

## SECTION XVI.

## SHIPPING.

## § 1. General.

NOTE.—Owing to the general disorganization of shipping in consequence of the war, the figures relating to the war period given in the following tables are of little comparative significance.

1. **Record of Shipping before Federation.**—Prior to Federation it was customary for each State to regard the matter of shipping purely from the State standpoint, and vessels arriving from or departing to countries beyond Australia, *via* other Australian States, were recorded as if direct from or to the oversea country. Thus, a mail steamer from the United Kingdom, which made Fremantle her first port of call in Australia, would be recorded not only there, but again in Adelaide, Melbourne, and Sydney, as an arrival from the United Kingdom. Consequently, any aggregation of the shipping records of the different States would repeatedly include a large proportion of the shipping visiting Australia. In earlier years, when many vessels sailed from the various State ports direct for their destination, the error of repeated inclusion was less serious, but as the commerce of Australia developed, more and more ports of call were included in the voyage of each vessel, and the mere aggregation of State records hence became correspondingly misleading. Failure to recognise this was at times responsible for erroneous deductions from the statistical records as then compiled.

2. **Shipping since Federation.**—With the inauguration of the Commonwealth, the statistics of its shipping, especially of its oversea shipping, became of greater intrinsic importance. As an index of the position of Australia amongst the trading countries of the world, such statistics had a constitutional importance commensurate with Commonwealth interests, and correspondingly greater than those of individual States, and the nationality of the shipping trading with Australia became also a matter of greater moment.

3. **Difficulties of Comparisons of Total Shipping.**—From what is said in sub-section 1 above, it is obviously impossible to obtain results for Australia for pre-federal years not subject to the defect of repeated inclusions of the same vessels. Unfortunately, the statistical records of the first three years of Federal history are also subject to the same defect, and do not admit of direct comparison with those now kept. A careful estimate of the extent and effect of repeated inclusion has, however, been made and applied to the records of the earlier years, so as to extend the comparative results to those years. The error of such estimation will be negligible for comparative purposes.

4. **Present System of Record.**—The present system of record treats Australia as a unit, and counts, therefore, only one entry and one clearance for each visit to the Commonwealth. Repeated voyages of any vessel are, of course, included.

On arrival of every vessel at a port in the Commonwealth, whether from an oversea country or from another port within the Commonwealth, the master is required to deliver to the Customs officer a form giving all particulars necessary for statistical purposes in regard to the ship, passengers, and crew. Similarly, on departure from a port, a form

containing corresponding information is lodged. These forms, which provide a complete record of the movements of every vessel in Commonwealth waters, are at the end of each month forwarded by the Customs officer at each port to the Commonwealth Bureau of Statistics, and furnish the material for the compilation of the Shipping and Migration Returns.

Under the system previously in force it was found that the estimates of population, in so far as they were based on seaward movement, were very unsatisfactory, and it is believed that the method referred to above gives decidedly better results.

From the 1st July, 1914, the statistical year for the record of Trade and Shipping of the Commonwealth was altered from the calendar year to agree with the fiscal year.

In all instances the tonnage quoted is the net tonnage.

## § 2. Oversea Shipping.

1. **Total Oversea Shipping.**—In order to extend, as indicated, the comparison of the oversea shipping to the earliest years for which any records are available, an estimate of its probable amount has been made. This estimate is based on a comparison of the results obtained by merely aggregating State statistics, with the defect of multiple records, and the results obtained under the present system, which avoids the multiple record. From the nature of the case it is obvious that the ratio of repeated inclusion to the total traffic has been continually advancing, and this fact has been duly taken into account in deducing the results in the following table :—

### TOTAL OVERSEA SHIPPING ENTERED AND CLEARED THE COMMONWEALTH, 1822 TO 1920-21 (MULTIPLE RECORD EXCLUDED BY ESTIMATION PRIOR TO 1904).

Year.	Vessels.	Tons.	Year.	Vessels.	Tons.	Year.	Vessels.	Tons.
1822 ..	73	30,683	1855 ..	3,239	1,449,657	1888 ..	3,933	4,464,895
1823 ..	76	30,543	1856 ..	2,669	1,195,794	1889 ..	3,897	4,460,426
1824 ..	71	29,029	1857 ..	2,842	1,530,202	1890 ..	3,363	4,150,027
1825 ..	80	30,786	1858 ..	2,607	1,378,050	1891 ..	3,778	4,726,307
1826 ..	65	23,587	1859 ..	2,759	1,403,210	1892 ..	3,432	4,239,500
1827 ..	95	29,301	1860 ..	2,464	1,288,518	1893 ..	3,046	4,150,433
1828 ..	124	38,367	1861 ..	2,466	1,149,476	1894 ..	3,397	4,487,546
1829 ..	185	56,735	1862 ..	2,917	1,389,231	1895 ..	3,331	4,567,883
1830 ..	195	56,185	1863 ..	3,378	1,564,369	1896 ..	3,309	4,631,266
1831 ..	185	52,414	1864 ..	3,344	1,537,433	1897 ..	3,279	4,709,697
1832 ..	206	59,028	1865 ..	3,005	1,317,934	1898 ..	3,222	4,681,398
1833 ..	241	72,647	1866 ..	3,378	1,470,728	1899 ..	3,356	5,244,197
1834 ..	249	77,068	1867 ..	2,927	1,277,679	1900 ..	3,719	5,894,173
1835 ..	310	96,928	1868 ..	3,080	1,350,573	1901 ..	4,028	6,541,991
1836 ..	310	93,974	1869 ..	3,107	1,472,837	1902 ..	3,608	6,234,460
1837 ..	442	113,432	1870 ..	2,877	1,381,878	1903 ..	3,441	6,027,843
1838 ..	471	132,038	1871 ..	2,748	1,312,642	1904 ..	3,700	6,682,011
1839 ..	652	191,507	1872 ..	2,788	1,380,466	1905 ..	4,088	7,444,417
1840 ..	915	277,335	1873 ..	3,159	1,609,067	1906 ..	4,155	7,966,658
1841 ..	900	278,738	1874 ..	3,153	1,728,269	1907 ..	4,394	8,822,866
1842 ..	862	232,827	1875 ..	3,437	1,914,462	1908 ..	4,051	8,581,151
1843 ..	736	183,427	1876 ..	3,295	1,863,343	1909 ..	3,910	8,516,751
1844 ..	629	155,654	1877 ..	3,157	1,930,434	1910 ..	4,048	9,333,146
1845 ..	735	164,221	1878 ..	3,372	2,127,518	1911 ..	4,174	9,984,801
1846 ..	888	211,193	1879 ..	3,344	2,151,338	1912 ..	4,052	10,275,314
1847 ..	1,033	245,358	1880 ..	3,078	2,177,877	1913 ..	3,985	10,601,948
1848 ..	1,182	305,840	1881 ..	3,284	2,549,364	1914-15	3,211	8,599,258
1849 ..	1,137	355,886	1882 ..	3,652	3,010,944	1915-16	3,324	8,538,322
1850 ..	1,300	425,206	1883 ..	3,857	3,433,102	1916-17	2,986	7,694,442
1851 ..	1,578	515,061	1884 ..	4,315	4,064,947	1917-18	2,197	5,031,750
1852 ..	1,896	844,243	1885 ..	4,052	3,999,917	1918-19	2,614	6,180,486
1853 ..	3,364	1,490,422	1886 ..	3,793	3,853,246	1919-20	2,981	8,086,507
1854 ..	3,781	1,744,251	1887 ..	3,454	3,764,430	1920-21	3,674	9,503,018

It must be borne in mind that while the above figures in themselves have no absolute significance, nevertheless, on the assumption that the element of duplication has been in fairly constant ratio, they furnish the best available indication of the growth of Australian oversea shipping.

