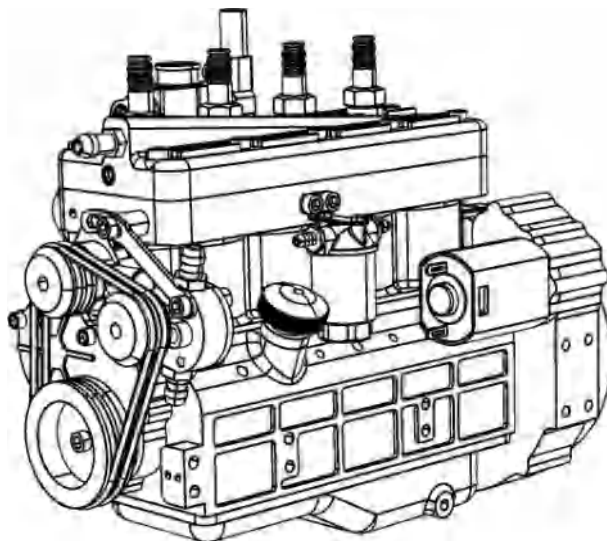

CISON *ENGINE*

L4-175

Operation manual



Glad to buy CISON ENGINE!

When you first see this engine, I believe you think of panhead engine.

Cison's dream has always been to realize everyone's dream. We want to be the engine you like and the engine that doesn't bother people. However, in reality, there will be many difficulties that need us to break through. Your satisfaction every time makes us full of passion for new product research and development.

Maybe he is not perfect, but I believe you will love it.

Subscribe to our YouTube: <https://www.youtube.com/c/CISONENGINE>



Attention

- This engine is suitable for popular science experiment, model display and model car drive. Please do not try to use it for any other purpose beyond the scope of use.
- According to our recommendations, please use the correct screws and nuts to fix the engine safely and stably on your starting platform.
- Please note that the spark plug or CDI or battery wire should not contact the rotating parts.
- For safety, keep all onlookers (especially children) at least 3 meters away when preparing to start the engine.
- To stop the engine, please turn off the throttle completely or cut off the power supply of CDI; In an emergency, clamp the fuel delivery pipe in front of the carburetor to cut off the fuel supply.
- Do not attempt to start the engine without the flywheel installed, as this may cause damage to the starting motor
- When starting the engine, please do not press the start key for a long time. The maximum time for each key to start is 5 seconds. If it does not start, please stop the 15 second interval, and then press the start key to start, so as to avoid burning the starting motor and ignition circuit after a long time of starting.
- Please use 7.4~12.6v DC power supply for CDI
- For electric starting, please use 7.4v (2S) DC power supply. If the cylinder pressure is too high, it can be used for 3S (12.6V) for a short time. Each start should not exceed 5S

Parameter description

.Brand: CISON

.Model: L4-175-F

.Cylinder: in-line four cylinder

.Stroke: Four-stroke

.Displacement: 17.5cc

.Bore: 16.7mm

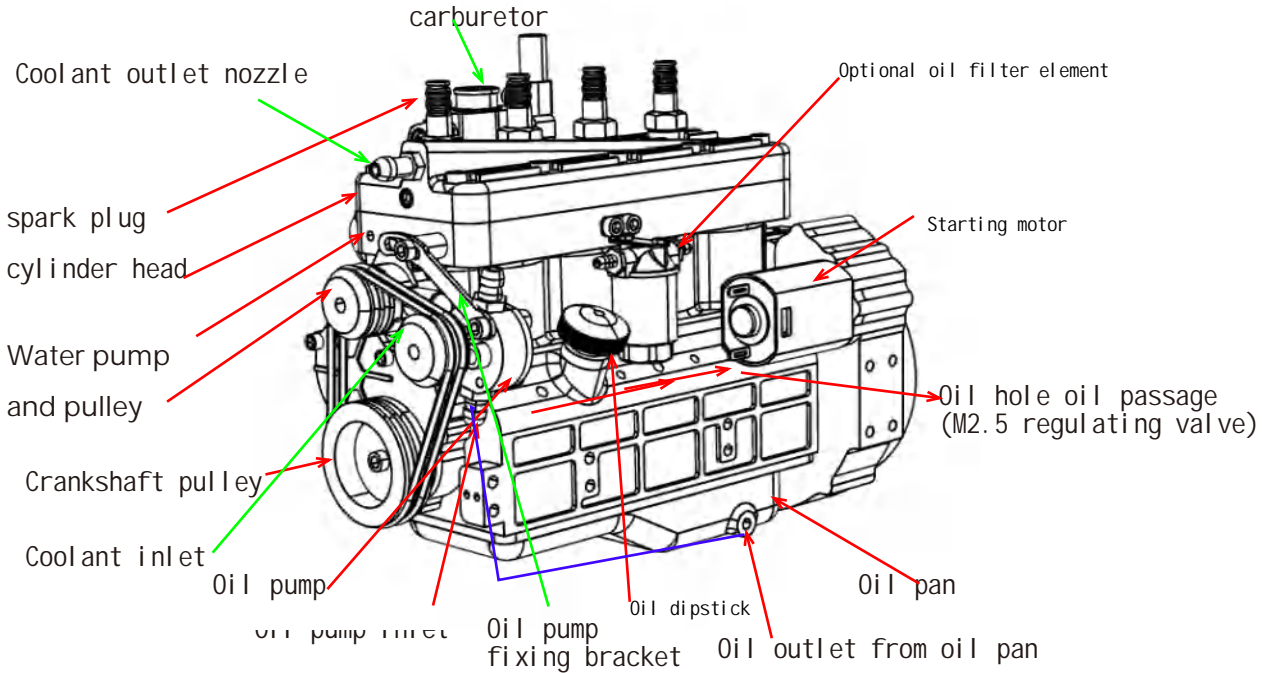
.Stroke: 20mm;

