Test data in Chapter 2

Title： “ The use technology of a special synthetic magnetic field”

About the voyage test by the diesel engine of ship with heavy oil “A”,

About the data of various voyage tests of the ship engine that were carried out by voyage tests as accurately as possible,

Section 1：About specifications of the test ship,

Specifications of the main engine of “The third Sumiwaka-maru” (2,700HP)

Section 2：About the installed state of ”Trans-master” device in the test ship

Section 3：About data of the first voyage test

Section 4：Explanation of data of the first voyage test

Section 5：About the second and the third voyage test data

Section 6：Explanation of the second and the third voyage test data

Section 7：About the fluid speeds of heavy oil “A” passing through "Trans-master" device A and "Trans-master” device B

Section 8：About the frequency of AC power supply used by "Trans-master" device

Section 9：About nitrogen oxide (NOx) in exhaust gas caused by the drop of combustion temperature in diesel engine of the test ship

Section 10：About the drops of vibration and a noise by the engine of the test

ship Section 11：About the combustion test in the burner of the boiler

Section 12：About characteristic of heavy oil "A" by "E-oiler" device by the

burner of the boiler.

****

Section1：About specifications of the test ship,

The following photograph is whole view of "The third Sumiwaka-maru" of the test ship.

Fig.1

A. About the specifications of the main engine of "The third Sumiwaka-maru" of the test ship (2,700HP),

(a) The test ship : "The third Sumiwaka-maru"

(b) The fuel consumption of the main engine of the test ship: 2, 00 liters/h,

(c) The capacity of the auxiliary fuel tank : 1,000 liters,

(d) Heavy oil “A”

(e) The use temperature of "Trans-master" device : 80 ℃ Max.,

(f) The available use pressure of "Trans-master" device: 4kg /㎠ Max.,

Section2 : About the installed state of ”Trans-master” device in the test ship,

The following photograph is external forms of "Trans-master" device.

Fig. 2

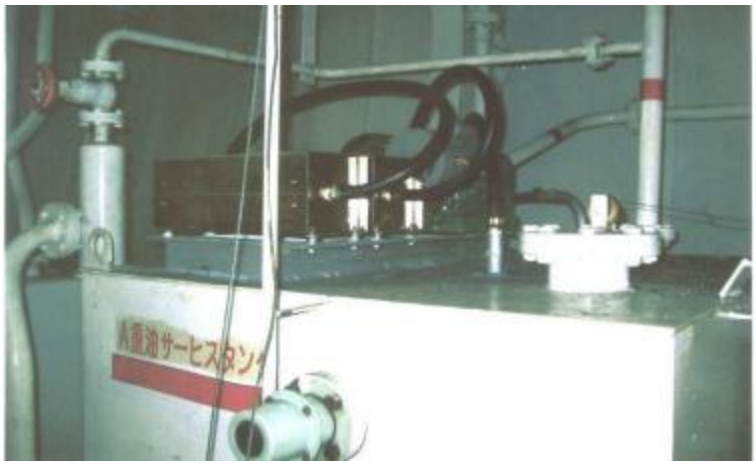
(b) The following photograph is "Trans-master" device B that connected three pieces of "Trans-master" devices in series.

Fig. 3

(c) The following photograph is "Trans-master " device A setting on the auxiliary fuel tank of the test ship (The third Sumiwaka-maru) .

Two pieces of "Trans-master" devices are connected in series by fuel hose.

Fig.4



Section3：About data of the first voyage test,

About voyage test data of the test ship by "Trans-master" device A,

No.1

第三住若丸 7th

自：横　　至：釜石　　(満船)/空船　　平均回転数 260 rpm

H17	時刻	○活性化 ×通常	消費量 L	計測消費量 L/h	航走距離 浬	排気温度 #1	#2	#3	#4	#5	#6	ラック m/m	概位等	風 m/s	備考
11/5	20:00	×	606	202.0	33.2	320	325	320	330	325	320	30	14:00 活性化装置 OFF	0	
	23:00	×												0	
	23:00	×	595	198.3	35.6	320	325	320	330	325	320	30		0	23:00 North 5m
11/6	2:00	×											02:45 塩屋崎通過	0	
	2:00	×	605	201.7	33.6	320	325	320	330	325	320	30		0	02:00 North 4m
	5:00	×												0	
	5:00	×	600	200.0	34.8	315	320	315	325	315	315	30		0	05:00 North 5m
	8:00	×												0	
	8:00	×	600	200.0	36.5	310	315	310	320	310	310	30	10:00 金華山通過	0	
	11:00	×												0	
	11:00	×	590	196.7	33.2	310	315	310	320	310	310	30		0	11:00 NE 4m
	14:00	×												0	
	14:00	×	328	200.9	20.0	310	315	310	320	310	310	30		0	14:00 SE 4m
	15:38	×											15:38 釜石入港	0	
		合計/平均	3,924	199.9	226.9										

