

Mineral Industry Surveys

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TUNGSTEN IN MAY 2008

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 7% higher during January through May 2008 than net production during the same period in 2007, 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 May 2008 was 3% higher than that consumed during the same period in 2007. These materials were used to make alloys, cemented carbides, mill products, and other products, such as catalysts and pigments.

Data for U.S. imports and exports of tungsten for January through April 2008 and full year 2007 totals by material are published in this issue.

Update

Selected prices from Metal Bulletin for June 1-30, 2008, are listed below. U.S. ammonium paratungstate prices in dollars per metric ton unit were converted from short-ton-unit prices and rounded to the nearest dollar. Prices for tungsten ore concentrates represent combined prices for wolframite and scheelite concentrates with a minimum tungsten trioxide (WO₃) content of 65%. Concentrate prices in dollars per short ton unit were converted from metric-ton-unit prices and rounded to the nearest dollar.

Ammonium paratungstate, U.S. free market:

Low—\$276/metric ton unit WO₃ (\$250/short ton unit WO₃)
High—\$281/metric ton unit WO₃ (\$255/short ton unit WO₃)

Concentrates:

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				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period Industry ²	U.S. Government ³	Reported scrap consumption	Net production ⁴	Reported consumption ⁵	Stocks, end of period Industry ⁶	U.S. Government ³
2007:									
May	W	558	W	19,200	244	676	945	763	266
June	W	359	W	22,100	424	719	956	810	266
July	W	344	W	21,400	325	545	769	697	266
August	W	315	W	21,400	309	688	949	800	268
September	W	344	W	21,300	256	831	1,030	780	268
October	W	299	W	21,300	494	609	826	794	268
November	W	315	W	21,200	348	654	917	745	235
December	W	189	W	21,200	283	697	908	825	235
January-December	W	3,880	XX	XX	4,230	8,360	11,100	XX	XX
2008:									
January	W	221	W	21,200	318	818	1,020	796	235
February	W	383	W	21,200	360	650	983	738	235
March	W	339	W	21,200	373	788	996	685	235
April	W	252	W	21,100	498	802	970	728	235
May	W	378	W	20,900	417	811	962	787	235
Total	W	1,570	XX	XX	1,970	3,870	4,930	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 after June 2007 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.

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
2007:			
May	W	(3)	110
June	W	1,230	94
July	W	(3)	W
August	W	1,050	W
September	W	1,100	W
October	W	1,010	W
November	W	958	W
December	W	(3)	83
January-December	W	12,000	XX
2008:			
January	W	1,250	73
February	W	1,220	36
March	W	1,130	W
April	W	W	147
May	W	W	112
Total	W	6,060	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.

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		
	2008				2008		
	2007	April	May	Year to date	2007	April	May
Metal powder	3,880	371	342	1,690	406	397	408
Tungsten carbide powder	4,480	431	469	2,180	419	331	386
Total	8,360	802	811	3,870	825	728	794

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	2008		
	April	May	Year to date
Steels	22	22	110
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	512	507	2,547
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	436	433	2,270
Total	970	962	4,927

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 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:						
2007:						
May	19	W	524	W	6	945
June	20	W	519	W	6	956
July	20	W	516	W	6	769
August	20	W	518	W	6	949
September	20	W	512	W	6	1,029
October	20	W	516	W	6	826
November	20	W	512	W	6	917
December	20	W	505	W	6	908
January-December	236	W	6,195	W	72	11,136
2008:						
January	19	W	518	W	6	1,016
February	19	W	516	W	6	983
March	19	W	519	W	6	996
April	20	W	520	W	6	970
May	19	W	514	W	6	962
Total	97	W	2,587	W	30	4,927
Stocks:						
2007:						
May	18	27	405	29	9	488
June	17	27	403	29	9	483
July	17	27	402	23	9	478
August	16	27	395	23	9	468
September	14	27	624	23	9	696
October	16	27	405	23	9	479
November	15	27	401	23	9	474
December	14	27	398	25	9	472
2008:						
January	16	27	399	30	9	480
February	15	27	395	29	9	474
March	17	26	397	30	9	478
April	16	27	397	31	9	480
May	17	27	395	28	9	475

