



Henan Master Machinery Co., Ltd

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OPERATION MANUAL



FCS16 Concrete Cutting Machine

PERFORMANCE · EFFICIENT · RELIABLE

Master sincerely thanks you for selecting the Concrete Cutting Machine. For your Safety and proper operation, before you start to operate or carry out any maintenance on this equipment, **YOU MUST READ** and **STUDY** this manual carefully. Be sure to always keep it ready for reference.

Produced By Henan Master Machinery Co.,Ltd

Dear Customer,

Thanks for choosing Master machine.

To ensure the safety and proper use of the machine, please read the instruction book carefully before use.

Also, please fill this card and save it for warranty use.

Buyer Name		Purchase Time	
Tel		Contact Person	



Address	
Product Name	Concrete Cutting Machine
MODEL	FCS16
Motor Model	
Note	

FOREWARD

- ◇For your own safety and protection from bodily injuries, carefully read, understand and follow the safety instructions in this manual.
- ◇Please operate and maintain your machine in accordance with the instructions in this manual.
- ◇Defective machine parts are to be replaced as soon as possible.
- ◇Keep this owner's manual handy, so you can refer to it at any time.
- ◇No part of this publication may be reproduced without written permission.
- ◇We expressly reserve the right to technical modifications- even without express due notice - which aim at improving our machines or their safety standards.

FEATURE

This machine is used of cutting the expansion joint on concrete floor. Meanwhile, it can cut and groove all standard manufactures of concrete, marble and granite. It is a necessary machine in the construction of road. Super-rigid box frame ensures straight cuts while resisting warping and vibration-prolongs saw life; extends blade life. Height adjustment handle with comfortable grip handles, easy crank for raising/lowing cutting depth. Hinged front lift-up blade guard is designed to provide easy blade replacement; easy-remove, rustless poly water tank provides an optimum flow and volume of water to the blade. It uses sheet diamond, which has the virtues of quick cutting speed, and even

cut. Meanwhile, sheet diamond could cut the steel beams in concrete. It has simply, safety construction, easy and flexible operations.

SAFETY PRECAUTIONS

1. Before starting operation, the operator has to check that all control and safety devices function properly.
2. To prevent fire hazards and to provide adequate ventilation for stationary equipment applications keep the engine at least 3 feet (1 meter) away from building walls and other equipment during operation.
3. Don't allow children to operate the engine. Keep children and pets away from the area of operation.
4. Know how to stop the engine quickly, and understand the operation of all controls. Never permit anyone to operate the engine without prior instructions.
5. Do not place flammable objects close to the engine.
6. The max gradient of 30° must not be exceeded.
7. Wear safety shoes, and eye protection glasses in case of trench operation where falling sand stones maybe ejected.
8. Keep anyone away from the cutting sheet when the machine working.
9. It is possible that this cutting machine exceeds the admissible sound level of 89 dB (A). According to the rules for the prevention of accidents regarding emission of noise, the employees have to wear protection if the sound levels reaches 89 dB (A) or more.
10. Be careful the handle can't keep away of the handle when operate the machine.
11. Refuel the engine must always be stopped, using all necessary safety precautions. When refilling fuel tank, do not allow fuel to come into contact with the hot parts of the engine or spill onto the

ground.

12. The tank lid must fit tightly. Shut off fuel lever, if available when stopping the engine. For long distance transports of machine operated by fuel or fuel-mixtures, the fuel tank has to be drained completely.
13. Do not smoke or handle open fire near this machine.

SAFETY CHECKS

1. Before install the sheet saw, wipe up hole of the saw and plywood.
2. Keep the cutting blade guard in the bottom most location before the starting engine.
3. Keep the cutting blade away from roadblock when the starting engine.
4. Check V-belt tension-retension when the machine working.
5. The cutting blade is in proper condition before starting operation machine. Keep the machine balanced when the working.
6. Check the water lever when the machine working. Refill the water tank when the water falling half of the water tank, or straight using another wellhead to water the cutting blade.
7. To avoid the machine librating from portrait swaying, the main shaft must be tie in with saw.
8. The sheet diamond is used for cutting bitumen, water concrete (from 48hrs to 28days), sandstone, sandiness brick, hatchway brick, and sandiness limestone and so on. Do not cut material as follows: long-playing water concrete, rigidity brick or harden surface, savageness stone.
9. Make sure the cutting blade straight cuts forward.

OPERATION

1. Check the cutting blade

- 1) Check the cutting blade rotate way accord with direction indicator.
- 2) Check the cutting for arrow and nut tension-retension before start the machine.

2. Cutting

1) Open the switch of the water tank, and then check water whether it is spray the blade of side face or not, after filing up in the water tank. Make sure enough water in tank when operate the machine. Please water the cutting blade with another wellhead.

