

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS  
CANBERRA  
OFFICIAL STATISTICS, COMMONWEALTH OF AUSTRALIA

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MANUFACTURING INDUSTRIES

1949 - 50

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NO. 2. BRICKS, TILES, POTTERY AND EARTHENWARE.

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Prepared Under Instructions from  
THE RIGHT HONORABLE THE TREASURER

by

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MANUFACTURING INDUSTRIES : AUSTRALIA, 1949-50.

PREFACE.

1. GENERAL: The industries included in the series for 1949-50 are listed on the back of the cover, and are the same as those covered by the 1948-49 series. The 1949-50 summaries published to date are indicated at the top of page 2.
2. CLASSIFICATION OF FACTORIES: For purposes of industry classification, a factory in Australia is classified according to the nature of the product. Where two or more distinct types of industrial activity are carried on in one establishment, a separate return is obtained, wherever practicable, for each activity in order to allow classification on this basis. In cases where this is not practicable, there is no alternative but to classify the factory according to its predominant activity. This difficulty is most acute in the Metal Trades industries, (e.g. Engineering firms also producing Agricultural Implements, Stoves and Ovens, and/or Brass and Copper products), but it is also to be found in factories concerned with the treatment or manufacture of Skins, Leather, Clothing, Food products and some other articles.

Each of the summaries in the series "Manufacturing Industries", relates as far as possible to the operations of factories classified to the industry specified. Sometimes articles applicable to this industry are also produced, as subsidiary production, in other industries, and, wherever possible, quantity tables have been extended to show details of production separately for the industry under review and the total in all industries.

3. BASIS OF THE STATISTICS: The scope of the factory statistics is fully explained in Part I of the annual Production Bulletin.

Briefly, a "factory" is taken to be a manufacturing establishment in which four or more hands are employed or in which power other than hand is used.

All persons employed in the manufacturing activities of the factory are counted as factory employees. The figures relating to employment, therefore, exclude all those engaged in selling and distribution, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods, and retailing storemen. The figures do include, however, proprietors who work in their own factories as well as "out-workers".

The value of output is the wholesale selling value at the factory of goods made or processed during the year, including by-products. In addition it includes the value of other work done, such as repair work, assembling and making-up for customers.

The value of production is the value of output minus the cost of raw materials, containers, power, fuel, light, lubricants, water, tools replaced, and repairs to plant, and represents the value added in the process of manufacture within the factories. As full details of the cost of production are not collected, the amount of profit resulting from operations cannot be ascertained. The value of production, therefore, is the source from which such items as wages, interest, depreciation, profits, taxation, insurance, advertising and other sundry charges are met.

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NOTE: This is the first release in the 1949-50 series. Other summaries will be issued as data become available, but not necessarily in any particular order.

BRICKS, TILES, POTTERY AND EARTHENWARE

1. SUMMARY OF STATISTICS: The industries covered by this summary include those engaged in the manufacture of Bricks, Firebricks, Tiles, Fireclay Goods, Stone-ware, China, Earthenware, Porcelain and Terra Cotta. A summary of the principal statistics of these industries for the years 1938-39, 1945-46 and 1947-48 to 1949-50 is given in the following table:-

TABLE I : BRICKS, TILES, POTTERY AND EARTHENWARE : AUSTRALIA

Year	Number of Factories (1)	Persons Employed (a) (2)	Salaries & Wages Paid (b) (3)	Power, Fuel and Light, etc. used (4)	Value of Materials, etc. used (c) (5)	Value of Production (d) (6)	Value of Output (7)
1938-39	368	10,484	2,178	752	709	3,514	4,975
1945-46	301	7,430	2,028	608	700	2,765	4,073
1947-48	376	10,819	3,779	1,111	1,269	5,353	7,733
1948-49	398	11,557	4,704	1,418	1,518	6,425	9,361
1949-50	410	11,664	5,393	1,715	1,781	7,355	10,852

(a) Includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) Includes also value of containers, packing etc., replacements of tools and repairs to plant. (d) Value of Production equals column (7) less total of columns (4) and (5).

