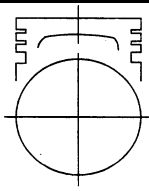

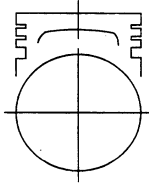



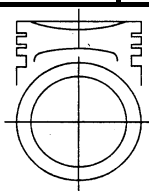



FORKLIFT & MEDIUM SIZE DIESEL ENGINES



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NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION					
ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING B mm	x	T mm	PISTON PART #	PISTON INFORMATION BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	PISTON PIN LENGTH	
FUEL				OEM #					OEM #					DIAMETER	
TOYOTA															
3P	4	1345	76.60	SWT10009ZZ	1	2.00	x	3.50	11-244	76.60	76.00	38.00			
GASOLINE				13011-23030	2	2.00	x	3.50	13101-23010	TOTAL CLEARANCE					65.00 mm
					3					-0.04 mm					
					O1	4.00	x	3.30	13101-23011	Measure for CYL Clearance					20.00 mm
					O2					mm					
										from bottom of Skirt.					
												CirClip	SURFACE TREATMENT		
													HEAD:	NONE	
												C17	SKIRT:	NONE	
4P	4	1345	76.60	SWT10009ZZ	1	2.00	x	3.50	11-245	76.60	71.00	33.00			
GASOLINE				13011-23030	2	2.00	x	3.50	13101-78001	TOTAL CLEARANCE					65.00 mm
					3					-0.04 mm					
					O1	4.00	x	3.30	13101-96001	Measure for CYL Clearance					20.00 mm
					O2					mm					
										from bottom of Skirt.					
												CirClip	SURFACE TREATMENT		
													HEAD:	NONE	
												C17	SKIRT:	NONE	
5K	4	1486	80.50	SWT10099ZZ	1	1.50	x	3.10	DISCONTINUE	80.50	80.50	36.00	-	8.80	
GASOLINE				13011-13040 13011-13050 13011-13090	2	1.50	x	3.65	13101-13030	TOTAL CLEARANCE					61.00 mm
					3					mm					
					O1	4.00	x	3.25		Measure for CYL Clearance					18.00 mm
					O2					mm					
										from bottom of Skirt.					
												CirClip	SURFACE TREATMENT		
													HEAD:	NONE	
													SKIRT:	NONE	
5K	4	1486	80.50	SWT10099ZZ	1	1.50	x	3.10	11-3729	80.50	80.50	36.00	-	3.00	
GASOLINE				13011-13040 13011-13050 13011-13090	2	1.50	x	3.65	13101-13040	TOTAL CLEARANCE					61.00 mm
					3					-0.04 mm					
					O1	4.00	x	3.25		Measure for CYL Clearance					18.00 mm
					O2					mm					
										from bottom of Skirt.					
												CirClip	SURFACE TREATMENT		
													HEAD:	NONE	
												T05	SKIRT:	NONE	

FORKLIFT & MEDIUM SIZE DIESEL ENGINES



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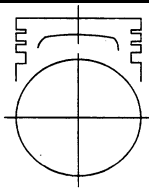


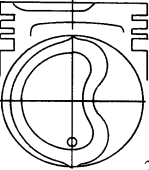
NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION										
ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING B mm	x	T mm	PISTON PART #	PISTON INFORMATION BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	PISTON PIN LENGTH						
FUEL				OEM #					OEM #					DIAMETER						
TOYOTA																				
2R	4	1490	78.00	SWT10014ZZ	1	2.00	x	3.70	11-243	78.00	78.00	39.00								
GASOLINE				13011-31010 13011-31030 13011-31040	2	2.50	x	3.60	13101-31010 13101-31011	TOTAL CLEARANCE			75.00 mm							
					3					-0.04 mm										
					O1	4.00	x	3.85		Measure for CYL Clearance					22.00 mm					
					O2					mm										
										from bottom of Skirt.										
								CirClip	SURFACE TREATMENT											
													HEAD: NONE							
														SKIRT: NONE						
5R	4	1944	88.00	SWT10069ZZ	1	2.00	x	4.20	DISCONTINUE	88.00	85.00	39.00								
GASOLINE				13011-44043	2	2.50	x	4.20	13101-44011 13101-44012 13101-44013 13101-44014	TOTAL CLEARANCE			75.00 mm							
					3					mm										
					O1	4.00	x	3.30		Measure for CYL Clearance					22.00 mm					
					O2					mm										
										from bottom of Skirt.										
								CirClip	SURFACE TREATMENT											
													HEAD: NONE							
														SKIRT: NONE						
5R	4	1944	88.00	SWT10069ZZ	1	2.00	x	4.20	11-246	88.00	85.40	39.00								
GASOLINE				13011-44043	2	2.50	x	4.20	13101-44015 13101-44016	TOTAL CLEARANCE			75.00 mm							
					3					-0.04 mm										
					O1	4.00	x	3.30		Measure for CYL Clearance					22.00 mm					
					O2					mm										
										from bottom of Skirt.										
								CirClip	SURFACE TREATMENT											
													HEAD: NONE							
														SKIRT: NONE						
5R	4	1944	88.00	SXT10069ZZ	1	2.00	x	4.20	DISCONTINUE	88.00	85.40	39.00								
GASOLINE				13011-44010	2	2.50	x	4.20	13101-44011 13101-44012 13101-44013 13101-44014	TOTAL CLEARANCE			75.00 mm							
				13011-44011	3					mm										
				13011-44030	O1	4.00	x	3.30		Measure for CYL Clearance					22.00 mm					
				13011-44031	O2					mm										
				13011-44032				from bottom of Skirt.												
				13011-44040							CirClip	SURFACE TREATMENT								
				13011-44041															HEAD: NONE	
				13011-44042																SKIRT: NONE
				13011-44060																
				13011-44061																
				13011-44062																
13011-44063																				

