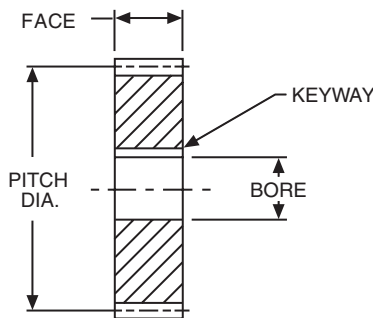


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**24 THROUGH 10 TRANSVERSE DIAMETRAL PITCH
STEEL—HARDENED**

**14½° NORMAL PRESSURE ANGLE
45° HELIX ANGLE**



These gears are hardened all over, except as noted. Teeth on all steel gears are polished.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

No. of Teeth	Pitch Dia.	Bore	Keyway	Style See Page 150	RIGHT HAND		LEFT HAND				
					Catalog Number	Item Code	Catalog Number	Item Code			
24 TRANSVERSE DIAMETRAL PITCH					Face: 8-15 Teeth = .375" 18-72 Teeth = .250"						
8	.333	.1875	*	A	H2408R	18268	H2408L	18270			
10	.417	.250	**		H2410R	18272	H2410L	18274			
12	.500				H2412R	18276	H2412L	18278			
15	.625	.375			H2415R	18280	H2415L	18282			
18	.750				H2418R	18284	H2418L	18286			
20	.833	.500	1/8 x 1/16		H2420R	18288	H2420L	18290			
24	1.000				H2424R	18292	H2424L	18294			
30	1.250				H2430R	18296	H2430L	18298			
36	1.500				H2436R†	18300	H2436L†	18302			
48	2.000	.625			H2448R†	18304	H2448L†	18306			
60	2.500				H2460R†	18308	H2460L†	18310			
72	3.000				H2472R†	18312	H2472L†	18314			
20 TRANSVERSE DIAMETRAL PITCH					Face: 8-15 Teeth = .563" 18-72 Teeth = .375"						
8	.400	.250	**	A	H2008R	18228	H2008L	18230			
10	.500	.3125			H2010R	18232	H2010L	18234			
12	.600	.375	1/8 x 1/16		H2012R	18236	H2012L	18238			
15	.750	.4375			H2015R	18240	H2015L	18242			
20	1.000	.500	3/16 x 3/32		H2020R	18244	H2020L	18246			
25	1.250	.625			H2025R	18248	H2025L	18250			
30	1.500	.750			H2030R†	18252	H2030L†	18254			
40	2.000				H2040R†	18256	H2040L†	18258			
50	2.500				H2050R†	18260	H2050L†	18262			
60	3.000				H2060R†	18264	H2060L†	18266			
16 TRANSVERSE DIAMETRAL PITCH					Face = .500"						
12	.750	.375	1/16 x 1/32		A	H1612R	18200	H1612L	18202		
16	1.000	.500	1/8 x 1/16	H1616R		18204	H1616L	18206			
20	1.250			H1620R		18208	H1620L	18210			
24	1.500	H1624R†	18212	H1624L†		18214					
32	2.000	H1632R†	18216	H1632L†		18218					
40	2.500	H1640R†	18220	H1640L†		18222					
48	3.000	H1648R†	18224	H1648L†		18226					
12 TRANSVERSE DIAMETRAL PITCH						Face = .750"					
12	1.000	.625	1/8 x 1/16	A	H1212R	18170	H1212L	18168			
15	1.250				H1215R	18174	H1215L	18172			
18	1.500				H1218R†	18178	H1218L†	18176			
24	2.000				H1224R†	18182	H1224L†	18180			
30	2.500				H1230R†	18186	H1230L†	18184			
36	3.000				H1236R†	18190	H1236L†	18188			
10 TRANSVERSE DIAMETRAL PITCH					Face = .875"						
8	.800				.375	1/16 x 1/32	A	H1008R	18130	H1008L	18128
10	1.000	.500	1/8 x 1/16	H1010R	18134	H1010L		18132			
12	1.200	.625		H1012R	18138	H1012L		18136			
15	1.500	.750	3/16 x 3/32	H1015R†	18142	H1015L†		18140			
20	2.000			H1020R†	18146	H1020L†		18144			
25	2.500			H1025R†	18148	H1025L†		18150			
30	3.000			H1030R†	18154	H1030L†		18152			
40	4.000	H1040R†	18158	H1040L†	18156						

