## COMMISSION OF THE EUROPEAN COMMUNITIES

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## REPORT ON THE STATE OF THE SHIPBUILDING INDUSTRY IN THE COMMUNITY

Situation at the beginning of 1989

(presented by the Commission)

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#### I. INTRODUCTION

This report in implementation of the Council Resolution of 19 September 1978 gives an overview of the shipbuilding industry and market in 1988.

It shows that there were some positive signs of a general nature during the report year despite continuing structural imbalances in the sector.

While the positive side is reflected in:

- an improvement in the world economy with 4% growth;
- an increase compared with 1987 in the volume of seaborne trade (6% compared with 2% in 1987), resulting in a reduction in the level of overcapacity of the fleet and a general increase in freight rates;
- a continuing increase in the prices (in current dollars) of new ships for the third consecutive year (25% in the course of 1988);
- a continuation in the beneficial effects of restructuring, particularly on the part of the Community yards which appear on the whole to be moving closer to the desired profitability and specialization targets essential to international competitiveness;

shipowners nevertheless remained on the reserve, as reflected in fairly limited placing of orders, although there were some signs of improvement in the second half of the year.

The industry again registered a drop in the tonnage delivered compared with the preceding year, so that output was at its lowest level for several years. With regard to new orders, the slight signs of recovery were not enough to prevent the specific results achieved from being short of the 1987 level.

## II. GENERAL ECONOMIC BACKGROUND

The world economy performed fairly well in 1988, exceeding the forecasts made at the beginning of the year.

Economic growth in 1988 was at its highest since 1984; this increase was fuelled in particular by the OECD countries, where growth reached 41/4%.

The forecasts for growth in 1989 vary between 3% and 3%%; however, the worsening of trade imbalances between industrialized countries and the failure of the USA to reduce its deficit could depress these rates.

Investment in the Community increased in 1988 to 10.6%.

World trade (in volume terms) increased in 1988 to 91/26.

GATT experts consider that 1989 could see a renewed expansion in world trade in goods if governments continue with their policies of opening up markets and controlling inflation.

## III. TREND IN SHIPPING

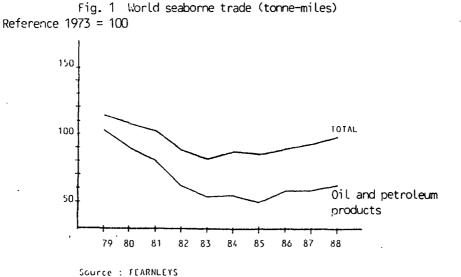
The recession at the beginning of the 1980s gave way to an increase in the volume of seaborne trade, particularly from 1984.

An increase of 6% confirmed this trend in 1988. The estimated figure of 3 666 million tonnes for that year is surpassed only by the 1979 result, when the highest ever volume of seaborne trade was recorded.

In terms of tonne-miles, seaborne trade also showed an increase of 6% compared with the previous year although the volume is still far short of the 1979 figure.

The goods which contributed most to this increase in traffic were oil (+9%) and iron ore (+8%). Transport of cereals increased by only 1% so that it is well below the average.

Freight rates in maritime transport generally showed an upward trend in 1988. This increase was most marked in the case of oil tankers with the rates across the board, particularly towards the end of the year, reaching their highest level since the 1979 oil boom.

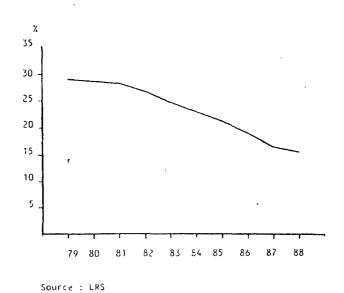


## IV. FLEET TRENDS

The world fleet in 1988 stood at 403.4 million gt, the same as in 1987.

. However, the Community fleet shows a drop of 6.6% in gross tonnage compared with the previous year. The Community share of the world fleet in 1988 was 15.5% compared with 28.7% in 1980.

Fig. 2 Community share of the world fleet



This decline is due not only to flagging out for tax reasons, but also to the sale of ships by Community shipowners.

In this light the Commission sent to the Council a package of positive measures (particularly concerning the establishment of a Community register) designed to maintain and develop an efficient Community shipping industry and at the same time to ensure the survival of competitive maritime transport services in the interests of Community trade.

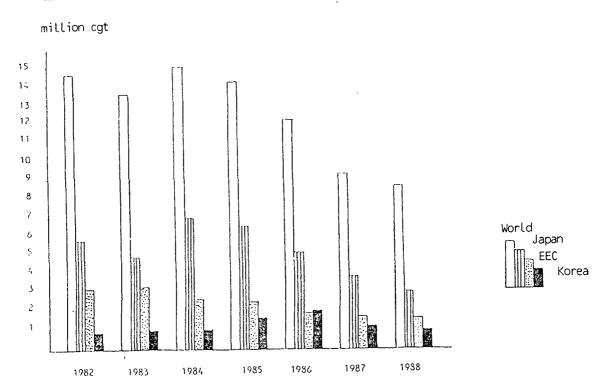
The increase in the volume of seaborne trade together with the general improvement in freight rates and the size of the world fleet appear to suggest that the overcapacity characteristic of this fleet has further diminished, resulting in an overall improvement in the situation of the sector.

- (a) Tomage broken up: in 1988 on a world scale, this amounted to barely 35% of the 1987 level. This figure is the result both of the increase in the volume of seaborne trade and the tendency on the part of shipowners to keep their vessels in service longer.
- (b) Tompage laid up: the trend since 1985 in particular towards a decrease in the volume of tonpage laid up was confirmed in 1988. This decrease can be put at 30% between January 1988 and January 1989.

## V. SITUATION IN THE SHIPBUILDING INDUSTRY

- A. The development in this sector was much the same as in 1987, being characterized mainly, as described in the preceding chapters, by the continuing downward trend in excess transport capacity in relation to demand, which led to a corresponding slump in demand for new ships and a similar level of excess world shipbuilding capacity. The salient characteristics of 1988 were:
- 1. The lowest level of deliveries ever recorded only 8.5 million ogt compared with 14.1, 12.1 and 9.1 million ogt respectively for the years 1985, 1986 and 1987. Some shipbuilders deliberately postponed delivery dates in order to keep their yards working while awaiting new orders;

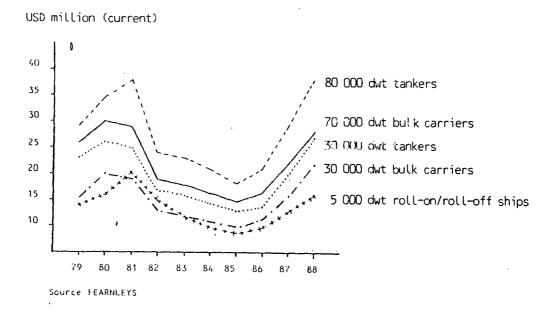
Fig. 3 - PRODUCTION



Source : Commission/LMIS contract.

2. An average increase of about 25% in prices in current dollars for most conventional ships; by contrast, the increase for more sophisticated ships was less marked. This level of prices, while almost double that recorded in 1985, is nevertheless lower than the 1980 figure and in many cases is insufficient to cover actual production costs. This is preventing the yards from restoring sound financial conditions.

