

Testruns and Data



November 04, 2006

The following data has been obtained on test runs performed on Lago Maggiore.

Obtaining this data involves long, boring runs, paying extreme care to follow a straight course and constant engine RPM's.

For a description of the total weight of the cat consult in the Manual the "Weight and Balance" section.

Fuel Consumption at Various RPM

Both Engines

The fuel consumption is for both engines.

LPM (Liters Per Nautical Mile).

MPG (nautical Miles Per US Gallon).

<i>Engine RPM</i>	<i>Speed Knots</i>	<i>Fuel L/hr</i>	<i>Fuel LPM</i>	<i>Fuel MPG</i>	<i>Date</i>	<i>Comments</i>
1000	6.4	7.4	1.16	3.3	08-05-2006	
	6.6	7.2	1.09	3.5	08-05-2006	
1200	8.4	10.4	1.23	2.9	10-26-2006	
	8.3	9.7	1.17	3.0	10-26-2006	
	9.1	10.5	1.15	3.3	10-27-2006	Added 1136 kg to front
1400	9.1	13.8	1.52	2.5	08-21-2006	
1600	9.6	21.4	2.23	1.7	09-09-2006	
	9.5	19.3	2.03	1.9	09-09-2006	
	9.1	19.4	2.14	1.7	10-31-2006	Added 1136 kg to front
	10.6	18.5	1.75	2.2	10-31-2006	Added 1136 kg to front
1800	10.1	26.6	2.63	1.5	09-21-2006	
	10.0	27.8	2.78	1.4	09-21-2006	
2000	12.2	51.8	4.24	0.9	09-27-2006	
2000	11.5	35.1	3.05	1.3	10-30-2006	Added 1136 kg to front
	10.6	35.2	3.32	1.2	10-30-2006	Added 1136 kg to front

Unless otherwise stated, the runs were done at regular weight.

As can be seen from the curve below, the run at 2000 RPM on September 27 is consistent for speed and MPG, but there must have been a mistake in RPM.

These runs were done to get exact fuel consumption at various engine RPM's. These values will then be used to calibrate the two fuel flow meters.

The speed values obtained with the GPS (either the Garmin handheld GPS or the onboard Raymarine GPS) were used to calibrate the Raymarine ST80 speed transducer.

Miles per Gallon (MPG) at Various Speeds (knots)



This curve is the graphical representation of the previous table.

The **red** curve is the regular weight, twin engine run. The small inconsistencies in the curve are well within the error range of the measurements.

The **blue** curve are the five runs with 1136 kg up front. The data was gathered in exactly the same way as always, but the results are totally baffling. I don't know yet what is happening.

My suspicion is that the cat, with the weight up front, rises too much out of the water in the back and the propellers cavitate even with small waves. Whatever, in this configuration, when hitting a few waves there were some noticeable vibrations.

It is imperative to know how the curve behaves at speed above 12 knots.

Liters per Mile (LPM) at Various Speeds (knots)



The same data displayed in a different way.

The **red** curve are the regular weight, twin engine runs.

The **blue** curve are the five runs with 1136 kg up front.

Single Engine

The fuel consumption (liters/hr) is for one engine.

LPM (Liters Per Nautical Mile).

MPG (nautical Miles Per US Gallon).

<i>Engine RPM</i>	<i>Speed Knots</i>	<i>Fuel L/hr</i>	<i>Fuel LPM</i>	<i>Fuel MPG</i>	<i>Date</i>	<i>Comments</i>
2000	9.7	20.3	2.10	1.8	10-26-2006	
	9.6	20.3	2.11	1.8	10-26-2006	

The runs were done at regular weight.

Not enough data has been gathered, but it seems that the fuel consumption running on one engine is about the same as with both engines.



These runs were done using the auxiliary fuel tank feeding the starboard engine. (See Manual, Fuel System)

When both engines were running, it was assumed that the other engine, running at the same RPM, used the same amount of fuel.



Each mm of the auxiliary fuel tank corresponds to 28.83 ml of fuel.

