

The study on a " special synthetic magnetic field ”

“Introduction”

The following research themes are Car driving test : "[Test data in Chapter 1](#)" and Ship navigation test : "[Test data in Chapter 2](#)" and Characteristic change test in water and air : "[Test data in Chapter 3](#)".

This is a summary of the explanations of the phenomena shown by each of the above test data.

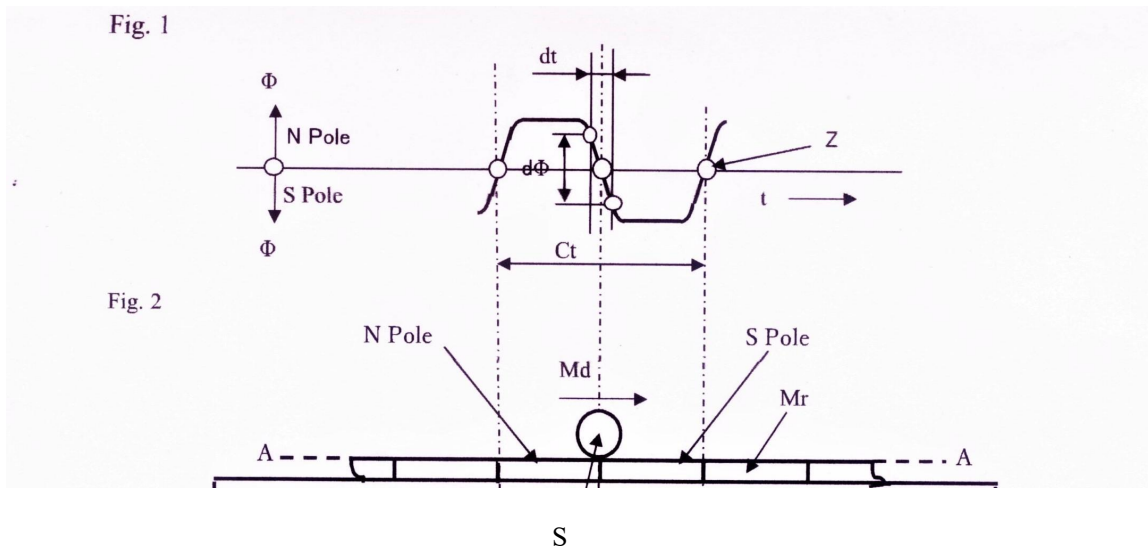
1. About the drastic improvement technology of fateful exhaust-gas treatment technology of an automobile,
  - (a) About 130 years have passed since gasoline engine cars were invented by “Daimler” until today.
  - (b) As far as the driving principle of automobiles is based on the explosive thermal expansion pressure due to the combustion of fuel oil, reduction of exhaust gas by the combustion becomes inevitably a fatal technical problem.
  - (c) However, despite 130 years since the invention of the automobile by Daimler, a drastic technology that can simultaneously greatly reduce carbon dioxide (CO<sub>2</sub>) due to complete combustion and harmful exhaust gas due to incomplete combustion, has not been developed to this day.
  - (d) For that reason, it has already been announced that the manufacture of conventional gasoline engine and diesel engine cars will be banned in the near future by the UK and French governments in order to protect the global environment from conventional automobile exhaust gas.
  - (e) In addition, in the combustion technology of the conventional automobile manufacturer all over the world a negligibly small vaporizing expansion pressure in the combustion of the fuel oil in the sealed combustion space is merely generated.
  - (f) On the other hand, according to the fuel oil by my "The use technology of a special synthetic magnetic field", it was confirmed a "new unknown explosive vaporous expansion pressure" that reaches 10% to 20% of the "explosive thermal expansion pressure" by conventional combustion.
  - (g) Therefore, "Formation of the air-fuel mixture gas that can burn out completely" and “Shortening in burning time ” each can be improved dramatically with the generation of a "new unknown explosive vaporous expansion pressure" caused by "The use technology of a special synthetic magnetic field".
  - (h) Needless to say, due to progress of research on "The use technology of a special synthetic magnetic field", it is sufficiently possible to increase the generation amount of the "new unknown explosive vaporous expansion pressure" to the current 10% to 20% or more.