STANDARD TOLERANCES

DIMENSION		TOLERANCE
BORE	All	±.0005

REFERENCE PAGES

- Alterations — 149
- Horsepower Ratings — 55
- Lubrication — 149
- Materials — 150
- Selection Procedure — 54

NOTE: Normal Diametral Pitch is equal to the Transverse Diametral Pitch divided by the cosine of the Helix Angle.

*1/16" wide x .04" deep slot cut on end of gear for drive pin, not key.
**3/32" wide x .06" deep slot cut on end of gear for drive pin, not key.
†Teeth only hardened.

HELICAL GEARS

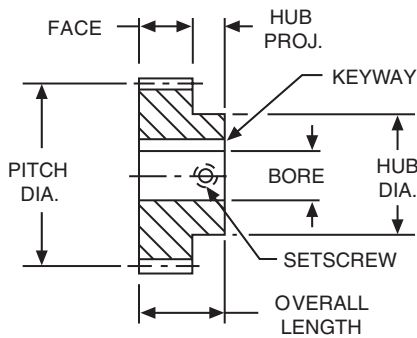
8 AND 6 TRANSVERSE DIAMETRAL PITCH BRONZE AND STEEL—HARDENED

14½° NORMAL PRESSURE ANGLE
45° HELIX ANGLE



All gears with hubs have setscrew at 90° to keyway. Steel gears have teeth only hardened, except as noted. Teeth on all steel gears are polished.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE



STANDARD TOLERANCES

DIMENSION		TOLERANCE
BORE	All	±.0005

REFERENCE PAGES

- Alterations — 149
- Horsepower Ratings — 55, 56
- Lubrication — 149
- Materials — 150
- Selection Procedure — 54

NOTE: Normal Diametral Pitch is equal to the Transverse Diametral Pitch divided by the cosine of the Helix Angle.

