

U.S. Census Bureau
Fluid Power Products for Motion Control, Including Aerospace - 2010
MA333N(10)
Issued July 2011

Address inquiries concerning these data to Investment Goods Industries Branch, U.S. Department of Commerce, Census Bureau, Manufacturing and Construction Division, Washington, DC 20233-6900, or call Janine Bonner, 301-763-9862.

Table 1. Value of Shipments of Fluid Power Products for Motion Control, Including Aerospace: 2010 to 2006
[Value in thousands of dollars]

Product code	Product description	Year		Value
3329125	Nonaerospace type hydraulic directional control valves (excluding cartridge, stack, logic and electrohydraulic types)	2010		584,622
		2009		460,752
		2008		611,974
		2007		551,913
		2006		602,885
3329127	Nonaerospace type hydraulic valves (except directional control)	2010	a/	848,041
		2009		572,877
		2008		992,490
		2007		846,080
		2006		931,500
3329129	Nonaerospace type pneumatic directional control valves	2010	b/	544,717
		2009		400,202
		2008		530,489
		2007	b/	532,967
		2006		603,169
332912B	Nonaerospace type pneumatic valves (except directional control)	2010	a/	106,759
		2009	r/	78,527
		2008		145,151
		2007	a/	160,891
		2006		220,175

3329121	Aerospace type hydraulic fluid power valves	2010	a/	820,988
		2009	a/	747,901
		2008	a/	949,109
		2007	c/	453,061
		2006		481,291
3329123	Aerospace type pneumatic fluid power valves	2010	a/	683,026
		2009	a/	675,328
		2008	a/	792,973
		2007	a/	429,702
		2006		334,458
332912D	Parts for fluid power valves	2010	c/	238,048
		2009	a/r/	208,735
		2008	c/	270,663
		2007	a/	255,127
		2006		193,590
332912H	Nonaerospace type flared (metal) fittings and couplings for, and assemblies of, tubing used in fluid power transfer systems	2010		285,819
		2009	r/	367,875
		2008	a/	474,029
		2007	a/	514,776
		2006		490,776
332912J	Nonaerospace type flareless fittings and couplings, including nonmetal fittings, used in fluid power transfer systems	2010		518,140
		2009		429,619
		2008		563,444
		2007		549,383
		2006		561,373

332912L	Nonaerospace type hydraulic and pneumatic fittings and couplings for hose, and manifolds	2010	a/	982,692
		2009	r/	675,200
		2008	b/	1,299,650
		2007		826,954
		2006		844,968
332912N	Nonaerospace type hydraulic and pneumatic assemblies of hose	2010		345,195
		2009	r/	274,139
		2008		396,113
		2007		394,878
		2006		400,736
332912F	Aerospace type hydraulic and pneumatic hose or tube end fittings and assemblies and manifolds	2010		784,825
		2009		744,280
		2008	a/	815,814
		2007	a/	857,601
		2006		727,274
3339993	Nonaerospace type filters for hydraulic fluid power systems	2010	a/	455,630
		2009	a/r/	413,764
		2008	a/	430,599
		2007	a/	441,584
		2006		390,422
3339994	Nonaerospace type filters for pneumatic fluid power systems	2010	c/	99,951
		2009	a/r/	76,911
		2008	b/	69,426
		2007		112,067
		2006		96,907

3339996	Aerospace type hydraulic and pneumatic filters	2010		81,932
		2009	r/	73,799
		2008		97,580
		2007		99,956
		2006		111,838
3339998 pt.	Compressed air and gas dryers, and lubricators	2010		(S)
		2009		(S)
		2008		(S)
		2007	b/	55,130
		2006		63,807
3339951	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary	2010	b/	1,480,604
		2009	b/	1,278,592
		2008		2,061,816
		2007	a/	1,522,284
		2006		1,537,297
3339953	Nonaerospace type pneumatic fluid power cylinders and actuators, linear and rotary	2010		665,365
		2009	b/r/	567,285
		2008		660,252
		2007		437,984
		2006		454,048
3339955	Parts for nonaerospace type hydraulic and pneumatic fluid power cylinders, actuators, and related items	2010		634,290
		2009	r/	530,660
		2008		752,993
		2007		584,867
		2006		562,771