Fig. 4 Contract prices for orders of new vessels



3. A reduction in the volume of new orders of 6% compared with the previous year. This reduction is due to three factors: the debt situation of many shipowners, the increase in prices and above all the restrictive line taken by the financial institutions on the financing of new ships. As a result, and despite signs of an improvement in freight rates, shipowners have turned towards the second-hand market (leading to a decline in tonnage laid up and broken up, and a corresponding increase in the price of these vessels to the highest levels for ten years) and towards investments to prolong the life of their fleet.

- B. In the light of the worldwide development of the sector during the last year as described above, the following is worth noting:
- 1. There has been some improvement in the relative international position of Community shipbuilders, who are continuing their restructuring and specialization efforts: their market share in compensated tonnage terms amounts to 19% with regard to production and to 24.8% and 25.1% with regard to new orders and their order books respectively. However, these market shares merely serve to restore the Community to its previous position. Nevertheless, the level of Community production in absolute value terms has followed the downward international trend and the figures are still the lowest since the crisis began.
- 2. In Japan, restructuring of the shipbuilding industry continued on the basis of the 1987 Ministry of Transport recommendations, which led to a reduction of 23.6% in production capacities (1.4 million compensated tonnes) and a corresponding decline in the labour force. The low level of demand caused the 24 large Japanese shippards to continue (for the 1988-89 and 1989-90 financial years) to limit provisionally their production to 2.4 million compensated tonnes (compared with 3 million in 1987) with the aid of a "crisis cartel". However, despite these reductions, there remains over one and a half million compensated tonnes of frozen production capacity that can be reactivated. Clearly, the unfreezing of such a volume of capacity if not accompanied by a real recovery of demand could have very adverse effects on the situation of the sector and in particular on price levels. On the basis of its results in 1988, Japan maintained its leadership among world shipbuilders with production slightly in excess of 34%.

This trend was confirmed and reinforced during the first half of 1989 with an increase of about 1 million compensated tonnes (over 50%) in new orders compared with the same period of the previous year (see the

statistics in Annex 2 for more details).

3. The Korean yards which had long pursued an aggressive policy of increasing their market share at any price were confronted with severe financial problems and so were obliged on the one hand to increase their prices, and on the other to make substantial cuts in employment in the sector, particularly from the beginning of 1989.

The global losses of the Korean yards were estimated at 464 million dollars in 1988. If the cumulative losses since 1984 are added to this, the result is close on 1 billion dollars, while their debts exceed 4 billion dollars. Daewoo and KSEC (Korean Shipbuilding and Engineering Corporation) have been most severely affected by this financial crisis, and the Korean Government has recently approved a rescue plan involving massive injections of state capital. The increase in labour costs and the rise in the value of the won in relation to the dollar have further aggravated their competitive position. However, Korean production maintained its important place in the world context in 1988 with a figure of 17.5%, due chiefly to the massive volume of orders captured in 1987.

4. The statistical data in the Annexes provide a more comprehensive view of the general and specific development of the sector for the main producer countries, the various categories of vessel and employment.

#### VI. INTERNATIONAL COOPERATION

The course of events in the shipbuilding industry since 1976 shows that it is still facing a manifest breakdown of the fundamental rules of the market, i.e.

- (a) imbalance of supply and demand
- (b) selling prices below the actual costs of production.

The analysis carried out by the Commission in March 1988 showed that the industry's problems were, and are, primarily due to pressure from Japan and Korea, the "price leaders" in the sector. Priority must be given to restoring normal conditions of competition, in particular by eliminating all practices by the public or private sector which distort competition and have the effect of maintaining a situation in which prices fail to cover overall costs.

The Commission therefore considered it necessary to engage in exploratory talks last year with Japan and Korea, who were deemed responsible for the deterioration of the market, in order to find ways of achieving profitable prices and eliminating abnormal competitive practices in conformity with international rules. These bilateral contacts should eventually have led to multilateral talks. 1

Owing to Korean and Japanese reticence, substantial progress was not achieved despite the Community initiatives. However, they did result in the establishment of forecasts of future demand for the next decade. The content of these forecasts, made separately by each partner, seem to agree that there will be a recovery in demand from 1993 lasting until the year 2000.

<sup>1</sup> The Section 301 complaint lodged by the American shipbuilders' association in June 1989 introduced a new element. It was provisionally withdrawn in exchange for an undertaking by the American authorities to negotiate with the principal producers (Community, Japan and Korea) and obtain substantial results by March 1990 (a programme phasing out all practices counter to the rules of competition). Failing this, the 301 procedure will automatically be resumed.

## VI. SOCIAL AND REGIONAL ASPECTS

In June 1987 the Commission presented a communication containing a proposal for a Regulation instituting a Community programme to assist the conversion of areas affected by the restructuring of the shipbuilding industry, the Renaval programme, and a proposal for a Regulation instituting a three-year programme of specific social measures for shipbuilding workers dismissed or under threat of dismissal (as the Social Fund can only partly respond to the needs of these workers).

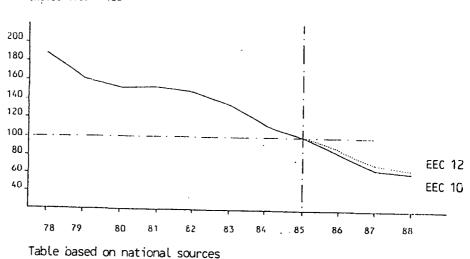


Fig. 5 Employment in the construction of new vessels in the Community Indice 1985 = 100

When the Sixth Directive 87/167 introducing a rigorous and selective policy on aid to the shipbuilding industry was adopted, the Council had considered that supplementary measures should be taken to alleviate the social and regional consequences of the necessary restructuring efforts.

In July 1988 the Council adopted the Renaval programme. The objective of this programme is to support the development of economic activities that will generate new jobs in the shipbuilding areas.

By contrast, the Community programme on specific social measures has not yet been adopted, as some delegations have expressed their opposition to specific financing of measures benefiting one category of worker, and consider that this should be the task of the structural Funds, which have recently been granted additional resources.

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<sup>1</sup> By 1 September 1989 the Commission had approved requests for 7 areas which meet the criteria qualifying them for ERDF aid under the programme. Member States may submit applications until 30.4.1990.

## ANNEXE 1

## STATISTICAL ANNEX

(situation on 31 December 1988)

TABLE 1 - WORLD SEABORNE TRADE AND CARGO FLEET

		OIL P	RODUCTS			OTHER	CARGO			TOT	AL	
	Seabor trac		Flee	t *	Seabor trade	,Ue	Fleet	<b>*</b>	Seabor trade		Flee	t *
	*000 million tonne-miles	reference	million	reference	'639 million tonne-miles	reference	million	reference	'000 million tonne-miles	reference 1973-100	million	reference
	tonne-miles	1973-100	CWT	1973-100	Conne-wiles	1975-100	OW C	1975-100	Conne-un res	1375-100	GW (	1373-100
1973	10.217	100	234,3	169	5.187	100	205,6	160	15.404	100	439,9	100
1974	10.621	104	275,4	118	5.766	111	218,6	106	16.387	106	493,9	112
1975	9.730	95	313,0	134	5,636	109	239,7	112	15.366	100	543,7	124
1976	11.149	109	343,9	147	5.874	113	247,4	120	17.023	111	591,3	134
1977	11.403	112	356,1	152	6.050	117	268,6	131	17.453	113	624,6	142
1978	10.546	103	353,0	151	6.388	123	279,8	136	16.934	110	632,7	144
1979	10.497	103	350,9	150	7.016	135	287,0	140	17.513	114	637,9	145
1980	9.239	99	348,4	149	7.372	142	293,0	143	16.611	108	641,3	146
1981	8.193	80	342,9	146	7.469	144	305,9	149	15.662	102	648,7	147
1982	6.282	62	322,5	138	7.217	139	320,6	155	13.499	88	643,0	146
1983	5.558	54	301,4	129	7.022	135	331,0	156	12.580	82	632,4	144
1984	5.648	55	285,1	122	7.778	150	341,2	166	13.426	87	626,2	142
1985	5.157	50	257,1	119	7.968	152	348,2	169	13.065	85	605,3	138
1986	5.995	58	249,7	197	7.951	153	345,5	168	13.856	99	595,2	135
1987 1988	5.991	59	245,8	195	8.282	160	342,2	166	14.273	93	588,0	134
est.	6.430	63	249,0	106	8.740	168	344,8	168	15.170	98	593,8	135