- (i) As mentioned above, my "The use technology of a special synthetic magnetic field" is a revolutionary technology that can solve the above-mentioned fatal technical problem.
- (j) I'm convinced that "The use technology of a special synthetic magnetic fields" is a technology that can build bridges that can connect to the present and the future regarding energy securing, reduction of carbon dioxide (CO<sub>2</sub>) and prevention of air pollution.
- (k) In the following, the materials that are thought to have generated a new and unknown explosive vaporous expansion pressure by the fuel oil managed by "The use technology of a special synthetic magnetic field" are presented.

## 2. About the outline of a "special synthetic magnetic field"

- (a) In the following alternating magnetic fields, the "The use technology of a special synthetic magnetic field" is a "special synthetic magnetic field" technology in which the total value of both magnetic forces existing at symmetrical positions around the turning point of the magnetic pole becomes zero.
- (b) In particular, the following describes the "The use technology of a special synthetic magnetic field" used for fuel oil, water and air.
- (c) The following are the results derived from the many test results already performed in "Test Data in Chapter 1 ", " Test Data in Chapter 2" and " Test Data in Chapter 3".
- (d) "The use technology of a special synthetic magnetic field" brings about the characteristic changes that are completely different from the characteristics of conventional materials.

## 3. About the explanation diagram of "special synthetic magnetic field"



S : Substance : In this case, the substance (S) specifically refers to a fluid.

Mr : Magnet row

$\Phi$  : Magnetic flux density

t : time

Ct : Cycle

Z : Conversion point of magnetic pole

A-A Section : Main surface of magnetic flux density

Md : Direction of movement of a substance : The direction that is the surface that the different poles of the permanent magnets adsorb each other.

#### 4. About the explanation of a “special synthetic magnetic field ”

- (a) By the way, the substance (S) with a specific speed in a specific direction (Md) along the magnet row (Mr) is moved.
- (b) At this time, at the turning point (Z) of the magnetic pole, which has the highest rate of change of the magnetic pole ( $d\Phi / dt$ ), the electron energy due to magnetism is induced in the atom of the substance (S) by the specific cutting rate of the substance (S).

- (c) That is, at the turning point (Z) of the magnetic pole, the magnetic flux in the direction opposite to the magnetic flux in the original direction comes into direct contact, so the maximum magnetic electron energy (E) is induced in the atom of the substance (S).
- (d) At this time, the electron energy due to the magnetism induced in the atom of the substance (S) is the electron energy represented by the magnetic quantum number in the definition of the electron energy in the quantum theory.
- (e) Therefore, the electron energy induced in the substance (S) managed by "The use technology of a special synthetic magnetic field" is completely different from the conventional characteristic of the substance (S) represented by the principal quantum number in the definition of electron energy in quantum theory.
- (f) Similarly, according to fuel oil, water and air, which are managed by "The use technology of a special synthetic magnetic field", the characteristic changes that are completely different from the conventional characteristics of fuel oil, water and air occur, respectively.
- (g) The above is the theoretical technology for the effect generated by "The use technology of a special synthetic magnetic field".

#### Table of contents

Section 1: About the technical background

Section 2: About "The use technology of a special synthetic magnetic field"

Section 3: About the explanation of "The use technology of a special synthetic magnetic field" by quantum theory

Section 4: About the reduction rate of fuel consumption of heat engines by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 5: About temperature drop due to the combustion of fuel oil by "The use technology of a special synthetic magnetic field"

Section 6: About the noise and vibration caused by the combustion of fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 7: About the engine characteristics caused by the combustion of fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 8: About an ignition timing of engine by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 9: About a "new unknown explosive vaporous expansion pressure" generation by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 10: About the magnitude of molecular motion energy generated by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 11: About the harmful exhaust gas by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 12: About the reduction of carbon dioxide (CO<sub>2</sub>) by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 13: About the reduction of fine particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>) by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 14: About the reduction of nitrogen oxide (NO<sub>x</sub>) by fuel oil managed by "The use technology of a special synthetic magnetic field"

Section 15: About an "E-oiler" device and a "Trans-master" device

Section 16: About the quotation of "The use technology of a special synthetic magnetic field"

\* \* \* \* \*

Section 1: About the technical background

About the speed that a substance cuts a "special synthetic magnetic field"

In this case, the substance specifically refers to a fluid.