.Speed: 1800-8500rpm

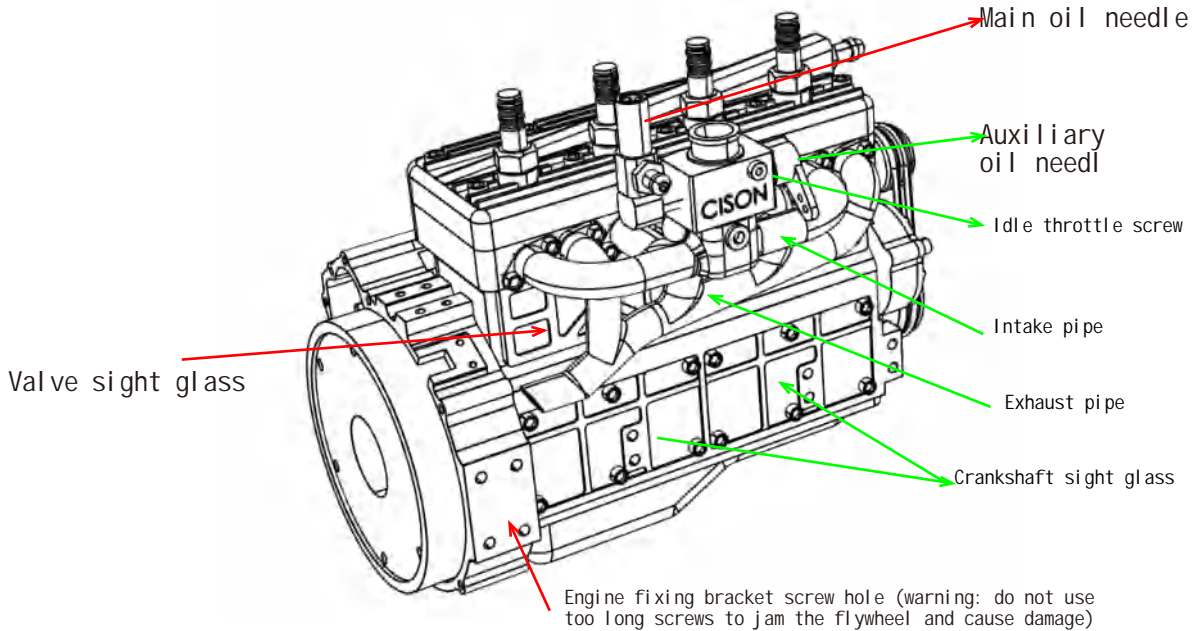
.Starting power: 2S-3S lithium battery.

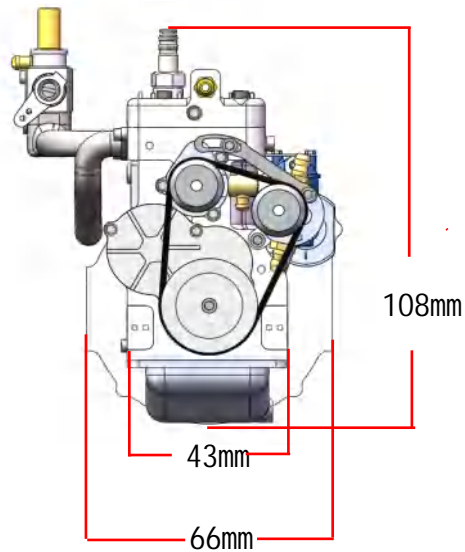
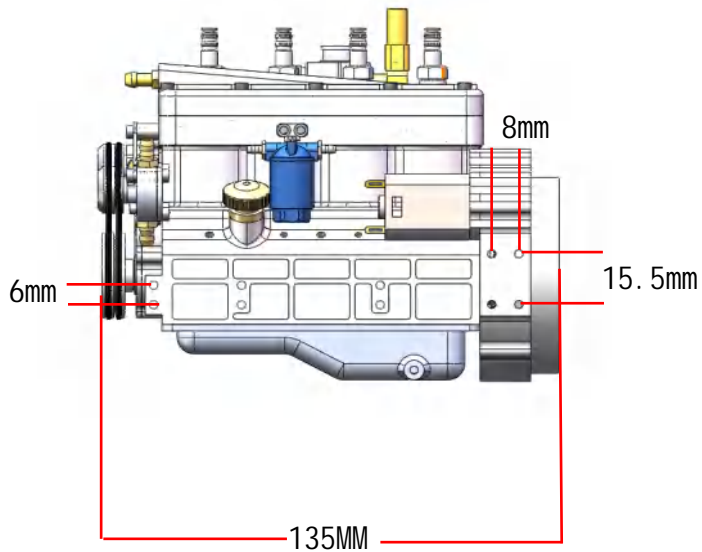
.CDI power: 2S-3S .

