

# Manufacturing: Production and sales

October 2003

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## Key figures as at the end of October 2003

<b>Actual estimates</b>	<b>October 2003</b>	<b>% change between October 2002 and October 2003</b>	<b>% change between September 2003 and October 2003</b>	<b>% change between August 2002 to October 2002 and August 2003 to October 2003</b>	<b>% change between January 2002 to October 2002 and January 2003 to October 2003</b>
Physical volume of manufacturing production index (2000=100)	117,5	-2,6	+7,8	-3,7	-2,2
Total value of sales of manufactured products (R million)	55 892,6	-4,9	+5,4	-4,1	+0,6

## Seasonally adjusted estimates

	<b>October 2003</b>	<b>% change between October 2002 and October 2003</b>	<b>% change between September 2003 and October 2003</b>	<b>% change between May 2003 to July 2003 and August 2003 to October 2003</b>
Physical volume of manufacturing production index (2000=100)	106,6	-2,4	+0,6	-0,3
Total value of sales of manufactured products (R million)	51 066,4	-5,0	-1,4	+1,1

## Key findings as at the end of October 2003

### Manufacturing production decreases

*Manufacturing production for the three months ended October 2003 reflected a decrease of 0,3%, after seasonal adjustment, compared with the previous three months. Lower production was reported by 15 of the 27 manufacturing divisions. Furthermore, the actual manufacturing production for the first ten months of 2003 reflected a decrease of 2,2% compared with the first ten months of 2002. However, the manufacturing production for October 2003, after seasonal adjustment, reflected an increase of 0,6% compared with September 2003.*

The major contributor to the decrease of 0,3%, after seasonal adjustment, in the total manufacturing production was the fabricated metal products division (contributing -0,3 of a percentage point to total manufacturing production) and the food and food products division (contributing -0,2 of a percentage point). However, these increases were partially counteracted by a large increase reported by the motor vehicles, trailers, parts and accessories (contributing +0,4 of a percentage point) division (see table A).

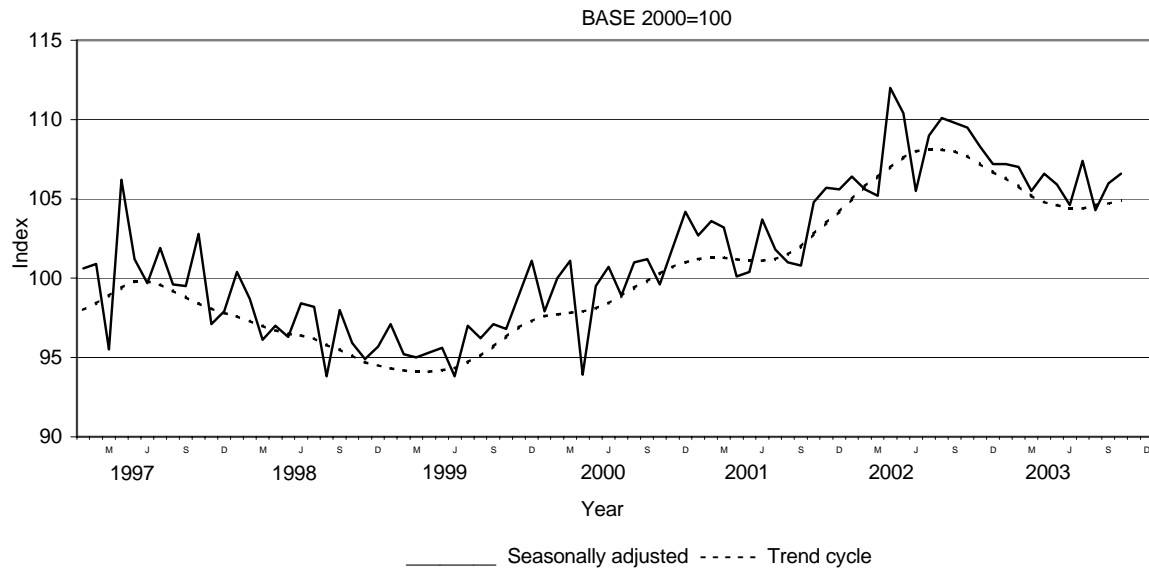
**Figure 1 – Index of the physical volume of manufacturing production**

Table A - Contribution of the production by the different manufacturing divisions to total manufacturing production (Base 2000=100)

Manufacturing divisions	Percentage contribution to the total manufacturing production using the weights according to 1996 Census of Manufacturing	Average seasonally adjusted production index for the three months August 2003 to October 2003	Quarterly percentage change of August 2003 to October 2003 compared with the preceding three months	Contribution (percentage points) to the seasonally adjusted quarterly percentage change in total manufacturing production 1/
Food and food products	10,7	103,4	-1,4	-0,2
Beverages	4,6	115,6	+1,0	+0,0
Total textiles	2,9	93,7	-0,8	-0,0
Total wearing apparel	3,6	98,8	+1,2	+0,0
Tanning and dressing of leather	0,4	98,9	+6,5	+0,0
Footwear	0,9	78,0	+8,2	+0,1
Wood and products of wood	1,9	106,2	-2,4	-0,1
Paper and paper products	5,3	98,5	+0,5	+0,0
Total publishing and printing	4,1	100,0	+1,5	+0,0
Coke and refined petroleum products	4,2	103,6	-1,2	-0,1
Basic chemicals	4,5	105,7	-0,6	-0,0
Other chemical products	6,2	106,2	-0,2	-0,0
Rubber products	1,4	98,6	-2,4	-0,0
Plastic products	3,1	120,4	-0,6	-0,0
Glass and glass products	1,0	116,1	-2,4	-0,0
Other non-metallic mineral products	3,5	96,6	-2,6	-0,1
Basic iron and steel products	7,6	105,3	-0,3	-0,0
Basic precious and non-ferrous metal products	3,2	101,7	+2,0	+0,1
Fabricated metal products	7,0	110,8	-4,9	-0,3
Total machinery and equipment	5,8	122,3	+0,1	+0,0
Electrical machinery, apparatus	3,4	105,4	+2,0	+0,0
Radio, television and communication apparatus	1,0	80,1	-7,1	-0,1
Professional equipment	0,5	120,5	+2,0	+0,0
Motor vehicles; trailers; parts and accessories	8,0	112,5	+4,7	+0,4
Other transport equipment	1,0	105,2	+6,8	+0,1
Furniture	1,6	104,8	-1,4	-0,0
Other manufacturing divisions	2,6	91,6	-5,0	-0,1
<b>Total</b>	<b>100,0</b>	<b>105,6</b>	<b>-0,3</b>	<b>-0,3</b>

1/ The contribution is calculated by multiplying the quarterly percentage change of each manufacturing division with its corresponding weight in the base year, divided by 100.

