

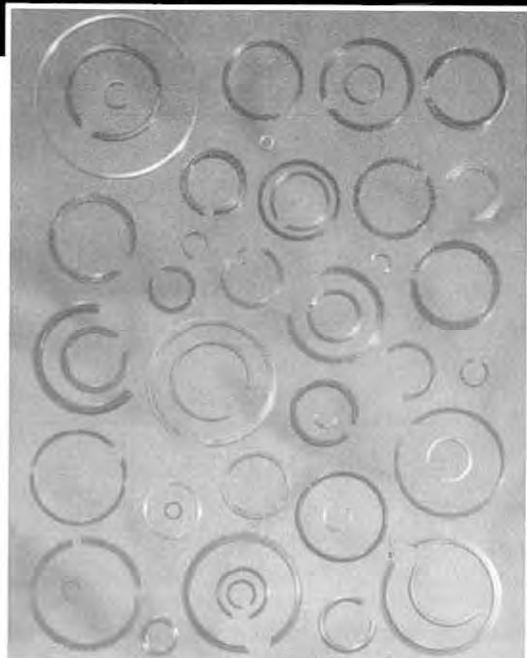


**PETERSON SPRING**

MANUFACTURERS OF ENGINEERED METAL PRODUCTS



**CATALOG  
OF  
STANDARD  
RETAINING RINGS**



**PETERSON SPRING**

MANUFACTURERS OF ENGINEERED METAL PRODUCTS

Ring Manufacturing and Engineering Locations

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## INSPECTION PROCEDURES

### **Inside and Outside Diameters**

Snap rings should be measured 90 degrees from the gap using Vernier Calipers or Go-No Go gauges.

### **Gap Dimensions**

Ring gap would be measured as the distance between the smallest ends of the ring, measured with Vernier Calipers or Go-No Go gauges. The ring may also be measured with the ring assembled in a gauge at the groove diameter. One should note that the free or non-confined gap relationship to the free diameter of the ring varies by the calculation of PI (approx. 3.1416) times the variation in the free ring diameter.

### **Gap or Cutoff Angle**

The gap or cutoff angle may be measured from the cutoff to the center of the ring, or the total included angle. One should remember the purpose of the gap or cutoff angle is to facilitate the removal, or to disassemble the ring from the groove.

### **Material Width**

The radial section of the ring material measured with Vernier Calipers, usually at 90 degrees or 180 degrees from the gap.

### **Material Thickness**

The axial section of the ring material measured with Ball or Pointed Micrometers, usually at 90 degrees or 180 degrees from the gap.

### **Parallelism**

The difference in the axial thickness of the ring between the outside diameter and the inside diameter measured with ball or pointed micrometers.

### **Helix**

Often called *free height*, the ring is measured between parallel plates or on a surface plate with a height gauge.

### **Dish**

The ring is measured on a surface plate using a feeler gauge.

### **Axial Clearance**

The ring is measured between parallel plates under a 10 pound load.

### **Radial Gap or Kink**

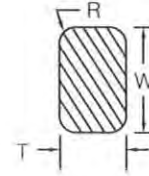
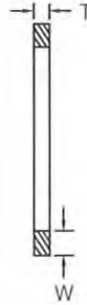
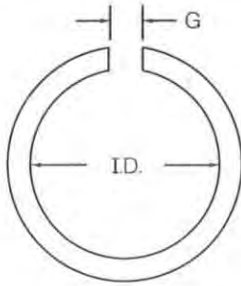
Measured with the ring assembled in a gauge equal to the groove diameter and using a feeler gauge.



# EXTERNAL RETAINING RINGS FOR GROOVES IN OUTER TRACKS OF BALL OR ROLLER BEARINGS

Material: Steel SAE 1060-1070

Hardness: R/C 40-50



PETERSON PART NO.	BEARING NUMBER				BEARING O.D.		GROOVE DIA. ±.003	ASSEM- BLED O.D.	RING DIMENSIONS			GAP G	RADIUS MAX. R	WEIGHT PER M	REPLACES EATON PART NO.	
	EXTRA LIGHT	LIGHT	MED.	HEAVY	(MM) D	(INCHES) D			FREE I.D.		WIDTH W ±.003					THICK. T ±.002
									I.D.	TOL.						
0R		37-38			22	.8661	.8125	1.000	.799	+0.00 -.015	.094		1/8 MAX.	2.7	1957	
1R		200			30	1.1811	1.109	1.359	1.094					5.6	743-4	
2R	102	201			32	1.2598	1.187	1.437	1.172					6.0	781-2	
3R	103	202	300		35	1.3780	1.306	1.547	1.291	+0.00 -.020	.125		3/32 ±1/32	6.6	2046	
4R			301		37	1.4567	1.369	1.609	1.354					7.0	2976-1	
5R		203			40	1.5748	1.500	1.750	1.485			.042		7.8	939-2	
6R	104		302		42	1.6535	1.565	1.812	1.550					7.8	954	
7R	105	204	303		47	1.8504	1.756	2.062	1.741					11.0	1039	
8R		205	304		52	2.0472	1.958	2.265	1.943					12.1	1117-2	
9R	106				55	2.1654	2.071	2.375	2.056				1/8 ±1/32	12.8	3918-1	
10R	107	206	305	403	62	2.4409	2.347	2.656	2.322	+0.00 -.030	.156			21.9	1245-6	
11R	108				68	2.6772	2.552	2.922	2.527					29.1	2261	
12R		207	306	404	72	2.8346	2.709	3.078	2.684			.065		30.8	1356-7	
13R	109				75	2.9528	2.828	3.203	2.803					32.1	3919-1	
14R	110	208	307	405	80	3.1496	3.024	3.406	2.999					34.2	1438-5	
15R		209			85	3.3465	3.221	3.594	3.196					36.7	1490-5	
16R	111	210	308	406	90	3.5433	3.417	3.797	3.392	+0.00 -.046	.188		5/32 ±3/64	56.5	1534-4	
17R	112				95	3.7402	3.615	3.984	3.590					59.7	3920-1	
18R	113	211	309	407	100	3.9370	3.811	4.187	3.786			.095		62.1	1598-1	
19R	114	212	310	408	110	4.3307	4.205	4.578	4.180					68.7	1642-3	
20R	115				115	4.5276	4.402	4.781	4.377					72.2	3126	
21R		213	311	409	120	4.7244	4.536	5.094	4.506	+0.00 -.062			3/16 ±1/16	128.8	1675-4	
22R	116	214			125	4.9213	4.733	5.297	4.703					136.0	1693	
23R	117	215	312	410	130	5.1181	4.930	5.500	4.900					139.5	1706-3	
24R	118	216	313	411	140	5.5118	5.324	5.890	5.294					150.4	1730-5	
25R	119				145	5.7087	5.521	6.078	5.491	+0.00 -.093	.281	.109		155.0	3921-1	
26R	120	217	314	412	150	5.9055	5.718	6.281	5.688				9/32 ±1/16	160.9	1744-5	
27R	121	218	315	413	160	6.2992	6.111	6.672	6.081					171.7	1764-1	
28R	122	219	316		170	6.6929	6.443	7.187	6.413					267.4	1773-2	
29R	124	220	317	414	180	7.0866	6.837	7.594	6.807					284.4	1787-1	
30R		221	318	415	190	7.4803	7.230	7.984	7.200	+0.00 -.125			3/8 ±1/16	300.1	1849-1	
31R	126	222	319	416	200	7.8740	7.624	8.375	7.594			.375	.120	309.1	2165-2	
32R	128			417	210	8.2677	8.018	8.766	7.987					319.0	3922-1	
33R		224	320		215	8.4646	8.215	8.969	8.184					338.4	3923-1	
34R	130		321	418	225	8.8583	8.6083	9.328	8.578					349.0	3924-1	
35R		226			230	9.0551	8.8051	9.562	8.775	+0.00 -.156			15/32 ±3/32	362.0	3925-1	
36R	132		322		240	9.4488	9.1988	9.953	9.168					375.4	3926-1	