消費量/浬　17.29 L/浬

航走距離/L　107.09 m/L

平均速力　11.56 Kn

過給機圧力 0.6～0.62

No. 2

第三 住若丸 8th　トランスマスター 計3ヶ(7thまでは2ヶ)
(H17/12/9 トランスマスター 1ヶ増設 追加)

自：事津　至：東広島　(満船)/空船　平均回転数 260 rpm

H.17	時刻	○活性化 ×通常	消費量 L	時間消費量 L/h	航走距離 浬	排気温度 #1	#2	#3	#4	#5	#6	ラック m/m	航位等	風 m/s	備考
12/28	17:00	○	362	191.0	25.7	300	300	295	305	300	300	29	16:00 鳴門海峡通過	0	鳴門海峡 12/28
	19:00	○				295	295	295	305	300	300	29	(減速)		最強 16:00 5.6Kn
	19:00	○	384	192.0	24.0									0	転流 18:19
	21:00	○				300	305	295	310	305	300	29			
	21:00	○	374	187.0	25.2								三原瀬戸	0	三原瀬戸
	23:00	○				300	305	295	310	305	305	29			最強 19:30 1.4Kn ENE
	23:00	○	190	190.0	12.5									0	転流 22:03
12/29	0:00	○				300	305	300	310	305	305	29		0	
														0	
														0	
														0	
														0	
														0	
														0	
		合計/平均	1,330	190.0	87.4										

消費量/浬 15.22 L/浬
航走距離/L 121.70 m/L
平均速力 12.49 Kn
過給機圧力 0.6

※ 補機 FO 消費量
15 L/h メーター計測
10 L/h 勘分計測

No. 3

第三 住若丸 8th

自：下松　至：坂出　(満船)/空船　平均回転数 260 rpm

H.17	時刻	○活性化 ×通常	消費量 L	時間消費量 L/h	航走距離 浬	排気温度 #1	#2	#3	#4	#5	#6	ラック m/m	航位等	風 m/s	備考
12/30	2:00	○	384	192.0	22.7	305	310	300	315	305	305	28	01:20 下松出航	0	
	4:00	○				305	310	300	315	305	305	28			
	4:00	○	374	187.0	24.8									0	
	6:00	○				305	310	295	315	305	305	28			
	6:00	○	378	189.0	26.5									0	
	8:00	○				305	310	300	315	305	305	28	07:35 来島海峡通過		来島海峡
	8:00	○	377	188.5	24.0								(減速)	0	最強 07:47 7.9Kn 常流
	10:00	○				305	310	300	315	305	305	28		0	転流 11:11
	10:00	○	188	188.0	12.0									0	
	11:00	○												0	
													11:30 坂出入港	0	
														0	
														0	
														0	
		合計/平均	1,701	189.0	110										

消費量/浬 15.46 L/浬
航走距離/L 119.76 m/L
平均速力 12.22 Kn
過給機圧力 0.6

Section4 : Explanation of data of the first voyage test

1. Test ship : "The third Sumiwaka-maru"

2. Purpose of the test

In the main engine of the test ship by "Trans-master " device A, a decrease effect of the fuel consumption and a drop effect in temperature of exhaust gas are gotten.

"Trans-master" device A is the activated device by connecting two "Trans-master" devices in series.

3. Conditions of the voyage test,

(a) The voyage test course of the test ship,
The specific voyage test course is not being set.

(b) The height of wave : 1 meter or less

4. Enforcement day of the voyage test

2005/11/05~06

5. Explanation of No. 1 table of "7th",

(5-1) When "Trans-master" device A is set by "OFF" the voyage test data is recorded in only one sheet No. 1 table of "7th".

(5-2) Temperature of the exhaust pipe of the main engine,
Particularly, the temperatures of the exhaust pipe in 1-6 spots of the main engine by a thermometer seven times every three hours are measured.

