

CAMSHAFT SPECIFICATIONS

Part No.		SAE Specs@										
		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
		Opens	Closes	Duration	Opens	Closes	Duration					
C-400-P	INT.	1 BTC	42 ABC	223	30 BTC	80 ABC	290	.298	.447	114	1.5	HYD
	EXH.	49 BBC	-6 ATC	223	78 BBC	32 ATC	290	.298	.447	114		HYD
C-410-P	INT.	-3 BTC	47 ABC	224	27 BTC	84 ABC	291	.300	.450	114		HYD
	EXH.	46 BBC	-2 ATC	224	75 BBC	32 ATC	287	.306	.460	114		HYD
CASC-2	INT.	-12 BTC	35 ABC	203	-12 BTC	84 ABC	292	.273	.450	111	1.65	HYD
	EXH.	30 BBC	-7 ATC	203	70 BBC	42 ATC	292	.273	.450	111		HYD
CASC-3	INT.	-17 BTC	31 ABC	194	21 BTC	83 ABC	284	.258	.425	113		HYD
	EXH.	38 BBC	-8 ATC	210	76 BBC	44 ATC	300	.282	.465	113		HYD
CASC-4	INT.	-17 BTC	36 ABC	199	12 BTC	94 ABC	286	.266	.458	115	1.72	HYD
	EXH.	35 BBC	-12 ATC	203	64 BBC	38 ATC	282	.274	.471	115		HYD
CASC-5	INT.	-10 BTC	25 ABC	195	21 BTC	71 ABC	272	.240	.360	111	1.6	HYD
	EXH.	34 BBC	-16 ATC	198	63 BBC	26 ATC	269	.246	.369	111		HYD
CCS-1	INT.	-10 BTC	25 ABC	168	21 BTC	71 ABC	286	.210	.315	108	1.5	0.015
	EXH.	34 BBC	-16 ATC	170	63 BBC	26 ATC	344	.224	.336	108		0.008
CCS-12	INT.	23 BTC	12 ABC	168			288	.210	.309	108		0.016
	EXH.	13 BBC	24 ATC	170			344	.224	.320	108		0.006
CCS-16	INT.	-5 BTC	19 ABC	194	25 BTC	63 ABC	268	.257	.351	102	1.3	HYD
	EXH.	29 BBC	-15 ATC	194	59 BBC	29 ATC	268	.257	.351	112		HYD
CCS-18	INT.	-20 BTC	12 ABC	172	29 BTC	61 ABC	270	.221	.387	106	1.75	HYD
	EXH.	10 BBC	-18 ATC	172	59 BBC	30 ATC	270	.221	.387	104		HYD
CCS-2	INT.	-11 BTC	-25 ABC	194	14 BTC	66 ABC	260	.260	.390	108	1.5	HYD
	EXH.	37 BBC	-14 ATC	203	62 BBC	29 ATC	271	.273	.410	116		HYD
CCS-20	INT.	-14 BTC	30 ABC	196	16 BTC	74 ABC	270	.234	.412	107	1.75	HYD
	EXH.	33 BBC	-17 ATC	196	63 BBC	27 ATC	270	.234	.412	119		HYD
CCS-21	INT.	-20 BTC	33 ABC	193	11 BTC	78 ABC	269	.234	.408	104		HYD
	EXH.	20 BBC	-7 ATC	193	51 BBC	38 ATC	269	.234	.408	116		HYD
CCS-22	INT.	-5 BTC	35 ABC	210	28 BTC	80 ABC	285	.259	.453	109		HYD
	EXH.	43 BBC	-10 ATC	213	77 BBC	37 ATC	297	.259	.453	117		HYD
CCS-23	INT.	-18 BTC	14 ABC	176	16 BTC	54 ABC	244	.234	.351	106	1.5	HYD
	EXH.	28 BBC	-14 ATC	194	48 BBC	25 ATC	259	.257	.385	112		HYD
CCS-24	INT.	-9 BTC	18 ABC	189	14 BTC	56 ABC	250	.248	.372	102		HYD
	EXH.	36 BBC	-14 ATC	202	63 BBC	26 ATC	269	.273	.409	116		HYD
CCS-25	INT.	-12 BTC	25 ABC	193	19 BTC	69 ABC	268	.234	.409	104	1.75	HYD
	EXH.	36 BBC	-13 ATC	203	66 BBC	34 ATC	280	.253	.442	116		HYD
CCS-26	INT.	-20 BTC	12 ABC	172	29 BTC	61 ABC	270	.222	.388	106		HYD
	EXH.	13 BBC	-3 ATC	190	56 BBC	40 ATC	276	.232	.406	98		HYD
CCS-27	INT.	-20 BTC	16 ABC	176	14 BTC	50 ABC	244	.234	.351	108	1.5	HYD
	EXH.	28 BBC	-14 ATC	194	54 BBC	25 ATC	259	.257	.385	112		HYD
CCS-29	INT.	-12 BTC	21 ABC	189			244	.274	.411	111		.006
	EXH.	30 BBC	-17 ATC	193			244	.280	.420	111		.018
CCS-3	INT.	-22 BTC	14 ABC	172	13 BTC	70 ABC	263	.222	.333	107		HYD
	EXH.	12 BBC	-20 ATC	172	12 BBC	30 ATC	262	.222	.333	107		HYD
CCS-30	INT.	-16 BTC	15 ABC	179	7 BTC	51 ABC	238	.231	.346	105		HYD
	EXH.	27 BBC	-11 ATC	196	51 BBC	25 ATC	256	.262	.394	109		HYD
CCS-31	INT.	-6 BTC	19 ABC	193	24 BTC	63 ABC	268	.234	.411	96	1.75	HYD
	EXH.	19 BBC	-6 ATC	193	50 BBC	37 ATC	268	.234	.411	109		HYD
CCS-32	INT.	21 BTC	25 ABC	204			284	.241	.386	112	1.6	HYD
	EXH.	27 BBC	20 ATC	205			284	.241	.386	114		HYD
CCS-33	INT.	-10 BTC	26 ABC	194	14 BTC	62 ABC	256	.263	.394	108	1.5	HYD
	EXH.	29 BBC	-13 ATC	196	53 BBC	23 ATC	256	.263	.394	111		HYD
CCS-34	INT.	-10 BTC	26 ABC	196	14 BTC	62 ABC	256	.263	.394	108		HYD
	EXH.	29 BBC	-13 ATC	196	53 BBC	23 ATC	256	.263	.394	111		HYD
CCS-35	INT.	-20 BTC	16 ABC	176	14 BTC	50 ABC	244	.234	.351	108		HYD
	EXH.	28 BBC	-15 ATC	193	54 BBC	24 ATC	258	.257	.384	112		HYD
CCS-36	INT.	-13 BTC	11 AB	178			260	.280	.448	100	1.6	HYD
	EXH.	39 BBC	-17 AT	202			300	.280	.448	120		HYD
CCS-37	INT.	-14 BTC	36 ABC	202	12 BTC	77 ABC	259	.269	.403	115	1.5	HYD
	EXH.	37 BBC	-10 ATC	207	63 BBC	28 ATC	271	.276	.414	114		HYD
CCS-38	INT.	-12 BTC	18 ABC	179	14 BTC	58 ABC	252	.234	.351	108		HYD

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.		SAE Specs@										
		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
	EXH.	Opens	Closes	Duration	Opens	Closes	Duration					
CCS-39	EXH.	29 BBC	-14 ATC	195	57 BBC	25 ATC	282	.256	.386	112		HYD
	INT.	-17 BTC	16 ABC	179	16 BTC	56 ABC	252	.234	.350	106		HYD