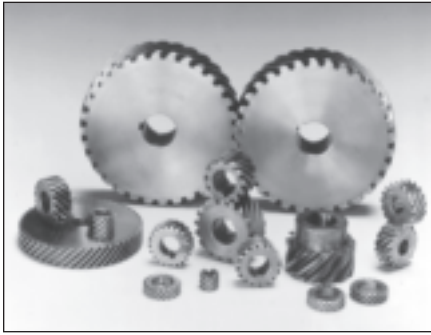
No. of Teeth	Pitch Dia.	Bore	Hub		Keyway	Style See Page 150	RIGHT HAND		LEFT HAND	
			Dia.	Proj.			Catalog Number	Item Code	Catalog Number	Item Code
8 TRANSVERSE DIAMETRAL PITCH										
							Face without Hubs = 1.000" -with Hubs = .750" Overall Length = Face + Hub Proj.			
STEEL—HARDENED										
8	1.000	.500	—	—	1/8 x 1/16	A	H808R*	18066	H808L*	18064
10	1.250	.625	—	—	3/16 x 3/32		H810R*	18070	H810L*	18068
12	1.500	.750	—	—			H812R	18074	H812L	18072
16	2.000	.875	—	—		3/16 x 3/32	H816R	18078	H816L	18076
20	2.500				H820R		18082	H820L	18080	
24	3.000				H824R		18086	H824L	18084	
32	4.000				H832R		18090	H832L	18088	
8	1.000				.500		.75	.50	1/8 x 1/16	A
10	1.250	.625	1.00	.50	3/16 x 3/32	HS810R*	18096	HS810L*	18098	
12	1.500	.750	1.25	.50		HS812R*	18100	HS812L*	18102	
16	2.000	1.000	2.00	.50		1/4 x 1/8	HS816R	18104	HS816L	18106
20	2.500				HS820R		18108	HS820L	18110	
24	3.000				HS824R		18112	HS824L	18114	
32	4.000				HS832R		18116	HS832L	18118	
40	5.000				HS840R		18120	HS840L	18122	
48	6.000	2.25				HS848R	18124	HS848L	18126	
BRONZE										
8	1.000	.500	.75	.50	1/8 x 1/16	A	HB808R	18356	HB808L	18358
10	1.250	.625	1.00	.50	3/16 x 3/32		HB810R	18360	HB810L	18362
12	1.500	.750	1.24	.50			HB812R	18364	HB812L	18366
16	2.000	1.000	2.00	.50		1/4 x 1/8	HB816R	18368	HB816L	18370
20	2.500				HB820R		18372	HB820L	18374	
24	3.000				HB824R		18376	HB824L	18378	
32	4.000				HB832R		18380	HB832L	18382	
40	5.000				HB840R		18384	HB840L	18386	
48	6.000	2.25				HB848R	18388	HB848L	18390	
6 TRANSVERSE DIAMETRAL PITCH										
							Face without Hubs = 1.250" -with Hubs = 1.000" Overall Length = Face + Hub Proj.			
STEEL—HARDENED										
8	1.333	.625	—	—	1/8 x 1/16	A	H608R	18000	H608L	18002
10	1.667	.750	—	—	3/16 x 3/32		H610R	18004	H610L	18006
12	2.000	1.000	—	—	1/4 x 1/8		H612R	18010	H612L	18008
15	2.500					H615R	18014	H615L	18012	
18	3.000					H618R	18018	H618L	18016	
24	4.000					H624R	18022	H624L	18020	
8	1.333	.625	1.00	.75	1/8 x 1/16	A	HS608R	18024	HS608L	18026
9	1.500	.750	1.18	.75	3/16 x 3/32		HS609R	18028	HS609L	18030
10	1.667	.750	1.34	.75	1/4 x 1/8		HS610R	18032	HS610L	18034
12	2.000	1.000	1.62	.75		HS612R	18036	HS612L	18038	
15	2.500	1.250	2.00	.75		5/16 x 5/32	HS615R	18040	HS615L	18042
18	3.000				HS618R		18044	HS618L	18046	
20	3.333				HS620R		18048	HS620L	18050	
24	4.000				HS624R		18052	HS624L	18054	
30	5.000				HS630R		18056	HS630L	18058	
36	6.000	2.50				HS636R	18060	HS636L	18062	
BRONZE										
12	2.000	1.000	1.62	.75	1/4 x 1/8	A	HB612R	18328	HB612L	18330
15	2.500	1.250	2.00	.75	5/16 x 5/32		HB615R	18332	HB615L	18334
18	3.000						HB618R	18336	HB618L	18338
20	3.333					HB620R	18340	HB620L	18342	
24	4.000	2.50	2.50			HB624R	18344	HB624L	18346	
30	5.000					HB630R	18348	HB630L	18350	
36	6.000					HB636R	18352	HB636L	18354	

*Hardened all over.

BOSTON GEAR®

Gear Catalog

53



Boston standard stock helical gears are made with a 45° helix angle to transmit motion and/or power between non-intersecting shafts that are parallel or at 90° to each other. They are stocked both right and left-handed. For parallel shaft operation, helical gears having opposite hand helix angles are required, while for shafts at 90° the same hand helix must be used.

For parallel shaft applications, helical gears provide overlapping tooth contact. This results in a smoother, quieter operation and higher horsepower capacity than afforded by spur gears of comparable size.

For 90° shaft applications, the tooth contact area is very small which considerably limits the load capacity. Horsepower ratings are not tabulated in this catalog, for 90° applications.

