

Mineral Industry Surveys

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TUNGSTEN IN JULY 2006

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was slightly higher during January through July 2006 than net production during the same period in 2005, 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 July 2006 was 3% higher than that consumed during the same period in 2005. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for January through June 2006 are published in this 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 August 1-31, 2006, are as follows:

Low—\$150/metric ton unit WO₃ (\$136/short ton unit WO₃)
High—\$170/metric ton unit WO₃ (\$154/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consump- tion	Imports for consumption	Stocks, end of period			Net production ⁴	Reported consump- tion ⁵	Stocks, end of period	
			Industry ²	U.S. Gov- ernment ³			Industry ⁶	U.S. Gov- ernment ³	
2005:									
July	W	122	W	27,100	324	538	831	749	564
August	W	135	W	26,700	516	743	1,040	837	546
September	W	73	W	26,700	295	660	915	847	518
October	W	224	W	26,500	383	651	854	880	403
November	W	227	W	26,100	411	609	810	828	403
December	W	249	W	26,100	296	561	872	800	282
January-December	W	2,080	XX	XX	4,550	7,810	10,800	XX	XX
2006:									
January	W	187	W	26,000	441	647	960	767	266
February	W	197	W	25,900	317 ^r	604	906 ^r	653	266
March	W	173	W	25,700	399 ^r	764	956	721	266
April	W	133	W	25,000	405 ^r	717	985 ^r	741	266
May	W	161	W	24,500	492 ^r	685 ^r	1,000 ^r	724	266
June	W	185	W	24,100	338 ^r	714 ^r	923 ^r	772 ^r	266
July	W	230	W	24,100	322	554	804	761	266
Total	W	1,270	XX	XX	2,720	4,680	6,540	XX	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.

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
2005:			
July	W	652	103
August	W	810	118
September	W	681	W
October	W	843	170
November	W	(3)	153
December	W	(3)	W
January-December	W	9,530	XX
2006:			
January	W	991	W
February	W	783	W
March	W	1,000	W
April	W	930	177
May	W	1,190 ^r	114 ^r
June	W	1,010	60
July	W	753	56
Total	W	6,660	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.

³Withheld to avoid disclosing company proprietary data; included in "Total."

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

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2006			Year to date	2006		
	2005	June ^r	July		2005	June ^r	July
Metal powder	3,150	264	176	1,820	395	362	393
Tungsten carbide powder	4,660	450	379	2,870	405	410	368
Total	7,810	714	554	4,680	800	772	761

^rRevised.

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

²Receipts plus gross 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	2006		
	June	July	Year to date
Steels	31 ^r	23	160
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	480 ^r	488	3,450
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	412 ^r	293	2,930
Total	923 ^r	804	6,540

^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 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:						
2005:						
July	19	W	493	W	6	831
August	19	W	497	W	6	1,040
September	19	W	490	W	6	915
October	19	W	493	W	6	854
November	19	W	494	W	6	810
December	19	W	493	W	6	872
January-December	231	W	5,930	W	73	10,800
2006:						
January	19	W	500	W	6	960
February	19	W	480 ^r	W	6	906 ^r
March	18	W	486	W	6	956
April	19	W	477 ^r	W	6	985 ^r
May	19	W	495 ^r	W	6	1,000 ^r
June	19	W	481 ^r	W	6	923 ^r
July	20	W	479	W	6	804
Total	133	W	3,400	W	43	6,540
Stocks:						
2005:						
July	26	28	415	31	9	508
August	25	32	386	31	9	482
September	24	29	401	30	9	493
October	23	26	436	33	9	527
November	21	26	426	30	9	512
December	21	26	394	29	9	478
2006:						
January	20	26	368 ^r	35 ^r	9	458 ^r
February	24	26	373 ^r	40 ^r	9	472 ^r
March	24	26	369	37 ^r	9	464 ^r
April	23	26	368	34 ^r	9	460 ^r
May	22	25	370	43 ^r	9	469 ^r
June	24	25	374	48 ^r	9	480 ^r
July	23	29	374	40	9	475

