The Safety Situation and Countermeasures of Zhejiang Fishing Boats

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Abstract
Fishery plays an important role in the marine economy of Zhejiang province. However, the accident of Zhejiang fishing boats often affects the economic benefit of fishery. Therefore, it is necessary to study the safety of fishing boats. The investigation shows that the accidents in Zhejiang fishing boats are mainly caused by ship factors and human factors. Based on the analysis, this paper puts forward some countermeasures to reduce the accidents of fishing boats. The results show that the safety of fishing boats should be strengthened, the overall quality of fishermen's crew and the management of fishery production should be strengthened.

Keywords: fishing boats; safety; accident; reason; countermeasures

Introduction
The 21st century is an important measure to promote the healthy development of marine economy and to build a great maritime power. Marine fishery as the industry of high investment, high risk and accident, is the world recognized as one of the greatest risk, mortality rates are the highest industry, and marine fishing boats is an important carrier of marine fishery production, marine fishing boats safety is the key of the marine fishery security [1-3]. According to statistics, China's existing fishing vessels account for 1.06 million vessels,

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about a quarter of the world total, of which the total number of marine fishing vessels is 31.61 million, which is a real fishing vessel. Of these, there are 297,000 marine motor fishing vessels, mainly scattered in the exclusive economic zone of our country to carry out fishery production, and 1,546 ocean-going fishing vessels in the high seas or other exclusive economic zones of other countries to carry out fishing production [4-6].

At the same time, the safety production of marine fishing boats has become the focus of attention of all circles of society. For this purpose, the country attaches great importance to the fishery production safety, has issued the notice on enhancing fishery production safety (countries do hair [2008] no. 113), the state council on adhere to the scientific development of safe development promote production safety situation steadily improving opinions (guo fa [2011] no. 40) series of policies, such as to prevent or reduce marine fishing boats safety accident, promote marine fishery production safety has important guiding significance to the 7 [8].

Marine fishery industry in Zhejiang province as a tradition and advantage industry, Zhejiang fishing vessel safety especially marine fishing boats, however, production safety situation is still grim, according to Zhejiang maritime bureau statistics, in 2005-2010, 89 commercial fishing vessel collision accidents, sunken ships, 65, killed 180 people, respectively is general level above 17%, 20%, 37% of the total number of accidents. Fishing area in Zhejiang province economic development and social harmony has the important practical significance.

The accident distribution of fishing boats in Zhejiang province

The number of marine fishing accidents in Zhejiang province

In recent years, the production of marine fishing boats in Zhejiang province has been persistently high and has shown a slight trend of growth. marine fishing boats production accidents in Zhejiang province in 2010 1928, significantly increased in 2011, increased by 16.1%, and in 2012, ocean fishing boat accidents decreased significantly, but from 2012 to 2014, fishing vessel accidents increased year by year, fishing vessel accidents in 2014 than in 2012 increased by 21.1%.

Type distribution of accident operation for Marine fishing vessels

Data show that trawling marine fishing boats, the maximum number of production accidents occurred in 61.7% of the total number of accidents, the second is the net and gill net, respectively 15.1% and 11.3% of the total number of accidents, engaged in the Seine and cage to catch fishing vessel
accidents number is relatively small. The number of fishing boats with shrimp and gill nets increased from 2010 to 2011, and decreased from 2011 to 2012. After 2012, the number of accidents increased. The total number of accidents of double drag and net work is slightly increasing. There is a slight decline in the trap and net work accidents.

**Marine fishing boat accident type distribution**

According to the types of Marine fishing accidents, the main collision accidents mainly account for 64.2 percent of the total number of accidents. The second is the accident of machine loss and the stranding of the reef, accounting for 13.5% and 9.2% respectively. The capsizing, fire explosions and other incidents were relatively small, accounting for 5.6%, 3.4% and 4.2% respectively. In 2012, there was a slight decline in the stranding accident of the reef, and then it was increasing year by year. The number of accidents in 2013 was obviously increased, and since then, the number of accidents has decreased significantly, and the change has not been regular. There was little change in the year of the fire explosion; overall, machine loss is decreasing.

**Analysis of the reasons for the accident in Zhejiang fishing boat**

**The factors of ship**

The seaworthiness of the ship is mainly reflected in the stability of the fishing boats, poor handling, equipment maintenance and ship technology. The lack of stability of fishing boats is easy to cause accidents such as typhoon and capsizing. Such as crab cage boat, windsurfing boat and fishery vessel are prone to lack of stability. The fishing boats that manipulate poor performance tend to induce production accidents during the operation.

**The factors of crew**

According to statistics, the ship accident 80% is caused by human factor. Current, ocean fishing fishermen common degree is low, lack of navigation skills, quality is relatively high, and the crew working experience and experience, often lack sea and responsibility consciousness is not strong, easily lead to fishing production accidents.

**Safeguard the safety measures of fishing boats**

**Enhance the safety of fishing boats**

To ensure production safety, fishing boats must constantly upgrading Marine fishing boat, so as to change the state of low level of fishing vessels,
promote Zhejiang sea fishing boats to the fishing gear "ship type standardization, standardization, modernization of facilities, production safety, operation and energy saving, product varieties", build a production in accordance with the law, good sanitation, safety facilities, energy saving low consumption, reasonable operation way, nets use modern marine fishing fleet. It is necessary to increase the safety and publicity to make fishermen realize the value of danger and life. For fishing vessel, mainly through strengthening the study of shipping knowledge, familiarize fishermen with live transportation, there are free surface, will reduce the stability in the fishing boats.

Enhance the overall quality of fishermen's crew

We should constantly strengthen the quality of marine fishery practitioners and improve the safety production awareness and production skills of fishermen. We should strengthen their security awareness and security responsibilities. The selection of psychological quality index in the crew recruitment process, the psychological quality of the unsuitability from the source, to strengthen the psychological quality of the crew lays the foundation. In addition, the training and drills of the simulator are used to enhance the crew's combat ability.

Strengthen management of fishery production

The government should increase financial input, improve the conditions of law enforcement, strengthen the fishery safety regular law enforcement inspection, the organization carries out multi-level special safety inspection, enhance the quality of fishing vessel inspection and check, ensure the security of the fishery law enforcement needs. The visa points and the construction of visa teams should be strengthened to improve the quality of visa management. First, under the unified leadership of the government, the Hong Kong prison, the frontier defense and other departments have worked closely together to build a strong line of defense to prevent dangerous ships from going to sea. It is necessary to establish a reasonable working system to ensure the crew's adequate rest and sleep time, enrich the crew's amateur life, and improve the efficiency of ship operation. Thirdly, during the operation of the fishing boat, it is necessary to strengthen the management of the operation process, and the safety problems throughout the operation process should be carried out in strict accordance with the operating procedures and safety regulations.

Conclusion

The safety of fishing boats is closely related to the marine economy. The
investigation found that the Zhejiang fishing boat accident was still higher frequency. The cause of the accident is mainly due to ship and human factors. In order to reduce the accident of Zhejiang sea fishing boat, the performance safety of fishing boats should be strengthened, the overall quality of fishermen's crew should be strengthened, and the fishery production management should be strengthened.

References