.Initial oil needle: 1.5 turns of main oil needle, 0.8 turns of auxiliary oil needle, and 1.3mm of air valve



Engine structure and components





Igniter CDI

1. Sensor

- a. Please open the ejector rod / valve observation window first
- b. Look at the picture on the CDI and find the first cylinder
- c. Rotate the flywheel anticlockwise and observe the inlet valve of cylinder 1. After the inlet valve is opened, continue to rotate the flywheel to the upper dead center (compression point of the first cylinder). At this time, keep the flywheel still
- d. install CDI magnet (with color) on the crankshaft pulley (foam: 27

The magnetic pole of faces Hall)

Note: the magnet installation must not protrude, otherwise it may collide with the engine screw. (option 2: add shims when installing the pulley (27))

- e. At this time, install the fixing screw of the upper belt pulley. Please do not fix the belt pulley
- f. The rotating pulley magnet triggers a hall close to the water pump. (Note: trigger can be advanced by 15-0°)

2. High voltage line

- a. Observe the pictures on the CDI, check the cylinder sequence, and insert the high-voltage wire accordingly.

Note: the high-voltage wire does not directly contact the spark plug. Please keep the distance between the high-voltage wire and the spark plug less than 2mm, otherwise it may be damaged sensor

3. Ground wire

- a. The black wire on the CDI needs to be connected to the engine block to ensure the high-voltage circuit. Otherwise the sensor will be damaged

Before preparing for operation

1. Oil pump adjustment

- a. Please connect the oil pipe correctly first
- b. Please install the oil flow adjusting screw
- c. Please adjust the oil flow according to the internal oil pipe from near to far (the closer to the oil pump, the smaller the flow should be, otherwise there may be no oil in the farthest oil hole)
- d. It is recommended not to install the crankcase side cover (foam No.: 04, 05) at first. During running in, observe whether there is splash of lubricating oil to facilitate flow adjustment.

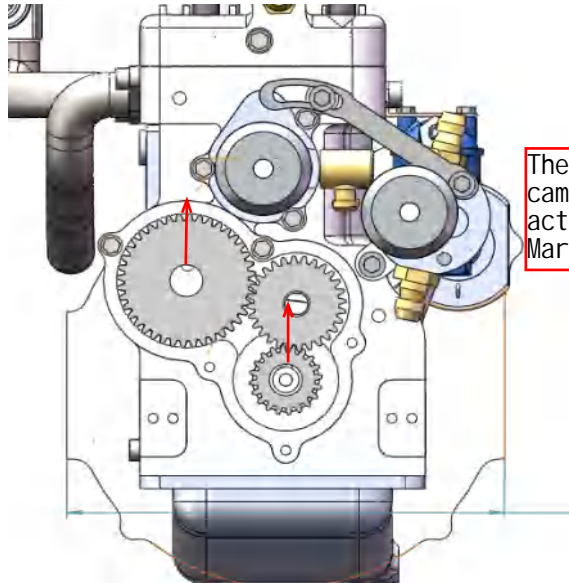
2. Since the new machine has not been run in, the engine resistance will be relatively large. Please carry out the following operations first

- a. Remove spark plugs
- b. Please adjust the oil pump correctly
- c. When installing the starting motor, first use the DC 6-8v power supply for pressure free running in (Note: the starting motor cannot run for a long time, and this step can be ignored if a single piston ring is used)
- d. After running in smoothly, install 2 spark plugs and start the motor again. If the engine can be easily driven, continue to install the remaining 2 spark plugs and run the starter again. If it can be easily driven, the cold running in is successful, otherwise, please insert and remove the spark plug to continue running in (pay attention to lubrication during running in, and add a small amount of lubricating oil to the cylinder liner)

be careful! :

1. Forcibly starting the machine without running in may cause the starting motor to overheat and burn.
2. It is recommended to add 15ml~18ml lubricating oil to the oil pan (10w60 recommended, for special cases other labels are also acceptable)

Gas distribution time



The keyways of the camshaft and crankshaft act as Markers: also vertical up