CCS-4	EXH.	28 BBC	14 ATC	194	56 BBC	24 ATC	260	.257	.385	112		HYD
	INT.	-14 BTC	24 ABC	190	18 BTC	73 ABC	272	.229	.400	116	1.75	HYD
CCS-40	EXH.	35 BBC	-17 ATC	198	68 BBC	31 ATC	280	.235	.412	109		HYD
	INT.	-14 BTC	41 ABC	207	14 BTC	77 ABC	271	.274	.410	117	1.5	HYD
CCS-41	EXH.	43 BBC	-9 ATC	214	74 BBC	26 ATC	280	.285	.427	117		HYD
	INT.	-27 BTC	13 ABC	189	10 BTC	60 ABC	250	.248	.372	106		HYD
CCS-42	EXH.	22 BBC	37 ATC	203	63 BBC	26 ATC	269	.273	.410	116		HYD
	INT.	-12 BTC	26 ABC	194	14 BTC	64 ABC	258	.260	.390	108		HYD
CCS-5	EXH.	27 BBC	-13 ATC	194	50 BBC	28 ATC	258	.260	.390	111		HYD
	INT.	17 BTC	21 ABC	185			270	.271	.406	109		HYD
CCS-6	EXH.	22 BBC	16 ATC	185			270	.271	.406	109		HYD
	INT.	20 BTC	10 ABC	172			244	.222	.333	105		HYD
CCS-9	EXH.	12 BBC	18 ATC	172			244	.222	.333	105		HYD
	INT.	-19 BTC	27 ABC	188	25 BTC	71 ABC	276	.232	.406	113	1.75	HYD
CFC-1	EXH.	24 BBC	-16 ATC	188	68 BBC	28 ATC	276	.232	.406	110		HYD
	INT.	-13 BTC	17 ABC	184	6 BTC	43 ABC	229	.240	.360	103	1.5	0.016
CFC-3	EXH.	17 BBC	-13 ATC	184	36 BBC	9 ATC	225	.239	.358	105		0.016
	INT.	-22 BTC	20 ABC	178	3 BTC	57 ABC	240	.232	.348	102		HYD
CLT-1	EXH.	11 BBC	-13 ATC	178	36 BBC	24 ATC	240	.232	.348	111		HYD
	INT.			208			264	.273	.409	108	1.45	0.004
CLT-2	EXH.			208			247	.273	.409	108		0.006
	INT.			204			254	.231	.346	120.75		0.006
FOV-6	EXH.			204			241	.230	.345	120.75		0.01
	INT.	-6 BTC	28 ABC	202	13 BTC	58 ABC	251	.273	.389	107	1.5	0.019
FOV-9	EXH.	38 BBC	16 ATC	202	57 BBC	14 ATC	251	.273	.389	117		0.019
	INT.	-17 BTC	29 ABC	184	20 BTC	90 ABC	254	.245	.367	112		HYD
HSC-1	EXH.	23 BBC	-11 ATC	185	60 BBC	50 ATC	255	.245	.367	108		HYD
	INT.			218			271	.270		113.75		0.006
HSC-10	EXH.			223			298	.271		113.75		0.006
	INT.			200				.222				0.011
HSC-11	EXH.			219				.225				0.006
	INT.			218				.267				0.011
HSC-12	EXH.			225				.262				0.006
	INT.			218			271	.270		113.75		0.008
HSC-3	EXH.			223			298	.271		113.75		0.006
	INT.			218			271	.270		113.75		MECH
HSC-4	EXH.			222			298	.271		113.75		MECH
	INT.			208				.256		108.5		0.004
HSC-5	EXH.			214				.258		108.5		0.012
	INT.			208				.256		108.5		0.004
HSC-6	EXH.			214				.258		108.5		0.012
	INT.			194			258	.221	.332	82.5		0.006
HSC-7	EXH.			201			276	.218	.327	82.5		0.006
	INT.			208				.226		118		0.01
HSC-9	EXH.			210				.226		118		0.008
	INT.			219				0.277		112		
MC1200	EXH.			220				0.280		112		
	INT.	-15 BTC	28 ABC	193	15 BTC	80 ABC	275	.272	.435	111	1.6	HYD
MC1230	EXH.	31 BBC	-18 ATC	193	61 BBC	34 ATC	275	.272	.435	115		HYD
	INT.	-14 BTC	18 ABC	184	21 BTC	71 ABC	254	.245	.424	110	1.73	HYD
MC1231	EXH.	35 BBC	-14 ATC	201	73 BBC	35 ATC	270	.259	.448	110		HYD
	INT.	12 BTC	25 ABC	193	25 BTC	74 ABC	279	.257	.445	113.5	1.6	HYD
MC1232	EXH.	38 BBC	-20 ATC	198	74 BBC	29 ATC	283	.264	.457	113.5		HYD
	INT.			196				.220		114.5		
MC1234	EXH.			208				.240		114.5		

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		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
Opens	Closes	Duration	Opens	Closes	Duration							
MC1235	INT. EXH.			212				.410			1.1	
MC1236	INT. EXH.			212			.410	.410				
MC1237	INT. EXH.			192 192			.239 .239		134.25 134.25			HYD HYD
MC1238	INT. EXH.			210 210			.265 .265		138.25 138.25			HYD HYD
MC1239	INT. EXH.			217 219			.230 .230		122.5 122.5			0.006 0.010
MC1240	INT. EXH.	-20 BTC 24 BBC	21 ABC -12 ATC	181 192	12 BTC 57 BBC	72 ABC 38 ATC	248 250	.248 .267	.372 .401	108 110	1.5	HYD HYD
MC1241	INT. EXH.	-14 BTC 34 BBC	19 ABC -13 ATC	185 201	14 BTC 70 BBC	72 ABC 25 ATC	250 264	.240 .241	.415 .417	106 114	1.75	HYD HYD
MC1242	INT. EXH.	-12 BTC 30 BBC	27 ABC -15 ATC	195 195	19 BTC 61 BBC	74 ABC 31 ATC	273 273	.260 .260	.455 .455	109 113		HYD HYD
MC1243	INT. EXH.			182 182			.246 .246	.394 .394	97 97	1.6		HYD HYD
MC1244	INT. EXH.			182 182			.246 .246	.394 .394	123 123			HYD HYD
MC1245	INT. EXH.			197 208			.210 .230		133.75 133.75			HYD HYD
MC1246	INT. EXH.			229 229			.291 .291		100.5 100.5			HYD HYD
MC1249	INT. EXH.	-17 BTC 33 BBC	25 ABC -22 ATC	188 191	20 BTC 73 BBC	93 ABC 51 ATC	294 304	.252 .255	.453 .459	111 117	1.8	HYD HYD
MC1250	INT. EXH.	-16 BBC 32 BBC	22 ABC -21 ATC	188 191	21 BTC 70 BBC	92 ABC 49 ATC	293 299	.250 .255	.400 .408	109 117	1.6	HYD HYD
MC1251	INT. EXH.	-24 BTC 26 BBC	25 ABC -15 ATC	181 191	110 BTC 70 BBC	92 ABC 52 ATC	284 301	.252 .255	.403 .408	115 109		HYD HYD