The fuel level in the auxiliary fuel tank was manually read in the sight tube at the beginning and end of each run

1 US gallon = 3.85 liters.



The distance and speed were calculated using the start and stop values of the onboard Raymarine GPS displayed on a special computer program.

Speed at Various RPM

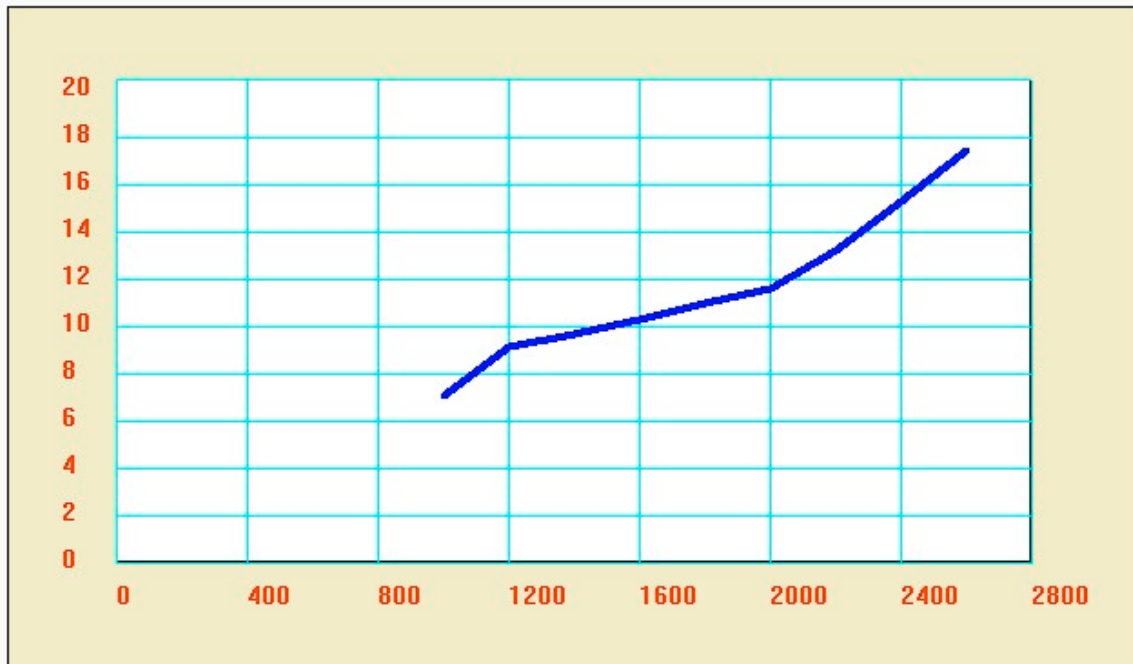
Both Engines

The fuel consumption (liters/hr) was measured with the flow meters.
The speed with the Garmin GPS.

27 October 2006.

<i>Engine RPM</i>	<i>Speed GPS</i>	<i>Speed Log</i>	<i>Port Fuel L/hr</i>	<i>Stbd Fuel L/hrL</i>
1000	6.9	7.1	-	-
1200	8.9	8.8 - 9.1	-	-
1400	9.4	9.4	6	6
1600	10.0	9.7 - 9.8	10	10
1800	10.7	10.2	12	13
2000	11.3	10.6 - 10.8	15	16
2200	12.9	12.3 - 12.4	21	19
2400	14.9	14.5 - 14.8	26	24
2600	17.0	16.5 - 16.6	34	34

To the regular weight were added 1136 kg up front.
Practically no waves and no wind.



Cat Lab Book

The distance traveled was calculated with the Haversine formula:

```
delta_lat = stop_lat_rad - start_lat_rad;
delta_long = stop_long_rad - start_long_rad;
a = ((sin(delta_lat/2)) * ((sin(delta_lat/2))) +
(cos(start_lat_rad) * cos(stop_lat_rad)
* (sin(delta_long/2) * sin(delta_long/2)))) );
c = 2 * atan2(sqrt(a), sqrt(1 - a));
distance = 6371 * c;      // kilometers
distance = 3443.9 * c;   //nautical miles
```

The values colored in **cyan** are actual observed values. All the other values have been calculated from the observed values.