- (a) According to the "The use technology of a special synthetic magnetic field" based on "Faraday's electromagnetic induction theory", the rate of change of the magnetic flux density in a conversion point of magnetic pole cut by a substance becomes theoretically almost infinite, so the properties of a substance change dramatically, which is unthinkable by conventional technology and science.
- (b) That is, when fuel oil, water and air are moved in an alternating magnetic field the conversation points of magnetic poles composed of a plurality of "special synthetic magnetic fields" are cut. In this case, "Faraday's law of electromagnetic induction" is applied.
- (c) By the way, according to the law of "Faraday's electromagnetic induction" :  $E = - (d\Phi / dt)$ .
- (d) "E" is the magnetic electron energy induced to the atoms of matter, and  $(d\Phi / dt)$  is the rate of change of magnetic flux.

- (e) Furthermore, the law of "Faraday's electromagnetic induction" applies not only to the alternating magnetic field generated by permanent magnets but also to the alternating magnetic field generated by AC electromagnets that form a "special synthetic magnetic field".
- (f) By the way, the time ( $dt$ ) when the "special synthetic magnetic field" is cut by the substance approaches 0 as the velocity of the substance ( $S$ ) increases.
- (g) Therefore, by minimizing the cutting time to cut the "special synthetic magnetic field", the magnetic electron energy that represented by "E" and that is able to be maximized the magnetic electron energy for only a time close to zero can be induced to the atom of the substance ( $S$ ).
- (h) That is, when the "special synthetic magnetic field" is cut by minimizing the cutting time, the maximum electron energy due to the magnetism occurs and as a result a physical characteristic change completely different from the physical characteristics of the conventional substance ( $S$ ) occurs.
- (i) By the way, the influence caused by the time for cutting the "special synthetic magnetic field" that can give a completely different characteristic change to the substance ( $S$ ) is explained as follows.
- (i-1) In particular, when fuel oil, water, and air move in the direction of cutting the alternating magnetic field composed of the "E-oiler" device and the "Trans-master" device will be described below.
- (i-2) According to Faraday's law, when a substance ( $S$ ) cuts a "special synthetic magnetic field", the magnetic electron energy by the magnetism generated caused by the rate of change of the magnetic flux density ( $d\Phi / dt$ ) is induced to atom of substance ( $S$ ).
- (i-3) Therefore, in the molecule of matter ( $S$ ), special molecular kinetic energy by the magnetism is generated.
- (i-4) In the above case, the magnitude of the special molecular kinetic energy by the magnetism of the substance ( $S$ ) increases in proportion to the increase in the rate of change of the magnetic flux density ( $d\Phi / dt$ ).
- (i-5) However, when the rate of change of magnetic flux density ( $d\Phi / dt$ ) further increases, a limit that the special molecular kinetic energy by the magnetism cannot be generated any more in the molecule of matter ( $S$ ) appears.

- (i-6) The rate of change in magnetic flux density ( $d\Phi / dt$ ) that reaches this limit is tentatively called an effective maximum rate of change in magnetic flux density ( $d\Phi / dt \max$ ).
- (j) On the other hand, according as the cutting time for the substance (S) to cut the "special synthetic magnetic field" is gradually shortened, the magnitude of the electron energy by the magnetism induced to the atoms of the substance (S) increases. Then, by further shortening the cutting time, it reaches a state that the phenomenon due to electromagnetic induction no longer occurs.
- (j-1) Therefore, normally, according as the time to cut the "special synthetic magnetic field" becomes shorter, the larger electron energy by the magnetism is induced to the atom of matter (S). For that reason, since a larger molecular kinetic energy by the magnetism generates, a larger characteristic change can be generated in a substance (S).
- (j-2) Furthermore, when the time to cut the "special synthetic magnetic field" becomes further short, the electron energy by the magnetism induced to the substance (S) cannot be generated at all.
- (j-3) Moreover, even if the state of the molecular kinetic energy is different due to the difference in the molecular structure of the substance (S), it is possible to bring about a large change in the characteristics of the substance (S).

