

EPS208S High Pressure Common Rail Injector Test Bench





Welcome to buy the EPS208S high pressure common rail injector test bench of Beacon Machine Manufacturing Co., Ltd. Before use, please read the instruction manual carefully.

The appearance, structure, function, etc. of the product involved in this manual are for reference only. The products provided are subject to the actual product

INTRODUCTION

The EPS208S high-pressure common rail test bench imitates diesel engine ECU (Engine Control Unit), and provides common rail system control signals (CP1/ CP2/ CP3/ HP3/ HP4/ DELPHI), such as Bosch, Denso, Delphi, and Siemens, to drive high-pressure common rail. The oil pump and the high-pressure common rail injector are working, and the driving signal parameters can be set by the user according to their actual conditions, and can be grouped and saved, which is convenient for maintenance personnel to judge and repair the working state of the high-pressure common rail system.

The power of the EPS208S high-pressure common rail test bench is 2.6KW.

CHARACTERISTIC

- (1) While supporting high-speed solenoid valve type common rail injectors, it also supports the third-generation high-pressure common rail Technical piezoelectric crystal common rail injector;
- (2) Single-channel common rail injector;
- (3) Support multiple rail pressure sensors (BOSCH/DENSON/DELPHI);
- (4) Intelligent PID algorithm, more precise pressure control;
- (5) Short-circuit protection in both software and hardware makes the machine more reliable;
- (6) Multiple language options;
- (7) Safety protection design to prevent misoperation by operators, making it safer to use
- (8) Not only can the flow sensor be used to display the flow from the computer, but also the flow can be displayed from the graduated cylinder.

FUNCTION

- (1) Test the sealing performance of the common rail injector
- (2) Test the full load performance of the common rail injector
- (3) Test the mid-load performance of common rail injectors
- (4) Test the idling performance of the common rail injector
- (5) Test the pre-injection performance of the common rail injector



TECHNICAL PARAMETER

- (1) Measuring motor speed: 0~3000rpm; oil pump speed: 0--1500rpm
- (2) Working pressure: 0-200MPa
- (3) Fuel tank volume: 10L;
- (4) Test oil filtering accuracy: 3μ;
- (5) Oil measuring method: flow meter
- (6) Power supply: 220V/50HZ;
- (7) Common rail pump type: CP1H;
- (10) Output power: 2.6KW
- (11) Overall dimensions (mm):; 830*750*900
- (12) Net weight: 150Kg.

STRUCTURE INTRODUCTION

The whole structure of the test bench

- (1) The product is welded and assembled by steel plates, with a compact overall structure and strong shock resistance.
- (2) The shell is made of high-voltage electrostatic spray, which has the characteristics of scratch resistance and wear resistance, and the shell is beautiful.
- (3) The servo motor and the common rail pump are connected by a synchronous belt transmission, and the output power is highly accurate.
- (4) The test bench is equipped with test fuel tank, transmission timing belt wheel,



servo motor, servo drive, LCD touch screen display, mouse, keyboard, flow meter, temperature sensor, etc.

(5) The test bench is equipped with a power control switch, a power jack socket and a power cord.

(6) The operation part of the test bench is all controlled by an industrial computer, and the operation interface is very convenient.

Operation method: First connect the 220V lighting power, turn on the main power switch, wait for the system to start and enter the system interface, select the injector test and click start, enter the injector test interface, select the injector model, and click start (if selected For automatic test, after clicking start, the system will automatically test all working conditions. After the test is completed, it will automatically stop and give a test report; if you choose manual testing, you can choose the test conditions at will, wait for the pressure and speed to stabilize, and then click test, test Click Stop when finished, the motor will stop running. After all the items to be tested are tested, turn off the main power manually.)

TRANSMISSION AND SAFETY SYSTEM

1. Transmission system

The system is mainly composed of servo drives, synchronous motors, synchronous belt wheels, common rail pumps and other components.



2. Security system

(1) Instantaneous power failure protection

In the event of an instantaneous power failure, the servo drive will continue to run within about 5MS; when the power failure time exceeds 5MS, the drive's output will be automatically cut off to determine it as a power failure.

(2) Under and over voltage protection

If the input voltage drops or rises, the control circuit cannot perform its normal functions, and the drive or motor will be damaged. Therefore, when the input voltage is lower or higher than the specified value, the protection circuit will act to cut off the output of the driver and protect the driver and motor.

(3) Over-oil pressure protection

When the rail pipe pressure exceeds the set pressure or is higher than 220MPa, the protection circuit will act to cut off the output of the driver to protect the pipeline and personnel safety.