### Sales of manufactured products increase

*The total value of sales of manufactured products at current prices for the three months ended October 2003 reflected an increase of 1,1% (+R1 662 million), after seasonal adjustment, compared with the previous three months. Higher manufacturing sales were reported by 21 of the 27 manufacturing divisions during this period (see table B). Furthermore, the actual value of sales of manufactured products at current prices for the first ten months of 2003 reflected an increase of 0,6% compared with the first ten months of 2002. However, the actual value of sales of manufactured products at current prices for the three months ended October 2003 reflected a decrease of 4,1% compared with the three months ended October 2002 (see table C).*

The increase of 1,1% after seasonal adjustment in the total value of sales of manufactured products at current prices for the three months ended October 2003 compared with the previous three months was mainly due to large increases reported by the basic precious and non-ferrous metal products (+7,7% or +R356 million), 'other' manufacturing industries (+7,6% or +R325 million), machinery and equipment (+6,5% or +R455 million), motor vehicles, trailers, parts and accessories (+2,9% or +R565 million) and basic chemicals (+2,9% or +R214 million) divisions (see table B).

Table B - Contribution of the manufacturing divisions to the total value of seasonally adjusted sales of manufactured products

Manufacturing divisions	Seasonally adjusted sales August 2003 to October 2003	Percentage change between May 2003 to July 2003 and August 2003 to October 2003	Difference in seasonally adjusted sales of manufacturing divisions between May 2003 to July 2003 and August 2003 to October 2003
	R'000		R'000
Food and food products	20 833 362	+0,6	125 301
Beverages	7 546 623	+0,2	13 273
Total textiles	3 021 834	-2,8	-86 622
Total wearing apparel	3 287 483	+4,1	130 423
Tanning and dressing of leather	798 406	+4,6	35 368
Footwear	539 050	+10,9	53 171
Wood and products of wood	3 322 621	-2,6	-88 585
Paper and paper products	7 338 999	+0,1	8 328
Total publishing and printing	3 855 440	+0,5	17 672
Coke and refined petroleum products	8 791 810	+0,5	41 122
Basic chemicals	7 478 582	+2,9	213 551
Other chemical products	9 162 013	+1,0	86 492
Rubber products	1 657 128	-2,5	-41 904
Plastic products	3 976 902	+1,8	68 683
Glass and glass products	860 753	+1,7	14 441
Other non-metallic mineral products	3 750 937	+0,8	29 557
Basic iron and steel products	12 942 043	-3,6	-489 417
Basic precious and non-ferrous metal products	4 965 998	+7,7	356 477
Fabricated metal products	8 764 054	-2,9	-266 009
Total machinery and equipment	7 477 907	+6,5	455 111
Electrical machinery, apparatus	4 376 637	+1,7	71 962
Radio, television and communication apparatus	1 274 361	+6,2	74 616
Professional equipment	518 066	+0,8	4 266
Motor vehicles; trailers; parts and accessories	19 886 268	+2,9	565 343
Other transport equipment	966 295	+3,1	29 121
Furniture	1 825 604	-4,4	-84 762
Other manufacturing industries	4 602 000	+7,6	325 426
<b>Total</b>	<b>153 821 175</b>	<b>+1,1</b>	<b>1 662 402</b>

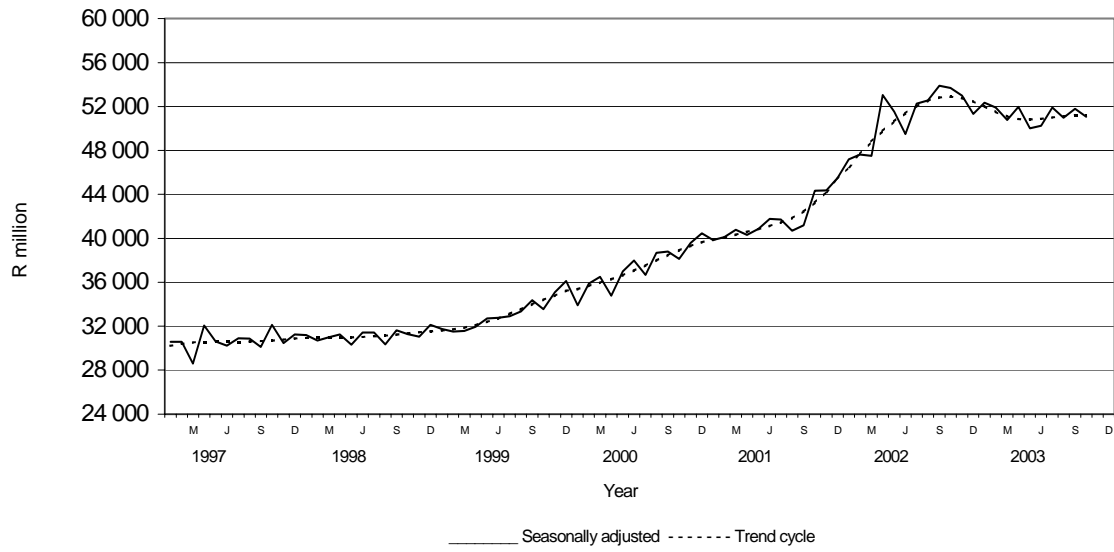
The major contributors to the decrease of 4,1% in the actual value of sales of manufactured products at current prices for the three months ended October 2003 compared with the three months ended October 2002 were the coke and refined petroleum products (-1,9 percentage points or -R3 095 million), motor vehicles, trailers, parts and accessories (-0,6 of a percentage point or -R1 009 million), basic iron and steel products (-0,5 of a percentage point or -R857 million), basic chemicals (-0,5 of a percentage point or -R781 million) and food and food products (-0,4 of a percentage point or -R688 million) divisions.

