

MARINE BENCHMARK

Market size for 250kW – 1200 kW main engines
for vessels operating in North West Europe

Torbjörn Rydbergh, M.Sc. Nav. Arch.
Managing Director & Partner

50 800 vessels identified in north west Europe

Base for market study

- 2 billion AIS records sampled every 10 minute – globally
- 6 months data - 1 Mar to 31 Aug 2016
- 370 000 vessel IDs captured globally
- All AIS records sorted, washed and allocated to areas
- 50 800 vessels identified in north west Europe
- 14 200 with IMO number
- 36 600 missing engine data



IHS Markit - AIS Live Example – IMO vessel

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List Ships List Ports Ships in Sea-web AIS Detail Voyage Detail Photos Alerts & WatchLists Port Calls Ship Tracks Analysis

Details 1 of 1 Denmark, Skagen

IDA
General Cargo Ship

WATCH

MMSI 210319000
Callsign C4CZ2
IMO 8613358
Last seen Live
Last port Halmstad
Destination Uddevalla 3 hours
ETA 6 Dec 2017 14:00 UTC
Lat Long 57°42.171'N 011°23.189'E
Last seen at 6 Dec 2017 10:26:47 UTC
Heading 350°
Speed 8.3 knots (service 10.5 knots)
Status Under way using engine
Deadweight 2,019 Gross 1,616
Length 82.53 m Breadth 11.31 m
Draught 3.2 m (max 3.9m)
Operator Afalita Shipping JSC
Tech Mgr Afalita Shipping JSC

Follow live on map
 Ship Track Options

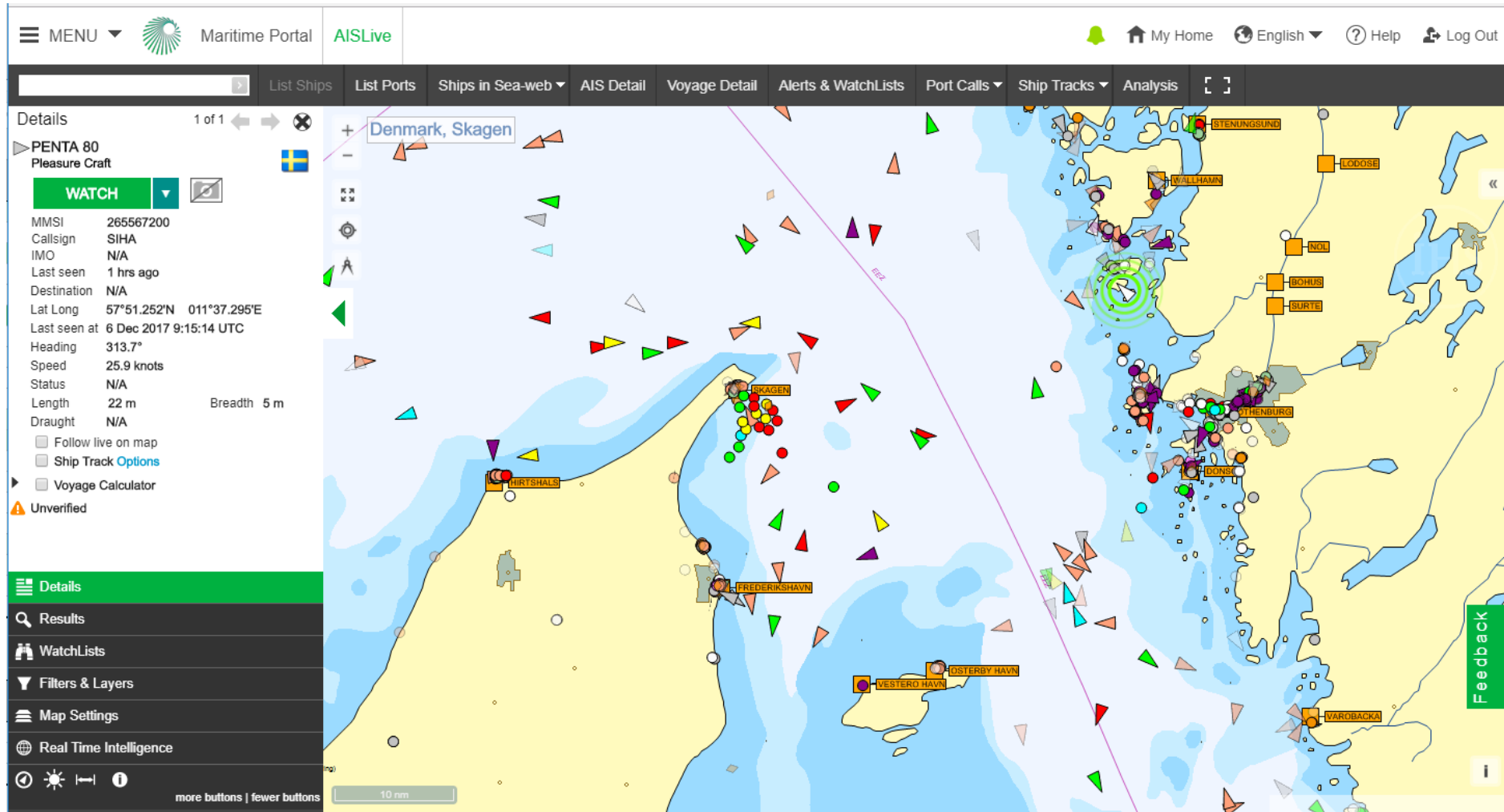
Details
Results
WatchLists
Filters & Layers
Map Settings
Real Time Intelligence

more buttons | fewer buttons

10 nm

Feedback

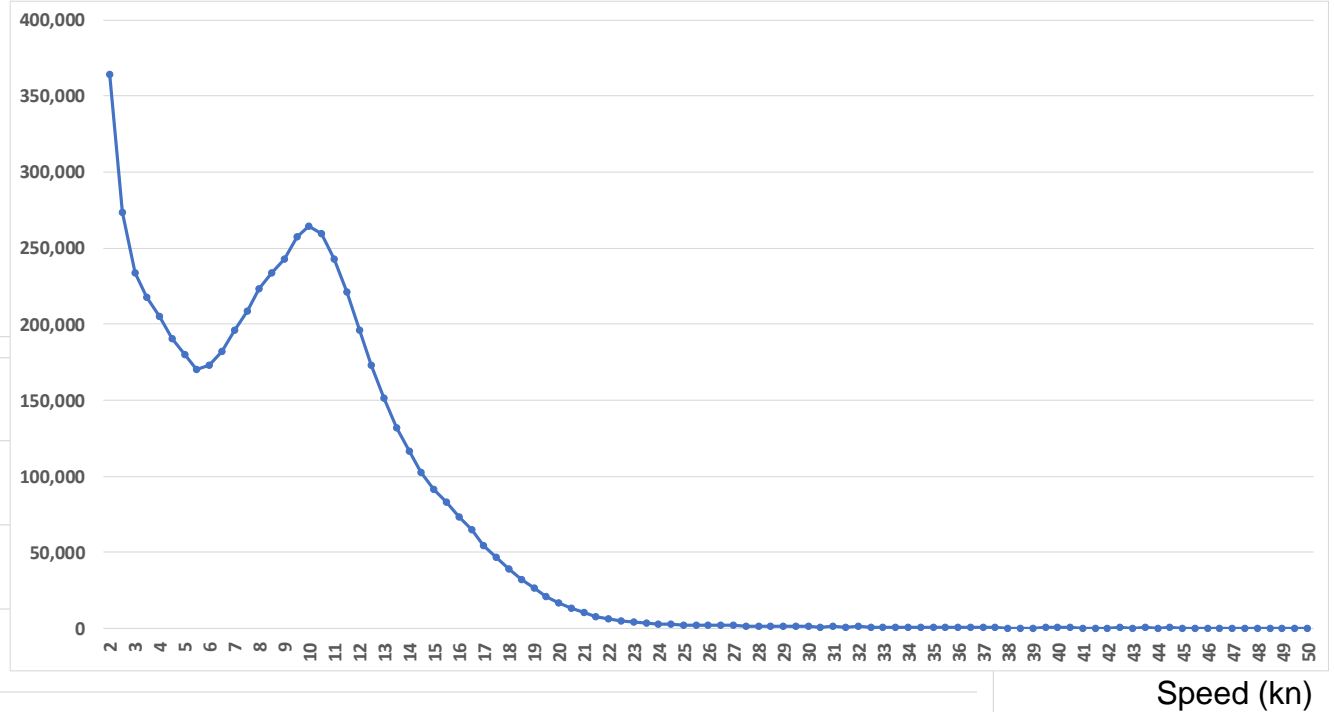
IHS Markit - AIS Live Example - Non IMO vessel



