



Agreement Number : N°297

for

On the following and reduction of fuel consumption by ECOVIA Technology

Date of the protocol : March 6, 2009

Valid till : May 31st, 2008-05-05

I. Context

Mr. will test a new technology aimed at reducing the fuel consumption of his vehicle

II. Equipment concerned

The test will take place on one fishing Boat:

- **With a Caterpillar 3412 DI- Main engine for Propulsion**

In order best to monitor and check the consumption data, a working group has been appointed.

The persons making up this working group are:

- > cust
- > **ECOVIA**: Monsieur RIVALLAND: Company Manager



III. Technical description of the ECOVIA products


1/Flowmeter : FS 20 with its Board computer RT2/KS

ECOVIA - FS

For installation on the pressure side of the fuel system.

Flow meter in Brass or Carbon Steel housing, for up to 25 bar and 150°C applications. Can be used with diesel, extra light fuel oil, MDO, HFO.


These flowmeters are specially designed for large engines from 1600 up to 24000 KW (Genset, locomotives, Boats)

 <p>8000..... Installation</p>	Model type	Designation	Order code
	FS - 20	for diesel engines up to 4000 KW (5500 HP) 138 ppl, 30 to 1500 l/h, G 1" fitting	S8020.00
	Accessories		Order code
	10 meters signal connection cable		5620.10
	Additional cost for longer connection cable (price/meter)		
	Complete installation piping set incl. 3 x 1/4" 2 way valves, none return valve, steel pipe and fittings for FS - 20		8000.20

Board Computer and Displays

Totalizer display are used for total consumption reading. Instantaneous values indicated in l/h or in GPH values only. Backlight

Recommended in combination with fuel flowmeter type: 900 series and FS series

	Model type	Designation	Order code
	Remote totalizer	Instantaneous (l/h or GPH) and total consumption indication. Backlight	S1570.0
	RT2 / KS	reset to zero by key switch	

ECOVIA « Manage your fuel budget »

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Guarantee: 1 year under normal conditions of use.



2/ Saving oil proceed :

The economiser system OPTI+4 is in the form of a cartridge composed of two magnets, a diode, and ceramic parts that have the function of a natural catalyst. The cartridge is installed in a cylinder which is fixed on the feeding systems for motors of more than 350 hp. It is placed before the motor.

The device acts by producing an emission of electromagnetic waves that, with the catalytic properties of platinum, succeed in modifying the molecular structures of the fuel, allowing better interaction of it with the oxidant, that is to say better oxygenation. Better combustion means a reduction in consumption and emissions of unburnt hydrocarbons. This functioning exists whatever the engine speed.

Models	References	Cartridges/ Cylinders	Size (length X width X Depth - in cm)and weight (in kgs)	for : tank capacity in liters or motor's power in HP
Opti+ 4	Réf: 101124	2 Cylinders	80X35X15	
		and 4 cartridges	20 kgs	Marine : 700 to 3000 hp

The numerical results are as follows:

- Guaranteed reduction in consumption of 7%. Reductions of the order of 10.5% have already been found.
- Identical results whatever the carburation mode: diesel, derv, biofuels (up to 30% MEVO)
- Reduction in fume emissions (Nox)

Normal Service life of Opti + : 8 years

Guarantee: 1 year under normal conditions of use.

The Magnetic effect will be effective after 2 or 3 months .

The OPTI+4 's life span is of about 35000 hours .

so for your main engine you will use the system between 5 and 6 years.

(**35 000** hours of life span/ **6600** hours a year (330 days by 20 hours a day) = **5.3**)





IV. Data Processing

1. *Software used during the test* : Excel: all the data for fuel take-off and km entries will be managed on a specific Excel file.
2. *Consumption calculation* : Made by the customer
3. *Frequency of reporting* : The consumption data extracted will be sent **after each voyage** to the entire working group.

Basic consumption of an engine tested

Model	HOURS /Year	Type of Fuel	Consumption (we take the lowest one)
Caterpillar 3412 DI	330 days by 20 hours	Diesel	1400l/day

The basic consumption identified in the above table corresponds to the consumption data for the vehicle equipped with the Ecovia system.