3339957	Aerospace type fluid power cylinders and actuators, hydraulic and pneumatic	2010		1,420,466
		2009	r/	1,468,094
		2008		1,488,235
		2007		1,427,862
		2006		1,366,067
3339961	Nonaerospace type reciprocating pumps	2010	a/	832,192
		2009	a/r/	637,705
		2008		966,769
		2007	a/	899,968
		2006		804,142
3339963	Nonaerospace type rotary and other fluid power pumps	2010		633,135
		2009		445,909
		2008		648,470
		2007	b/	544,660
		2006		698,929
3339965	Nonaerospace type fluid power motors	2010		763,527
		2009	a/	542,305
		2008		757,714
		2007		677,708
		2006		566,193
3339967	Aerospace type fluid power pumps and motors	2010	a/	338,049
		2009	a/	301,635
		2008		(S)
		2007	c/	384,510
		2006		329,487

3339969	Parts for fluid power pumps, motors, and hydrostatic transmissions	2010		322,384
		2009		343,106
		2008		476,171
		2007	c/	288,341
		2006		331,751

Table 2. Manufacturers' Shipments of Fluid Power Products for Motion Control by Type, Including Aerospace: 2010 and 2009
[Quantity in units. Value in thousands of dollars]

Product code	Product description	Year	Companies		Quantity		Value
3329125	Nonaerospace type hydraulic directional control valves (excluding cartridge, stack, logic and electrohydraulic types)	2010	(X)	a/	10,647,187		584,622
		2009		a/	7,051,965		460,752
3329125110	Manual: 3- and 4-way monoblock	2010	20	b/	1,954,887	b/	132,670
		2009		a/	1,442,009	b/	107,890
3329125120	Manual: 3- and 4-way sectional	2010	12		694,806		91,336
		2009			(D)		(D)
3329125130	Other manual nonaerospace type hydraulic directional control valves	2010	12	a/	232,467	c/	12,835
		2009			(D)		(D)
3329125140	Solenoid: 2-way types	2010	13		2,180,044		69,504
		2009			(D)		(D)
3329125150	Solenoid: 3- and 4-way types	2010	23	a/	3,476,997		173,933
		2009		a/	2,050,695		180,737
3329125160	Other nonaerospace type hydraulic directional control valves	2010	19	c/	2,107,986		104,344
		2009		c/r/	1,946,438		74,171
3329127	Nonaerospace type hydraulic valves (except directional control)	2010	(X)		17,324,618	a/	848,041
		2009			12,391,290		572,877
3329127110	Pressure control: Relief valves	2010	24	a/	509,497	a/	37,789
		2009		a/	411,549		27,923
3329127120	Other nonaerospace type hydraulic, pressure control valves, including load sensing and manual types	2010	12		(D)		(D)
		2009			(D)		(D)
3329127130	Flow control: Manual types	2010	12		(D)		(D)
		2009			(D)		(D)

3329127140	Other types of flow control nonaerospace type hydraulic valves	2010 2009	16	c/ c/	1,544,684 1,055,224	b/ b/r/	52,759 43,715
3329127155	Nonaerospace type hydraulic cartridge valves (except directional control)	2010 2009	13		9,659,936 5,678,898	r/	215,127 158,039
3329127160	Electrohydraulic valves: Pilot-operated, torque motor servovalves	2010 2009	3		(D) (D)		(D) (D)
3329127170	Electrohydraulic valves: Other types, including proportional	2010 2009	9		664,708 549,026		95,326 66,325
3329127180	Other nonaerospace-type hydraulic valves, including stack and logic	2010 2009	16		3,099,418 2,294,400	a/ r/	329,911 174,434
3329129	Nonaerospace type pneumatic directional control valves	2010 2009	(X)	c/ r/	25,432,125 16,832,078	b/	544,717 400,202
3329129110	Manual nonaerospace type pneumatic directional control valves	2010 2009	21		(S) (D)		(S) (D)
3329129120	Solenoid: Under 1/8 inch port diameter	2010 2009	10	a/ r/	10,301,003 6,917,635	b/ r/	119,371 89,387
3329129130	Solenoid: 1/8 inch up to and including 1/4 inch port diameter: 3-way types	2010 2009	16		1,654,678 1,264,431		54,333 42,915
3329129140	Solenoid: 1/8 inch up to and including 1/4 inch port diameter: 4-way types	2010 2009	15	a/ r/	2,490,948 1,840,568	a/	106,372 82,644
3329129150	Solenoid: Over 1/4 inch port diameter: 3-way types	2010 2009	13		560,643 390,090	a/	44,032 39,409
3329129160	Solenoid: Over 1/4 inch port diameter: 4-way types	2010 2009	13	b/ r/	1,280,968 880,726	c/	82,038 61,199
3329129170	All other solenoid type nonaerospace pneumatic directional control valves	2010 2009	6		327,432 (D)		26,699 (D)