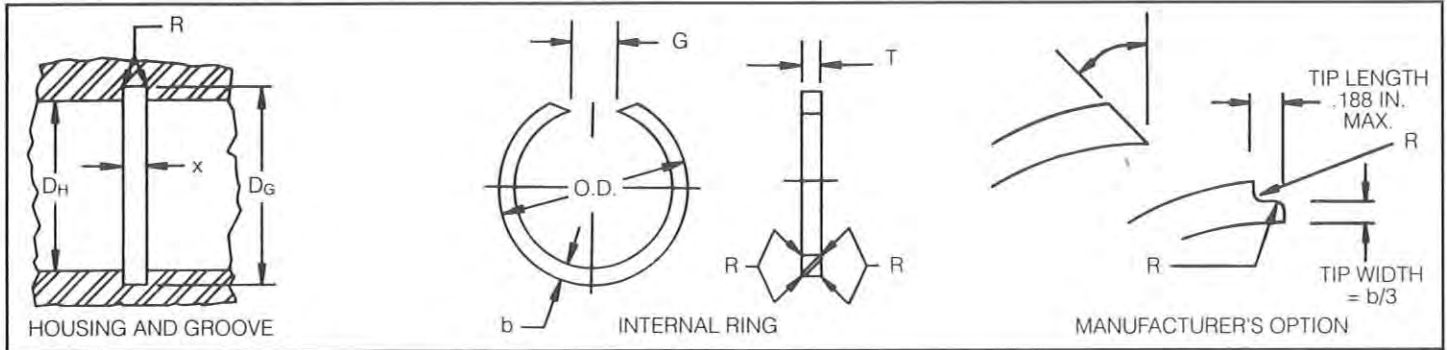
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# INTERNAL RETAINING RINGS

Material: Steel SAE 1060-1070

Hardness: R/C 42-50



PETERSON PART NO.	DH HOUSING DIAMETER			GROOVE DIMENSIONS				RING DIMENSIONS				FREE GAP G		RING THRUST CAPACITY LBS.	REPLACES EATON PART NO.																																	
	INCHES		MM	DIAMETER		DEPTH B NOM.	FREE O.D.		THICK T ±.002	MIN.	MAX.																																					
	DEC.	FRAC.	EQUIV.	DG	TOL.		X	O.D.				TOL.	WIDTH b																																			
711J	.875	7/8	22.23	.919	±.003	.046	.022	.934	±.003	.042	.281	.438	1130	NAN87																																		
712J	.901		22.88	.945			.024	.961					+.031 -.000	.078	.050	.375	.562	1260	NAN90																													
713J	.938	15/16	23.82	.986			.026	1.003										.093	±.003	.062	.437	.687	1360	NAN93																								
714J	1.000	1	25.40	1.052		.028	1.070	.109															±.003	.050	.437	.687	1470	NAN100																				
715J	1.023		25.98	1.075		.030	1.094							.125													±.005	.062	.437	.687	1500	NAN102																
716J	1.062	1-1/16	26.97	1.114		.032	1.134											.141	±.005												.062	.437	.687	1780	NAN106													
717J	1.125	1-1/8	28.58	1.181		.034	1.202	.156															±.005											.062	.437	.687	1880	NAN112										
718J	1.188	1-3/16	30.17	1.248		.036	1.270							.171													±.005										.062	.437	.687	1990	NAN118							
719J	1.250	1-1/4	31.75	1.314		.038	1.337											.187	±.005																					.062	.437	.687	2090	NAN125				
720J	1.312	1-5/16	33.32	1.380		.040	1.404	.200															±.005																				.062	.437	.687	2200	NAN131	
721J	1.375	1-3/8	34.93	1.447		.042	1.472							.213													±.005																			.062	.437	.687
722J	1.438	1-7/16	36.52	1.510		.044	1.535											.226	±.005																													
723J	1.456		36.08	1.532	.046	1.557	.239	±.005	.062	.437	.687	2490											NAN145																									
724J	1.500	1-1/2	38.10	1.576	.048	1.607						.252	±.005	.062	.437	.687	2560						NAN150																									
725J	1.562	1-9/16	39.67	1.642	.050	1.668											.265	±.005	.062	.437	.687	3060	NAN156																									
726J	1.625	1-5/8	41.28	1.709	.052	1.736	.278	±.005														.062	.437	.687	3190	NAN162																						
727J	1.653		41.99	1.737	.054	1.765						.291	±.005												.062	.437	.687	3240	NAN165																			
728J	1.688	1-11/16	42.87	1.776	.056	1.804											.304	±.005										.062	.437	.687	3370	NAN168																
729J	1.750	1-3/4	44.45	1.842	.058	1.870	.317	±.005																							.062	.437	.687	3510	NAN175													
730J	1.812	1-13/16	46.02	1.904	.060	1.933						.330	±.005																					.062	.437	.687	3640	NAN181										
731J	1.850		47.00	1.946	.062	1.975											.343	±.005																			.062	.437	.687	3710	NAN185							
732J	1.875	1-7/8	47.63	1.971	.064	2.000	.356	±.005																																.062	.437	.687	3760	NAN187				
733J	1.938	1-15/16	49.22	2.038	.066	2.068						.369	±.005																														.062	.437	.687	3870	NAN193	
734J	1.968	1-31/32	49.99	2.068	.068	2.098											.382	±.005																												.062	.437	.687
735J	2.000	2	50.80	2.100	.070	2.131	.395	±.005	.062	.437	.687																																					
736J	2.062	2-1/16	52.37	2.166	.072	2.197						.408	±.005	.062	.437	.687																																
737J	2.125	2-1/8	53.98	2.229	.074	2.260											.421	±.005	.062	.437	.687																											
738J	2.188	2-3/16	55.55	2.296	.076	2.331	.434	±.005														.062	.437	.687																								
739J	2.250	2-1/4	57.15	2.358	.078	2.393						.447	±.005												.062	.437	.687																					
740J	2.312	2-5/16	58.72	2.424	.080	2.459											.460	±.005										.062	.437	.687																		
741J	2.375	2-3/8	60.33	2.487	.082	2.523	.473	±.005																							.062	.437	.687															
742J	2.440		61.98	2.556	.084	2.592						.486	±.005																					.062	.437	.687												
743J	2.500	2-1/2	63.50	2.616	.086	2.653											.499	±.005																			.062	.437	.687									
744J	2.531	2-17/32	64.28	2.651	.088	2.688	.512	±.005																																.062	.437	.687						
745J	2.562	2-9/16	65.07	2.686	.090	2.726						.525	±.005																														.062	.437	.687			
746J	2.625	2-5/8	66.67	2.750	.092	2.790											.538	±.005																												.062	.437	.687
747J	2.688	2-11/16	68.27	2.816	.094	2.856	.551	±.005	.062	.437	.687																																					