## Section 2: About "The use technology of a special synthetic magnetic field"

1. It is an important first condition for causing the largest change in physical properties of a substance (S) by maximizing the rate of change ( $d\Phi / dt$ ) of the magnetic flux density.
  - (a) The "special synthetic magnetic field" can be cut by moving the substance (S) in an alternating magnetic field composed of permanent magnets or by moving it in an alternating magnetic field composed of AC electromagnets.
  - (b) Therefore, at the turning point of the magnetic pole represented by the "special synthetic magnetic field", the electron energy by the magnetism (E) induced to the atom of the substance (S) theoretically becomes infinite electron energy by the magnetism.
  - (c) However, in reality, the above-mentioned infinite magnetic electron energy by the magnetism (E) cannot happen at all. since there are the various errors of dimensions and magnetic flux density of permanent magnets that make up multiple "special synthetic magnetic fields" of the "E-oiler" device, the limit of the maximum electron energy by the magnetism (E) that is induced to the atoms of matter (S), inevitably occurs.

- (d) Furthermore, in order to increase the magnetic electron energy by the magnetism (E) induced to the atom of matter (S) as much as possible, it is realized by repeatedly inducing the magnetic electron energy by the magnetism (E) to the atom of matter (S).
2. When the period generated by cutting multiple "special synthetic magnetic fields" by the substance (S) is matched with the natural vibration period of molecule of the substance (S) , it is possible to generate the largest molecular kinetic energy by the magnetism in the substance (S).
- (a) Especially when the substance (S) move in the "E-oiler" device consisting of multiple permanent magnets, the period of molecular kinetic energy by the magnetism by cutting the "special synthetic magnetic field" occurs. Therefore, it is important to determine the moving speed of the substance (S) so that the period of molecular kinetic energy by the magnetism can match the period of the natural frequency of the molecule of the substance (S).
- (b)Therefore, when a period by cutting multiple "special synthetic magnetic field" that constitutes the "E-oiler" device at a moving speed of substance (S) cuts so that the period becomes the same as the natural vibration of molecule of substance (S), a resonance phenomenon is induced in the molecule of the substance (S), and the kinetic energy in molecule of substance (S) increases rapidly, and it is possible to generate a physical characteristic change completely different from the physical properties of the conventional substance (S) .
- (c) That is, since the substance (S) can generate a completely different and useful physical characteristic change in the molecules of fuel oil, water, and air, "The use technology of a special synthetic magnetic field" can be used as many new basic technologies at a field of many industries.
- (d) The "special synthetic magnetic field" composed of permanent magnets and AC electromagnets is basically an electromagnetic induction technology based on the law of "Faraday's electromagnetic induction" and is the same as the technology of generators and induction motors.

### Section 3: About the explanation by quantum theory of "Technology for using special synthetic magnetic field"

- (a) The effects and phenomena of "The use technology of a special synthetic magnetic field" that causes largely different physical characteristic changes in the properties of substances that cannot be imagined by conventional technology and science are explained as follows.



- (b) Usually, the electron energy in the phenomenon experienced is a phenomenon based on the electron energy represented by the principal quantum number in the definition about the electron energy of quantum theory.
- (c) Also, according to the fuel oil managed by "The use technology of a special synthetic magnetic field", the phenomenon caused by the electron energy by the magnetism induced to the atom of the substance and the conventional general phenomenon caused by the electron energy basically can not mutually interfere.
- (d) Therefore, when fuel oil managed by "The use technology of a special synthetic magnetic field" is used in the engine, the generation of a "new unknown explosive vaporous expansion pressure" by the magnetism that does not generate heat in the cylinder of the engine, and it is not hindered by high temperature and high pressure in the cylinder at all.
- (e) In other words, according to the fuel oil managed by "The use technology of a special synthetic magnetic field", fuel consumption is largely reduced by generating of the "new unknown explosive vaporous expansion pressure" that is normally unthinkable. Further, the effect of reducing harmful exhaust gas (NOx) and fine-particulate matter (PM10 and PM2.5) occur.

The above test results are found in "Test data in Chapter 1 ", "Test data in Chapter 2 " and "Test data in Chapter 3 ".