3329129180	Mechanical, remote pilot, and all other types of nonaerospace type pneumatic directional control valves	2010 2009	14	a/	1,078,257 582,108	c/	32,112 24,091
332912B	Nonaerospace type pneumatic valves (except directional control) 1/	2010 2009	(X)	r/	6,141,101 4,009,831	a/ r/	106,759 78,527
332912B110	Filter-regulator combination units, integral types	2010 2009	8		(D) (D)		(D) (D)
332912B120	Other FRs and filter-regulator-lubricator combo units	2010 2009	8	b/ b/r/	75,564 52,681	r/	(S) 10,789
332912B130	Nonaerospace type pneumatic valves, Regulators, sold separately	2010 2009	7		(D) (D)		(D) (D)
332912B140	Nonaerospace type pneumatic valves, Flow control valves	2010 2009	16		(D) (D)		(D) (D)
332912B150	Nonaerospace type pneumatic valves, Check, shuttle, exhaust, needle, and all other types	2010 2009	17		2,532,673 1,551,313	r/	41,633 33,062
332912C000	Nonaerospace-type pneumatic valves for non-motion control applications	2010 2009	2		(D) (D)		(D) (D)
3329121	Aerospace type hydraulic fluid power valves	2010 2009	(X)	a/	1,703,625 (S)	a/ a/	820,988 747,901
3329121110	2-, 3-, and 4-way directional control valves: Manually or mechanically operated	2010 2009	13		(D) (D)		(D) (D)
3329121120	2-, 3-, and 4-way directional control valves: Solenoid operated	2010 2009	16		(D) (D)		(D) (D)
3329121130	2-, 3-, and 4-way directional control valves: Motor operated	2010 2009	6		(D) (D)		(D) (D)
3329121140	2-, 3-, and 4-way directional control valves: Electrohydraulic	2010	9	b/	162,043		158,124

	servovalves	2009			(D)	(D)
3329121150	Flow, pressure, and other types of hydraulic valves	2010 2009	24	b/	523,752 (S)	a/ 425,703 392,146
3329123	Aerospace type pneumatic fluid power valves	2010 2009	(X)		(S)	a/ 683,026
				c/	708,825	a/ 675,328
3329123110	Aerospace pneumatic valves, all types	2010 2009	24		(S)	a/ 683,026
				c/	708,825	a/ 675,328
332912D	Parts for fluid power valves	2010 2009	(X)		(X)	c/ 238,048
					(X)	a/r/ 208,735
332912D110	Parts for nonaerospace type hydraulic and pneumatic valves, sold separately	2010 2009	28		(X)	c/ 115,955
					(X)	a/r/ 82,786
332912D120	Parts for aerospace type hydraulic and pneumatic valves, sold separately	2010 2009	14		(X)	(S)
					(X)	a/ 125,949
332912H	Nonaerospace type flared (metal) fittings and couplings for, and assemblies of tubing used in, fluid power transfer systems	2010 2009	(X)		(X)	285,819
					(X)	r/ 367,875
332912H110	Flared fittings: Brass and bronze (SAE 45 degrees and 37 degrees)	2010 2009	7		(X)	63,667
					(X)	56,428
332912H120	Flared fittings: Carbon steel (JIC 37 degrees)	2010 2009	7		(X)	101,553
					(X)	r/ 104,817
332912H130	Flared fittings: Other, including alloy steel	2010 2009	7		(X)	41,149
					(X)	32,500
332912H140	Flared fittings: Assemblies of tubing	2010 2009	7		(X)	c/ 31,817
					(X)	b/ 27,210
332912H150	Flared fittings: Assemblies of tubing and hose	2010 2009	5		(X)	a/ 47,633
					(X)	146,920

332912J	Nonaerospace type flareless fittings and couplings, including nonmetal fittings, used in fluid power transfer systems	2010	(X)	(X)		518,140
		2009		(X)		429,619
332912J110	Metal types: Brass and bronze	2010	9	(X)		99,240
		2009		(X)		76,683
332912J120	Metal types: Carbon steel	2010	5	(X)		(D)
		2009		(X)		(D)
332912J130	Metal types: Stainless steel	2010	7	(X)		(D)
		2009		(X)		(D)
332912J140	Metal types: Other, including alloy steel	2010	5	(X)		(D)
		2009		(X)		(D)
332912J150	Nonmetal fittings, including plastic	2010	5	(X)		(D)
		2009		(X)		(D)
332912L	Nonaerospace type hydraulic and pneumatic fittings and couplings for hose, and manifolds	2010	(X)	(X)	a/	982,692
		2009		(X)	r/	675,200
332912L110	Permanent hose end fittings (crimped and swaged)	2010	13	(X)	a/	377,989
		2009		(X)	r/	222,308
332912L120	Hydraulic and pneumatic reusable end fittings	2010	14	(X)		110,871
		2009		(X)	r/	79,119
332912L130	Hydraulic quick connect and disconnect couplings	2010	14	(X)	a/	180,106
		2009		(X)	a/	123,989
332912L140	Pneumatic quick connect and disconnect couplings	2010	10	(X)	a/	121,777
		2009		(X)		105,591
332912L150	Manifolds and manifold assemblies for fluid power systems	2010	13	(X)		106,576
		2009		(X)		82,142