2. **Comparison with other Countries.**—The place of Australia among various countries in regard to oversea shipping is indicated in the following table, both absolutely and in respect of tonnage per head of population.

#### OVERSEA SHIPPING OF VARIOUS COUNTRIES.

Country.	Year.	Tonnage Entered and Cleared.	
		Total.	Per Inhabitant.
Argentine Republic .. .. .	1918	6,788,000	0.8
Belgium .. .. .	1919	9,077,616	1.2
Canada .. .. .	1919	25,261,393 <sup>a</sup>	2.8
<b>Commonwealth</b> .. .. .	<b>1920-21</b>	<b>9,503,018</b>	<b>1.86</b>
Denmark .. .. .	1919	6,708,027	2.2
France .. .. .	1919	45,668,000	1.2
Germany .. .. .	1912	51,065,940	0.8
Italy .. .. .	1919	48,237,126	1.3
Japan .. .. .	1919	45,943,777	0.6
New Zealand .. .. .	1921	3,884,577	3.1
Norway .. .. .	1919	6,095,612	2.3
Sweden .. .. .	1918	16,006,630	2.7
Union of South Africa .. .. .	1919-20	7,233,000	1.2
United Kingdom .. .. .	1920	73,108,000 <sup>b</sup>	1.7
United States .. .. .	1919	74,086,573 <sup>a</sup>	0.7

(<sup>a</sup>) Exclusive of vessels trading on lakes and rivers between Canada and the United States.

(<sup>b</sup>) With cargoes only.

3. **Shipping Communication with various Countries.**—In previous issues of this Year Book tables were published shewing the number and tonnage of ships recorded as arriving from and departing to particular countries. At the same time it was shewn that such records were of no significance, for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel may carry cargo or passengers to or from Australia for several countries on the same voyage. For instance, a mail steamer on a voyage from Europe to Australia, through the Suez Canal, may call at Antwerp, Bremerhaven, London, Marseilles, Genoa, Port Said, Aden and Colombo, yet can be credited only to one of these ports, to the exclusion of all the other ports from the records. Perhaps a more striking example of the ineffectiveness of the records referred to is afforded by the recorded statistics of the shipping between South Africa and Australia. The advertised sailings from Australia to the United Kingdom *via* South African ports for the month of October, 1921, represented a net tonnage of 40,145, yet the statistical records shewed none of this tonnage as to South Africa, but all was shewn as to the United Kingdom. In view of this defect it has been decided to discontinue the publication of the figures purporting to shew the shipping communication with particular countries, and to restrict the statistics relating to the direction of the shipping to and from Australia to the following tables in which countries situated on the main trade routes are grouped together.

4. **General Trend of Shipping.**—A grouping of countries into larger geographical divisions, as in the following tables, shews more readily the general direction of Australian shipping, and, to some extent, avoids the limitations of the records in relation to particular countries, by covering more closely the main trade routes. The figures relating to Africa, however, are still subject to the limitations referred to in the previous paragraph.

**GENERAL DIRECTION OF THE SHIPPING OF THE COMMONWEALTH,  
1904 TO 1920-21.**

Countries.	Annual Average.		1918-19.	1919-20.	1920-21.	
	1904-8.	1909-13.				
TONNAGE ENTERED.						
United Kingdom and European Countries	Cargo	1,343,869	1,939,579	607,680	982,237	1,102,994
	Ballast	92,372	88,072	348,719	477,183	269,351
New Zealand .. ..	Cargo	530,683	674,799	393,927	411,819	518,789
	Ballast	142,521	161,450	98,691	173,601	350,370
Asiatic Countries and Islands in the Pacific	Cargo	459,612	727,817	619,174	682,592	837,195
	Ballast	355,196	147,919	296,264	538,630	631,004
Africa .. ..	Cargo	31,852	29,233	107,607	50,982	21,298
	Ballast	280,168	289,991	254,878	254,527	236,320
North and Central America	Cargo	378,147	488,737	490,592	454,830	747,599
	Ballast	98,628	36,693	14,895	3,642	8,747
South America .. ..	Cargo	3,561	17,534	1,179	11,501	8,236
	Ballast	248,826	297,300	5,454	..	27,013
	Cargo	2,748,024	3,877,999	2,220,159	2,593,961	3,236,111
	Ballast	1,217,711	1,021,425	1,018,901	1,447,583	1,522,805
Total .. ..		3,965,735	4,899,424	3,239,060	4,041,544	4,758,916

<b>TONNAGE CLEARED.</b>					
United Kingdom and European Countries	Cargo 1,397,960	2,010,192	1,122,890	1,925,711	1,864,330
	Ballast 3,223	41	33,446	12,547	15,421
New Zealand .. ..	Cargo 701,987	1,004,924	373,058	596,367	789,094
	Ballast 57,751	51,552	25,230	23,157	24,254
Asiatic Countries and Islands in the Pacific	Cargo 808,409	922,035	672,306	844,879	1,123,141
	Ballast 37,309	51,922	43,618	30,129	52,374
Africa .. ..	Cargo 149,462	112,918	387,550	320,721	387,649
	Ballast 2,421	78	7,270	4,789	7,506
North and Central America	Cargo 243,618	195,497	235,228	224,358	294,145
	Ballast 40,692	32,849	5,791	17,068	22,673
South America .. ..	Cargo 482,774	455,136	33,709	45,237	162,974
	Ballast 8,079	5,824	1,330	..	541
	Cargo 3,784,210	4,700,702	2,824,741	3,957,273	4,621,333
	Ballast 149,475	142,266	116,685	87,690	122,769
<b>Total .. ..</b>	<b>3,933,685</b>	<b>4,842,968</b>	<b>2,941,426</b>	<b>4,044,963</b>	<b>4,744,102</b>

