

Mineral Industry Surveys

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TUNGSTEN IN JANUARY 2008

January 2008 U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 17% higher than that of December 2007 and 25% higher than that of January 2007, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and tungsten chemicals in January 2008 was 12% higher than reported consumption in December 2007 and 13% higher than that of January 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 October through December 2007 and December year-to-date are published in this issue.

Update

Selected prices from Metal Bulletin for February 1-29, 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				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
2007:									
January	W	266	W	22,900	432 ^r	654 ^r	943 ^r	872	266
February	W	322	W	22,400	310 ^r	643 ^r	971 ^r	844	266
March	W	420	W	22,200	425 ^r	857 ^r	1,030 ^r	809	266
April	W	152	W	22,200	378 ^r	784 ^r	1,070 ^r	746	266
May	W	558	W	19,200	244 ^r	676 ^r	989 ^r	763	266
June	W	359	W	22,100	424 ^r	719 ^r	1,000 ^r	810	266
July	W	344	W	21,400	325 ^r	545 ^r	812 ^r	697	266
August	W	315	W	21,400	309 ^r	688 ^r	992 ^r	800 ^r	268
September	W	344	W	21,300	256 ^r	831 ^r	1,070 ^r	780 ^r	268
October	W	299	W	21,300	494 ^r	609 ^r	869 ^r	794 ^r	268
November	W	315	W	21,200	348 ^r	654 ^r	960 ^r	745 ^r	235
December	W	189	W	21,200	283 ^r	697 ^r	951 ^r	825 ^r	235
January-December	W	3,880	XX	XX	4,230 ^r	8,360 ^r	11,700 ^r	XX	XX
2008, January	W	221	W	21,200	318	818	1,070	796	235

^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. 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:			
January	W	941	98
February	W	886	83
March	W	1,140	37
April	W	(3)	101
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

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 ^r	January	Year to date	2007 ^r	January
Metal powder	3,880	407	407	406	424
Tungsten carbide powder	4,480	412	412	419	372
Total	8,360	818	818	825	796

^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	2007		2008
	December	Year to date	January
Steels	22 ^r	266 ^r	22
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	541 ^r	6,610 ^r	553
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	388 ^r	4,780 ^r	490
Total	951 ^r	11,700 ^r	1,070

^rRevised. 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:						
January	20	W	564 ^r	W	6	943 ^r
February	21	W	559 ^r	W	6	971 ^r
March	20	W	563 ^r	W	6	1,030 ^r
April	19	W	558 ^r	W	6	1,070 ^r
May	19	W	567 ^r	W	6	989 ^r
June	20	W	562 ^r	W	6	1,000 ^r
July	20	W	559 ^r	W	6	812 ^r
August	20	W	561 ^r	W	6	992 ^r
September	20	W	555 ^r	W	6	1,070 ^r
October	20	W	559 ^r	W	6	869 ^r
November	20	W	555 ^r	W	6	960 ^r
December	20	W	548 ^r	W	6	951 ^r
January-December	236	W	6,710 ^r	W	72	11,700 ^r
2008, January	19	W	561	W	6	1,070
Stocks:						
2007:						
January	19	28	406 ^r	31 ^r	9	493 ^r
February	17	28	401 ^r	26 ^r	9	481 ^r
March	19	27 ^r	398 ^r	34 ^r	9	487 ^r
April	18	27 ^r	405 ^r	32 ^r	9	491 ^r
May	18	27 ^r	405 ^r	29 ^r	9	488 ^r
June	17	27 ^r	403 ^r	29 ^r	9	483 ^r
July	17	27 ^r	402 ^r	23 ^r	9	478 ^r
August	16	27 ^r	395 ^r	23 ^r	9	468 ^r
September	14	27 ^r	624 ^r	23 ^r	9	696 ^r
October	16	27 ^r	405 ^r	23 ^r	9	479 ^r
November	15	27 ^r	401 ^r	23 ^r	9	474 ^r
December	14	27 ^r	398 ^r	25 ^r	9	472 ^r
2008, January	16	27	399	30	9	480