In the following table, particulars of the industries are given for each State during the year 1949-50.

TABLE II : BRICKS, TILES, POTTERY AND EARTHENWARE : STATES, 1949-50

Particulars	N.S.W.	VIC.	Q'LD.	S.A.	W.A.	TAS.	AUST. .
Number of Factories	193	102	35	38	30	12	410
Number Employed (a) -							
Males	5,273	3,017	775	884	627	187	10,963
Females	320	278	22	16	61	4	701
Total	5,593	3,295	797	900	688	191	11,664
Value of -	£	£	£	£	£	£	£
Salaries and Wages Paid (b)	2,665,505	1,538,705	313,409	423,632	367,029	85,158	5,393,438
Power, Fuel and Light, etc. used	824,220	474,039	88,454	161,409	131,825	35,411	1,715,358
Materials, etc. used	962,222	496,032	88,787	73,525	132,093	28,135	1,780,794
Production (c)	3,506,982	2,181,963	455,307	547,102	563,469	101,115	7,355,938
Output	1,699,897	3,152,034	632,548	782,036	827,387	164,661	10,852,090
Land and Buildings	1,699,897	780,156	147,695	153,129	166,252	44,935	2,992,064
Plant and Machinery	1,882,595	751,038	218,325	176,984	247,400	75,217	3,381,559
H.P. of Engines ordinarily in use	H.P. 25,942	H.P. 17,458	H.P. 4,782	H.P. 4,289	H.P. 4,051	H.P. 1,158	H.P. 57,680

(a) Includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) See note (d) to Table 1.

2. AVERAGE SALARIES, OUTPUT AND PRODUCTION: Particulars of the average salary and wage paid, together with the average values of output and production per person engaged and the ratio of salaries and wages to the value of production, are shown in the following table for the years 1938-39, 1945-46 and 1947-48 to 1949-50:-

TABLE III : AVERAGE SALARIES & WAGES PAID, OUTPUT, ETC., PER EMPLOYEE : AUSTRALIA

Year	Salaries and Wages per Employee (a)	Value of Output per Person Engaged (b)	Value of Production per Person Engaged (b)	Ratio per cent. of Salaries and Wages to Value of Production
1938-39 ..	£. 212	£. 475	£. 335	61.28
1945-46 ..	278	528	372	73.25
1947-48 ..	356	715	497	70.52
1948-49 ..	414	810	556	73.22
1949-50 ..	471	930	631	73.32

(a) Excludes Working Proprietors and amounts drawn by them. (b) Includes Working

3. ARTICLES PRODUCED. The table following shows particulars of the quantity and value of the articles produced in Bricks, Tiles, Pottery and Earthenware factories during the year 1949-50. As there is no production recorded outside those factories classified as Bricks, Tiles, Pottery and Earthenware, the quantities and values shown represent the total Australian factory production for 1949-50.

TABLE IV : ARTICLE PRODUCED IN BRICKS, TILES, POTTERY AND EARTHENWARE FACTORIES  
AUSTRALIA : 1949-50

Articles Produced	Unit	Quantity	Value £
Bricks. ..	'000	604,066	4,700,007
Firebricks and Blocks ..	-	(a)	1,215,150
Tiles - Roofing (Terra Cotta) ..	'000	45,415	1,182,263
Flooring and Wall - Glazed ..	sq.yd.	169,029	208,626
Un glazed ..	" "	106,884	91,428
Stoneware Pipes and Fittings ..	-	(a)	1,306,546
Pottery ..	-	(a)	357,833
Terra Cotta Ware for building purposes ..	-	(a)	105,256
Terra Cotta Ware other than for building purposes	-	(a)	49,418
Porcelain Insulators and Electrical Fittings	-	(a)	523,002
Other Porcelain Ware ..	-	(a)	67,695
China Tableware ..	-	(a)	(b)
Sanitary Earthenware and Enamelled Fireclay for building purposes including Sanitary Wall Fittings ..	-	(a)	472,841
Domestic Earthenware and Stoneware ..	-	(a)	172,587
Other Earthenware, Stoneware and Enamelled Fireclay ..	-	(a)	86,167

(a) Value only collected. (b) Details not available for publication.

