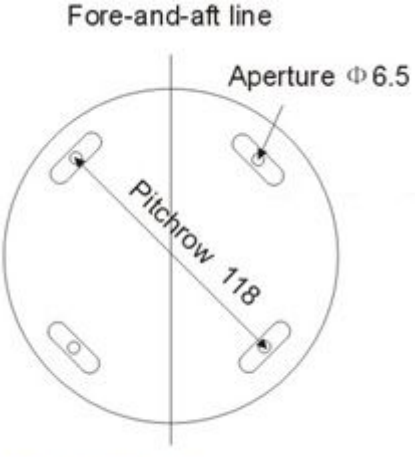
CPT-130 Magnetic Compass Instruction



Base installation size

Friendly reminding

Respected user , thank you for using "Shun Feng " brand magnetic compass. This instruction is written for CPT-130 serial magnetic compass. If the user does not install and adjust the magnetic compass according to the instruction, it will probably reduce the precision of the compass and resulted in the damage of circuit system and the other related equipment.

Caution ⚠

The head and tail line of the magnetic compass (at the baseline of the binnacle) should be coincided or paralleled with the bow baseline.

To ensure the precision, the magnetic compass should be kept away from the objects with magnetism such as steel components、DC motor and electric cables etc. as far as possible (safety distance 1.5 meter).

For the first time, The self heterodyne correction of the magnetic compass must be carried out by compass correction. it should be corrected its self heterodyne, after correcting you should write down the time and place of correcting self heterodyne and the remaining self heterodyne data, hold it properly for the reference of sailing .

Notice: All the figures and accessories of the product in this instruction only for reference, please take real object as the standard. The company reserves the right renew the product without notice .

Contents

Ⅰ.Purpose and Characteristic

CPT-130 serial Magnetic Compass is designed and manufacturedin accordance with the national standard GB/T 10104-1995 (General Technical Terms of Marine Magnetic Compass Class B) and completely accord with the demand and standard of the relevant navigation equipment regulated by ISO449 and IMO. The product has the characteristics of simple structure、nicety direction、steady performance and convenient using. It can be used for large and middle motorized fishing boat and small steel ship acting as steering compass. It is the absolutely necessary navigator for ships .

Ⅱ.Main technical parameters

1、Specification and Dimension

Project	Unit	Data
Dial Diameter	mm	Φ130
Dial graduation	1°	0° ~ 360° 1° for each grid
Lighting power supply	V	DC 24V
Outline Dimension	mm	Type A: 390×240×370 Type B: 380×240×330 Type D: 330×200×270
Installation Dimension	mm	TypeA: Pitchrow Φ214 Aperture Φ10 TypeB: Pitchrow Φ155 Aperture Φ10 TypeD: Pitchrow Φ118 Aperture Φ6.5
Compass Net Weight	Kg	Type A: 7.5kg Type B: 5.5Kg Type D: 3.8Kg

2、Performance Parameters

Project	Data
Indicating deviation	≤1.5°
Half period (H=35μT, T=20±3℃)	≥5.59 S
Stabilization Time (H=35μT, T=20±3℃)	≤37.29 S
Friction deviation (H=35μT, T=20±3℃)	≤0.26°
Main semicircle self heterodyne correcting energy	1–40°
Quadrant self heterodyne correcting energy	1–5°
Inclining self heterodyne correcting energy (only for Type A)	–40A/M ~ 40A/M
Using temperature	–25℃ ~ 70℃

Ⅲ. Accessories and spare parts

1、Accessories

（1）Main semicircle self heterodyne adjusting magnetic bar

Type	Specification	Quantity	Colour
Type A	Φ5×50 Φ5×50	4 pcs 2 pcs	Black Grey
Type B	Φ5×30 Φ5×30	6 pcs 4 pcs	Black Grey
Type D	Φ5×30 Φ5×30	4 pcs 2 pcs	Black Grey

(2)、Inclining self heterodyne adjusting magnetic bar

Type	Specification	Quantity	Colour
Type A	Φ7.5×50 Φ7.5×50	1 pcs 1 pcs	Black Grey

(3)、Quadrant self heterodyne adjusting pure iron sheet 10 pcs

Type	Specification	Quantity	Colour
Type A	60×180×0.5	10 pcs	Black
Type B	54×160.5×0.5		
Type D			

2、Spare parts

（1）Standby compass liquid: one bottle (Remark: liquid is 45° medical alcohol)

（2）Sealing washer: 1 pc (used for replace the washer for the inject hole)

（3）Screw for the inject hole: 1 pc

Ⅳ. Structure

Magnetic compass is consisting of Binnacle、Compass Bowl、horizontal ring of Compass Bowl、Main semicircle self heterodyne correcting device、Quadrant self heterodyne correcting device、Inclining self heterodyne correcting device、Compass Cover etc. All the metallic products are made of the material without magnetism, other products are made of ABS engineering plastic .

Ⅴ. Installation、Maintenance and Maintain

1、Advertent matters while installation

(1)、The head and tail line of the magnetic compass (at the baseline of the binnacle) should be coincided or paralleled with the bow baseline .

(2)、To ensure the precision, the magnetic compass should be kept away from the objects with magnetism such as steel components、DC motor and electric cables etc. as far as possible (safety distance 1.5 meter) .

(3)、For the first time , the magnetic compass installed on vessel, it should be corrected its self heterodyne, after correcting you should write down the time and place of correcting self heterodyne and the remaining self heterodyne data , hold it properly for

the reference of sailing .

2、Maintenance and Maintain

To ensure the magnetic compass installed on board could work normally all the time, the ship driver should often check the magnetic compass to confirm if all its parts are in good condition, whether its directional performance is good and could work normally .

(1)、Termly inspect friction deviation and semi-period, if the deviation is bigger, the compass should be sent to the related repair dept. or factory to replace jewel or pivot .

(2)、Termly measure self heterodyne of the compass , pay attention to the change of self heterodyne. In normal condition , correct once half a year to one year .

(3)、Often do cleaning work better, especially pay attention to termly oiling the bearing therefore the compass will be in good working environment .

(4)、If the bubbles happened in the compass bowl, the user may open the inject hole and pour the spare compass liquid into the bowl . Do not add other liquid into the bowl to avoid the coating of the compass desquamated.

VI.Guarantee Clause

1、Warranty period of this product is one year, the users may obtain the product warranty based on invoice or effective purchasing voucher, without invoice or effective purchasing voucher, the warranty time may be calculated from the producing time of the magnetic compass. If the users correctly use the product according to operation

instruction, our company will take the responsibility of the maintenance for the faults and damages of our products free of charge within the warranty period.

2. If the damages of the products are caused by the following reasons in warranty period, we will charge the users a certain fees of costing and maintenance:

(1)、The machine is damaged due to the user's incorrect operation or the user presumes to disassemble and maintain the product .

(2)、The machine is damaged by fire, flood, abnormal voltage and other visitations of providence or second disasters.

(3)、The machine is damaged by falling caused by user's imprudence or the accident during the transportation after delivery of the product .

(4)、The machine is damaged, because the user dose not use the product according to the operation instruction .

3、The interpretation right of the warranty agreement belongs to Ruian Shunfeng Navigation Instruments Co., Ltd.