#### Section 4: About the reduction rate of the fuel consumption by the fuel oil managed by "The use technology of a special synthetic magnetic field" on the engine

- (a) The effect of fuel oil managed by "The use technology of a special synthetic magnetic field" on the engine based on the results of the driving test is explained as follows.
- (b) According to the test results provided for automobile driving tests in "Test data in Chapter 1", "Test data in Chapter 2 " and "Test data in Chapter 3 ", it has become clear without exception that not only the "explosive thermal expansion pressure" but also a "new unknown explosive vaporous expansion pressure" by the magnetism that does not generate heat in the cylinder of the engine, occur.
- (c) Therefore, the test results demonstrating that the occurring of a "new unknown explosive vaporous expansion pressure" by the magnetism without generating heat in many driving tests of automobiles are shown as follows.
- (d) The above test results are listed in "Test result :A", "Test result :B", "Test result :C", "Test result :D" and "Test result :E" respectively.

**"Test result : A" :** About the reduction rate of fuel consumption of an automobile engine

- (a) Section 1: About data from the "Japan Automobile Transport Technology Foundation" on rigorous driving test on "Eco-oiler" device

Please refer to Section 1, Section 3, Section 5, Section 7, Section 9, and Section 11 in "Test data in Chapter 1".

- (b) The "Eco-oiler" device is the product name of the same product as the "E-oiler" device.
- (c) Section 3: About data of driving test with the "E-oiler" device by "Tokushima Sangyo Junior College"
- (d) Section 4: About data on rigorous driving test of diesel engine vehicles on the road by the "E-oiler" device by "Waseda Environmental Research Institute Company"
- (e) Section 7: About data of driving test of LP gas vehicle on the road by "Port Transport Taxi Company" (Naha City, Okinawa)
- (f) Section 9: About the driving test of heavy trucks on the road
- (g) Section 11: About the data of the voyage test by the main engine of "3rd Sumiwaka-maru" (2,700HP) by the "Trans-master" device
- (h) By the way, more than 2,000 driving tests equipped with various engines using fuel oil managed by "The use technology of a special synthetic magnetic field" have already been carried out.
- (h-1) However, according to strict driving test conditions, automobile engine tests show that reduction rates of the fuel consumption have become 10% to 20% , even though reduction rate of the fuel consumption must be completely zero naturally. Also, reduction rate of the fuel consumption occurred regardless of the type of fuel oil.

Section 5: About the temperature drop due to combustion of the fuel oil managed by "The use technology of a special synthetic magnetic field"

**"Test result : B" :** About the temperature drop of the exhaust gas of the diesel engine

- (a) Paragraph 4 in "Test data in Chapter 1",

- (b) Paragraph 4: Explanation of data for the first voyage test in "Test Data in Chapter 2",
- (c) A large decrease of 14 ° C in the temperature of the exhaust gas was achieved by a voyage test of the "3rd Sumiwaka-maru" with the "Trans-master A" device

Section 6: About the noise and vibration caused by combustion of the fuel oil managed by "The use technology of a special synthetic magnetic field"

**"Test result :C":** About the reduction of the noise and vibration by diesel engine

- (a) About the data sheets No. 3 and No. 7 in "Test data in Chapter 1" by driving test on the road of a heavy truck
  - (a-1) Test driver's opinion recorded on the data sheet especially on driving tests: Engine noise and vibration were greatly reduced.
- (b) About the reduction of the noise and vibration by the engine of the test ship
  - (b-1) When heavy oil "A" managed by a "Trans-master" device constructed based on "The use technology of a special synthetic magnetic field" is used for the navigation of test ship, engine vibration and noise are greatly reduced, so the trembling of the pointer of the analog meter was also greatly reduced, and 1/10 of the minimum scale of the meter could be read almost accurately.
- (c) About noise and vibration of the heat engine due to combustion of fuel oil managed by "The use technology of a special synthetic magnetic field"
  - (c-1) When the fuel oil managed by the "E-oiler" device constructed based on "The use technology of a special synthetic magnetic field" is used for the above-mentioned large vehicles and marine diesel engines, it is considered that the above cause is the timing difference between the occurrence of the "new unknown explosive vaporous expansion pressure" represented due to the magnetic quantum number and the generation of the "explosive thermal expansion pressure" by conventional combustion represented due to the main quantum number.
  - (c-2) In addition, when the "new unknown explosive vaporous expansion pressure" is added to the conventional output of the "explosive thermal expansion pressure", that is, the noise and vibration of the engine body with the occurrence of two types of impact force, ordinarily should significantly increase.