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# INTERNAL RETAINING RINGS (CONTINUED)

Material: Steel SAE 1060-1070

Hardness: R/C 42-50

PETERSON PART NO.	D <sub>H</sub> HOUSING DIAMETER			GROOVE DIMENSIONS			RING DIMENSIONS				FREE GAP G		RING THRUST CAPACITY LBS.	REPLACES EATON PART NO.																												
	INCHES		MM EQUIV.	DIAMETER		WIDTH X	DEPTH B NOM.	FREE O.D.		WIDTH b ±.005	THICK. T ±.002	MIN.			MAX.																											
	DEC.	FRAC.		D <sub>G</sub>	TOL.			O.D.	TOL.																																	
748J	2.717		68.83	2.842	±.006	.103 +.005 -.000	.064	2.882	+.046	.187	.093	.562	.812	8875	NAN271																											
749J	2.750	2-3/4	69.85	2.878			2.918	+.062 -.000	.218					.718	1.062	8950	NAN275																									
750J	2.813	2-13/16	71.45	2.945			.066									2.985	.250	.875	1.312	9100	NAN281																					
751J	2.834		72.00	2.966			3.006									+.093 -.000				.281	1.125	1.812	9250	NAN283																		
752J	2.875	2-7/8	73.00	3.011			.068																3.056	.312	.156	1.812	9400	NAN287														
753J	3.000	3	76.20	3.136			3.181																.343				.156	1.812	1.812	9550	NAN300											
754J	3.062	3-3/16	77.78	3.202			.070																							3.247	.375	.187	2.250	10470	NAN306							
755J	3.125	3-1/8	79.38	3.265			3.311																							.406				.187	2.250	2.250	10690	NAN312				
756J	3.156	3-5/32	80.16	3.296			3.342																														.437	.187	2.250	2.250	10800	NAN315
757J	3.250	3-1/4	82.55	3.394			3.442																																		.468	.187
758J	3.346		85.00	3.490	.072	3.539	.500			.187	2.250	11450	NAN334																													
759J	3.469	3-15/32	88.00	3.613	3.663	.531		.187	2.250			2.250	11870	NAN346																												
760J	3.500	3-1/2	88.90	3.648	3.700								.562	.187	2.250		2.250	11970	NAN350																							
761J	3.543		90.00	3.691	.074											3.745		.593	.187	2.250	12120	NAN354																				
762J	3.562	3-9/16	90.47	3.710	3.766											.625					.187	2.250		2.250	12190	NAN356																
763J	3.625	3-5/8	92.08	3.773	3.831																		.656		.187	2.250	2.250	12380	NAN362													
764J	3.750	3-3/4	95.25	3.902	.076																							3.962	.687		.187	2.250	12600									
765J	3.875	3-7/8	98.42	4.027	4.089																							.718		.187			2.250	2.250	12820	NAN387						
766J	3.938	3-15/16	100.00	4.094	.078																														4.156	.750	.187	2.250	13230	NAN393		
767J	4.000	4	101.60	4.156	4.221																														.781				.187	2.250	2.250	13690
768J	4.125	4-1/8	104.77	4.285	4.355		.812			.187	2.250																															2.250
769J	4.250	4-1/4	107.95	4.410	.080	4.485		.843	.187			2.250																														
770J	4.330		110.00	4.490	4.565	.875							.187	2.250	2.250		14960																									
771J	4.436	4-7/16	112.69	4.596	4.670												.906	.187	2.250	2.250																						
772J	4.500	4-1/2	114.30	4.664	.082											4.744					.937	.187		2.250																		
773J	4.825	4-5/8	117.48	4.795	.085											4.875							.968		.187	2.250	15830															
774J	4.750	4-3/4	120.65	4.926	.088											5.011											.999		.187		2.250	16250										
775J	5.000	5	127.00	5.180	.090											5.265												1.030		.187		2.250	17110	NAN500								
776J	5.250	5-1/4	133.35	5.435	.092											5.530																	1.061	.187		2.250	20590	NAN525				
777J	5.375	5-3/8	136.53	5.565	.095											5.660																			1.092		.187	2.250	21110	NAN537		
778J	5.500	5-1/2	140.00	5.696	.098		5.796			1.123	.187					2.250																							21790	NAN550		
779J	5.750	5-3/4	146.05	5.950	.100		6.050	1.154	.187			2.250																											22570	NAN575		
780J	6.000	6	152.40	6.204	.102	6.309	1.185						.187	2.250	23550																								NAN600			
781J	6.250	6-1/4	158.75	6.458	.104	6.568									1.216		.187	2.250	29420	NAN625																						
782J	6.500	6-1/2	165.00	6.712	.174	6.832													1.247	.187	2.250	30610		NAN650																		
783J	6.625	6-5/8	168.27	6.845	6.975	1.278																.187	2.250	2.250	31400	NAN662																
784J	6.750	6-3/4	171.45	6.970	.110																				7.100	1.309	.187		2.250		32640								NAN675			
785J	7.000	7	177.80	7.220	7.350																				1.340			.187		2.250	2.250	34850							NAN700			
786J	7.250	7-1/4	184.15	7.500	7.630																											1.371	.187	2.250		2.250			38060	NAN725		
787J	7.500	7-1/2	190.50	7.750	.125																														7.890		1.402	.187	2.250	39450	NAN750	
788J	8.000	8	203.20	8.250	8.400					1.433	.187					2.250																			2.250					41960	NAN800	
789J	8.250	8-1/4	209.55	8.540	.145			8.665	1.464			.187																												2.250	43320	NAN825
790J	8.500	8-1/2	215.90	8.790	8.915		1.495	.187					2.250	2.250																											44710	NAN850
791J	8.750	8-3/4	222.25	9.080	9.205										1.526		.187	2.250																							2.250	48900
792J	9.000	9	228.60	9.330	9.455														1.557	.187	2.250																					2.250
793J	9.055		230.00	9.384	.165	9.509																1.588	.187	2.250																		
794J	9.500	9-1/2	241.30	9.830	9.955	1.619																				.187	2.250		2.250													
795J	9.840	9-27/32	250.00	10.170	10.295																				1.650			.187		2.250	2.250											
796J	10.000	10	254.00	10.330	10.455																											1.681	.187	2.250		2.250						

