



Mineral Industry Surveys

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TUNGSTEN IN JUNE 2003

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 19% higher during January through June 2003 than net production during the same period in 2002, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials during January through June 2003 was 14% higher than that consumed during the same period in 2002. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for June 2003 will be published in a subsequent issue.

Update

Prices for tungsten ore concentrates, in dollars per metric ton unit from Metal Bulletin, are listed below. Prices in dollars per short ton unit were converted from metric ton unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ore concentrates with a minimum tungsten trioxide (WO₃) content of 65%. The prices for July 1-31, 2003, are as follows:

Low—\$42/metric ton unit WO₃ (\$38/short ton unit WO₃)
High—\$50/metric ton unit WO₃ (\$45/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consumption	Imports for consumption	Stocks, end of period			Net production ⁴	Reported consumption ⁵	Stocks, end of period	
			Industry ²	U.S. Government ³			Industry ⁶	U.S. Government ³	
2002:									
June	W	439	W	31,200	347	1,160	824	697	1,100
July	W	362	W	30,400	355	1,030	847	654	1,020
August	W	418	W	30,500	238 ^r	1,030	854	737	987
September	W	341	W	30,100	429	1,080	810	742	981
October	W	341	W	30,100	382	1,170	836	705	975
November	W	509	W	30,100	346	1,160	816	733	948
December	W	600	W	30,100	360	949	750	666	947
January-December	W	4,090	XX	XX	4,270	12,000	9,300	XX	XX
2003:									
January	W	250	W	29,800	362	1,000 ^r	788	674	927
February	W	253	W	29,800	403	965 ^r	750	718	927
March	W	474	W	29,800	476	1,120 ^r	777	779	913
April	W	377	W	29,800	399 ^r	1,100 ^r	863	785 ^r	894
May	W	679	W	29,600	312 ^r	1,120 ^r	904 ^r	739 ^r	808
June	W	NA	W	29,600	298	1,160	893	730	784
Total	W	NA	XX	XX	2,250	6,470	4,980	XX	XX

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Reported by consumers.

³Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

⁴Net production of tungsten metal powder and tungsten carbide powder.

⁵Includes estimates and scrap.

⁶Data for tungsten metal powder and tungsten carbide powder reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH¹

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period ²
2002:			
June	W	904	173
July	W	720	212
August	W	774	97
September	W	800	102
October	W	798	109
November	W	804	85
December	W	W	68
Total	W	8,860	XX
2003:			
January	W	776	W
February	W	750	61
March	W	851	73
April	W	W	44
May	W	732 ^r	38
June	W	772	W
Total ³	W	3,880	XX

^rRevised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Producers and consumers.

³Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2003				2002	2003	
	2002	May ^r	June	Year to date		May	June
Metal powder	7,970	863	891	4,550	427	488	474
Tungsten carbide powder (made from metal powder)	4,070	257	264	1,910	239	251 ^r	256
Total	12,000	1,120	1,160	6,470	666	739 ^r	730

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Gross production less quantity used to make other products in table.

³Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data; not included in "Total."

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1, 2, 3}

(Metric tons, tungsten content)

End use	2003		
	May	June	Year to date
Steels	23	21	132
Superalloys	28 ^r	25	163
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	406 ^r	402	2,400
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	447 ^r	446	2,280
Total	904 ^r	893	4,980

^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Does not include materials used in making primary tungsten products.

³Includes estimates.

⁴Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁵Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS¹

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2002:						
June	21	W	405	W	6	824
July	22	W	400	W	6	847
August	21	W	402	W	6	854
September	22	W	400	W	6	810
October	22	W	403	W	6	836
November	22	W	403	W	6	816
December	23	W	405	W	6	750
Total	274	W	4,840	W	76	9,300
2003:						
January	21	W	400	W	6	788
February	23	W	395	W	6	750
March	21	W	396	W	6	777
April	23	W	404	W	6	863
May	22	W	404	W	6	904 ^r
June	20	W	401	W	6	893
Total	130	W	2,400	W	36	4,980
Stocks:						
2002:						
June	31	28	317	29	9	413
July	25	27	298	22	9	379
August	24	24	311	25	9	393
September	20	20	275	20	9	344
October	26	22	273	26	9	356
November	21	27	278	22	9	356
December	18	26	293	23	9	368
2003:						
January	25	24	295	19	9	372
February	20	22	292	20	9	362
March	20	20	285	27	9	361
April	15	24	288	22	9	358
May	29	26	292	21 ^r	9	376 ^r
June	24	24	304	21	9	382

