

Mineral Industry Surveys

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TUNGSTEN IN FEBRUARY 2000

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from hydrogen-reduced metal powder, was 15% higher during January through February 2000 than net production during the same period in 1999, 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 February 2000 was approximately the same as that during the same period in 1999. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for February 2000 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 March 1 to 31, 2000, are as follows:

Low—\$38/metric ton unit WO_3 (\$34/short ton unit WO_3)
High—\$48/metric ton unit WO_3 (\$44/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. Government 3/				Industry 6/	U.S. Government 3/
1999: p/									
February	W	156	W	34,600	307	711	699	1,430	2,700
March	W	714	308	34,600	343	816	669	1,490	2,700
April	348	90	W	34,600	302	767	630	1,390	2,700
May	388	383	W	34,600	306	832	647	1,470	2,700
June	313	662	W	34,600	305	784	596	1,440	2,700
July	333	232	531	34,600	228	721	646	1,430	2,700
August	323	145	513	34,600	294	829	667	1,420	2,700
September	395	94	W	34,600	256	936	702	1,350	2,700
October	W	133	W	34,600	336 r/	957	678	1,460	2,700
November	W	71	W	34,600	244 r/	701	656	1,450 r/	2,700
December	W	66	W	34,600	162 r/	820 r/	664	1,410 r/	2,700
January-December 7/	2,100	2,870	XX	XX	3,360 r/	9,690 r/	7,920	XX	XX
2000:									
January	W	267	W	34,600	318 r/	866 r/	668 r/	1,310 r/	2,700
February	W	NA	W	34,600	283	881	672	1,370	2,650
Total	W	NA	XX	XX	601	1,750	1,340	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, tungsten carbide powder, chemicals, and other products.

5/ Includes estimates and scrap.

6/ Reported by producers.

7/ Does not include withheld data.

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/
1999: p/			
February	W	474	512
March	W	831	542
April	W	701	476
May	W	739	496
June	W	W	648
July	W	821	503
August	W	723	505
September	W	726	448
October	W	870	496
November	W	770	431
December	W	W	448
January-December 3/	W	7,190	XX
2000:			
January	W	797 r/	524
February	W	812	401
Total	W	1,610	XX

p/ Preliminary. r/ Revised. 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				2000		
	1999 p/	January	February	Year to date	1999 p/	January	February
Metal powder	4,810 r/	498 r/	430	928	758 r/	721 r/	766
Tungsten carbide powder (made from metal powder)	4,880 r/	368 r/	451	819	565 r/	532 r/	531
Cast and crystalline carbide powder; other	W	W	W	W	W	W	W
Chemicals	W	W	W	W	88 r/	57 r/	74
Total 3/	9,690 r/	866 r/	881	1,750	1,410 r/	1,310 r/	1,370

p/ Preliminary. r/ Revised. 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/ Does not include withheld data.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE IN 2000 1/ 2/ 3/

(Metric tons, tungsten content)

End use	January	February	Year to date
Steel	51	51	102
Superalloys	35	33	68
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	440 r/	446	886
Mill products made from metal powder	84 r/	85	169
Chemical uses	W	W	W
Miscellaneous and unspecified	57	57	115
Total	668 r/	672	1,340

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:						
1999: p/						
February	43	122	491	33	9	699
March	45	98	488	30	9	669
April	43	121	432	25	9	630
May	45	141	422	30	9	647
June	41	102	419	25	10	596
July	41	111	456	28	10	646
August	41	145	449	21	10	667
September	57	170	445	21	9	702
October	47	117	483	23 r/	8 r/	678
November	44	88	487	27 r/	11	656
December	48	82	494	30 r/	10 r/	664
January-December	538	1,390	5,560	328 r/	112 r/	7,930 r/
2000:						
January	47	91 r/	491 r/	30	8	668 r/
February	47	92	494	30	9	672
January-February	94	183	985	61	17	1,340
Stocks:						
1999: p/						
February	25	22	403	32	16	498
March	27	26	419	26	17	515
April	26	24	410	20	17	497
May	27	19	406	20	18	490
June	33	18	404	20	20	494
July	31	20	414	18	18	502
August	36	22	401	24	17	499
September	22	19	399	23	17	480
October	27	22	397	28	16	489
November	25	24	398	22	18	486
December	32	19	401	19 r/	17 r/	487
2000:						
January	33	22	400	19 r/	17 r/	490
February	27	20	403	24	16	491

p/ Preliminary. r/ Revised.