^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
2006	2,290	2,900	265	1,740	1,600	1,770	10,600	XX
2007:								
October	299	18	30	114	112	81	654	9,740
November	315	256	23	133	124	104	954	10,700
December:								
Austria	--	--	--	--	--	2	2	27
Belgium	--	--	--	--	(3)	--	(3)	9
Bolivia	--	--	--	--	--	--	--	1,150
Brazil	--	--	--	--	--	--	--	216
Canada	70	--	--	4	18	--	92	1,180
China	--	283	31	40	55	37	446	4,840
Czech Republic	--	--	--	--	--	(3)	(3)	5
France	--	--	--	--	--	(3)	(3)	12
Germany	--	--	--	10	9	7	25	877
Hong Kong	--	--	--	--	--	--	--	11
Hungary	--	--	--	--	--	(3)	(3)	4
India	--	--	--	--	1	2	3	49
Ireland	--	--	--	--	--	--	--	6
Israel	--	--	--	17	14	2	33	720
Italy	--	--	--	--	--	--	--	11
Japan	--	--	--	3	--	6	8	55
Korea, Republic of	--	--	--	8	2	(3)	10	181
Mexico	7	--	--	--	--	(3)	7	38
Mongolia	--	--	--	--	--	--	--	77
Netherlands	--	--	56	--	--	3	59	95
Nigeria	8	--	--	--	--	--	8	8
Peru	28	--	--	--	--	--	28	410
Portugal	62	--	--	--	--	--	62	733
Russia	--	--	--	--	--	36	36	179
Rwanda	--	--	--	--	--	--	--	270
Singapore	--	--	--	--	--	2	2	32
South Africa	--	--	--	--	--	14	14	28
Sweden	--	--	--	--	--	3	3	52
Thailand	14	--	--	--	--	--	14	157
Uganda	--	--	--	--	--	--	--	14
United Kingdom	--	--	--	--	--	(3)	(3)	22
Uzbekistan	--	--	--	--	--	--	--	64
Vietnam	--	--	--	--	--	--	--	10
Other	--	--	--	--	--	(3)	(3)	4
Total	189	283	87	81	98	115	854	11,500
Total, year to date	3,880	2,700	357	1,480	1,450	1,670	11,500	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 December 2007 totaled 112 metric tons, tungsten content, to give a year-to-date total of 1,390 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:							
October	1	50	150	117	117	435	3,740
November	(4)	3	94	115	58	270	4,010
December:							
Australia	--	--	3	--	1	4	37
Austria	--	--	--	--	--	--	4
Bolivia	--	--	--	--	--	--	17
Brazil	--	--	1	(4)	2	4	61
Canada	--	--	6	7	19	32	394
Chile	--	--	(4)	--	--	(4)	4
China	--	--	(4)	(4)	8	9	72
Colombia	--	--	--	--	(4)	(4)	4
Costa Rica	--	--	--	--	(4)	(4)	4
Czech Republic	--	--	--	--	1	1	77
Denmark	--	--	--	--	4	4	12
France	--	--	1	6	(4)	7	170
Germany	--	75	27	69	23	194	1,730
Hungary	--	--	--	--	4	4	22
India	--	--	(4)	3	(4)	4	39
Ireland	--	--	(4)	1	1	2	9
Israel	--	--	(4)	--	(4)	1	45
Italy	--	--	(4)	1	(4)	2	20
Japan	(4)	--	1	(4)	4	5	123
Korea, Republic of	--	--	(4)	1	(4)	1	12
Luxembourg	--	--	--	--	--	--	2
Malaysia	--	--	(4)	--	--	(4)	13
Mexico	1	--	24	(4)	3	28	373
Netherlands	--	--	--	--	56	56	164
Peru	--	--	1	1	--	2	11
Philippines	--	--	--	--	(4)	(4)	13
Singapore	--	--	3	(4)	(4)	3	57
South Africa	--	--	(4)	7	--	7	88
Spain	--	22	(4)	--	--	22	40
Sweden	--	--	--	--	(4)	(4)	93
Switzerland	--	--	(4)	--	--	(4)	7
Taiwan	--	--	1	(4)	1	2	122
United Kingdom	--	--	3	20	4	27	530
Venezuela	--	--	--	2	--	2	46
Other	(4)	--	(4)	(4)	4	5	25
Total	1	96	73	119	138	427	4,440
Total, year to date	109	731	1,050	1,280	1,270	4,440	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 December 2007 totaled 93 metric tons, tungsten content, to give a year-to-date total of 1,620 metric tons, tungsten content.

Source: U.S. Census Bureau.