6. The result of the voyage test of sheet No. 1 of table of "7th",

(1) Average exhaust temperature : 317.9℃
(2) Average fuel consumption : 17.29 litters/a mile
(3) The average voyage distance : 107.09 Meters/litter
(4) Average speed : 11.56 knots
But, 19 hours 38 minutes of the consecutive voyage time,

7. Explanation of sheet No. 2 of table of "8 th"

(7-1) When "Trans-master " device A is set by "ON" the voyage test data is recorded in sheet No. 2 table of "8th" and is recorded in sheet No. 3 table of "9th",

(7-2) Particularly, the temperatures of the exhaust pipe in 1-6 spots of the main engine by a thermometer five times every two hours are measured.

8. The result of the voyage test

(8-1) The result of the voyage test of sheet No. 2 table of "8 th",

(1) Average exhaust temperature : 301.7 ℃
(2) Average fuel consumption : 15.22 litters/a mile
(3) The average voyage distance : 121.70 Meters/litter
(4) Average speed : 12.49 knots

But, consecutive voyage time is 7 hours 0 minutes

(8-2) The result of the voyage test of sheet No. 3 table of "9 th",

(1) Average exhaust temperature : 306.5 ℃
(2) Average fuel consumption : 15.46 litters/a mile
(3) The average voyage distance : 119.76 Meters/litter
(4) Average speed : 12.22 knots

But, consecutive voyage time is 9 hours 0 minutes

(8-3) About the average numerical value of sheet No.2 of table "8 th" and sheet No.3 table of "9 th",

(1) Average exhaust temperature : 304.1 ℃
(2) Average fuel consumption : 15.34 litters/a mile
(3) The average voyage distance : 120.73 Meters/litter
(4) Average speed : 12.36 knots

But, consecutive voyage time is 9 hours 0 minutes

9. Explanation of the effect by "Trans-master " device A,

(9-1) Therefore, the improvement rate of the fuel consumption of the test ship by "Trans-master " device A is expressed with the numerical value that the voyage test result in state of "OFF" is reduced from the voyage test result in state of "ON" by "Trans-master " device A.

10. Effects by "Trans-master " device A,

(1) Average exhaust temperature : a drop of 13.8 ℃
(2) Average fuel consumption : The drop of 11.3%
(3) The improvement of the voyage distance : 13.64%
(4) The improvement of the test ship speed : 6.9%

11. About the evaluation of the voyage test,

Because the influences caused by the marine tide and wave and wind on fuel consumption of the test ship are particularly big, the voyage test must be carried out most carefully.

(11-1) The combustion temperature in a cylinder of the main engine was decreased by occurrence of a new unknown explosive vaporous expansion pressure by the magnetism without generating heat caused by the decrease of 13.9 ℃ with heavy oil “A” by “The use technology of special synthetic magnetic field" from the result of the voyage test mentioned above.

(11-2) Therefore, nitrogen oxide (NOx) and micro-particulate matter (PM) were decreased greatly at the same time, or might hardly occur.

(11-3) The average rate of decline of the fuel consumption became 11.3%.

Section5：About the second and the third voyage test data,

No. 4

第三住若丸 トランスマスター振替テスト

平成23年 8月30日～8月31日

	日付	時間	主機流量計メーター(B)	回転数	デジタル回転数	ラック1	ラック2	速力	波高		測定ポイント	その他
1	8/30	16-00	4932650								戸畑港出航前	
2	8/30	19-00	4932785	265	271	27	27	10.4	0.5m		大連島沖 航路ブイ通過時	
3	8/30	22-00	4933735	265	271	27	27	10.4	0.5m		5時間後	
4	8/31	03-00	4934685	265	271	27	27	11.1	1.0m		10時間後	
5	8/31	08-00	4935620	265	271	27	27	11.4	1.0m		15時間後	
6	8/31	12-00	4936375	265	271	27	27	11.5	1.0m		鳥取港入港前	
7	8/31	12-50	4936495								鳥取港岸壁着	
8												

航路 戸畑から鳥取　　トランスマスター OFF

(船) 空船

NO.1

H24

第3仁若丸 トランスマスター燃費テスト

	日付	時間	主機流量計メーター(2)	回転数	デジタル回転数	ラック1	ラック2	速力	ナビスタンバイ 燃料流入有効	補機 発電量	補機流量計メーター	その他
1	4/13	8:10										トランスマスター ON
2		15:25										主機ON アイドリング
3		15:45	0								0	出港
4		16:00	20	265	271	28	25	11.4	900	40W	4.2	港外へ 回転UP
5		16:15	68	265	271	26	25	11.1	850		8.3	六重NO2ガ ※NO1ガイドに25℃表示
6		17:15	259	265	271	26	25	11.4	1000	40	21.5	波0.5m
7		18:15	~~448~~	264	271	26	25	12	800	40	35.9	0.5~1m
8		19:15	640	264	271	26	25	11.4	890	40	47.6	1m.