Speed profile for all 50 800 vessels

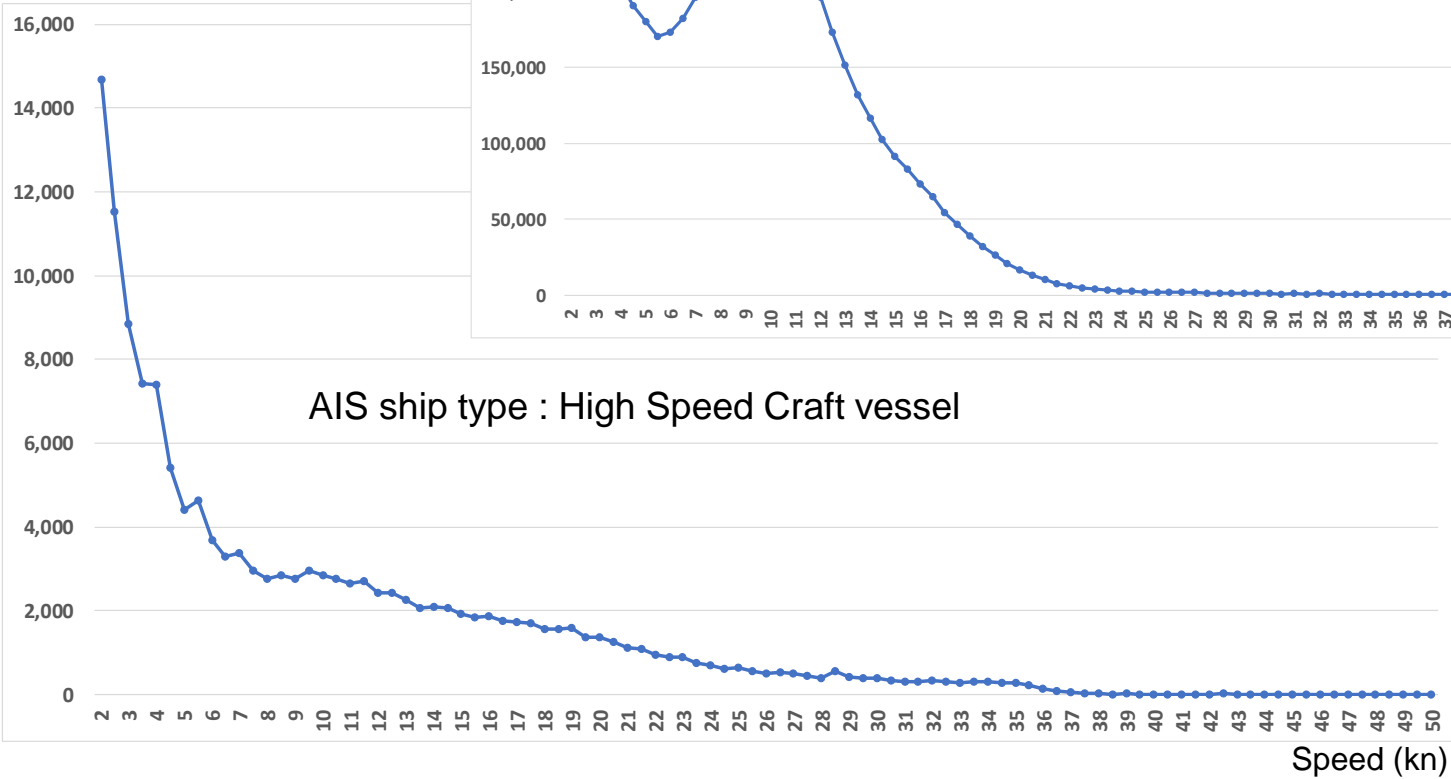
Hours at Speed

AIS ship type : Cargo vessel



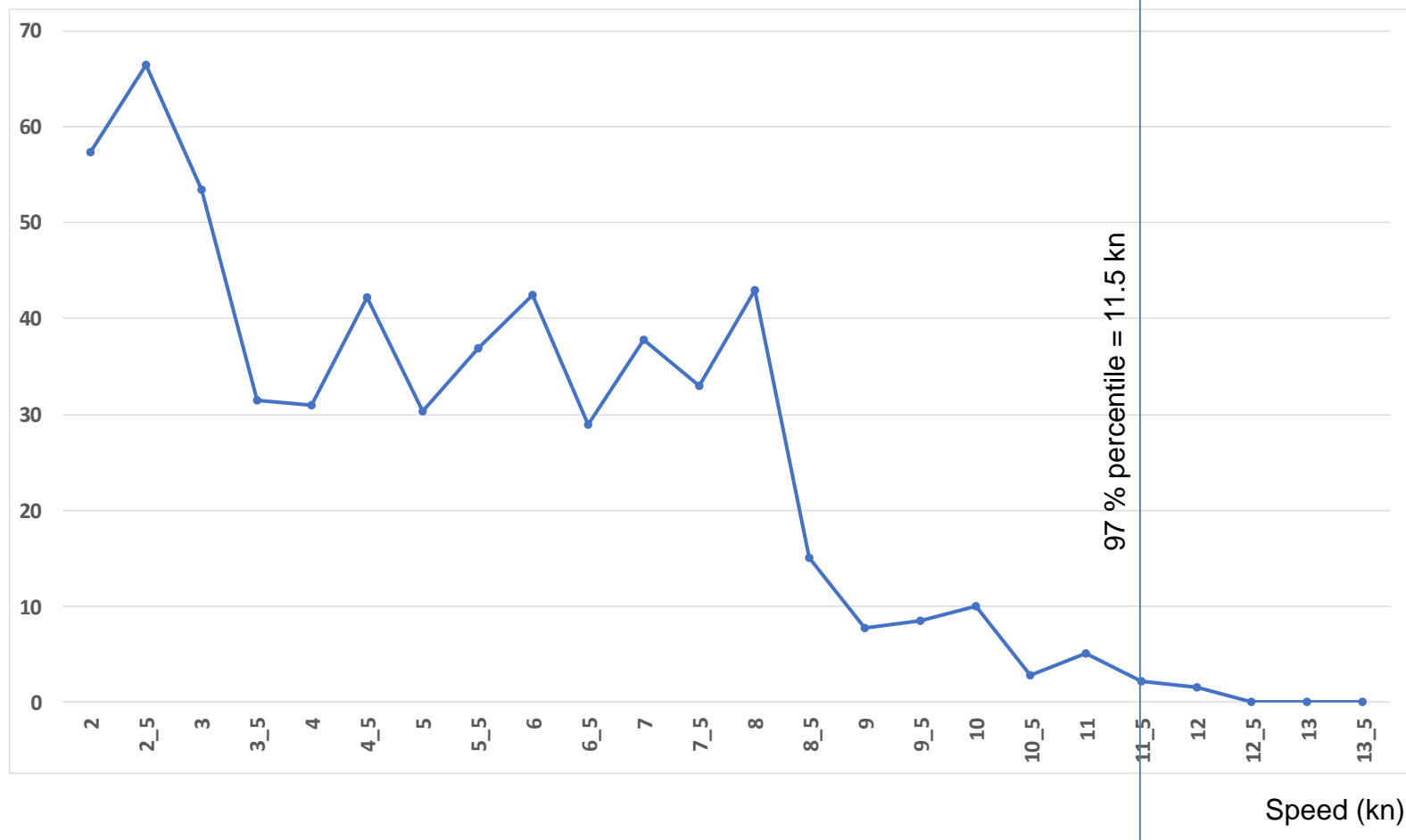
Hours at Speed

AIS ship type : High Speed Craft vessel



Calculating the 97% – percentile speed for every vessel

Hours at Speed



Example vessel: MMSI 244700770, L=135m, B=12m, 783 hours making speed during 6 months

Dividing into speed groups based on “Spd97%”

Count of MMSI	Column Labels																								Grand Total		
	A_0 - 2 kn	B_2 - 4 kn	C_4 - 6 kn	D_6 - 8 kn	E_8 - 10 kn	F_10 - 12 kn	G_12 - 14 kn	H_14 - 16 kn	I_16 - 18 kn	J_18 - 20 kn	K_20 - 22 kn	L_22 - 24 kn	M_24 - 26 kn	N_26 - 28 kn	O_28 - 30 kn	P_30 - 32 kn	Q_32 - 34 kn	R_34 - 36 kn	S_36 - 38 kn	T_38 - 40 kn	U_40 - 42 kn	V_42 - 44 kn	W_44 - 46 kn	X_46 - 48 kn		Y_48 - 50 kn	Z_50 + kn
AntiPollution	937	1222	1439	4963	3604	993	309	267	239	175	158	152	114	83	55	18	5	6	3	4	4	5	1	2	1	14759	
Cargo	21	48	344	1079	2412	750	1444	1862	1093	881	456	172	25	10	3					2	1		1	2		10606	
Diving			1	14	29	25	12	3	4	2	2															92	
Dredger	4	23	56	168	141	87	58	23	21	6	9															596	
Fishing	11	33	117	671	1647	649	164	122	56	14	8	2														3494	