CALCULATION OF THE YEARLY AND GLOBAL ECONOMY

TYPE OF VEHICLE (tractor, bus, lorry, loaders, car, commercial vehicle, etc...)	MEAN CONSUMPTION in liters per day	Saving oil target in% guaranteed by Ecovia within conditions	Saving oil target in l/day guaranteed by Ecovia within conditions	DAYS OF WORK /YEAR	Saving oil target in liters per year	AVERAGE PRICE PER LITRE EX VAT in euros	Yearly oil saving in € ex Vat due to Ecovia's Opti+	Oil saving amount on 5 years in € ex vat	Your recommended Opti+ 's price (without installation) in€ ex Vat Ex works incoterms 2000(less 10% for global offer with our Fmowmeter)	GLOBAL OIL SAVING ON 5 YEARS (average lifetime of the Opti+)LESS opTI+4 price in € ex vat	Return on investment in...months
	A	B	C (= A X B)	D	E (= C X D)	F	G (= E X F)	H (= G X 5)	I	J (= H - I)	K (= I / (G / 12))
Moteur Caterpillar 3412DI Main Engine for Propulsion	1400	7,0%	98,0	330	32340	0,45	14553	72765,00			
TOTAL					32340			72765	Opti+ 4		

*(Basis :Your figures or "observatoire ZAGAZ Auto news- Octobre 2007")

euro/us
dollar at may
5th 2008 :
1,5474



V. Undertaking by the 2 companies

1. Undertaking by M cust:

- undertakes to carry out this test on the equipment described above over a minimum period of 6 months as from the installation date,
- to transmit after each voyage the average recorded consumption
- and to perform this test under normal technical and operating conditions for the fishing boat (therefore comparable with the recording period without Opti+4.)

2. Undertaking by ECOVIA :

- ECOVIA commits to a reduction in consumption of a minimum of 7% according to the fishing boat on the equipment defined according to the agreement.
- If a lesser reduction is found at the end of the test,
 - 1/ Ecovia will take back the unit up to a limit of 200€ ex vat
 - 2/and refund your payment of the equipment fitted.
 - 3/the costs of expedition are taken into account up to 50€ ex vat.

The payment will be done by draft on your account following the real invoices the customer will have to join us – and after reception of the products by Ecovia..

CUSTOMER : Atlantic Shrimpers Limited

ECOVIA

Signature preceded by “Good for agreement”

Signature preceded by “Good for agreement”

Date :

Date :

Name of signatory :

Name of signatory :

Function :

Function:

Stamp :

Stamp :

TO BE RETURNED TO US SIGNED WITH “GOOD FOR AGREEMENT” BY FAX AND POST- We will then establish you a invoice for payment before sending

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Bank Details : BANQUE Populaire d'Alsace MULHOUSE Bourtzwiller- France
- I BAN : (INTERNATIONAL Bank Number) : FR 76 1760 7000 0170 21412583 680
- Adresse Swift (Bank identification code) : BPRSFR2A



REGULAR CONSUMPTION OF YOUR MOTORS BEFORE AND AFTER Opti+ installation

**To be sent after each voyage
by fax to 00 33 (0)3 /89/41/78/83 or to your local contact**

To : Ecovia – M Rivalland (cell : 00 33 (0)6/30/25/38/54)
 Date :
 Fax : 00 33 (0)3/89/41/78/83
 From : **CUSTOMER'S NAME:**
 Adress :
 Fax :
 Cell:
 Tel:
 Name and function of the main contact:

Average Consumptions noticed:

Notice date	Real date and number of days	Without Opti+ (month of the late year)		With Opti+ (month of the current year)		Difference in % or in liters per/h or per 100km or 100miles	Remarks about climate and exploiting conditions
		miles or km or hours done	Latest consumption noticed without the Opti+	miles or km or hours done	Current consumption noticed with the Opti+		
M Month = when it has been really installed							
Voyage 1							
Voyage 2							
Voyage 3							
Voyage 4							
Voyage 5							
Voyage							



6							
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Sales conditions extract: « If the customer doesn't respect the protocol conditions, especially the regular communication (by fax or e mail) of his motor's consumption during the first 6 months of the OPTi+ use, this will be considered as a suspensive condition for paying back the system in case the reduction targets wouldn't be reached.»