

Mineral Industry Surveys

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TUNGSTEN IN JULY 2007

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 5% higher during January through July 2007 than net production during the same period in 2006, 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 2007 was slightly greater than that consumed during the same period in 2006. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

U.S. trade data for June 2007 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 price range for August 2007 was as follows:

Low—\$160/metric ton unit WO₃ (\$145/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 Industry ²	U.S. Gov- ernment ³		Net production ⁴	Reported consump- tion ⁵	Stocks, end of period Industry ⁶	U.S. Gov- ernment ³
2006:									
July	W	230	W	24,100	248	556	871	758	266
August	W	91	W	24,100	(7)	673	1,030	768	266
September	W	180	W	23,300	(7)	720	1,000	773	266
October	W	212	W	23,100	266	668	1,020	766	266
November	W	256	W	22,900	343	650	958	761	266
December	W	289	W	22,900	353	646	960	827	266
January-December	W	2,290	XX	XX	4,370	8,050	12,000	XX	XX
2007:									
January	W	266	W	22,900	439	659	1,020	872	266
February	W	322	W	22,400	317	649	1,020	844	266
March	W	420	W	22,200	433	862	1,030	809	266
April	W	152	W	22,200	385	789	1,020	746	266
May	W	558	W	19,200	252	681	1,030	763	266
June	W	359	W	22,100	431	724	1,020	810	266
July	W	344	W	21,400	333	550	1,020	697	266
Total	W	2,420	XX	XX	2,590	4,920	7,140	XX	XX

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. Data through June 2007 include material committed for sale pending shipment; data from July 2007 onward are uncommitted material only.

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.

⁷Withheld to avoid disclosing company proprietary data; included in "Total."

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
2006:			
July	W	753	56
August	W	830	78
September	W	992	36
October	W	1,010	67
November	W	900	67
December	W	866	W
January-December	W	11,300	XX
2007:			
January	W	941	98
February	W	886	83
March	W	1,140	37
April	W	W	101
May	W	W	110
June	W	1,230	94
July	W	W	W
Total	W	W	XX

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.

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

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2007				2007		
	2006	June	July	Year to date	2006	June	July
Metal powder	3,260	331	233	2,150	411	396	312
Tungsten carbide powder	4,800	394	317	2,770	415	414	385
Total	8,050	724	550	4,920	827	810	697

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	2007		
	June	July	Year to date
Steels	21	25	152
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	548	545	3,810
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	446	447	3,190
Total	1,020	1,020	7,140

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 par

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:						
2006:						
July	21	W	537	W	6	871
August	22	W	536	W	6	1,030
September	20	W	537	W	6	1,000
October	28	W	538	W	6	1,020
November	20	W	546	W	6	958
December	20	W	534	W	6	960
January-December	245	W	6,490	W	72	12,000
2007:						
January	20	W	538	W	6	1,020
February	21	W	532	W	6	1,020
March	20	W	536	W	6	1,030
April	19	W	531	W	6	1,020
May	19	W	540	W	6	1,030
June	20	W	535	W	6	1,020
July	20	W	532	W	6	1,020
Total	138	W	3,750	W	42	7,140
Stocks:						
2006:						
July	23	29	372	41	9	473
August	21	27	351	45	9	454
September	20	25	355	40	9	449
October	19	26	357	35	9	446
November	20	26	354	32	9	440
December	18	26	355	34	9	442
2007:						
January	19	28	361	36	9	452
February	17	28	356	31	9	441
March	19	14	353	38	9	433
April	18	13	360	36	9	436
May	18	13	360	34	9	434
June	17	12	357	33	9	428
July	17	14	356	28	9	423