<b>TONNAGE ENTERED AND CLEARED.</b>					
Countries.	Annual Average.		1918-19.	1919-20.	1920-21.
	1904-8.	1909-13.			
United Kingdom and European Countries	2,837,424	4,037,884	2,112,735	3,397,678	3,252,096
New Zealand .. ..	1,432,942	1,892,725	890,906	1,204,944	1,682,507
Asiatic Countries and Islands in the Pacific	1,660,526	1,849,693	1,631,362	2,096,230	2,643,714
Africa .. ..	463,903	432,220	757,305	631,019	652,773
North and Central America	761,085	753,776	746,506	699,808	1,073,164
South America .. ..	743,540	776,094	41,672	50,788	198,764
Cargo .. ..	6,532,234	8,578,700	5,044,900	6,551,234	7,857,444
Ballast .. ..	1,367,186	1,163,692	1,135,586	1,535,273	1,645,574
<b>Total .. ..</b>	<b>7,899,420</b>	<b>9,742,392</b>	<b>6,180,486</b>	<b>8,086,507</b>	<b>9,503,018</b>

5. *Nationality of Oversea Shipping.*—As will be seen from the following table, the greater part of the shipping visiting the Commonwealth is of British nationality, though the proportion of British tonnage in 1920–21 was very much lower than in the immediately preceding years. This was largely due to the wages troubles in the coal-mining industry in the United Kingdom. As a consequence of this trouble, the exports of coal from the Commonwealth were largely increased, and the unusual occurrence of shipping coal from Australia to European countries was experienced. The demand for Australian coal is the principal cause of the increased tonnage of foreign ships which were sent to carry the coal to their home countries. Japanese tonnage was active in the carriage of coal—particularly to the Netherlands Indies—and also in the transport of wool and wheat.

**NATIONALITY OF ALL VESSELS WHICH ENTERED AND CLEARED THE COMMONWEALTH FROM AND TO OVERSEA COUNTRIES, 1904 TO 1920–21.**

Nationality.	Tonnage.				
	Annual Average.		1918–19.	1919–20.	1920–21.
	1904–8.	1909–13.			
<b>BRITISH—</b>					
Australian ..	608,432	810,482	855,941	792,066	1,121,292
United Kingdom ..	4,406,092	5,224,923	3,725,351	5,122,451	5,061,488
Canadian ..	..	..	..	..	(a) 76,985
New Zealand ..	788,614	1,097,384	254,575	300,189	298,373
Other British ..	17,330	31,476	40,775	87,291	73,346
Cargo ..	4,952,083	6,448,777	3,896,477	5,195,055	5,768,965
Ballast ..	868,385	715,488	980,165	1,106,942	862,519
Total British ..	5,820,468	7,164,265	4,876,642	6,301,997	6,631,484
Per cent. on total ..	73.68	73.53	78.90	77.93	69.78
<b>FOREIGN—</b>					
Austro-Hungarian ..	5,909	18,337	..	..	..
Danish ..	14,135	7,816	15,497	15,254	47,313
Dutch ..	28,149	148,112	131,627	147,189	269,825
French ..	474,312	432,891	138,064	349,804	232,025
German ..	745,862	1,028,630	..	..	..
Italian ..	106,944	70,582	30,459	120,044	236,482
Japanese ..	47,280	160,580	331,872	613,536	1,015,290
Norwegian ..	359,622	500,950	174,825	94,184	257,952
Russian ..	46,295	51,248	43,973	..	..
Swedish ..	29,731	49,642	64,158	43,125	168,652
United States ..	207,438	83,892	344,795	376,530	548,828
Other Foreign ..	13,275	25,447	28,574	24,844	95,167
Cargo ..	1,580,151	2,129,923	1,148,423	1,356,179	2,088,479
Ballast ..	498,801	448,204	155,421	428,331	783,055
Total Foreign ..	2,078,952	2,578,127	1,303,844	1,784,510	2,871,534
Per cent. on total ..	26.32	26.47	21.10	22.07	30.22
Cargo ..	6,532,234	8,578,700	5,044,900	6,551,234	7,857,444
Per cent. on total ..	82.68	88.04	81.63	81.01	82.68
Ballast ..	1,367,186	1,163,692	1,135,586	1,535,273	1,645,574
Per cent. on total ..	17.32	11.96	18.37	18.99	17.32
<b>Grand Total</b> ..	<b>7,899,420</b>	<b>9,742,392</b>	<b>6,180,486</b>	<b>8,086,507</b>	<b>9,503,018</b>

(a) Previously included in Other British.

During the years 1904-8 the Australian tonnage engaged in the oversea trade represented 7.70 per cent. of the total tonnage which entered and cleared the Commonwealth. In the following quinquennial period the proportion of Australian tonnage was 8.32 per cent. and in 1918-19, by reason of the diversion to the oversea trade of Australian ships usually engaged in the coastal trade, it rose to 13.85 per cent. During 1920-21 Australian tonnage represented 11.80 per cent. of the tonnage which entered and cleared the Commonwealth.

The relative proportion of British and foreign tonnage which entered and cleared the Commonwealth during the last fifteen years, apart from tonnage in ballast, is given below. These figures may be considered to indicate more closely the proportion of the actual carrying trade done than does the total tonnage. The proportion of foreign tonnage declined materially in the earlier years of the war owing to the complete withdrawal of ships under the German and Austrian flags and to the greatly reduced tonnage of French and Norwegian ships, which were precluded from following their usual employment. During the year 1917-18 the proportion of foreign shipping, in consequence of the activities of Japanese and United States ship-owners, almost attained its pre-war dimensions, and in 1920-21, as a result of the circumstances referred to on the preceding page, the proportion of foreign tonnage was greater than in any year during the period under review.

**PROPORTION OF TONNAGE WITH CARGO OF BRITISH AND FOREIGN NATIONALITY ENTERED AND CLEARED THE COMMONWEALTH, 1904 TO 1920-21.**

Nationality.	Annual Average.		1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	1904-8.	1909-13.					
British .. ..	75.80	75.18	82.20	75.46	77.24	79.30	73.42
Foreign .. ..	24.20	24.82	17.80	24.54	22.76	20.70	26.58
Total .. ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Generally most of the foreign tonnage which enters the Commonwealth is employed between its home ports or the colonies of its own country and the Commonwealth, *e.g.*, French shipping is engaged chiefly between the Commonwealth, France and New Caledonia, while Dutch ships are employed almost entirely between the Commonwealth and the Netherlands or the Netherlands East Indies. Norwegian shipping is always an exception to this rule. The greater part of Norwegian tonnage engaged in trade with Australia is composed of vessels operating under charters. Of the 132,647 tons of Norwegian shipping which entered the Commonwealth during 1920-21, 64,450 tons (48.59 per cent.) were in ballast. In 1920-21, however, we find American ships carrying coal to Chile and Japanese tonnage carrying various freights in all directions.

The following table shews the direction of the activities of the principal foreign countries engaged in the oversea carrying trade of the Commonwealth. It will be noticed that the greater part of the Japanese and French tonnage which entered the Commonwealth during 1920-21 was in ballast. In the case of French vessels the tonnage in ballast represented as much as 67 per cent. A similar analysis with regard to German ships will be found in previous issues.