\* = as at end of the year

est. = provisional

Source = Fearnleys Oslo

TABLE 2 - TONNAGE WITHDRAWN (in '000 grt/dwt)

	TO	NVGE LAI	D UP		ļ	TONNAGE	BROKEN UF	<del></del> -	TONN	OE USET	FOR S	TORAGE
	nonth	no	grt	dert		no	grt	dwt		month	no	dwt
1976	VII	765	29.651	55.289	-							
	×	737	25.486	47.507	1978	1.088	12.840	21.703		-	]	
1979	ī	595	16.678	30.290					1979	1	40	7.856
	VII	417	11.206	20.063	1979	904	6.997	11.137	l	VII	37	6.668
	X	353	7.490	12.518				1		×	37	6.672
1980	1	298	6.204	10.603					1980	1	39	7.112
	VII	268	6.767	12.249	1960	887	9.184	15.940		VII	45	9.199
	X	233	5.371	9.512						X	67	14.266
1981	ī	229	4.840	8.288					1981	T	74	16.866
	VII	246	8.618	15.562	1981	824	9.789	17.517	1	VII	77	15.668
	×	287	10.399	19.014		j	}	ļ	j	X	149	35.950
1982	ı	353	14.111	26.391					1982		120	28.757
	VII	624	25.437	49.122	1982	1.081	18.096	32.160		VII	79	18.295
	X	1.071	35.293	67.260		1	1			X	64	13.860
1983	1	1.292	40.657	77.168					1983	1	58	11.812
}	VII	1.403	45.093	85.755	1963	1.323	20.299	36.881	1	VII	70	13.482
	×	1.429	42.641	80.959						×	78	14.868
1984	T	1.383	40.805	77.274					1984	1	73	13.450
i	VII	1.202	35.629	66.841	1984	1.500	19.661	34.757	1	VII	95	19.672
	X	1.147	33.049	61.693			İ			×	98	21.164
1985	T	1.015	31.048	58.194					1985	1	86	17.847
	VII	926	28.750	54.510	1985	1.722	26.345	47.801	1	VII	87	18.101
	×	963	30.083	57.086	]				1	X	91	18.223
1986	1	840	24.219	45.262					1986	ī	78	14.169
ļ	VII	741	16.639	30.325	1986	1.576	20.860	36.164	ł	VII	86	16.916
	X	696	13.781	24.283	1	ł		ł		X	92	18.807
1987	ī	606	12.073	21.368				1	1987	1	96	20.142
	VII	484	9.923	17.248	1987	1.094	12.936	22.005	}	VII	75	16.499
	×	423	8.991	15.491	1					×	63	13.306
1968	1	379	8.216	14, 145					1988	1	62	12.607
	VII	313	6.818	11.771	1988	812	6. 124	9.908	ĺ	VI	63	11.901
	×	272	4.835	7.595						X	65	12.803
1989	1	266	4.213	6.519					1989	1	68	13.540

SOURCES: Institute of Shipping Economics - Bremen; Howard Houlder Chartering Ltd.

	1960	1970	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
World	129,8	227,5	342,2	393,7	413,0	419,9	420,8	424,7	422,6	418,7	416,3	404,9	403,5	403,4
EEC 10	48,1	68,3	96,8	105,9	110,4	111,1	109,9	104 5	95,9	87,7	80,5	70,9	60,8	57,0
% EEC 10	37,1	30,0	28,3	26,9	26,7	26,5	26,1	24,6	22,7	20,7	19,3	17,5	15,1	14,1
EEC 12	50,5		103,4	114,4	119,9	120,6	119,4	114,0	104,8	:	88,2	77,4	66,8	62,4
% EEC 12	38,9	:	30,2	29,1	29,0	28,7	28,4	26,8	24,8	:	21,2	19,1	16,6	15,

	Existin	g fleet	as at 1	Jt 1y					Broke	n up							Laid L	р						
	1981	1982	1983	7984	1985	1986	1987	1988	1981	1982	1983	1984	1985	1986	1987	1988	1981 dec.	1982 dec.	1983 dec.	1984 dec.	1985 dec.	1986 dec.	1987 dec.	198 dec
ermany	7.708	7.707	6.897	6.242	6.177	5.565	4.318	3.917	143	185	250	176	318	-	26	84	17	409	501	318	208	_	-	-
elgium	1.917	2.271	2.274	2.407	2.400	2.420	2.268	2.118	-	-	58	-	-	-	-	-	-	-	-	-	-	-	-	-
ermark	5.048	5.214	5,115	5.211	4.942	4.651	4.873	4.502	110	144	-	-	287	-	-	-	144	793	843	993	503	-	-	-
rance	11.455	10.771	9.868	8.945	8.237	5.936	5.371	4.506	397	479	658	464	1.451	73	-	194	297	519	1.343	1.536	723	499	272	-
199C8	42.005	40.035	37.478	35,059	31.032	28.391	23.560	21.979	1.691	3.027	2.931	4.061	3.326	2.877	929	404	2.308	10.248	9.937	5.902	3.731	1.646	1.402	5
rel and	268	239	223	221	194	149	154	173	-	i -	] -	j -	ļ -	] -	-	-	<b>)</b> -	-	] -	-	-	→	-	) -
taly	10.641	10.375	10.015			7.897	7.817	7.794	210	259	705	348	1.019	397	425	-	206	1.610		1.136	673	402	194	2
ețher1 ands	5.468	5.393	4.940	4.586	4.301	4.324	3.908	3.726	65	548	391	421	479	l -	-	-	-	-	462	290	-	148	-	-
K	25.419	22.505	19.122	15.874	14.344	11.567	8.505	8.260	1.026	1.107	932	501	387	181	138	-	770	1.591	2.272	2.084	1.327	190	156	1
nxaupon Lõ	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
OTAL EEC 10	109.929	104.510	95.932	87.703	80.470	70.900	60.774	56.977	3.642	5.749	5.928	5.971	7.267	3.528	1.517	682	3.742	16.170	16.993	12.259	7.165	2.885	2.024	9
pain	8.134	8.131	7.505	:	6.256	5.422	4.949	4.415	21	215	263	181	302	203	37	51	206	696	616	-	-		63	١,
ortugal	1.377	1.402	1.358	:	1.437	1.114	1.048	989	11	2	55	-	56	19	-	48	-	-	-	365	223	-	-	
OTAL EEC 12	119.440	114.043	104.795		88.163	77 . 435	56.771	62.381	3.674	5.966	6.246	6.152	7.625	3,750	1.554	781	3.948	16.856	17.609	12.624	7.388	2.885	2.087	1.