HSC	4	10	16	35	39	18	23	34	39	55	33	36	29	14	4	3	3	6	3		3	1	1			409	
LawEnforcement	5	6	14	25	62	49	44	18	15	9	5	2	3	1	2											260	
MedicalTransport						1	1		1						1											4	
Military	1	5	8	16	28	47	34	32	25	35	12	16	9	2	1						1		2			274	
NonCombat	1		1		1	1																				4	
OtherType	13	97	276	489	704	328	186	130	55	39	28	12	6	3	2	2			1						3	1	2375
Pass	62	309	382	534	482	221	72	88	79	110	63	45	11	9	10	2	3	1			2	2		1		2488	
Pilot	1	24	39	56	90	41	18	26	17	19	4		1									1				337	
Pleasure	39	90	329	1520	1099	275	82	74	79	65	55	36	31	28	18	5	2		1	1	1			1		3831	
PortTender	1	9	13	22	33	12	6	5	7	6	4	2	1	1	1											123	
Rescue	2	16	21	67	127	104	61	57	46	38	31	29	22	10				1	1	2	4	3	1	1		644	
Sailing	35	69	320	2386	1701	269	50	34	21	15	10	4	2	4												4920	
Tanker	6	30	47	118	883	362	327	1283	769	141	34	5														4005	
Tug	4	72	181	260	434	349	113	37	12	5	12	5					1					1			1486		
WIG			4	18	67	16	2		2		2															111	
Grand Total	1147	2063	3612	12447	13594	4606	3011	4097	2580	1616	926	518	254	165	97	30	14	14	9	9	16	13	6	7	4	1	50856

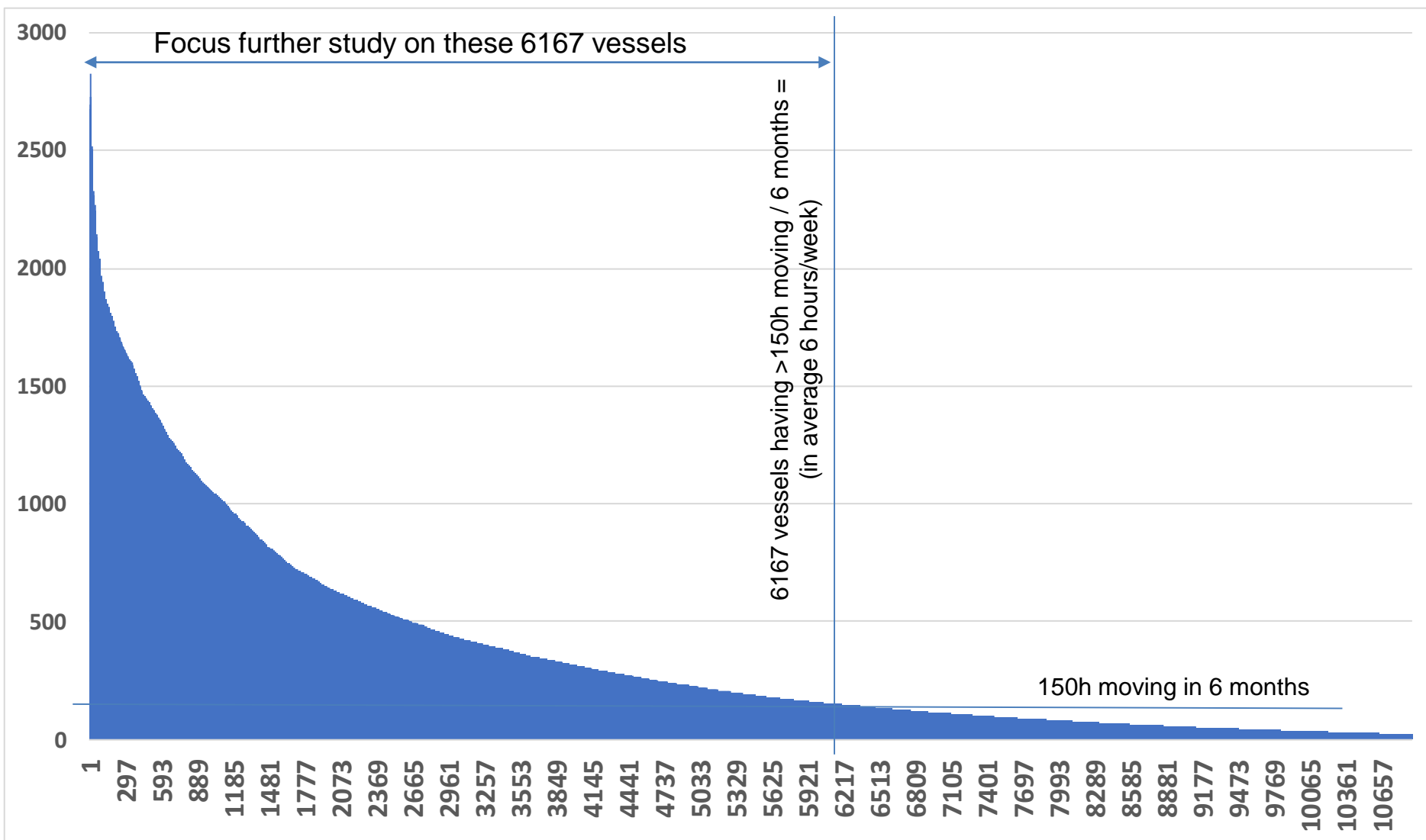
Each vessel type and speed group are further divided into length groups and then assigned main engine power

