

Mineral Industry Surveys

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TUNGSTEN IN MARCH 2002

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 13% lower during January through March 2002 than net production during the same period in 2001, 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 March 2002 was 5% lower than that during the same period in 2001. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for March 2002 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 (WO_3) content of 65%. The prices for April 1-30, 2002, are as follows:

Low—\$25/metric ton unit WO_3 (\$23/short ton unit WO_3)
High—\$45/metric ton unit WO_3 (\$41/short ton unit WO_3)

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. Gov-ernment 3/				Industry 6/	U.S. Gov-ernment 3/
2001: p/									
March	W	92	W	32,600	499	859	739 r/	W	1,740
April	W	179	W	32,500	605	985	793 r/	W	1,710
May	W	302	W	32,300	461	866	717 r/	1,030	1,610
June	W	288	W	32,300	488	904	691 r/	1,040	1,540
July	W	275	W	32,300	544	735	759 r/	909	1,490
August	W	247	W	32,100	510	781 r/	712 r/	851 r/	1,440
September	W	246	W	32,100	402	788 r/	732 r/	813 r/	1,410
October	W	389	W	NA	449	584 r/	769 r/	693 r/	NA
November	W	149	W	NA	372	696 r/	742 r/	676 r/	NA
December	W	253	W	NA	350	573 r/	672 r/	699 r/	NA
January-December	W	2,680	XX	XX	5,660	9,520 r/	8,880 r/	XX	XX
2002:									
January	W	207	W	NA	330 r/	759 r/	724	686 r/	NA
February	W	79	W	NA	323 r/	750 r/	732	654 r/	NA
March	W	NA	W	NA	332	763	720	633	NA
Total	W	NA	XX	XX	985	2,270	2,180	XX	XX

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. 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/
2001: p/			
March	W	890	151
April	W	927	W
May	W	W	119
June	W	913	88
July	W	726	100
August	W	835 r/	140 r/
September	W	W	97 r/
October	W	721 r/	179 r/
November	W	619 r/	W
December	W	481 r/	W
January-December 3/	W	7,020 r/	XX
2002:			
January	W	621 r/	W
February	W	656 r/	118 r/
March	W	602	W
Total	W	1,880	XX

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data. 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 3/	Net production 2/				Stocks at end of period		
	2002				2002		
	2001 p/ r/	February r/	March	Year to date	2001 p/ r/	February r/	March
Metal powder	5,190	430	434	1,300	367	308	311
Tungsten carbide powder (made from metal powder)	4,330	320	329	968	332	346	322
Total	9,520	750	763	2,270	699	654	633

p/ Preliminary. r/ Revised.

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 1/ 2/ 3/

(Metric tons, tungsten content)

End use	February	March	Year to date
Steels	42	41	125
Superalloys	27	26	87
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	483	474	1,440
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	179	178	527
Total	732	720	2,180

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

TABLE 5
U.S. REPORTED CONSUMER STOCKS OF TUNGSTEN MATERIALS 1/

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials 2/	Total
2001: p/						
March	23 r/	23 r/	512 r/	43 r/	9 r/	610 r/
April	20 r/	25 r/	592 r/	39 r/	9 r/	685 r/
May	24 r/	16 r/	475 r/	39 r/	9 r/	563 r/
June	14 r/	14	541 r/	45 r/	9 r/	624 r/
July	36 r/	14	527 r/	39 r/	9 r/	626 r/
August	29 r/	23 r/	500 r/	46 r/	9 r/	605 r/
September	36 r/	14	489 r/	39 r/	9 r/	587 r/
October	41 r/	27 r/	544 r/	41 r/	9 r/	661 r/
November	40	16	493	46	9	603
December	37	16	550	44	9	655
2002:						
January	42	16	495 r/	27	11	590 r/
February	36	13	487 r/	33	11	580 r/
March	33	16	494	32	11	586

p/ Preliminary. r/ Revised.

1/ Includes estimates.