Sources: Existing fleet: Lloyd's Registor of Shipping Other data: Institute of Shipping Economics, Bremen (Annual or, if unavailable, monthly figures): Unavailable - 17

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TABLE 4 - CONTRACT PRICES FOR ORDERS OF NEW VESSELS, 1976-1986

(Prices at the end of the year in USD million as charged by the Japanese and Korean yards)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
30.000 dwt tanker	23,0	26,0	25,0	17,0	16,0	14,5	13,0	14,0	20,0	27,0
80.000 dwt tanker	29,0	34,5	38,0	24,0	23,0	21,0	18,5	21,0	29,0	38,0
130.000 dwt tanker	37,5	45,0	51,0	32,5	31,5	29,0	25,0	26,5	34,0	46,0
250.000 dwt tanker	48,0	63,0	72,5	50,5	48,5	44,0	37,0	42,5	54,0	73,0
400.000 dwt tanker	60,0	85,0	90,0	61,0	57,0	51,0	44,0	50,5	60,0	88,0
96.000 dwt oil/bulk/ore	35,0	47,0	44,0	30,0	28,0	26,0	22,5	25,5	32,0	44,0
30.000 dwt bulk carrier	15,5	20,0	19,0	13,0	12,0	11,0	10,0	11,5	16,0	22,0
70.000 dwt bulk carrier	26,0	30,0	29,0	19,0	18,0	16,5	15,0	16,5	22,0	28,0
120.000 dwt bulk carrier	33,0	44,0	42,0	26,0	25,0	24,0	20,5	23,0	30,0	39,0
125.000 cbn LNG carrier	125,0	150,0	175,0	150,0	150,0	130,0	130,0	120,0	145,0	175,0
75.000 cbn LPG carrier	60,0	75,0	75,0	53,0	50,0	45,0	42,5	47,5	55,0	61,0
5.000 dwt ro-ro ship	14,0	16,0	20,0	15,0	12,0	10,0	9,0	10,0	13,0	16,0
		1		l						

Source: Fearnleys Oslo

TABLE 5 - PRODUCTION (completions)

	1976	1982	1983	19	84	1985	1986	1987	1988
	1.000 cgrt coeff. AWES	1.000 cgrt coeff. 1978	1.000 cgrt coeff. 1978	1.000 cgrt coeff. 1978	1.000 cgt coeff. 1984 (1)	1.000 cgt coeff. 1984	1.000 cgt coeff. 1984	1.000 cgt coeff. 1984	1.000 cgt coeff. 1984
Germany	1.468,0	757,3	811,3	673,8	662,2	641,2	578,7	396,4	502,5
Belgium	139,8	83,0	173,2	102,2	102,3	124,4	45,0	25,9	46,8
Denmark	560,6	329,2	333,5	389,1	355,4	444,0	350,7	194,4	277,2
France	672,4	353,3	356,8	363,1	357,2	164,1	145,0	207,9	63,2
Greece -	:	61,8	35,7	32,8	39,8	43,8	24,7	6,6	12,3
Ireland	20,3	-	19,2	-	-	-	-	-	-
Italy	353,9	155,2	217,0	183,1	182,3	123,8	60,9	224,8	119,9
Netherlands	940,0	390,0	415,8	248,8	259,3	310,2	262,8	146,2	153,1
UK	985,1	394,0	319,3	295,9	305,3	164,4	141,5	162,3	113,2
TOTAL EBC									
10	5.140,1	2.524,8	2.686,8	2.286,9	2.233,8	2.015,9	1.609,3	1.364,5	1.288,2
Spain	734,0	587,4	488,7	:	345,9	400,3	229,8	328,4	326,4
Portugal	53,0	31,2	124,7	:	18,5	40,3	61,0	26,3	23,0
TOTAL EEC 12	5.927,1	3.143,4	3.300,2	:	2.628,3	2.456,5	1.900,2	1.719,1	1.637,6

Source: Commission/Lloyd's Maritime Information Services contract

<sup>: =</sup> Unavailable

<sup>(1) =</sup> Series revised in March 1986

#### TABLE 5A - PRODUCTION (completions)

	197	6	198	2	198	3	1	198	34		198	15	198	6	198	7	198	88
	1000 cgr coeff.		1000 cgrt coeff.		1000 egrt coeff.		1000 cgrt coeff.		1000 egt coeff.		1000 cgt coeff.		1000 cgt coeff.		1000 cgt coeff.		1000 cgt coeff.	
EEC 10 (1)	5.140,1	23,3	2.524,8	17,3	2.685,8	19,8	2.288,9	15,5	2.263,8	15,1	2.015,9	14,2	1.609,3	13,3	1.354,5	14,8	1.288,2	15,0
EEC 12	5.927,1	26,8	3.143,4	21,5	3.300,2	24,4	:		2.628,3	17,5	2.456,5	17,3	1.900,2	15,7	1.719,1	18,6	1.637,6	19,0
WESTERN EUROPE(2)	8.285,8	37,5	4.285,0	29,4	4.375,6	32,3	3.509,2	23,8	3.403,0	22,7	3.088,9	21,8	2.438,8	20,1	2.168,7	23,5	2.127,6	24,7
JAPAN	8.348,8	37,8	5.811,1	39,8	4.908,2	36,2	6.704,3	45,5	6.951,1	46,3	6.498,4	45,9	5.085,4	41,9	3.795,3	41,1	2.952,7	34,3
REST OF WORLD including	5.444,4	24,7	4.491,7	30,8	4.268,5	31,5	4.531,6	30,7	4.643,9	31,0	4.581,3	32,3	4.614,9	38,0	3.281,0	35,5	3.518,1	40,9
EASTERN BLOC	2.755,4	12.5	1.678,4	11,5	1.634,8	12,1	2.062,4	14,0	2,192,3	14,6	1.601,7	11,3	1.412,4	11,6	1.092,7	11.8	1.181.2	13.7
SOUTH KOREA	349,4	1,6	880,3	6,0	985,5	7,3	1.072,2	7,3	1.014,9	6,8	1.633,3	11,5	1.971,4	16,2	1.193,5	12,9	1.504,7	17,5
TOTAL	22.078,2	100,0	14.587,8	100,0	13.552,3	100,0	14.745,1	100,0	14.998,1	100,0	14.168,6	100,0	12.139,1	100,0	9.245,0	100,0	8.598,4	100,0

Source : Commission/Lloyd's Maritime Information Services contract

<sup>:</sup> Unavailable

<sup>(1) 1976</sup> excluding Greece

<sup>(2)</sup> EEC + rest of AWES : Association of West European Shipbuilders

Non-EEC members are Finnish, Swedish and Norwegian shipbuilders' associations

<sup>(3)</sup> Series revised in March 1986

TABLE 5B - 1988 PRODUCTION BY FLAG

(1.000 cgt)