2) Downward pressure on the guide wheel.

3) Starting the engine

Be sure to stop the engine prior to refueling.

Do not overfill the fuel tank.

If fuel is spilt, wipe it away carefully and wait until the fuel has dried before starting the engine. When changing oil, Make sure that the fuel cap is secure to prevent spillage.

A. Check the oil level and supplies

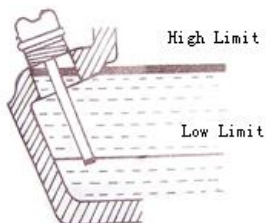
Level placed gasoline engine, check the oil level, if necessary, oil supplies

1、 Be sure to start the engine prior to check the oil .

Check oil level of machine whether it is between upper and low limit.

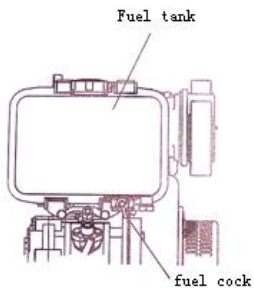
Wipe oil spill

2、 Oil capacity is 1.65 L

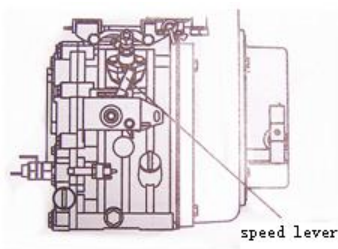


B、 Start of the Gasoline Engine.

1、 Open the fuel cock.

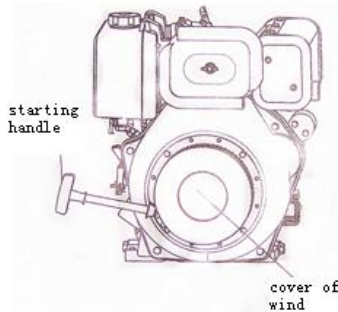


2、 Put the engine speed level in the "RUN" position.

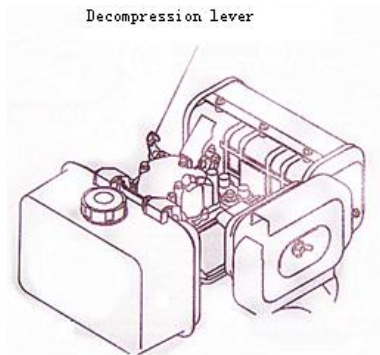


3、 Hold the starting handle firmly.

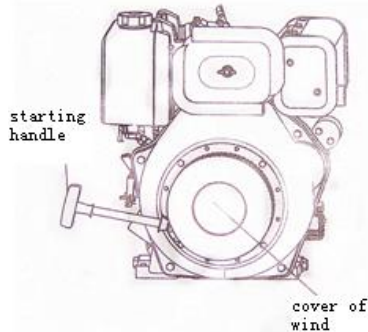
① Pull the starting handle solely until you feel resistance, then return it slowly.



② Push the decompression lever down and release.

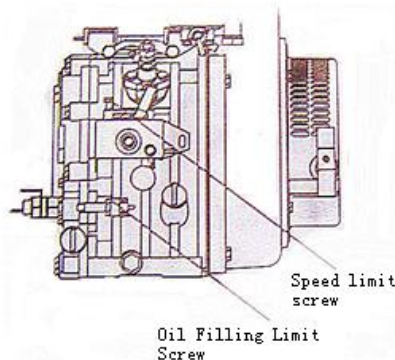


③ Start :Hold the starting handle firmly .pull the rope hard and fast .pull it all the way out .use two hands if necessary.



C、running

- ① Preheat the machine for five minutes at no load .
- ② Set the speed governor lever of the engine at required speed position .



- ③ Check ,when the machine is running
 - a. Whether there is abnormal sound and vibration?
 - b. Whether combustion is not good or over speed?
 - c. Whether the color of exhaust gas is normal (black or too white)?If any of above phenomena is detected, stop the engine immediately and contact professionals.
- 3) Andante turn handle, the blade will cut in one spot. The operator can

low cutting depth through turn handle. (turn a handle with a lap the same as add the cutting depth about 9mm), Keep eyes on guide wheel forward and hold the handle, and then slowly force on the handle to make the machine forward. Make sure the cutting blade straight cuts forward while resting warping and vibration.

NOTICE! You must be stop or slow forward speed at once when the blade cutting extremely harden roadblock.