Boston helical gears are top hobbed, resulting in extremely close concentricity between the pitch diameter and the outside diameter.

SELECTION PROCEDURE

Approximate horsepower and torque ratings for selected sizes (numbers of teeth) at various operating speeds (RPM) are given for hardened steel helical gears. The ratings are based on the beam strength of the gear tooth. These ratings are for parallel shaft applications under normal operating conditions, that is: properly mounted and lubricated, carrying a smooth load for not more than 10 hours per day or a moderate shock load not more than 15 minutes in two hours (Service Factor 1.0). Refer to Table 1, below, for other types of service.

Ratings for gear sizes or speeds not listed may be interpolated from the values indicated. Pitchline velocities are limited as reflected by the lack of ratings for larger numbers of teeth at higher RPM's in the selection chart. Application in this area is not recommended.

Ref. Parallel shafts are approximately 98% efficient
90° shafts are approximately 50% efficient

Horsepower ratings for bronze gears are approximately 33% of these ratings.

1. Determine service factor.
 - a. Using Application Classification Chart I, pages 152-153 determine service factor or
 - b. With knowledge of operating conditions and load classification, select service factor from Table 1.

2. Determine Design Horsepower.

Design HP = Application Load × Service Factor (Table 1)

3. Select pinion with horsepower capacity equal to (or greater than) design horsepower determined in Step 2. Reference Rating Pages 55, 56.
4. Select a driven gear with a catalog rating equal to (or greater than) the horsepower determined in Step 2.

TABLE 1

Service Factor	Operating Conditions
.8	Uniform – not more than 15 minutes in 2 hours.
1.0	Moderate Shock – not more than 15 minutes in 2 hours. Uniform – not more than 10 hours per day.
1.25	Moderate Shock – not more than 10 hours per day. Uniform – more than 10 hours per day.
1.50	Heavy Shock – not more than 15 minutes in 2 hours. Moderate Shock – more than 10 hours per day.
1.75	Heavy Shock – not more than 10 hours per day.
2.0	Heavy Shock – more than 10 hours per day.

Heavy shock loads and/or severe wear conditions may require the use of higher service factors. Consultation with factory is recommended in these applications.

HELICAL GEARS

APPROXIMATE HORSEPOWER AND TORQUE* RATINGS FOR CLASS I SERVICE (Service Factor = 1.0)

