

MANUFACTURING INDUSTRIES

1962-63

NO. 2. BRICKS, TILES, POTTERY AND EARTHENWARE

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS, CANBERRA

AUSTRALIA

EXPLANATORY NOTES

GENERAL. The range of bulletins in this series for 1962-63 includes an additional bulletin - No. 35, "Printing and Stationery" which is issued for the first time this year. A complete list of the series is shown inside the back cover.

Where a number of industries are combined in one bulletin, the introductory paragraph on page 3 specifies the industries so included.

CLASSIFICATION OF FACTORIES. For purposes of industry classification, factories are classified according to the nature of their products. 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, factories are classified according to predominant activity. These cases are encountered most frequently in the Metal Trades, (e.g. General Engineering firms also producing Agricultural Implements or Stoves, etc.), and to a lesser degree in factories concerned with Skins, Leather, Clothing and Wood products.

Each of the summaries in the "Manufacturing Industries" series relates, generally, to the operations of factories classified to the industry specified. However, figures in the tables showing details of articles produced represent total recorded production of the articles listed, and include quantities produced, as subsidiary production, in industries otherwise classified.

BASIS OF THE STATISTICS. The scope of the factory statistics is fully explained in the annual Secondary Industries Bulletin.

Briefly, a "factory" is defined as an establishment in which four or more persons are employed or where power (other than manual) is used in any manufacturing process. The figures do not include details relating to small establishments not classified for statistical purposes as factories.

All persons employed in the manufacturing activities of the factory are counted as factory employees. The figures relating to employment, therefore, include working proprietors as well as "out-workers", but 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 value of materials used includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced and materials used in repairs to plant. In general, it does not include the value of customers' articles or materials repaired, assembled or treated by the factory.

The value of power, fuel, etc. used includes the cost of light, lubricants and water used.

The value of output is the selling value at the factory (exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article) of all goods made during the year. 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 added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced and materials used in repairs to plant (but not depreciation charges). The value of production is the source from which, in addition to wages and salaries, such items as interest, depreciation, profits, taxation, advertising and other sundry charges are met. As details of these other costs of production are not collected, the amounts of profit resulting from factory operations cannot be ascertained from the figures contained herein.

MANUFACTURING INDUSTRIES : AUSTRALIA, 1962-63BRICKS, 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, stoneware, china, earthenware, porcelain and terra cotta. A summary of the principal statistics of these industries for the years 1958-59 to 1962-63 is given in the following table.

TABLE 1. - BRICK, TILE, POTTERY AND EARTHENWARE FACTORIES : AUSTRALIA

Year	Factories (1)	Persons Employed (a) (2)	Salaries and Wages Paid (b) (3)	Power, Fuel and Light etc. Used (c) (4)	Value of Materials, etc. Used (d) (5)	Value of Production (e) (6)	Value of Output (f) (7)
	Number	Number	£'000	£'000	£'000	£'000	£'000
1958-59	434	14,276	14,252	4,983	6,665	22,934	34,582
1959-60	437	14,980	15,916	5,312	7,856	26,384	39,552
1960-61	434	15,012	16,663	5,509	8,495	27,244	41,248
1961-62	427	14,305	16,000	5,365	8,424	26,083	39,872
1962-63	419	14,496	16,538	5,812	8,898	27,489	42,199

(a) Average over whole year; includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) Includes Water and Lubricating Oil. (d) Includes also value of containers, packing, etc., replacements of tools and repairs to plant. (e) Value of Production equals column (7) less total of columns (4) and (5). (f) Value at factory of goods produced.

In the following table, particulars of the industries are given for each State for the year 1962-63.