Table C - Contribution of the manufacturing divisions to total value of sales of manufactured products

Manufacturing divisions	Percentage contribution to total value of sales of manufactured products August 2002 to October 2002	Percentage change between August 2002 to August 2003 to October 2003	Contribution (percentage points) to the percentage change in the total value of sales of manufactured products 1/	Difference in sales of manufacturing divisions between August 2002 to October 2002 and August 2003 to October 2003
				R '000
Food and food products	13,1	-3,1	-0,4	-687 997
Beverages	4,2	8,4	0,3	586 133
Total textiles	2,2	-12,5	-0,3	-466 634
Total wearing apparel	2,1	2,5	0,1	90 751
Tanning and dressing of leather	0,5	-12,5	-0,1	-114 090
Footwear	0,4	-5,4	-0,0	-35 950
Wood and products of wood	2,1	-1,7	-0,0	-59 889
Paper and paper products	4,8	-5,6	-0,3	-449 747
Total publishing and printing	2,3	7,3	0,2	279 878
Coke and refined petroleum products	7,3	-25,4	-1,9	-3 095 164
Basic chemicals	5,2	-9,0	-0,5	-780 897
Other chemical products	5,8	-1,2	-0,1	-112 112
Rubber products	1,1	-2,8	-0,0	-50 165
Plastic products	2,5	0,2	0,0	9 211
Glass and glass products	0,6	0,6	0,0	6 090
Other non-metallic mineral products	2,4	0,1	0,0	5 798
Basic iron and steel products	8,4	-6,1	-0,5	-856 992
Basic precious and non-ferrous metal products	3,3	-8,1	-0,3	-450 001
Fabricated metal products	5,8	-3,2	-0,2	-314 019
Total machinery and equipment	4,2	11,3	0,5	786 961
Electrical machinery, apparatus	2,7	2,4	0,0	108 300
Radio, television and communication apparatus	0,7	7,4	0,1	92 097
Professional equipment	0,3	-4,4	-0,0	-24 206
Motor vehicles; trailers; parts and accessories	13,1	-4,6	-0,6	-1 009 291
Other transport equipment	0,7	-15,2	-0,1	-184 221
Furniture	1,3	-1,5	-0,0	-32 278
Other manufacturing divisions	2,8	-1,6	-0,0	-73 369
Total	100,0	-4,1	-4,1	-6 831 803

1/ The contribution (percentage points) is calculated by multiplying the percentage change of each manufacturing division with the percentage contribution of the same division during corresponding period, divided by 100.

**Figure 2 - Total value of sales of manufactured products at current prices**



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## Notes

<b>Forthcoming issues</b>	<b>Issue</b>	<b>Expected release date</b>
	November 2003	13 January 2004
	December 2003	10 February 2004
<b>Purpose of the survey</b>	The monthly Manufacturing Production and Sales survey is a survey covering a sample of private establishments, public corporations and government establishments operating in the manufacturing industry in the South African economy. The results of this survey are used to calculate physical volume of manufacturing production indices in order to estimate the Gross Domestic Product (GDP) to monitor and develop government policy.	
<b>Response rates</b>	The response rate for the survey on manufacturing production and sales for September 2003 was 83,7% and for October 2003 it was 76,3 %.	



Table 1 - Indices of the physical volume of manufacturing production: Total

Base 2000 = 100							
Month	1997	1998	1999	2000	2001	2002	2003
Actual indices							
J	85,3	85,8	83,6	85,2	89,5	92,7	93,6
F	99,1	97,2	93,7	98,7	102,0	104,5	105,5
M	98,4	98,9	97,9	104,8	107,3	109,6	109,4
A	100,9	92,3	90,7	89,0	94,6	105,3	100,7
M	101,7	96,8	95,9	99,9	100,8	110,7	106,0
J	100,9	99,6	94,8	102,1	105,0	106,7	105,6
J	103,9	99,9	98,3	100,1	102,7	109,9	107,9*
A	101,9	95,6	97,7	102,5	102,6	111,9	106,3*
S	104,3	102,3	100,9	104,8	104,0	113,1	109,0
O	115,2	106,9	107,3	109,8	115,5	120,6	117,5 1/
N	107,9	105,5	109,9	113,6	118,1	121,1	
D	83,5	81,8	86,3	89,5	91,3	92,6	
Year	100,3	96,9	96,4	100,0	102,8	108,2	
Seasonally adjusted indices							
J	100,6	100,4	97,1	97,8	102,3	106,0	107,2
F	100,9	98,7	95,2	100,1	103,5	105,8	106,9
M	95,5	96,1	95,1	101,4	103,6	105,6	105,5
A	106,2	97,0	95,2	93,7	99,9	111,7	106,6
M	101,2	96,3	95,6	99,6	100,5	110,4	106,0
J	99,7	98,5	93,9	100,9	104,0	105,7	104,5
J	101,9	98,2	97,0	98,9	101,7	108,8	107,2
A	99,5	93,8	96,2	100,9	100,9	109,8	104,3
S	99,5	98,0	97,1	101,2	100,8	109,9	106,0
O	102,8	95,9	96,8	99,6	104,7	109,2	106,6
N	97,1	94,9	98,8	101,8	105,8	108,4	
D	97,9	95,7	101,0	104,0	105,6	107,3	

\* Revised

1/ Preliminary

Table 2 - Indices of the physical volume of manufacturing production according to manufacturing divisions and major groups