No.	25 RPM		50 RPM		100 RPM		200 RPM		300 RPM		600 RPM		900 RPM		1200 RPM		1800 RPM		3600 RPM		
	Teeth	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque
24 DIAMETRAL PITCH – 33.94 NORMAL DIAMETRAL PITCH HARDENED STEEL																				.250-.375" FACE	
8	.01	13.5	.01	13.5	.02	13.4	.04	13.2	.06	13.0	.12	12.5	.17	12.0	.22	11.6	.31	10.8	.51	8.9	
10	.01	18.0	.01	17.9	.03	17.8	.06	17.4	.08	17.1	.16	16.3	.22	15.5	.28	14.8	.39	13.6	.62	10.9	
12	.01	22.5	.02	22.3	.04	22.1	.07	21.6	.10	21.1	.19	20.0	.27	18.9	.34	17.9	.46	16.2	.72	12.6	
15	.01	29.1	.02	28.9	.05	28.5	.09	27.8	.13	27.1	.24	25.2	.34	23.5	.42	22.0	.56	19.6	.84	14.8	
18	.01	23.6	.02	23.4	.04	23.1	.07	22.4	.10	21.7	.19	19.9	.26	18.4	.33	17.1	.43	15.0	.62	10.9	
20	.01	26.8	.02	26.5	.04	26.1	.08	25.2	.12	24.3	.21	22.2	.29	20.4	.36	18.8	.47	16.3	.67	11.7	
24	.01	32.6	.03	32.3	.05	31.6	.10	30.3	.14	29.2	.25	26.1	.34	23.7	.41	21.6	.53	18.5	.73	12.8	
30	.02	41.3	.03	40.8	.06	39.7	.12	37.8	.17	36.0	.30	31.6	.40	28.1	.48	25.3	.60	21.1	.81	14.1	
36	.02	49.9	.04	49.1	.08	47.6	.14	44.9	.20	42.4	.35	36.4	.46	31.9	.54	28.4	.66	23.3	.86	15.1	
48	.03	67.0	.05	65.6	.10	63.0	.19	58.3	.26	54.3	.43	45.0	.55	38.4	.64	33.5	.76	26.6	.94	16.5	
60	.03	83.8	.06	81.6	.12	77.6	.22	70.7	.31	64.9	.50	52.0	.62	43.4	.71	37.3	.83	29.0	1.00	17.5	
72	.04	101	.08	97.7	.15	92.1	.26	82.5	.36	74.8	.56	58.3	.68	47.8	.77	40.5	.89	31.0	1.00	18.2	
20 DIAMETRAL PITCH – 28.28 NORMAL DIAMETRAL PITCH HARDENED STEEL																				.375-.563" FACE	
8	.01	29.2	.02	29.1	.05	28.8	.09	28.4	.13	27.9	.25	26.6	.36	25.4	.46	24.3	.64	22.3	1.00	18.0	
10	.01	37.7	.03	37.5	.06	37.1	.12	36.3	.17	35.6	.32	33.5	.45	31.7	.57	30.1	.78	27.2	1.20	21.2	
12	.02	48.5	.04	48.2	.08	47.5	.15	46.4	.22	45.2	.40	42.2	.56	39.5	.71	37.1	.95	33.2	1.44	25.1	
15	.02	62.7	.05	62.2	.10	61.2	.19	59.3	.27	51.6	.50	52.8	.70	48.8	.86	45.4	1.14	39.8	1.66	29.0	
20	.02	57.7	.05	57.1	.09	55.9	.17	53.7	.25	51.6	.44	46.2	.60	41.9	.73	38.3	.93	32.7	1.30	22.7	
25	.03	73.8	.06	72.8	.11	70.9	.21	67.4	.31	64.3	.54	56.4	.72	50.2	.86	45.2	1.08	37.7	1.44	25.2	
30	.04	89.1	.07	87.6	.13	85.0	.25	80.0	.36	75.7	.62	65.0	.81	56.9	.96	50.7	1.19	41.5	1.54	27.0	
40	.05	120	.09	118	.18	113	.33	104	.46	97.2	.77	80.5	.98	68.7	1.14	59.9	1.36	47.7	1.69	29.6	
50	.06	151	.12	147	.22	139	.40	127	.55	117	.89	93.4	1.11	78.0	1.27	66.9	1.49	52.1	1.79	31.4	
60	.07	180	.14	175	.26	165	.47	147	.64	134	.99	104	1.22	85.4	1.38	72.3	1.58	55.4	1.86	32.5	
16 DIAMETRAL PITCH – 22.63 NORMAL DIAMETRAL PITCH HARDENED STEEL																				.500" FACE	
12	.03	67.2	.05	66.6	.10	65.6	.20	63.6	.29	61.7	.54	56.6	.75	52.3	.93	48.6	1.20	42.6	1.80	31.1	
16	.04	93.4	.07	92.4	.14	90.5	.28	86.9	.40	83.5	.71	74.8	.97	67.8	1.18	62.0	1.51	52.9	2.10	36.7	
20	.05	120	.09	118	.18	115	.35	110	.50	104	.87	91.5	1.16	81.5	1.40	73.4	1.75	61.3	2.34	41.0	