# SHIPPING OF PRINCIPAL FOREIGN NATIONS BETWEEN AUSTRALIA AND OTHER COUNTRIES DURING 1920-21.

Countries.	Nationality.					
	Japanese.		French.		United States.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
<b>EUROPEAN COUNTRIES—</b>						
United Kingdom ..	..	14,627	18,352	29,124	1,439	3,780
France ..	..	5,054	42,131	32,235	1,928	..
Other European Countries ..	..	25,582	3,894	5,666	..	..
<b>NEW ZEALAND ..</b>	<b>84,437</b>	<b>56,923</b>	<b>..</b>	<b>..</b>	<b>29,415</b>	<b>20,973</b>
<b>ASIATIC COUNTRIES AND ISLANDS IN THE PACIFIC—</b>						
Dutch East Indies ..	87,064	151,504	3,627	..	..	..
Japan ..	152,115	79,656	..	..	..	..
New Caledonia ..	..	..	26,913	24,289	..	..
Other Pacific Islands ..	32,293	23,974	4,500	6,300	924	24,846
Straits Settlements ..	62,406	53,228	..	..	5,285	..
Other Asiatic Countries ..	68,697	69,746	..	..	11,619	17,321
<b>AFRICAN COUNTRIES ..</b>	<b>2,616<sup>a</sup></b>	<b>20,017</b>	<b>4,676</b>	<b>4,333<sup>a</sup></b>	<b>11,705</b>	<b>861</b>
<b>NORTH AMERICAN COUNTRIES—</b>						
United States ..	12,778	..	..	1,947	208,757	139,091
Other N. American Countries ..	..	..	..	..	2,236	3,671
<b>SOUTH AMERICAN COUNTRIES—</b>						
Chile ..	3,583	8,990	1,951	18,376	..	54,643
Other S. American Countries ..	..	..	1,946	1,765	681	9,653
With Cargo ..	181,815	490,120	35,210	121,326	227,113	257,607
In Ballast ..	324,174	19,181	72,780	2,709	46,876	17,232
<b>Total ..</b>	<b>505,989</b>	<b>509,301</b>	<b>107,990</b>	<b>124,035</b>	<b>273,989</b>	<b>274,839</b>

(a) Egypt.

A further analysis is appended, distinguishing between steam and sailing vessels of British and foreign nationality, which entered and cleared the Commonwealth during the years 1904 to 1920-21.

## STEAM AND SAILING VESSELS ENTERED AND CLEARED, 1904 TO 1920-21.

Description and Nationality of Vessels.	Annual Average.				1918-19.		1919-20.		1920-21.	
	1904-8.		1909-13.							
	Ton-nage.	Per-centage.	Ton-nage.	Per-centage.	Ton-nage.	Per-centage.	Ton-nage.	Per-centage.	Ton-nage.	Per-centage.
Steam—										
British ..	4,773,674	82	6,677,412	80	4,717,362	85	6,219,048	81	6,469,295	73
Foreign ..	1,055,015	18	1,690,773	20	826,041	15	1,450,957	19	2,368,203	27
Total Steam..	5,828,689	100 (74)	8,368,185	100 (86)	5,543,403	100 (90)	7,670,005	100 (95)	8,837,498	100 (93)
Sailing—										
British ..	1,046,794	51	486,853	35	159,280	25	82,949	20	162,189	24
Foreign ..	1,023,938	49	887,354	65	477,803	75	333,553	80	503,331	76
Total Sailing	2,070,732	100 (26)	1,374,207	100 (14)	637,083	100 (10)	416,502	100 (5)	665,520	100 (7)
Steam and Sailing—										
British ..	5,820,468	74	7,164,265	74	4,876,642	79	6,301,997	78	6,631,484	70
Foreign ..	2,078,953	26	2,578,127	26	1,303,844	21	1,784,510	22	2,871,534	30
Total ..	7,899,421	100	9,742,392	100	6,180,486	100	8,086,507	100	9,503,018	100

6. **Tonnage in Ballast.**—The following table shews the tonnage of oversea vessels which entered and cleared the Commonwealth in ballast during the years 1904 to 1920-21 :—

**TONNAGE ENTERED AND CLEARED IN BALLAST, 1904 TO 1920-1.**

Year.	Entered.			Cleared.		
	British.	Foreign.	Total.	British.	Foreign.	Total.
1904-8(a) ..	785,396	432,315	1,217,711	82,990	66,486	149,476
1909-13(a) ..	632,751	388,675	1,021,426	82,737	59,529	142,266
1914-15 ..	441,908	129,305	571,213	238,314	108,401	346,715
1915-16 ..	595,591	49,153	644,744	196,033	172,746	368,779
1916-17 ..	720,040	151,728	871,768	104,078	90,172	194,250
1917-18 ..	322,807	133,175	455,982	68,021	19,516	87,537
1918-19 ..	886,494	132,407	1,018,901	93,671	23,014	116,685
1919-20 ..	1,046,921	400,662	1,447,583	60,021	27,669	87,690
1920-21 ..	787,163	735,642	1,522,805	75,356	47,413	122,769

(a) Annual average.

**PROPORTION OF TOTAL BRITISH AND FOREIGN TONNAGE WHICH ENTERED AND CLEARED IN BALLAST, 1904 TO 1920-21.**

Year.	Entered.			Cleared.		
	British.	Foreign.	Total.	British.	Foreign.	Total.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1904-8(a) ..	26.51	41.08	30.36	2.86	6.05	3.71
1909-13(a) ..	17.67	30.50	21.06	2.36	4.93	3.03
1914-15 ..	12.88	17.36	13.68	6.51	14.12	7.84
1915-16 ..	17.02	6.38	15.10	5.63	21.95	8.64
1916-17 ..	22.95	21.25	22.04	3.32	12.75	5.05
1917-18 ..	17.65	21.23	18.56	3.49	3.11	3.40
1918-19 ..	34.55	19.68	31.46	4.05	3.65	3.97
1919-20 ..	33.30	44.62	35.82	1.90	3.12	2.17
1920-21 ..	23.74	50.99	32.00	2.27	3.32	2.59

(a) Annual average.

The tonnage which entered each State of the Commonwealth in ballast, during 1920-21, was as follows :—

**TONNAGE OF OVERSEA VESSELS IN BALLAST WHICH ENTERED EACH STATE AND THE NORTHERN TERRITORY DURING 1920-21.**

State.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	C'wealth.
Tonnage ..	844,765	50,066	51,932	120,951	451,700	3,391	..	1,522,805
Percentage on total ..	55.48	3.28	3.41	7.94	29.67	0.22	..	100.00

In normal times the large exports of coal from New South Wales afford special inducements to vessels in search of freights. The tonnage in ballast into New South Wales is mainly for coal cargo, into Victoria for wheat, into South Australia for wheat and ore, and into Western Australia for timber and wheat.