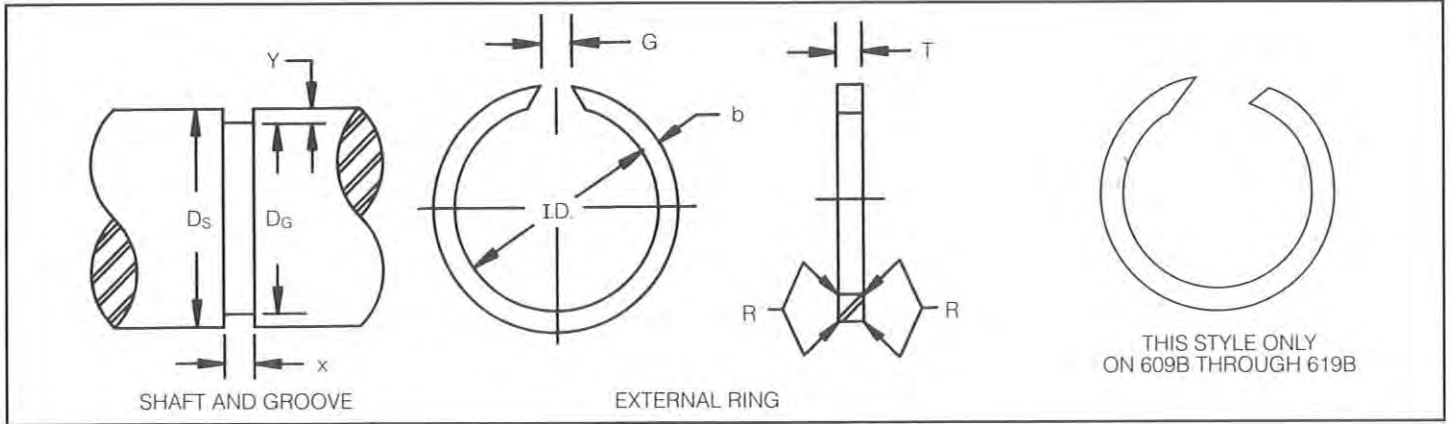
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# EXTERNAL RETAINING RINGS FOR SHAFT APPLICATIONS

Material: Steel SAE 1060-1070

Hardness: R/C 42-53



PETERSON PART NO.	D <sub>s</sub> SHAFT DIAMETER/ BEARING BORE			GROOVE DIMENSIONS				RING DIMENSIONS				FREE GAP G		RING THRUST CAPACITY LBS.	REPLACES EATON PART NO.																																																																									
	INCHES		MM EQUIV.	DIAMETER		WIDTH X	DEPTH Y NOM.	FREE DIA.		WIDTH b	THICK T ±.002	MIN.	MAX.																																																																											
	DEC.	FRAC.		D <sub>g</sub>	TOL.			I.D.	TOL.																																																																															
609B	.500	1/2	12.70	.474	±.002	.039	.013	.464	+.000	.048	.035	.062	.218	460	XAN50																																																																									
610B	.551		14.00	.524				+.003								.014	.514	-.025	±.003	.062	.042	.093	.250	480	XAN55																																																															
611B	.562	9/16	14.27	.534													-.000									.015	.524	.062	±.003	.042	.093	.250	490	XAN56																																																						
612B	.594	19/32	15.09	.566																							.016								.016	.555	±.003	.062	.042	.093	.250	510	XAN59																																													
613B	.625	5/8	15.88	.597																																.017								.017	.586	±.003	.062	.042	.093	.250	520	XAN62																																				
614B	.669		17.00	.640																																									.018								.018	.630	±.003	.062	.042	.093	.250	570	XAN66																											
615B	.688	11/16	17.48	.656																																																		.020								.020	.644	±.003	.062	.042	.093	.250	700	XAN68																		
616B	.750	3/4	19.05	.716																																																											+.003								.021	.703	±.003	.062	.042	.093	.250	820	XAN75									
617B	.781	25/32	19.84	.745																																																																				-.000								.022	.733	±.003	.062	.042	.093	.250	950	XAN78
618B	.812	13/16	20.62	.776																																																																													.022							
619B	.875	7/8	22.23	.835	+.003	.023	.820		±.003	.062	.042	.093	.250	1100	XAN87																																																																									
620B	.938	15/16	23.83	.896			-.000	.025								.881		±.003	.062	.042	.093	.250	1130	XAN93																																																																
621B	.984	63/64	25.00	.940												.025	.025								.925	±.003		.062	.042	.093	.250	1170	XAN98																																																							
622B	1.000	1	25.40	.956																					±.003		.026							.941	±.000		.093	.050	.156	.312	1200	XAN100																																														
623B	1.023		25.98	.977																														.026		.026							.962	-.031		.093	.050	.156	.312	1300	XAN102																																					
624B	1.062	1-1/16	26.97	1.016																																							.028		.028							1.000	±.003		.093	.050	.156	.312	1600	XAN106																												
625B	1.125	1-1/8	28.58	1.075																																																.028		.028							.1060	±.003		.093	.050	.156	.312	1880	XAN112																			
626B	1.188	1-3/16	30.18	1.136																																																									.028		.028							.1121	±.003		.093	.050	.156	.312	1990	XAN118										
627B	1.250	1-1/4	31.75	1.194																																																																		+.004		.031							.1179	±.003		.093	.050	.156	.312	2090	XAN125	
628B	1.312	1-5/16	33.32	1.250																																																																											-.000		.031							.1232
629B	1.375	1-3/8	34.93	1.309	.033	.033			.1291	±.003	.093	.050	.156	.312	2300																																																																									XAN137
630B	1.438	1-7/16	36.53	1.370			.034	.034	.1351									±.003	.093	.050	.156	.312	2460	XAN143																																																																
631B	1.500	1-1/2	38.10	1.430					.035							.035	.1408									±.003		.093	.050	.156	.312	2500	XAN150																																																							
632B	1.562	1-9/16	39.67	1.490													±.004								.036		.1467								+.000		.125	.062	.156	.375	3060	XAN156																																														
633B	1.625	1-5/8	41.28	1.551																							.037							.037		.1527								±.005		.125	.062	.156	.375	3190	XAN162																																					
634B	1.687	1-11/16	42.85	1.611																																.038							.038		.1581								±.005		.125	.062	.156	.375	3370	XAN168																												
635B	1.750	1-3/4	44.45	1.670																																									.040							.040		.1640								±.005		.125	.062	.156	.375	3510	XAN175																			
636B	1.771		44.98	1.687																																																		+.004							.042		.1657								±.005		.141	.062	.156	.375	3550	XAN177										
637B	1.812	1-13/16	46.02	1.728																																																											-.000							.042		.1698								+.000		.141	.062	.156	.375	3640	XAN181	
638B	1.875	1-7/8	47.63	1.789																																																																				.043							.043		.1759							
639B	1.969	1-31/32	48.99	1.879	.045	.045				.1849	±.005	.141	.062	.156	.375																																																																		3940							XAN196
640B	2.000	2	50.80	1.910			.045	.045		.1880								±.005	.141	.062	.156	.375	4010	XAN200																																																																
641B	2.062	2-1/16	52.37	1.966					.048	.048						.1936										±.005		.156	.062	.156	.375	5350	XAN206																																																							
642B	2.125	2-1/8	53.98	2.027												+.005	.049								.1997										±.005		.156	.062	.156	.375	5470	XAN212																																														
643B	2.156	2-5/32	54.76	2.056																					-.000		.050							.2026										±.005		.156	.062	.156	.375	5680	XAN215																																					