TABLE 2. - BRICK, TILE, POTTERY AND EARTHENWARE FACTORIES : STATES, 1962-63

Particulars *	N.S.W. No.	Vic. No.	Q'ld. No.	S.A. No.	W.A. No.	Tas. No.	AUST. No.
Factories	179	106	40	53	28	13	419
Persons Employed - Males	6,367	3,755	934	1,044	985	265	13,350
Females	522	489	27	27	73	8	1,146
Total:	6,889	4,244	961	1,071	1,058	273	14,496
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Salaries and Wages Paid	8,040	4,836	982	1,288	1,100	292	16,538
Value of -							
Power, Fuel and Light, etc. used	2,674	1,675	362	528	457	116	5,812
Materials, etc. used	4,200	3,177	340	586	485	110	8,898
Production	12,913	7,986	1,771	2,283	2,116	420	27,489
Output	19,787	12,838	2,473	3,397	3,058	646	42,199
Land and Buildings (a)	7,771	5,503	776	774	718	195	15,737
Plant and Machinery (a)	10,838	6,264	1,414	1,150	1,076	353	21,095
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Rated H.P. of Engines ordinarily in use	48,480	37,141	9,330	9,653	11,805	2,258	118,673

* See also footnotes to Table 1 above. (a) Depreciated or book values at end of year.

2. AVERAGE SALARIES, OUTPUT AND PRODUCTION. Particulars of the average salaries and wages 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 1958-59 to 1962-63:-

TABLE 3. - BRICK, TILE, ETC. FACTORIES - AVERAGE SALARIES AND 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 of Salaries and Wages to Value of Production
	£	£	£	%
1958-59	1,012	2,422	1,606	62.14
1959-60	1,076	2,640	1,761	60.33
1960-61	1,124	2,748	1,815	61.16
1961-62	1,131	2,787	1,823	61.34
1962-63	1,152	2,940	1,915	60.16

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

3. ARTICLES PRODUCED. The following table shows particulars of the total quantity and value of the articles produced in Brick, Tile, Pottery and Earthenware factories in Australia during the year 1962-63. In addition to production in factories classified for statistical purposes to the bricks, tiles, pottery and earthenware industry, the details shown in this table include also relevant production in factories otherwise classified.

TABLE 4. - ARTICLES PRODUCED : AUSTRALIA, 1962-63

Articles Produced	Commodity Code No.	Unit	Quantity	Value £'000
Clay Bricks, (a)	472.01			
Standard Size (commons, face and texture)	472.04	'000	1,058,675	19,892
Other Sizes (including Brickettes, Squints, Bullnoses, etc.)	472.06			
	472.08			
Fire Bricks and Blocks	472.42	..	(b)	5,070
Terra Cotta Ware -				
Roofing Tiles	472.12	'000	(c) 51,298	2,675
Roofing Accessories (Ridge Caps, etc.)	472.26	..	(b)	207
Other Terra Cotta Ware for Building Purposes	472.52	..	(b)	407
Other Terra Cotta Ware not for Building Purposes	990.01	..	(b)	130
Tiles - Flooring and Wall - Glazed	472.16			
	.20	sq. yds.	568,988	1,104
Unglazed	472.18			
	.22	sq. yds.	58,442	106
Domestic Ware - Wash Basins (Wall and Pedestal)	671.37	No.	97,404	401
Sinks (Kitchen)	671.17	No.	(d)	(d)
Tableware	853.01	..	(b)	501
Ornamental Pottery	857.11	..	(b)	474
Other Domestic Ware	859.61	..	(b)	293
Sanitary Ware - Pans (Closet)	671.41	No.	279,855	1,271
Other Sanitary Ware	671.43	..	(b)	444
Other Ware - Pipes, Agricultural	472.32	No.	7,328	314
Other Stoneware Pipes and Fittings	472.36	..	(b)	6,161
Porcelain Insulators	686.11	..	(b)	889
Other Porcelain Ware	857.21	..	(b)	166

(a) Number burnt; excludes Green Bricks. (b) Value only collected. (c) Equal to 39,553,500 sq. ft. flat surface measure. (d) Not available for publication.

The following table shows the production of clay bricks, by States, for the years 1958-59 to 1962-63 in factories classified for statistical purposes to the Brick industry as well as in factories otherwise classified.

