter-clockwise, and the fuel will increase ;Fuel-rich in low speed easy to cause the engine stop, you can rotate the“L”needle clockwise slightly. Turn the “H”needle slightly till the engine reach high speed status then rotate the needle counter-clockwise slightly to keep proper fuel-rich status as standards. You can judge the mixture of air and fuel according to the spark plug color.

Start the engine in water and running it with throttle opened entirely 20 seconds, when stop in high speed status then you remove the spark plug and observe its color, if the spark plug is yellowish-brown, this is normal; If the color is black, it means that there is too much fuel; if the color is white , it means that the engine in fuel starvation status.

Running the engine in oil starvation status could burn the piston and cylinder, or even make the engine damage.

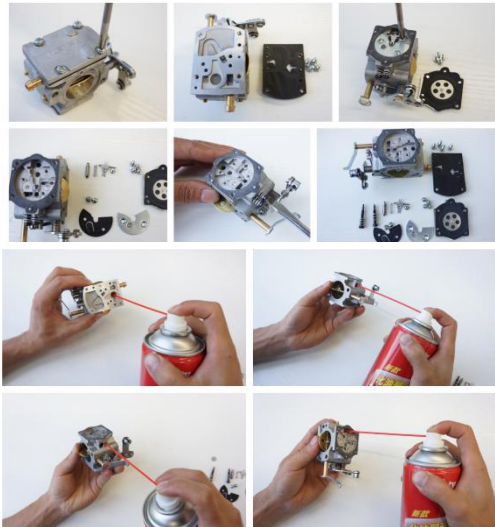
Carburetor needle adjusting should only be performed by experienced technical staff.(Owners will be held solely responsible for the financial costs to repair or replace any engine or electronic components that are damaged by operating the engine in fuel starvation or fuel-rich status.)

How to clean the carburetor:

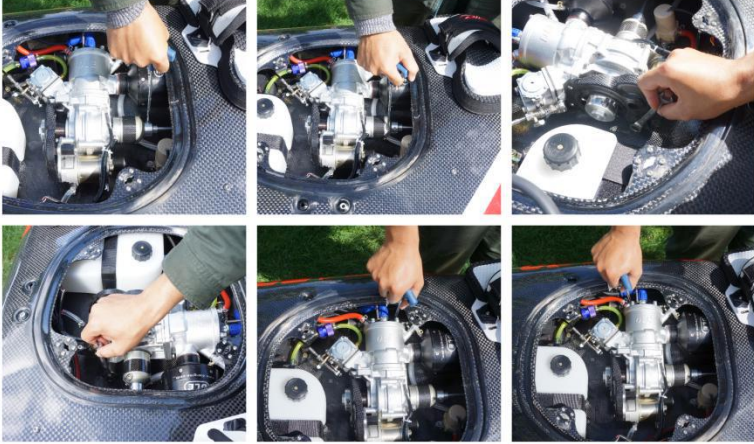
1. Remove 4 adjusting screws from carburetor first, and then open the seal cover.
2. Remove the parts in sequence as showing, it is recommend to put the removed parts in a storage box.
3. Use professional carburetor cleaner to clean the fuel filter, and make sure without of fuel strainer loss, or the carburetor will be blocked.
4. Clean the carburetor with the corresponding alignment hole, and then install it follow the removing sequence.
5. Reattaching the back cover, and make sure that the fitting direction for diaphragm is correct, and tighten the bolts.

Notice:

Please use the petrol at least 92 # ,and mixed with lubricating oil in a ratio of 50:1; Do not use the lubricating oil mixed with other different make or type lubricating oil, or will cause serious carburetor blocking. Notice: Please clean the carburetor fuel filter periodically, otherwise failure occurs with needle adjustment and the engine may work unsteadily etc.



7. Removal procedure for engine



1. Loosen the lock screw;
2. Loosen the coupling screw, then pull backward and make it separate;
3. Remove 4 mounting screws;
4. Remove the water tube, fuel tube and power line.

Note: Gluing all the mounting screws with Loctite 242, it is necessary to make it be diagonal crossover and tighten uniformly in the same plane. For the engine main body sealing surface which adopts a no-gasket design, you need to clean the appearance when install it, and paint anaerobic planar sealants.

8. Warning:

Riding without fitted cooling hose or hose get clogged will cause overheating that could damage or destroy the engine or cylinder.

Look for water or fuel in the engine compartment. If you find water or fuel; drain the excess fluids from the engine compartment and check for potential leaks.

Inspect key components bolts if any unusual or lost, and check the water tube for loose or fall off.

Please check the Jetboard if any part was damage before ridding, and replace it in time if necessary.

Lost parts in the engine compartment might cause serious damage to the engine !

IMPORTANT!

Although the boat has been totally waterproofed , it is not sealed . It is the owner's responsibility to immediately remove all excess water from the engine compartment. Failure to remove any accumulation of water in the engine compartment can cause damage to the engine and also damage electrical components. When the engine is not running, the Jetboard should lie on the water itself, without any object or person laying on it. Otherwise, the Jetboard and its engine will flood. Water damage is not a part of the warranty agreement from the dealerships or the manufacturer. Owners will be held solely responsible for the financial costs to repair or replace any engine or electrical components that are damaged by failure to remove excess water left inside a Jetboard.

9. Warranty information

If you have any questions about your Jetboard , please contact an authrized distribution for DLE or contact us directly. For your feedback,please provide your name, address, phone number,

product model , and accurate description of the faults, we will do our utmost to your best satisfactory. To be well informed with newest information visit the following website: www.dlengine.com ,or call our after-sale service centre (400-100-6090).

Warranty

1. The engine is warranted for one year from the date of purchase.
2. The spark plug, electric motor etc, is outside the scope of free warranty.
3. DLE does not support any modifications to an engine, for any damages resulting from use of no-genuine parts and accessories, we will refuse any liability.
4. The damage caused by using inferior petrol, will avoid any warranty.
5. DLE will refuse any liability if the operator does not follow the prescribed procedures and cause board damage , or suctions the foreign matter result in faults.
6. Keep the warranty card and instruction well ,in case of rework a warranty card must be shipped with product together to us , so that we can make maintenance records.

If there is any error omissions, please contact us to correct it.

Contact us :

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