24	.06	146	.11	144	.22	139	.42	131	.59	124	1.00	107	1.33	93.3	1.58	83.0	1.94	68.1	2.52	44.2	
32	.08	197	.15	193	.29	185	.54	172	.76	160	1.26	132	1.61	113	1.87	98.4	2.24	78.4	2.78	48.7	
40	.10	249	.19	242	.37	230	.67	210	.92	193	1.47	154	1.84	129	2.11	111	2.46	86.2	3.00	51.8	
48	.12	298	.23	289	.43	273	.77	244	1.05	221	1.64	173	2.02	141	2.28	120	2.62	91.8	3.08	53.9	
12 DIAMETRAL PITCH – 16.97 NORMAL DIAMETRAL PITCH HARDENED STEEL																				.750" FACE	
12	.07	179	.14	177	.27	173	.53	166	.76	160	1.36	143.2	1.85	130	2.26	119	2.89	101	4.01	70.2	
15	.09	231	.18	228	.35	222	.67	211	.96	201	1.68	176	2.24	157	2.69	142	3.37	118	4.51	79.0	
18	.11	281	.22	277	.43	268	.80	253	1.14	239	1.95	205	2.57	180	3.05	160	3.75	131	4.86	85.1	
24	.15	387	.30	379	.58	364	1.07	337	1.49	313	2.47	260	3.16	222	3.68	193	4.39	154	5.45	95.5	
30	.19	489	.38	477	.72	453	1.31	413	1.80	379	2.89	304	3.62	254	4.14	218	4.84	170	5.82	102	
36	.23	589	.45	571	.85	538	1.53	482	2.08	437	3.24	341	3.99	279	4.50	237	5.17	181	6.08	106	
10 DIAMETRAL PITCH – 14.14 NORMAL DIAMETRAL PITCH HARDENED STEEL																				.875" FACE	
8	.07	181	.14	179	.28	176	.54	171	.79	165	1.44	151	1.78	139	2.45	129	3.20	112	4.62	80.9	
10	.10	240	.19	238	.37	233	.71	223	1.02	215	1.83	193	2.49	174	3.03	159	3.88	136	5.39	94.4	
12	.12	300	.23	296	.46	288	.87	275	1.25	262	2.20	231	2.95	206	3.55	186	4.46	156	6.01	105	
15	.15	387	.30	381	.59	369	1.10	348	1.56	329	2.69	282	3.53	247	4.19	220	5.16	181	6.69	117	
20	.21	533	.41	522	.79	501	1.47	464	2.05	432	3.40	357	4.35	305	5.06	266	6.05	212	7.51	131	
25	.27	680	.53	662	1.00	630	1.82	573	2.50	526	4.01	422	5.03	352	5.75	302	6.72	235	8.09	142	
30	.32	818	.63	793	1.19	747	2.12	669	2.89	606	4.50	473	5.54	388	6.25	328	7.18	252	8.44	148	
40	.44	1097	.84	1053	1.55	975	2.69	849	3.58	751	5.32	559	6.36	445	7.04	370	7.89	276	8.97	157	
8 DIAMETRAL PITCH – 11.31 NORMAL DIAMETRAL PITCH HARDENED STEEL																				.750" FACE	
8	.10	242	.19	239	.37	234	.71	225	1.03	216	1.85	194	2.51	176	3.06	160	3.91	137	5.43	95	
10	.13	321	.25	317	.49	309	.93	293	1.33	280	2.53	245	3.12	218	3.74	197	4.69	164	6.27	110	
12	.16	400	.31	394	.61	382	1.14	360	1.62	340	2.78	292	3.65	256	4.34	228	5.33	187	6.92	121	
16	.22	555	.43	543	.83	521	1.53	483	2.14	447	3.54	372	4.53	318	5.27	277	6.30	221	7.82	137	
20	.28	710	.55	692	1.04	658	1.90	599	2.62	550	4.20	441	5.26	368	6.01	316	7.03	246	8.45	148	
24	.34	862	.66	836	1.25	787	2.24	706	3.04	639	4.75	499	5.84	409	6.59	346	7.57	265	8.90	156	
32	.46	1160	.88	1113	1.64	1031	2.85	897	3.78	794	5.63	591	6.72	471	7.44	391	8.34	292			
40	.58	1454	1.10	1383	2.00	1259	3.39	1068	4.41	927	6.32	664	7.39	517	8.07	424	8.88	311			
48	.69	1137	1.30	1636	2.33	1466	3.85	1214	4.93	1036	6.85	719	7.87	551	8.50	447					