航路　戸畑から鳥取

空船 (満船)　　港記

天気 くもり・雨

波浪

No.5

H24

第3住若丸 トランスマスター燃費テスト

NO2

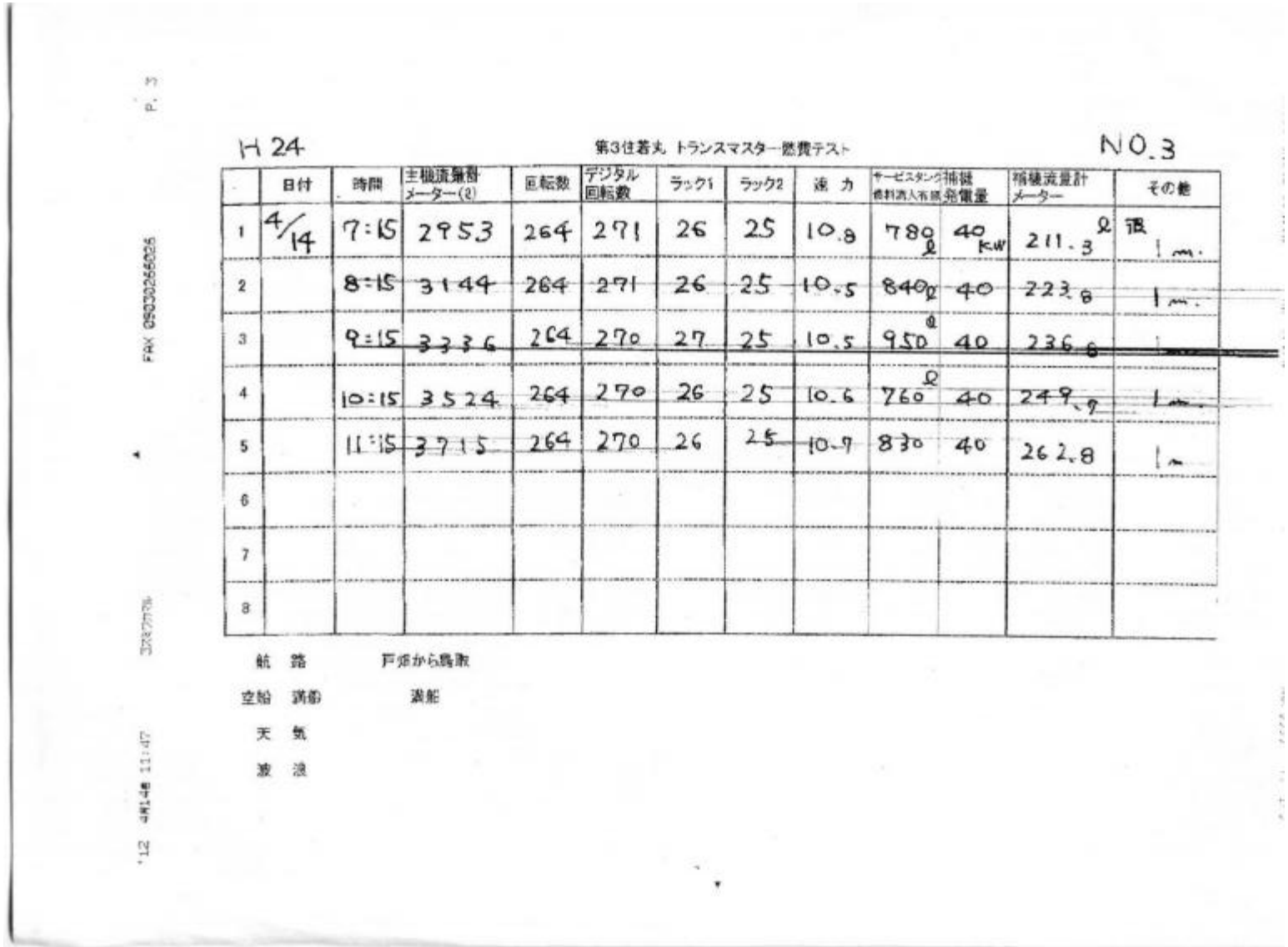
	日付	時間	主機流量計メーター(ℓ)	回転数	デジタル回転数	ラック1	ラック2	速力	サービスタンク(燃料流入積算)	補機発電量	積算流量計メーター	その他
1	4/13	20:15	834	265	271	27	26	10.7	950 ℓ	40 kw	60	表 1.5 m
2	〃	21.15	1028	264	270	27	26	10.7	750	40	72.4	1.5 m
3	〃	22:15	1223	264	270	27	26	10.6	830	40	85.9	1.5 m
4	〃	23:15	1415	264	270	~~27~~ 26	26	11	950	40	98.8	1.5 m
5	4/14	0:15	1606	264	270	26	25	10.9	730	40	113.6	1.5
6	〃	4:15	2376	264	270	26	25	10.8	800	40	169.0	1.5～1
7	〃	5:15	2568	264	270	27	25	10.8	890	40	183.6	1
8	〃	6:15	2761	264	270	27	25	11	970	40	198.9	1