Base 2000 = 100

Manufacturing divisions and major groups	Weights	Year 2002	Actual indices			Seasonally adjusted indices		
			October	September	October 1/	October	September	October
			2002	2003		2002	2003	
Food and food products	10,7	101,6	107,6	107,5	111,4	101,6	107,3	105,3
Meat, fish, fruit etc.	2,8	113,1	123,5	111,0	120,0	116,4	113,9	113,0
Dairy products	1,4	100,7	102,4	101,6	104,0	97,8	99,8	99,4
Grain mill products	2,1	113,6	115,0	111,5	114,2	109,6	108,6	109,2
Other food products	4,4	88,7	95,6	105,2	106,8	89,5	104,9	100,4
Beverages	4,6	112,4	120,3	115,2	122,0	112,7	112,3	114,8
Total textiles	2,9	111,6	121,9	92,3	111,6	108,6	89,6	99,7
Textiles	1,7	110,4	124,9	87,8	105,5	111,4	83,6	94,5
Other textile products	1,2	113,3	117,7	98,7	120,2	104,6	98,1	107,0
Total wearing apparel	3,6	101,9	127,0	102,1	127,6	102,6	95,7	103,1
Knitted, crocheted articles	0,6	111,2	135,4	99,4	126,3	116,3	101,9	108,4
Wearing apparel	3,0	100,0	125,3	102,6	127,9	99,8	94,5	102,0
Tanning and dressing of leather	0,4	96,9	107,2	89,2	108,9	98,6	94,9	101,0
Footwear	0,9	82,0	111,1	89,3	97,2	89,4	79,7	78,3
Wood and products of wood	1,9	110,6	124,9	106,4	120,1	111,8	103,3	108,0
Sawmilling and planing of wood	0,8	108,3	114,9	119,1	124,0	107,1	113,9	116,3
Products of wood	1,2	112,1	131,5	98,0	117,6	114,8	96,3	102,6
Paper and paper products	5,3	103,1	101,1	104,1	102,2	98,0	99,6	99,1
Total publishing and printing	4,1	94,8	106,3	103,7	110,9	95,3	97,7	99,6
Publishing	1,5	91,3	99,6	96,0	102,8	90,2	93,8	93,1
Printing, recorded media	2,6	96,8	110,0	108,1	115,5	98,2	100,0	103,2
Coke and refined petroleum products	4,2	102,5	111,2	96,8	105,2	109,6	102,7	103,5
Basic chemicals	4,5	119,1	128,5	101,6	120,8	112,8	102,2	106,1
Other chemical products	6,2	111,5	123,3	109,8	120,7	110,5	105,7	108,4
Rubber products	1,4	109,9	122,7	99,3	103,8	114,4	100,6	96,7
Plastic products	3,1	124,3	142,0	124,0	137,3	125,1	120,0	121,2
Glass and glass products	1,0	118,9	134,3	128,1	132,7	121,0	120,2	118,9
Other non-metallic mineral products	3,5	104,5	120,5	101,6	119,6	105,7	95,6	104,5
Basic iron and steel products	7,6	106,0	115,1	104,8	118,3	107,7	104,9	111,0
Basic precious and non-ferrous metal products	3,2	100,8	104,6	99,3	105,5	102,9	101,5	103,5
Fabricated metal products	7,0	119,6	137,0	116,4	127,0	123,6	110,6	113,8
Structural metal products	2,4	116,8	126,0	110,0	116,4	116,7	102,9	107,2
Other fabricated metal product	4,6	121,1	142,7	119,7	132,5	127,2	114,5	117,2
Total machinery and equipment	5,8	121,3	127,9	134,3	123,0	121,2	125,6	116,8
General purpose machinery	2,5	109,3	117,0	127,5	106,5	113,0	110,2	103,1
Special purpose machinery	2,9	133,4	138,3	142,0	135,4	130,8	140,2	128,6
Household appliances	0,4	109,4	120,6	121,1	137,7	102,9	115,4	117,2
Electrical machinery, apparatus	3,4	103,7	114,6	109,9	114,2	102,6	106,5	102,9
Radio, television and communication apparatus	1,0	76,8	84,2	108,8	84,9	82,1	93,7	82,6
Professional equipment	0,5	120,8	138,5	129,2	134,9	128,6	125,4	125,0
Motor vehicles; trailers; parts and accessories	8,0	108,8	129,7	118,4	123,3	113,2	115,6	107,4
Motor vehicles	4,5	105,5	123,3	103,4	119,9	106,9	102,0	103,3
Bodies for motor vehicles; trailers and semi-trailers	0,5	102,8	113,7	91,1	127,4	114,6	98,4	128,4
Parts and accessories	3,0	114,9	142,3	145,9	127,6	122,5	139,2	109,8
Other transport equipment	1,0	118,2	140,0	108,3	124,8	122,9	108,6	108,7
Furniture	1,6	107,3	150,4	109,6	134,5	114,5	106,1	102,3
Other manufacturing divisions	2,6	102,9	132,1	96,2	114,7	106,9	91,4	92,7
Total	100,0	108,2	120,6	109,0	117,5	109,2	106,0	106,6

\* Revised

1/ Preliminary

Table 3 - Value of sales of the manufacturing industry: Total (R'000)

Month	1997	1998	1999	2000	2001	2002	2003
Actual values							
J	25 254 480	25 913 926	26 362 762	28 647 234	33 988 164	40 286 441	44 443 867
F	29 866 793	29 901 544	30 551 283	34 961 840	39 187 078	46 552 386	50 811 316
M	29 866 272	32 190 538	32 737 212	38 039 203	42 683 525	49 232 865	52 681 625
A	30 438 604	29 758 879	30 447 208	32 651 220	37 828 090	49 747 946	49 112 612
M	30 626 091	30 352 835	32 680 898	37 038 716	41 146 142	51 664 008	50 198 782
J	30 575 542	31 723 893	33 054 424	38 710 074	42 743 527	50 265 064	50 924 204*
J	31 169 707	31 732 667	33 262 293	36 234 329	41 174 318	51 869 128	51 420 332*
A	31 400 042	30 810 619	33 586 437	38 992 758	41 164 534	53 370 193	51 717 224*
S	31 344 644	32 896 327	35 703 435	39 916 972	42 295 572	55 277 787	53 009 056
O	35 902 602	34 970 472	37 386 689	41 775 594	48 601 886	58 802 690	55 892 587 1/
N	33 709 581	34 300 610	38 843 424	43 881 507	49 478 825	59 092 179	
D	28 128 922	29 016 347	32 992 528	37 256 576	42 207 610	47 372 378	
Year	368 283 280	373 568 657	397 608 593	448 106 023	502 499 271	613 533 065	
Seasonally adjusted values							
J	30 495 886	31 049 757	31 401 410	33 845 131	39 728 396	47 205 489	52 345 177
F	30 510 634	30 607 174	31 339 025	35 789 563	40 081 792	47 638 907	51 903 962
M	28 713 269	30 970 901	31 546 895	36 544 061	41 078 544	47 469 015	50 764 077
A	32 062 641	31 431 153	32 199 153	34 562 915	40 017 067	52 730 926	51 955 562
M	30 714 017	30 392 356	32 714 978	36 985 930	41 022 147	51 508 269	50 021 911
J	30 219 767	31 253 202	32 556 806	38 024 048	42 016 046	49 491 107	50 239 439
J	31 162 773	31 847 067	33 498 542	36 549 407	41 518 747	52 255 868	51 897 423
A	30 756 094	30 353 671	33 208 147	38 543 731	40 602 050	52 567 383	50 972 949
S	30 173 302	31 778 537	34 626 484	38 749 446	41 149 764	53 871 914	51 781 781
O	32 175 765	31 399 114	33 777 913	38 079 216	44 365 712	53 742 431	51 066 445
N	30 312 602	30 791 511	34 828 575	39 458 703	44 366 158	53 034 549	
D	30 847 631	31 479 256	35 835 366	40 360 516	45 442 541	51 353 657	