Ratings are based on strength calculation. Basic static strength rating, or for hand operation of above gears is approximately 3 times the 100 RPM rating.

NOTE: Ratings to right of heavy line exceed 1500 Feet per Minute and should be used for interpolation purposes only.

*Torque Rating (Lb. Ins.)

HELICAL GEARS

APPROXIMATE HORSEPOWER AND TORQUE* RATINGS FOR CLASS I SERVICE (Service Factor = 1.0)

No.	25 RPM		50 RPM		100 RPM		200 RPM		300 RPM		600 RPM		900 RPM		1200 RPM		1800 RPM		3600 RPM		
	Teeth	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque	H.P.	Torque
8 DIAMETRAL PITCH – 11.31 NORMAL DIAMETRAL PITCH HARDENED STEEL																			1.000" FACE		
8	.13	323	.25	319	.50	313	.95	300	1.4	288	2.5	258	3.3	234	4.1	214	5.2	183	7.2	127	
10	.17	428	.34	422	.65	412	1.20	391	1.8	373	3.1	327	4.2	291	5.0	262	6.3	219	8.4	146	
12	.21	534	.42	525	.81	509	1.50	480	2.2	453	3.7	389	4.9	341	5.8	304	7.1	249	9.2	162	
16	.29	740	.57	725	1.1	696	2.00	644	2.9	599	4.7	496	6.1	423	7.0	370	8.4	294	10.4	182	
20	.38	947	.73	923	1.4	877	2.50	799	3.5	733	5.6	588	7.0	491	8.0	421	9.3	328	11.1	197	
24	.46	1150	.88	1114	1.7	1050	3.00	941	4.1	852	6.3	665	7.7	545	8.8	462	10.1	352	11.9	208	
32	.61	1547	1.20	1485	2.2	1374	3.80	1196	5.0	1059	7.5	788	9.0	628	9.9	521	11.1	389	12.7	221	
8 DIAMETRAL PITCH – 11.31 NORMAL DIAMETRAL PITCH BRONZE																			.750" FACE		
8	.04	97	.08	95.8	.15	93.8	.29	90.0	.41	86.5	.74	77.5	1.00	70.2	1.22	64.2	1.56	54.8	2.17	38.0	
10	.05	128	.10	127	.20	123	.37	117	.53	112	.93	98.1	1.25	87.3	1.50	78.7	1.88	65.7	2.51	43.9	
12	.06	160	.12	158	.24	153	.46	144	.65	136	1.11	117	1.46	102	1.73	91.1	2.13	74.7	2.77	48.4	
16	.09	222	.17	217	.33	209	.61	193	.86	180	1.42	149	1.81	127	2.11	111	2.52	88.2	3.13	54.7	
20	.11	284	.22	277	.42	263	.76	240	1.05	220	1.68	176	2.10	147	2.41	126	2.81	98.4	3.38	59.2	
24	.14	345	.27	334	.50	315	.90	282	1.22	256	1.90	199	2.33	163	2.64	138	3.03	106	3.56	62.3	
32	.18	464	.35	445	.65	412	1.14	359	1.51	318	2.75	236	2.69	188	2.98	156	3.34	117			
40	.23	582	.44	553	.80	504	1.36	427	1.76	371	2.53	266	2.95	207	3.23	169	3.55	124			
48	.28	695	.52	655	.93	587	1.54	486	1.97	414	2.74	288	3.15	220	3.40	179					
6 DIAMETRAL PITCH – 8.48 NORMAL DIAMETRAL PITCH HARDENED STEEL																			1.000" FACE		
8	.01	572	.45	564	.87	548	1.65	520	2.35	494	4.09	430	5.44	381	6.50	342	8.09	283	10.70	187	