COUNTRY WHERE BUILT FLAG	EEC	TOTAL	FINLAND	JAPAN	KOREA	U S A	E A S T E R N E U R O P E	OTHER	TOTAL
E E C	(289)	(295) 993.7	-	(2)	(3) 87.2	-	(9)	(2)	(311)
TOTAL AWES	(302) 1,055.6	(346) 1,164.8	(2) 3.8	(3)	(7) 160.8	-	(15) 138.2	(2)	(373) 1,507.8
FINLAND	(1) 5.9	(5) 12.2	(2)	-	-	-	(2) 50.1	-	(7) 62.3
JAPAN	_	-	_	(480)	-	-	-	-	(480) 1,008.4
KOREA	-	(1)	-	-	(66) 431.5	-	-	-	(67) 432.7
USA	(5) 201.3	(5) 201.3	-	-	-	(36) 27.5	-	-	(41) 228.8
E A S T E R N E U R O P E	(6) 40.0	(7) 210.3	(10) 141.5	-	~	-	(85) 867.7	(13) 58.1	(115) 1,136.
LIBERIA	(7) 104.4	(7) 104.4	-	(15) 255.0	(11) 286.0	-	(8) 118.1	(1) 22.5	(42) 786.0
PANAMA	(7) 11.7	(7) 11.7	-	(69) 1,236.2	(10) 264.5	(3)	(1) 18.5	(3)	(93) 1,622.9
OTHER COUNTRIES	(61) 219.2	(67) 428.5	(2)	(31) 410.9	(23) 361.8	(21) 14.6	(13)	(179) 625.8	(364) 1,875.7
TOTAL WORLD	(388) 1,632.2	(480) 2,122.2	(14) 262.7	(598) 2,952.7	(117) 1,504.7	(60) 45.1	(122) 1,176.5	(198) 797.1	(1575) 8,598.

Source: Commission/Lloyd's Maritime Information Services contract

Remarks: The figures in brackets represent the number of ships.

TABLE 6 - NEW ORDERS

	1976	1982	1983	19	84	1985	1986	1987	1988
	1.000 cgrt coeff. AWES	1.000 cgrt coeff. 1978	1.000 cgrt coeff. 1978	1.000 cgrt coeff. 1978	1.000 cgt coeff. 1984 (1)	1.000 cgt coeff. 1984	1.000 cgt coeff. 1984	1.000 cgt coeff. 1984	1.000 cgt coeff. 1984
Germany	726,1	716,7	550,4	716,7	644,5	819,7	328,8	533,8	652,8
Belgium	75,0	43,3	58,7	80,7	69,5	26,8	43,2	34,0	52,0
Denmark	317,1	250,6	428,9	433,2	405,2	86,0	305,9	219,2	205,3
France	63,6	175,9	136,4	95,6	106,5	202,5	132,4	60,5	204,6
Greece	:	10,3	4,6	7,7	7,4	29,4	5,1	6,5	6,1
Ireland	19,2	1,3	-	-	-	-	-	-	-
Italy	301,5	243,2	57,1	70,0	68,2	257,4	229,0	408,7	172,3
Netherlands	626,4	304,0	237,3	303,6	218,4	269,8	137,0	91,9	356,2
UK	627,6	301,5	150,4	108,3	107,6	224,4	112,0	116,5	124,2
TOTAL EEC									
10	2.756,6	2.051,8	1.623,8	1.815,7	1.657,2	1.975,8	1.293,3	1.471,1	1.773,5
Spain	297,0	323,9	221,1	:	92,2	197,6	258,5	421,7	453,8
Portugal	73,0	27,8	36,0	:	30,6	1,2	29,5	78,1	33,1
TOTAL EBC 12	3.126,6	2.403,5	1.881,9	:	1.780,0	2.174,6	1.581,3	1.971,0	2.160,4

Source: Commission/Lloyd's Maritime Information Services contract

<sup>: =</sup> Unavailable
(1) = Series revised in March 1986

#### TABLE 6A - NEW ORDERS

	197	6	198	2	198	3	1	198	34		1985		198	6	198	7	198	8
	1000 cgr coeff.		1000 cgrt coeff.		1000 cgrt coeff.		1000 cgrt coeff.		1000 cgt coeff.		1000 cgt coeff.		1000 cgt coeff.		1000 cgt coeff.		1000 cgt	'84
EEC 10 (1)	2.756.6	17.2	2.051.8	17 0	1.523.8	10.9	1.815.7	14 8	1 667 2	14.0	1.975,8	10 1	1 202 2	12.6	1.471.1	16.1	1.773.5	- 10
EEC 12	3.126,6		2.403,5		1.881,9		1	14,0	1.780,0	-	2.174,6			' '	1.971,0		2.260,4	
WESTERN EUROPE(2) Japan	4.659,6 7.337,5		2.965,5 4.859,4		2.404,5 7.389,1	•	2.741,7 6.240,3	-	2.411,7	-	2.478,6 4.440.0	' 1	1.979,1		2.819,4 3.120,5		2.493,7 3.360,7	27,3 36,8
REST OF WORLD	3.985,3	•	3.708,3		5.056,5		3.308,6			-	3.402,6		,		3.800,3		3.271,5	•
including Eastern bloc	1.896,0	11,9	1.069,0	9,3	1.544,0	10,3	1.012,3	8,2	1.143,9	9,7	1.414,0	13,7	1.874,9	19,8	1.058,5	10.9	1.067,9	11,7
SOUTH KOREA	325,4	2,0	1.001,5	8,7	2.147,1	14,4	1.236,6	10,1	1.180,9	10,0	806,5	7,8	1.352,4	14,3	1.942,6	19,9	1.203,0	13,2
TOTAL	15.982,4	100,0	11.533,2	100,0	14.850,1	100,0	12.290,5	100,0	11.777,6	108,0	10.321,3 1	00,0	9.482,0	100,0	9.740,2	100,0	9.125,9	100,0

Source : Commission/Lloyd's Maritime Information Services contract

<sup>:</sup> Unavailable

<sup>(</sup>i) 1978 excluding Greece
(2) EEC + rest of AWES : Association of West European Shipbuilders

Non-EEC members are Finnish, Swedish and Norwegian shipbuilders' associations

<sup>(3)</sup> Series revised in March 1986

#### TABLE 7 - BREAKDOWN OF ORDERS BY FLAG

#### ORDERS PLACED FOR REGISTRATION UNDER THE FLAG OF A COMMUNITY MEMBER STATE

		1976			1982		19	84 (1	)		1985			1986			1987			1988	
With shippard in: A - national market B - other EC countries C - third countries	A	В	С	A	В	С	A	В	С	A	В	С	A	В	С	A	В	С	A	В	С
% of total	64	5	31	77	1	22	63,9	3,9	32,2	74,9	11,3	13.8	76,6	7,0	16,4	77,6	3,3	19,1	79,6	5,8	14,6
TOTAL in '000 cgrt/cgt	1	3.02	7		1.876	L		2.039	L		1.630	·		1.297	I	-	1.737	L		1.243	<u> </u>

#### ORDERS RECEIVED BY COMMUNITY SHIPYARDS

		1976			1982		19	B4 (1	)		1985			1986			1987			1988	
From shipowner in: A - national market B - other EC countries C - third countries	A	; B	С	A	В	С	A	В	С	۸	В	С	A	В	С	A	В	С	A	В	С
% of total	70	5	25	73	1	26	78,8	4,7	16,6	61,8	9,3	28,9	62,8	5,8	31,4	68,3	3,0	28,7	43,8	3,2	53,0
TOTAL in 1000 egrt/cgt		2.75	5		1.98	3		1.657	1		1.976	L		1.581		1	1.971	·		2.260	·

(1) Series revised in March 1986
Source: Commission/Lloyd's Maritime Information Services contract
Remarks: 1976 — EEC excluding Greece; from 1986 — EEC including Spain and Portugal
There may be slight differences in the totals compared with similar data in other tables.