\* Revised

1/ Preliminary

Table 4 - Value of sales of manufactured products according to manufacturing divisions and major groups (R'000)

Manufacturing divisions and major groups	Actual values						Seasonally adjusted values		
	Year	October	September	October 1/	October	September	October		
		2002	2003		2002	2003			
	2002	2002	2003	2002	2003	2003			
Food and food products	82 673 880	7 732 084	7 004 455	7 290 449	7 254 611	7 025 840	6 852 155		
Meat, fish, fruit etc.	26 328 187	2 551 259	2 239 322	2 389 850	2 358 798	2 234 360	2 213 111		
Dairy products	9 221 497	836 584	857 661	908 351	785 108	866 311	854 125		
Grain mill products	24 465 379	2 225 170	1 942 886	1 950 262	2 139 939	1 952 957	1 883 607		
Other food products	22 658 817	2 119 071	1 964 586	2 041 986	1 970 766	1 972 212	1 901 312		
Beverages	26 913 178	2 405 298	2 562 889	2 687 452	2 310 244	2 523 010	2 587 233		
Total textiles	13 425 652	1 264 173	1 016 646	1 161 159	1 125 736	979 811	1 033 663		
Textiles	8 654 162	841 882	648 353	713 274	754 316	617 783	639 505		
Other textile products	4 771 490	422 291	368 293	447 885	371 420	362 028	394 158		
Total wearing apparel	12 404 596	1 321 605	1 161 165	1 344 595	1 098 338	1 078 639	1 119 514		
Knitted, crocheted articles	2 200 044	221 123	177 856	227 986	198 547	181 802	203 716		
Wearing apparel	10 204 552	1 100 482	983 309	1 116 609	899 791	896 837	915 798		
Tanning and dressing of leather	3 310 031	336 870	230 659	290 750	303 168	254 449	263 157		
Footwear	2 185 578	252 781	204 635	228 402	197 532	181 066	178 920		
Wood and products of wood	12 676 226	1 288 128	1 174 776	1 233 052	1 154 421	1 111 635	1 099 799		
Sawmilling and planing of wood	3 496 221	308 509	341 201	368 188	270 194	328 381	321 817		
Products of wood	9 180 005	979 619	833 575	864 864	884 227	783 254	777 982		
Paper and paper products	29 798 377	2 523 048	2 685 410	2 462 940	2 484 631	2 487 496	2 402 795		
Total publishing and printing	13 902 770	1 376 628	1 300 488	1 444 181	1 211 511	1 258 571	1 271 029		
Publishing	5 309 542	503 344	514 995	545 809	453 010	498 055	490 642		
Printing, recorded media	8 593 228	873 284	785 493	898 372	758 501	760 516	780 387		
Coke and refined petroleum products	45 408 316	4 202 323	3 102 019	2 991 172	3 843 753	3 234 896	2 737 804		
Basic chemicals	31 234 852	3 056 570	2 652 608	2 908 366	2 627 236	2 534 440	2 493 834		
Other chemical products	35 440 043	3 556 218	3 174 850	3 476 115	3 140 825	3 105 543	3 073 970		
Rubber products	6 678 589	647 147	556 555	596 672	590 916	552 801	546 384		
Plastic products	15 136 631	1 503 466	1 384 453	1 499 663	1 345 148	1 340 588	1 341 271		
Glass and glass products	3 291 669	347 087	325 427	330 375	277 591	292 833	264 759		
Other non-metallic mineral products	14 496 579	1 422 387	1 293 887	1 527 952	1 257 864	1 231 687	1 346 012		
Basic iron and steel products	48 571 369	4 698 657	4 474 841	4 456 978	4 460 432	4 449 575	4 222 575		
Basic precious and non-ferrous metal products	21 725 348	1 932 634	1 817 485	1 685 867	1 894 347	1 704 881	1 658 240		
Fabricated metal products	34 231 948	3 359 723	3 066 950	3 277 441	3 051 669	2 946 958	2 963 525		
Structural metal products	10 580 226	1 040 160	914 887	975 615	951 798	884 030	891 088		
Other fabricated metal product	23 651 722	2 319 563	2 152 063	2 301 826	2 099 871	2 062 929	2 072 437		
Total machinery and equipment	26 973 792	2 320 066	2 601 728	2 636 249	2 260 330	2 466 825	2 571 855		
General purpose machinery	11 502 057	958 167	1 162 795	1 119 509	956 738	994 182	1 116 793		
Special purpose machinery	12 739 713	1 094 517	1 180 493	1 211 794	1 080 765	1 220 953	1 201 334		
Household appliances	2 732 022	267 382	258 440	304 946	222 827	251 691	253 728		
Electrical machinery, apparatus	16 926 563	1 540 422	1 492 865	1 537 789	1 429 957	1 438 234	1 432 230		
Radio, television and communication apparatus	4 503 712	418 157	514 451	465 775	425 692	454 433	469 985		
Professional equipment	2 028 861	199 058	183 671	183 112	192 449	186 886	176 322		
Motor vehicles; trailers; parts and accessories	80 135 661	8 104 194	6 566 020	7 223 706	7 216 777	6 455 076	6 405 127		
Motor vehicles	56 136 383	5 707 672	4 491 856	4 935 242	5 130 198	4 477 130	4 414 233		
Bodies for motor vehicles; trailers and semi-trailers	2 115 216	212 024	201 307	254 919	192 016	192 388	228 083		
Parts and accessories	21 884 062	2 184 498	1 872 857	2 033 545	1 894 563	1 785 557	1 762 810		
Other transport equipment	4 370 041	443 402	346 951	398 679	381 386	317 597	340 697		
Furniture	7 339 791	830 861	642 707	788 309	625 478	610 435	594 737		
Other manufacturing divisions	17 749 012	1 719 703	1 470 465	1 765 387	1 580 388	1 557 575	1 618 851		
Total	613 533 065	58 802 690	53 009 056	55 892 587	53 742 431	51 781 781	51 066 445		