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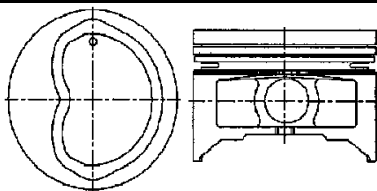
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ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING B mm	x	T mm	PISTON PART #	PISTON INFORMATION				PISTON PIN	
FUEL				OEM #					OEM #	BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	LENGTH DIAMETER	
TOYOTA															
5R	4	1944	88.00	SXT10069ZZ	1	2.00	x	4.20	11-246	88.00	85.40	39.00			
GASOLINE				13011-44010	2	2.50	x	4.20	13101-44015	TOTAL CLEARANCE				75.00 mm	
				13011-44011	3					-0.04 mm					
				13011-44030	O1	4.00	x	3.30		13101-44016	Measure for CYL Clearance				
				13011-44031	O2				mm						
				13011-44032					from bottom of Skirt.						
				13011-44040					 01				CirClip	SURFACE TREATMENT	
				13011-44041				11						HEAD:	NONE
				13011-44042										J05	SKIRT:
				13011-44060											
				13011-44061											
				13011-44062											
				13011-44063											
				5R	4	1944	88.00	SWT10069ZZ	1	2.00	x	4.20	DISCONTINUE	88.00	85.00
GASOLINE				13011-44043	2	2.50	x	4.20	13101-44020	TOTAL CLEARANCE				75.00 mm	
					3					mm					
					O1	4.00	x	3.30	13101-44021	Measure for CYL Clearance				22.00 mm	
					O2					mm					
									from bottom of Skirt.						
									 16				CirClip	SURFACE TREATMENT	
				16	HEAD:	NONE									
					J05	SKIRT:	NONE								
5R	4	1944	88.00	SXT10069ZZ	1	2.00	x	4.20	DISCONTINUE	88.00	85.00	39.00	-	3.80	
GASOLINE				13011-44010	2	2.50	x	4.20	13101-44020	TOTAL CLEARANCE				75.00 mm	
				13011-44011	3					mm					
				13011-44030	O1	4.00	x	3.30		13101-44021	Measure for CYL Clearance				
				13011-44031	O2				mm						
				13011-44032					from bottom of Skirt.						
				13011-44040					 11				CirClip	SURFACE TREATMENT	
				13011-44041				11						HEAD:	NONE
				13011-44042										J05	SKIRT:
				13011-44060											
				13011-44061											
				13011-44062											
				13011-44063											
				4Y	4	2208	91.00	SWT10111ZZ	1	1.50	x	3.30	11-283	91.00	65.00
GASOLINE				13011-73020	2	1.50	x	3.95	13101-73031	TOTAL CLEARANCE				66.00 mm	
				13011-73030	3					-0.04 mm					
				13011-73040	O1	4.00	x	3.15		Measure for CYL Clearance					
				13011-73042	O2				mm						
									from bottom of Skirt.						
									 235				CirClip	SURFACE TREATMENT	
								NONE						HEAD:	NONE
				T05	SKIRT:	NONE									