TABLE 5. - PRODUCTION OF CLAY BRICKS

('000)

Year	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	AUST.
1958-59	413,178	257,870	62,890	91,160	93,718	21,382	940,198
1959-60	447,875	283,208	69,119	105,387	100,880	23,975	1,030,444
1960-61	464,912	289,109	72,906	103,232	106,480	24,248	1,060,887
1961-62	433,074	264,420	67,898	102,181	101,881	22,956	992,410
1962-63	455,955	280,191	66,247	123,256	112,120	20,906	1,058,675

In Table 6, the production of certain items in Australia is shown for each of the years 1958-59 to 1962-63 and for each month July, 1963 to June, 1964. In addition to production in factories classified for statistical purposes to the bricks, tiles, pottery and earthenware industry, the details shown in the following table include relevant production in factories otherwise classified.

TABLE 6. - PRODUCTION OF CERTAIN ITEMS OF BRICK, TILE, POTTERY AND EARTHENWARE : AUSTRALIA

Year	Bricks-Clay ('000)	Tiles-Roofing (Terra Cotta) ('000)	Wash Basins, Wall and Pedestal, Earthenware (Number)	Pans (Closet), Earthenware (Number)
ANNUAL TOTALS				
1958-59	940,198	59,232	37,106	216,707
1959-60	1,030,444	56,873	47,751	232,544
1960-61	1,060,887	55,185	67,596	250,390
1961-62	992,410	50,048	81,095	260,794
1962-63	1,058,675	51,298	97,404	279,855
MONTHLY TOTALS 1963-64(a)				
July, 1963	102,985	5,157	10,014	27,462
August	104,328	4,599	8,219	25,217
September	101,169	4,693	8,869	24,481
October	115,106	5,169	10,704	28,418
November	110,461	4,679	8,668	25,202
December	88,704	3,881	7,470	19,342
January, 1964	79,881	2,879	6,105	14,177
February	105,848	4,598	9,429	24,475
March	105,094	4,397	9,579	25,330
April	110,798	4,877	8,878	29,521
May	110,619	4,684	10,417	24,237
June	105,300	4,545	12,404	27,599
Twelve months ended June, 1964	1,240,293	54,158	110,756	295,461

(a) Preliminary. Subject to revision.

4. **EMPLOYMENT.** The numbers of persons employed shown in Tables 1, 2, 8 and 9 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 for the years 1958-59 to 1962-63 according to the average number employed during the actual period worked.

**TABLE 7. - BRICK, TILE, POTTERY AND EARTHENWARE FACTORIES
ACCORDING TO PERSONS EMPLOYED : AUSTRALIA**

Number of Persons Employed in each Factory	1958-59		1959-60		1960-61		1961-62		1962-63	
	Number of Fac- tories	Number Em- ployed	Number of Fac- tories	Number Em- ployed	Number of Fac- tories	Number Em- ployed	Number of Fac- tories	Number Em- ployed	Number of Fac- tories	Number Em- ployed
Under 4	51	105	51	105	55	127	58	104	55	100
4	19	76	16	64	14	56	20	80	16	64
5 to 10	90	638	87	608	83	589	76	569	71	513
11 to 20	22	1,235	89	1,336	84	1,222	81	1,207	82	1,198
21 to 50	102	3,365	98	3,253	106	3,572	106	3,563	110	3,758
51 to 100	64	4,426	67	4,570	65	4,638	57	3,998	55	3,827
101 to 200	22	2,859	23	3,004	22	2,910	24	3,045	25	3,272
201 and over	4	1,613	6	2,078	5	1,974	5	1,895	5	1,904
Total	434	14,317	437	15,018	434	15,088	427	14,461	419	14,636
Average Number Employed per Factory	33		34		35		34		35	

Further details of employment are furnished in the next three tables. In Table 8, the numbers of males employed are shown according to the nature of their employment in each of the industries, (i) Bricks and Tiles and (ii) Earthenware, China, etc., for the year 1962-63.

TABLE 8. - BRICK, TILE, ETC. FACTORIES - PERSONS EMPLOYED, MALES
ACCORDING TO OCCUPATIONAL STATUS : AUSTRALIA, 1962-63

Occupational Status	Bricks and Tiles	Earthenware, China Porcelain, etc.	Total
<u>MALES -</u>			
Working Proprietors	83	41	124
Managerial and Clerical Staff, including Salaried Managers and Working Directors	643	280	923
Chemists, Draftsmen and other Laboratory and Research Staff	37	37	74
Foremen and Overseers, Workers in Factory (Skilled and Unskilled), Carters (excluding Delivery only), Messengers and Persons Working Regularly at Home	9,244	2,985	12,229
(Males	10,007	3,343	13,350
Total (Females (a)	275	871	1,146
(Persons	10,282	4,214	14,496

(a) Mainly clerical staff.