\* Revised

1/ Preliminary

Table 5 - Value of unfilled orders according to selected manufacturing subgroups (R'000)

Selected manufacturing subgroups	Actual values			Seasonally adjusted values		
	October	September	October 1/	October	September	October
	2002	2003		2002	2003	
Spinning, weaving and finishing of textiles	324 218	244 468	235 230	319 485	255 423	233 360
Tents, tarpaulins, sails and other canvas goods and automotive textile goods	40 058	46 070	44 997	38 482	44 109	43 562
Other textile articles	87 391	112 420	97 281	80 291	100 851	89 521
Knitted and crocheted fabrics and articles	164 004	119 008	119 018	148 328	115 988	108 333
Wearing apparel	926 764	643 294	663 961	840 104	593 848	602 778
Sawmilling and preserving of timber	19 477	23 435	19 573	20 832	21 838	21 250
Veneer sheets, plywood, laminboard, etc.	35 262	27 206	31 210	31 660	25 419	27 798
Builders' carpentry and joinery	39 262	43 060	42 984	36 039	43 575	39 793
Pulp, paper and paperboard	269 866	185 258	381 683	219 380	194 371	308 030
Corrugated paper and paperboard and containers	392 096	371 887	375 321	375 340	366 752	362 611
Paints, varnishes and coatings	26 253	24 745	33 712	23 084	24 153	29 938
Basic iron and steel products	4 983 909	5 256 001	5 475 935	4 852 500	5 051 802	5 335 464
Steel pipe and tube mills	531 518	281 653	273 085	520 942	292 322	272 119
Basic precious and non-ferrous metal products	1 767 075	1 352 659	1 342 923	1 704 088	1 365 413	1 299 218
Metal structures, parts	1 459 824	891 512	1 005 939	1 408 020	862 650	971 108
Cutlery, hand tools and general hardware	19 329	35 764	37 465	20 704	36 347	40 571
Metal containers, e.g. cans and tins	79 682	67 243	67 812	83 344	67 028	70 880
Cables, wire products, springs	60 671	82 951	87 364	57 477	82 459	82 631
Metal fasteners	95 808	77 133	80 544	85 936	78 312	71 840
All other metal products	892 286	1 075 894	940 754	932 985	1 092 911	991 211
Domestic appliances	32 754	29 651	29 651	29 343	26 896	26 328
Electric motors, generators and transformers	545 004	489 216	520 524	547 647	480 951	525 066
Insulated wire and cables	378 146	315 252	311 751	373 077	299 687	308 784
Accumulators, primary cells and primary batteries	5 603	3 515	3 626	5 723	3 756	3 706
Television, radio and communication apparatus	2 047 661	2 236 277	2 273 599	2 141 176	2 285 015	2 398 534
Motor vehicles	2 529 703	3 702 928	3 326 462	2 646 128	3 606 402	3 504 747
Parts and accessories for motor vehicles	316 149	298 277	289 429	336 256	294 556	306 295
Furniture	503 409	396 675	369 228	319 934	297 606	231 496

\* Revised

## Explanatory notes

- Introduction**
- 1 Statistics South Africa (Stats SA) conducts a monthly survey of the manufacturing industry covering private manufacturing establishments, public corporations and government establishments. This statistical release contains historical information regarding indices of the physical volume of manufacturing production, the total value of sales of manufactured products and unfilled orders, according to manufacturing divisions and major groups on a monthly basis.
  - 2 In accordance with international practice, the indices have to be re-based every five years to a new base year. The indices in this statistical release have been calculated on the basis of 2000=100. Both actual and seasonally adjusted figures are presented.
  - 3 In order to improve timeliness, some information for the current month (October 2003) have been estimated due to late response. These estimates will be revised in future statistical release(s) as soon as more up-to-date information is available.
- Scope of the survey**
- 4 This survey covers manufacturing establishments conducting activities regarding -
    - the manufacturing, processing, making or packing of products;
    - the slaughtering of animals, including poultry; and
    - installation, assembly, completion, repair and related work.
- Classification**
- 5 The 1993 edition of the *Standard Industrial Classification of all Economic Activities (SIC)*, Fifth Edition, Report No. 09-90-02, was used to classify the statistical units in the survey. The SIC is based on the 1990 *International Standard Industrial Classification of all Economic Activities (ISIC)* with suitable adaptations for local conditions. Statistics in this publication are presented at SIC division and major group level. Each statistical unit is classified to an industry which reflects the predominant activity of the establishment .
- Statistical unit**
- 6 The basic statistical unit for the collection of information is the manufacturing establishment. An establishment is the smallest economic unit that functions as a separate entity. Each statistical unit is classified to an industry (see paragraph 5).
- Weighting**
- 7 A weight is calculated for every major group according to the value added of the relevant major group compared with the value added of the total manufacturing industry based on the 1991, 1993 and 1996 Censuses of Manufacturing. Weights between census years are fixed and are based on the results of the most recent Census of Manufacturing. The production indices of all the major groups are multiplied by the applicable weights and aggregated to reflect the total physical volume of manufacturing production index (see table D for the fixed weights which were used for the three periods 1990 to 1992, 1993 to 1995 and 1996 to 2003).
- Re-basing**
- 8 In accordance with international practice, the indices have to be re-based every five years to a new base year. The indices in this statistical release have been calculated on the basis of 2000=100. The first results on this basis were published in the December 2002 statistical release. Both actual and seasonally adjusted figures are presented.
- Survey methodology and design**
- 9 The calculation of the monthly production indices is based on the value of products and articles manufactured, after the effect of price changes has been eliminated through deflation by using appropriate sub-indices of the Production Price Index (PPI). The value of the manufactured products is obtained from a monthly survey of manufacturing establishments in the private and public sectors.
  - 10 The survey is collected by mail each month from a sample of approximately 2 400 manufacturing establishments.