航　路　　戸畑から鳥取

空船　満船

天　気

波　浪



H 24　　第3住若丸 トランスマスター燃費テスト　　NO.3

	日付	時間	主機流量計メーター(ℓ)	回転数	デジタル回転数	ラック1	ラック2	速力	サービスタンク補給 燃料消入有効	発電量	積算流量計メーター	その他
1	4/14	7:15	2953	264	271	26	25	10.8	780ℓ	40 KW	211.3ℓ	港 1m.
2		8:15	3144	264	271	26	25	10.5	840ℓ	40	223.8	1m.
3		9:15	3336	264	270	27	25	10.5	950ℓ	40	236.6	
4		10:15	3524	264	270	26	25	10.6	760ℓ	40	249.9	1m.
5		11:15	3715	264	270	26	25	10.7	830	40	262.8	1m
6												
7												
8												

航　路　　戸畑から長浜

空船　満船

天　気

波　浪

Section6： Explanation of the second and the third voyage test data,

B. The second voyage test："Trans-master" device B is set in a state of "OFF".

1. A test ship： “The third Sumiwaka-maru”

2. Purpose of the voyage test

A decrease effect of the fuel consumption of the main engine of the test ship by "Trans-master" device B and the time required are measured.

"Trans-master" device B is constituted of the three pieces of "Trans-master" devices connecting in series.

3. Conditions of the voyage test

(a) The voyage tests in a state of "ON" and in a state of "OFF" of "Trans-master" device B must be carried out with same states of the marine tide and a wave and a wind.

4. The voyage test course

(a) The marine tide is most stabilized and the voyage test course to "Tottori port" from "Tobata port" in the Sea of Japan that the marine condition is easy to be maintained constant, was decided to the voyage test.

(b) The test ship is always state of full load with slag of ironworks.

(c) In other words, the situation of the load and the course of the voyage test are always equal completely because the test ship always transports the solid waste of the iron manufacture company from "Tobata port" to "Tottori port".

(d) In addition, the fuel consumption and the voyage time can be measured with the most accuracy by choosing the season that the marine tide and a wave and a wind become most stable in the voyage test course of the Sea of Japan.

5. The height of a wave,
0.5~1.0 meter

6. Enforcement day of the voyage test
From 30 to 31 on August in 2011

7. Explanation of the voyage test

(a) The voyage test data in a state of "OFF" by "Trans-master " device B were recorded to table No. 4.

8. The result of the voyage test

(a) The voyage test data from "Tobata port" to "Tottori port " were recorded to table No. 4 .

(a-1) The fuel consumption of the main engine : 3,845 liters

(a-2) The time required : 50 minutes and 20 hours,

C. The third voyage test : "Trans-master" device B is set in a state of "ON".

1. The test ship: "The third Sumiwaka-maru"

2. Purpose of the voyage test

(a) The purpose mentioned above is the same purpose with "B. the third voyage test".

3. Conditions of the voyage test

(a) The conditions mentioned above are the same conditions with "B. the third voyage test".

4. The voyage test course

(a) Test course is the same test course with "B. the third voyage test"

5. The height of a wave
0.5~1.5 meter

6. Enforcement day of the voyage test
From 13 to 14 on April in 2012

7. Explanation of the voyage test

(a) The voyage test data in a state of "OFF" by "Trans-master" device B were recorded to table No. 5 and table No.6 and table No.7.

8. The result of the voyage test

(a) The voyage test data from "Tobata port" to "Tottori port " were recorded to table No. 5 and table No.6 and table No.7.