10 916 vessels in north west Europe with 250 kW – 1200 kW ME

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	G_120 - 139 m	H_140 - 159 m	
	48	470	261	63	11	4	2			859
AntiPollution		7	1	3	1					12
Cargo	10	98	496	451	165	240	29		1	1,490
Diving	1	23	12	1						37
Dredger	2	63	27	31	16	6	1			146
Fishing	61	1,074	1,212	102						2,449
HSC	1	97	21	4						123
LawEnforcement		71	49	10						130
Military		23	21							44
NonCombat		1	2							3
OtherType	15	416	522	128	18	9	2	1		1,111
Pass	7	296	937	142	14	4		1		1,401
Pilot		198	35	3						236
Pleasure	1	663	162	14	2	2	1			845
PortTender	1	65	11	1						78
Rescue	2	325	20	4	1					352
Sailing	2	797	138	42	8	2	2			991
Tanker	1	13	92	76	37	55	35			309
Tug	6	187	84			1				278
WIG	1	8	8	3	2					22
	159	4,895	4,111	1,078	275	323	72	2	1	10,916

10 916 vessels in north west Europe with 250 kW – 1200 kW ME



6167 vessels with ME 250 kW - 1200 kW, moving > 150h in 6 months

Number of vessels

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	G_120 - 139 m	H_140 - 159 m	
	31	179	158	42	7	4	1			422
AntiPollution		2	1							3
Cargo	8	50	289	350	134	232	22		1	1,086
Diving		12	9	1						22
Dredger	2	17	18	23	14	6	1			81
Fishing	48	788	958	81						1,875
HSC	1	53	10							64
LawEnforcement		31	38	8						77
Military		6	9							15
NonCombat		1	1							2
OtherType	14	176	310	79	14	7	2	1		603
Pass	4	117	552	90	8	3		1		775
Pilot		123	24	3						150
Pleasure		132	48	4						184
PortTender	1	19	4	1						25
Rescue		49	5	2	1					57
Sailing		212	93	34	8	2	2			351
Tanker	1	8	59	61	29	51	34			243
Tug	3	72	46							121
WIG	1	2	6	1	1					11
	114	2,049	2,638	780	216	305	62	2	1	6,167

6167 vessels with ME 250 kW - 1200 kW, moving > 150h in 6 months

Fuel consumption (ton) during 6 months

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	G_120 - 139 m	H_140 - 159 m	
	349	1,332	2,129	978	193	523	30	0	0	5,534
AntiPollution	0	20	3	0	0	0	0	0	0	23
Cargo	248	735	3,846	8,660	11,131	32,641	2,739	0	30	60,030
Diving	0	122	103	22	0	0	0	0	0	247
Dredger	18	219	305	514	766	454	104	0	0	2,380
Fishing	604	6,782	12,746	1,429	0	0	0	0	0	21,561
HSC	13	908	199	0	0	0	0	0	0	1,120
LawEnforcement	0	396	506	144	0	0	0	0	0	1,046
Military	0	68	131	0	0	0	0	0	0	199
NonCombat	0	17	9	0	0	0	0	0	0	26
OtherType	168	1,806	4,138	1,322	370	354	27	21	0	8,207
Pass	67	1,156	8,134	1,576	146	163	0	51	0	11,293
Pilot	0	2,524	615	71	0	0	0	0	0	3,211
Pleasure	0	582	298	21	0	0	0	0	0	901
PortTender	5	315	86	23	0	0	0	0	0	430
Rescue	0	361	77	41	18	0	0	0	0	496
Sailing	0	1,208	806	477	121	39	145	0	0	2,795
Tanker	13	89	707	2,167	2,592	2,470	1,372	0	0	9,410
Tug	68	932	1,170	0	0	0	0	0	0	2,170
WIG	15	24	92	5	17	0	0	0	0	153
	1,568	19,594	36,100	17,451	15,353	36,643	4,417	73	30	131,229

2085 vessels with ME 250 kW - 450 kW, moving > 150h in 6 months

Number of vessels

SimpleShipType	Vessel length groups						
	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	
	12	96	25	3	1		137
Cargo	3	17	7	18	12	17	74
Diving			2				2
Dredger			5	8	1		14
Fishing	22	742	445	3			1,212
HSC		7					7
LawEnforcement		1	5	1			7
NonCombat		1					1
OtherType	7	65	31	9			112
Pass	1	34	33	3	2		73
Pilot				1			1
Pleasure		104	31	2			137
PortTender		2		1			3
Rescue		13					13
Sailing		176	78	18	2	1	275
Tanker		2	4	6	2		14
Tug			2				2
WIG	1						1
	46	1,260	668	73	20	18	2,085

2085 vessels with ME 250 kW - 450 kW, moving > 150h in 6 months

Fuel consumption (ton) during 6 months

SimpleShipType	Vessel length groups						
	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	
	90	466	145	52	3	0	756
Cargo	90	181	80	339	687	1,123	2,500
Diving	0	0	14	0	0	0	14
Dredger	0	0	29	135	42	0	207
Fishing	186	6,184	4,356	21	0	0	10,746
HSC	0	83	0	0	0	0	83
LawEnforcement	0	4	34	1	0	0	40
NonCombat	0	17	0	0	0	0	17
OtherType	66	421	297	88	0	0	871
Pass	1	329	131	15	5	0	481
Pilot	0	0	0	9	0	0	9
Pleasure	0	353	152	4	0	0	508
PortTender	0	52	0	23	0	0	75
Rescue	0	56	0	0	0	0	56
Sailing	0	840	682	176	26	12	1,736
Tanker	0	13	26	99	6	0	144
Tug	0	0	9	0	0	0	9
WIG	15	0	0	0	0	0	15
	447	8,997	5,956	962	769	1,135	18,267

1128 vessels with ME 450 kW - 600 kW, moving > 150h in 6 months

Number of vessels

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	
	11	60	30	3				104
AntiPollution			1					1
Cargo	2	27	27	18	29	14	2	119
Diving			3					3
Dredger	2	1	6	8	3			20
Fishing	14	33	284	14				345
HSC		6						6
LawEnforcement		8	8	1				17
Military			2					2
OtherType	3	86	74	7	1		1	172
Pass		75	143	7				225
Pilot		7	1					8
Pleasure		14	6	2				22
PortTender	1	1	1					3
Rescue		8						8
Sailing		19	10	8	2			39
Tanker		5	5	6	4	1	1	22
Tug		6	3					9
WIG		1	2					3
	33	357	606	74	39	15	4	1,128