- 11 The above-mentioned measurement method in paragraph 9 was followed in 36 of the 45 major groups. On account of certain considerations more appropriate indicators were used for the nine remaining major groups, namely grain mill products, tobacco products, coke and refined petroleum products, basic iron and steel products, basic precious and non-ferrous metal products, motor vehicles, bodies for motor vehicles and parts and accessories for motor vehicles and other transport equipment. The volume indices for the major groups grain mill products, tobacco products, coke and refined petroleum products, basic iron and steel products, basic precious and non-ferrous metal products, motor vehicles, bodies for motor vehicles and parts and accessories for motor vehicles and other transport equipment are calculated on the basis of physical quantities. This method based on physical quantities is applied by other international statistical agencies for petroleum products due to the results being more satisfactory (mainly due to these commodities being relatively homogeneous and the nature of the industry). For publication purposes, the major group tobacco products is included under 'Other manufacturing industries'.

### Sample design

- 12 The 1988 Census of Manufacturing provided the sampling frame for the selection of the monthly sample regarding manufacturing production and sales which was implemented as from January 1995. A stratified systematic sample design based on gross output was used. All statistical units were stratified by type of economic activity according to the *Standard Industrial Classification of all Economic Activities (SIC)* and measure of size, where measure of size was the total manufacturing gross output of the establishment. All large establishments (size category one cases) are completely enumerated. A sample was drawn from medium and small size establishments by systematically selecting establishments with equal probability.

### Benchmarking

- 13 The index of physical volume of manufacturing production as well as the total value of sales of manufactured products should provide an accurate reflection of the trend of activities of the relevant industry. The level of activities as measured by the monthly Manufacturing Production and Sales survey is based on information received from a sample of manufacturing establishments which is weighted according to the original sample design in order to represent the population of manufacturing establishments. It is necessary to adjust the level of activities as measured by the monthly survey to the level of activities as measured periodically by the Census of Manufacturing. This procedure, whereby the latest results of an economic census are used to compile more accurate level estimates for a certain year, is known as benchmarking. The results, due to benchmarking, were published in statistical releases P3041.3 (entitled *Manufacturing statistics: Indices of the physical volume of manufacturing production*, Base: 1995=100, January 1990 to September 1999) on 21 December 1999 and P3041.4 (entitled *Manufacturing statistics: Value of sales, January 1990 to September 1999*) on 8 December 1999.
- 14 The results of the 1991, 1993 and 1996 Censuses of Manufacturing and information obtained from the former TBVC states were used to adjust the level of the manufacturing production indices and the value of sales of manufactured products. The total value of output of the manufacturing major groups (which represents the total value of work done by the establishments in these major groups) as obtained from the manufacturing censuses, was deflated with appropriate sub-indices of the Production Price Index in order to calculate the real output. The latter served as benchmarks to verify or adjust the level of the monthly physical volume of manufacturing production indices. The level adjustments were done on the volume indices for January of the relevant census year (e.g. the 1996 census year covers the period 1 July 1995 to 30 June 1996 and therefore the benchmarking was done using the index of January 1996 as reference point). The motor vehicle major group is the only exception where the financial year for most of the establishments covered the period 1 January 1995 to 31 December 1995. The benchmarking was done using the physical volume of manufacturing production index for July 1995 as reference point.

- Production index for the total manufacturing industry**      **15**      In order to calculate a production index for the total manufacturing industry, the production indices for the major groups are combined as follows:
- A weight is calculated for every major group according to the value added of the relevant major group compared with the value added of the total manufacturing industry based on the 1991, 1993 and 1996 Censuses of Manufacturing. Weights between census years are fixed and are based on the results of the most recent Census of Manufacturing. The production indices of all the major groups are multiplied by the applicable weights and aggregated to reflect the total physical volume of manufacturing production index.
- Seasonal adjustment**      **16**      Seasonally adjusted estimates of all major groups are generated each month, using the X-11 Seasonal Adjustment Program developed by US Bureau of the Census Economic Research and Analyses Division, 1968. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove irregular or non-seasonal influences which may be present in any particular month. Influences that are volatile or unsystematic can still make it difficult to interpret the movement of the series even after adjustment for seasonal variations. This means the month-to-month movements of seasonally adjusted estimates may not be reliable indicators of trend behaviour.
- Trend cycle**      **17**      The trend is the long-term pattern or movement of a time series. The X-11 Seasonal Adjustment Program is used for smoothing seasonally adjusted estimates.
- Reliability of estimates**      **18**      Estimates are subject to sampling and non-sampling errors. Figures for the latest month are preliminary.
- Historical data**      **19**      More comprehensive detail on the method of calculation and historical data in respect of the production indices according to manufacturing major groups for the period January 1990 to November 2002 is available in statistical release P3041.3 (entitled *Manufacturing statistics: Indices of the physical volume of manufacturing production, Base: 2000=100, January 1990 to November 2002*).
- 20**      More comprehensive detail on the method of calculation and historical data in respect of the value of sales for the period January 1990 to September 1999 was published on 8 December 1999 in statistical release P3041.4.
- Related publications**      **21**      Users may also wish to refer to the following publications which are available from Stats SA -
- P3041.3: *Manufacturing statistics: Indices of the physical volume of manufacturing production, Base: 2000=100, January 1990 to November 2002.*
- P3041.4: *Manufacturing statistics: Value of sales (divisions, major groups and subgroups), January 1990 to September 1999. Bulletin of Statistics. SA Statistics.*
- P0441: *Gross Domestic Product.*



- Unpublished statistics**      **22**      In some cases Stats SA can also make available statistics which are not published. The statistics can be made available as a computer printout, diskette or CD. Generally a charge is made for providing unpublished statistics.
- Rounding-off of figures**      **23**      The figures in the tables have, where necessary, been rounded off to the nearest final digit shown. There may, therefore, be slight discrepancies between the sums of the constituent items and the totals shown.
- Pre-release policy**      **25**      Stats SA's pre-release policy may be inspected at its Website, [www.statssa.gov.za](http://www.statssa.gov.za).