TABLE 8 - TREND OF NEW ORDERS BY TYPE OF VESSEL

		Oil tan	Oll tankers Bulk carriers Cargo ship		Bulk carriers		ips	Non-cargo vessels		Non-cargo vessels		TOTAL (including unspecified)	
		1000 cgr t	7.	1000 cgrt	×	1000 cgrt	7.	1000 cgrt	7.	1000 cgrt	%		
1977 Wor	·Id	790,6		1.783,2		8.497,3		2.969,8		14.040,9			
EEC	;	30.9	3,9	75,1	4.2	1.764,4	20.8	670,5	22,6	2.540,9	18,1		
1978 Wor	· I d	1.185,4		534,8		6.163,8		1.912,7		10.796,7			
EEC	3	56,2	4,7	23,6	4,4	1.341,3	21,8	591,5	20,3	2.012,6	18,6		
1979 Wor	rld	3.364.8		2.744.9		5.148,4		2.949,8		14.207,9			
EEC	•	168,1	5,0	466,5	17,0	1.172,6	22,8	747.6	25,3	2.554,8	18,0		
1980 Wor	rld	2.960,2		4.325,3		4.780,1		2.291,9		14.357,5	1		
EEC		273,7	9,2	425,9	9.8	1.023,4	21.4	740.8	32,3	2.463,8	17,2		
1981 Wor	rld	1.166,7		4.934,9		4.967,9		2.433,0		14.053,1			
EEC		75,1	6,4	487.9	9,9	1.342,7	27.0	606,4	24,9	2.525,2	18,0		
1982 Wor		662,6		2.335,3		5.679,9		2.135,4		10.813,2	1		
EEC	3	70,3	10,6	197,5	8,5	1.093,2	22,0	628,0	29,4	1.989.0	18,4		
1983 Wor		1.682,1		5.370,3		5.910,8		1.886,9		14.850,1	1		
EEC	3	92,3	5,5	110,7	2,1	1.039,9	17,6	380,9	20,2	1.623,8	10,9		
1984 Wor	rld	1.176,2		3.890,6		4.742,2		1.956,8		12.088,7			
EEC	3	179,3	15,2	165,6	4,3	944,2	19,9	448,8	22,9	1.815.7	14,5		
<del></del>		1000 tbc	*	1000 tbc	7.	1000 tbc	*	1000 tbc	*	1000 tbc	7.		
1984 Wor		470,1		3.918.4	-	5.299,9		2.089.2		11.777,6			
EEC		15,3	3,3	152,8	3.9	1.029,7	19.4	459.3	22.0	1.657,2	14,1		
1985 Wor		575,4		2.454,5		5.138,8		2.152,4		10.321,3	1		
EEC		18,0	3,1	154,9	6,3	1.033,5	20,1	769.6	35,8	1.975.8	19,1		
1986 Wor		1.199,7		1.296,0		4.208,4		2.778.0		9.482,0			
EEC	-	0.0	0.0	108,0	8,3	768,6	18,3	704,7	25,4	1.581,3	16,7		
1987 Wor	-	1.404,6		1.033,2		4.899,7		2.402,7		9.740.2	1		
EEC		107,5	7,7	45,3	4,4	1.128,1	23,0	690,1	28,7	1.971.0	20.2		
1988 Wo		781,8		2.164,5		3.985,6		2.194,0		9.125,9	ł		
EEC	C	116,7	14,9	-	0.0	1.095,5	27,5	1.048,1	47,8	2.260.4	24.8		

Source : Commission/Lloyd's Maritime Information Services contract

Remarks : From 1986 EEC Including Spain and Portugal

(1) Series revised in March 1986

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TABLE 9 - ORDER BOOKS

			(	ORDER BOOKS	AT 31 DECE	MBER			
	1976	1982	1983	198	34	1985	1986	1987	1988
	1.000 cgrt	1.000 cgrt	1.000 cgrt	1.000 cgrt	1.000 cgt	1.000 cgt	1.000 cgt	1.000 cgt	1.000 cgt
	coeff.	coeff.	coeff.	coeff.	coeff.	coeff.	coeff.	coeff.	coeff.
	AWES	1978	1978	1978	1984 (1)	1984	1984	1984	1984
Germany	2.113,3	990,1	649,5	680,9	607,1	809,3	529,7	686,9	856,4
Belgium	277,0	261,1	143,7	138,1	136,1	62,1	60,0	75,0	82,0
Denmark	923,5	603,9	707,7	747,2	692,2	442,1	429,2	473,9	459,6
France	1.770,4	978,5	598,6	331,9	263,3	382,7	371,2	234,5	379,9
Greece	:	191,4	146,1	121,7	137,4	119,9	102,8	121,5	116,8
Ireland	43,9	20,0	2,1	-	-	-	-	-	-
Italy	1.036,2	480,4	356,3	230,4	195,5	345,2	465,2	864,8	904,2
Netherlands	917,1	498,8	308,8	379,0	331,6	300,3	195,6	141,8	365,1
UK	1.989,4	714,1	506,1	302,7	292,3	352,5	325,4	369,7	317,1
TOTAL EEC									
10	9.070,8	4.738,3	3.418,9	2.932,0	2.655,5	2.814,2	2.480,4	2.968,1	3.481,1
Spain	:	1.325,3	967,4	;	690,5	491,5	527,7	635,6	837,7
Portugal	:	258,4	124,1	:	138,3	94,0	67,0	108,3	114,0
TOTAL EEC 12	:	6.322,0	4.510,3	·	3.484,4	3.399,7	3.075,1	3.712,1	4.432,9

Source: Commission/Lloyd's Maritime Information Services contract

<sup>: =</sup> Unavailable (1) = Series revised in March 1986

		ORDER BOOKS AT 31 DECEMBER																
	1976	<del></del>	198	2	198	1983 1984				1985		1986		1987		1988		
	1000 cgrt		1000 cgrt coeff.		1000 cgrt coeff.		1000 cgrt coaff.		1000 cgt		1000 cgt coeff.		1000 cgt coeff.		1000 cgt coeff.		1000 cgt coeff.	
EEC 10 (1)	9.070,8	22,9	4.738,3	20,0	3.418,9	14,2	2.912,0	13,0	2.655,5	12,0	2.814,2	15,2	2.430,4	15,2	2.968,1	17,9	3.481,1	19.7
EEC 12			6.322,0	25,6	4.510,3	18,7			3.484,4	15,8	3.399,7	18,3	3.075,1	19,7	3.712,1	22,4	4.432,9	25,1
WESTERN EUROPE(2)	15.839,2	40,0	8.212,6	34,5	5.900,8	24,5	5.057,8	22,5	4.624,1	21,0	4.273,9	23,0	3.843,3	24,6	4.933,8	29,8	5.548,9	31,4
JAPAN	12.093,8	30,6	6.640,2	28,0	8.477,9	35,1	7.969,6	35,4	8.221,5	37,2	5.915,2	31,9	3.915,9	25,0	2.918,5	17,6	3.473,9	19,7
REST OF WORLD	11.636,1	29,4	8.878,7	37,4	9.739,8	40,4	9.464,8	42,1	9.226,9	41,8	8.374,8	45,1	7.886,5	50,4	8.703,7	52,6	8.650,6	48,9
including Eastern bloc	2.570,7	6,5	2.206,2	9,3	2.546,0	10,3	2.318,6	10,3	2.242,2	10,2	2.294,4	12,4	2.884,8	18,4	3.149,6	19,0	3.168,2	17,9
SOUTH KOREA	7.943,2	2,4	1.854,9	7,8	2.898,4	12,0	3.203,9	14,6	3.223,1	14,6	2.578,7	13,9	1.909,2	12,2	2.639,1	15,9	2.342,7	13,3
TOTAL	39.569,1	100,0	23.731,5	100,0	24.118,5	100,0	22.492.2	100,0	22.072,6	100,0	18.563,9	100,0	15.645,7	100,0	16.555,9	100,0	17.673,5	100,0