MC1252	INT. EXH.			191 191			.267 .267		113.5 113.5			HYD HYD
MC1253	INT. EXH.	-22 BTC 27 BBC	26 ABC -14 ATC	184 193	8 BTC 58 BBC	66 ABC 29 ATC	254 267	.258 .269	.413 .430	114 110		HYD HYD
MC1254	INT. EXH.			186 186			.245 .245		134.25 134.25			HYD HYD
MC1255	INT. EXH.			192 190			.248 .239		117.5 117.5			HYD HYD
MC1256	INT. EXH.	-25 BTC 37 BBC	45 ABC -17 ATC	200 200	8 BTC 70 BBC	99 ABC 37 ATC	287 287	.260 .260	.416 .416	124 118		HYD HYD
MC1257	INT. EXH.	-11 BTC 37 BBC	31 ABC -17 ATC	200 200	22 BTC 70 BBC	85 ABC 37 ATC	287 287	.260 .260	.416 .416	110 118		HYD HYD
MC1258	INT. EXH.	-15 BTC 25 BBC	26 ABC -14 ATC	191 191	16 BTC 25 BBC	76 ABC 36 ATC	272 272	.261 .261	.392 .392	110 110	1.5	HYD HYD
MC1259	INT. EXH.	-13 BTC 39 BBC	22 ABC -13 ATC	189 206	24 BTC 78 BBC	73 ABC 41 ATC	277 299	.263 .276	.394 .414	112 112		HYD HYD
MC1260	INT. EXH.	-14 BTC 30 BBC	18 ABC -8 ATC	185 202	20 BTC 72 BBC	64 ABC 42 ATC	264 294	.275 .275	.412 .412	106 110		HYD HYD
MC1261	INT. EXH.	-15BTC 25 BBC	26 ABC -14 ATC	191 191	15 BTC 55 BBC	75 ABC 35 ATC	270 270	.260 .260	.417 .417	110 110	1.6	HYD HYD
MC1262	INT. EXH.	-13 BTC 33 BBC	18 ABC -17 ATC	205 196	15 BTC 61 BBC	75 ABC 18 ATC	270 259	.265 .265	.420 .420	112 116		HYD HYD
MC1263	INT. EXH.	-16 BTC 32 BBC	33 ABC -16 ATC	197 196	15 BTC 63 BBC	80 ABC 31 ATC	275 274	.270 .263	.404 .395	114 114	1.5	
MC1265	INT. EXH.			184 185			.256 .256		95.5 95.5			HYD HYD
MC1266	INT. EXH.			189			.273					.008
MC1267	INT.											

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.	EXH.	SAE Specs@										
		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
Opens	Closes	Duration	Opens	Closes	Duration							
MC1268	INT.	-14 BTC	26 ABC	192	25 BTC	66 ABC	271	.248	.434	109	1.75	HYD
	EXH.	30 BBC	-18 ATC	192	69 BBC	22 ATC	271	.248	.434	115		HYD
MC1269	INT.	-18 BTC	27 ABC	191	19 BTC	67 ABC	266	.248	.434	109		HYD
	EXH.	28 BBC	-17 ATC	191	63 BBC	23 ATC	266	.248	.434	115		HYD
MC1270	INT.	-15 BTC	23 ABC	188	58 BTC	111 ABC	349	.248	.438	109		HYD
	EXH.	29 BBC	-21 ATC	188	102 BBC	67 ATC	349	.248	.438	115		HYD
MC1271	INT.			216			250	.401	.401	110	1.0	HYD
	EXH.			216			250	.401	.401	110		HYD
MC1272	INT.			196				.273				
	EXH.											.009
MC1273	INT.											.013
	EXH.			209				.299				-
MC1274	INT.	17 BTC	20 ABC	183	16 BTC	58 ABC	254	.251	.376	108	1.5	HYD
	EXH.	30 BBC	-17 ATC	193	62 BBC	22 ATC	264	.268	.402	114		HYD
MC1275	INT.	-17 BTC	45 ABC	208	13 BTC	84 ABC	277	.288	.432	121		HYD
	EXH.	39 BBC	-11 ATC	208	70 BBC	24 ATC	274	.293	.439	115		HYD
MC1276	INT.	-3 BTC	27 ABC	204	15 BTC	55 ABC	250	.297	.297	105		
	EXH.									105		0.008
MC1277	INT.										1.0	
	EXH.	29 BBC	-5 ATC	204	44 BBC	16 ATC		.297				0.01
MC1278	INT.	-18 BTC	29 ABC	191	16 BTC	87 ABC	282	.252	.403	114	1.6	HYD
	EXH.	40 BBC	-20 ATC	200	73 BBC	35 ATC	288	.260	.416	120		HYD
MC1279	INT.			188				.259		113.5		HYD
	EXH.			196				.259		113.5		HYD
MC1280	INT.			188				.259		113.5		HYD
	EXH.			196				.259		113.5		HYD
MC1281	INT.			230				.293		100		0.01
	EXH.			230				.293		100		N/A
MC1283	INT.			196				.267		110		HYD
	EXH.			196				.267		110		HYD
MC1284	INT.			232				.293		101		0.008
	EXH.			232				.293		101		
MC1285	INT.			232				.293		101		.008
	EXH.			232				.293		101		.008
MC1286	INT.			230				.293		100		HYD
	EXH.			230				.293		100		
MC1287	INT.	-10 BTC	26 ABC	196	26 BTC	68 ABC	274	.275	.440	108		HYD
	EXH.	36 BBC	-8 ATC	208	74 BBC	42 ATC	296	.275	.440	112		HYD
MC1288	INT.	-25 BTC	31 ABC	185	10 BTC	83 ABC	273	.263	.421	115		HYD
	EXH.	32 BBC	-15 ATC	197	65 BBC	37 ATC	263	.279	.446	115		HYD
MC1289	INT.	-16 BTC	30 ABC	194	17 BTC	81 ABC	278	.272	.397	115	1.46	.397
	EXH.	36 BBC	-18 ATC	198	69 BBC	34 ATC	283	.276	.403	115		.403
MC1290	INT.	-13 BTC	27 ABC	194	13 BTC	65 ABC	268	.260		109		HYD
	EXH.	29 BBC	-7 ATC	202	57 BBC			.273		109		
MC1291	INT.	-14 BTC	34 ABC	200	15 BTC	75 ABC	270	.248	.421	114	1.7	HYD
	EXH.	37 BBC	-11 ATC	206	64 BBC	29 ATC	273	.253	.430	114		HYD
MC1292	INT.	-27 BTC	29 ABC	182	9 BTC	73 ABC	262	.258	.413	115	1.6	.413
	EXH.	28 BBC	-17 ATC	191	65 BBC	30 ATC	275	.258	.413	115		.413
MC1293	INT.			192				.312				.008
	EXH.											
MC1294	INT.											
	EXH.			193				.315				.010
MC1295	INT.			174				.216				
	EXH.											
MC1296	INT.											