1128 vessels with ME 450 kW - 600 kW, moving > 150h in 6 months

Fuel consumption (ton) during 6 months

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	
	161	614	364	48	0	0	0	1,187
AntiPollution	0	0	3	0	0	0	0	3
Cargo	63	437	277	581	2,029	1,302	65	4,753
Diving	0	0	16	0	0	0	0	16
Dredger	18	3	57	150	106	0	0	333
Fishing	187	383	4,148	130	0	0	0	4,849
HSC	0	48	0	0	0	0	0	48
LawEnforcement	0	38	94	9	0	0	0	140
Military	0	0	18	0	0	0	0	18
OtherType	48	1,002	936	82	13	0	12	2,093
Pass	0	742	2,344	55	0	0	0	3,141
Pilot	0	75	0	0	0	0	0	76
Pleasure	0	59	45	18	0	0	0	121
PortTender	5	14	14	0	0	0	0	34
Rescue	0	56	0	0	0	0	0	56
Sailing	0	151	78	142	42	0	0	413
Tanker	0	62	48	245	116	10	30	510
Tug	0	49	23	0	0	0	0	72
WIG	0	7	29	0	0	0	0	36
	482	3,741	8,494	1,459	2,306	1,311	106	17,900

1657 vessels with ME 600 kW - 900 kW, moving > 150h in 6 months

Number of vessels

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	G_120 - 139 m	H_140 - 159 m	
	5	12	90	9	1	1				118
AntiPollution		1								1
Cargo	2	4	229	63	33	55			1	387
Diving		5	4	1						10
Dredger		7	4	5	5	4	1			26
Fishing	9	9	172	31						221
HSC		15	2							17
LawEnforcement		8	1	5						14
Military		4								4
NonCombat			1							1
OtherType	3	16	169	24	2	4				218
Pass	2	6	308	23				1		340
Pilot		72	6							78
Pleasure		7	8							15
PortTender		7	1							8
Rescue		17		2						19
Sailing		6	2	6	4		1			19
Tanker		1	48	13	14	24	2			102
Tug	1	35	18							54
WIG			4	1						5
	22	232	1,067	183	59	88	4	1	1	1,657

1657 vessels with ME 600 kW - 900 kW, moving > 150h in 6 months

Fuel consumption (ton) during 6 months

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	G_120 - 139 m	H_140 - 159 m	
	74	131	1,378	157	11	122	0	0	0	1,874
AntiPollution	0	5	0	0	0	0	0	0	0	5
Cargo	35	102	2,980	1,500	3,973	6,021	0	0	30	14,639
Diving	0	37	73	22	0	0	0	0	0	131
Dredger	0	85	103	185	221	341	104	0	0	1,040
Fishing	185	127	3,015	577	0	0	0	0	0	3,905
HSC	0	180	43	0	0	0	0	0	0	223
LawEnforcement	0	65	12	114	0	0	0	0	0	191
Military	0	29	0	0	0	0	0	0	0	29
NonCombat	0	0	9	0	0	0	0	0	0	9
OtherType	41	213	2,234	317	25	58	0	0	0	2,887
Pass	43	51	4,160	429	0	0	0	51	0	4,733
Pilot	0	1,448	145	0	0	0	0	0	0	1,593
Pleasure	0	52	80	0	0	0	0	0	0	132
PortTender	0	107	7	0	0	0	0	0	0	114
Rescue	0	138	0	41	0	0	0	0	0	179
Sailing	0	53	13	122	53	0	34	0	0	276
Tanker	0	14	618	419	1,165	637	62	0	0	2,915
Tug	42	366	387	0	0	0	0	0	0	794
WIG	0	0	63	5	0	0	0	0	0	68
	420	3,205	15,320	3,886	5,448	7,179	200	51	30	35,739

1297 vessels with ME 900 kW - 1200 kW, moving > 150h in 6 months

Number of vessels

Vessel length groups

SimpleShipType	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m	G_120 - 139 m	
	3	11	13	27	5	3	1		63
AntiPollution		1							1
Cargo	1	2	26	251	60	146	20		506
Diving		7							7
Dredger		9	3	2	5	2			21
Fishing	3	4	57	33					97
HSC	1	25	8						34
LawEnforcement		14	24	1					39
Military		2	7						9
OtherType	1	9	36	39	11	3	1	1	101
Pass	1	2	68	57	6	3			137
Pilot		44	17	2					63
Pleasure		7	3						10
PortTender		9	2						11
Rescue		11	5		1				17
Sailing		11	3	2		1	1		18
Tanker	1		2	36	9	26	31		105
Tug	2	31	23						56
WIG		1			1				2
	13	200	297	450	98	184	54	1	1,297

1297 vessels with ME 900 kW - 1200 kW, moving > 150h in 6 months

Fuel consumption (ton) during 6 months

SimpleShipType	Vessel length groups								
	no length	A_0 - 19 m	B_20 - 39 m	C_40 - 59 m	D_60 - 79 m	E_80 - 99 m	F_100 - 119 m		G_120 - 139 m
	24	120	241	723	179	400	30	0	1,717
AntiPollution	0	15	0	0	0	0	0	0	15
Cargo	60	15	510	6,240	4,442	24,195	2,674	0	38,137
Diving	0	85	0	0	0	0	0	0	85
Dredger	0	130	116	44	396	113	0	0	800
Fishing	46	88	1,226	701	0	0	0	0	2,061
HSC	13	597	156	0	0	0	0	0	766
LawEnforcement	0	289	367	20	0	0	0	0	675
Military	0	39	113	0	0	0	0	0	151
OtherType	13	170	672	835	333	296	15	21	2,356
Pass	23	34	1,499	1,077	141	163	0	0	2,937
Pilot	0	1,001	471	62	0	0	0	0	1,533
Pleasure	0	118	21	0	0	0	0	0	140
PortTender	0	142	65	0	0	0	0	0	207
Rescue	0	111	77	0	18	0	0	0	206
Sailing	0	164	32	37	0	27	111	0	371
Tanker	13	0	14	1,405	1,304	1,823	1,281	0	5,840
Tug	26	517	751	0	0	0	0	0	1,294
WIG	0	17	0	0	17	0	0	0	34
	219	3,652	6,329	11,144	6,829	27,018	4,110	21	59,324