The quantities and values of Bricks and Roofing Tiles produced in Bricks, Tiles, Pottery and Earthenware factories in Australia are given in the next table for the years 1938-39, 1945-46 and 1947-48 to 1949-50.

TABLE V : PRODUCTION OF BRICKS AND TERRA COTTA ROOFING TILES IN FACTORIES :  
AUSTRALIA

Year	Bricks			Roofing Tiles (Terra Cotta)		
	Quantity	Value	Av. Value per 1,000 (a)	Quantity	Value	Av. Value per 1,000 (a)
	'000	£.	£. s. d.	'000	£.	£. s. d.
1939-39 ..	720,551	2,407,008	3. 6. 10	39,683	546,136	13. 15. 3
1945-46- ..	305,248	1,519,048	4. 19. 6	23,536	414,945	17. 12. 7
1947-48 ..	577,866	3,451,992	5. 19. 6	41,790	867,983	20. 15. 5
1948-49 ..	617,391	4,214,040	6. 16. 6	44,162	1,057,547	23. 18. 11
1949-50 ..	604,066	4,700,007	7. 15. 7	45,415	1,182,263	26. 0. 8

(a) At the kiln.

4.

The following table shows the average monthly production of bricks by States, for the years 1938-39, 1945-46 and 1947-48 to 1949-50 and also (as far as this is available) production in each month of 1950-51:-

TABLE VI : AVERAGE MONTHLY PRODUCTION OF BRICKS : STATES  
('000)

Year	N.S.W.	VIC.	Q'LD.	S.A.	W.A.	TAS.	AUST.
<u>MONTHLY AVERAGES</u>							
1938-39 ..	31,603	16,437	2,257	4,115	4,422	1,212	60,046
1945-46 ..	12,049	6,918	1,113	2,797	1,844	716	25,437
1947-48 ..	25,269	11,807	2,634	3,877	3,532	1,037	48,156
1948-49 ..	26,194	12,754	2,914	4,493	3,980	1,114	51,449
1949-50 ..	25,030	12,240	2,814	4,443	4,702	1,110	50,339
<u>MONTHLY TOTALS (a)</u>							
1950-51 -							
July ..	25,400	12,403	2,421	4,724	5,168	988	51,104
August ..	31,563	13,863	2,204	5,403	6,498	1,667	61,198
September ..	30,648	13,044	2,568	5,096	5,431	1,033	57,820
October ..	30,495	13,253	2,766	5,192	5,533	1,134	58,363
November ..	31,401	13,351	2,498	3,503	6,240	1,060	60,333
December ..	23,012	11,452	2,178	3,471	3,161	1,885	45,125
January ..	20,703	11,031	2,221	3,245	3,135	1,089	42,244
February ..	27,516	12,436	2,450	4,683	5,091	965	53,151
March ..	27,173	12,934	2,155	4,736	5,524	923	53,445
April ..	30,413	12,741	2,244	4,935	5,430	1,002	56,765
May ..				4,824		1,082	

(a) Subject to revision.

4. EMPLOYMENT: The numbers of persons employed shown in Tables I, II, VIII and IX have been adjusted to represent the average employment over the whole year in those cases where short time was worked. In the following table, the factories have been classified according to the average number employed during the actual period worked.