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	Ferro- tungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2007	3,880	2,700	357	1,480	1,450	1,670	11,500	XX
2008:								
February	383	127	71	97	136	108	923	1,730
March	339	151	43	62	132	124	851	2,580
April:								
Austria	--	--	--	--	(3)	2	2	9
Belgium	--	--	--	--	(3)	(3)	(3)	3
Bolivia	21	--	--	--	--	--	21	311
Brazil	--	--	--	--	--	--	--	71
Canada	63	--	--	18	30	(3)	111	420
China	--	295	--	9	16	94	415	1,530
Czech Republic	--	--	--	(3)	--	(3)	(3)	16
France	--	--	--	--	(3)	1	1	3
Germany	--	17	--	37	17	8	79	200
Hong Kong	--	--	--	--	8	17	25	51
India	--	--	--	--	--	3	3	12
Israel	--	--	--	44	15	1	60	176
Japan	--	--	--	4	--	2	6	16
Korea, Republic of	--	--	--	17	--	(3)	17	44
Mexico	5	--	--	--	--	(3)	5	6
Mongolia	--	--	--	--	--	--	--	12
Netherlands	--	--	--	--	--	(3)	(3)	3
Peru	37	--	--	--	--	--	37	137
Portugal	93	--	--	--	--	--	93	268
Russia	--	--	--	--	--	1	1	32
Rwanda	23	--	--	--	--	--	23	47
Singapore	--	--	--	--	--	1	1	6
Sweden	--	--	--	--	--	(3)	(3)	57
Thailand	--	--	--	--	--	--	--	44
United Kingdom	--	--	--	--	--	(3)	(3)	6
Other	10	--	--	--	--	(3)	11	14
Total	252	312	--	128	86	131	910	3,490
Total, year to date	1,200	709	180	360	508	540	3,490	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 April 2008 totaled 81 metric tons, tungsten content, to give a year-to-date total of 317 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
2007	109	731	1,050	1,280	1,270	4,440	XX
2008:							
February	3	66	115	144	68	396	754
March	(4)	38	92	160	89	380	1,130
April:							
Australia	(4)	--	--	--	1	2	13
Austria	--	--	--	11	--	11	63
Belgium	--	--	(4)	(4)	(4)	1	3
Brazil	--	--	2	(4)	(4)	2	26
Canada	--	--	11	11	22	44	153
China	--	--	2	2	(4)	5	21
Czech Republic	--	--	--	--	5	5	11
France	--	--	3	13	(4)	17	130
Germany	--	44	18	5	17	84	493
Hungary	--	--	--	--	3	3	7
India	--	3	(4)	(4)	3	6	15
Ireland	--	--	--	--	--	--	12
Israel	--	--	(4)	--	1	1	4
Italy	--	--	1	(4)	(4)	2	12
Japan	(4)	--	3	1	5	9	44
Korea, Republic of	--	--	(4)	(4)	(4)	1	2
Mexico	--	--	35	(4)	4	40	161
Philippines	--	--	--	--	--	--	5
Singapore	--	--	5	(4)	1	6	25
South Africa	--	--	(4)	--	(4)	(4)	13
Spain	--	--	(4)	--	1	2	2
Sweden	--	--	--	--	(4)	(4)	2
Switzerland	--	--	(4)	--	(4)	(4)	3
Taiwan	--	--	--	8	(4)	8	56
United Kingdom	--	--	2	22	3	27	108
Venezuela	--	--	(4)	--	--	(4)	14
Other	--	--	2	1	2	5	16
Total	(4)	47	87	75	69	279	1,410
Total, year to date	4	233	387	488	300	1,410	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 April 2008 totaled 134 metric tons, tungsten content, to give a year-to-date total of 558 metric tons, tungsten content.

Source: U.S. Census Bureau.