	EXH.			167				.204				
MC1297	INT.	-6 BTC	14 ABC	188	24	52	256	.255	.407	107.5		HYD
	EXH.	30 BBC	-18 ATC	192	61	19	260	.259	.415	107.5		HYD

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Opens	Closes	Duration	Opens	Closes	Duration							
MC1298	INT.			208				.388		111		.009
	EXH.			208				.388		111		.011
MC1299	INT.			208				.388		111		.009
	EXH.			208				.388		111		.010
MC1300	INT.			201				.334		110.5		
	EXH.			201				.334		110.5		
MC1301	INT.			188				.259		113.5		HYD
	EXH.			196				.259		113.5		HYD
MC1302	INT.			188				.259		113.5		HYD
	EXH.			196				.259		113.5		HYD
MC1303	INT.	-18 BTC	36 ABC	198	10 BTC	75 ABC	265	.287	.430	113	1.5	HYD
	EXH.	28 BBC	-10 ATC	198	56 BBC	29 ATC	265	.287	.430	113		HYD
MC1304	INT.	-15 BTC	32 ABC	197	14 BTC	69 ABC	263	.272	.409	112	1.5-1	HYD
	EXH.	29 BBC	-12 ATC	197	58 BBC	25 ATC	263	.272	.409	112		HYD
MC1309	INT.	-17 BTC	21 ABC	184	12 BTC	61 ABC	253	.258	.387	112	1.5	
	EXH.	32 BBC	-19 ATC	193	62 BBC	24 ATC	266	.269	.403	112		
MC1310	INT.			194				.290				.008
	EXH.											
MC1311	INT.											
	EXH.			200				0.296				0.008
MC1315	INT.	-11 BTC	22 ABC	191	17 BTC	63 ABC	260	.276	.415	111	1.5-1	HYD
	EXH.	33 BBC	-18 ATC	195	63 BBC	20 ATC	263	.286	.429	111		HYD
MC1316	INT.	-15 BTC	39 ABC	204	16 BTC	77 ABC	273	.282	.480	118	1.7-1	Hyd
	EXH.	42 BBC	-13 ATC	209	83 BBC	35 ATC	298	.284	.483	118		Hyd
MC1317	INT.	-24 BTC	41 ABC	197	4 BTC	98 ABC	282	.292	.496	119.5		HYD
	EXH.	41 BBC	-12 ATC	209	74 BBC	36 ATC	290	.292	.496	119.5		HYD
MC1318	INT.			208				.388		111		
	EXH.			208				.388		111		.011
MC1319	INT.			208				.388		111		.009
	EXH.			208				.388		111		.011
MC1320	INT.	-12 BTC	23 ABC	191	16 BTC	65 ABC	261	.276	.414	111	1.5-1	.414
	EXH.	32 BBC	-18 ATC	194	63 BBC	20 ATC	263	.285	.428	111		.428
MC1328	INT.											
	EXH.			205				.342				
MC1329	INT.			205				.350				
	EXH.											
MC1330	INT.											
	EXH.			196				.318				
MC1331	INT.			202				0.349				
	EXH.											
MC1334	INT.	-22 BTC	30 ABC	188	8 BTC	63 ABC	251	.274	.411	111.5	1.5	.411
	EXH.	23 BBC	-9 ATC	194	56 BBC	35 ATC	271	.278	.417	111.5		.417
MC1335	INT.	-16 BTC	38 ABC	202	13 BTC	75 ABC	268	.299	.449	116		.449
	EXH.	40 BBC	-12 ATC	208	68 BBC	23 ATC	271	.306	.460	117		.460
MC1336	INT.	-18 BTC	39 ABC	201	10 BTC	80 ABC	270	.297	.446	117		.446
	EXH.	39 BBC	-11 ATC	208	69 BBC	27 ATC	276	.306	.459	117		.459
MC1337	INT.	-12 BTC	23 ABC	191	15 BTC	64 ABC	259	.276	.414	106		.414
	EXH.	32 BBC	-17 ATC	195	62 BBC	21 ATC	263	.285	.428	116		.428
MC1338	INT.											
	EXH.			171				.234				
MC1339	INT.			176				.234				
	EXH.											
MC1344	INT.							.154				
	EXH.											
MC1345	INT.											
	EXH.							.192				
MC1351	INT.	-19 BTC	24 ABC	185	13 BTC	69 ABC	262	.263	.394	110.5		.394
	EXH.	22 BBC	-17 ATC	185	54 BBC	28 ATC	262	.263	.394	110.5		.394
MC1352	INT.			193				.259		113.5		

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.		SAE Specs@							Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift								
		Opens	Closes	Duration	Opens	Closes	Duration						
	EXH.			188				.259		113.5			
MC1353	INT.			188				.259		114.25			
	EXH.			193				.259		114.25			
MC1358	INT.												
	EXH.												
MC1359	INT.												
	EXH.												
MC1360	INT.							.153		112			
	EXH.							.205		112			
MC1361	INT.			214				.267					
	EXH.			210				.221					
MC1362	INT.	-15.5 BTC	32.5 ABC	197	15.5 BTC	75.5 ABC	271	.272	.409	113.75		HYD	
	EXH.	30 BBC	-13 ATC	197	61 BBC	30 ATC	271	.272	.409	112		HYD	
MC1364	INT.			159				0.1776					
	EXH.			175				0.17904					
MC1365	INT.			176				0.3170					
	EXH.			212				0.2897					
MC1374	INT.												
	EXH.												
MC1375	INT.												
	EXH.												
MC1376	INT.			188				.255	0.408	110		HYD	
	EXH.			190				.259	0.414	105		HYD	
MC1377	INT.			188				.255	0.408	110		HYD	
	EXH.			190				.259	0.414	105		HYD	
MC1378	INT.												
	EXH.												
MC1379	INT.												
	EXH.												
MC1382	INT.												
	EXH.												