TABLE VII : FACTORIES CLASSIFIED ACCORDING TO PERSONS EMPLOYED : AUSTRALIA

Number of Persons Employed in each Factory	1938-39		1945-46		1947-48		1948-49		1949-50	
	Number of Fac-tories	Number Em-plied	Number of Fac-tories	Number Em-plied	Number of Fac-tories	Number Em-plied	Number of Fac-tories	Number Em-plied	Number of Fac-tories	Number Em-plied
Under 4	60	137	32	69	37	86	44	98	44	97
4	21	84	16	64	20	80	19	76	23	92
5 to 10	73	509	73	533	94	651	99	711	91	678
11 to 20	56	844	59	875	68	1,019	77	1,196	83	1,238
21 to 50	97	3,230	80	2,532	95	3,263	91	3,168	101	3,421
51 to 100	45	3,168	30	2,013	44	3,055	47	3,153	49	3,362
101 to 200	16	2,687	9	1,134	14	1,784	17	2,097	15	1,898
201 and over										
<u>TOTAL:</u>	368	10,659	301	7,718	376	10,968	398	11,625	410	11,922
Average Number Employed per Factory	29		26		29		29		29	

Further details of employment in the industrial group "Bricks, Tiles, Pottery and Earthenware" are furnished in the next three tables. In Table VIII the numbers of males employed are shown according to the nature of their employment in each of the industries, Bricks and Tiles and Earthenware, China, etc. for the year 1949-50.

TABLE VIII : MALES EMPLOYED CLASSIFIED ACCORDING TO OCCUPATIONAL STATUS :  
AUSTRALIA, 1949-50.

Occupational Status	Bricks and Tiles	Earthenware, China, Porcelain, etc.	Total
Working Proprietors .. .. .	137	60	197
Managerial and Clerical Staff, including Salaried Managers and Working Directors..	401	190	591
Chemists, Draftsmen and other Laboratory & Research Staff .. .. .	13	18	31
Foremen and Overseers .. .. .	255	124	379
Workers in Factory (Skilled and Unskilled)	7,353	2,362	9,715
Carters (excl. Delivery only), Messengers and Persons Working Regularly at Home ..	25	25	50
<u>TOTAL MALES:</u>	<u>8,184</u>	<u>2,779</u>	<u>10,963</u>
<u>TOTAL FEMALES:</u> (a)	<u>148</u>	<u>553</u>	<u>701</u>
<u>TOTAL PERSONS:</u>	<u>8,332</u>	<u>3,332</u>	<u>11,664</u>

(a) Mainly clerical staff

In Table IX the numbers of males employed are shown for the years 1938-39, 1948-49 and 1949-50 according to the nature of their employment, but because of the change in classification which operated from 1945-46 comparison between 1938-39 and the later years shown is not wholly effective.

TABLE IX : MALES EMPLOYED CLASSIFIED ACCORDING TO OCCUPATIONAL STATUS :  
AUSTRALIA

Occupational Status	1938-39	1948-49	1949-50
Working Proprietors .. .. .	226	191	197
Managerial and Clerical Staff, including Salaried Managers and Working Directors..	} 9,836 {	561	591
Chemists, Draftsmen and Other Laboratory and Research Staff .. .. .		36	31
Foremen and Overseers .. .. .		378	379
Workers in Factory (Skilled and Unskilled)		9,689	9,715
Others (Carters and Messengers, etc.) ...	114	50	50
<u>TOTAL MALES:</u>	<u>10,176</u>	<u>10,905</u>	<u>10,963</u>
<u>TOTAL FEMALES:</u> (a)	<u>308</u>	<u>652</u>	<u>701</u>
<u>TOTAL PERSONS:</u>	<u>10,484</u>	<u>11,557</u>	<u>11,664</u>

(a) Mainly clerical staff.

The numbers of persons employed in the manufacture of Bricks, Tiles, Pottery and Earthenware on or about 15th June, for the years 1939, 1946 and 1948 to 1950, are distributed according to age and sex in Table X.

