

Catalog OF MT200CJE220 Magnetic Yoke Flaw Detector



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First, an overview

Detection of the complex workpiece by another yoke mini series CJE magnetic flaw detection instrument is the use of magnetic yoke on the ferromagnetic material of workpiece magnetized light minitype magnetic particle inspection equipment, to the various parts of magnetization, applicable to oilfield, shipbuilding, internal combustion engine fittings, coal, machinery, standard parts, oil pump and nozzle, aircraft manufacturing, auto parts, building bridges, chemical industry, boiler and pressure vessel, railway and other industry products, forging, quenching, welding, fatigue caused by the surface and near surface defects, such as the chain rod, crankshaft, bearings, high strength bolts, springs, forgings, petrochemical pipe fittings, valves, blades, gear, a roller, chain and weld geometry.

CJE series micro magnetic yoke flaw detector AC, DC, AC and DC dual-purpose magnetic powder flaw detector, DC power supply rechargeable batteries for in field without power of field operation and high pressure does not enter the container, bridges, pipelines and other field operations, a charge of continuous work time can reach more than 6 hours. AC power supply using ~220V power input, no other instruments, the operation is convenient, simple, light weight, easy to carry, so the instrument is widely used.

Two, technical parameters

Model

Classification of 12/220 - CJE

AC and DC

Power supply ~ 220V50Hz - 12V

Charging power 50Hz 220V

Using the battery 7.2H - MF12

Operating current DC1.7A AC1.4A

Battery usage time of 6 hours or more

Work clearance time 2 minutes to open 2 minutes off

Charging time 8~15h

Battery usage time of 6 hours or more

Lifting force C >5.5kg A

C >25kg D

Weight probe 3.2kg

Battery pack 2.9kg

Dimensions (mm) probe 208 x 52 x 146

Battery pack 160 * 70 * 100

Charger 80 x 60 x 40

Three, principle and use

1, charging (charger, battery for 12/220 - CJE, CJE - 12)

Will ~ 220V power supply connected to the charger, the charger and battery box plug connection, charging, charger light emitting diode emits red light, indicate the battery in the fast charge state, luminous tube turn green light. At this time, the battery of 14 volts or more. If the battery consumption is not much on its charge, it is possible to start charging for a period of time on the red to green, in the "slow charge" state. Into the charge of the battery charge to continue to charge, but the total charge time not more than 15 hours.

Note: the charger is improved.

2, battery

Battery is the probe of the power supply, in the beginning of the work, due to the continuous discharge of the battery, when under pressure, the lifting force has a significant decline (6 hours later), the need to charge the battery.

3, flaw detection

A: DC detection (used in 12/220 - CJE CJE - 12)

Firstly, the probe line plug is connected with the battery plugs, this battery to probe power supply.

The test, the probe joint surface is arranged on the workpiece, keep good contact.

The probe, press the switch, at the same time to the area being examined with magnetic particles or suspension, and maintain 2~3s.

The probe, loosen the switch, remove the probe, observe the workpieces.

The probe, to another inspection area, repeat 3, 4 work.

B: AC flaw detection (used in 12/220 - CJE-220 CJE)

The power input plug should be with grounding wire socket, wire to ensure good contact.

The inspection, according to the 3, 4, 5 dc.

Four, maintenance and matters needing attention:

- 1, charging, charging time is no more than 15 hours, after charging the charger plug and the battery plug should be removed, to avoid the power back.
- 2, the battery voltage, the charge as soon as possible, in order to protect the battery has good performance.
- 3, instrument for a long time when not in use, should be every 2 - 3 months of storage battery for charging, so as to avoid a battery affect battery life and continuous working time.
- 4, the probe work, each time the power of time is generally 3 - 2 seconds, the maximum not more than 5 seconds, the interval of 3 - 5 seconds.
- 5, magnetic suspension using water, should be added to the appropriate amount of rust.
- 6, probe into the use of the active joints before adding a proper amount of lubricant lubrication, the use of the probe and the activities of the joints on the water, oil, magnetic powder and other cleaning, and coated with anti rust oil.
- 7, the use of AC detection, insert the power supply shall be in accordance with the instrument indicate the power supply, and a good grounding.
- 8, the use of the probe should be in the move to loosen the probe switch, so as to avoid open work and cause the instrument fever.
- 9, the flaw detector for a long time to work, if there is a clear case of fever, should be put into use after appropriate rest.
- 10, do not blindly use, do not close to high temperature, high humidity. Do not work under the rain, spraying magnetic suspension do not spray on the switch, plug.
- 11, 1/0 switch function: 0 block for the use of 220V power supply, 1 block for the use of 12V DC power supply.