(a-1) The fuel consumption of the main engine : 3,715 liters

(a-2) The time required : 30 minutes and 19 hours,

9. The effect of "Trans-master" device B

(a) When the results of "B. the second voyage test" and the results of "C. the third voyage test" are compared,

(a-1) About the time that was required of the test ship,

The time required in case of "B. the second voyage test", : 50 minutes and 20 hours

The time required in case of "C. the third voyage test", : 30 minutes and 19 hours

(a-2) About the fuel consumption of the main engine,

The fuel consumption of the main engine in the case of "B. the second voyage test" : 3,715 Liters

The fuel consumption of the main engine in the case of "C. the third voyage test" : 3,845 Liters

(a-3) As is mentioned above, the time to arrive at "Tottori Port" was shortened for 20 minutes and one hour in a state of "ON" by "Trans-master" device B in the voyage test.

(a-4) The voyage test mentioned above were carried out each in August, 2011 and April, 2012 in the good conditions of the test course.

(a-4-1) Because the enforcement day was changed, the voyage test that was carried out in August, 2011 did not be influenced by typhoons particularly and, it is considered that the time required was shortened greatly.

(a-5) The fuel consumption that was used till arrived at "Tottori Port" in the voyage test by "Trans-master" device B in a state of "ON", 130 liters was decreased.

Therefore, the rate of decline became 3.5%.

(b) About the test data of the “Rack” of the test ship,

(b-1) The rotating numerical values of the main engine is 265rpm, and the rotating numerical values that was set in the main engine recorded in No.4 table and No. 5 table and No.6 table is always unchangeable.

(b-2) Though the numerical values of the “Rack” expressed as the density of heavy oil “A” used to the main engine fell to 28 from 29-31, the voyage speed remained unchanged in heavy oil “A” by "Trans-master” device A.

(b-3) The “Rack” is a device for adjusting the density of heavy oil “A” before heavy oil “A” is jetted into a cylinder of the main engine in the test ship.

(c) About "Trans-master" device A and "Trans-master" device B

(c-1) According to the voyage test of the test ship mentioned above, the rate of decline of the fuel consumption by "Trans-master" device A was 11.3%, and the rate of decline of the fuel consumption by "Trans-master" device B was 3.5%.

(c-2) It is impossible at all that numerical value of the rate of decline of the fuel consumption mentioned above is accomplished by a technology and the science about the conventional ship.

(c-3) Therefore, it can't but be thought that a new unknown explosive vaporous expansion pressure by the magnetism without generating heat attained to 11.3% and 3.5% of explosive thermal expansion pressure caused by the conventional combustion each and were generated to molecules of heavy oil "A" in the inside of a cylinder of the test ship.

(c-4) The rate of decline of the fuel consumption of 11.3% of "Trans-master" device A that two pieces of "Trans-master" were connected in series is far bigger than the rate of decline of the fuel consumption of 3.5% of "Trans-master" device B that three pieces of "Trans-master" were connected in series.

Section 7: About the fluid speeds of heavy oil "A" passing through a "Trans-master A" device and a "Trans-master B" device,

A. The fluid speed of fuel oil that have particularly influence on the decline rate of the fuel consumption is explained.

(a) In the case of "Trans-master" device B that is constituted by three pieces of "Trans-master" that are connected in series, the big electronic energies by the magnetism can be certainly induced to an atom of heavy oil "A".

(b) However, according to the voyage test result, 3.5% of numerical value of the decrease rate of the fuel consumption by "Trans-master" device B is too low when it is compared with 11.3% of numerical value by "Trans-master"device A.

B. The reason that particularly the low decrease rate of the fuel consumption by "Trans-master" device B was generated.

(a) Because the same gear pump was used, the passage resistance of "Trans-master" device A becomes smaller than the passage resistance of "Trans-master" device B.

(b) Therefore, it is thought that the speed of heavy oil "A" streaming in the inside of fuel hose of "Trans-master" device A is earlier and is nearer the "The most suitable speed for the decrease of the fuel consumption".

(c) In other words, it is thought that the speed of heavy oil "A" streaming in the inside of fuel hose of "Trans-master" device B was small and was away greatly from "The most suitable speed for the decrease of the fuel consumption" .

(d) Therefore, the reverse test result that the decline rate of the fuel consumption decreases greatly occurs though "Trans-master" device A uses the more number of "Trans-master" devices more than "Trans-master" device B.