Sourco : Commission/Lloyd's Maritime Information Services contract

<sup>:</sup> Unavailable

<sup>(1) 1976</sup> excluding Greece

<sup>(2)</sup> EEC + rost of AWES : Association of West European Shipbuilders

Non-EEC members are Finnish, Swedish and Norwegian shipbuilders' associations

<sup>(3)</sup> Series revised in March 1986

TABLE 10 - ORDER BOOKS AND DELIVERY SCHEDULE

				1988		
:			1000 cgt	- coeff.	1984	
	Prod. 1988	Total order books at 31.12.88	1989	1990	1991	1992 and beyond
Germany Belgium	502,5 46,8	856,4 82,0	475,3 48,0	263,5 34,0	117,6	-
Denmark France	277,2 63,2	459,6 379,9	286,9 193,2	172,7 76,0	110,8	-
Greece Ireland	12,3	116,8	90,8	26,1	-	-
Italy Netherlands	119,9 153,1	904,2 365,1	444,1 208,0	253,0 115,9	207,1 34,3	6,9
UK	113,2	317,1	247,9	5,3	64,0	-
TOTAL EEC 10	1.288,2	3.481,1	1.994,2	946,5	533,8	6,9
Spain Portugal	326,4 23,0	837,7 114,0	451,8 78,4	316,8 20,5	64,0 15,1	5,1
TOTAL EEC 12	1.637,6	4.432,9	2.524,2	1.283,7	612,9	12,0

Source: Commission/Lloyd's Maritime Information Services contract

1978

6.614

12.000

25.300

31.113

20.000

17.540

41.050

840

154.457 (5)

:

:

1979

6.258

9.000

23.000

27.369

19.000

14.540

31.200

750

132.017 (5)

:

1980

5.523

11,400

22.200

24.784

2.672

18.000

13.100

24.800

124.229

:

750

1981

6.347

11.350

22.200

26.521

3,393

16.500

13.100

25.345

125.518

:

:

762

1982

4.680

11.808

21.509

27.600

2.900

13.750

12.800

25.000

121.012

:

:

882

1983

4.104

11.200

21.000

25.966

12.800

11.250

20.486

110.168

:

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2.812

550

1984

4.060

10.300

16.940

22.183

2.000

12.800

10.330

14,655

93.274

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1985

3.923

10.200

15.053

22.260

6.236

81.877

18.000

5.370

105.247

2.000 ?

12.000 (4)

10.200 (3)

1986

(6) 13.700

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7.000

18.184

1.709

11.570

5.400

8.500

69.058

18.000

5.087

92.145

1987

(6) (1)

(4) (7)

(4)

(3)

2.548

7.000

8.940

1.621

9.500

3.600

8.000

54.084

17.300

5.020

76.404

12.875

1988

2.270

7.300

6.859

14.845

1.855

8.428

3.500

5.500

50.548

14.000

4.412

68.960

(3)

			•		-
1	Table	compiled.	from	national	sources)

1975

7.467

16.630

32.500

46.839

2.316

- 869

25.000

22.662

54.550

208.833

:

. . .: ..

(1) Revised figures

Belgium

Denmark

France

Ge rmany

Greece

Ireland

Italy

Spain

Portugal

Notherlands(2)

TOTAL EEC 10

TOTAL EEC 12

(2) From 1975 to 1984 = including naval dockyards estimated to bo:
1975 : 1.800; 1978 and 1979 : 3.200; 1980 : 3.400; 1981 and 1982 : 3.200; 1983 and 1984 : 2.800

(3) Excluding jobs in Harland & Wolff Shipyard (Northern Ireland).
This figure for 1985 and 1986 was 4 000 and for 1987 and 1988 3.500.

(4) Estimated

(5) Excluding Greece

(8) The figure from 1986 covers jobs in new shipbuilding and naval and para-naval building (conversion, naval vessels and off-shore vessels). The figures for the preceding years using the same method are: 1975 : 32.500; 1980 : 23.700; 1985 : 17.700

(7) 2 780 unemployed should be added to this figure for 1987 and 2 850 for 1988; of these 2 000 represent a structural overcapacity for whom no new jobs can be found.

: Unavailable

## ANNEX 2

## Statistical Annex

(situation on 30 June 1989)

## PRODUCTION (complet (ons)

1000 cgt

	1st half of 1989	Market share	1st half of 1988	Market share	Variation % 1st half 89/1st half 88	12 months ending June 1989	Markot sharo	12 months ending June 1988	Market share	Variation % 1st half 89/1st half 88
EEC	940,5	20,7 %	733,5	18,1 %	+ 28,2 %	1.844,6	20,3 %	1.556,1	18,8 %	+ 18,5 %
WESTERN EUROPE	1.183,5	26,0 %	1.030,7	25,4 %	+ 14,8 %	2.280,4	25,1 %	2.001,3	24,2 %	+ 13,9 %
JAPAN	1.785,3	39,3 %	1.401,1	34,5 %	+ 27,4 %	3.336,9	36,7 %	2.965,6	35,9 %	+ 12.5 %
REST OF WORLD	1.576,7	34,7 %	1.629,3	40,1 %	- 3,2 %	3.465,5	38,2 %	3.303,5	39,9 %	+ 4,9 %
including	-				1					
EASTERN BLOC	487,5	10,7 %	525,7	12,9 %	- 7,3 %	1.143,0	12,6 %	1.251,9	15,1 %	- 8,7 %
SOUTH KOREA	667,1	14,7 %	678,6	16,7 %	- 1,7 %	1.193,2	13,1 %	1.174,6	14,2 %	+ 1,6 %
TOTAL	4.545,5	100,0 %	4.061,0	100,0 %	+ 11,9 X	9.082,9	100,0 %	8.270,3	100.0 %	+ 9,8 %

Source : Commission/Lloyd's Maritime Information Services contract.

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	ist half of 1989	Market share	1st half of 1988	Market share	Variation % 1st half 89/1st half 88	12 months ending June 1989	Market share	12 months ending June 1988	Market share	Variation % 1st half 89/1st half 88
EEC	857,5	14,3 %	1.019,1	23,5 %	- 15,9 %	2.098,8	19,5 %	2.025,2	22,6 %	+ 3,6 %
WESTERN EUROPE	1.038,9	17,3 %	1.156,0	26,6 %	- 10,1 %	2.376,6	22,0 %	2.578,6	28,8 %	- 7,8 %
JAPAN	2.717,1	45,3 %	1.732,5	39,9 %	+ 56,8 %	4.345,3	40,3 %	3.356,3	37,5 %	+ 29,5 %
REST OF WORLD	2.244,7	37,4 %	1.457,3	33,5 %	+ 54,0 %	4.058,8	37,6 %	3.018,6	33,7 %	+ 34,5 %
including			1 1		1					•
EASTERN BLOC	645,3	10,8 %	459,6	10,6 %	+ 40,4 %	1.253,6	11,6 %	916,5	10,2 %	+ 36,8 %
SOUTH KOREA	1.028,4	17,1 %	649,0	14,9 %	+ 58,5 %	1.582,4	14,7 %	1.444,6	16,1 %	+ 9,5 %
TOTAL	6.000,7	100,0 %	4.345,0	100,0 %	+ 38,1 %	10.780,8	100,0 %	8.953,5	100,0 %	+ 20,4 %

Source : Commission/Lloyd's Maritime Information Services contract.