332912L160	All other, including steel adaptor, swivel, rotating, and extension fittings	2010	13	(X)		85,373
		2009		(X)		62,051
332912N	Nonaerospace type hydraulic and pneumatic assemblies of hose	2010	(X)	(X)		345,195
		2009		(X)	r/	274,139
332912N110	Nonaerospace type hydraulic and pneumatic assemblies with permanent end fittings	2010	16	(X)		273,098
		2009		(X)	r/	238,138
332912N120	Nonaerospace type hydraulic and pneumatic assemblies with reusable end fittings	2010	7	(X)		(D)
		2009		(X)		(D)
332912N130	Nonaerospace-type hydraulic and pneumatic bulk hose	2010	2	(X)		(D)
		2009		(X)		(D)
332912F	Aerospace-type hydraulic and pneumatic hose or tube end fittings and assemblies and mani-folds	2010	(X)	(X)		784,825
		2009		(X)		744,280
332912F110	Assemblies of hose and/or tubing	2010	8	(X)		216,690
		2009		(X)		205,655
332912F125	Hose and/or tube fittings, all types	2010	11	(X)		516,480
		2009		(X)		491,160
332912F130	Manifolds for aerospace hydraulic systems	2010	6	(X)	a/	51,655
		2009		(X)		47,465
3339993	Nonaerospace type filters for hydraulic fluid power systems	2010	(X)	(X)	a/	455,630
		2009		(X)	a/r/	413,764
3339993110	Hydraulic fluid filter assemblies, with or without filter element installed: Low pressure (below 301 psi)	2010	18	733,973	a/	40,915
		2009		714,554		(S)
3339993120	Hydraulic fluid filter assemblies, with or without filter element installed: Medium pressure (301 to 2,999 psi)	2010	10	1,121,992	a/	24,709
		2009		(D)		(D)
3339993130	Hydraulic fluid filter assemblies, with or without filter element installed: High pressure (3,000 psi and above)	2010	9	b/	134,865	(S)
		2009				88,857 22,284

3339993140	Filter replacement elements: Reusable (cleanable) type	2010 2009	7		599,055 (D)	a/	11,205 (D)
3339993150	Filter replacement elements: Nonreusable type	2010 2009	16	a/	15,502,066 12,820,244		291,513 246,042
3339993160	Filter replacement elements: Strainers and separators, filter parts, and accessories	2010 2009	13		(X) (X)	c/	57,211 43,949
3339994	Nonaerospace type filters for pneumatic fluid power systems	2010 2009	(X)		(X) (X)	c/ a/r/	99,951 76,911
3339994110	Air supply filter assemblies and filter replacement elements, excluding those shipped as part of a FR or FRL combo unit: Coalescing types, including elements sold separately	2010 2009	8		(X) (X)	r/	(S) 35,304
3339994120	Air supply filter assemblies and filter replacement elements, excluding those shipped as part of a FR or FRL combo unit: Other types, including elements sold separately	2010 2009	7		(X) (X)	r/	21,745 15,457
3339994130	Air supply filter assemblies and filter replacement elements, excluding those shipped as part of a FR or FRL combo unit: Air exhaust mufflers, diffusers, filter parts, and air preparation accessories	2010 2009	9		(X) (X)	c/ c/	34,504 26,150
3339996	Aerospace type hydraulic and pneumatic filters	2010 2009	(X)		(X) (X)	r/	81,932 73,799
3339996110	Hydraulic aerospace filters	2010 2009	5		(X) (X)		64,282 (D)
3339996120	Pneumatic aerospace filters	2010 2009	3		(X) (X)		17,650 (D)
3339998 pt.	Compressed air and gas dryers, and lubricators	2010 2009	(X)	b/ b/	46,958 38,166		(S) (S)