**TABLE X : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE AND SEX : AUSTRALIA**  
(Excluding Working Proprietors)

June	Under 16 yrs.	16 yrs.	17 yrs.	18 yrs.	19 yrs.	20 yrs.	Total, 16 to 20 years	21 yrs. and over	Total, All Ages
<b>MALES</b>									
1939	360	(a)	(a)	(a)	(a)	(a)	1,652	7,717	9,729
1946	89	103	157	184	166	129	741	7,560	8,390
1948	69	115	161	238	190	190	894	9,341	10,304
1949	80	116	132	207	178	161	794	9,919	10,793
1950	64	88	121	156	195	186	746	10,670	11,480
<b>FEMALES</b>									
1939	33	(a)	(a)	(a)	(a)	(a)	122	163	318
1946	8	20	17	16	20	22	95	316	419
1948	13	17	25	41	25	13	121	457	591
1949	8	18	25	26	35	29	133	497	638
1950	7	16	32	30	24	30	132	603	742

(a) Details not collected

5. **POWER EQUIPMENT:** Statistics of the power equipment of the factories included in this group are given in the next table. The details given include the rated horse-power of engines ordinarily in use, together with those in reserve or idle.

**TABLE XI : TYPES AND RATED HORSE-POWER OF ENGINES : AUSTRALIA**

Class of Engine	Rated Horse-power of Engines					
	Ordinarily in Use			In reserve or Idle		
	1938-39	1948-49	1949-50	1938-39	1948-49	1949-50
Steam - Reciprocating ..	4,658	2,655	2,604	876	269	369
Turbine ..	40	-	4	-	-	-
Internal Combustion - Gas ..	1,404	491	261	15	105	167
Petrol or Other Light Oils ..	475	871	1,229	103	298	419
Heavy Oils ..	1,774	1,633	1,262	326	118	180
Water ..	-	40	40	-	-	-
Total Prime Movers:	8,352	5,690	5,400	1,320	790	1,135
Motors driven by electricity - Purchased ..	33,526	51,467	52,280	2,833	3,741	6,500
Own Generation (a) ..	12	10	-	-	-	-
Total Electricity:	33,538	51,477	52,280	2,833	3,741	6,500
TOTAL POWER USED:	41,878	57,157	57,680	4,153	4,531	7,635

(a) These motors are driven by electricity generated by Prime Movers shown above, and are excluded from statistics of total power used, to avoid duplication.

6. **POWER, FUEL AND LIGHT, ETC. USED:** Details of the quantities and values of the various items of power, fuel and light used in Brick, Tile, Pottery and Earthenware factories during the years 1938-39, 1948-9 and 1949-50 are shown in the following table:-

**TABLE XII : POWER, FUEL AND LIGHT, ETC., USED : AUSTRALIA**

	Unit of Quantity	Quantity			Value (£)		
		1938-39	1948-49	1949-50	1938-39	1948-49	1949-50
Power, Fuel & Light -							
Coal - Black ..	ton	364,777	378,341	(a) 377,017	484,919	910,898	1,057,916
Brown ..	"	17,396	1,720	9,574	21,469	2,840	14,410
Brown Coal							
Briquettes ..	"	(b)	13,482	12,404	(b)	25,766	25,038
Coke ..	"	3,075	5,939	4,910	4,470	17,761	17,046
Wood ..	"	37,417	146,160	180,630	84,433	176,245	237,510
Fuel Oil ..	gal.	306,565	651,516	1,163,272	9,129	39,606	67,140
Tar (Fuel) ..	"	(c)	171,316	122,910	(d)	4,475	3,729
Electricity ..	-	(e)	(e)	(e)	112,108	171,467	210,347
Gas ..	-	(e)	(e)	(e)	800	3,987	6,121
Other (Charcoal, etc.) ..	-	(e)	(e)	(e)	934	3,025	5,958
Water and Lubric- ating Oil used ..	-	(e)	(e)	(e)	33,602	61,915	67,624
<b>TOTAL:</b>		(e)	(e)	(e)	751,864	1,417,985	1,712,839

(a) Excludes 1,391 tons of Leigh Creek coal valued at £2,519 used in South Australia. (b) Included with Brown Coal. (c) Not available. (d) Included with Other Charcoal, etc.). (e) Value only available.