MC1383	INT.			192			279	.268	.456	114		HYD	
	EXH.			190			281	.274	.465	114		HYD	
MC1384	INT.			195			281	.273	.464	116		HYD	
	EXH.			208			291	.280	.476	116		HYD	
MC762	INT.	-20 BTC	31 ABC	191	12 BTC	79 ABC	271	.259	.390	115		HYD	
	EXH.	30 BBC	-19 ATC	191	62 BBC	29 ATC	271	.259	.390	115		HYD	
MC769	INT.			232				.292		101		.008	
	EXH.			233				.292		101		.008	
MC794	INT.			224				.259		109.5		.006	
	EXH.			224				.259		109.5		.010	
MC797	INT.			215				.230		129.5		.012	
	EXH.			220				.230		129.5		.012	
MC803	INT.			189				.250		109		.008	
	EXH.			193				.256		109		.014	
MC809	INT.	-12 BTC	29 ABC	197	17 BTC	73 ABC	270	.265	.397	112		HYD	
	EXH.	32 BBC	-15 ATC	197	61 BBC	29 ATC	270	.265	.397	112		HYD	
MC810	INT.			230				.293		100		HYD	
	EXH.			230				.293		100		HYD	
MC814	INT.	-4 BTC	20 ABC	196	31 BTC	64 ABC	276	.246	.369	109.75		HYD	
	EXH.	37 BBC	-17 ATC	200	61 BBC	35 ATC	294	.254	.381	109.75		HYD	
MC816	INT.			222				.281		97.5			
	EXH.			223				.283		97.5			
MC820	INT.			220				.276		116.75		HYD	
	EXH.			220				.276		116.75		HYD	
MC821	INT.			203			240	.235	.405	120	1.7	HYD	
	EXH.			214			254	.250	.430	120		HYD	
MC822	INT.			220				.276		101.25		HYD	
	EXH.			220				.276		101.25		HYD	

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.		SAE Specs@										
		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
		Opens	Closes	Duration	Opens	Closes	Duration					
MC830	INT.			164				.212		81		HYD
	EXH.			166				.214		81		HYD
MC831	INT.			200			241	.375	.375			HYD
	EXH.											HYD
MC832	INT.			200								HYD
	EXH.			202				.375	.375			HYD
MC835	INT.	-27 BTC	35 ABC	188	4 BTC	70 ABC	254	.216	.354	112	1.64	HYD
	EXH.	18 BBC	-10 ATC	188	50 BBC	24 ATC	254	.216	.353	112		HYD
MC836	INT.	19 BTC	24 ABC	193			276	.245	.392	107	1.6	HYD
	EXH.	32 BBC	19 ATC	193			276	.245	.392	116		HYD
MC839	INT.			204				.225				MECH
	EXH.			203				.225				MECH
MC840	INT.			206				.220		122		0.012
	EXH.			206				.220		122		
MC841	INT.			205				.237				HYD
	EXH.			205				.237				HYD
MTA-1	INT.	-3 ATC	27 ABC	204	30 BTC	70 ABC	280	.280	.448	105o		HYD.
	EXH.	42 BBC	-8 BTC	214	74 BBC	35 ATC	290	.295	.472	115o		HYD.
MTB-1	INT.	-10 BTC	34 ABC	204	23 BTC	77 ABC	280	.280	.448	112		HYD.
	EXH.	39 BBC	-5 ATC	214	72 BBC	38 ATC	290	.295	.472	112		HYD.
MTB-2	INT.	-12 ATC	26 ABC	194	22 BTC	70 ABC	272	.265	.424	114		HYD.
	EXH.	41 BBC	-17 BTC	204	74 BBC	26 ATC	280	.280	.449	114		HYD.
MTC-1	INT.	-5 ATC	29 ABC	204	27 BTC	71 ABC	278	.280	.420	112	1.5	HYD.
	EXH.	44 BBC	-10 ATC	214	76 BBC	32 ATC	288	.295	.433	112		HYD.
MTC-5	INT.	5 ATC	29 ABC	204	27 BTC	71 ABC	278	.280	.420	112		HYD.
	EXH.	44 BBC	10 BTC	214	76 BBC	32 ATC	288	.295	.443	112		HYD.
MTC-6	INT.	6 ATC	30 ABC	204	36 BTC	72 ABC	288	.270	.459	112	1.7	HYD.
	EXH.	40 BBC	12 BTC	208	86 BBC	32 ATC	298	.270	.459	112		HYD.
MTD-1	INT.	-6 BTC	30 ABC	204	27 BTC	72 ABC	278	.280	.421	112	1.5	HYD.
	EXH.	43 BBC	-9 ATC	214	75 BBC	33 ATC	288	.295	.443	112		HYD.
MTD-2	INT.	-5 BTC	29 ABC	204	27 BTC	71 ABC	278	.280	.421	112		HYD.
	EXH.	44 BBC	-10 ATC	214	75 BBC	33 ATC	288	.295	.443	112		HYD.
MTF-1	INT.	-65 BTC	30 ABC	204	27 BTC	73 ABC	280	.280	.448	112	1.6	HYD.
	EXH.	43 BBC	-9 ATC	214	75 BBC	34 ATC	289	.295	.472	112		HYD.
MTF-2	INT.	-4 BTC	28 ABC	204	30 BTC	72 ABC	282	.280	.484	112	1.73	HYD.
	EXH.	45 BBC	-11 ATC	214	78 BBC	34 ATC	292	.295	.510	112		HYD.
MTF-3	INT.	-5 BTC	29 ABC	204	29 BTC	73 ABC	282	.280	.485	112		HYD.
	EXH.	44 BBC	-10 ATC	214	77 BBC	35 ATC	292	.295	.516	112		HYD.
MTF-4	INT.	-5 BTC	29 ABC	204	29 BTC	73 ABC	282	.280	.484	112		HYD.
	EXH.	44 BBC	-10 ATC	214	78 BBC	34 ATC	292	.295	.510	112		HYD.
MTF-5	INT.	-5 BTC	29 ABC	204	28 BTC	72 ABC	280	.280	.448	112	1.6	HYD.
	EXH.	44 BBC	-10 ATC	214	77 BBC	33 ATC	290	.295	.472	112		HYD.
MTF-6	INT.	-4 BTC	28 ABC	204	29 BTC	71 ABC	280	.281	.451	110		HYD.
	EXH.	41 BBC	-7 ATC	214	73 BBC	36 ATC	290	.296	.475	110		HYD.
MTO-1	INT.	5 BTC	29 ABC	204	28 BTC	72 ABC	280	.280	.448	112		HYD.
	EXH.	44 BBC	10 ATC	214	77 BBC	33 ATC	290	.295	.472	112		HYD.
MTP-1	INT.	3o ATC	27o ABC	204	29o BTC	69o ABC	278	.280	.420	108	1.5	HYD.
	EXH.			214			288	.295	.443	118		HYD.
MTP-2	INT.	5 BTC	29 ABC	204	29 BTC	73 ABC	282	.280	.490	107	1.75	HYD.
	EXH.	44 BBC	10 ATC	214	78 BBC	34 ATC	292	.295	.516	117		HYD.
