

Mineral Industry Surveys

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TUNGSTEN IN AUGUST 2010

The following comparisons are based on preliminary data. Total U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 80% more during January through August 2010 than net production during the same period in 2009, 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 August 2010 was 49% more than consumption during the same period in 2009. 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 July 2010 and full year 2009 totals by material are published in this issue.

Prices

Selected prices from Metal Bulletin for August 2010 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—\$176/metric ton unit WO₃ (\$160/short ton unit WO₃)
High—\$204/metric ton unit WO₃ (\$185/short ton unit WO₃)

Concentrates:

Low—\$140/metric ton unit WO₃ (\$127/short ton unit WO₃)
High—\$160/metric ton unit WO₃ (\$145/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
2009:									
August	W	270	W	19,700	219	411	668	656	183
September	W	165	W	19,700	315	440	704	708	172
October	W	289	W	19,500	392	665	796	750	172
November	W	150	W	19,300	371	575	761	727	172
December	W	306	W	19,000	356	589	778	682	171
January-December	W	3,590	XX	XX	3,460	5,300	8,070	XX	XX
2010:									
January	W	173	W	18,800	418	584	826	674	171
February	W	249	W	18,600	303	588	756	749	171
March	W	181	W	18,300	455	689	808	739	171
April	W	279	W	17,700	369	638	835	676	169
May	W	160	W	17,700	426	743	817	745	169
June	W	246	W	17,700	410 ^r	756 ^r	872	708 ^r	169
July	W	221	W	17,000	(7)	661 ^r	843	686 ^r	169
August	W	366	W	17,000	(7)	796	844	701	169
Total	W	1,870	XX	XX	3,450	5,450	6,600	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 the Defense Logistics Agency, DLA Strategic Materials (formerly Defense National Stockpile Center). Data 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
2009:			
August	W	535	W
September	W	(3)	W
October	W	(3)	W
November	W	667	97
December	W	(3)	100
January-December	W	6,860	XX
2010:			
January	W	829	185
February	W	761	173
March	W	822	124
April	W	929	W
May	W	777	W
June	W	952 ^r	147 ^r
July	W	(3)	146 ^r
August	W	(3)	W
Total	W	6,800	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 "January-December" or "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		
	2010				2009	2010	
	2009	July ^r	August	Year to date ⁴		July ^r	August
Metal powder	2,880	341	376	2,780	379	425	390
Tungsten carbide powder	2,420	319	421	2,670	304	260	311
Total	5,300	661	796	5,450	682	686	701

^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."

⁴May include revisions to prior months.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1, 2, 3}

(Metric tons, tungsten content)

End use	2010		
	July	August	Year to date ⁴
Steels	21	21	165
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁵	W	W	W
Cemented carbides ⁶	418	418	3,340
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	404	405	3,100
Total	843	844	6,600

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.

⁴May include revisions to prior months.

⁵Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁶Includes 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:						
2009:						
August	20	W	405	W	6	668
September	20	W	406	W	6	704
October	20	W	406	W	6	796
November	20	W	407	W	6	761
December	20	W	406	W	6	778
January-December	238	W	4,880	W	74	8,070
2010:						
January	20	W	408	W	6	826
February	20	W	407	W	6	756
March	20	W	408	W	6	808
April	20	W	410	W	6	835
May	21	W	408	W	8	817
June	20	W	411	W	9	872
July	20	W	410	W	9	843
August	20	W	410	W	8	844
Total	162	W	3,270	W	58	6,600
Stocks:						
2009:						
August	15	25	387	55	10	492
September	15	25	387	50	10	486
October	15	25	387	48	10	484
November	15	25	387	57	10	493
December	15	24	387	47	10	484
2010:						
January	15	24	387	46	9	481
February	15	24	387	50	9	484
March	15	23	387	49	9	484
April	15	25	387	57	9	493
May	15	24	387	53	20	499
June	15	28	387	49	17	497
July	15	29	386	51	14	495
August	16	28	386	54	12	495