Top 100 vessels consuming the most fuel during Mar-Aug 2016



MARINE BENCHMARK

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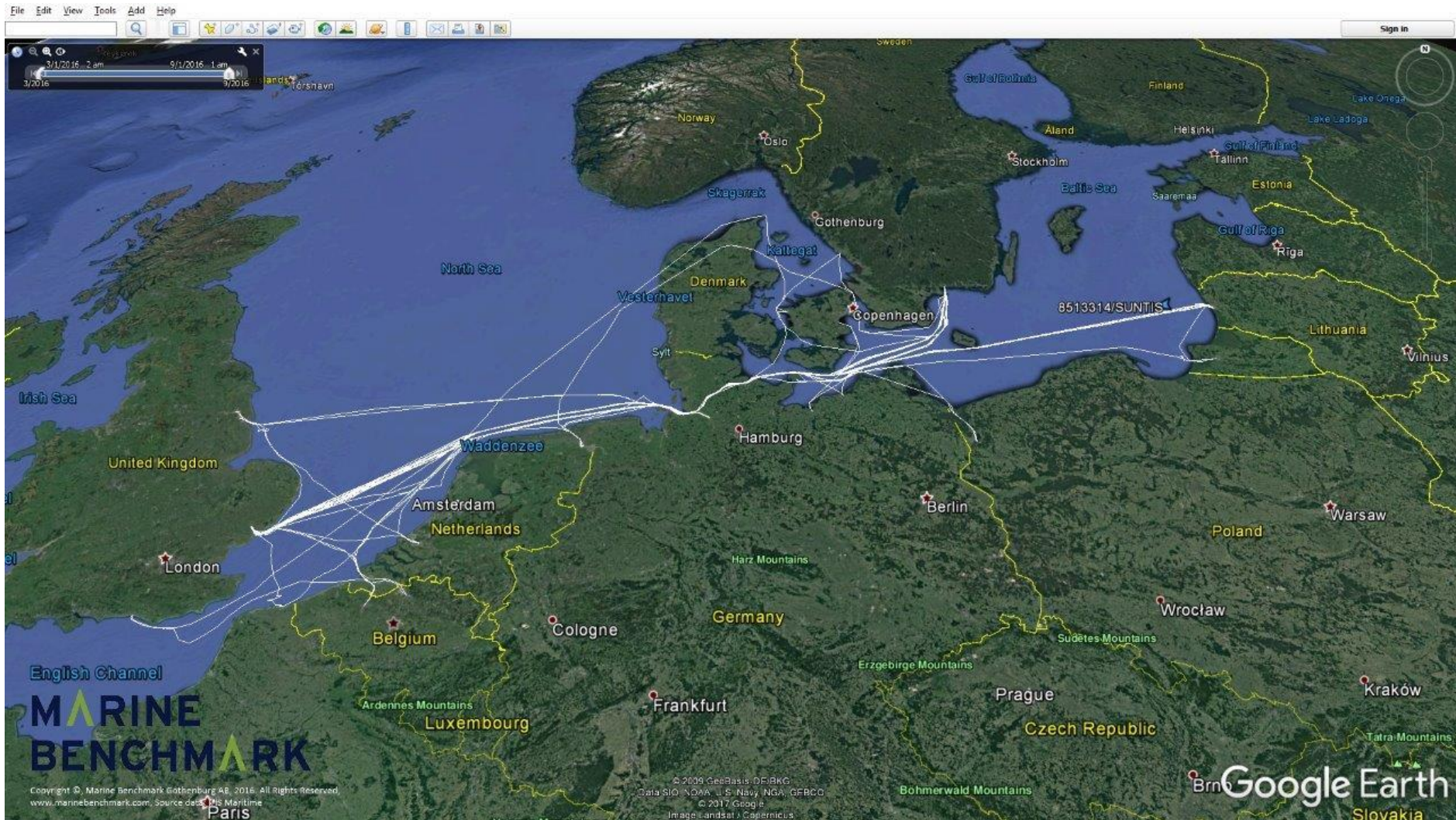
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SUMMETH Final Seminar – Gothenburg - 6 Dec 2017

Top 100 vessels in 4 engine size segments, 250-450 kW

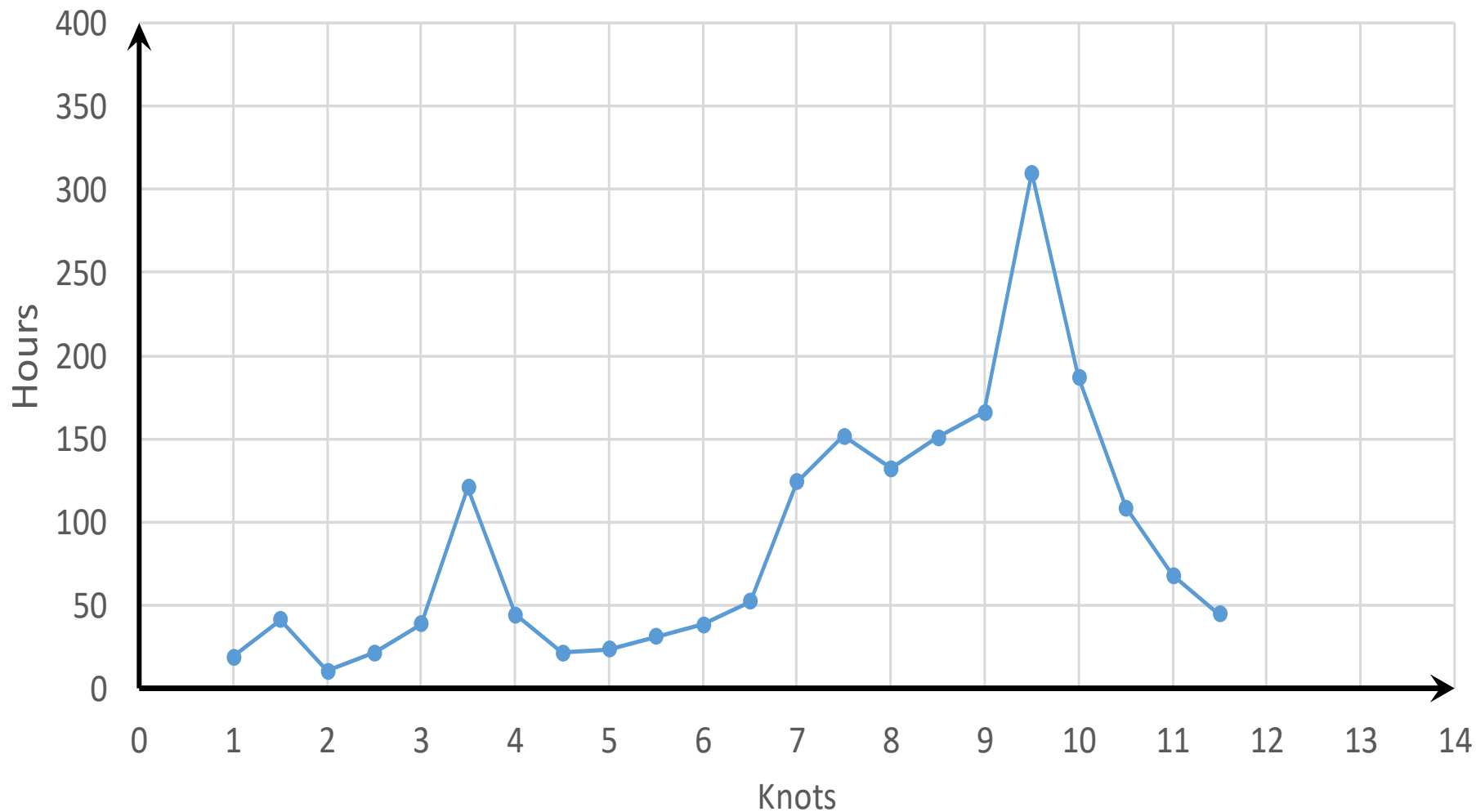
IMO number	Vessel current name	Engine Size Group	Num Engine	Vessel commercial type size name	Fuel per day (kg)	Vessel service speed	Vessel installed propulsion power (kW)	Vessel beneficial owner name
8513314	SUNTIS	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	576	10.5	441	Warnecke Schifffahrt GbR
8303173	CEG COSMOS	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	518	9.8	441	Fehn Ship Management
8402577	HELGA	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	503	10.0	441	Helga Shipping Ltd-ABB
8415653	DANUBIA	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	484	10.8	441	Samuelsens Rederi
8324684	PEIKKO	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	451	10.8	441	Afalita Shipping JSC
8401535	DANICA HAV	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	427	10.8	441	HAV Ship Management NorRus AS
8422022	CELTICA HAV	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	424	10.5	441	HAV Ship Management NorRus AS
8505939	NATHALIE	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	414	10.0	441	Kyriakopoulos K&D
8407228	DARWIN	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	413	10.0	441	Darwin Schifffahrts UG
8402589	HELT	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	401	10.0	441	Vista Shipping Agency
8100636	FRI STAR	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	401	10.8	441	Kopervik Shipping AS
6807462	LAPIS	A - 250 - 450 kW	1	16 Service / D 0-999 kW	377	10.5	375	NCC Roads
8104565	AMANDA	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	367	10.5	441	Boye HC
8128884	ICELANDICA HAV	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	356	10.8	441	HAV Ship Management NorRus AS
8321656	REBECCA ROUSING	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	352	10.5	441	Maritim Supply ApS
7711969	ISIS	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	349	11.0	349	Great Glen Shipping Co Ltd
8412417	SNOWLARK	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	345	10.0	441	Vista Shipping Agency
8209717	PEAK AMSTERDAM	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	344	10.6	441	HAV Ship Management NorRus AS
8215728	PEAK ABERDEEN	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	340	10.8	441	HAV Ship Management NorRus AS
8124503	SIRIUS	A - 250 - 450 kW	1	01 Tanker / K 0-4.9' dwt	337	10.5	441	Broring Beteiligungs mbH
8415665	PLUTO	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	335	10.6	441	SeaG8 Ltd
8324672	GERMANICA HAV	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	329	10.5	441	HAV Ship Management NorRus AS
8124474	HAV SAND	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	317	10.5	324	Frakt & Sandsoelan Sp/F
8420086	OSA	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	300	10.5	441	Baltramp Shipping Sp z oo
7726897	BURHOU I	A - 250 - 450 kW	1	04 Bulk / K 0-4.9' dwt	253	11.0	349	Great Glen Shipping Co Ltd