3339998A00	Compressed air and gas dryers	2010	4					(D)	(D)
		2009						(D)	(D)
3339998880	Lubricators for pneumatic systems, sold separately	2010	4					(D)	(D)
		2009						(D)	(D)
3339951	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary	2010	(X)	c/	3,489,916	b/	1,480,604		
		2009							
3339951110	Tie-rod types: Standard NFPA and JIC - Less than 1,500 psi	2010	15	a/	120,908				68,298
		2009							
3339951120	Tie-rod types: Standard NFPA and JIC - 1,500 to 3,000 psi	2010	15	c/	127,088	c/	78,775		
		2009							
3339951130	Tie-rod types: Standard NFPA and JIC - Greater than 3,000 psi	2010	5					(S)	(S)
		2009						(D)	(D)
3339951140	Tie-rod types: Standard NFPA and JIC - Other tie-rod types	2010	14					(D)	(D)
		2009						(D)	(D)
3339951150	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary: Threaded/weld fused combination	2010	37	c/	2,068,748	b/	620,089		
		2009							
3339951160	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary: Telescoping	2010	20		67,379				74,620
		2009							
3339951170	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary: Mill type	2010	9					(D)	(D)
		2009						(D)	(D)
3339951180	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary: Other, including those threaded at both ends	2010	30	c/	762,708	c/	458,460		
		2009							
3339951190	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary: Electrohydraulic types	2010	8		4,418				4,132
		2009							
33399511A0	Nonaerospace type hydraulic fluid power cylinders and actuators, linear and rotary:	2010	11		73,042				123,895

	Hydraulic rotary actuators	2009			58,744		98,713
3339953	Nonaerospace type pneumatic fluid power cylinders and actuators, linear and rotary	2010 2009	(X)	a/r/	5,665,242 4,531,598	b/r/	665,365 567,285
3339953110	NFPA interchangeable cylinders: Steel	2010 2009	19	a/	621,646 (S)	a/	258,061 (S)
3339953120	NFPA interchangeable cylinders: Aluminum: Less than 1-1/2 inch bore size	2010 2009	5		(D) (D)		(D) (D)
3339953130	NFPA interchangeable cylinders: Aluminum: 1-1/2 inch bore size and over	2010 2009	16		(D) (D)		(D) (D)
3339953140	Nonaerospace type pneumatic fluid power, Rodless cylinders	2010 2009	9		(D) (D)		(D) (D)
3339953150	Nonaerospace type, Other pneumatic cylinders: Less than 1-1/2 inch bore size	2010 2009	20	r/	2,881,492 2,307,947	r/	135,478 113,619
3339953160	Nonaerospace type, Other pneumatic cylinders: 1-1/2 inch bore size and over	2010 2009	25	a/	1,200,942 919,029	r/	95,602 79,124
3339953170	Nonaerospace type, Pneumatic rotary actuators	2010 2009	16		551,806 407,049		96,687 80,401
3339955	Parts for nonaerospace type hydraulic and pneumatic fluid power cylinders, actuators, and related items	2010 2009	(X)		(X) (X)	r/	634,290 530,660
3339955110	Accumulators (bladder, piston, and other types)	2010 2009	15		(S) (S)	b/ b/	110,692 103,293
3339955120	Shock absorbers, not for vehicle suspension, and cushions (hydraulic and pneumatic)	2010 2009	10		5,428,367 3,210,004		191,284 144,523
3339955130	Reservoirs, intensifiers, and other devices for fluid energy absorption and/or storage	2010 2009	11	c/ c/	2,541 2,275	c/ r/	1,595 2,861

3339955140	Parts for nonaerospace type hydraulic and pneumatic cylinders, actuators, accumulators, cushions, and nonvehicular shock absorbers, sold separately	2010 2009	47		(X) (X)	r/	330,719 279,983
3339957	Aerospace type fluid power cylinders and actuators, hydraulic and pneumatic	2010 2009	(X)		(X) (X)	r/	1,420,466 1,468,094
3339957110	Hydraulic servo-actuator assemblies (linear and rotary): Mechanical input	2010 2009	8	a/	155,136 114,880		611,686 638,375
3339957120	Hydraulic servo-actuator assemblies (linear and rotary): Electrical input	2010 2009	4	b/	17,631 24,698		284,159 323,726
3339957130	Hydraulic servo-actuator assemblies (linear and rotary): Combination input	2010 2009	4		(D) (D)		(D) (D)
3339957140	Hydraulic utility actuators: Linear actuators (cylinders)	2010 2009	8		(S) 121,141	b/	95,789 95,608
3339957150	Hydraulic utility actuators: Rotary actuators (limited rotation)	2010 2009	1		(D) (D)		(D) (D)
3339957160	Aerospace type, Shock absorbers, snubbers, and cushions, all types, excluding oleo strut assemblies	2010 2009	5		(D) (D)		(D) (D)
3339957170	Aerospace type, Pneumatic actuators (linear and rotary)	2010 2009	4		(D) (D)		(D) (D)
3339957180	Aerospace type, Accumulators (bladder, piston, and other types)	2010 2009	9		(S) (S)	a/ a/	26,158 25,907
3339957190	Aerospace type, Reservoirs, intensifiers, and other devices for fluid energy absorption and/or storage	2010 2009	5		(D) (D)		(D) (D)
33399571A0	Other aerospace type fluid power cylinders, rotary actuators, cushions, and related items	2010 2009	3		(X) (X)		(D) (D)

