

Various problems about heavy fuel oil “A” of a ship engine,

- (1) About the need of the fuel oil by fuel technology of "Infinite magnetic field" in the marine transportation industry,
 - (a) By the way, according to the many tests in a vehicle and a ship, it is considered that the expansion pressure of explosive vaporization by the magnetism is generated prior to the thermal expansion pressure by the conventional explosive combustion without generating the heat in the inside of a cylinders of a vehicle and a ship engine.
 - (b) In addition, in the marine transportation industry the influence by the cost of the fuel consumption is particularly big overwhelmingly more than the other industries using a heat engine.
 - (c) Generally, around 2% of the decrease rate of the fuel consumption are the limits by the decrease technology of the fuel consumption by the heavy fuel oil “A” in a ship engine maker.
- (2) About the reason that the decrease rate of the fuel consumption in the heavy oil “A” by the fuel technology of "Infinite magnetic field" is most low,
 - (a) By the way, the decrease rate of the fuel consumption in a heat engine is heightened in proportion to the growth of the expansion pressure of explosive vaporization by the magnetism that is generated in the combustion in the inside of a cylinder.
 - (b) On the other hand, the occurrence of the expansion pressure of explosive vaporization by the magnetism that is generated in the combustion in the inside of a cylinder is proportioned to the easiness of the occurrence of the vaporization phenomenon in the conventional fuel oil itself.
 - (c) In other words, when the gasoline and the light oil and the heavy fuel oil "A" are taken out each from the crude oil, at first time the gasoline is vaporized by big kinetic-energy by magnetism of molecule being given by the heat to the molecules of the crude oil and is taken out from the crude oil.
 - (d) Further, by heating the crude oil with the higher temperature light oil is vaporized by bigger kinetic-energy by magnetism of molecule being given by the heat to the molecules of the crude oil and is taken out from the crude oil, and as a result the heavy fuel oil "A" is taken out from the crude oil finally.
 - (e) Therefore, the generation quantity of the expansion pressure of the explosive vaporization by the magnetism is the most little because the heavy fuel oil “A” is the most difficult to vaporize in comparison with the gasoline and the light oil.

For that reason the decrease rate of the fuel consumption in a heat engine with the heavy fuel oil "A" becomes the most low.

- (3) About the ability by "Trans-master" appliance with the heavy fuel oil "A" of a ship engine particularly,
 - (a) By the way, at first time, the system of supply fuel oil is the system that the heavy fuel oil "A" is sent to an auxiliary fuel tank with the constant quantity regularly from a main fuel tank in a ship engine and next, the heavy fuel oil "A" is sent to the main engine and the auxiliary engine each from the auxiliary fuel tank.
 - (b) When the heavy fuel oil "A" is burned in a ship engine, the heavy fuel oil "A" is sent to a main engine and an auxiliary engine each and is burnt after the heavy fuel oil "A" is passed through "Trans-master" appliance 40~50 times repeatedly in an auxiliary fuel tank.
 - (c) In addition, when the heavy fuel oil "A" is used in a ship engine the decrease rate of the fuel consumption that is not thought in the conventional ship engine technology and that attains to 5% ~10% by using "Trans-master" appliance, can be achieved.
 - (d) Therefore according to the fuel oil by the fuel technology of "Infinite magnetic field" the big decrease rates of oxides nitrogen (NO_x) and dioxide carbon (CO₂) each can be achieved in the ship engine technology at the same time.
- (4) About the decline of the big kinetic-energy by magnetism of molecule which is generated to the molecules of heavy fuel oil "A" by "Trans-master" appliance.
 - (a) The big special kinetic-energy by magnetism of molecule that is generated to the molecules of the heavy fuel oil "A" usually does not decline for 30~40 hours as it is.
 - (b) Therefore the big decrease rate of the fuel consumption that attains to 5% ~10% by using heavy fuel oil "A" in an auxiliary fuel tank can be achieved when it is maintained for 30~40 hours without dropping after big kinetic-energy by magnetism of molecule is generated to the molecules of the heavy fuel oil "A".
 - (c) On the other hand, the material of a fuel pipe in a ship engine is restricted legally and for that purpose, an iron pipe is used.
 - (d) In addition, because a fuel iron pipe in a ship engine is very long, big kinetic-energy by magnetism of molecule is absorbed into a long iron pipe and is dropped greatly while the heavy fuel oil "A" is sent and reaches to a cylinder of an ship engine.