ROC-10	INT.	9 BTC	43 ABC	232	4 BTC	101 ABC	329	.296	.474	107	1.6	HYD
	EXH.	55 BBC	-3 ATC	232	94 BBC	55 ATC	329	.296	.474	119		HYD
RVO-D	INT.	2 BTC	41 ABC	224	31 BTC	67 ABC	279	.288	.431	110.75	1.5	.017
	EXH.	43 BBC	0 ATC	223	68 BBC	27 ATC	275	.285	.428	110.75		.017
SBC-11	INT.	-19 BTC	12 ABC	173	14 BTC	52 ABC	242	.207	.310	105		HYD
	EXH.	16 BBC	-14 ATC	182	54 BBC	34 ATC	262	.216	.324	106		HYD
SBC-12	INT.	-14 BTC	14 ABC	180	17 BTC	54 ABC	251	.224	.359	104	1.6	HYD
	EXH.	28 BBC	-14 ATC	194	69 BBC	31 ATC	280	.240	.384	110		HYD
SBC-13	INT.	-15 BTC	29 ABC	194	19 BTC	74 ABC	272	.251	.401	112		HYD

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.		SAE Specs@										
		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
	EXH.	Opens	Closes	Duration	Opens	Closes	Duration					
SBC-14	EXH.	28 BBC	-14 ATC	194	69 BBC	31 ATC	280	.240	.384	110		HYD
	INT.	-8 BTC	21 ABC	193	30 BTC	72 ABC	282	.250	.400	104		HYD
SBC-15	EXH.	28 BBC	-12 ATC	196	66 BBC	30 ATC	276	.264	.422	110		HYD
	INT.	-14 BTC	14 ABC	180	17 BTC	54 ABC	251	.224	.358	104		HYD
SBC-16	EXH.	28 BBC	-14 ATC	194	68 BBC	31 ATC	280	.240	.384	110		HYD
	INT.	-14 BTC	14 ABC	180	17 BTC	54 ABC	251	.224	.358	104		HYD
SBC-3	EXH.	39 BBC	-12 ATC	207	71 BBC	33 ATC	284	.269	.430	116		HYD
	INT.	-9 BTC	36 ABC	207	23 BTC	81 ABC	284	.269	.430	112		HYD
SBC-4	EXH.	52 BBC	-7 ATC	225	95 BBC	53 ATC	328	.285	.453	120		HYD
	INT.	-18 BTC	32 ABC	194	11 BTC	91 ABC	282	.244	.388	114		HYD
SBC-5	EXH.	40 BBC	-12 ATC	208	79 BBC	38 ATC	297	.252	.378	112.5		HYD
	INT.	-14 BTC	25 ABC	191	21 BTC	75 ABC	276	.242	.363	112.5		HYD
SBC-8	EXH.	31 BBC	-12 ATC	194	66 BBC	37 ATC	283	.244	.401	112		HYD
	INT.	-15 BTC	29 ABC	194	18 BTC	74 ABC	272	.251	.391	112		HYD
SBOT-1	EXH.	30 BBC	-14 ATC	196	62 BBC	29 ATC	271	.251	.401	109		HYD
	INT.	-8 BTC	24 ABC	196	24 BTC	67 ABC	271	.251	.401	109		HYD
SDC-1	EXH.			248				.276		105.5		.012
	INT.			248				.276		105.5		.010
SDC-3	EXH.			219				.289		109		.010
	INT.			219				.289		109		.012
SDC-4	EXH.			171				.222				0.014
	INT.			175				.232				0.014
SDC-5	EXH.											
	INT.											
SDC-6	EXH.			206				.233				0.011
	INT.			205				.223				0.011
SDC-7	EXH.			226				.269		117.5		0.012
	INT.			226				.269		117.5		0.012
SDC-8	EXH.			227				.280		99.75		0.012
	INT.			227				.280		99.75		0.012
SFP-2	EXH.	38 BBC	-22 ATC	196	7 BBC	17 ATC	268	.244	.390	111		HYD
	INT.	-41 BTC	57 ABC	196	-13 BTC	10 ABC	268	.244	.390	129		HYD
SFP-4	EXH.	35 BBC	-13 ATC	202	53 BBC	14 ATC	247	.256	.384	114	1.5	HYD
	INT.	-7 BTC	29 ABC	202	13 BTC	65 ABC	258	.256	.384	108		HYD
SFP-5	EXH.	38 BBC	6 ATC	206			226	.232	.341	110.5		0.01
	INT.	12 BTC	28 ABC	192			236	.236	.340	110.5		0.017
SGM-1	EXH.	33 BBC	8 ATC	205			277	.278	.407	112		0.012
	INT.	18 BTC	24 ABC	186			252	.279	.419	111		0.02
SIH-1	EXH.	19 BBC	17 ATC	198			252	.236	.428	110	1.7	HYD
	INT.	21 BTC	25 ABC	188			260	.262	.445	111		HYD
SIH-3	EXH.	29 BBC	-11 ATC	198	62 BBC	22 ATC	264	.265	.440	110		0.025
	INT.	-12 BTC	14 ABC	182	19 BTC	45 ABC	244	.265	.440	103		0.025
SIH-6	EXH.	17 BBC	-13 ATC	184			210	.253	.405	104	1.6	HYD
	INT.	-15 BTC	11 ABC	176			174	.254	.406	104		HYD
SOC-10	EXH.	25 BBC	-18 ATC	187	63 BBC	34 ATC	277	.250	.400	112		HYD
	INT.	-16 BTC	16 ABC	180	18 BTC	58 ABC	256	.247	.395	106		HYD
SOC-12	EXH.	30 BBC	-18 ATC	192	67 BBC	27 ATC	274	.235	.376	114		HYD
	INT.	-14 BTC	6 ABC	172	20 BTC	48 ABC	248	.235	.376	100		HYD
SOC-14	EXH.	29 BBC	-13 ATC	187	60 BBC	16 ATC	256	.251	.401	116		HYD
	INT.	-22 BTC	11 ABC	178	17 BTC	52 ABC	249	.247	.395	102		HYD
SOC-9	EXH.	34 BBC	-14 ATC	200	73 BBC	38 ATC	291	.251	.401	112		HYD
	INT.	-13 BTC	20 ABC	187	25 BTC	72 ABC	277	.250	.400	106		HYD
SPC-10	EXH.	25 BBC	-15 ATC	190	68 BBC	28 ATC	276	.232	.406	110	1.75	HYD
	INT.	-18 BTC	28 ABC	190	25 BTC	71 ABC	276	.232	.406	113		HYD
SPC-11	EXH.	14 BBC	-13 ATC	181	40 BBC	36 ATC	256	.233	.349	104	1.5	HYD
	INT.	-18 BTC	19 ABC	181	8 BTC	68 ABC	256	.233	.349	108		HYD
SPC-12	EXH.	26 BBC	-17 ATC	189	54 BBC	30 ATC	264	.243	.364	112		HYD
	INT.	-11 BTC	40 ABC	209	19 BTC	93 ABC	292	.252	.378	115		HYD

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.		SAE Specs@										
		Specs @ 0.50 Cam Lift			(0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
		Opens	Closes	Duration	Opens	Closes	Duration					
SPC-13	INT.	-18 BTC	28 ABC	190	25 BTC	71 ABC	276	.232	.405	113	1.75	HYD
	EXH.	25 BBC	-13 ATC	190	69 BBC	28 ATC	276	.232	.405	110		HYD
SPC-15	INT.			202			247	.240	.413	117	1.72	HYD
	EXH.			201			221	.239	.411	117		HYD
SPC-16	INT.	-14 BTC	14 ABC	223	17 BTC	54 ABC	270	.251	.417	123	1.7	.009
	EXH.	28 BBC	-14 ATC	223	68 BBC	31 ATC	265	.253	.421	123		.009
SPC-17	INT.	-19 BTC	27 ABC	188	23 BTC	67 ABC	270	.231	.404	113	1.75	HYD
	EXH.	24 BBC	-16 ATC	188	66 BBC	24 ATC	270	.231	.404	110		HYD
SPC-18	INT.	-19 BTC	27 ABC	188	23 BTC	67 ABC	270	.231	.404	113		HYD
	EXH.	24 BBC	-16 ATC	188	66 BBC	24 ATC	270	.231	.404	110		HYD
SPC-19	INT.			213			252	.262	.450	120.25	1.72	HYD
	EXH.			214			252	.262	.451	120.25		HYD.