## ORDER BOOKS

1000 cgt

	on 30/06 1989	Market share	on: 31/12 1988	Market share	Variation % 30.06.89 / 31.12.88	on 30/06 1988	Market share	Variation % 30.06.89 / 30.06.88
EEC	4.383,0	22,9 %	4.432,9	25,1 %	- 1,1 %	4.078,8	23,2 %	+ 7,5 %
WESTERN EUROPE	5.442,8	28,4 %	5.548,9	31,4 %	- 1,9 %	5.361,9	30,5 %	+ 1,5 %
JAPAN	4.431,5	23,1 %	3.473,9	19,7 %	+ 27,6 %	3.503,4	19,9 %	+ 26,5 %
REST OF WORLD including	9.294,1	48,5 %	8.650,6	48,9 %	+ 7,4 %	8.707,4	49,6 %	+ 6,7 %
EASTERN BLOC	3,308,8	17,3 %	3.168,2	17,9 %	+ 4,4 %	3.185,4	18,1 %	+ 3,9 %
SOUTH KOREA	2.701,0	14,1 %	2.342,7	13,3 %	+ 15,3 %	2.606.7	14,8 %	+ 3,5 %
TOTAL	19.168,5	100,0 %	17.673,5	100,0%	+ 8,5 %	17.572,7	100,0 %	+ 9,1 %

Source : Commission/Lloyd's Maritime Information Services contract.

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ANNEX 3

Glossary

## GLOSSARY

## 1. Tonnage Measurement

The word "tonnage" is a term used to give an indication of a ship's size. It can have widely differing meanings depending upon the purpose of the assessment, e.g. measuring the vessel's volumetric capacity or its weight carrying capacity.

Measurement systems have, therefore, been laid down in tonnage regulations for specific purposes but, due to differences in national criteria used, the outcome is not necessarily the same for similar vessels registered under different flags.

On 18 July 1982, the 1969 IMO Convention on Tonnage Measurement for Ships entered into force, affecting all ships built after that date for registration in signatory countries. Thus, a uniform system for the calculation of two of the most important notions, viz. "gross tonnage" and "net tonnage", is now being applied to an increasing number of ships of the world fleet.

## 2. Types of tompage

## - Displacement tonnage

A ship's displacement is the weight of water displaced by the ship; the displacement tonnage equals the sum of the ship's actual weight (lightweight) and its maximum allowed contents (deadweight).

## - Lightweight tonnage

The lightweight is the weight of the ship as built (hull, outfit and machinery) including boiler water, lubricating oil and the cooling water system's contents.

(Commercially it is almost only employed when considering the scrapping value of a ship).

## - Deadweight tonnage (dwt)

Deadweight is the total sum of the weight of the cargo which a ship can carry and the weights of its fuel, stores, water ballast, fresh water, crew and passengers plus baggage. It represents the difference between the loaded ship displacement and the lightweight.

(Commercially it is the notion most commonly used by shipowners in order to assess the transport capacity of a vessel in relation to heavy and/or bulk cargoes).

## - Gross register tonnage (grt)

grt is a value calculated according to various national regulations in order to indicate the volumetric internal capacity of the ship, certain spaces being, however, exempted; it is expressed in gross register tons of 100 cubic feet or 2.83 m<sup>3</sup>.

(Before the coming into force of gt regulations it was widely used for registration purposes, levying of harbour fees and duties, etc.).

## - Net register tomage (nrt)

nrt is equally a calculated value supposed to represent the earning capacity of the ship; it is obtained by deducting certain non revenue earning spaces from the grt and it is accordingly expressed in 100 cubic feet units or 2.83m<sup>3</sup>.

(Its use is similar to that of grt but less frequent and mainly as the basis for port charges).

## - Gross tonnage (gt)

gt is the townage calculated according to the 1969 Townage Measurement Convention. It is a dimensionless value now gradually replacing grt for all official purposes concerning vessels under flags of signatory countries.

(The commercial and legal applications of gt will make it the most widely used parameter).

## - Net tonnage (nt)

Net tonnage is likewise calculated according to a formula laid down by the 1969 Tonnage Measurement Convention. It is also a dimensionless value and not be taken as less than 0.30 gt.

(It replaces not in many of its former applications but there is a tendency towards a more universal use of gt for harbour and canal duties.

# 3. Compensated gross register tonnes (cgrt) Compensated gross tonnes (grt)

The volume of work that goes into building a vessel is not directly related to its size but also depends on its type, degree of technical sophistication etc. For statistical purposes, regarding the output and order intake of the shipbuilding industry, the AWES as well as the OECD developed in the late sixties a series of special coefficients, for different ship types and sizes, by means of which the work content involved in the building of homogeneous groups of vehicles could be assessed from their grt values (grt x coefficient = cgrt).

Initially the AWES and the OECD coefficients diverged markedly, but in 1977 new coefficients for cgrt calculations were developed by the AWES, which were subsequently also agreed upon by the OECD. This explains why certain 1976 (or earlier) OECD statistics in cgrt are not, or not always, comparable with other series.

With the coming into force, in 1982, of the IMO Convention it became again necessary to modify the compensated tonnage calculation system, in order to take into account that for certain ship types (in particular RoRo-vessels, car ferries and vehicle carriers) gt values have increased considerably as compared with grt values. Moreover, recent ships of these types tend to be of more complex build and new coefficients have, therefore, been adopted. They are applicable as from 1 January 1984.

For the sake of continuity the 1984 values in the present report have been calculated and presented according to both methods (ogrt and ogt).

## 4. Compatibility of OECD and LRS statistics

The data in the tables giving the trend of completions, new order intake and order books in the Member States' shippards are taken from two different sources: OECD and Lloyd's Register of Shipping (LRS).

The data for the OECD statistics are supplied by the OECD member governments. Where the Member States are concerned they constitute, therefore, an official source, but since the data only refer to the situation in the OECD member countries they cannot be used for making worldwide comparisons. Moreover, the calculation of cgt (or cgrt) values is carried out by the respective administrations so that discrepancies may sometime arise as to when an order is regarded as being definite, in the classification of vessels and as to what coefficient should be used for establishing cgt for certain vessels of a hybrid type.

The data produced by LRS are not infallible either, but because they are gathered worldwide by LRS' own outposts according to uniform criteria, they constitute a more homogeneous source of information allowing comparisons on a global level to be made.

LRS supplies information to the Commission under a contract and the basic data only contain gt (or grt) and dwt references. The cgt (or cgrt) values are calculated at the Commission's Joint Research Centre in Ispra by computer processing of the LRS input, using the OECD calculation coefficients.

Despite certain differences which can sometimes arise from the different procedures for establishing the OECD and the LRS/Commission series of statistics, the two sets of data show trends which generally point in the same direction. Since the divergence between the two sources is only random, and the present report is essentially concerned with indicating the main trends, the reference to only one source is generally of no consequence.