The fuel flow meters are not calibrated. In fact, these data will be used to calibrate them.

The headings were taken with a handheld compass and were only used to keep a steady course.

Port RPM = 1000
Starboard RPM = 1000

Saturday, August 05, 2006

Start Time = 15 46 55

End Time = 16 09 54

Total Time (seconds) = 1379

Start Position = 4552.0352 N 00835.2883 E

Stop Position = 4554.2127 N 00833.3844 E

Distance Traveled (nautical miles) = 2.47

Heading = 329

Port Fuel Flow Meter (l/hr) = 7

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 2

Starboard Fuel Used (mm) = 49

Starboard Fuel Used (liters) = 1.412

Starboard Fuel Flow Calculated (l/hr) = 3.7

Total Fuel Used Both (l) = 2.8

Calculated Speed (nautical miles /hr) = 6.4

Garmin GPS Speed (nautical miles /hr) = 6.6 - 6.7

Raymarine Speed Transducer (nautical miles /hr) = 6.4

Calculated Fuel Flow Both (l/hr) = 7.4

Liters per Mile (LPM) = 1.16

Miles per Gallon (MPG) = 3.3

Very little wind and practically no waves.

The fuel flow meter for the starboard engine must have had air in the line.

Boat at regular weight, about 400 lt of water on the port water tank.

About 250 liters of fuel on each side.

Port RPM = 1000
Starboard RPM = 1000

Saturday, August 05, 2006

Start Time = 16 25 29

End Time = 16 53 54

Total Time (seconds) = 1705

Start Position = 4553.6361 N 00833.6966 E

Stop Position = 4550.9064 N 00836.0275 E

Distance Traveled (nautical miles) = 3.14

Heading = 155

Port Fuel Flow Meter (l/hr) = 7

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 2

Starboard Fuel Used (mm) = 59

Starboard Fuel Used (liters) = 1.700

Starboard Fuel Flow Calculated (l/hr) = 3.6

Total Fuel Used Both (l) = 3.4

Calculated Speed (nautical miles /hr) = 6.6

Garmin GPS Speed (nautical miles /hr) = 6.7

Raymarine Speed Transducer (nautical miles /hr) = 6.7 - 6.8

Calculated Fuel Flow Both (l/hr) = 7.2

Liters per Mile (LPM) = 1.09

Miles per Gallon (MPG) = 3.5

Very little wind and practically no waves.

The fuel flow meter for the starboard engine must have had air in the line.

Boat at regular weight, about 400 lt of water on the port water tank.

About 250 liters of fuel on each side.

Port RPM = 1200
Starboard RPM = 1200

Thursday, October 26, 2006

Start Time = 12 48 26

End Time = 13 10 42

Total Time (seconds) = 1336

Start Position = 4550.2966 N 00836.8943 E

Stop Position = 4552.8778 N 00834.3026 E

Distance Traveled (nautical miles) = 3.12

Heading = 269

Port Fuel Flow Meter (l/hr) = 5

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 4

Starboard Fuel Used (mm) = 71

Starboard Fuel Used (liters) = 2.046

Starboard Fuel Flow Calculated (l/hr) = 5.19

Total Fuel Used Both (l) = 4.09

Calculated Speed (nautical miles/hr) = 8.4

Garmin GPS Speed (nautical miles/hr) = 8.4

Raymarine Speed Transducer (nautical miles/hr) = 8.6

Calculated Fuel Flow Both (l/hr) = 10.4

Liters per Mile (LPM) = 1.23

Miles per Gallon (MPG) = 2.9

No wind and no waves.

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Run done with Vincent Verneuil.

Port RPM = 1200
Starboard RPM = 1200

Thursday, October 26, 2006

Start Time = 13 17 26

End Time = 13 37 26

Total Time (seconds) = 1200

Start Position = 4552.8101 N 00834.1226 E

Stop Position = 4550.4055 N 00836.3206 E

Distance Traveled (nautical miles) = 2.77

Heading = 90 ????