**Symbols and abbreviations**

GDP	Gross Domestic Product
ISIC	International Standard Classification of all Economic Activities
PPI	Production Price Index
SIC	Standard Industrial Classification of all Economic Activities
SNA	System of National Accounts
Stats SA	Statistics South Africa
TBVC states	Relates to the former Transkei, Bophuthatswana, Venda and Ciskei states
1/	Preliminary figures
*	Revised figures

## Glossary

<b>Enterprise</b>	An enterprise is a legal entity consisting of one or more establishments. The establishments need not necessarily all be manufacturing establishments, but some may be classifiable as other industries of the economy, such as wholesale trade, retail trade, motor trade and construction.
<b>Establishment</b>	An establishment is defined as an enterprise, or part of an enterprise, that is situated at a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.
<b>Index of physical volume of manufacturing production</b>	The index of physical volume of manufacturing production or a production index is a statistical measure of the change in the volume of production. The production index of a major group is the ratio between the volume of production of a major group in a given period and the volume of production of the same major group in the base period. The base period is 2000. The production in the base period is set at 100.
<b>Industry</b>	An industry consists of a group of establishments engaged in the same or similar kinds of economic activity. Industries are defined in the <i>System of National Accounts (SNA)</i> in the same way as in the <i>Standard Industrial Classification of all Economic Activities, Fifth Edition, Report No. 09-90-02 of January 1993 (SIC)</i> .
<b>Intercensal period</b>	Intercensal period is the period between January of the one census year and January of the next census year.
<b>Intermediate consumption</b>	Intermediate consumption includes - <ul style="list-style-type: none"> <li>purchases and transfers-in of materials;</li> <li>payments to other establishments for work done;</li> <li>other direct factory costs;</li> <li>rent and leasing paid;</li> <li>head office charges;</li> <li>royalties, copyright, trade names and patent rights paid;</li> <li>advertising;</li> <li>insurance premiums;</li> <li>services; and</li> <li>secretarial and administrative fees.</li> </ul>
<b>Output</b>	Output is the aggregate value of goods manufactured and work done. <p>Output includes -</p> <ul style="list-style-type: none"> <li>sales and transfers-out of own manufactures, factory waste and stocks of factored goods;</li> <li>repairs;</li> <li>installation, erection and assembly;</li> <li>sundry trading revenue;</li> <li>sales of factored goods minus purchases of factored goods;</li> <li>rent and leasing received;</li> <li>royalties received;</li> <li>difference between opening value and closing value of work in progress, stocks of own manufactures and stocks of factored goods;</li> <li>head office charges; and</li> <li>other revenue.</li> </ul>

Output excludes –

excise and customs duty paid.

**Value added**

Value added is the value of output less intermediate consumption. It represents the value added to the cost of the materials used in the process of production.

**Sales**

Sales are the total value of sales and transfers-out of all own manufactured products/articles and the amounts received for installation, erection or assembly or other services rendered.

**Weight**

The weight of a major group is the ratio of the value added of a major group (i.e. output of a major group minus intermediate consumption) to the total value added of the manufacturing industry. The weight of a major group reflects the importance of the major group in the total manufacturing industry. The weights change over time due to quality changes, changes in relative prices, and changes in preference, etc. New weights need to be calculated from time to time.

**Table D - Weights and the average indices of physical volume of manufacturing production according to manufacturing divisions and major groups before re-basing**

Manufacturing divisions and major groups	Weights			Base 1995 = 100
	1990-1992	1993-1995	1996-2003	Average indices for the year 2000 before re-basing
Food and food products	10,97	12,33	10,71	99,1
Meat, fish, fruit etc.	2,93	3,20	2,83	111,7
Dairy products	1,40	1,68	1,36	89,4
Grain mill products	2,13	2,80	2,10	91,3
Other food products	4,52	4,65	4,41	97,6
Beverages	4,83	5,26	4,60	92,6
Total textiles	3,33	3,33	2,88	93,5
Textiles	2,09	2,03	1,69	84,6
Other textile products	1,24	1,30	1,19	106,2
Total wearing apparel	3,94	3,81	3,60	82,8
Knitted, crocheted articles	0,67	0,64	0,60	73,9
Wearing apparel	3,27	3,17	3,00	84,5
Tanning and dressing of leather	0,41	0,34	0,41	125,2
Footwear	1,15	1,10	0,93	65,6
Wood and products of wood	1,96	1,81	1,95	119,3
Sawmilling and planing of wood	0,98	0,82	0,77	104,8
Products of wood	0,97	0,99	1,17	128,8
Paper and paper products	4,58	4,73	5,32	105,3
Total publishing and printing	3,57	3,95	4,11	87,8
Publishing	1,15	1,41	1,48	97,8
Printing, recorded media	2,42	2,54	2,63	82,3
Coke and refined petroleum products	6,45	6,41	4,17	104,5
Basic chemicals	4,57	3,19	4,47	132,0
Other chemical products	5,97	6,61	6,17	101,8
Rubber products	1,59	1,52	1,36	98,7
Plastic products	2,58	2,85	3,08	89,7
Glass and glass products	1,15	0,99	1,00	88,5
Other non-metallic mineral products	3,67	3,58	3,50	97,6
Basic iron and steel products	6,90	6,49	7,56	116,3
Basic precious and non-ferrous metal products	2,15	2,19	3,25	175,6
Fabricated metal products	7,53	6,84	7,03	103,4
Structural metal products	2,84	2,04	2,39	90,5
Other fabricated metal products	4,69	4,80	4,65	110,0
Total machinery and equipment	6,31	6,06	5,78	99,7
General purpose machinery	2,58	2,59	2,50	110,6
Special purpose machinery	3,14	2,82	2,89	87,8
Household appliances	0,60	0,65	0,39	117,0
Electrical machinery, apparatus	3,36	3,49	3,45	102,1
Electric motors	0,31	0,37	0,57	106,9
Electricity distribution	0,32	0,46	0,52	135,2
Insulated wire and cables	0,71	0,79	0,77	91,1
Accumulators	0,43	0,47	0,33	82,3
Electric lamps	0,30	0,25	0,22	90,5
Other electrical equipment	1,28	1,15	1,04	99,9
Radio, television and communication apparatus	1,59	1,20	0,97	123,8
Professional equipment	0,41	0,54	0,51	80,9
Motor vehicles; trailers; parts and accessories	6,40	6,77	8,05	119,6
Motor vehicles	3,30	3,62	4,50	114,9
Bodies for motor vehicles; trailers and semi-trailers	0,61	0,52	0,55	63,3
Parts and accessories	2,49	2,62	3,00	137,0
Other transport equipment	1,16	1,10	1,01	118,3
Furniture	1,69	1,62	1,56	98,9
Other manufacturing divisions	1,79	1,88	2,58	111,5
<b>Total</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>	<b>106,0</b>

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