### § 3. Shipping of Ports.

1. **Shipping of Ports.**—Appended is an abstract of the total shipping tonnage—oversea and coastwise—which entered the more important ports of Australia during the year 1920–21, together with similar information in regard to some of the ports of New Zealand for the year 1921 and of the United Kingdom for the year 1919 :—

#### SHIPPING OF PORTS, AUSTRALIA, NEW ZEALAND, AND THE UNITED KINGDOM.

Port.	Tonnage Entered.	Port.	Tonnage Entered.
<b>AUSTRALIA—</b>		<b>ENGLAND AND WALES—</b>	
Melbourne .. .. .	8,226,493	London .. .. .	13,600,598
Sydney .. .. .	7,236,253	Liverpool (inc. Birkenhead)	10,745,787
Newcastle .. .. .	4,637,622	Cardiff .. .. .	9,285,736
Adelaide(a) .. .. .	2,607,064	Tyne Ports .. .. .	7,900,801
Fremantle .. .. .	2,326,551	Hull .. .. .	3,286,441
Brisbane .. .. .	1,905,111	Plymouth .. .. .	3,101,760
Townsville .. .. .	881,416	Newport .. .. .	2,826,556
Rockhampton .. .. .	522,386	Southampton .. .. .	2,213,101
Mackay .. .. .	501,671	Swansea .. .. .	2,082,751
Albany .. .. .	451,687	Bristol .. .. .	1,865,806
Hobart .. .. .	429,022	Sunderland .. .. .	1,823,579
Cairns .. .. .	417,391	Manchester (inc. Runcorn)	1,720,576
Bunbury .. .. .	353,806	Middlesbrough .. .. .	1,660,688
Thursday Island .. .. .	293,313	Falmouth .. .. .	1,644,639
Pirie .. .. .	275,786	Blyth .. .. .	1,381,237
Burnie .. .. .	273,611	Port Talbot .. .. .	1,195,977
Geelong .. .. .	258,226	Dartmouth .. .. .	1,008,875
Bowen .. .. .	254,671	Cowes .. .. .	975,202
Wallaroo .. .. .	228,334	<b>SCOTLAND—</b>	
Devonport .. .. .	227,530	Glasgow .. .. .	3,438,055
Launceston .. .. .	209,240	Leith .. .. .	1,251,084
<b>NEW ZEALAND—</b>		<b>IRELAND—</b>	
Wellington .. .. .	2,825,636	Dublin .. .. .	2,554,529
Auckland .. .. .	1,886,778	Belfast .. .. .	2,582,874
Lyttleton .. .. .	1,528,923	Cork (inc. Queenstown) ..	617,116
Dunedin .. .. .	611,778		

(a) Exclusive of coastal shipping, particulars of which are not available.

### § 4. Vessels Built and Registered.

1. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing, and other vessels on the registers of the various States and of the Northern Territory of the Commonwealth of Australia :—

#### VESSELS ON THE REGISTER, 31st DECEMBER, 1921.

State.	Steam.				Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
	Dredges and Tugs.		Other.		Fitted with Auxiliary Power.		Other.					
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.
New South Wales ..	44	1,328	551	126,249	112	1,892	256	16,536	45	9,915	1,008	155,920
Victoria ..	24	2,840	160	127,110	31	1,125	69	4,270	68	27,305	352	162,650
Queensland ..	21	3,352	64	16,451	25	292	114	2,009	31	4,184	255	26,288
South Australia ..	13	616	85	32,875	13	536	67	2,604	52	8,889	230	45,520
Western Australia...	10	191	32	9,690	12	205	332	5,005	25	6,848	411	21,939
Tasmania ..	6	478	55	13,353	53	1,319	71	2,812	2	563	187	18,525
Northern Territory ..	..	..	..	..	1	17	27	337	..	..	28	354
Total ..	118	8,805	947	325,728	247	5,386	936	33,573	223	57,704	2,471	431,196

2. **Vessels Built.**—The following tables shew the number and tonnage of vessels built in the Commonwealth during each of the years 1902–1921, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, however, does not make it compulsory to register vessels under 15 tons burthen if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners. As the Shipping Registers have been, and are, the source of information, it follows that the figures given below will be subject to additions in the future, inasmuch as vessels already built may be added to the register at some future date.

## VESSELS BUILT IN THE COMMONWEALTH, 1902 TO 1921.

## NUMBER.

Year.	Steamers built of—					Oil Motor Vessels.	Sailing.	Pontoons, Dredges, etc.	Total.
	Wood.	Iron.	Steel.	Com- posite.	Total.				
1902 ..	29	..	..	1	30	9	77	1	117
1903 ..	15	1	2	..	18	17	158	2	195
1904 ..	14	..	1	1	16	13	76	..	105
1905 ..	15	..	4	..	19	22	18	2	61
1906 ..	12	1	1	..	14	23	21	3	61
1907 ..	17	..	..	1	18	12	37	1	68
1908 ..	13	..	3	..	16	19	18	2	55
1909 ..	10	..	..	..	10	14	38	1	63
1910 ..	9	3	2	..	14	15	36	4	69
1911 ..	15	1	2	1	19	9	38	4	70
1912 ..	9	..	3	2	14	13	31	2	60
1913 ..	17	..	2	1	20	15	30	..	65
1914 ..	17	..	..	..	17	14	28	2	61
1915 ..	4	..	2	..	6	7	4	..	17
1916 ..	2	..	..	..	2	6	2	..	10
1917 ..	3	..	..	1	4	3	5	..	12
1918 ..	2	..	..	..	2	4	..	..	6
1919 ..	2	..	3	..	5	4	8	..	17
1920 ..	6	..	8	1	15	3	7	..	25
1921 ..	1	..	3	..	4	4	2	..	10

## TONNAGE.

Year.	Steamers.		Oil Motor Vessels.		Sailing.		Pontoons, Dredges, etc.		Total.	
	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.
1902 ..	3,166	1,849	123	107	2,455	2,123	64	64	5,808	4,143
1903 ..	1,569	956	624	455	3,211	2,758	285	350	5,789	4,519
1904 ..	2,094	1,240	161	125	1,641	1,416	..	..	3,896	2,781
1905 ..	2,444	1,462	278	200	355	307	967	896	4,044	2,865
1906 ..	1,426	735	276	196	501	428	546	536	2,749	1,895
1907 ..	2,381	1,305	108	93	840	778	152	145	3,481	2,321
1908 ..	2,492	1,317	270	203	510	428	260	260	3,532	2,208
1909 ..	1,351	735	212	172	814	686	93	98	2,475	1,691
1910 ..	1,944	1,105	171	155	821	704	688	646	3,624	2,610
1911 ..	2,226	1,197	150	121	783	698	762	720	3,921	2,736
1912 ..	2,592	1,592	408	319	678	584	612	287	4,290	2,782
1913 ..	2,262	1,201	350	248	517	491	..	..	3,129	1,940
1914 ..	3,041	1,595	191	156	510	452	148	148	3,890	2,351
1915 ..	914	385	212	143	194	183	..	..	1,320	711
1916 ..	125	63	90	76	39	28	..	..	254	167
1917 ..	619	300	37	30	229	161	..	..	885	491
1918 ..	378	201	456	357	..	..	..	..	834	558
1919 ..	10,829	6,626	64	55	1,010	864	..	..	11,903	7,545
1920 ..	30,851	17,834	57	49	502	374	..	..	31,410	18,257
1921 ..	10,243	5,879	45	38	11	11	..	..	10,299	5,928

## § 5. Interstate Shipping.

1. **Total Vessels and Tonnage**—In the following tables are shown the number and tonnage of vessels recorded as having entered each State of the Commonwealth from any other State therein, and similarly, the number and tonnage cleared from each State to other Commonwealth States. The table gives results from 1901 to 1920-21. The shipping on the Murray River, between the States of New South Wales, Victoria, and South Australia is not included.

