

Mineral Industry Surveys

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TUNGSTEN IN APRIL 2001

U.S. net production of tungsten metal powder and tungsten carbide powder produced from metal powder during January through April 2001 slightly lower than that during the same period in 2000, 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 in January through April 2001 was approximately equal to that during the same period in 2000. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for April 2001 will be published in a subsequent issue.

Note

All data in this report have been rounded to no more than

three significant digits. Totals and percentages were calculated by using unrounded data.

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 May 1 to 31, 2001, are as follows:

Low—\$67/metric ton unit WO₃ (\$61/short ton unit WO₃)
High—\$74/metric ton unit WO₃ (\$67/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production 4/	Reported consumption 5/	Stocks, end of period	
			Industry 2/	U.S. Government 3/				Industry 6/	U.S. Government 3/
2000: p/									
April	W	277	W	34,600	385	849	746	1,090	2,480
May	W	336	W	33,900	349	836	728	1,200	2,320
June	W	169	W	33,900	406	824	701	1,240	2,320
July	W	196	W	33,900	413	779	745	1,160	2,290
August	W	136	W	33,900	433	688	665	1,150	2,280
September	W	97	W	33,500	380	784	746	1,120	2,250
October	W	342	W	33,500	448	748	718	1,080	2,180
November	W	97	W	33,500	444	784	684	1,140	2,180
December	W	190	W	33,400	413	731	667	1,160	2,110
January-December	W	2,370	XX	XX	5,040	9,470	8,600	XX	XX
2001:									
January	W	151	W	33,400	477	840	793 r/	W	2,050
February	W	112	W	33,200	483	772	738 r/	W	1,840
March	W	92	W	32,600	489	792	715 r/	W	1,740
April	W	NA	W	32,500	486	806	698	W	1,710
Total	W	NA	XX	XX	1,930	3,210	2,940	XX	XX

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; not included in total. XX Not applicable.

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

2/ Reported by consumers.

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

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

5/ Includes estimates and scrap.

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

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
2000: p/			
April	W	797	192
May	W	671	W
June	W	W	68
July	W	W	W
August	W	944	212
September	W	696	W
October	W	841	146
November	W	822	121
December	W	749	W
January-December 3/	1,270	7,590	XX
2001:			
January	W	905	W
February	W	W	W
March	W	877	141
April	W	926	W
Total 3/	W	2,710	XX

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; not included in "Total." XX Not applicable.

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

2/ Producers and consumers.

3/ Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product	Net production 2/				Stocks at end of period		
	2000 p/	2001		Year to date	2000 p/	2001	
		March	April			March	April
Metal powder	4,980	317	321	1,400	621	537	550
Tungsten carbide powder (made from metal powder)	4,490	475	485	1,810	538	W	W
Total 3/	9,470	792	806	3,210	1,160	W	W

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; not included in total.

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

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

3/ Data 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 IN 2001 1/ 2/ 3/

(Metric tons, tungsten content)

End use	March	April	Year to date
Steels	48	40	175
Superalloys	25	36	118
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	498 r/	475	1,980
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	144	147	672
Total	715 r/	698	2,940

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

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

3/ Includes estimates.

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

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

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS 1/ 2/ 3/

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials 4/	Total
Consumption:						
2000: p/						
April	41	178	481	35	11	746
May	41	145	495	38	9	728
June	37	126	496	32	10	701
July	36	W	483	28	W	745
August	37	106	485	29	8	665
September	36	W	498	32	W	746
October	36	164	476	34	8	718
November	36	129	476	34	8	684
December	40	110	479	30	8	667
January-December	476	1,770	5,850	387	105	8,600
2001:						
January	45	192	516 r/	32	8	793 r/
February	38 r/	169	493 r/	30	8	738 r/
March	46 r/	132 r/	497 r/	33	8	715 r/
April	37	143	476	33	8	698
January-March	166	636	1,980	128	32	2,940
Stocks:						
2000: p/						
April	37	16	418	33	11	515
May	29	17	418	29	13	506
June	52	17	415	25	16	524
July	48	13	409	26	11	508
August	44	14	420	29	11	518
September	38	14	412	38	11	513
October	46	16	414	37	11	526
November	41	23	405	40	11	520
December	36	20	406	40	11	514
2001:						
January	29 r/	16	422 r/	34	11	513 r/
February	32 r/	18	435 r/	31	11	528 r/
March	26 r/	14	432 r/	25	11	508 r/
April	23	16	433	26	11	509

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in total.

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

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

3/ Includes estimates.