OIL ROAD SYSTEM

(1) The working cycle path of the oil supply system of the test bench

Fuel tank → filter → common rail pump → common rail pipe → fuel injector → filter → radiator → solenoid valve → flow meter → fuel tank

(2) The working principle of the oil supply system of the test bench

When the main motor is started, the common rail oil pump starts to work under the



drive of the motor. At this time, the test oil begins to enter the fine filter through the filter in the fuel tank, and then enters the common rail fuel pump, and supplies fuel to the tested fuel injector through the common rail fuel pump and the common rail pipe. The fuel injection and return of the fuel injector pass through The filter, radiator, and solenoid valve arrive at the flow meter and return to the fuel tank after being measured by the flow meter.

INSTALLATION

(1) Test bench installation environment

After the test bench is transported to the user, first remove the package and place the test bench on a flat foundation. There must be a certain space around the test bench to facilitate operation and work. The test bench is installed in a room where the air is dry, away from flammable and explosive and other dangerous goods and not easily attacked by wind, sand and dust. The room temperature is generally 5°C ~35°C.

(2) Power supply for the test bench

Power requirements: 220V/50HZ lighting power, the power must be connected to the test bench through the external triangular jack.

MAINTENANCE AND PRECAUTIONS

1. Maintenance and maintenance of the test bench

Check items	Check content	Countermeasure
External terminals, drive fixing screws, connection connectors	Whether there is noise or vibration during operation (generally after 20,000 hours of cumulative operation)	Fixed tightening
Printed circuit board	Whether there is conductive metal or oil accumulation	Carefully remove
Power components	Whether there is accumulation of dust and impurities	Clear with a spray gun with a pressure of 4~6Kg/cm ²
Flow sensor	Flow cannot be displayed	Blow into the flow sensor with appliance cleaner
DRV	Unregulated pressure	Blow the filter of DRV with compressed air

(1) The oil in the oil tank should be replaced with new oil every 200 hours of work or after debugging 50 injectors;

(2) The tubing clamps of each connecting part must be properly installed and clamped to prevent oil leakage and air entry;

(3) The coarse oil filter should be cleaned every 200 hours of work or after 50 injectors are debugged;

2. The driver program shall not be changed without authorization except for the factory staff.

3. The four screws that fix the main motor must not be disassembled at will.

PACKING AND LIFTING

1. When packing the test bench, the protective cover should be separated with foam to prevent crushing.
2. The test bench should be covered with a plastic gown to prevent rain.
3. The test bench shall be strictly prevented from inverted vibration during transportation. When lifting after unpacking, the rope should not directly touch the body to avoid damage to the paint.
4. The accessories included with the test bench are subject to the packing list.

EPS208S ACCESSORIES LIST





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**GOOD FEEDBACK FROM CUSTOMERS
ALL OVER THE WORLD ABOUT OUR PRODUCTS**



From Honduras + CR708



From Namibia + EPS208S



From Chile+EPS208



From Nicaragua+EPS205



From Zimbabwe+mini 12psb



From Syria + CR318S



From Romania+CR708+12PSB



From Romania+CR708+12PSB



From Romania +12PSB



From Indonesia+CR825



From Azerbaijan+EPS205



From Indonesia+CR825

ALL THE TRUE PRAISE FROM EVERY CUSTOMER

this tester works very well, I have tested it already today.

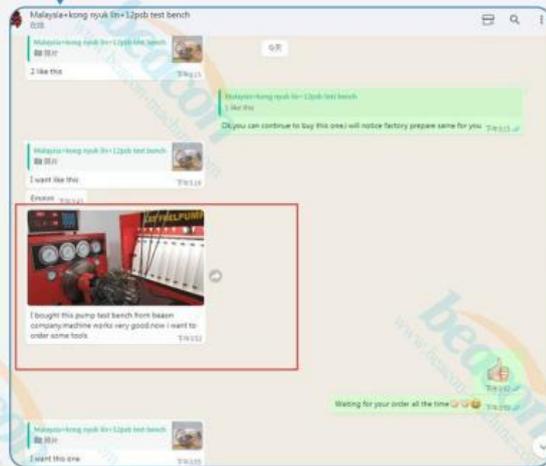


this tester works very well, I have tested it already today.

Beacon is a very god company, I bought the poutneed here, like it very much, the serice is also good, I will continue to order .



I bought this pump test bench from beaoncompany. machine works very good.now i want toorder some tools



Ibought from beacon company Thank you very much to the beacon company for excellent service and always on the lookout for customers



beacon is a perfect company, I got the machine what I need, I really love this machine. Thanks

