

Mineral Industry Surveys

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TUNGSTEN IN SEPTEMBER 2002

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was about 10% higher during January through September 2002 than net production during the same period in 2001, 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 in January through September 2002 was about 16% higher than consumption during the first 9 months of 2001. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for September 2002 will be published in a subsequent issue.

Note

All data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated by using unrounded data.

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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 October 1-31, 2002, are as follows:

Low—\$32/metric ton unit WO₃ (\$29/short ton unit WO₃)
High—\$45/metric ton unit WO₃ (\$41/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production 4/	Reported consumption 5/	Stocks, end of period	
			Industry 2/	U.S. Government 3/				Industry 6/	U.S. Government 3/
2001:									
September	W	246	W	32,100	402	788	732	813	1,410
October	W	389	W	NA	449	584	769	693	NA
November	W	149	W	NA	372	696	742	676	NA
December	W	253	W	31,200 e/	350	573	672	699	1,120 e/
January-December	W	2,680	XX	XX	5,660	9,520	8,960	XX	XX
2002:									
January	W	207	W	NA	342	759	781	686	NA
February	W	79	W	NA	341	811	788	693	NA
March	W	212	W	NA	270	750	772	640	NA
April	W	292	W	NA	421	743	776	667	NA
May	W	292	W	NA	393	1,040	949	650	NA
June	W	439	W	31,200	351	1,080	924	662	1,100
July	W	362	W	30,400	346	960	949	603	1,020
August	W	418	W	30,500	230 r/	1,120	951 r/	631	987
September	W	NA	W	30,100	242	1,140	970	635	981
Total	W	NA	XX	XX	2,940	8,410	7,860	XX	XX

e/ Estimated. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Reported by consumers.

3/ Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

4/ Net production of tungsten metal powder and tungsten carbide powder.

5/ Includes estimates and scrap.

6/ Data for tungsten metal powder and tungsten carbide powder reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
2001:			
September	W	W	97
October	W	721	179
November	W	619	W
December	W	481	W
January-December 3/	W	7,020	XX
2002:			
January	W	621	W
February	W	814	118
March	W	653	W
April	W	830	W
May	W	798	W
June	W	893	103
July	W	798	161
August	W	862 r/	W
September	W	892	107
Total	W	7,160	XX

r/ Revised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Producers and consumers.

3/ Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product 3/	Net production 2/				Stocks at end of period		
	2001	2002		Year to date	2001	2002	
		August	September			August	September
Metal powder	5,190	778	794	5,420	367	330	328
Tungsten carbide powder (made from metal powder)	4,330	346	342	2,990	332	301	307
Total	9,520	1,120	1,140	8,410	699	631	635

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

2/ Gross production less quantity used to make other products in table.

3/ Data 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	August	September	Year to date
Steels	34	35	331
Superalloys	33 r/	31	328
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	462 r/	477	4,200
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	422	427	3,000
Total	951 r/	970	7,860

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 MATERIALS 1/

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials 2/	Total
Consumption:						
2001:						
September	28	196	474	40	6	745
October	22	218	471	50	6	767
November	23	204	474	48	6	755
December	22	145	473	39	6	684
January-December	334	2,350	5,680	524	73	8,960
2002:						
January	37	222	466	50	6	781
February	38	230	473	37	9	788
March	38	223	465	40	6	772
April	34	220	479	36	6	776
May	33	W	465	W	6	949
June	33	W	471	W	6	924
July	35	W	467	W	6	949
August	32	W	464 r/	W	6	951 r/
September	33	W	476	W	6	970
Total	314	W	4,230	W	57	7,860
Stocks:						
2001:						
September	36	30	536	38	9	648
October	41	33	553	40	9	677
November	40	32	539	45	9	665
December	37	33	596	43	9	717
2002:						
January	42	32	548	36	9	666
February	36	29	540	41	9	655
March	33	32	547	40	9	661
April	32	36	540	45	9	663
May	28	34	544	43	9	657
June	34	40	552	42	9	677
July	29	39	546	36	9	658
August	27	36	547	39 r/	9	658 r/
September	23	33	544	34	9	642

r/ Revised.

1/ Includes estimates.