Port Fuel Flow Meter (l/hr) = 5

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 3

Starboard Fuel Used (mm) = 61

Starboard Fuel Used (liters) = 1.758

Starboard Fuel Flow Calculated (l/hr) = 4.84

Total Fuel Used Both (l) = 3.52

Calculated Speed (nautical miles/hr) = 8.31

Garmin GPS Speed (nautical miles/hr) = 8.4

Raymarine Speed Transducer (nautical miles/hr) = 8.6

Calculated Fuel Flow Both (l/hr) = 9.7

Liters per Mile (LPM) = 1.17

Miles per Gallon (MPG) = 3.0

No wind and no waves.

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Run done with Vincent Verneuil.

Port RPM = 1200
Starboard RPM = 1200

Friday, October 27, 2006

Start Time = 12 52 03

End Time = 13 15 09

Total Time (seconds) = 1386

Start Position = 4550.2666 N 00836.6360 E

Stop Position = 4553.0215 N 00834.0868 E

Distance Traveled (nautical miles) = 3.49

Heading = 324

Port Fuel Flow Meter (l/hr) = 4

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a

Port Fuel Flow Calculated (l/hr) = n.a

Starboard Fuel Flow Meter (l/hr) = 3

Starboard Fuel Used (mm) = 70

Starboard Fuel Used (liters) = 2.018

Starboard Fuel Flow Calculated (l/hr) = 5.24

Total Fuel Used Both (l) = 4.04

Calculated Speed (nautical miles/hr) = 9.07

Garmin GPS Speed (nautical miles/hr) = 8.5

Raymarine Speed Transducer (nautical miles/hr) = 8.8

Calculated Fuel Flow Both (l/hr) = 10.5

Liters per Mile (LPM) = 1.15

Miles per Gallon (MPG) = 3.3

No wind and no waves.

Added about 1136 kg in the front compartements (see Weight and Balance).

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Run done with Vincent Verneuil.

Port RPM = 1400
Starboard RPM = 1400

Monday, August 21, 2006

Start Time = 13 22 13

End Time = 13 28 44

Total Time (seconds) = 391

Start Position = 4550.7108 N 00836.6791 E

Stop Position = 4551.5378 N 00835.9268 E

Distance Traveled (nautical miles) = 0.99

Heading = 335

Port Fuel Flow Meter (l/hr) = 6

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter(l/hr) = 4

Starboard Fuel Used (mm) = 26

Starboard Fuel Used (liters) = 0.749

Starboard Fuel Flow Calculated (l/hr) = 6.9

Total Fuel Used Both (l) = 1.5

Calculated Speed (nautical miles/hr) = 9.1

Garmin GPS Speed (nautical miles/hr) = n.a.

Raymarine Speed Transducer (nautical miles/hr) = 8.3 - 8.5

Calculated Fuel Flow Both (l/hr) = 13.8

Liters per Mile (LPM) = 1.52

Miles per Gallon (MPG) = 2.5

Very little wind and practically no waves.

Boat at regular weight, about 500 lt of water on the port water tank.

About 250 liters of fuel on each side.

The runs had to be interrupted due to overheating of the stbd. Engine.

Port RPM = 1600
Starboard RPM = 1600

Saturday, September 09, 2006

Start Time = 10 39 16

End Time = 11 01 25

Total Time (seconds) = 1329

Start Position = 4550.6807 N 00836.5738 E

Stop Position = 4553.7545 N 00833.8129 E

Distance Traveled (nautical miles) = 3.55

Heading = 329

Port Fuel Flow Meter (l/hr) = 7

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 7

Starboard Fuel Used (mm) = 137

Starboard Fuel Used (liters) = 3.949

Starboard Fuel Flow Calculated (l/hr) = 10.7

Total Fuel Used Both (l) = 7.9

Calculated Speed (nautical miles/hr) = 9.6

Garmin GPS Speed (nautical miles/hr) = n.a.

Raymarine Speed Transducer (nautical miles/hr) = 8.5

Calculated Fuel Flow Both (l/hr) = 21.4

Liters per Mile (LPM) = 2.23

Miles per Gallon (MPG) = 1.7

Very little wind and practically no waves.