All Eaton names and numbers are for identification purposes only. In no way are we implying that our parts are Eaton parts.



# EXTERNAL RETAINING RINGS FOR SHAFT APPLICATIONS (CONTINUED)

Material: Steel SAE 1060-1070

Hardness: R/C 42-53

PETERSON PART NO.	D <sub>s</sub> SHAFT DIAMETER/ BEARING BORE			GROOVE DIMENSIONS				RING DIMENSIONS				FREE GAP G		RING THRUST CAPACITY LBS.	REPLACES EATON PART NO.
	INCHES		MM EQUIV.	DIAMETER		WIDTH X	DEPTH Y NOM.	FREE DIA.		WIDTH b	THICK T ±.002	MIN.	MAX.		
	DEC.	FRAC.		D <sub>g</sub>	TOL.			I.D.	TOL.						
644B	2.250	2-1/4	57.15	2.146			.052	2.116		.156				5790	XAN225
645B	2.312	2-5/16	58.72	2.204			.054	2.174		±.005				6300	XAN231
646B	2.375	2-3/8	60.33	2.265			.055	2.235						6400	XAN237
647B	2.437	2-7/16	61.90	2.325			.056	2.295	+0.000					6500	XAN243
648B	2.500	2-1/2	63.50	2.386		.086	.057	2.356	-0.046		.078	.156	.375	6600	XAN250
649B	2.559		65.00	2.443		+0.005	.058	2.413						6700	XAN255
650B	2.625	2-5/8	66.68	2.505		-0.000	.060	2.475		.187				6800	XAN262
651B	2.687	2-11/16	68.25	2.565			.061	2.535		±.005				6900	XAN268
652B	2.750	2-3/4	69.85	2.624			.063	2.594						8460	XAN275
653B	2.875	2-7/8	73.03	2.743			.066	2.713						8840	XAN287
654B	2.937	2-15/16	74.60	2.801			.068	2.771						9030	XAN293
655B	3.000	3	76.20	2.860			.070	2.830						9230	XAN300
656B	3.062	3-1/16	77.77	2.920			.071	2.890	+0.000	.218	.093	.187	.437	9420	XAN306
657B	3.125	3-1/8	79.38	2.981		.103	.072	2.951	-0.062	±.005				9630	XAN312
658B	3.156	3-5/32	80.16	3.010		+0.005	.073	2.980						9800	XAN315
659B	3.250	3-1/4	82.55	3.100		-0.000	.075	3.070						10000	XAN325
660B	3.344	3-11/32	84.94	3.190			.077	3.160						10290	XAN334
661B	3.437	3-7/16	87.30	3.281			.078	3.251						10570	XAN343
662B	3.500	3-1/2	88.90	3.340	±.006		.080	3.305		.250				11970	XAN350
663B	3.543		90.00	3.381			.081	3.346		±.005				12120	XAN354
664B	3.625	3-5/8	92.08	3.458			.083	3.423	+0.000					12300	XAN362
665B	3.687	3-11/16	93.65	3.517			.085	3.482	-0.078		.250	.562		12600	XAN368
666B	3.750	3-3/4	95.25	3.576			.087	3.541						12800	XAN375
667B	3.875	3-7/8	98.43	3.697			.089	3.657						13200	XAN387
668B	3.938	3-15/16	100.02	3.758		.120	.090	3.713		.281	.109			13470	XAN393
669B	4.000	4	101.60	3.816		+0.005		3.771		±.005				13650	XAN400
670B	4.250	4-1/4	107.95	4.066		-0.000	.092	4.016						15000	XAN425
671B	4.375	4-3/8	111.13	4.191				4.141	+0.000					15500	XAN437
672B	4.500	4-1/2	114.30	4.310			.095	4.255	-0.093		.250	.656		16200	XAN450
673B	4.750	4-3/4	120.65	4.550			.100	4.495		.312				16480	XAN475
674B	5.000	5	127.00	4.790			.105	4.730		±.005				17110	XAN500
675B	5.250	5-1/4	133.35	5.030			.110	4.970						20590	XAN525
676B	5.500	5-1/2	139.70	5.266		.139	.117	5.206	+0.000	.375	.125	.250	.750	21790	XAN550
677B	5.750	5-3/4	146.05	5.506		+0.006	.122	5.446	-0.125	±.005				23010	XAN575
678B	5.900		149.86	5.656		-0.000		5.600						23625	XAN590
679B	6.000	6	152.40	5.746			.127	5.687						24000	XAN600
680B	6.250	6-1/4	158.75	5.986			.132	5.916						30310	XAN625
681B	6.500	6-1/2	165.10	6.226			.137	6.151	+0.000	.437	.156	.250	.750	33760	XAN650
682B	6.750	6-3/4	171.45	6.466		+0.008	.142	6.386	-0.125	±.005				36840	XAN675
683B	7.000	7	177.80	6.706		-0.000	.147	6.621						39920	XAN700
684B	7.250	7-1/4	184.15	6.930				6.840						43100	XAN725
685B	7.500	7-1/2	190.50	7.180			.160	7.090						44500	XAN750
686B	8.000	8	203.20	7.660	±.008			7.560						45500	XAN800
687B	8.500	8-1/2	215.90	8.160		.209		8.050	+0.000	.500	.187	.250	.875	46700	XAN850
688B	9.000	9	228.60	8.660		+0.008	.170	8.545	-0.156	±.005				49900	XAN900
689B	9.250	9-1/4	234.95	8.910		-0.000		8.800						51000	XAN925
690B	9.500	9-1/2	241.30	9.160				9.040						52590	XAN950
691B	10.000	10	254.00	9.660				9.535						55600	XAN1000