2/ Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(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
2001	2,680	2,720	352	947	932	2,120	9,750	XX
2002:								
June	439	287	30	60	65	35	916	4,380
July	362	189	30	37	96	190	903	5,280
August:								
Armenia	--	--	--	--	8	--	8	8
Australia	--	--	--	--	--	(3/)	(3/)	(3/)
Austria	--	--	--	--	--	1	1	36
Belgium	--	--	--	--	--	(3/)	(3/)	2
Bolivia	23	--	--	--	--	--	23	332
Canada	248	--	--	6	11	--	266	1,540
China	58	13	30	60	18	147	326	2,840
Czech Republic	--	--	--	--	(3/)	--	(3/)	(3/)
France	--	--	--	--	(3/)	1	1	10
Germany	--	18	--	5	17	3	44	295
Hong Kong	--	--	--	--	--	(3/)	(3/)	66
Hungary	--	--	--	--	--	(3/)	(3/)	1
India	--	--	--	--	--	(3/)	(3/)	23
Ireland	--	--	--	--	--	--	--	(3/)
Israel	--	--	--	2	16	2	20	152
Italy	--	--	--	--	--	(3/)	(3/)	1
Japan	--	16	--	--	--	3	19	86
Korea, Republic of	--	--	--	11	4	(3/)	15	75
Luxembourg	--	--	--	--	9	--	9	12
Malaysia	--	--	--	--	--	--	--	(3/)
Mexico	--	--	--	--	--	(3/)	(3/)	(3/)
Mongolia	--	--	--	--	--	--	--	12
Netherlands	--	--	--	--	--	(3/)	(3/)	(3/)
Pakistan	--	--	--	--	--	--	--	25
Peru	5	--	--	--	--	--	5	28
Portugal	76	--	--	--	--	--	76	385
Russia	--	--	--	--	--	(3/)	(3/)	43
Singapore	--	--	--	--	--	2	2	19
South Africa	--	--	--	--	--	--	--	4
Spain	--	--	--	--	--	--	--	(3/)
Sweden	--	--	--	--	1	(3/)	1	12
Switzerland	--	--	--	--	--	--	--	(3/)
Taiwan	--	--	--	--	--	--	--	(3/)
Uganda	8	--	--	--	--	--	8	23
United Kingdom	--	--	--	--	--	(3/)	(3/)	61
Vietnam	--	--	--	--	--	--	--	18
Total	418	47	30	85	85	160	825	6,100
Total, year to date	2,300	1,720	362	463	595	667	6,100	XX

-- Zero.

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

2/ Includes 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.

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in August 2002 totaled 45 metric tons, tungsten content, to give a year-to-date total of 572 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(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
2001	220	257	569	1,950	1,120	4,110	XX
2002:							
June	5	--	45	89	77	216	1,530
July	6	8	53	116	54	237	1,770
August:							
Australia	--	--	--	(4/)	1	1	13
Austria	--	--	--	--	--	--	3
Belgium	--	--	--	--	(4/)	(4/)	24
Brazil	--	--	1	--	4	5	34
Canada	--	--	2	5	4	12	187
China 5/	--	--	--	--	4	4	28
Colombia	--	--	--	--	(4/)	(4/)	4
Czech Republic	--	--	--	--	--	--	11
France	--	--	2	(4/)	(4/)	2	54
Germany	--	--	11	38	(4/)	50	514
Hong Kong	--	--	--	--	2	2	9
Hungary	--	--	--	--	(4/)	(4/)	5
India	--	--	--	1	2	3	15
Indonesia	--	--	--	(4/)	(4/)	(4/)	2
Ireland	--	--	--	3	--	3	8
Israel	--	--	--	15	2	18	28
Italy	--	--	1	1	(4/)	2	23
Japan	--	--	1	(4/)	7	9	84
Korea, Republic of	(4/)	--	(4/)	(4/)	7	7	34
Luxembourg	--	--	(4/)	4	--	4	5
Malaysia	--	--	--	--	4	4	4
Mexico	(4/)	--	1	(4/)	3	3	134
Netherlands	--	13	--	14	--	27	119
New Zealand	--	--	(4/)	--	1	1	4
Peru	--	--	1	--	--	1	2
Philippines	--	--	--	--	--	--	13
Singapore	--	--	1	(4/)	(4/)	1	12
South Africa	--	--	--	--	--	--	2
Spain	--	--	(4/)	(4/)	1	2	10
Sweden	--	--	(4/)	21	2	23	149
Switzerland	--	--	--	1	--	1	5
Taiwan	--	--	4	2	12	18	80
Thailand	--	--	--	--	--	--	3
Turkey	--	--	(4/)	--	--	(4/)	2
Ukraine	--	--	--	--	--	--	1
United Kingdom	2	--	3	62	37	104	444
Other	--	--	--	(4/)	(4/)	(4/)	3
Total	3	13	27	169	93	305	2,070
Total, year to date	62	65	309	932	707	2,070	XX

XX Not applicable. -- Zero.

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

2/ Tungsten content estimated from reported gross weight.

3/ Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

4/ Less than 1/2 unit.

5/ Includes Macau.

Note: Estimated exports of waste and scrap in August 2002 totaled 54 metric tons, tungsten content, to give a year-to-date total of 290 metric tons, tungsten content.

Source: U.S. Census Bureau.