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
1999 p/	2,870	1,920	669	310	790	3,100	9,670
2000:							
January:							
Austria	--	--	--	--	(3/)	9	10
Belgium	--	--	--	(3/)	--	(3/)	(3/)
Bolivia	40	--	--	--	--	--	40
Canada	--	--	--	(3/)	41	(3/)	41
China	--	310	59	23	7	84	484
Estonia	--	--	--	--	--	8	8
France	--	--	--	--	(3/)	(3/)	(3/)
Germany	--	--	--	3	7	6	16
Hungary	--	--	--	--	--	(3/)	(3/)
India	--	--	--	--	--	(3/)	(3/)
Ireland	--	--	--	--	--	(3/)	(3/)
Israel	--	--	--	8	--	1	9
Italy	--	--	--	--	(3/)	(3/)	(3/)
Japan	--	--	--	1	1	1	3
Korea, Republic of	--	--	--	--	--	(3/)	(3/)
Luxembourg	--	--	--	--	(3/)	--	(3/)
Mexico	--	--	--	--	--	(3/)	(3/)
Netherlands	--	--	--	--	--	(3/)	(3/)
Peru	12	--	--	--	--	--	12
Portugal	44	--	--	--	--	--	44
Russia	171	18	--	--	--	--	189
Singapore	--	--	--	--	--	(3/)	(3/)
Switzerland	--	--	--	--	--	(3/)	(3/)
Taiwan	--	--	--	--	--	(3/)	(3/)
United Kingdom	--	--	--	20	(3/)	(3/)	20
Total	267	328	59	56	56	111	877

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 January 2000 totaled 82 metric tons, tungsten content.

Source: Bureau of the Census.

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
1999 p/	26	103	711	701	498	2,040
2000:						
January:						
Argentina	(4/)	--	--	--	--	(4/)
Australia	--	--	(4/)	--	1	1
Belgium	--	--	--	--	(4/)	(4/)
Brazil	--	--	2	(4/)	1	3
Canada	--	--	3	11	7	20
China	--	--	--	--	(4/)	(4/)
Columbia	--	--	(4/)	--	--	(4/)
Finland	--	--	--	--	(4/)	(4/)
France	--	--	1	--	(4/)	1
Germany	--	--	6	12	9	27
Hong Kong	--	--	(4/)	--	--	(4/)
Hungary	--	--	--	--	1	1
India	--	--	--	--	1	1
Indonesia	--	--	--	(4/)	1	1
Ireland	--	--	--	(4/)	--	(4/)
Israel	--	--	--	--	(4/)	(4/)
Italy	--	--	(4/)	2	(4/)	3
Japan	--	--	3	1	1	5
Korea, Republic of	--	--	(4/)	(4/)	--	(4/)
Luxembourg	1	--	--	--	--	1
Mexico	--	--	1	1	2	3
Monaco	--	--	--	--	(4/)	(4/)
Netherlands	--	--	--	1	(4/)	1
Singapore	--	--	--	(4/)	(4/)	(4/)
Spain	--	--	--	--	(4/)	(4/)
Sweden	--	--	(4/)	(4/)	--	(4/)
Switzerland	--	--	--	--	(4/)	(4/)
Taiwan	--	--	(4/)	--	(4/)	1
Thailand	--	--	(4/)	--	--	(4/)
United Kingdom	1	--	1	1	1	4
Venezuela	--	--	--	--	(4/)	(4/)
Total	2	--	18	29	26	75

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 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 January 2000 totaled 126 metric tons, tungsten content.

Source: Bureau of the Census.