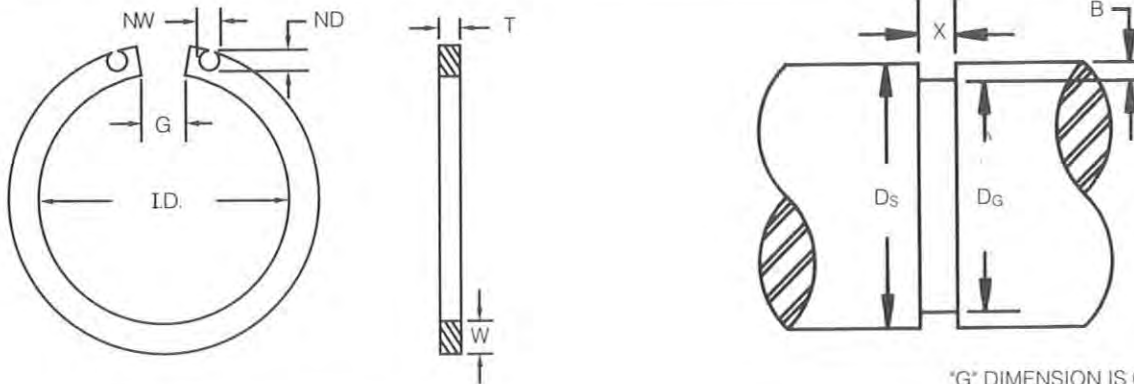
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# EXTERNAL NOTCHED RINGS FOR SHAFT APPLICATIONS

Material: Steel SAE 1060-1070

Hardness: R/C 47-53



\*G\* DIMENSION IS GAP AT GROOVE

PETERSON PART NO.	D <sub>S</sub> SHAFT DIAMETER			GROOVE DIMENSIONS			RING DIMENSIONS				GAP G TOL. ±1/16"	NOTCH DIM.		SAFE WORKING THRUST LOAD	REPLACES EATON PART NO.
	INCHES		MM EQUIV.	DIA. D <sub>G</sub> ±.006	WIDTH X	NOM. DEPTH B	FREE DIAMETER		WIRE SECTION			DEPTH ND ±.020	WIDTH NW +.015 -.000		
	DEC.	FRAC.					I.D.	TOL.	W ±.005	T ±.002					
201A	2.062	2-1/16	52.37	1.946	.086 +0.005 -0.000	.058	1.926	+0.000 -0.060	.187	.078	.375	.093	5400	EN206	
202A	2.125	2-1/8	53.98	2.003		.061	1.983							5530	EN212
203A	2.156	2-5/32	54.76	2.032		.062	2.012							5680	EN215
204A	2.250	2-1/4	57.15	2.120		.065	2.100							6200	EN225
205A	2.312	2-5/16	58.73	2.178		.067	2.158							6580	EN231
206A	2.375	2-3/8	60.33	2.239		.068	2.219							6870	EN237
207A	2.438	2-7/16	61.93	2.299		.069	2.279							7130	EN243
208A	2.500	2-1/2	63.50	2.360		.070	2.340							7430	EN250
209A	2.559		65.00	2.419			2.399							7590	EN255
210A	2.625	2-5/8	66.68	2.481		.072	2.461							8020	EN262
211A	2.688	2-11/16	68.28	2.541	.073	2.521	8320	EN268							
212A	2.750	2-3/4	69.85	2.602	.074	2.577	+0.000 -0.080	.218	.093	.110	8650	EN275			
213A	2.875	2-7/8	73.03	2.721	.077	2.696						9330	EN287		
214A	2.938	2-15/16	74.63	2.779	.079	2.754						9840	EN293		
215A	3.000	3	76.20	2.838	.081	2.813						10310	EN300		
216A	3.062	3-1/16	77.77	2.898	.082	2.873						10530	EN306		
217A	3.125	3-1/8	79.38	2.957	.084	2.932						11170	EN312		
218A	3.156	3-5/32	80.16	2.986	.085	2.961						11370	EN315		
219A	3.250	3-1/4	82.55	3.076	.087	3.051						12000	EN325		
220A	3.346	3-11/32	85.00	3.166	.090	3.141						12810	EN334		
221A	3.438	3-7/16	87.33	3.257		3.232						13100	EN343		
222A	3.500	3-1/2	88.90	3.316	.120 +0.005 -0.000	.092	3.286	.250	.109	.562	.125	13640	EN350		
223A	3.543		90.00	3.357		.093	3.327						14000	EN354	
224A	3.625	3-5/8	92.08	3.435		.095	3.405						14580	EN362	
225A	3.688	3-11/16	93.68	3.493		.097	3.463						14650	EN368	
226A	3.750	3-3/4	95.25	3.552		.099	3.522						15800	EN375	
227A	3.875	3-7/8	98.43	3.673		.101	3.643						16600	EN387	
228A	3.938	3-15/16	100.03	3.734		.102	3.704						17040	EN393	
229A	4.000	4	101.60	3.792		.104	3.762						17640	EN400	
230A	4.250	4-1/4	107.95	4.065		.092	4.025						16600	EN425	
231A	4.375	4-3/8	111.13	4.190			4.150						17100	EN437	
232A	4.500	4-1/2	114.30	4.310	.095	4.270	.312	.625	.180	18230	EN450				
233A	4.750	4-3/4	120.65	4.550	.100	4.510					19160	EN475			
234A	5.000	5	127.00	4.790	.105	4.750					22280	EN500			