## INTERSTATE SHIPPING, 1901 TO 1920-21.—NUMBER OF VESSELS.

State.	1901.	1906.	1911.	1916-17.	1918-19.	1919-20.	1920-21.
ENTERED.							
New South Wales ..	1,611	1,575	1,791	1,607	1,461	1,226	1,650
Victoria ..	1,502	1,561	1,648	1,423	1,239	1,269	1,614
Queensland ..	430	478	567	525	529	406	469
South Australia ..	719	752	789	539	445	456	603
Western Australia ..	446	335	415	385	309	367	431
Tasmania ..	713	840	864	728	727	787	987
Northern Territory	(a)	(a)	39	29	28	21	18
Total ..	5,421	5,541	6,113	5,236	4,738	4,532	5,772

## CLEARED.

New South Wales ..	1,473	1,417	1,728	1,572	1,402	1,200	1,556
Victoria ..	1,569	1,610	1,765	1,580	1,369	1,367	1,786
Queensland ..	395	431	572	479	528	383	465
South Australia ..	826	802	900	579	516	497	657
Western Australia ..	456	363	394	310	310	306	343
Tasmania ..	694	809	836	717	725	781	1,003
Northern Territory	(a)	(a)	40	23	27	31	16
Total ..	5,413	5,432	6,235	5,260	4,877	4,565	5,826

## TOTAL.

New South Wales ..	3,084	2,992	3,519	3,179	2,863	2,426	3,206
Victoria ..	3,071	3,171	3,413	3,003	2,608	2,636	3,400
Queensland ..	825	909	1,139	1,004	1,057	789	934
South Australia ..	1,545	1,554	1,689	1,118	961	953	1,260
Western Australia ..	902	698	809	695	619	673	774
Tasmania ..	1,407	1,649	1,700	1,445	1,452	1,568	1,990
Northern Territory	(a)	(a)	79	52	55	52	34
Total ..	10,834	10,973	12,348	10,496	9,615	9,097	11,598

(a) Included with South Australia.

## INTERSTATE SHIPPING, 1901 TO 1920-21.—TONNAGE.

State.	1901.	1906.	1911.	1916-17.	1919-20.	1920-21.
ENTERED.						
New South Wales	2,031,089	2,456,269	3,318,605	3,104,717	2,451,644	3,297,358
Victoria ..	1,956,900	2,473,771	2,959,551	2,254,634	2,017,798	2,434,778
Queensland ..	545,469	692,354	840,052	963,931	635,809	770,233
South Australia..	1,135,714	1,582,802	1,970,490	1,302,537	1,215,970	1,554,649
Western Australia	973,474	968,664	1,378,800	1,373,625	1,364,866	1,600,142
Tasmania ..	485,023	721,240	895,546	525,862	441,660	592,852
Northern Territory	(a)	(a)	64,518	52,663	34,251	36,269
Total ..	7,127,669	8,895,100	11,427,562	9,577,969	8,161,998	10,286,281

## CLEARED.

New South Wales	1,856,501	2,177,496	3,209,723	2,994,899	2,361,074	3,084,939
Victoria ..	2,038,424	2,617,966	3,233,531	2,755,961	2,428,328	2,991,715
Queensland ..	440,659	578,561	855,776	779,017	570,200	785,547
South Australia..	1,377,399	1,772,356	2,343,269	1,490,529	1,452,513	1,812,370
Western Australia	977,846	1,051,629	1,303,359	1,162,325	1,229,540	1,278,581
Tasmania ..	433,735	636,944	728,170	479,182	410,152	568,372
Northern Territory	(a)	(a)	66,357	43,607	52,855	34,686
Total ..	7,124,564	8,834,952	11,740,185	9,705,520	8,504,662	10,556,210

## TOTAL.

New South Wales	3,887,590	4,633,765	6,528,328	6,099,616	4,812,718	6,382,297
Victoria ..	3,995,324	5,091,737	6,193,082	5,010,595	4,446,126	5,426,493
Queensland ..	986,128	1,270,915	1,695,828	1,742,948	1,206,009	1,555,780
South Australia..	2,513,113	3,355,158	4,313,759	2,793,066	2,668,483	3,367,019
Western Australia	1,951,320	2,020,293	2,682,159	2,535,950	2,594,406	2,878,723
Tasmania ..	918,758	1,358,184	1,623,716	1,005,044	851,812	1,161,224
Northern Territory	(a)	(a)	130,875	96,270	87,106	70,955
Total ..	14,252,233	17,730,052	23,167,747	19,283,489	16,666,660	20,842,491

(a) Included with South Australia.

The figures presented in the above table include oversea vessels—largely mail boats—passing from one State to another. This renders the results somewhat unsatisfactory.

In the earlier part of this chapter attention was drawn to the custom in vogue prior to Federation of recording vessels from or to "oversea countries via other Commonwealth States" as *direct* from or to the oversea country. At each port in Australia these vessels were, on the inward voyage (to Australia), entered as from the oversea

country, and cleared to the next Australian port as "interstate"; on the return journey—the outward voyage—they were entered as "interstate," and cleared as for the overseas country. In order to preserve the continuity of the records of the shipping communication of the several States with overseas countries this method has been followed in continuation of the pre-existing practice, excepting that vessels arriving or departing *via* other Commonwealth States are now so recorded instead of as "direct."

From the above it will be seen that while certain movements of the vessels referred to are included in the interstate shipping, other movements of the same vessels, between the same ports, are not so included.

To ascertain the aggregate movement of shipping between the States during the year 1920-21, including the total interstate movements of overseas vessels, the figures in the following table must be added to those in the table preceding:—

**SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA  
OTHER COMMONWEALTH STATES, 1920-21.**

State.	Entered.		Cleared.		Total.		
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	
New South Wales ..	469	1,823,007	492	1,847,025	961	3,670,032	
Victoria ..	413	1,642,143	367	1,422,888	780	3,065,031	
Queensland ..	119	645,703	119	623,532	238	1,269,235	
South Australia ..	187	791,769	174	709,817	361	1,501,586	
Western Australia ..	12	32,396	13	42,729	25	75,125	
Tasmania ..	60	187,336	68	233,323	128	420,659	
Northern Territory ..	..	..	..	..	..	..	
Total {	1920-21	1,260	5,122,354	1,233	4,879,314	2,493	10,001,668
	1910 ..	1,424	5,170,166	1,319	4,879,493	2,743	10,049,659