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
2009	3,590	2,540	46	837	753	1,360	9,120	XX
2010:								
May	160	108	12	70	142	99	590	4,080
June	246	186	70	162	150	283	1,100	5,180
July:								
Australia	--	--	--	--	--	(3)	(3)	4
Austria	--	--	--	--	5	4	10	42
Belgium	--	--	--	--	1	(3)	1	32
Bolivia	52	--	--	--	--	--	52	511
Canada	--	--	--	4	16	(3)	20	89
China	--	230	--	34	95	70	428	3,230
Czech Republic	--	--	--	--	1	1	2	9
France	--	--	--	--	(3)	(3)	(3)	5
Germany	--	--	--	22	19	2	44	269
Hong Kong	--	--	--	--	--	1	1	38
Hungary	--	--	--	--	--	(3)	(3)	5
India	--	--	--	--	1	2	3	6
Ireland	--	--	--	--	--	--	--	62
Israel	--	--	--	1	9	--	10	285
Japan	--	--	--	1	--	5	6	37
Korea, Republic of	--	--	--	32	2	(3)	34	217
Luxembourg	--	--	--	--	5	--	5	5
Mexico	6	--	--	--	--	(3)	6	13
Mongolia	13	--	--	--	--	--	13	13
Netherlands	--	--	--	--	--	(3)	(3)	15
Peru	36	--	--	--	--	--	36	295
Portugal	83	--	--	--	--	--	83	406
Russia	--	--	--	--	--	(3)	(3)	3
Rwanda	--	--	--	--	--	--	--	53
Singapore	--	--	--	--	--	2	2	13
South Africa	--	--	--	--	--	--	--	32
Spain	10	--	--	1	--	(3)	10	80
Sweden	--	--	--	--	--	(3)	(3)	35
Taiwan	--	--	--	--	--	(3)	(3)	16
Thailand	--	--	--	--	--	--	--	54
Uganda	21	--	--	--	--	--	21	63
United Kingdom	--	--	--	--	--	(3)	(3)	28
Vietnam	--	--	--	--	--	--	--	4
Other	--	--	--	--	--	(3)	(3)	(3)
Total	221	230	--	94	153	90	789	5,970
Total, year to date	1,510	1,300	153	749	871	1,390	5,970	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 July 2010 totaled 366 metric tons, tungsten content, to give a year-to-date total of 995 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
2009	38	375	360	469	543	1,790	XX
2010:							
May	146	1	70	70	130	417	1,440
June	4	60	93	95	90	342	1,780
July:							
Australia	--	--	(4)	(4)	1	1	16
Austria	--	--	--	--	--	--	39
Belgium	--	--	(4)	38	(4)	39	79
Brazil	--	--	1	1	(4)	2	35
Canada	--	--	7	10	24	42	245
China	--	--	2	2	5	9	32
Colombia	--	--	--	2	--	2	7
Czech Republic	--	--	(4)	--	2	2	16
France	--	--	(4)	--	(4)	(4)	19
Germany	--	18	90	19	5	131	1,090
Hong Kong	--	--	--	(4)	(4)	(4)	11
Hungary	--	9	--	--	1	9	21
India	--	3	1	(4)	(4)	4	33
Indonesia	--	--	--	(4)	(4)	(4)	10
Ireland	--	--	--	5	--	5	24
Israel	--	--	--	--	--	--	4
Italy	--	--	--	--	(4)	(4)	4
Japan	--	--	1	(4)	5	6	29
Korea, Republic of	--	--	(4)	1	(4)	1	10
Mexico	(4)	--	13	(4)	2	16	43
Netherlands	--	--	--	--	(4)	(4)	38
Peru	--	--	2	1	--	2	5
Saudi Arabia	--	--	--	(4)	(4)	(4)	6
Singapore	--	--	(4)	1	1	3	19
South Africa	--	--	1	5	--	6	48
Spain	--	--	--	--	1	1	5
Sweden	--	--	(4)	--	1	1	22
Switzerland	--	(4)	1	--	--	2	9
Taiwan	--	(4)	--	4	2	6	55
Thailand	--	--	1	--	--	1	3
United Kingdom	--	(4)	(4)	59	3	62	117
Venezuela	--	--	(4)	1	--	1	20
Vietnam	--	--	--	--	(4)	(4)	8
Other	--	--	1	1	1	3	22
Total	(4)	29	121	152	56	359	2,140
Total, year to date	257	284	531	567	502	2,140	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 July 2010 totaled 44 metric tons, tungsten content, to give a year-to-date total of 336 metric tons, tungsten content.

Source: U.S. Census Bureau.