3. Stopping the engine

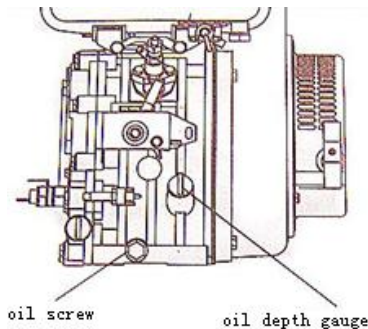
- a. Clockwise turn wheel to keep the blade away from work position. The operator can step on the rod that is fixed on bed plate and then forcibly downward pressure on the handle if necessary the cutting stopping.
- b. At first set the speed governor lever at low speed position before stopping the engine , and then run the engine at no-load for five minutes.
- c. Set the speed governor lever at “stop” position , Do not stop engine with decompression lever.
- d. Set the fuel cock at “s” (stop position)
- e. Pull out the recoil handle slowly until pressure is felt by you hand (that means at the point of compression stroke , where the intake and exhaust valves are closed)and then let the handle back to its natural position so that it can prevent rust when the engine is not used.

Maintenance schedule

Time(h) Item	Daily	20	50	100	200	500	1000
Check and tighten the nut and screw	<input type="radio"/>						
Check and fill machine oil	<input type="radio"/>						
Change machine oil		<input type="radio"/> First time		<input type="radio"/> Second time			
Clean and change oil filter		<input type="radio"/>		<input type="radio"/>			
Check oil-leakage	<input type="radio"/>						
Change the core of air filter					<input type="radio"/>		
Clean or change fuel filter				<input type="radio"/> First time		<input type="radio"/> clean	<input type="radio"/> change
Check nozzle						<input type="radio"/>	
Check injection pump						<input type="radio"/>	
Adjust valve clearance of inlet and exhaust						<input type="radio"/>	
Grind valve holder of inlet and exhaust							<input type="radio"/>
Change piston ring							<input type="radio"/>

Check cutting disc for damages and correct tightening	○						
Pay attention to the directional arrow on the protective hood	○						
Check all control and safety devices function properly	○						
Control water supply.	○						
Check V-belt tension-retention					○		

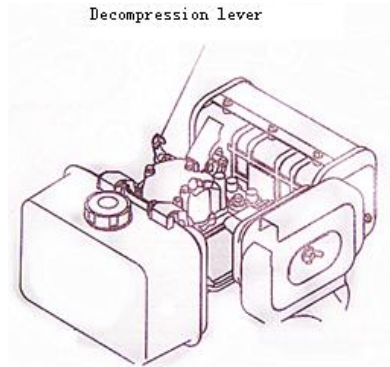
Change oil



Drain the used oil when the engine is warm. Warm oil drains quickly and completely

With the engine in a level position, fill to the outer edge of the oil filler hole with the recommended oil.

Storage for a long period



Please do as follow if store the engine for a long period

- 1、 run the machine for five minutes and then stop the machine
- 2、 Drain away the lubricant before the engine becomes cool and then refill new machine oil
- 3、 Push down and keep the decompression lever at the non-compression point and then the recoil starter two or three times.(do not run the engine)
- 4、 Pull up the decompression lever and pull out recoil starter slowly until the resistance is felt by your hand (that is at the point of compression stroke, where the intake and exhaust valves are closed, which can prevent engine from rust.
- 5、 Clean out machine oil and dirt from the engine, and to put the engine at a dry place.

PARTS SERVICE**V-belt**

Check V-belt tension-retension at every week. The correct operation: Release bolts and nuts that they are setting engine, remove the engine to V--belt tension, and then tighten nuts.

Disassembly blade

Change the cutting blade with the engine stopped. Remove two bolts that are setting the protective hood, and then rotate protective hood. You need to use wrench lock the main shaft to prevent it from circumgyrating before clockwise sense remove the nut (Leftl). Clean the blade from dust and dunghill after the finish operation. Check the cutting blade whether it is normal use or not.

Assembly blade

Check new blade

Make sure the same new cutting blade of style as primary blade. Refer to the blade of style, please see operation manual.

NOTICE! Please pay attention to the blade rotate way accord with direction indicator. Clean the blade and check the blade stability after assembly the blade, and then screw the nut.

TRANSPORT

Do not place the cutting blade on the ground, to avoid possible damages during transport of the same. To protect the cutting blade, swing the blade its maximum upward position by way of the height adjustment/cutting depth adjustment and lower down the protective hood as far as possible. If need be, take off cutting blade from protective hood.

When being transported on vehicles protective hood have to be secured against rolling, slipping or overturning.

ATTENTION! The engine must be stopped when using the integrated transport device. Lubrication of the engine is not guaranteed if the engine is running when the cutting is in transport position. This could lead to serious engine damages. Furthermore the danger exists that oil will spill out of the crankcase breather.

TROUBLESHOOTING

Won't start engine

Cause: - Fuel tank empty.