SPC-3	INT.	0 BTC	44 ABC	224	29 BTC	88 ABC	297	.270	.406	112	1.5	HYD
	EXH.	57 BBC	-1 ATC	236	86 BBC	44 ATC	310	.271	.407	119		HYD
SPC-4	INT.	-7 BTC	25 BBC	198	21 BTC	70 ABC	271	.270	.404	106		HYD
	EXH.	40 BBC	-12 ATC	208	68 BBC	32 ATC	280	.272	.408	116		HYD
SPC-5	INT.	-6 BTC	26 ABC	200	26 BTC	78 ABC	284	.271	.407	106		HYD
	EXH.	41 BBC	-11 ATC	210	73 BBC	40 ATC	293	.274	.411	116		HYD
SPC-7	INT.	-7 BTC	39 ABC	212	21 BTC	84 ABC	285	.272	.408	113		HYD
	EXH.	50 BBC	-5 ATC	225	80 BBC	38 ATC	298	.271	.406	118		HYD
SPC-8	INT.	3 BTC	48ABC	231	32 BTC	92 ABC	304	.313	.469	112		HYD
	EXH.	54 BBC	6 ATC	240	84 BBC	51 ATC	315	.313	.469	115		HYD
SPC-9	INT.	-11 BTC	20 ABC	189	17 BTC	67 ABC	264	.243	.364	105		HYD
	EXH.	24 BBC	-15 ATC	189	52 BBC	32 ATC	264	.243	.364	110		HYD
SPD-11	INT.	-7 BTC	33 ABC	206	22 BTC	74 BBC	284	.289	.434	110		HYD
	EXH.	40 BBC	-11 ATC	209	74 BBC	39 ATC	293	.287	.431	116		HYD
SPD-16	INT.	-10 BTC	23 ABC	193	21 BTC	68 ABC	269	.238	.357	106		HYD
	EXH.	27 BBC	-13 ATC	194	64 BBC	28 ATC	272	.238	.357	110		HYD
SPD-20	INT.	-20 BTC	20 ABC	180	12 BTC	72 ABC	264	.248	.372	110		HYD
	EXH.	24 BBC	-12 ATC	192	57 BBC	38 ATC	275	.266	.399	108		HYD
SPD-22	INT.	-8 BTC	37 ABC	209	20 BTC	79 ABC	279	.286	.429	112		HYD
	EXH.	46 BTC	-6 ATC	220	79 BBC	30 ATC	289	.296	.444	116		HYD
SPD-24	INT.	-10 BTC	23 ABC	193	21 BTC	68 ABC	269	.240	.360	106	15	HYD
	EXH.	27 BBC	-13 ATC	194	64 BBC	28 ATC	272	.240	.360	110		HYD
SPD-25	INT.	-7 BTC	29 ABC	203	22 BTC	76 ABC	278	.273	.409	108	1.5	HYD
	EXH.	31 BBC	-9 ATC	203	61 BBC	37 ATC	278	.273	.409	111		HYD
SPD-27	INT.	-15 BTC	22 ABC	187	10 BTC	64 ABC	254	.252	.378	108		HYD
	EXH.	15 BBC	-8 ATC	187	40 BBC	34 ATC	254	.252	.378	102		HYD
SPD-28	INT.	5 BTC	32 ABC	217	27 BTC	68 ABC	274	.243	.437	112	1.8	HYD
	EXH.	41 BBC	-4 ATC	217	63 BBC	30 ATC	274	.243	.437	104		HYD
SPD-29	INT.	5 BTC	32 ABC	217	27 BTC	66 ABC	273	.243	.437	112		HYD
	EXH.	41 BBC	-4 ATC	217	63 BBC	30 ATC	273	.243	.437	104		HYD
SPD-3	INT.	-8 BTC	26 ABC	198	21 BTC	70 ABC	271	.270	.405	106	1.5	0.012
	EXH.	33 BBC	-10 ATC	203	56 BBC	24 ATC	260	.275	.412	112		0.01
SPD-30	INT.	5 BTC	28 ABC	213	29 BTC	59 ABC	268	.243	.437		1.8	HYD
	EXH.	45 BBC	-12 ATC	213	69 BBC			.243	.437			
SPD-31	INT.	-6 BTC	39 ABC	213	26 BTC	96 ABC	302	.298	.447	111	1.5	HYD
	EXH.	50 BBC	-5 ATC	225	83 BBC	61 ATC	324	.306	.459	115		HYD
SPD-33	INT.	5 BTC	28 ABC	213			268	.243	.437	110	1.8	HYD
	EXH.	45 BBC	12 BTC	213			268	.243	.437	110		HYD
SPD-34	INT.			194			267	.245	.433	113		HYD
	EXH.			190			264	.245	.433	113		HYD
SPD-35	INT.			194			267	.245	.434	113	1.77	HYD
	EXH.			190			264	.245	.434	113		HYD
SRC-5	INT.	-11 BTC	27ABC	196	14 BTC	68 ABC	263	.266	.425	109	1.6	HYD
	EXH.	30 BBC	-14 ATC	196	56 BBC	26 ATC	263	.266	.425	112		HYD
SRC-6	INT.	-17 BTC	22 ABC	185	12 BTC	66 ABC	259	.254	.406	109		HYD
	EXH.	23 BBC	-18 ATC	185	53 BBC	25 ATC	259	.254	.406	111		HYD
SRC-8	INT.	-19 BTC	29 ABC	190	9 BTC	73 ABC	262	.252	.403	113		HYD

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.	EXH.	Specs @ 0.50 Cam Lift			SAE Specs@ (0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
		Opens	Closes	Duration	Opens	Closes	Duration					
SRC-9	EXH.	29 BBC	-19 ATC	190	57 BBC	25 ATC	262	.252	.443	115		HYD
	INT.	-17 BTC	33 ABC	196	12 BTC	78 ABC	270	.265	.424	114		HYD
SVO-A	EXH.	27 BBC	-11 ATC	196	56 BBC	34 ATC	270	.265	.424	110		HYD
	INT.	-8 BTC	25 ABC	197	18 BTC	55 ABC	253	.240	.360	109	1.5	0.018
SVW-1	EXH.	34 BBC	-17 ATC	197	57 BBC	10 ATC	247	.240	.360	113		0.016
	INT.			224			254	.405	.405	110	1.0	MECH
SWC-1	EXH.			224			248	.405	.405	110		MECH
	INT.			200			346	.220		109		0.018
SYB-13	EXH.			206			350	.371		109		0.016
	INT.	-19 BTC	25 ABC	186	16 BTC	75 ABC	271	.232	.406	112	1.75	HYD
SYB-16	EXH.	27 BBC	-21 ATC	186	62 BBC	29 ATC	271	.232	.406	114		HYD
	INT.	-10 BTC	22 ABC	192	24 BTC	73 ABC	277	.244	.414	106	1.7	HYD
SYB-19	EXH.	30 BBC	-18 ATC	192	64 BBC	33 ATC	277	.244	.414	114		HYD
	INT.	-14 BTC	27 ABC	193	18 BTC	75 ABC	273	.253	.442	110	1.75	HYD
SYB-2	EXH.	39 BBC	-13 ATC	206	72 BBC	35 ATC	287	.277	.485	116		HYD
	INT.	-12 BTC	29 ABC	197	11 BTC	67 ABC	258	.262	.419	113	1.6	.019
SYB-21	EXH.	34 BBC	-18 ATC	196	52 BBC	12 ATC	258	.262	.419	113		.019