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferro-tungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total year to date
2002	4,090	2,400	480	642	901	1,180	9,690	XX
2003:								
March	474	132	22	72	114	51	866	2,230
April	377	113	--	119	120	69	798	3,030 ^r
May:								
Austria	--	--	--	--	4	3	7	18
Belgium	--	--	--	(3)	--	--	(3)	2
Bolivia	52	--	--	--	--	--	52	150
Canada	497	--	--	5	31	(3)	533	1,670
China	--	169	30	10	20	141	370	1,420
Czech Republic	--	--	--	--	1	--	1	1
France	--	--	--	--	(3)	(3)	(3)	3
Germany	--	20	--	23	(3)	7	50	187
Hong Kong	--	--	--	--	--	1	1	3
Hungary	--	--	--	--	--	1	1	2
India	--	--	--	--	--	(3)	(3)	2
Ireland	--	--	--	--	--	--	--	1
Israel	--	--	--	13	17	3	33	203
Italy	--	--	--	--	--	(3)	(3)	(3)
Japan	--	--	--	--	--	6	6	81
Korea, Republic of	--	--	--	17	7	(3)	24	62
Luxembourg	--	--	--	--	--	--	--	4
Mexico	--	--	--	--	--	--	--	(3)
Mongolia	--	--	--	--	--	--	--	(3)
Netherlands	--	--	--	(3)	--	(3)	(3)	1
Peru	--	--	--	--	--	--	--	21
Portugal	67	--	--	--	--	--	67	239
Russia	--	--	--	--	--	(3)	(3)	1
Rwanda	47	--	--	--	--	--	47	91
Singapore	--	--	--	--	--	--	--	1
Spain	--	--	--	--	--	(3)	(3)	(3)
Sweden	--	--	--	--	--	(3)	(3)	5
Switzerland	--	--	--	--	--	--	--	(3)
Taiwan	--	--	--	--	--	(3)	(3)	15
Thailand	16	--	--	--	--	--	16	16
United Kingdom	--	--	--	--	(3)	(3)	(3)	21
Total	679	190	30	69	81	162	1,210	4,240
Total, year to date	2,030	765	111	365	529	433	4,240	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than 1/2 unit.

Note: Imports of waste and scrap in May 2003 totaled 112 metric tons, tungsten content, to give a year-to-date total of 576 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total	Total year to date
2002	94	69	496	1,250	1,050	2,960	XX
2003:							
March	2	--	67	111	122	303	1,020
April	(4)	1	91	229	199	521	1,540
May:							
Australia	--	--	--	1	--	1	3
Belgium	--	--	--	1	2	4	11
Brazil	--	--	(4)	(4)	(4)	(4)	21
Canada	--	--	3	5	7	15	97
Chile	--	--	--	--	--	--	1
China	--	--	--	--	(4)	(4)	15
Colombia	--	--	--	--	(4)	(4)	1
Czech Republic	--	--	--	--	(4)	(4)	1
Egypt	--	--	--	--	(4)	(4)	1
Finland	--	--	--	1	--	1	1
France	--	--	2	9	5	17	144
Germany	--	19	15	189	11	234	790
Hong Kong	--	--	(4)	--	--	(4)	2
Hungary	--	--	--	--	(4)	(4)	(4)
India	--	--	1	(4)	2	3	14
Indonesia	--	--	--	--	--	--	1
Ireland	--	--	--	2	--	2	9
Israel	--	--	2	--	1	3	56
Italy	--	--	2	(4)	1	4	29
Japan	--	--	1	(4)	4	6	42
Korea, Republic of	--	--	(4)	(4)	(4)	1	12
Luxembourg	--	--	--	--	--	--	6
Malaysia	--	--	(4)	(4)	5	5	10
Mexico	--	--	2	--	22	23	122
Netherlands	--	34	--	--	5	39	59
New Zealand	--	--	--	--	(4)	(4)	2
Philippines	--	--	--	--	--	--	6
Poland	--	--	--	--	(4)	(4)	2
Singapore	--	--	1	(4)	1	1	9
Slovakia	--	--	(4)	--	(4)	(4)	5
South Africa	--	--	(4)	10	(4)	11	46
Spain	--	--	(4)	--	2	2	13
Sweden	--	--	39	--	1	40	144
Switzerland	--	--	1	--	(4)	1	4
Taiwan	(4)	--	5	--	25	31	124
Turkey	--	--	2	--	--	2	2
United Kingdom	--	--	1	33	1	36	218
Other	--	--	--	(4)	1	1	2
Total	(4)	53	78	254	98	483	2,020
Total, year to date	5	56	329	1,020	613	2,020	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than 1/2 unit.

Note: Estimated exports of waste and scrap in May 2003 totaled 20 metric tons, tungsten content, to give a year-to-date total of 149 metric tons, tungsten content.

Source: U.S. Census Bureau.