Example of top 100 vessels: 8513314-SUNTIS, 576 kg fuel/day, 1815 dwt, 441 kW, MWM / TBD440-6K
Dry Cargo vessel, Owner: Warnecke Schiffahrt GbR



Example of top 100 vessels: 8513314-SUNTIS, 576 kg fuel/day, 1815 dwt, 441 kW, MWM / TBD440-6K
Dry Cargo vessel, Owner: Warnecke Schifffahrt GbR

Hours at speed during 1 Mar 2016 to 31 Aug 2016, Service speed: 10.5 kn



Top 100 vessels in 4 engine size segments, 450-600 kW

IMO number	Vessel current name	Engine Size Group	Num Engine	Vessel commercial type size name	Fuel per day (kg)	Vessel service speed	Vessel installed propulsion power (kW)	Vessel beneficial owner name
8504272	ARUNDO	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	918	11.0	598	Venus Shipping ApS
8919221	ANDRINA F.	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	814	10.0	600	Fischer U
8609931	BONITA	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	754	10.0	570	A&A Trading Ltd
8913485	WILSON MAIN	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	678	10.5	600	Wilson ASA
8404446	FAST JULIA	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	676	9.5	581	Fast Lines Belgium NV
8801060	EMILIE	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	604	10.5	578	Rederi Ab Nathalie
8506440	BRITANNICA HAV	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	593	10.5	598	HAV Ship Management NorRus AS
8611958	SULE VIKING	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	590	11.0	598	Nye Sulevaer AS
8611013	LENE D	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	589	10.0	598	Drabert Schifffahrtsges mbH
8906224	NATHALIE	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	576	11.0	578	Rederi Ab Nathalie
8616087	PERSEUS	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	576	11.0	600	Baltnautic Shipping Ltd
8504947	ILKA	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	565	10.0	587	ATR Landhandel GmbH & Co KG
8511885	RUBYN	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	558	9.5	551	Baltnautic Shipping Ltd
8814196	NEWTON	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	553	10.2	600	Newton Schifffahrts UG
8517542	HEIDE	B - 450 - 600 kW	1	01 Tanker / K 0-4.9' dwt	545	10.5	506	Glusing R
8709767	DAN FIGHTER	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	542	10.5	570	Venus Shipping ApS
9280110	CLAUDIA	B - 450 - 600 kW	1	01 Tanker / K 0-4.9' dwt	537	10.0	528	BMT Bunker und Mineraloeltrans
8905115	MAIKE	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	513	10.0	600	ATR Landhandel GmbH & Co KG
8410316	VESTBRIS	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	512	11.0	600	Berge Rederi AS
8502145	CHRISTINE	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	484	10.0	570	Christine Maritime SA
8505915	SCANLARK	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	483	11.0	598	Vista Shipping Agency
8516263	FRIFJORD	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	478	10.0	587	Kopervik Shipping AS
8801072	LIVA GRETA	B - 450 - 600 kW	1	04 Bulk / K 0-4.9' dwt	462	8.0	576	Liepaja Trading & Shipping
8813051	RIVER TRADER	B - 450 - 600 kW	2	04 Bulk / K 0-4.9' dwt	415	9.0	535	River Trader Marine SA
5101938	VLIEREE	B - 450 - 600 kW	1	16 Service / D 0-999 kW	411	9.0	514	Zand & Grinhandel Outwerkerk

Top 100 vessels in 4 engine size segments, 600-900 kW

IMO number	Vessel current name	Engine Size Group	Num Engine	Vessel commercial type size name	Fuel per day (kg)	Vessel service speed	Vessel installed propulsion power (kW)	Vessel beneficial owner name
8521490	ROVA	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,593	9.0	875	Rova Shipping GmbH & Co KG
9760366	LADY ARIANE	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,402	10.0	745	Spliethoff's Bevrachtings BV
8711837	ZAPADNY	C - 600 - 900 kW	1	01 Tanker / K 0-4.9' dwt	1,229	10.2	884	Status Shipping SA
8102476	RONEZ	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,226	10.0	730	SigmaRoc Plc
8912493	BAL BULK	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,164	11.5	748	Bal-Bulk
9030474	ISLAY TRADER	C - 600 - 900 kW	2	04 Bulk / K 0-4.9' dwt	1,133	10.0	894	Faversham Ships Ltd
9155688	ALDEBARAN	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,125	9.5	750	Baltnautic Shipping Ltd
7034969	KLEVSTRAND	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,097	10.5	883	Janus Andersen & Co A/S
8404458	FAST WIL	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,090	9.0	883	Fast Lines Belgium NV
9624835	LADY ALEXANDRA	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,078	10.0	745	Spliethoff's Bevrachtings BV
9624811	LADY ANNA	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,066	10.0	745	Spliethoff's Bevrachtings BV
9120102	NOEST	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,042	11.0	748	Boomsma Shipping BV
8713809	COPERNICUS	C - 600 - 900 kW	1	01 Tanker / K 0-4.9' dwt	1,037	10.5	748	World Logistics Ltd
9624847	LADY AMALIA	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	1,012	10.0	745	Spliethoff's Bevrachtings BV
9624859	LADY ADELE	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	975	10.0	745	Spliethoff's Bevrachtings BV
9330185	JANA	C - 600 - 900 kW	1	01 Tanker / K 0-4.9' dwt	971	11.0	736	Glusing R
9624861	LADY AMI	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	966	10.0	745	Spliethoff's Bevrachtings BV
8800157	JAGO	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	944	10.5	748	Berge Rederi AS
7002318	TORNES	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	938	11.0	748	Molde Sjøtransport AS
8505927	JEROME H	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	931	10.0	773	Helms Reederei KG
9624823	LADY ANNEKE	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	927	10.0	745	Spliethoff's Bevrachtings BV
9760378	LADY ARIETTE	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	920	10.0	745	Spliethoff's Bevrachtings BV
9015929	EEMS DELTA	C - 600 - 900 kW	2	04 Bulk / K 0-4.9' dwt	868	9.0	745	Amasus Shipping BV
6721151	LOLA 1	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	846	10.1	662	Bulk Loaders AS
9195547	H&S BRAVERY	C - 600 - 900 kW	1	04 Bulk / K 0-4.9' dwt	840	11.0	748	Amasus Shipping BV