(e) As is mentioned above, it was proved that the cutting of "Special synthetic magnetic field" with the "The most suitable speed for the decrease of the fuel consumption" with heavy oil “A” could generate the overwhelming big decrease effect of the fuel consumption.

(f) Therefore, when "Trans-master" device B is used particularly, it is necessary to increase the output of the pump of the test ship mentioned above so that speed of the heavy oil “A” can become "The most suitable speed for the decrease of the fuel consumption”.

(g) In any case it is thought that the decline rate of the fuel consumption of 11.3% by "Trans-master" device A was gained.

Section 8: About the frequency of AC power supply used by "Trans-master" device,

(a) The changeable breadth of the frequency of the commercial AC power supply is generally 0-15%.

(b) When the voltage of AC power supply and the frequency becomes overload , because the speed of heavy oil “A” by the gear pump decreases, the speed of heavy oil “A” becomes the remote speed from the "The most suitable speed for the decrease of the fuel consumption" therefore, necessarily the function of a "Trans-master" device decreases greatly because the cycle of a "Special synthetic magnetic field" disorders too.

(c) Therefore, the decreases of the voltage and the frequency in AC power supply caused overload, must be prevented by an automatic voltage regulator.

Section 9: About nitrogen oxide (NOx) in the exhaust gas by the drop of combustion temperature in diesel engine of the test ship,

A. About temperature of exhaust gas,

(a) According to the voyage test data of “7 th” of No.1 table and of “8 th” of No. 2 table and of “9 th” of No. 3 table, the average temperature of exhaust gas of the ship engine by fuel oil “A” declined from 318 ℃ to 304℃.

(b) As a result, in the combustion in the inside of a cylinder in the main engine, numerical value of １４℃ decreased in the voyage test of "The third Sumiwaka-maru" by "Trans-master" device A.

(c) It was proved virtually that nitrogen oxides (NOx) in exhaust gas from the ship diesel engine decreased by confirming the decrease in temperature of １４℃ of exhaust gas of the ship engine mentioned above.

(d) As is mentioned above, it can't but be thought that the new unknown explosive vaporous expansion pressure by the magnetism without generating heat occurred in combustion of the inside of a cylinder of the main diesel engine in "The third Sumiwaka-maru" of the test ship and as a result combustion temperature decreased.

B. About a peculiar problem of the main diesel engine of the test ship,

(a) The rate of the fuel combustion of 3.5% with heavy oil "A" of the main diesel engine of the test ship is the vary few numerical value in comparison with the decrease rate of the fuel consumption of large vehicle of 10% such as a truck and the bus.

(b) A main cause is that the speed of heavy oil " A" that cuts "special synthetic magnetic field" is away from the "Most suitable speed for the decrease of the fuel consumption" .

(b) Particularly in a ship engine, the vibration energy of molecules by the magnetism of heavy oil "A" that were already given in an auxiliary fuel tank is weakened badly because the distance with the iron pipe that heavy oil "A" is sent to a cylinder of the main engine from an auxiliary fuel tank is too long.

Section 10 : About the drops of vibration and a noise by the engine test,

A. Vibration and the noise in the voyage test of the ship engine,

(a) The combustion temperature in the inside of a cylinder of the ship engine greatly decreased.

(b) Therefore, the quantity of nitrogen oxide (NOx) which occurred by combustion in the inside of a cylinder was considerably decreased.

(b-1) By the way, the output of the conventional heat engine is controlled automatically by the system of supply of the fuel oil that can always keep the constant output.

(b-2) A new unknown vaporous expansion pressure by the magnetism without generating heat occurs in combustion of the inside of a cylinder of a heat engine by the system of supply of the fuel oil.

(b-2-1) Therefore, the quantity that was generated in the thermal explosive expansion pressure by the conventional combustion being equivalent to only the quantity that was generated in the new unknown explosive vaporous expansion pressure by the magnetism without generating heat, is always decreased automatically.

(b-3) Therefore, the impacting strength by the thermal explosive expansion pressure by combustion decreases when the new unknown explosive vaporous expansion pressure by the magnetism without generating heat in combustion of a cylinder of the conventional heat engine occurs.

(b-3-1) In addition, the overall impacting strengths added to a piston are averaged and as a result become considerably small because the impact in strength by the new unknown explosive vaporous expansion pressure by the magnetism without generating heat occurs prior to the thermal explosive expansion pressure similarly.