^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	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2005	2,080	1,920	385	1,530	1,690	1,480	9,090	XX
2006:								
April	133	389	54	176	167	149	1,070	3,240
May	161	371	40	118	159	151	999	4,240
June:								
Australia	--	--	--	--	--	(3)	(3)	24
Austria	--	--	--	--	--	3	3	11
Belgium	--	--	--	(3)	(3)	1	1	4
Bolivia	57	--	--	--	--	--	57	328
Canada	1	--	--	6	18	--	25	383
China	--	290	26	8	63	151	538	2,910
Congo (Kinshasa)	--	--	--	--	--	--	--	21
Czech Republic	--	--	--	--	--	(3)	(3)	10
France	--	--	--	(3)	(3)	1	1	6
Germany	--	18	--	70	3	9	101	403
Hong Kong	--	--	--	--	--	1	1	3
Hungary	--	--	--	--	--	1	1	2
India	--	--	--	--	--	(3)	(3)	1
Israel	--	--	--	35	17	16	68	310
Japan	--	--	--	(3)	--	2	2	19
Korea, Republic of	--	--	--	27	(3)	(3)	28	121
Mexico	--	--	--	--	--	--	--	15
Netherlands	--	(3)	--	--	--	(3)	(3)	10
Portugal	72	--	--	--	--	--	72	361
Russia	--	--	--	--	--	16	16	34
Rwanda	34	--	--	--	--	--	34	105
Singapore	--	--	--	--	--	4	4	7
South Africa	--	--	--	--	--	--	--	10
Spain	--	--	--	--	--	(3)	(3)	4
Sweden	--	--	--	(3)	--	(3)	(3)	17
Thailand	20	--	--	--	--	--	20	57
Ukraine	--	--	--	--	--	--	--	1
United Kingdom	--	--	--	(3)	(3)	(3)	(3)	1
Uzbekistan	--	--	--	--	--	--	--	34
Vietnam	--	--	--	--	16	--	16	16
Other	--	--	--	--	--	(3)	(3)	1
Total	185	308	26	147	118	205	989	5,230
Total, year to date	1,040	1,610	168	830	828	754	5,230	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 ½ unit.

Note: Imports of waste and scrap in June 2006 totaled 178 metric tons, tungsten content, to give a year-to-date total of 983 metric tons, tungsten content.

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
2005	52	774	750	1,560	1,950	5,080	XX
2006:							
April	(4)	38	70	93	1,010	1,220	2,500
May	10	16	80	88	114	309	2,810
June:							
Argentina	--	--	--	(4)	(4)	(4)	1
Australia	--	--	(4)	1	2	3	10
Austria	--	--	2	--	--	2	3
Belgium	--	--	--	2	(4)	2	6
Brazil	--	--	(4)	1	1	3	16
Canada	--	--	10	10	6	26	161
China	12	--	1	--	4	17	272
Colombia	--	--	--	--	(4)	(4)	2
Czech Republic	--	--	--	--	1	1	75
Denmark	--	--	--	1	--	1	7
France	--	--	1	21	(4)	23	83
Germany	--	7	22	17	15	61	488
Hungary	--	--	--	--	2	2	14
India	--	--	1	4	1	5	17
Indonesia	--	--	--	(4)	(4)	(4)	2
Ireland	--	--	(4)	1	--	1	8
Israel	--	--	--	--	(4)	(4)	9
Italy	--	--	2	1	(4)	3	27
Japan	--	--	1	--	7	8	88
Korea, Republic of	(4)	--	--	(4)	1	1	10
Luxembourg	--	--	--	(4)	--	(4)	1
Malaysia	--	--	--	--	(4)	(4)	14
Mexico	--	--	17	(4)	5	22	93
Netherlands	19	--	(4)	--	1	21	937
Norway	--	--	--	--	--	--	2
Peru	--	--	(4)	--	--	(4)	3
Philippines	--	--	--	--	10	10	32
Poland	--	--	--	--	--	--	1
Saudi Arabia	--	--	--	--	(4)	(4)	2
Singapore	--	--	1	(4)	(4)	1	31
South Africa	--	--	(4)	--	--	(4)	29
Spain	--	--	(4)	--	2	2	8
Sweden	(4)	--	--	(4)	(4)	(4)	40
Switzerland	--	--	(4)	--	(4)	(4)	1
Taiwan	--	--	6	(4)	18	24	129
Thailand	--	--	1	--	--	1	1
Turkey	--	--	--	(4)	--	(4)	1
United Arab Emirates	--	--	--	--	(4)	(4)	1
United Kingdom	--	--	2	18	35	55	445
Venezuela	--	--	(4)	1	(4)	1	35
Other	--	--	1	(4)	1	1	5
Total	31	7	68	80	115	302	3,110
Total, year to date	126	126	471	501	1,890	3,110	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 ½ unit.

Note: Estimated exports of waste and scrap in June 2006 totaled 71 metric tons, tungsten content, to give a year-to-date total of 796 metric tons, tungsten content.

Source: U.S. Census Bureau.