Boat at regular weight, about 500 lt of water on the port water tank.

About 250 liters of fuel on each side.

Port RPM = 1600
Starboard RPM = 1600

Saturday, September 09, 2006

Start Time = 14 04 46

End Time = 14 24 48

Total Time (seconds) = 1202

Start Position = 4553.1865 N 00834.9775 E

Stop Position = 4550.2038 N 00836.6864 E

Distance Traveled (nautical miles) = 3.18

Heading = 160

Port Fuel Flow Meter (l/hr) = 8

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 7

Starboard Fuel Used (mm) = 112

Starboard Fuel Used (liters) = 3.229

Starboard Fuel Flow Calculated (l/hr) = 9.7

Total Fuel Used Both (l) = 6.5

Calculated Speed (nautical miles/hr) = 9.5

Garmin GPS Speed (nautical miles/hr) = n.a

Raymarine Speed Transducer (nautical miles/hr) = n.a

Calculated Fuel Flow Both (l/hr) = 19.3

Liters per Mile (LPM) = 2.03

Miles per Gallon (MPG) = 1.9

Very little wind and practically no waves.

Boat at regular weight, about 500 lt of water on the port water tank.

About 250 liters of fuel on each side.

Port RPM = 1600
Starboard RPM = 1600

Tuesday, October 31, 2006

Start Time = 08 32 13

End Time = 08 55 52

Total Time (seconds) = 1419

Start Position = 4550.8343 N 00836.2520 E

Stop Position = 4547.4386 N 00833.7864 E

Distance Traveled (nautical miles) = 3.57

Heading = 233

Port Fuel Flow Meter (l/hr) = 6 - 7

Port Fuel Used (mm) = n.a

Port Fuel Used (liters) = n.a

Port Fuel Flow Calculated (l/hr) = n.a

Starboard Fuel Flow Meter (l/hr) = 6

Starboard Fuel Used (mm) = 135

Starboard Fuel Used (liters) = 3.892

Starboard Fuel Flow Calculated (l/hr) = 9.7

Total Fuel Used Both (l) = 7.8

Calculated Speed (nautical miles/hr) = 9.06

Garmin GPS Speed (nautical miles/hr) = 9.7 - 9.8

Raymarine Sensor Speed (nautical miles/hr) = 9.7 - 9.8

Calculated Fuel Flow Both (l/hr) = 19.4

Liters per Mile (LPM) = 2.14

Miles per Gallon (MPG) = 1.7

Very little wind and little waves.

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Added about 1136 kg in the front compartements (see Weight and Balance).

Port RPM = 1600
Starboard RPM = 1600

Tuesday, October 31, 2006

Start Time = 10 01 19

End Time = 10 23 14

Total Time (seconds) = 1315

Start Position = 4546.8995 N 00833.0734 E

Stop Position = 4550.1093 N 00835.2165 E

Distance Traveled (nautical miles) = 3.86

Heading = 020

Port Fuel Flow Meter (l/hr) = 6 - 7

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a

Starboard Fuel Flow Meter (l/hr) = 6 - 7

Starboard Fuel Used (mm) = 117

Starboard Fuel Used (liters) = 3.373

Starboard Fuel Flow Calculated (l/hr) = 9.2

Total Fuel Used Both (l) = 6.7

Calculated Speed (nautical miles/hr) = 10.6

Garmin GPS Speed (nautical miles/hr) = 9.7 - 9.8

Raymarine Sensor Speed (nautical miles/hr) = 9.4 - 9.5

Calculated Fuel Flow Both (l/hr) = 18.5

Liters per Mile (LPM) = 1.75

Miles per Gallon (MPG) = 2.2

No wind and no waves.

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Added about 1136 kg in the front compartments (see Weight and Balance).

The calculated speed of 10.6 knots seems to be abnormally high.