2. **Vessels Engaged Solely in Interstate Trade.**—If it be assumed that vessels entered in the several States as from "overseas countries *via* other Commonwealth States" have really been cleared from other States as "interstate," and further, that the vessels cleared to "overseas countries *via* other Commonwealth States" have likewise been entered as "interstate," and all such vessels be excluded, the remainder will represent vessels engaged only in the interstate trade. Applying this suggestion, and so eliminating all interstate movements of overseas vessels, the number and tonnage movement of vessels engaged solely in the interstate trade for the Commonwealth as a whole during the years 1911 to 1920-21 were as follows:—

**NUMBER AND TONNAGE OF VESSELS ENGAGED SOLELY IN INTERSTATE  
TRADE, 1911 TO 1920-21.**

Year.	Entered.		Cleared.	
	No.	Tons.	No.	Tons.
1911 .. ..	4,794	6,548,069	4,811	6,570,019
1912 .. ..	5,000	6,809,428	4,990	6,809,426
1913 .. ..	5,174	8,080,267	5,187	8,105,988
1914-15 ..	5,143	8,140,155	5,142	8,112,005
1915-16 ..	5,121	7,175,175	5,112	7,139,451
1916-17 ..	4,303	6,093,634	4,311	6,127,726
1917-18 ..	4,171	4,856,751	4,152	4,765,957
1918-19 ..	4,093	4,357,115	4,074	4,377,666
1919-20 ..	3,482	3,939,055	3,510	3,986,345
1920-21 ..	4,539	5,406,967	4,566	5,433,850

3. **Total Interstate Movement of Shipping.**—From the foregoing it is apparent that the interstate movement of shipping includes two very different elements, viz. :— (i) Oversea ships moving from State to State, and (ii) the movement of ships engaged solely in the interstate carrying trade. These two elements are approximately as follows :—

**TOTAL INWARD INTERSTATE MOVEMENT OF SHIPPING, 1908 TO 1920-21.**

Vessels.	1908.	1913.	1915-16.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Oversea vessels moving inter-state ..	8,258,018	11,472,490	8,017,918	7,062,129	4,202,179	5,219,515	8,741,260	10,001,668
Vessels solely inter-state ..	5,961,617	8,080,267	7,175,175	6,093,634	4,856,751	4,357,115	3,939,055	5,406,967
Total ..	14,219,635	19,552,757	15,193,093	13,155,763	9,058,930	9,576,630	12,680,315	15,408,635

The following table shews the number and tonnage of vessels which entered and cleared each State during 1920-21, including the coastal movements of oversea vessels :—

**INTERSTATE SHIPPING OF EACH STATE, 1920-21.**

State.	Entered.		Cleared.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales ..	2,119	5,120,365	2,048	4,931,964	4,167	10,052,329
Victoria ..	2,027	4,076,921	2,153	4,414,603	4,180	8,491,524
Queensland ..	588	1,415,936	584	1,409,079	1,172	2,825,015
South Australia ..	790	2,346,418	831	2,522,187	1,621	4,868,605
Western Australia ..	443	1,632,538	356	1,321,310	799	2,953,848
Tasmania ..	1,047	780,188	1,071	801,695	2,118	1,581,883
Northern Territory ..	18	36,269	16	34,686	34	70,955
Total	1920-21	7,032	15,408,635	7,059	15,435,524	..
	1910 ..	7,206	15,607,274	7,235	15,694,732	..

4. **Interstate and Coastal Services.**—The foundation of the coastal steamship services in Australia dates back to the year 1851, when a regular trade was established between Melbourne and Geelong by the small screw steamer *Express*. Early in the fifties a company was formed in Tasmania with a capital of £40,000 for the purpose of purchasing steamboats, and employing them in the carriage of passengers and goods between Hobart and Melbourne. This service was commenced in 1852, and was thus the first regular interstate service in Australia. About this time, the great influx of population, and the increase in commerce caused chiefly by the gold discoveries, emphasised the desirability of establishing more regular and quicker means of communication between the principal ports of Australia, and in 1862 the regular interstate service between New South Wales and Victoria was inaugurated by the s.s. *You Yangs*, which was put into commission in regular service between Melbourne, Sydney, and Newcastle. In 1875 a company was formed in Adelaide for the purpose of supplying suitable steamers for the requirements of the trade between Adelaide and Melbourne. The first two steamers of the company were named the *South Australian* and the *Victorian*, and were small vessels of only 400 tons burthen. From the start, success attended these enterprises, and the services thus initiated were rapidly extended and their operations broadened. Numerous other companies were formed to cope with the increasing trade between ports in the Commonwealth, and the companies engaged from time to time added to their fleets of steamers by the acquisition of more modern and faster vessels, until at the end of the year 1921 the total net tonnage owned by the 39 companies from whom returns have been received amounted to over 179,000 tons. A summary of the various mail services carried on during the year 1922 is given in Section XVIII of this work.

The subjoined table gives particulars, so far as they are available, of all steamships engaged in regular interstate or coastal services at the end of each of the years 1901, 1906, 1911, and 1916 to 1921. The figures for 1916 and subsequent years include particulars relating to a number of smaller companies which did not supply returns for 1901, though they were, for the most part, carrying on business in that year.

**PARTICULARS OF STEAMSHIPS ENGAGED IN REGULAR INTERSTATE AND COASTAL SERVICES IN THE COMMONWEALTH, 1901 TO 1921.**

Particulars.	1901.	1906.	1911.	1916.	1919.	1920.	1921.
Number of companies making returns ..	11	11	24	23	23	23	(a)39
Number of steamships ..	113	122	178	169	143	154	183
Tonnage { Gross ..	184,574	207,320	288,181	337,068	250,610	280,609	317,019
Net ..	114,080	125,560	170,062	204,357	143,143	159,293	179,393
Horse-power (Nominal) ..	18,237	20,258	29,456	34,038	27,841	29,557	32,801
Number of passengers for which licensed { 1st class ..	4,617	6,077	8,616	9,077	5,229	5,250	4,226
2nd class and steerage ..	4,490	5,906	6,256	6,578	5,524	5,632	4,642
Complement of Crew { Masters and officers ..	403	431	590	606	493	537	571
Engineers ..	332	360	491	519	409	464	551
Crew ..	2,875	3,351	4,369	5,385	3,671	4,502	4,613

(a) In this year a number of small organizations were included for the first time.

### § 6. Tonnage of Cargo Discharged and Shipped.

The following table shews the aggregate tonnage of oversea cargo discharged and shipped in Commonwealth ports, and, also, the tonnage of interstate cargo shipped in all ports for the years 1913 to 1920-21 :—

Year.	Oversea Cargo.		Interstate Cargo.
	Discharged.	Shipped.	Shipped.
	tons.	tons.	tons.
1913 .. .. .	4,415,660	6,054,984	5,047,325
1914-15 .. .. .	3,709,915	3,356,314	4,866,442
1915-16 .. .. .	3,898,599	3,459,209	5,150,723
1916-17 .. .. .	2,765,233	3,982,826	4,868,014
1917-18 .. .. .	2,012,387	2,613,561	4,833,428
1918-19 .. .. .	2,312,288	3,813,651	4,495,258
1919-20 .. .. .	2,238,298	4,984,946	4,415,909
1920-21 .. .. .	3,201,215	5,925,133	4,993,678

NOTE.—Cargo recorded by measurement has been converted to weight on the basis of 40 cubic feet = 1 ton.