9	.26	664	.52	653	1.00	633	1.89	597	2.68	564	4.61	484	6.06	424	7.19	378	8.84	310	11.47	201	
10	.30	758	.59	745	1.14	720	2.14	674	3.02	634	5.11	537	6.66	466	7.84	412	9.54	334	12.17	213	
12	.37	944	.73	924	1.41	887	2.61	821	3.64	764	6.02	633	7.71	540	8.97	471	10.71	375	13.29	233	
15	.48	1217	.94	1185	1.79	1127	3.26	1026	4.48	942	7.19	755	9.00	630	10.30	541	12.04	421	14.48	253	
18	.59	1478	1.14	1433	2.14	1350	3.84	1210	5.22	1096	8.14	855	10.00	700	11.30	593	12.98	454	15.25	267	
20	.66	1670	1.28	1613	2.40	1511	4.25	1340	5.73	1204	8.79	924	10.69	749	11.99	630	13.65	478			
24	.80	2024	1.54	1942	2.85	1798	4.97	1565	6.60	1386	9.82	1031	11.72	821	12.98	682	14.55	510			
30	1.01	2546	1.92	2420	3.50	2203	5.93	1868	7.72	1622	11.06	1162	12.92	905	14.11	741	15.54	544			
36	1.21	3048	2.28	2872	4.08	2573	6.76	2131	8.65	1818	12.02	1262	13.81	967	14.92	783					
6 DIAMETRAL PITCH – 8.48 NORMAL DIAMETRAL PITCH HARDENED STEEL																			1.250" FACE		
8	.28	715	.56	705	1.09	685	2.06	650	2.94	617	5.12	537	6.79	476	8.13	427	10.11	354	13.37	234	
10	.38	948	.74	931	1.43	899	2.67	842	3.77	792	6.39	672	8.32	583	9.80	515	11.93	418	15.22	266	
12	.47	1180	.92	1155	1.76	1109	3.26	1026	4.55	955	7.53	791	9.64	675	11.21	589	13.38	469	16.61	291	
15	.60	1521	1.18	1482	2.24	1409	4.07	1282	5.60	1177	8.99	944	11.25	788	12.87	676	15.04	527	18.10	317	
18	.73	1848	1.42	1791	2.68	1687	4.80	1512	6.52	1370	10.17	1068	12.50	876	14.12	742	16.22	568	19.06	334	
24	1.00	2529	1.93	2428	3.57	2247	6.21	1956	8.24	1732	12.27	1289	14.65	1026	16.23	852	18.19	637			
6 DIAMETRAL PITCH – 8.48 NORMAL DIAMETRAL PITCH BRONZE																			1.000" FACE		
12	.15	378	.29	370	.56	355	1.04	328	1.46	306	2.41	253	3.08	216	3.59	188	4.28	150	5.32	93.1	
15	.19	487	.38	474	.72	451	1.30	410	1.79	377	2.88	302	3.60	252	4.12	216	4.81	169	5.79	101	
18	.23	591	.45	513	.86	540	1.54	484	2.09	439	3.25	342	4.00	280	4.52	237	5.19	182	6.10	107	
20	.26	668	.51	645	.96	604	1.70	536	2.29	482	3.52	369	4.28	300	4.80	252	5.46	191			
24	.32	810	.62	777	1.14	719	1.99	626	2.64	554	3.93	412	4.69	328	5.19	273	5.82	204			
30	.40	1018	.77	968	1.40	881	2.37	747	3.09	649	4.42	465	5.17	362	5.65	296	6.22	218			
36	.48	1219	.91	1149	1.63	1029	2.70	852	3.46	727	4.81	505	5.52	387	5.97	313					

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*Torque Rating (Lb. Ins.)