Port RPM = 1800
Starboard RPM = 1800

Thursday, September 21, 2006

Start Time = 14 01 12

End Time = 14 22 07

Total Time (seconds) = 1255

Start Position = 4550.8860 N 00836.0876 E

Stop Position = 4553.9573 N 00833.3771 E

Distance Traveled (nautical miles) = 3.52

Heading = 329

Port Fuel Flow Meter (l/hr) = 13

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 11

Starboard Fuel Used (mm) = 161

Starboard Fuel Used (liters) = 4.641

Starboard Fuel Flow Calculated (l/hr) = 13.3

Total Fuel Used Both (l) = 9.3

Calculated Speed (nautical miles/hr) = 10.1

Garmin GPS Speed (nautical miles/hr) = n.a.

Raymarine Speed Transducer (nautical miles/hr) = 10.3

Calculated Fuel Flow Both (l/hr) = 26.6

Liters per Mile (LPM) = 2.63

Miles per Gallon (MPG) = 1.5

Very little wind and practically no waves.

Boat at regular weight, about 500 lt of water on the port water tank.

About 250 liters of fuel on each side.

Port RPM = 1800
Starboard RPM = 1800

Thursday, September 21, 2006

Start Time = 14 53 16

End Time = 15 16 37

Total Time (seconds) = 1401

Start Position = 4553.6853 N 00832.7195 E

Stop Position = 4550.4114 N 00836.2596 E

Distance Traveled (nautical miles) = 3.90

Heading = n.a.

Port Fuel Flow Meter (l/hr) = 13

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 11

Starboard Fuel Used (mm) = 188

Starboard Fuel Used (liters) = 5.42

Starboard Fuel Flow Calculated (l/hr) = 13.9

Total Fuel Used Both (l) = 10.8

Calculated Speed (nautical miles/hr) = 10.0

Garmin GPS Speed (nautical miles/hr) = n.a.

Raymarine Speed Transducer (nautical miles/hr) = 10.1

Calculated Fuel Flow Both (l/hr) = 27.8

Liters per Mile (LPM) = 2.78

Miles per Gallon (MPG) = 1.4

Very little wind and practically no waves.

Boat at regular weight, about 500 lt of water on the port water tank.

About 250 liters of fuel on each side.

Port RPM = 2000
Starboard RPM = 2000

Wednesday, September 27, 2006

Start Time = 14 31 31

End Time = 14 51 34

Total Time (seconds) = 1203

Start Position = 4549.9734 N 00836.4226 E

Stop Position = 4553.4616 N 00834.0946 E

Distance Traveled (nautical miles) = 4.10

Heading = 334

Port Fuel Flow Meter (l/hr) = 14

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 16

Starboard Fuel Used (mm) = 300

Starboard Fuel Used (liters) = 8.649

Starboard Fuel Flow Calculated (l/hr) = 25.882

Total Fuel Used Both (l) = 17.3

Calculated Speed (nautical miles/hr) = 12.2

Garmin GPS Speed (nautical miles/hr) = n.a.

Raymarine Speed Transducer (nautical miles/hr) = 11.3

Calculated Fuel Flow Both (l/hr) = 51.8

Liters per Mile (LPM) = 4.24

Miles per Gallon (MPG) = 0.9

Very little wind and practically no waves.

Boat at regular weight, about 400 lt of water on the port water tank.

About 250 liters of fuel on each side.

Port RPM = 2000
Starboard RPM = 2000

Monday, October 30, 2006

Start Time = 09 39 29

End Time = 09 57 30

Total Time (seconds) = 1081

Start Position = 4551.5715 N 00835.7210 E

Stop Position = 4554.4364 N 00833.3414 E

Distance Traveled (nautical miles) = 3.44

Heading = 330

Port Fuel Flow Meter (l/hr) = 17

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 13

Starboard Fuel Used (mm) = 183

Starboard Fuel Used (liters) = 5.276

Starboard Fuel Flow Calculated (l/hr) = 17.6

Total Fuel Used Both (l) = 10.6

Calculated Speed (nautical miles/hr) = 11.5

Garmin GPS Speed (nautical miles/hr) = 11.1

Raymarine Speed Transducer (nautical miles/hr) = 10.4

Calculated Fuel Flow Both (l/hr) = 35.14

Liters per Mile (LPM) = 3.05

Miles per Gallon (MPG) = 1.3

Very little wind and waves going in the same direction.