### § 7. Commonwealth Government Shipping Activities.

1. **Local Building Programme.**—The original programme of the Commonwealth Government for building ships in Australia provided for the construction of 48 vessels, 24 of which were to be steel cargo steamers and the remaining 24 were to be wooden sailing vessels with auxiliary power. The contracts for the wooden vessels were cancelled, with the exception of two five-masted schooners to be constructed by Messrs. Kidman and Mayoh, of Sydney.

With other alterations the local building programme became as follows :—

Locality.	No.	Builders.	Type.
Williamstown, Vic. ..	6	Commonwealth Ship Construction Branch	Steel cargo vessels
Walsh Island, N.S.W. ..	6	N.S.W. Government .. .. .	..
Cockatoo Island, N.S.W. ..	4	Commonwealth Navy Department	..
Maryborough, Q. ..	2	Walkers Ltd. .. .. .	..
Adelaide, S.A. ..	3	Poole and Steel .. .. .	..

The first part of this programme, consisting of the *Delunga*, *Dinoga*, *Dilga* (built at Walsh Island), *Dromana* and *Dumosa* (built at Williamstown), and *Dundula* (built at Cockatoo Island) has been completed, and the ships put into commission. These vessels have each a deadweight capacity of approximately 5,600 tons. Three other vessels of similar dimensions, but of the shelter deck type, having a deadweight capacity of about 6,000 tons are also in commission. These are the *Enita* (built at Williamstown), and the *Eurelia* and *Enoggera* (built at Walsh Island). The *Eromanga* (built at Walsh Island), the *Eudunda* (built at Cockatoo Island), the *Erriba* (built at Williamstown),



and the *Echuca* (built by Walkers Ltd.), have been handed over to the Commonwealth Government Line. The positions of the remaining "E" class ships are as follows :—*Echunga* (Walkers Ltd.), *Eurimbla*, *Euwarra* (Messrs. Poole and Steel), and the *Euroa* (Williamstown) are almost ready for handing over. The *Erina* (Poole and Steel) is well advanced, and the *Elonera* is on the stocks at Williamstown. The two remaining vessels of the programme will be built at Cockatoo Island by the Commonwealth Navy Department. These will be of a much larger type than any vessels hitherto built in Australia. They will be 520 feet in length, with a deadweight capacity of 12,800 tons, and 250,000 cubic feet of insulated space; their speed at sea will be 13 knots. A start has already been made on the hull of one of these vessels, and the machinery is well advanced.

**2. Vessels Built and Building in Great Britain.**—In addition to the foregoing local building programme contracts were made for the building of five steel steamers in Great Britain; three by Vickers Ltd. and two by Beardmore and Co. These vessels have a length of 520 feet by 68 feet beam, with a deadweight capacity of 12,000 tons, and a capacity of 900,000 cubic feet, of which 370,000 cubic feet are insulated. Four of these vessels, viz., *Moreton Bay*, *Largs Bay*, *Hobson's Bay*, and *Esperance Bay*, have been delivered by the builders, and have already visited Australia. It is expected that the fifth vessel—*Jervis Bay*—will be delivered in September, 1922.

**3. Commonwealth Government Line of Steamers.**—The number and cargo carrying capacity of the fleet operated by the management of the Commonwealth Government Line of Steamers as at the end of July, 1922, was as follows :—

Particulars.	Number.	Deadweight Capacity.	Refrigerated Space.
		Tons.	Cub. Feet.
Vessels owned by Commonwealth Government ..	28	212,985	1,480,000
Enemy vessels operated .. ..	17	124,487	390,016
<b>Total</b> ..	45	337,472	1,870,016

**4. Profit on Working.**—From its inception in October, 1916, to the 30th June, 1921, the Line has made a profit as follows :—

From 16th October, 1916, to 30th June, 1918 .. ..	£903,500
From 1st July, 1918, to 30th June, 1919 .. ..	1,160,034
From 1st July, 1919, to 30th June, 1920 .. ..	137,959
From 1st July, 1920, to 30th June, 1921 .. ..	102,949
<b>Total</b> .. ..	<b>£2,304,442</b>

## § 8. World's Shipping Tonnage in 1914 and 1921.

The following tables, which have been taken from an article prepared by Sir Westcott Abell, K.B.E. (Chief Ship Surveyor, Lloyd's Register of Shipping), and published in *The Manchester Guardian Commercial* of the 18th May, 1922, furnish interesting information regarding the proportion of the world's shipping owned by the

various maritime countries before and after the war, and, also, regarding the size of the ships which compose the mercantile fleets of the world :—

**PERCENTAGE OF THE WORLD'S TOTAL SEA-GOING STEEL AND IRON STEAM TONNAGE OWNED BY THE PRINCIPAL MARITIME COUNTRIES.**

Country.	June, 1914.		June, 1921.	
	Tonnage Owned, in Millions of Tons.	Percentage of World's Total.	Tonnage Owned, in Millions of Tons.	Percentage of World's Total.
British Empire .. ..	20.28	47.7	21.24	39.3
United States .. ..	1.84	4.3	12.31	22.7
France .. ..	1.92	4.5	3.05	5.6
Germany .. ..	5.10	12.0	0.65	1.2
Greece .. ..	0.82	1.9	0.58	1.1
Holland .. ..	1.47	3.5	2.21	4.1
Italy .. ..	1.43	3.4	2.38	4.4
Japan .. ..	1.64	3.9	3.06	5.6
Spain .. ..	0.88	2.1	1.09	2.0
Scandinavia .. ..	3.68	8.7	4.19	7.7
Austria-Hungary .. ..	1.05	2.5	Nil	Nil
Rest of World .. ..	2.40	5.5	3.46	6.3
World's Total .. ..	42.51	100.0	54.22	100.0

**APPROXIMATE GROSS TONNAGE OF THE VARIOUS LARGER TYPES OF STEAM VESSELS IN THE WORLD, IN MILLIONS OF TONS.(b)**

Division of Tonnage.	British Empire.		U.S.A. (Sea-going only).		Japan.		Other Countries.		Total.(a)	
	1914.	1921.	1914.	1921.	1914.	1921.	1914.	1921.	1914.	1921.
1,500-5,000 ..	11.508	7.788	1.019	4.780	1.042	1.272	9.916	8.441	23.485	22.280
5,000-10,000 ..	5.338	8.802	0.557	7.513	0.403	1.305	4.198	5.290	10.496	22.910
10,000 and above	1.983	2.701	0.141	0.998	0.086	0.100	1.222	0.791	3.432	4.590
Totals ..	18.829	19.291	1.717	13.291	1.531	2.677	15.336	14.522	37.413	49.780

(a) Excludes American Great Lake vessels, and vessels owned in the Philippine Islands.

(b) From *Brassey's Naval and Shipping Annual* for 1921-22.