3339955150	Parts for aerospace type hydraulic and pneumatic cylinders, actuators, accumulators, cushions, and related items, sold separately	2010 2009	13		(X) (X)	b/ r/	97,103 141,112
3339961	Nonaerospace type reciprocating pumps	2010 2009	(X)		2,093,319 1,666,490	a/ a/r/	832,192 637,705
3339961110	Nonaerospace type reciprocating pumps, Axial piston: Variable displacement types - Closed loop	2010 2009	10		1,786,565 1,435,955	a/ b/r/	614,653 474,967
3339961120	Nonaerospace type reciprocating pumps, Axial piston: Variable displacement types - Open loop	2010 2009	9	a/	294,613 219,668	b/	210,056 156,114
3339961130	Nonaerospace type reciprocating pumps, Axial piston: Variable displacement types - Fixed displacement types	2010 2009	3		(D) (D)		(D) (D)
3339961140	Nonaerospace type reciprocating pumps, Radial piston types	2010 2009	2		(D) (D)		(D) (D)
3339963	Nonaerospace type rotary and other fluid power pumps	2010 2009	(X)		3,588,493 3,159,653		633,135 445,909
3339963110	Nonaerospace type rotary and other fluid power pumps, Gear type: Internal gear type, including gerotors	2010 2009	12		(D) (D)		(D) (D)
3339963120	Nonaerospace type rotary and other fluid power pumps, Gear type: External gear type	2010 2009	10		1,510,409 1,719,552		357,019 268,606
3339963150	Nonaerospace type rotary and other fluid power pumps, Vane type: Fixed and variable displacement	2010 2009	7		(D) (D)		(D) (D)
3339965	Nonaerospace type fluid power motors	2010 2009	(X)		(X) (X)	a/	763,527 542,305
3339965110	Nonaerospace type, Pneumatic (air) motors	2010 2009	2		(D) (D)		(D) (D)

3339965120	Nonaerospace type, Hydraulic motors: Gear type - Internal types, excluding gerotors	2010	7		(D)	(D)
		2009			(D)	(D)
3339965130	Nonaerospace type, Hydraulic motors: Gear type - Gerotor types	2010	6		(S)	346,603
		2009		c/	1,525,177	251,309
3339965140	Nonaerospace type, Hydraulic motors: Gear type - External	2010	4		(D)	(D)
		2009			(D)	(D)
3339965150	Nonaerospace type, Hydraulic motors: Vane types, fixed and variable	2010	6	a/	14,114	17,145
		2009			15,608	16,157
3339965160	Nonaerospace type, Hydraulic motors: Radial piston types, fixed and variable	2010	4		(D)	(D)
		2009			(D)	(D)
3339965170	Nonaerospace type, Hydraulic motors: Axial piston types: Fixed displacement	2010	7		116,604	76,265
		2009		c/r/	76,708	(S)
3339965180	Nonaerospace type, Hydraulic motors: Axial piston types: Variable displacement	2010	5		155,827	65,115
		2009			106,452	b/ 48,692
3339965190	Nonaerospace type, Prime movers shipped with pumps or sold separately	2010	3		(X)	(D)
		2009			(X)	(D)
3339967	Aerospace type fluid power pumps and motors	2010	(X)	b/	127,623	a/ 338,049
		2009		a/	154,463	a/ 301,635
3339967110	Aerospace type fluid power, Hydraulic pumps: Fixed and variable displacement types	2010	6		55,242	192,486
		2009		a/r/	51,047	b/r/ 138,652
3339967120	Aerospace type fluid power, Hydraulic type: Pump/electric motor assemblies, fixed and variable displacement types	2010	5		(D)	(D)
		2009		a/	58,336	123,600
3339967130	Aerospace type fluid power, Hydraulic type other pump packages	2010	6		(D)	(D)
		2009			(D)	(D)
3339967170	Aerospace-type fluid power motors, all kinds	2010	4		(D)	(D)