In Table 9 the numbers of males employed are shown for the years 1960-61 to 1962-63 according to the nature of their employment.

TABLE 9. - BRICK, TILE, ETC. FACTORIES - PERSONS EMPLOYED, MALES
ACCORDING TO OCCUPATIONAL STATUS : AUSTRALIA

Occupational Status	1960-61	1961-62	1962-63
<u>MALES -</u>			
Working Proprietors	155	142	124
Managerial and Clerical Staff, including Salaried Managers and Working Directors	865	880	923
Chemists, Draftsmen and Other Laboratory and Research Staff	65	72	74
Foremen and Overseers	12,692(a)	12,043(a)	12,229(a)
Workers in Factory (Skilled and Unskilled)			
Carters (excluding Delivery only), Messengers and			
Persons Working Regularly at Home			
(Males	13,777	13,137	13,350
TOTAL: (Females (b)	1,235	1,168	1,146
(Persons	15,012	14,305	14,496

(a) Separate details no longer collected.

(b) Mainly clerical staff.

In the following table, the numbers of persons employed in June for the years 1959 to 1963 are shown according to age and sex distribution.

TABLE 10. - BRICK, TILE, ETC. FACTORIES - PERSONS EMPLOYED

ACCORDING TO AGE AND SEX : AUSTRALIA

(Excluding Working Proprietors)

Last Pay Day in June	Under 16 yrs.	16 to 20 years	21 years and over	Total all Ages
MALES				
1959	61	873	12,282	13,216
1960	85	843	12,773	13,701
1961	72	801	12,364	13,237
1962	83	764	12,307	13,154
1963	87	921	12,477	13,485
FEMALES				
1959	18	169	889	1,076
1960	21	164	1,076	1,261
1961	21	165	915	1,101
1962	22	204	973	1,199
1963	18	195	915	1,128

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

TABLE 11. - BRICK, TILE, ETC. FACTORIES - TYPES AND RATED HORSEPOWER OF

ENGINES : AUSTRALIA

Class of Engine	Rated horsepower of Engines					
	Ordinarily in Use			In reserve or Idle		
	1960-61	1961-62	1962-63	1960-61	1961-62	1962-63
Steam - Reciprocating	939	929	624	50	50	50
Internal Combustion -						
Gas	..	60	60	280	280	..
Petrol and other Light						
Oils	1,480	1,428	2,182	884	1,039	1,220
Heavy Oils	451	1,316	477	443	443	468
Total Prime Movers	2,870	3,733	3,343	1,657	1,812	1,738
Motors driven by electricity -						
Purchased	98,519	104,758	115,330	10,810	10,430	11,697
Own Generation	..	..	..	..	..	..
Total Electricity	98,519	104,758	115,330	10,810	10,430	11,697
TOTAL POWER EMPLOYED	101,389	108,491	118,673	12,467	12,242	13,435

6. POWER, FUEL AND LIGHT, ETC. USED. Details of the quantities and values of the various items of power, fuel and light etc., used during the years 1960-61 to 1962-63 are shown in the following table.