7. **VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY:** Particulars of the book values of premises occupied and plant used for factory purposes as at 30th June for the years 1938-39, 1945-46 and 1947-48 to 1949-50 are shown in the next table. Details of the values of additions and replacements made and depreciation allowed during the same period are also shown. It should be noted that the amounts shown are those recorded by factories which were operating during each year and that changes in their number as well as other factors, affect comparison from year to year.

**TABLE XIII : VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, ETC. : AUSTRALIA**

(£.)

Year	Book Values as at 30th June (a)		Additions & Replacements made during year		Depreciation allowed during year	
	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery
1938-39	1,874,442	2,275,050	60,108	112,102	41,155	121,128
1945-46	1,871,201	1,883,566	56,227	153,361	54,405	106,199
1947-48	2,332,763	2,503,132	156,172	332,694	35,672	166,539
1948-49	2,599,263	2,927,384	202,819	495,516	45,030	196,488
1949-50	2,992,064	3,381,559	236,150	565,381	37,053	281,037

(a) Includes estimated value of rented premises and machinery.

8. OVERSEA TRADE: The values of imports and exports of a number of items included in the group "Bricks, Tiles, Pottery and Earthenware" are given for the years 1938-39, 1945-46 and 1947-48 to 1949-50 in the following tables:-

TABLE XIV: IMPORTS OF SPECIFIED ITEMS OF EARTHENWARE, CHINAWARE, TILES, ETC.

AUSTRALIA  
(£A. f.o.b.)

Item	1938-39	1945-46	1947-48	1948-49	1949-50
Crockery and Other Householdware	637,475	989,700	2,618,787	3,018,288	3,116,752
Tiles - Flooring and Wall	190,233	62,441	488,593	733,789	348,018
All Other	248	-	5,347	23,276	78,582
Bricks - Fire including Bauxite	36,132	25,432	9,729	16,097	15,692
Glazed and Lumps	249	-	7	7	-
Other	78	3,754	3,549	8,615	6,802
Sanitary and Lavatory Articles including Kitchen Sinks and Laundry Troughs -					
Of Glazed or Enamelled Fireclay	8,722	2,379	1,584	4,435	19,473
Of Earthenware or Other Materials	41,190	13,296	103,902	158,980	279,140
Fireclay Manufactures, n.e.i. -					
Glazed or enamelled	611	505	211	136	476
Other	6,702	5,832	4,968	12,215	10,951
Porcelainware for electrical purposes	55,242	15,446	64,567	163,890	297,492
All other Chinaware, Parianware, Porcelainware, Earthenware, Brownware & Stoneware	13,915	51,578	83,010	25,790	203,195

TABLE XV : EXPORTS OF SPECIFIED ITEMS OF EARTHENWARE, CHINAWARE, TILES, ETC.

AUSTRALIA  
(£A. f.o.b.)

Item	1938-39	1945-46	1947-48	1948-49	1949-50
Crockery and Householdware n.e.i. of Brownware, Chinaware, Earthenware, Parianware, Porcelainware and Stoneware	(a)	17,812	14,671	14,788	15,181
Bricks - Fire, Glazed and Fire-lumps	7,259	2,644	35,511	23,095	33,237
Other	276	5,255	381	685	803
Chinaware, Parianware and Porcelainware	2,831	3,428	9,268	18,894	12,094
All other Earthenware, Brownware and Stoneware including Fireclay Manufactures	57,092	9,309	15,182	22,064	20,482
Tiles of all kinds	5,285	2,483	6,341	5,173	3,051

(a) Included in Chinaware, Parianware and Porcelainware.

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