2/ 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	Ferrotungsten	Metal powder	Tungsten carbide powder	Other 2/	Total	Total year to date
2001 p/	2,680	2,720	352	947	932	2,120	9,750	XX
2002:								
January	207	296	14	45	65	138	765	765
February:								
Austria	--	--	--	--	1	2	2	13
Belgium	--	--	--	(3/)	--	--	(3/)	(3/)
Bolivia	47	--	--	--	--	--	47	110
Canada	--	--	--	--	31	--	31	54
China	13	46	72	44	11	11	197	723
France	--	--	--	--	1	(3/)	1	1
Germany	--	21	--	4	9	5	39	55
Hong Kong	--	--	--	--	--	(3/)	(3/)	1
Hungary	--	--	--	--	--	1	1	1
India	--	--	--	--	--	(3/)	(3/)	22
Israel	--	--	--	--	15	1	16	34
Italy	--	--	--	--	--	--	--	(3/)
Japan	--	--	--	--	--	3	3	8
Korea, Republic of	--	--	--	2	1	--	3	6
Malaysia	--	--	--	--	--	(3/)	(3/)	(3/)
Netherlands	--	--	--	--	--	(3/)	(3/)	(3/)
Peru	--	--	--	--	--	--	--	5
Portugal	19	--	--	--	--	--	19	87
Russia	--	--	--	--	--	--	--	(3/)
Singapore	--	--	--	--	--	(3/)	(3/)	(3/)
Spain	--	--	--	--	--	(3/)	(3/)	(3/)
Sweden	--	--	--	--	1	(3/)	1	6
Switzerland	--	--	--	--	--	(3/)	(3/)	(3/)
Taiwan	--	--	--	--	--	(3/)	(3/)	(3/)
United Kingdom	--	--	--	20	(3/)	(3/)	20	20
Total	79	67	72	71	69	22	381	1,150
Total, year to date	286	363	86	116	134	161	1,150	XX

p/ Preliminary. -- 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 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 February 2002 totaled 80 metric tons, tungsten content, to give a year-to-date total of 121 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
2001 p/	220	257	569	1,950	1,120	4,110	XX
2002:							
January	15	--	55	101	171	342	342
February:							
Australia	--	--	1	--	--	1	3
Austria	--	--	--	--	--	--	2
Belgium	--	--	--	2	2	4	4
Brazil	--	--	(4/)	(4/)	6	6	7
Canada	--	--	3	15	13	31	55
China	--	--	--	--	1	1	1
Colombia	--	--	--	--	(4/)	(4/)	1
Czech Republic	--	--	--	2	--	2	5
Ecuador	--	--	--	--	(4/)	(4/)	(4/)
Egypt	--	--	--	--	--	--	(4/)
Finland	--	--	--	--	--	--	(4/)
France	--	--	1	11	(4/)	12	16
Germany	--	6	20	15	15	56	147
Hong Kong	--	--	(4/)	--	--	(4/)	(4/)
Hungary	--	--	--	--	1	1	4
India	--	--	(4/)	(4/)	1	1	2
Indonesia	--	--	--	--	(4/)	(4/)	1
Ireland	--	--	--	--	(4/)	(4/)	1
Israel	--	--	--	--	1	1	3
Italy	--	--	1	3	(4/)	4	6
Japan	--	--	(4/)	1	5	6	11
Korea, Republic of	--	--	(4/)	3	(4/)	3	9
Kuwait	--	--	--	--	--	--	(4/)
Macao	--	--	--	--	1	1	1
Mexico	(4/)	--	(4/)	--	29	29	36
Netherlands	3	13	--	(4/)	2	18	82
New Zealand	--	--	--	--	--	--	(4/)
Nigeria	--	--	--	--	--	--	(4/)
Norway	--	--	(4/)	--	--	(4/)	(4/)
Peru	--	--	(4/)	--	--	(4/)	(4/)
Philippines	--	--	--	--	1	1	1
Singapore	--	--	(4/)	(4/)	1	2	4
Slovakia	--	--	--	--	(4/)	(4/)	(4/)
South Africa	--	--	--	(4/)	(4/)	(4/)	2
Spain	--	2	--	--	1	3	3
Sweden	--	--	--	3	(4/)	3	19
Switzerland	--	--	(4/)	--	(4/)	(4/)	(4/)
Taiwan	--	--	1	--	1	2	13
Thailand	--	--	1	--	--	1	1
Turkey	--	--	--	--	--	--	1
United Arab Emirates	--	--	--	--	(4/)	(4/)	(4/)
United Kingdom	2	--	1	(4/)	2	5	92
Total	6	21	30	56	84	196	538
Total, year to date	21	21	85	157	255	538	XX

p/ Preliminary. -- 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 unwrought tungsten, including bars and rods obtained simply by sintering, 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 February 2002 totaled 27 metric tons, tungsten content, to give a year-to-date total of 59 metric tons, tungsten content.

Source: U.S. Census Bureau.