4/ Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(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
2000 p/	2,370	2,270	470	593	1,000	2,480	9,190	XX
2001:								
January	151	186	58	98	111	187	791	791
February	112	255	--	62	83	108	620	1,410
March:								
Austria	--	--	--	--	6	6	12	20
Belgium	--	--	--	(3/)	--	(3/)	(3/)	1
Bolivia	--	--	--	--	--	--	--	60
Canada	--	--	--	--	47	--	47	147
China	(3/)	232	(3/)	114	29	123	498	1,250
Czech Republic	--	--	--	--	--	--	--	1
France	--	--	--	1	(3/)	(3/)	1	3
Germany	--	1	--	4	4	11	20	136
Hong Kong	--	13	--	--	--	(3/)	13	107
Hungary	--	--	--	--	--	1	1	2
India	--	--	--	--	--	(3/)	(3/)	15
Israel	--	--	--	--	4	2	6	31
Japan	7	--	--	2	--	2	10	21
Korea, Republic of	--	--	--	--	--	--	--	1
Luxembourg	--	--	--	--	--	--	--	6
Mexico	--	--	--	--	--	(3/)	(3/)	(3/)
Mongolia	--	--	--	--	--	--	--	12
Netherlands	--	--	--	(3/)	--	(3/)	(3/)	(3/)
Portugal	78	--	--	--	--	--	78	135
Russia	--	40	--	--	--	24	64	138
Singapore	--	--	--	--	--	--	--	1
Spain	--	--	--	--	--	(3/)	(3/)	(3/)
Sweden	--	--	--	--	--	(3/)	(3/)	(3/)
Switzerland	--	--	--	--	--	(3/)	(3/)	1
Taiwan	--	--	--	--	--	(3/)	(3/)	(3/)
Thailand	--	--	--	--	--	(3/)	(3/)	27
Uganda	8	--	--	--	--	--	8	8
United Kingdom	--	--	--	--	(3/)	(3/)	(3/)	41
Total	92	285	(3/)	122	90	170	759	2,170
Total, year to date	356	726	58	282	285	464	2,170	XX

p/ Preliminary. XX Not applicable. -- Zero.

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

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

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in March 2001 totaled 102 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(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
2000 p/	70	53	467	969	483	2,040	XX
2001:							
January	3	7	50	157	42	258	268
February	33	6	45	140	136	361	620
March:							
Australia	--	--	1	--	1	1	2
Belgium	--	--	5	1	(4/)	6	8
Brazil	--	--	1	1	1	3	13
Canada	--	--	6	19	4	30	74
China	--	--	7	2	1	9	10
Czech Republic	--	33	--	--	--	33	33
Denmark	--	--	--	(4/)	--	1	1
France	--	--	1	22	1	24	76
Germany	--	--	24	48	18	90	207
Hong Kong	--	--	(4/)	--	(4/)	(4/)	(4/)
Hungary	--	--	--	--	2	2	2
India	--	--	1	--	2	2	8
Indonesia	--	--	(4/)	--	(4/)	1	1
Ireland	--	--	--	2	(4/)	2	2
Israel	--	--	--	--	(4/)	(4/)	1
Italy	--	--	1	2	(4/)	2	5
Japan	1	--	2	1	4	8	33
Korea, Republic of	--	--	(4/)	1	(4/)	2	4
Malaysia	--	--	--	--	--	--	(4/)
Mexico	--	1	1	--	3	5	17
Netherlands	--	23	--	(4/)	203	226	354
New Zealand	--	--	--	--	--	--	(4/)
Philippines	--	--	--	--	1	1	1
Singapore	--	--	(4/)	(4/)	(4/)	1	2
South Africa	--	--	--	--	--	--	1
Spain	--	--	(4/)	--	2	3	8
Sweden	4	--	15	38	11	67	126
Switzerland	--	--	(4/)	1	(4/)	1	1
Taiwan	--	--	2	(4/)	1	2	7
Turkey	--	--	--	--	--	--	(4/)
United Kingdom	(4/)	--	1	66	2	69	210
Venezuela	--	1	(4/)	--	--	1	1
Other	--	--	(4/)	--	(4/)	1	1
Total	5	58	66	204	259	592	1,210
Total, year to date	41	71	162	502	436	1,210	XX

p/ Preliminary. XX Not applicable. -- Zero.

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

2/ Tungsten content estimated from reported gross weight.

3/ Includes wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

4/ Less than 1/2 unit.

Note: Estimated exports of waste and scrap in March 2001 totaled 95 metric tons, tungsten content.

Source: U.S. Census Bureau.