TABLE 12. - BRICK, TILE, POTTERY AND EARTHENWARE FACTORIES - POWER,
FUEL AND LIGHT, ETC., USED : AUSTRALIA

Particulars	Unit of Quantity	Quantity			Value (£)		
		1960-61	1961-62	1962-63	1960-61	1961-62	1962-63
Power, Fuel and Light -							
Coal - Black	ton	549,549	495,693	494,961	2,579,767	2,242,355	2,229,976
Brown	"	1,145	982	934	1,914	1,514	1,478
Brown Coal							
Briquettes	"	9,996	11,144	16,729	48,174	53,231	78,868
Coke	"	4,754	6,141	5,163	36,951	51,527	42,976
Wood	"	237,898	216,639	220,915	568,721	509,599	543,604
Fuel Oil	'000 gal.	16,431	20,933	24,190	918,810	1,095,587	1,255,395
Tar (Fuel)	ton	3,060	3,002	4,751	32,173	29,328	38,954
Electricity	-	(a)	(a)	(a)	1,077,169	1,147,741	1,301,243
Gas	-	(a)	(a)	(a)	38,892	32,549	107,125
Other (Charcoal, etc.)	-	(a)	(a)	(a)	7,972	7,510	8,629
Water and Lubricating Oil used	-	(a)	(a)	(a)	197,972	194,167	204,619
TOTAL:		(a)	(a)	(a)	5,508,515	5,365,108	5,812,507

(a) Value only available.

7. VALUE OF LAND AND BUILDING, PLANT AND MACHINERY. Particulars of the book values of premises occupied and plant installed for factory purposes as at 30th June for the years 1958-59 to 1962-63 are shown in the next table. Details of the value 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 13. - BRICK, TILE, POTTERY AND EARTHENWARE FACTORIES -
VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, ETC.

AUSTRALIA

(£)

Year	Book Values as at 30th June (a)		Additions and 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
1958-59	9,615,688	10,508,904	817,896	1,923,549	123,005	825,800
1959-60	11,005,588	11,688,559	1,039,978	2,255,847	155,442	993,626
1960-61	12,505,940	14,375,874	791,471	2,468,069	131,082	1,146,939
1961-62	13,150,475	16,774,474	803,571	3,683,250	119,925	1,303,365
1962-63	15,737,168	21,095,218	2,460,233	5,950,003	159,422	1,479,580

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

8. OVERSEA TRADE. The value of imports and exports of a number of items included in the group "Bricks, Tiles, Pottery and Earthenware" are given for the years 1959-60 to 1962-63 in the following tables:-

TABLE 14. - IMPORTS OF SPECIFIED ITEMS OF EARTHENWARE, CHINAWARE, TILES, ETC.

AUSTRALIA

(£A f.o.b. port of shipment)

Item	1959-60	1960-61	1961-62	1962-63
Crockery and other Householdware	3,603,798	4,007,013	3,295,350	3,704,015
Tiles - Flooring and Wall	1,499,683	2,419,974	2,489,018	2,975,943
Roofing and All Other	6,586	4,524	17,265	17,708
Bricks - Fire bricks and fire lumps	472,464	1,414,498	1,731,114	813,774
Other Bricks and Lumps	94,046	72,632	55,339	86,389
Sanitary and Lavatory Articles, including Kitchen Sinks and Laundry Troughs, of Glazed or Enamelled Fireclay, Earthenware, or Other Materials	264,476	219,475	153,188	130,528
Fireclay Manufactures, n.e.i., - Glazed or Enamelled, or Other	45,017	43,434	96,410	74,918
Porcelainware for electrical purposes	502,791	622,506	663,775	668,873
All other Chinaware, Parianware, Porcelainware, Earthenware, Brownware and Stoneware	208,416	249,399	235,199	206,121

TABLE 15. - EXPORTS OF SPECIFIED ITEMS OF EARTHENWARE, CHINAWARE, TILES, ETC.

AUSTRALIA

(£A f.o.b. port of shipment)

Item	1959-60	1960-61	1961-62	1962-63
Sanitary and Lavatory Articles, including Kitchen Sinks and Laundry Troughs and Baths	15,699	29,908	20,838	46,111
Crockery and Householdware, Earthenware, Parianware, Porcelainware and Stoneware	34,290	33,343	24,198	24,412
Chinaware, Parianware and Porcelainware, n.e.i., and all other Earthenware, Brownware and Stoneware, including Fireclay Manufactures, Tiles and Bricks	285,037	439,170	356,842	401,032

K. M. ARCHER

COMMONWEALTH STATISTICIAN

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, A.C.T.

25TH NOVEMBER, 1964

NOTE:- Inquiries concerning these statistics may be made in Canberra by telephoning 41971 Extension 52 or, in each State Capital, by telephoning the office of the Bureau of Census and Statistics.