(b-4) Therefore generally, as for an analog indicator of a ship engine because a pointer of the indicator is vibrated with the minute amplitude in the scale of the smallest unit, reading accurately the numerical value pointed out of the pointer of the indicator was almost impossible in conventional ship by oscillation of the main engine.

(b-5) However, by the fuel oil managed by “The use technology of a special synthetic magnetic field", 1/10 of minimum unit of pointed out by the pointer of the indicator could be read accurately because the pointer of the indicator became the condition stopped.

(c) Furthermore, because the impacting strength in the piston of the main engine decreased greatly, a deterioration and a stain of the engine oil decreased and as a result a life span of engine oil was lengthened dramatically.

Section 11 : About the combustion test in the burner of the boiler,

A. The test of a decrease rate of the fuel consumption by "E-oiler" device in the burner of the boiler.

(a) The purpose of test

When "E- oiler" device is used as fuel oil of the boiler for a dryer of laver, the rate of decline of the fuel consumption is calculated.

(b) The boiler that is used for test

The boiler for the laver dryer which "Akashi-city, Hayashisaki, a fishermen's cooperative association" own

(c) The fuel oil to use : heavy oil "A"

(d) The method of test

The number of the mean volume of shipment of sheets of laver of 2006 by "E-oiler" device is compared with the number of the past mean volume of shipment of sheets of laver without "E-oiler" device.

B. The test result

The test result after attaching "E-oiler" device in 2,006.

(a)Total number of the mean volume of shipment of sheets of laver : 6,562,200

(b) Total quantity of heavy oil “A” that was used : 43,178 liters

(c) The total number of the mean volume of shipment of sheets of laver per 1 liter : 152.4 pieces

(2) The result of measurement in 2,002

(a) The total number of the mean volume of shipment of sheets of laver per 1 liter in 2,002 : 143.9 pieces

(b) Because winter was mild particularly the fuel consumption was decreased.

(3) The result of measurement in 2,005

(a) The total number of the mean volume of shipment of sheets of laver per 1 liter in 2,005 : 130.9 pieces

(b) Because winter was severe particularly the fuel consumption was increased.

C. The conclusions of test

(a) When "E-oiler" device was not attached, namely the average shipment number of sheets of laver per 1 liter in 2002 and in 2005 is used as the past average shipment number of sheets of laver per 1 liter.

(b) That is, when "E-oiler" device was not attached, the average shipment number of sheets of laver per 1 liter, (143.9 sheets +130.9 sheets)/ 2 =137.4 sheets

(c) A decrease rate of the fuel consumption by "E-oiler" device,
137.4 sheets / 152.4 sheets = 0.9

(d) A decrease rate of the fuel consumption by "E-oiler" device becomes 10 %.

Section 12: About a characteristic of heavy oil "A" by "E-oiler" device by the burner of the boiler.

(a))Today, as for the combustion technology by fuel oil in normal boiler with heavy oil "A", the possibility of improvement of the fuel consumption does not exist almost.

(b) Therefore, because the numerical values of 10% by heavy oil "A", as a decrease rate of the fuel consumption by "E-oiler" device are too big, it can’t be explained at all reasonably by conventional combustion technology and science on the boiler.

(c) That is, the above data is proving that a new unknown thermal energy by the magnetism was generated in combustion of the burner of the boiler.

(d) Besides, in combustion of the light oil mentioned above, a noise and the vibration to be generated in the inside of a cylinder of a heat engine decrease dramatically. Similarly, in combustion of heavy oil "A" mentioned above , a noise and the vibration to be generated in the burner of the boiler decrease dramatically too.

(e) Combustion test with the light oil used for the boiler

(e-1) The test method burns with light oil managed in the alcohol lamps in normal light oil and "The use technology of a special synthetic magnetic field" and investigates flame.

(e-2) The colour and the length of flames of light oil managed by "The use technology of a special synthetic magnetic field" are compared with normal light oil in the alcohol lamps.

(e-3) As for the change of the flame, everyone can distinguish easily the color of the orange from a red color , and because the force is added to the flame the height of the flame gets longer inevitably.

(f) In other words, it is thought that electronic energy by the magnetism induced to an atom of the light oil managed by “The use technology of a special synthetic magnetic field" was released by combustion of the light oil and became thermal energy and was added to combustion of the conventional light oil.

(g) In other words, data mentioned above is proving that a new unknown thermal energy by the magnetism that was accumulated to light oil and heavy oil "A" in the combustion of conventional burner was generated.

End

March 1, 2017

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