		2009		(D)	(D)
3339969	Parts for fluid power pumps, motors, and hydrostatic transmissions	2010	(X)	(X)	322,384
		2009		(X)	343,106
3339969110	Parts for Hydraulic, Nonaerospace fluid power pumps, motors, and hydrostatic transmissions	2010	21	(X)	(D)
		2009		(X)	(D)
3339969120	Parts for Hydraulic, Aerospace fluid power pumps, motors, and hydrostatic transmissions	2010	6	(X)	(D)
		2009		(X)	(D)
3339969130	Parts for Pneumatic, Nonaerospace fluid power pumps, motors, and hydrostatic transmissions	2010	1	(X)	(D)
		2009		(X)	(D)
3339969140	Parts for Pneumatic, Aerospace fluid power pumps, motors, and hydrostatic transmissions	2010	1	(X)	(D)
		2009		(X)	(D)
333996A000	Nonaerospace hydrostatic transmissions	2010	3	(D)	(D)
		2009		(D)	(D)
333996B000	Nonaerospace hydraulic power units	2010	8	(D)	(D)
		2009		(D)	(D)

Footnotes:

1/ This value includes 332912C000

Table 3. Shipments, Exports, and Imports of Fluid Power Products: 2010 and 2009
[Quantity in units. Value in thousands of dollars]

Product code 1/	Product description	Year		Manufacturers' shipments quantity		Manufacturers' shipments (value f.o.b plant)	Export shipments 2/ (quantity)	Export shipments 2/ (value at port)	Imports for consumption 3/ (quantity)	Imports for consumption 3/ (value at port)
332912100T	Hydraulic fluid power valves	2010	a/	29,675,430		2,253,651	4,777,895	592,526	42,565,346	580,140
		2009	a/t/	19,443,255		1,781,530	2,789,479	394,706	27,934,269	354,273
332912300T	Pneumatic fluid power valves	2010	b/	32,938,543	a/	1,334,502	3,083,223	234,330	22,181,563	335,100
		2009	t/	21,550,734		1,154,057	2,380,472	201,086	17,669,016	227,657
332912D00T	Parts for fluid power valves: hydraulic, pneumatic, all types	2010		(X)	c/	238,048	7,450,778	140,951	30,149,100	386,556
		2009		(X)	a/t/	208,735	5,384,467	129,065	16,800,445	241,607
333995100T	Hydraulic cylinders and hydraulic actuators (except electrohydraulic types)	2010	c/	3,892,836	a/	2,659,834	334,887	274,245	5,656,243	640,569
		2009		(D)		(D)	314,356	211,665	3,780,198	497,963
333995300T	Pneumatic cylinders (tie-rod types)	2010		347,082	a/	297,795	5,040	11,994	141,721	22,466
		2009		(D)		(D)	2,774	5,792	97,632	13,650
333995301T	Pneumatic cylinders (except tie-rod types)	2010		4,792,441		398,675	643,944	62,439	1,983,581	102,270
		2009		(D)		(D)	487,612	44,862	1,163,106	64,562
333995500T	Fluid power accumulators, hydraulic and pneumatic, and other hydraulic, pneumatic or combination devices for fluid energy absorption and/or storage, all types	2010		(X)	a/	296,107	269,199	261,015	607,521	158,182
		2009		(X)	a/	264,349	161,294	207,239	422,486	176,626
333996500T	Hydraulic motors, all types	2010	c/	2,886,959		609,065	255,531	109,776	532,349	313,230
		2009	c/	1,820,625	a/t/	462,931	148,275	75,667	271,340	204,708
333996100T	Hydraulic pumps, all types	2010		5,835,518	a/	1,746,216	3,353,493	745,554	13,655,664	1,002,265
		2009	a/	5,344,494	a/	1,505,905	2,555,130	549,062	7,018,989	606,168
333996900T	Parts for fluid power pumps and motors	2010		(X)		343,106	(X)	565,743	(X)	827,219
		2009		(X)		347,959	(X)	409,955	(X)	562,733

Footnotes:

1/ For comparison of the North American Industry Classification System codes with Schedule B export codes and HTSUSA import codes, see Table 4

2/ Source: Census Bureau report, EM 545, U.S. Exports.

3/ Source: Census Bureau report, IM 145, U.S. Imports for Consumption.