(c-3) However, on the contrary, engine noise and vibration were significantly and dramatically reduced in many conventional driving tests of automobiles without exception.

(c-4) It is thought that because the vibration waveform of impact forces due to the above two types of explosive expansion pressure on the engine body have a phase difference of about 1/2 cycle, the vibration waveform canceled each other, engine noise and vibration decreased dramatically.

About the conclusion drawn from the above (c)

1. The above phenomenon becomes a reliable proof that the "new unknown explosive vaporous expansion pressure" is generated when fuel oil managed by the "E-oiler" device constructed based on "The use technology of a special synthetic magnetic field" is used for a conventional heat engine.
2. According to the dramatic reduction phenomenon in noise and vibration mentioned above, it is estimated that the strength of the "new unknown explosive vaporous expansion pressure" is equivalent to the strength of the "explosive thermal expansion pressure" due to the combustion of fuel oil, which is the output of the conventional heat engine.

Section 7: About the engine oil caused by combustion of the fuel oil managed by "The use technology of a special synthetic magnetic field"

**"Test result :D"**: About the dramatic increase in engine oil life

- (a) Since the combustion temperature inside the cylinder was reduced without exception and the impact force on the piston was largely reduced, the dirt and deterioration of the engine oil were greatly reduced, and therefore the life of the engine oil was dramatically extended.

Section 8: About the engine ignition timing with the fuel oil managed by "The use technology of a special synthetic magnetic field"

**"Test result :E"** : About a ignition timing

- (a) When the fuel oil managed by "The use technology of a special synthetic magnetic field" was used, the engine noise became larger when the ignition timing and engine injection timing were too early. These phenomenon sometimes occurred in the driving tests of the engine.

- (b) That is, the above phenomenon is that because the timing that the piston is pushed down by the generation of the "new unknown explosive vaporous expansion pressure" is slightly earlier than the timing by the generation of the "explosive thermal expansion pressure" by conventional combustion, so a slight braking action occurs on the crankshaft of the engine.
- (c) Therefore, the above phenomenon is likely to occur when the ignition timing of an existing engine is set earlier.
- (d) That is, since the rotational inertia energy accumulated in the crankshaft by the conventional "explosive thermal expansion pressure" of the engine is greatly consumed by the above braking operation, the engine energy loss occurs and the vibration and noise due to the braking action occurred and as a result fuel consumption also increased.
- (e) Based on the above test results, it was cleared that a "new unknown explosive vaporous expansion pressure" by the magnetism is generated before the "explosive thermal expansion pressure" by the conventional combustion.

Section 9: About the generation of a "new unknown explosive vaporous expansion pressure" by the fuel oil managed by "The use technology of a special synthetic magnetic field"

- (a) The conclusions caused by the above each "Tests"
- (b) The above "Test result : A", "Test result : B", "Test result : C", "Test result : D" and "Test result : E" have revealed the generations of the "new unknown explosive vaporous expansion pressure" by the magnetism.
- (c) In order word, it has been almost proven by the above test results and phenomena that when the fuel oil managed by "The use technology of a special synthetic magnetic field" is used, a "new unknown explosive vaporous expansion pressure" by the magnetism generates prior to the generation of the conventional "explosive thermal expansion pressure"
- (d) According to the large electron energy by the magnetism induced to the atoms of the fuel oil managed by "The use technology of a special synthetic magnetic field", the fuel oil becomes extremely viscous-reduced.
- (e) Further, when above the fuel oil is injected into a sealed cylinder of the engine with high temperature and high pressure, it is considered that a "new unknown explosive vaporous expansion pressure" by the magnetism is generated.