Five, complete sets of equipment

model

Classification of 12/220 - CJE

AC and DC

Probe 1 sets

Battery pack 1

Battery 1

Charger 1

Power cord 1

Around the line 1

1 copies of the instruction manual

1 copies of certificate of conformity

Six, the principle of magnetic particle inspection

Magnetic particle inspection, also known as MT or MPT (Particle Testing Magnetic), suitable for steel and other magnetic materials near the surface of the detection of the detection method. The use of iron by a magnet for inspection principle. When the magnetic particle flaw detection is performed, the measured object can receive the action of the magnetic force, and the magnetic powder (magnetic micro powder) is dispersed on the surface of the magnetic particle. Then, part of the surface defects will leak out leakage magnetic powder sucked, indicating the formation pattern. Indicates that the pattern is several times larger than the actual defect, so it is easy to find

out the defects.

Method for magnetic particle inspection

The order of magnetic particle detection is divided into the early stage treatment, magnetization, magnetic powder use, observation, and late treatment.

Pretreatment, magnetization, magnetic powder use, observation, post treatment

The following are the summary of each step.

(1) preliminary treatment

Flaw detection surface if oil, paint, rust, or other foreign matter attached will not only hinder magnetic adsorption in the scar, but also there is magnetic particle adsorption, in addition to the scar formed suspected private image. Therefore, before the magnetization, the use of physical or chemical treatment, to remove dirt foreign body steps.

(2) magnetization

It is very important to measure the proper magnetization of the analytes. Usually use the magnetization direction and magnetic field direction and the vertical scar. In addition, a variety of methods can be used to detect the shape of the object in order to properly magnetized. Japanese industrial specifications (G 0565-1992 JIS) in the following 7 kinds of magnetization method.

Axis electric method..... Direct current in the direction of the object detection.

Right angle method..... Direct current in the direction of the test object perpendicular to the axis.

Prod method..... 2 electrodes (called Prod) are placed in the test object.

The current through the method..... The electric current through detection of cavities in.

The coil method..... The coil is placed in the test object, and the current is passed through the coil.

The inter electrode method..... The detection of objects or to detect the location of permanent magnet or electromagnet placed between magnetic poles.

The magnetic flux through the method..... Strong magnetic objects to detect the cavities of alternating magnetic field lines, the induced current by detecting objects.

(3) the principle of magnetic particle testing

Types of magnetic particles

In order to make the magnetic particle adsorption between the magnetic poles of the wound to form a detection image, the use of magnetic powder must be easy to be the weak magnetic field of the wound, adsorption on the magnetic pole, that is, the need for excellent adsorption performance. In addition, magnetic particle images required to form must be highly recognized.

In general, the magnetic powder used in magnetic particle inspection is white, black, red and other magnetic particles used in the visible light. In addition, according to the use of magnetic powder occasions, there is a powder dry magnetic powder and the use of wet powder in water or oil.

Use time of magnetic powder

Magnetic powder use time is divided into one side through the magnetic current side using the magnetic powder continuous method, as well as in the state of the magnetic current to cut off the residual magnetic force of the detection of two kinds of residual magnetism.

(4) observation

Easy to observe the environment in order to facilitate the observation of magnetic particles attached to the site of the wound. Requires common magnetic particle was observed in the environment as much as possible bright, fluorescent magnetic powder is to use ultraviolet lamp will be around to try to change dark it is easy to observe.

(5) post treatment

End of magnetic particle inspection, the inspection may still be used as a product or need to be sent to the next processing step to accept mechanical processing and so on. When the need for demagnetization, removal of magnetic powder, rust treatment processing.

FOB Price 505USD, In Stock

60 degree angle probe, 72USD/PC

METERY TECHNOLOGY INC