	INT.	-13 BTC	25 ABC	192	19 BTC	73 ABC	272	.247	.419	109	1.7	HYD
SYB-22	EXH.	29 BBC	-11 ATC	198	65 BBC	43 ATC	291	.250	.425	111		HYD
	INT.	-11 BTC	24 ABC	200	70 BTC	73 ABC	273	.252	.428	108		HYD
SYB-23	EXH.	28 BBC	-15 ATC	200	59 BBC	34 ATC	273	.252	.428	111		HYD
	INT.	-17 BTC	29 ABC	192	15 BTC	78 ABC	273	.247	.432	113	1.75	HYD
SYB-24	EXH.	31 BBC	-12 ATC	199	65 BBC	38 ATC	281	.249	.435	111		HYD
	INT.	-6 BTC	21 ABC	194	24 BTC	66 ABC	270	.260	.416	103	1.6	HYD
SYB-25	EXH.	29 BBC	-5 ATC	194	59 BBC	31 ATC	270	.260	.416	112		HYD
	INT.	-22 BTC	26 ABC	184	22 BTC	70 ABC	272	.230	.368	114		HYD
SYB-26	EXH.	12 BBC	-8 ATC	189	45 BBC	40 ATC	265	.238	.380	104		HYD
	INT.	-12 BTC	16 ABC	183	18 BTC	61 ABC	257	.237	.379	104		HYD
SYB-27	EXH.	28 BBC	-16 ATC	192	59 BBC	32 ATC	269	.247	.395	111		HYD
	INT.	-13 BTC	25 ABC	192	19 BTC	73 ABC	272	.247	.428	109	1.73	0
SYB-29	EXH.	29 BBC	-11 ATC	198	68 BBC	43 ATC	291	.250	.432	111		0
	INT.	-17 BTC	43 ABC	206	16 BTC	91 ABC	287	.278	.472	120	1.7	HYD
SYB-30	EXH.	44 BBC	-3 ABC	221	81 BBC	48 ATC	307	.283	.481	110		HYD
	INT.	-15 BTC	32 ABC	197	18 BTC	82 ABC	280	.260	.416	114	1.6	HYD
SYB-31	EXH.	38 BBC	-9 ATC	209	71 BBC	42 ATC	293	.278	.443	114		HYD
	INT.	25 BTC	71 ABC	185	21 BTC	70 ABC	259	.225	.382	106	1.7	HYD
SYB-32	EXH.	69 BBC	27 ATC	193	64 BBC	27 ATC	275	.229	.389	117		HYD
	INT.	-14 BTC	19 ABC	185	14 BTC	72 ABC	266	.240	.408	106		HYD
SYB-33	EXH.	34 BBC	-13 ATC	201	70 BBC	25 ATC	275	.241	.409	114		HYD
	INT.	-14 BTC	19 ABC	185	14 BTC	72 ABC	266	.240	.408	106		HYD
SYB-35	EXH.	34 BBC	-13 ATC	201	70 BBC	25 ATC	275	.241	.409	114		HYD
	INT.	-14 BTC	40 ABC	206	18 BTC	85 ABC	283	.278	.445	117	1.6	HYD
SYB-36	EXH.	47 BBC	-6 ATC	221	82 BBC	42 ATC	304	.283	.453	113		HYD
	INT.	-5 BTC	32 ABC	206			260	.264		110	1.5	0.016
SYB-37	EXH.	35 BBC	-8 ATC	206			254	.264		110		0.014
	INT.	-23 BTC	30 ABC	187	4 BTC	64 ABC	248	.237	.379	106	1.6	HYD
SYB-38	EXH.	40 BTC	-31 ATC	189	70 BBC	-1 ATC	249	.238	.380	116		HYD
	INT.	-12 BTC	24 ABC	192	20 BTC	70 ABC	274	.265	.424	108		HYD
SYB-39	EXH.	30 BBC	-18 ATC	192	62 BBC	28 ATC	288	.265	.424	114		HYD
	INT.	-8 BTC	28 ABC	200	21 BTC	68 ABC	269	.239	.382	108		HYD
SYB-40	EXH.	34 BBC	-14 ATC	200	63 BBC	26 ATC	269	.239	.382	114		HYD
	INT.											
SYB-41	EXH.			185			259	.225	.370	134	1.65	HYD
	INT.			193			275	.229	.377	134		HYD
SYB-43	EXH.	-12 BTC	16 ABC	184	20 BTC	64 ABC	264	.237	.402	104	1.7	HYD
	INT.	27 BBC	-15 ATC	192	61 BBC	33 ATC	274	.247	.419	111		HYD
SYB-44	EXH.	16 BTC	36 ABC	208			275	.265	.424	138.25	1.65	HYD
	INT.	45 BBC	7 ATC	208			275	.265	.424	138.25		HYD

CAMSHAFT SPECIFICATIONS (Cont.)

Part No.		Specs @ 0.50 Cam Lift			SAE Specs@ (0.06/Rocker Arm Ratio) Cam Lift			Cam Lift	Gross Valve Lift	Center Line C/L	Rocker Arm Ratio	Valve Lash Clearance
		Opens	Closes	Duration	Opens	Closes	Duration					
SYB-45	INT.	19 BTC	25 ABC	190			244	.240	.398	134.25	1.6	HYD
	EXH.	30 BBC	14 ATC	190			244	.240	.398	134.25		HYD
SYB-46	INT.	14 BTC	30 ABC	190			191	.240	.398	112		HYD
	EXH.	25 BBC	19 ATC	190			191	.240	.398	112		HYD
SYB-47	INT.	14 BTC	30 ABC	190			258	.240	.384	112		HYD
	EXH.	25 BBC	19 ATC	190			258	.240	.384	112		HYD
SYB-48	INT.			202				.250	.392	113	1.57	HYD
	EXH.			190				.239	.375	113		HYD
SYB-49	INT.	12 BTC	32 ABC	202			270	.262	.423	112	1.6	HYD
	EXH.	35 BBC	9 ATC	202			270	.262	.423	112		HYD
SYB-50	INT.	-12 BTC	30 ABC	198	22 BTC	85 ABC	287	.260	.416	114		HYD
	EXH.	36 BBC	-18 ATC	198	70 BBC	37 ATC	287	.260	.416	114		HYD
SYB-51	INT.	-11 BTC	41 ABC	210	24 BTC	94 ABC	298	.278	.445	115		HYD
	EXH.	40 BBC	-9 ATC	211	71 BBC	31 ATC	282	.278	.445	115		HYD
SYB-8	INT.	-15 BTC	21 ABC	186	19 BTC	71 ABC	270	.232	.394	108	1.7	HYD
	EXH.	26 BBC	-20 ATC	186	60 BBC	30 ATC	270	.232	.394	113		HYD
SYB-9	INT.	-10 BTC	17 ABC	187	18 BTC	63 ABC	261	.238	.380	103	1.6	HYD
	EXH.	26 BBC	-19 ATC	187	54 BBC	27 ATC	261	.238	.380	113		HYD
TSC-1	INT.			212			244	.262	.380	142.5	1.45	0.008
	EXH.			224			254	.264	.383	142.5		0.014
TSC-5	INT.			191				.197		110		.008
	EXH.			191				.197		110		.012
TSC-6	INT.			204				.214		107		0.008
	EXH.			204				.214		107		0.012
TSC-7	INT.			209				.220				
	EXH.											
TSC-8	INT.											
	EXH.			209				.220				