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Added about 1136 kg in the front compartements (see Weight and Balance).

Port RPM = 2000
Starboard RPM = 2000

Monday, October 30, 2006

Start Time = 10 37 24

End Time = 10 58 40

Total Time (seconds) = 1276

Start Position = 4554.5571 N 00833.2169 E

Stop Position = 4551.2053 N 00836.0860 E

Distance Traveled (nautical miles) = 3.76

Heading = 140

Port Fuel Flow Meter (l/hr) = 14

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 16

Starboard Fuel Used (mm) = 216

Starboard Fuel Used (liters) = 6.23

Starboard Fuel Flow Calculated (l/hr) = 17.6

Total Fuel Used Both (l) = 12.5

Calculated Speed (nautical miles/hr) = 10.61

Garmin GPS Speed (nautical miles/hr) = 10.8 - 10.9

Raymarine Speed Transducer (nautical miles/hr) = 10.9 - 11.0

Calculated Fuel Flow Both (l/hr) = 35.2

Liters per Mile (LPM) = 3.32

Miles per Gallon (MPG) = 1.16

Very little wind and practically no waves.

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Added about 1136 kg in the front compartements (see Weight and Balance).

Port RPM = 0
Starboard RPM = 2000

Thursday, October 26, 2006

Start Time = 09 03 21
End Time = 09 23 23
Total Time (seconds) = 1202
Start Position = 4550.6782 N 00835.8634 E
Stop Position = 4553.4429 N 00833.7909 E
Distance Traveled (nautical miles) = 3.22
Heading = 332

Port Fuel Flow Meter (l/hr) = n.a.
Port Fuel Used (mm) = n.a.
Port Fuel Used (liters) = n.a.
Port Fuel Flow Calculated (l/hr) = n.a.
Starboard Fuel Flow Meter (l/hr) = 16
Starboard Fuel Used (mm) = 235
Starboard Fuel Used (liters) = 6.775
Starboard Fuel Flow Calculated (l/hr) = 20.291
Total Fuel Used (l) = 6.775

Calculated Speed (nautical miles/hr) = 9.65
Garmin GPS Speed (nautical miles/hr) = n.a.
Raymarine Speed Transducer (nautical miles/hr) = 9.6

Calculated Fuel Flow (l/hr) = 20.3
Liters per Mile (LPM) = 2.10
Miles per Gallon (MPG) = 1.8

Against 13 kn wind and small waves.

Boat at regular weight, about 400 lt of water on the port water tank.
About 200 liters of fuel on each side.

Run done with Vincent Verneuil.

Port RPM = 0
Starboard RPM = 2000

Thursday, October 26, 2006

Start Time = 09 40 00

End Time = 10 00 01

Total Time (seconds) = 1201

Start Position = 4553.5062 N 00833.8053 E

Stop Position = 4550.6826 N 00836.1731 E

Distance Traveled (nautical miles) = 3.21

Heading = 154

Port Fuel Flow Meter (l/hr) = n.a.

Port Fuel Used (mm) = n.a.

Port Fuel Used (liters) = n.a.

Port Fuel Flow Calculated (l/hr) = n.a.

Starboard Fuel Flow Meter (l/hr) = 17

Starboard Fuel Used (mm) = 235

Starboard Fuel Used (liters) = 6.775

Starboard Fuel Flow Calculated (l/hr) = 20.308

Total Fuel Used (l) = 6.775

Calculated Speed (nautical miles/hr) = 9.62

Garmin GPS Speed (nautical miles/hr) = n.a.

Raymarine Speed Transducer (nautical miles/hr) = 9.8

Calculated Fuel Flow (l/hr) = 20.308

Liters per Mile (LPM) = 2.11

Miles per Gallon (MPG) = 1.8

7 kn wind in favor, practically no waves

Boat at regular weight, about 400 lt of water on the port water tank.

About 200 liters of fuel on each side.

Run done with Vincent Verneuil.