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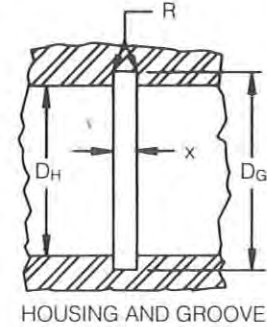
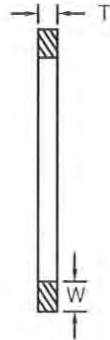
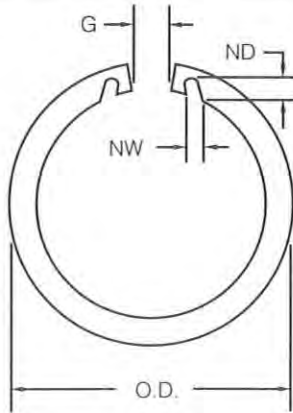




# INTERNAL NOTCHED RINGS FOR HOUSING APPLICATIONS

Material: Steel SAE 1060-1070

Hardness: R/C 45-52



HOUSING AND GROOVE

\*G\* DIMENSION IS GAP AT GROOVE

PETERSON PART NO.	GROOVE DIMENSIONS			RING DIMENSIONS				MIN. GAP G	NOTCH DIM.		THRUST LOAD LBS.	DH HOUSING DIAMETER			REPLACES EATON PART NO.	
	DIAMETER		WIDTH X	DEPTH NOM.	FREE O.D.	DIA. TOL.	WIRE SECTION		DEPTH ND ±.020	WIDTH NW +.015 -.000		INCHES		MM EQUIV.		
	D <sub>G</sub>	TOL.					W ±.005					T ±.002	DEC.			FRAC.
301H	1.858	±.005	.068 +.004 -.000	.054	1.878	+.070 -.000	.156	.062	.370	.078	4100	1.750	1-3/4	44.45	IN175	
302H	1.922			.055	1.942							4280	1.812	1-13/16	46.02	IN181
303H	1.962			.056	1.982							4380	1.850		47.00	IN185
304H	1.989			.057	2.014							4650	1.875	1-7/8	47.63	IN187
305H	2.056			.059	2.081							5000	1.938	1-15/16	49.20	IN193
306H	2.122			.061	2.147							5350	2.000	2	50.80	IN200
307H	2.171	±.005	.086 +.005 -.000	.062	2.201	+.080 -.000	.171	.078	.420	.085	.093	2.047	2-3/64	52.00	IN206	
308H	2.186			2.201	6490							2.062	2-1/16	52.37	IN206	
309H	2.251			.063	2.271							6810	2.125	2-1/8	53.98	IN212
310H	2.295			.065	2.338							7240	2.165		55.00	IN218
311H	2.318			2.338	7240							2.188	2-3/16	55.55	IN218	
312H	2.382			.066	2.402							7560	2.250	2-1/4	57.15	IN225
313H	2.450			.069	2.470							8120	2.312	2-5/16	58.72	IN231
314H	2.517			.071	2.537							8580	2.375	2-3/8	60.33	IN237
315H	2.584			.072	2.604							8940	2.440		61.98	IN244
316H	2.648			.074	2.673							9660	2.531	2-17/32	64.29	IN253
317H	2.681			.075	2.706							9910	2.562	2-9/16	65.07	IN256
318H	2.714			.076	2.739							10420	2.625	2-5/8	66.68	IN262
319H	2.781	.078	2.806	10900	2.677		68.00	IN268								
320H	2.837	±.006	.103 +.005 -.000	.080	2.868	+.080 -.000	.188	.093	.530	.093	.093	2.625	2-5/8	66.68	IN262	
321H	2.848			2.868	10900							2.688	2-11/16	68.25	IN268	
322H	2.914			.082	2.944							11470	2.750	2-3/4	69.85	IN275
323H	2.980			.084	3.025							12200	2.812	2-13/16	71.42	IN281
324H	3.005			.085	3.025							12200	2.835		72.00	IN281
325H	3.051			.088	3.086							12870	2.875	2-7/8	73.03	IN287
326H	3.135	±.006	.120 +.005 -.000	.091	3.175	+.100 -.000	.203	.109	.620	.100	.125	2.953		75.00	IN295	
327H	3.182			3.222	13890							3.000	3	76.20	IN300	
328H	3.248			.093	3.288							14490	3.062	3-1/16	77.77	IN306
329H	3.315			.095	3.353							15110	3.125	3-1/8	79.38	IN312
330H	3.341			.096	3.388							15420	3.149		79.98	IN315
331H	3.348			3.388	15420							3.156	3-5/32	80.16	IN315	
332H	3.446	±.006	.100	.098	3.488	+.100 -.000	.218	.109	.680	.109	.125	3.250	3-1/4	82.55	IN325	
333H	3.546			.100	3.590							17030	3.346	3-11/32	84.99	IN334

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# INTERNAL NOTCHED RINGS FOR HOUSING APPLICATIONS (CONTINUED)

