NIPPON HAKUYOHIN KENTEI KYOKAI

(The Ship Equipment Inspection Society of Japan)

INSPECTION CERTIFICATE
FOR
ARTICLES FOR SHIP USE OF APPROVED TYPE

No. 110S-B-3362 Date 16 June 2011

THIS IS TO CERTIFY that the following articles were tested and inspected by the Society's Surveyor in accordance with the Rules for Type Approval of Ships and Articles for Ship Use under the Ship Safety Law of Japan and were found to conform to the Approved Type.

Type Approval No.:	4650
Description and Type:	Whistle (Above 115dB and under 120dB) Electronic Horn ES15
Quantity:	35 sets
Date of Manufacture:	June 2011
Manufacturer's Serial Nos.:	00856～00890
Manufacturer:	IBUKI KOGYO CO., LTD. 7-28, 1-chome, Takadono, Asahi-ku, Osaka, Japan
Inspection Mark:	型HK⓪
Remarks:	Also complying with the relevant provisions of International Regulations for Preventing Collisions at Sea, 1972.

Issued under the authority of the Government of Japan.

M. Takamiya

Surveyor M. Takamiya

NIPPON HAKUYOHIN KENTEI KYOKAI

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I B U K I

ES15 ELECTRONIC HORN
INTRODUCTION

1. GENERAL

ES15 ELECTRONIC HORN is suited the performance standard of IMO international Law for the Collision avoidance at Sea. Loading duty is in the full length of 20m or less, and a vessel 12m or more.

2. CONNECTION : A POWER SUPPLY & VOLTAGE

a)Check the voltage with a tester which connects the electronic horn. The proper voltage range becomes :

Rated power supply voltage: -- DC24V

Operation voltage range: -- 21.6V-26.4V

b) The cable pulled out from the electronic horn rear, is that the red cable becomes(+), the white cable becomes (-).Connect the push button switch as the Fig.1.Ensure insulated processing of the cable end.

Cautions: Carry out the color of a connection cable, and polar (±) to prevent any accidents.

c) In not connecting external microphone amplifier, it does not use the black of a KYAPU tire cable, and a green cable. Both cable end should be carried out insulated processing respectably by a vinyl tape.

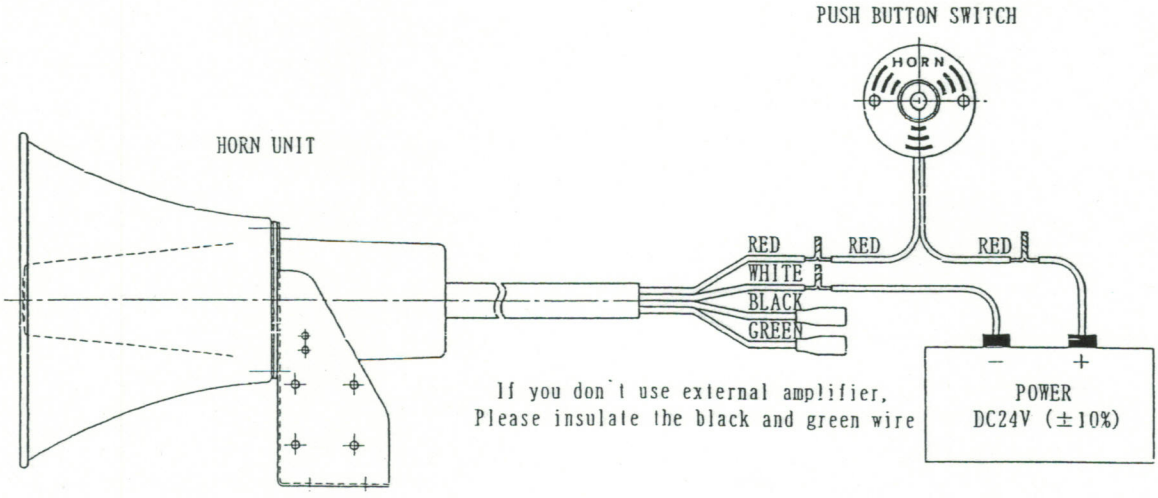

Fig. 1 Connection outline figure

d)THE BLOW TEST

The above-mentioned connection should be firmed, after checking whether insulated processing of each cable is carried out certainly,push a push button switch. If clear sound is blown while pushing the push button, it is the completion of connection. Perform cable processing suitably and use it.

*** When not being blowned even if it pushes a switch ,the polarity of connection may be wrong. Confirm a power supply and wiring again.**

3. EXTERNAL MICROPHONE AMPLIFIER

An external microphone amplifier works electronic horn to perform overboard broadcast with a microphone, and broadcast by the external input. In using external microphone amplifier, connection is as shown in Fig. 2. Although microphone broadcast can always be used while the power supply of amplifier is switched on and the whistle is not being blown, in case whistle is blown, the priority is given to whistle, therefore the microphone broadcast is interrupted. In addition, refer to the attached handling description of attachment in microphone amplifier for the usage of microphone amplifier. * The voice signal which can be inputted into an electronic horn is set to 10W (8 ohms) at the maximum. If the input beyond it is impressed, it causes serious damage to driver unit by fire.

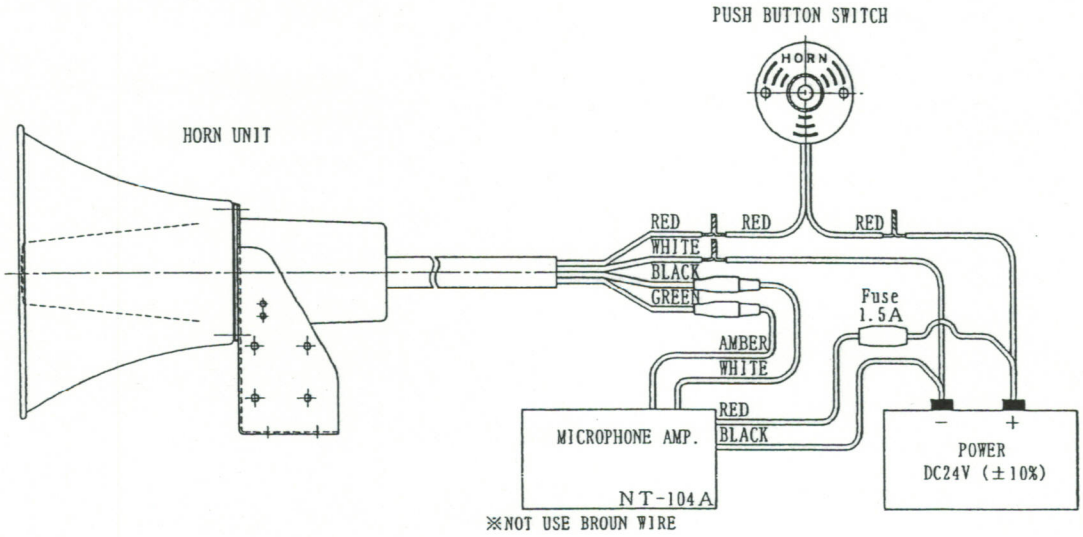

Fig. 2 Connection method in case of using external microphone amplifier

ES15 ELECTRONIC HORN			
TYPE	ES15	CURRENT	0.8A
SOUND LEVEL	115dB OVER	MASS	2.2kg
FREQUENCY	APPROX.675Hz	PAINT	WHITE(MAKER STANDARD)
SOURCE	DC24V		