- (e) Therefore, the presumption of the quantity decreased by long iron pipe of big kinetic-energy by magnetism of molecule is important technology particularly.
 - (f) In addition, it is very important too that the excess big kinetic-energy By magnetism of molecule is produced to the heavy fuel oil "A" in a ship engine beforehand by "Trans-master" appliance because the quantity of big kinetic-energy by magnetism of molecule being equivalent to the attenuated quantity by a long iron pipe can be estimated by the navigation test, particularly.
- (5) About a tackle by public institution about decreasing the fuel consumption in a ship engine,
- (a) According to Japanese public agency, as for the technology about decreasing the fuel consumption in a conventional ship engine, the method that the kinetic-energy by the supersonic vibration is given to the molecules of heavy fuel oil "A" has been executed until now.
 - (b) Therefore the test about decreasing the fuel consumption in a ship engine by the technology of supersonic vibration mentioned above, was executed lately in ten ships widely by Japanese public agency.
 - (c) Data in all test ships by Japanese public agency about the decrease rates of the fuel consumption were below measurement error and were zero virtually.
 - (d) In addition, development of the fuel technology decreasing the fuel consumption in a ship engine has been carried out all over the world as well as Japan until today, but any practical fuel technology is not being achieved till now.
- (6) About exhaust-regulation of oxides of nitrogen (NO_x) by Japanese public agency,
- (a) As for the inhibition means of oxides of nitrogen (NO_x) exhausted by a ship engine of conventional Japanese public agency it seals lower output than rated output of the ship engine, and limits the quantity of heavy fuel oil "A" jetted into the inside of a cylinder of an ship engine, and declines combustion temperature, and as a result restrains the generation of oxides of nitrogen (NO_x).
 - (b) However, oxides of nitrogen (NO_x) decreases by the means mentioned above, but the fuel consumption of heavy fuel oil "A" of a ship increases by inefficient navigation on the whole, therefore carbon dioxide (CO₂) increases and global warming-up progress, further the financial burdens too increase at the same time.
 - (c) Therefore, the technical development of the ship engine which could decrease

only exhaust of oxides of nitrogen (NO_x) without increasing the consumption of heavy fuel oil "A" has been carried out all over the world till now.

- (7) About the exhaust-regulation of oxides of nitrogen (NO_x) that is carried out about the ocean-going ship from 2015 by the international treaty.
- (a) However, at present, in Japan the state of developments about the decrease technology of oxides of nitrogen (NO_x) in the ship engine that must cope with above regulation is in an extremely serious state.
 - (b) As for the reason, at present, in Japan, the basic thought of development of the decrease technology of oxides of nitrogen (NO_x) is the using the fuel oil that water was mixed to heavy fuel oil "A".
 - (c) That is, the combustion temperature in the inside of a cylinder of an engine is dropped by the evaporated heat of water, and as a result the generation with oxides of nitrogen (NO_x) is restrained low.
 - (d) The decrease method of oxides of nitrogen (NO_x) in a ship engine mentioned above is the method that have been repeated for a long time from the past in all parts of the world by many researchers including Japan.
 - (e) However, the technology mentioned above is not established still now as the practical technology that can use generally.
 - (f) In addition, if combustion temperature of heavy fuel oil "A" is decreased in the inside of a cylinder by a conventional fuel technology, it is clear that just becomes the decrease of motive power energy of an ship engine.
 - (g) As a result, the fear that an abnormality in navigation of a ship occurs, is generated even if oxides of nitrogen (NO_x) is decreased successfully.
 - (h) Therefore, for being established in a ship as the practical technology of using the fuel oil generally that water was mixed into heavy fuel oil "A", there is an unreasonableness basically.
 - (i) As for the reason that a development technology mentioned above was not realized so far because an unevenness of the torque of a ship engine occurred at all greatly, it is considered that is the main reason that a fatal flaw in ship navigation has been brought until now.
- (8) About the use of "Trans-master" appliance to an auxiliary engine of a ship,
- (a) The getting of accurate decrease rate of the fuel consumption of a main engine by "Trans-master" appliance is impossible at all because the influence by the marine state giving to the fuel consumption of a ship engine is too big in comparison with the improvement rate of the fuel consumption of a ship.

- (b) However, because the decrease rate of the fuel consumption of an auxiliary engine to supply electric power for living of the crew in a ship is not influenced by the marine state, the decrease rate of the fuel consumption of an auxiliary engine can be gotten exactly.
- (c) Therefore, in the case of a passenger boat, it is very important than freighter that the exact fuel consumption about only an auxiliary engine is gotten because the proportion of the fuel consumption with the auxiliary engine is very big.
- (d) Further, "Trans-master" appliance is used for a main engine using the large quantity of heavy fuel oil "A" in many navigation tests, and the decrease rate of the fuel consumption of 5%~10% by correction with an auxiliary engine is certified already.
- (e) Economical value of "E-oiler" appliance and "Trans-master" appliance is very big because the decrease rate of the fuel consumption of heavy fuel oil "A" in a ship engine by "E-oiler" appliance and "Trans-master" appliance mentioned above is very big.

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