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
2006	2,290	2,900	265	1,740	1,600	1,770	10,600	XX
2007:								
April	152	356	47	134	87	105	882	3,740
May	558	176	15	128	179	211	1,270	5,010
June:								
Austria	--	--	--	--	--	3	3	13
Belgium	--	--	--	--	(3)	1	1	5
Bolivia	71	--	--	--	--	--	71	715
Brazil	21	--	--	--	--	--	21	82
Canada	88	--	--	--	14	--	101	646
China	--	366	15	32	86	103	603	2,640
Czech Republic	--	--	--	--	--	(3)	(3)	3
France	--	--	--	--	(3)	(3)	(3)	3
Germany	--	17	--	57	15	6	95	435
Hong Kong	--	--	--	--	--	1	1	7
Hungary	--	--	--	--	--	1	1	2
India	--	--	--	--	1	2	3	23
Ireland	--	--	--	--	--	--	--	4
Israel	--	--	--	24	4	4	33	370
Italy	--	--	--	--	--	--	--	11
Japan	--	--	--	2	--	3	5	32
Korea, Republic of	--	--	--	10	4	1	15	106
Mexico	7	--	--	--	--	(3)	7	27
Mongolia	--	--	--	--	--	--	--	25
Netherlands	--	--	--	--	--	(3)	(3)	28
Peru	36	--	--	--	--	--	36	191
Portugal	62	--	--	--	--	--	62	351
Russia	--	--	--	--	--	(3)	(3)	38
Rwanda	52	--	--	--	--	--	52	217
Singapore	--	--	--	--	--	3	3	18
South Africa	--	--	--	--	--	--	--	13
Sweden	--	--	--	--	1	(3)	1	2
Thailand	16	--	--	--	--	--	16	78
Uganda	8	--	--	--	--	--	8	8
United Kingdom	--	--	--	--	--	(3)	(3)	3
Uzbekistan	--	--	--	--	--	--	--	44
Vietnam	--	--	--	--	--	--	--	10
Other	--	--	--	--	--	1	1	2
Total	359	383	15	126	125	130	1,140	6,150
Total, year to date	2,080	1,490	182	806	743	850	6,150	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 June 2007 totaled 156 metric tons, tungsten content, to give a year-to-date total of 721 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
2006	130	350	959	1,010	2,670	5,130	XX
2007:							
April	65	31	100	74	135	405	1,530
May	7	60	99	87	118	372	1,900
June:							
Australia	--	--	1	2	1	4	18
Brazil	--	--	1	4	(4)	5	33
Canada	--	--	6	6	13	25	161
China	8	--	1	--	5	14	46
Colombia	--	--	--	--	(4)	(4)	2
Czech Republic	--	--	--	--	(4)	(4)	25
Denmark	--	--	--	3	--	3	9
France	--	--	2	22	(4)	24	101
Germany	--	115	39	24	9	185	923
Hungary	--	--	--	--	1	1	7
India	--	--	(4)	(4)	--	1	19
Indonesia	--	--	(4)	--	(4)	1	1
Ireland	--	--	--	1	(4)	1	4
Israel	--	--	--	--	19	19	30
Italy	--	--	3	1	1	4	13
Japan	--	--	1	(4)	9	10	59
Korea, Republic of	--	--	--	(4)	--	(4)	7
Malaysia	--	--	--	--	4	4	7
Mexico	(4)	--	24	(4)	5	29	169
Netherlands	--	--	--	1	1	2	65
Peru	--	--	--	1	--	1	3
Philippines	--	--	--	--	--	--	9
Singapore	--	--	3	1	4	8	30
South Africa	--	--	(4)	12	--	12	43
Spain	--	--	(4)	--	4	4	10
Sweden	--	--	(4)	--	(4)	(4)	89
Switzerland	--	--	--	--	(4)	(4)	4
Taiwan	--	--	13	3	(4)	16	74
United Kingdom	--	--	1	36	17	55	333
Venezuela	--	--	(4)	4	--	5	23
Other	--	--	1	(4)	1	2	15
Total	8	115	96	121	94	434	2,330
Total, year to date	90	401	510	631	700	2,330	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 2007 totaled 92 metric tons, tungsten content, to give a year-to-date total of 822 metric tons, tungsten content.

Source: U.S. Census Bureau.