- Fuel shut-off valve dose.
- Air filter dirty.
- The engine switch to the OFF position.
- Recoil starter detective.
- Oil alert system has stopped engine.

Remedy: - Fuel up.

- Open.
- Clean.
- Repair.
- Open.
- Fill up with engine oil.

The cutting blade will can't operate machine

Cause: - Adjusting screw broken

- Threaded rod broken
- Bearing broken
- Bearing box UCP205 broken

Remedy: - Change

- Change
- Change
- Change

The cutting damaged

Cause: - The cutting style and dimension falseness

- Little water in the tank or water can't spray on the cutting blade
- The cutting jumped

Remedy: - Change

- Fill the water or adjust if necessary
- 1. Clean dunghill on cutting blade or supporting disc
 2. Screw lock nut
 3. Adjust cutting blade direction or change

Maintenance Schedule

Maintenance	Daily (8 – 10 Hours)	Weekly (50 – 60 Hours)	Monthly (200 – 300 Hours)	Yearly (2,000 – 2,500 Hours)
Check engine and gearbox oil level.	▲			
Check V-Belt.	▲			
Re-lube main bearing, travelling wheel bearing and hand wheel bearing.		▲		
Replace blades if necessary.		▲		
Check and clean or replace engine air filter as necessary.		▲		

Replace engine oil and filter as necessary (See engine manual).		▲		
Remove, clean, reinstall and re-lube main bearing, travelling wheel bearing and hand wheel bearing.			▲	
Remove, clean and reinstall			▲	

Trouble Shooting

PROBLEMS	POSSIBLE CAUSES	COUNTERMEASURES
1) Engine stops suddenly or does not run.	<p>A. No fuel.</p> <p>B. Engine switched off.</p> <p>C. Fouled spark plug.</p> <p>D. Engine cold.</p> <p>E. Engine flooded.</p>	<p>A. Open fuel tank cap, fill tank with fuel.</p> <p>B. Switch engine on.</p> <p>C. Clean & reset spark plug gap.</p> <p>D. Close choke.</p> <p>E. Open choke, fully open throttle, pull recoil starter until engine fires.</p>

<p>2) Cutter is powerless or unstable.</p>	<p>A. Insufficient oil in gearbox. B. Rotation speed of engine is too slow. C. Speed output of engine is too slow. D. Too much cement/concrete accumulated on Cutter. E. V-Belt is loose.</p>	<p>A. Add oil to the recommended level. B. Keep speed high. C. Clean air filter. D. Remove cement/concrete on Cutter. E. Retighten V-Belt.</p>
<p>3) Cutter *Engine runs but Cutter does not.</p>	<p>A. Presence of water in the clutch. B. Speed output of engine is slow. C. Engine overloaded.</p>	<p>A. Dismantle & dry clutch. B. Clean air filter (Refer to engine user manual). C. Check all parts like gears and springs.</p>

<p>5) Strange noise and bouncing appears while working.</p>	<p>A. Worn bearings. B. Worn blades. C. Screw is loose.</p>	<p>A. Open the bearing box, check if the bearing is damaged, after changing the bearing, remember to re-lube it. B. Change a new blade. C. Fasten the screw.</p>
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2	12120102	WASHER 10	平垫	2
3	12120103	SPRING WASHER 10	弹垫	2
4	12120104	HEXAGONAL NUT M10	螺帽	2
5	12120105	WATER TANK COVER	水箱盖	1
6	12120106	WATER TANK	水箱	1
7	12120107	COCK	龙头开关	1
8	12120108	HOOK	弹簧卡	1
9	12120109	ELBOW	L型弯管	3
10	12120110	TEE	T型管	1
11	12120201	BLADE GUARD	锯片保护罩	1
12	12120202	HEXAGONAL NUT M8	螺帽	2
13	12120203	SPRING WASHER 8	弹垫	4
14	12120204	WASHER 8	平垫	6
15	12120205	HEXAGONAL BOLT M8 X 25	螺栓M8x25	4
16	12120206	RUBBER MAT	橡胶档泥板	1
17	12120301	WHEEL (REAR)	后轮	2
18	12120302	HANDLE	手柄	1
19	12120303	HANDLE BAR GRIP	手柄护套	1
20	12120304	KNOB	旋纽螺栓	2
21	12120305	BASE ASSY.	安装底座	1
22	12120401	POINTER	导向杆	1
23	12120402	NUT	螺帽	1
24	12120403	POINTER WHEEL	指针轮	1
25	12120404	WASHER 12	平垫	3
26	12120405	SPRING WASHER 12	弹垫	2
27	12120406	HEXAGONAL NUT M12	螺帽	3
28	12120407	NUT (BUTTERFLY) M10	螺帽	1

DIGRAME



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