Section 10: About the estimating the magnitude of molecular motion energy by the magnetism stored in the fuel oil managed by "The use technology of a special synthetic magnetic field"

- (a) The viscous state of the fuel oil managed by "The use technology of a special synthetic magnetic field" becomes in a state of abnormal dropping unthinkable viscosity at all with the viscous state caused by conventional heating.
- (b) Therefore, according to the phenomenon above that fuel oil becomes abnormally low in viscosity, it is considered that the kinetic energy by the magnetism given to the molecules of fuel oil managed by "The use technology of a special synthetic magnetic field" is equivalent to a very large thermal energy.
- (c) About the states of abnormal decrease in viscosity of the light oil and heavy oil "A" having high viscosity.
  - (c-1) When a ball valve based on the Japanese Industrial Standards (JIS) for the transfer of the light oil managed by "The use technology of a special synthetic magnetic field" to the diesel engine of a car is used, since the penetrating ability of light oil becomes abnormally strong caused by the large decrease in viscosity of light oil by the generation of large molecular kinetic energy by the magnetism, a phenomenon that light oil leaks out even though the normal ball valve is completely closed, occurs.
  - (c-2) That is, an unthinkable phenomenon occurs that a ball valve based on the Japanese Industrial Standards (JIS) loses its ability to completely block the flow of light oil.
  - (c-3) The heavy oil "A" that has a much higher viscosity than the above-mentioned light oil, is described as follows.
  - (c-4) When the heavy oil "A" stored in the spare tank (1,000 liters) of the test ship "The 3rd. Sumiwaka-maru" was introduced into a trans-master" device with a gear pump based on the Japanese Industrial Standards (JIS), a phenomenon that heavy oil "A" leaked out from the outer peripheral surface of the output shaft of the gear pump occurred.

Section 11: About the harmful exhaust gases caused by the fuel oil managed by "The use technology of a special synthetic magnetic field"

- (a) After the exhaust gas containing incompletely burned substances is released from the exhaust pipe of the automobile engine into the air, the exhaust gas is cooled by the air, and as a result, the harmful gases and fine particulate matter such as carbon dioxide (CO<sub>2</sub>), hydrogen (HC), carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>) and fine particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>) are emitted into the air.
- (b) On the other hand, according to the fuel oil managed by "The use technology of a special synthetic magnetic field", the "new unknown explosive vaporous expansion pressure" by the magnetism is generated without exception, and therefore, the fuel consumption is greatly reduced. For that reason, the harmful exhaust gases released into the atmosphere are also largely reduced.
- (c) According to the fuel oil managed by "The use technology of a special synthetic magnetic field", since the "new unknown explosive vaporous expansion pressure" by the magnetism that does not generate heat, is generated without exception, the combustion temperature in the cylinder of the engine is decreased, in particular the harmful emissions such as nitrogen oxides (NO<sub>x</sub>) is reduced .

Section 12: About the reduction of carbon dioxide (CO<sub>2</sub>) by the fuel oil managed by "The use technology of a special synthetic magnetic field"

- (a) By the way, the conventional exhaust gas treatment technologies include filter, catalyst and urea SCR.  
All of the above have only the ability to prevent pollution of the air environment by preventing harmful exhaust gas emitted from the exhaust pipe of automobiles from being discharged into the atmosphere.
- (b) Therefore, since the exhaust resistance in the exhaust pipe increases, the fuel consumption of the engine increases and as a result carbon dioxide (CO<sub>2</sub>) increases.
- (c) However, when the fuel oil managed by "The use technology of a special synthetic magnetic field" is used by many driving tests of various heat engines, that is, by using the "E-oiler" device and "Trans-master" device already developed, 10% to 20% of the large reduction rates of the fuel consumption can always be achieved.
- (d) Therefore, not only a large reduction in carbon dioxide (CO<sub>2</sub>) but also a large economic effect can be achieved without fail.

Section 13: About the large reduction in the amount of fine-particulate matter (PM<sub>10</sub> or PM<sub>2.5</sub>) generated by the fuel oil managed by "The use technology of a special synthetic magnetic field"

- (a) Immediately after the fuel oil is injected into the cylinder of the heat engine and the fuel oil becomes ultra-fine particles, a "new unknown explosive vaporous expansion pressure" by the magnetism without generating heat caused by the vaporization of the ultra-fine particles of fuel oil, occurs at the same time.
- (b) Therefore, according to the light oil managed by "The use technology of a special synthetic magnetic field", since the "new unknown explosive vaporous expansion pressure" by the magnetism in the conventional combustion in the cylinder of the engine is generated, the combustion efficiency of fuel oil is greatly improved, and at the same time, the combustion time is dramatically reduced too.