Material: Steel SAE 1060-1070

Hardness: R/C 45-52

PETERSON PART NO.	GROOVE DIMENSIONS			RING DIMENSIONS				MIN. GAP G	NOTCH DIM.		THRUST LOAD LBS.	D <sub>H</sub> HOUSING DIAMETER			REPLACES EATON PART NO.																																																								
	DIAMETER		WIDTH X	DEPTH NOM.	FREE O.D.	DIA. TOL.	WIRE SECTION		DEPTH ND ±.020	WIDTH NW +.015 -.000		INCHES		MM EQUIV.																																																									
	D <sub>G</sub>	TOL.					W					T	DEC.			FRAC.																																																							
							±.005					±.002																																																											
334H	3.675		.120	.103	3.721	+.100 -.000	.234	.109	.120	.125	18190	3.469	3-15/32	88.11	IN347																																																								
335H	3.710	±.006		.105	3.760						.250	.125	.125	.125	.125	18700	3.500	3-1/2	88.90	IN350																																																			
336H	3.755			.106	3.805											.120	.281	.140	.140	.140	.140	19400	3.543		90.00	IN354																																													
337H	3.776			.107	3.805																	.120	.281	.140	.140	.140	.140	19400	3.562	3-9/16	90.47	IN354																																							
338H	3.841			.108	3.895																							.120	.281	.140	.140	.140	.140	19930	3.625	3-5/8	92.08	IN362																																	
339H	3.964			.112	4.030																													.120	.281	.140	.140	.140	.140	21380	3.740		95.00	IN375																											
340H	3.974			.112	4.030																																			.120	.281	.140	.140	.140	.140	21380	3.750	3-3/4	95.25	IN375																					
341H	4.107			.116	4.165																																									.120	.281	.140	.140	.140	.140	22880	3.875	3-7/8	98.43	IN387															
342H	4.174			.118	4.234																																															.120	.281	.140	.140	.140	.140	23650	3.938	3-15/16	100.00	IN393									
343H	4.240			.120	4.300																																																					.120	.281	.140	.140	.140	.140	24430	4.000	4	101.60	IN400			
344H	4.365			.120	4.430		.120	.281	.140	.140																																																						.140	.140	25190	4.125	4-1/8	104.78	IN412	
345H	4.490			.120	4.555						.120	.281	.140	.140	.140																																																			.140	25960	4.250	4-1/4	107.95	IN425
346H	4.571			.120	4.641											.120	.281	.140	.140	.140	.140																																														26450	4.331		110.00	IN433
347H	4.740			.120	4.815																	.120	.281	.140	.140	.140	.140																																								27490	4.500	4-1/2	114.30	IN450
348H	4.865			.120	4.940																							.120	.281	.140	.140	.140	.140																																		28250	4.625	4-5/8	117.48	IN462
349H	4.969			.122	5.070																													.120	.281	.140	.140	.140	.140																												29000	4.724		120.00	IN475
350H	4.995			.122	5.070																																			.120	.281	.140	.140	.140	.140																						29000	4.750	4-3/4	120.65	IN475
351H	5.260			.130	5.340																																									.120	.281	.140	.140	.140	.140																33100	5.000	5	127.00	IN500
352H	5.520			.139	5.600																																															.135	+.120 -.000	.312	.125	1.000	.156										.156	36070	5.250	5-1/4	133.35
353H	5.650			.139	5.735																																																					.135	+.120 -.000	.312	.125	1.000	.156					.156	36930	5.375	5-3/8
354H	5.770		.135	5.860	.135	+.120 -.000	.312	.125	1.000	.156																																																						.156	37790				5.500	5-1/2	139.70
355H	6.020	.135	6.120	.135							+.120 -.000	.312	.125	1.000	.156																																																		.156	39500			5.750	5-3/4	146.05
356H	6.270	.135	6.380													.135	+.120 -.000	.312	.125	1.000	.156																																													.156			41220	6.000	6
357H	6.530	.140	6.640																			.140	+.150 .000	.343	.156	1.030	.171																																										.171	44530	6.250
358H	6.790	.140	6.905																									.140	+.150 .000	.343	.156	1.030	.171																																					.171	47970
359H	6.925	.145	7.045																															.140	+.150 .000	.343	.156	1.030	.171																																.171
360H	7.055	.145	7.180																																					.140	+.150 .000	.343	.156	1.030	.171																										
361H	7.315	.150	7.445																																											.140	+.150 .000	.343	.156	1.030	.171																				
362H	7.575	.152	7.705																																																	.140	+.150 .000	.343	.156	1.030	.171										.171				
363H	7.840	.152	7.975																																																							.140	+.150 .000	.343	.156	1.030	.171					.171			
364H	8.100	.152	8.240		.140	+.150 .000	.343	.156	1.030	.171																																																						.171							
365H	8.360	.157	8.505	.140							+.150 .000	.343	.156	1.030	.171																																																		.171						
366H	8.620	.162	8.770													.140	+.150 .000	.343	.156	1.030	.171																																													.171					
367H	8.880	.170	9.035																			.140	+.150 .000	.343	.156	1.030	.171																																										.171		
368H	9.144	.170	9.305																									.140	+.150 .000	.343	.156	1.030	.171																																					.171	
369H	9.404	.175	9.564																															.140	+.150 .000	.343	.156	1.030	.171																																.171
370H	9.668	.175	9.833																																					.140	+.150 .000	.343	.156	1.030	.171																										
371H	9.930	.180	10.100																																											.140	+.150 .000	.343	.156	1.030	.171																				
372H	10.190	.185	10.365																																																	.140	+.150 .000	.343	.156	1.030	.171										.171				
373H	10.450	.185	10.630																																																							.140	+.150 .000	.343	.156	1.030	.171					.171			

All Eaton names and numbers are for identification purposes only. In no way are we implying that our parts are Eaton parts.



# PETERSON SPRING

MANUFACTURERS OF ENGINEERED METAL PRODUCTS  
Ring Manufacturing and Engineering Locations

Peterson Spring Manatee  
1625 Commerce Road  
Holland, OH 43528  
Phone: (419) 867-8711  
Fax: (419) 867-8715

Peterson Spring Corporate Offices  
21200 Telegraph Road  
Southfield, MI 48033  
Phone: (248) 799-5400  
Fax: (248) 350-3206

## RETAINING RING INFORMATION SHEET

Date: \_\_\_\_\_

Customer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Contact: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Fax No.: \_\_\_\_\_

Part Number: \_\_\_\_\_ Monthly / annual Use: \_\_\_\_\_

Are you presently using a Retaining Ring? If so, what type is it? \_\_\_\_\_

Will this retaining ring be disassembled? \_\_\_\_\_

### GENERAL INFORMATION

1. Thrust load required, if any. \_\_\_\_\_
2. Groove material type. \_\_\_\_\_
3. Groove material yield strength. \_\_\_\_\_
4. What corner radius or chamfer is on the retained parts? \_\_\_\_\_
5. Is there impact loading? If so, what magnitude? \_\_\_\_\_
6. Rotational speed - RPM. \_\_\_\_\_
7. Operating temperature of assembly. \_\_\_\_\_
8. Does ring operate in a corrosive environment? If so, what? \_\_\_\_\_  
 A. Do you require a special finish / coating? \_\_\_\_\_

Please supply the following information, if known.

