# Introduction

Name: ZL-2418 CBR test apparatus



#### **Equipment summary:**

CBR test apparatus is used in the test tube making, on a variety of soils and road base material, the bottom bearing ratio test. Mixture of maximum size, should be controlled within 25mm, up to a maximum of 40mm.CBR- bearing ratio tester ( field bearing plate measuring instrument, the CBR value measuring instrument special )

### Operation:

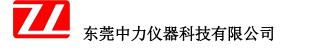
- 1 copen the power switch, Instrument operation, check instrument working condition is normal, check whether the normal rotation of the handle, such as import, all normal can be ready to start test.
- 2 . According to the " highway base material test code " JTJ075-85 bearing ratio test method of preparation of test pieces
- 3. Measurement of saturated swelling amount:

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# ZhongLi Instrument Technology Co., Ltd.

- A. The moisture curing specimens are placed in an adjusting rod porous board, on the board of sufficient loading plate, making the test piece surface pressure equal to the material layer pavement stress.
- B. The test tube with porous plate on the tank ( without water) and the pull rod mold tension, fit the dial gauge, reads the initial readings.
- C. To sink in water, so that the free into the specimen at the top, in full water tank water period, should be kept in the test piece above the top surface of the 25mm, usually try to soak for 96 hours.
- D. In the water for the time, read off the dial gauge, calculating the expansion volume.

AV= soaked specimen height changes / original specimen ( 120mm ) x 100% high

- E. The specimen is removed from the tank, from the water sample, set aside for 15 minutes until the drain and then releasing additional load and the porous plate, bottom plate and the filter paper, and support M, to calculate the sample depth and density change.
- CBR- bearing ratio tester ( field bearing plate measuring instrument, the CBR value measuring instrument for ) penetration test description:
- A. Saturated water test specimen on the tester end of lifting plate, adjusting the penetration rod and a force-measuring ring on, into the rod is placed around a predetermined number of loading plate.
- B. The first penetration rod using the handwheel applied 45N load, and then a force-measuring ring, measuring deformation of the dial indicator is adjusted to zero.
- C \ Loading pressure people handwheel, recording force measuring dial certain readings (20, 40 ... ..) when quantity of penetration, and pay attention to quantity of penetration for the 2.5mm, can have 8 or more readings, the total quantity of penetration into 2.5, when 50mm bearing ratio:

Bearing ratio C= unit pressure /7 or 10.5× 100%

## Specification:

- 1, speed: 1mm/min mac pressure:3T
- 2 penetration bar: φ50mm\*100mm
- 3, multi-orifice: two
- 4、dialgage: 0~10mm, threeφ
- 5 Loading plate: 6 (external diameter: \( \phi 150 \)mm, inner diameter: \( \phi 52 \)mm, 1.25Kg one pitch).
- 6、Try tube: inner diameter:φ125mm,height:170mm,cushion block:φ151mm,height:50mm

7.capacity:30kn,50kn

8.load speed:1.0mm/min

9.platen:φ170mm

10.Platen travel:50mm

11.Mold: φ152mm\*170mm

12.Dimension:310\*310\*930mm

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13.Weight:100kg

## **Application**

CBR test apparatus is suitable for test of soils and mix materials(the grain size of the soil is less than 40 mm) compacted with CBR mold so as to confirm the bearing loading ability of pavement roadbed subcrust as well as material layer of the roadbed to be designed. It consists of a twin column frame, proving ring, penetration bar, loading plate, micrometer, measuring device fo swell increment etc. and easy to operate.

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