Top 100 vessels in 4 engine size segments, 900-1200 kW

IMO number	Vessel current name	Engine Size Group	Num Engine	Vessel commercial type size name	Fuel per day (kg)	Vessel service speed	Vessel installed propulsion power (kW)	Vessel beneficial owner name
9137193	SCOT EXPLORER	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,957	11.0	1,103	Scotline Ltd
9137208	SCOT CARRIER	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,668	11.0	998	Scotline Ltd
8915627	FRI WAVE	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,619	10.5	1,100	Kopervik Ship Invest AS
9254977	VADERO HIGHLANDER	D - 900 - 1200 kW	1	01 Tanker / K 0-4.9' dwt	1,579	10.5	1,140	Vadero Ship Management AB
9454462	ELISE	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,569	10.5	1,123	van Dam Scheepvaartbedrijf
8710998	MOSVIK	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,515	11.5	1,200	Klip Marine Shipmanagement Ltd
9240744	SAMIRA	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,498	9.5	954	Wagenborg Shipping BV
9650901	ARCTIC ROCK	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,454	11.0	1,200	Hartman Seatrade CV
8518340	PLUTO	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,453	10.5	1,176	Wilson ASA
7724019	ABO ALYSSA	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,442	10.0	1,103	Abo Alyssa Shipping Ltd
8728048	DUNE-2	D - 900 - 1200 kW	2	04 Bulk / K 0-4.9' dwt	1,394	10.0	1,029	Sand Shore Ltd
7038680	TARCO SEA	D - 900 - 1200 kW	1	01 Tanker / K 0-4.9' dwt	1,392	12.0	970	Aagesen & Partners
9422275	LIANNE	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,389	9.8	1,140	van Dam Scheepvaartbedrijf
9117973	RMS RAHM	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,387	10.0	968	Baltnautic Shipping Ltd
9559626	EEMS SPIRIT	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,360	11.0	1,103	Kornet & Zonen BV
9258703	SETTLER	D - 900 - 1200 kW	1	17 Fishing / C Other	1,336	10.0	1,103	North Isles Marine Ltd
9421611	EEMS SPRINTER	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,335	10.0	1,103	Rozema AJ
9267704	SMARAGD	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,277	11.0	998	Bock Maritiem BV
9238387	ALDEBARAN	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,260	11.0	1,000	Spliethoff's Bevrachtings BV
6808090	ALVA	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,256	12.0	970	Svenson E
9115987	ANJA	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,249	10.5	1,000	Irving Management Ltd
8209743	LILL	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,215	10.5	1,000	Wagle O
9232486	WILLEKE	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,212	9.5	990	Wagenborg Shipping BV
9226164	RHOON-C	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,208	10.0	1,000	Cebo-Marine BV
9125841	WILSON SAAR	D - 900 - 1200 kW	1	04 Bulk / K 0-4.9' dwt	1,145	10.5	929	Wilson ASA

Additional top 8 passenger vessels

IMO number	Vessel current name	Engine Size Group	Num Engine	Vessel commercial type size name	Vessel service speed	Vessel installed propulsion power (kW)	Vessel beneficial owner name
9117337	RED EAGLE	D - 900 - 1200 kW	2	11 Ferry RoPax, <25kn / D 0-499 lm	13.0	1194	RED FUNNEL GROUP
7925649	SKJOLDNAES	C - 600 - 900 kW	2	11 Ferry RoPax, <25kn / D 0-499 lm	10.5	650	AEro Kommune
8009258	LADY VON BUSUM	C - 600 - 900 kW	2	09 Ferry DayPax Only, <25kn / B 400 -799 Pax	13.5	656	Rahder H-G
5034927	BALMORAL	D - 900 - 1200 kW	2	09 Ferry DayPax Only, <25kn / A 800+ Pax	12.0	1175	Waverley Steam Navigation Co
7700403	EID	D - 900 - 1200 kW	1	11 Ferry RoPax, <25kn / D 0-499 lm	11.3	956	Fjord1 AS
9169794	HOJESTENE	B - 450 - 600 kW	2	11 Ferry RoPax, <25kn / D 0-499 lm	10.1	551	Svendborg Kommune
9081722	HOY HEAD	D - 900 - 1200 kW	2	11 Ferry RoPax, <25kn / D 0-499 lm	10.0	956	Orkney Islands Council
5302063	BALTICA	B - 450 - 600 kW	2	09 Ferry DayPax Only, <25kn / B 400 -799 Pax	12.0	588	BSTW-Baltic Schifffahrt

Fuel usage summary – vessels with ME 250kW to 1200kW

Having more than 150 running hours during 1 March 2016 to 31 August 2016

SimpleShipType	Number of vessels	Sum of fuel used (ton/6 months)	fuel kg/vessel/day
	422	5,534	71.9
AntiPollution	3	23	41.6
Cargo	1086	60,030	302.9
Diving	22	247	61.4
Dredger	81	2,380	161.0
Fishing	1875	21,561	63.0
HSC	64	1,120	95.9
LawEnforcement	77	1,046	74.4
Military	15	199	72.7
NonCombat	2	26	70.6
OtherType	603	8,207	74.6
Pass	775	11,293	79.8
Pilot	150	3,211	117.3
Pleasure	184	901	26.8
PortTender	25	430	94.1
Rescue	57	496	47.7
Sailing	351	2,795	43.6
Tanker	243	9,410	212.2
Tug	121	2,170	98.3
WIG	11	153	76.0
	6,167	131,229	116.6

MARINE BENCHMARK

Thank you for your attention,

Torbjörn Rydbergh, M.Sc. Nav. Arch.
Managing Director & Partner
Mail: torbjorn.rydbergh@marinebenchmark.com
Post: Talattagan 10, 426 76 Västra Frölunda, Sweden
Office: +46 31 69 85 00
Mobile: +46 70 750 75 75

Börje Berneblad, LL.M. Maritime law.
Senior Analyst & Partner
Mail: borje.berneblad@marinebenchmark.com
Post: Talattagan 10, 426 76 Västra Frölunda, Sweden
Office: +46 31 69 85 00
Mobile: +46 70 896 47 51