Table 4. Comparison of combined North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes, and HTSUSA Import Codes: 2010

Combined code	Product code	Product description	Export code 1/	Import code 2/
3329121000	3329125110	Hydraulic fluid power valve	8481.10.0020	8481.10.0020
	3329125120		8481.20.0010	8481.20.0010
	3329125130		8481.20.0020	8481.20.0020
	3329125140		8481.20.0030	8481.20.0030
	3329125150		8481.20.0040	8481.20.0040
	3329125160		8481.20.0050	8481.20.0050
	3329127110			
	3329127120			
	3329127130			
	3329127140			
	3329127155			
	3329127160			
	3329127170			
	3329127180			
	3329121110			
	3329121120			
	3329121130			
	3329121140			
	3329121150			
3329123000	3329129110	Pneumatic fluid power valves	8481.10.0040	8481.10.0040
	3329129120		8481.10.0060	8481.10.0060
	3329129130		8481.20.0060	8481.20.0060
	3329129140		8481.20.0070	8481.20.0070
	3329129150		8481.20.0080	8481.20.0080
	3329129160			
	3329129170			
	3329129180			

	332912B110			
	332912B120			
	332912B130			
	332912B140			
	332912B150			
	3329123110			
332912000D	332912D110	Parts for fluid power valves: hydraulic, pneumatic,	8481.90.9010	8481.90.9020
	332912D120	all types		8481.90.9040
333995100T	3339951110	Hydraulic cylinders and hydraulic actuators (except	8412.21.0015	8412.21.0015
	3339951120	electrohydraulic types)	8412.21.0030	8412.21.0030
	3339951130		8412.21.0045	8412.21.0045
	3339951140		8412.21.0060	8412.21.0060
	3339951150		8412.21.0075	8412.21.0075
	3339951160			
	3339951170			
	3339951180			
	33399511A0			
	3339957110			
	3339957120			
	3339957130			
	3339957140			
	3339957150			
333995300T	3339953110	Pneumatic cylinders (tie-rod types)	8412.31.0040	8412.31.0040
	3339953120			
	3339953130			

333995301T	3339953140	Pneumatic cylinders (except tie-rod types)	8412.31.0080	8412.31.0080
	3339953150			
	3339953160			
	3339953170			
	3339957170			
333995500T	3339955110	Fluid power accumulators, hydraulic and pneumatic, and other hydraulic, pneumatic or combination devices for fluid energy absorption and/or storage, all types	8412.29.8075	8412.29.8075
	3339955130		8412.39.0080	8412.39.0080
	3339957160		8479.89.9865	8479.89.9865
	3339957180			
	3339957190			
	33399571A0			
333996500T	3339965110	Hydraulic motors, all types	8412.29.8015	8412.29.8015
	3339965130		8412.29.8030	8412.29.8030
	3339965140		8412.29.8045	8412.29.8045
	3339965150		8412.29.8060	8412.29.8060
	3339965160			
	3339965170			
	3339965180			
333996100T	3339961110	Hydraulic pumps, all types	8413.50.0070	8413.50.0070
	3339961120		8413.50.0080	8413.50.0080
	3339961130		8413.60.0020	8413.60.0020
	3339961140		8413.60.0030	8413.60.0030
	3339963110		8413.60.0040	8413.60.0040
	3339963120			
	3339963150			
	3339967110			
	3339967120			
	3339967130			

3339969000	3339969110	Parts for fluid power pumps and motors	8412.90.9005	8412.90.9005
	3339969120		8412.90.9015	8412.90.9015
	3339969130		8412.90.9025	8412.90.9025
	3339969140		8412.90.9035	8412.90.9035
			8413.91.9050	8413.91.9050

1/ Source: 2010 edition, Harmonized System-based Schedule B, Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/ Source: Harmonized Tariff Schedule of the United States, Annotated (2010).

Symbols:

- (D) - Withheld to avoid disclosing data of individual companies.
- (X) - Not applicable.
- (NA) - Not available.
- r/ - Revised by 5 percent or more from previously published data.
- (n.e.c.) - Not elsewhere classified.
- (n.s.k.) - Not specified by kind.
- (nehp) - Net engine horsepower
- (btuh) - British thermal units per hour
- (pt.) Part.
- Represents zero.

Estimation symbols - Percent of estimation for each item is indicated as follows:

- a/ - 10 to 19 percent of this item has been estimated.
- b/ - 20 to 29 percent of this item has been estimated.
- c/ - 30 to 49 percent of this item has been estimated.
- (S) - Withheld because estimates did not meet publication standards

HISTORICAL NOTE

The Census Bureau has collected data on fluid power products since 1981.

Historical Current Industrial Reports data may be obtained from a Federal Depository Library. To locate a Federal Depository Library in your area, please visit <http://www.gpoaccess.gov/libraries.html>.