Therefore, not only the black smoke of the exhaust gas (PM10) but also the conventional fine-particulate matter (PM10 and PM2.5) emitted from the engine can be largely reduced.

Section 14: About the reduction of nitrogen oxides (NOx) by the fuel oil managed by "The use technology of a special synthetic magnetic fields"

- (a) According to the fuel oil managed by "The use technology of a special synthetic magnetic field", the combustion temperature is reduced by the generation of the "new unknown explosive vaporous expansion pressure" by the magnetism without generating heat in the conventional combustion of the engine cylinder.

Therefore the production of nitrogen oxides (NOx) is largely reduced due to the decrease in the combustion temperature.

Section 15: About a "E-oiler" and a "Trans-master" devices

- (a) The "E-oiler" device with permanent magnets and the "trans-master" device with AC electromagnets are product names constituted of magnet trains and AC electromagnets that constituted multiple "special synthetic magnetic fields".
- (b) In order to confirm the fuel consumption reduction effect, it is most important to compare the reduction rate of fuel consumption by driving at the same running speed and running conditions before and after installing the "E-oiler" device and the "Trans-master" device respectively.
- (c) Many driving tests on the above driving speed and driving conditions by automobiles have already obtained the reduction rate of fuel consumption by 10% to 20%

Section 16: About the Citation of "The use technology of a special synthetic magnetic field"

1: About "Test data in Chapter 1



- (a) About "optimal speed for reducing fuel consumption" of fuel oil
- (b) Regarding the driving test of the car with the "E -oiler" device, the flow velocity of gasoline and light oil is 5 cm / sec to 10 cm / sec.
- (c) About the voyage test of the ship engine by the "Trans-master" device the flow velocity of heavy oil "A" is 4 m / sec to 5 m / sec.

However, the input of the "Trans-master" device is a 60-cycle AC power supply.

## 2: About "Test data in Chapter 2"

- (a) The contents of "Test data in Chapter 2 " are basically the same contents from "Introduction" to Paragraph 3 of "Test data in Chapter 1 ".

## 3. About the test contents

- (a) The voyage test with main diesel engine with heavy oil "A" of ship
- (b) The measurement of the reduction rate of fuel consumption
- (c) The measurement in the temperature of the exhaust pipe of the main engine
- (d) About the boilers: Please refer to paragraph 11 in "Test data in Chapter 2,

## 4. About the problems with voyage testing

- (a) It is not possible at all to determine accurate fuel consumption because sea conditions such as tides, winds and waves have such a large effect on the fuel consumption of the ship's main engine.
- (b) However, although the auxiliary engine for the generator to supply electricity for the crew's life uses the same heavy oil "A" as the main engine, it is not completely affected by sea conditions such as tides, winds and waves.
- (c) Therefore, the data of the reduction rate of the fuel consumption of the auxiliary engine can be represented as the data of the reduction rate of the fuel consumption of the main engine.

## 5: About "Test data in Chapter 3"

- (a) The contents of "Test data in Chapter 3" are basically the same contents from "Introduction" to paragraph 3 of "Test data in Chapter 1".

6. About the contents of the test for the characteristic of water by the "Trans-master" device

- (a) Phenomenon of the dramatic decrease of ORP (oxidation-reduction potential) in water : ORP decreased from 640mv to 280mv.
- (b) The water or air sterilization function generated by the "The use technology of a special synthetic magnetic field" is basically completely different from the conventional general sterilization function caused by ultraviolet rays, ozone, or radiation.

7. About the problems related to the tests of the characteristic changes in water and air by "The use technology of a special synthetic magnetic field"

- (a) About the method of using the changes in characteristics of water and air
- (b) Especially about the method of using air with "electromagnetic air purifier"
- (c) That is, about the amount of air managed by the "electromagnetic air purifier" required for living space

March 1, 2017

October 30, 2020 : Revision

929-1171

Address : Ni-160-2, Kahoku-City, Ishikawa-Pref. Japan

Tatsuo Komedashi

Mail : wxdxn7493000@yahoo.co.jp

Website : URL : <http://www.vzporization-energy.com/>

End