FORKLIFT & MEDIUM SIZE DIESEL ENGINES



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NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION							
ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING			PISTON PART #	PISTON INFORMATION				PISTON PIN			
						B mm	x	T mm		BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	LENGTH	DIAMETER		
FUEL				OEM #					OEM #								
TOYOTA																	
4Y	4	2208	91.00	SWT10111ZZ	1	1.50	x	3.30	11-637	91.00	65.00	35.00	-	6.20		SURFACE TREATMENT	
GASOLINE				13011-73020 13011-73030 13011-73040 13011-73042	2	1.50	x	3.95	13101-73030	TOTAL CLEARANCE				66.00 mm		HEAD: NONE	
					3					-0.03 mm						22.00 mm	SKIRT: NONE
					O1	4.00	x	3.15		Measure for CYL Clearance				15.50 mm from bottom of Skirt.			
					O2												
4Y	4	2208	91.00	SWT10111ZZ	1	1.50	x	3.30	DISCONTINUE	91.00	65.00	35.00	-	10.00	SURFACE TREATMENT		
GASOLINE				13011-73020 13011-73030 13011-73040 13011-73042	2	1.50	x	3.95	13101-73040	TOTAL CLEARANCE				66.00 mm	HEAD: NONE		
					3					mm					22.00 mm	SKIRT: NONE	
					O1	4.00	x	3.15		Measure for CYL Clearance				mm from bottom of Skirt.			
					O2												
2J	4	2481	88.00	NA	1	2.54	x		DISCONTINUE	88.00	102.00	52.20	-	2.00	SURFACE TREATMENT		
DIESEL					2	2.54	x		13211-21910 13221-21910	TOTAL CLEARANCE				74.00 mm	HEAD: NONE		
					3					mm					29.00 mm	SKIRT: NONE	
					O1	4.00	x			Measure for CYL Clearance				mm from bottom of Skirt.			
					O2												
2J	4	2481	88.00	SDT10045ZZ	1	2.54	x	3.80	DISCONTINUE	88.00	102.00	52.20	-	2.00	SURFACE TREATMENT		
DIESEL				13011-48013 13011-48021	2	2.50	x	3.80	13101-22060	TOTAL CLEARANCE				74.00 mm	HEAD: NONE		
					3	2.50	x	3.80		mm					27.00 mm	SKIRT: NONE	
					O1	4.00	x	4.20		Measure for CYL Clearance				mm from bottom of Skirt.			
					O2												

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NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION					
ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING B mm	x	T mm	PISTON PART #	PISTON INFORMATION BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	PISTON PIN LENGTH	
FUEL				OEM #					OEM #					DIAMETER	
TOYOTA															
2J	4	2481	88.00	SDT10045ZX	1	2.54	x	3.80	DISCONTINUE	88.00	102.00	52.20	-	2.00	74.00 mm
DIESEL				13011-48013 13011-48021	2	2.50	x	3.80	13101-22060	TOTAL CLEARANCE			-	3.00	
					3	2.50	x	3.80		mm					
					O1	4.00	x	4.20		Measure for CYL Clearance			-		27.00 mm
					O2					mm					
										from bottom of Skirt.					
										CirClip		SURFACE TREATMENT			
												HEAD:	NONE		
												SKIRT:	NONE		
2J	4	2481	88.00	SDT10045ZZ	1	2.54	x	3.80	DISCONTINUE	88.00	102.00	52.20	-	1.90	74.00 mm
DIESEL				13011-48013 13011-48021	2	2.50	x	3.80	13081-48013	TOTAL CLEARANCE			-		
					3	2.50	x	3.80		mm					
					O1	4.00	x	4.20		Measure for CYL Clearance			-		27.00 mm
					O2					mm					
										from bottom of Skirt.					
										CirClip		SURFACE TREATMENT			
												HEAD:	NONE		
												SKIRT:	NONE		
2J	4	2481	88.00	SDT10045ZX	1	2.54	x	3.80	DISCONTINUE	88.00	102.00	52.20	-	1.90	74.00 mm
DIESEL				13011-48013 13011-48021	2	2.50	x	3.80	13081-48013	TOTAL CLEARANCE			-		
					3	2.50	x	3.80		mm					
					O1	4.00	x	4.20		Measure for CYL Clearance			-		27.00 mm
					O2					mm					
										from bottom of Skirt.					
										CirClip		SURFACE TREATMENT			
												HEAD:	NONE		
												SKIRT:	NONE		
2J	4	2481	88.00	SJT10050ZZ	1	2.54	x	3.80	DISCONTINUE	88.00	102.00	52.20	-	2.00	74.00 mm
DIESEL				13011-48022 13011-48023 13011-48030	2	2.50	x	3.80	13081-48014 13081-48015	TOTAL CLEARANCE			-	3.00	
					3					mm					
					O1	4.00	x	4.20		Measure for CYL Clearance			-		27.00 mm
					O2					mm					
										from bottom of Skirt.					
										CirClip		SURFACE TREATMENT			
												HEAD:	NONE		
										C17		SKIRT:	NONE		

FORKLIFT & MEDIUM SIZE DIESEL ENGINES



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NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION					
ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING B mm	x	T mm	PISTON PART #	PISTON INFORMATION BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	PISTON PIN LENGTH	
FUEL				OEM #					OEM #					DIAMETER	
TOYOTA															
5P	4	2771	93.00	SWT10048ZZ	1	2.50	x	3.80	DISCONTINUE	93.00	97.00	52.10	-	17.00	
GASOLINE				13011-96102					13101-96101	TOTAL CLEARANCE					74.00 mm
										mm					
										Measure for CYL Clearance					27.00 mm
										mm from bottom of Skirt.					
											HEAD:	NONE			
											SKIRT:	NONE			
H	3	3576	88.00	SJT10051ZZ	1	2.54	x	3.80	DISCONTINUE	88.00	102.00	52.20	-	1.40	
DIESEL				13011-47022 13011-47023					13081-47012 13081-47013	TOTAL CLEARANCE					74.00 mm
										mm					
										Measure for CYL Clearance					27.00 mm
										mm from bottom of Skirt.					
											HEAD:	NONE			
											SKIRT:	NONE			
F	6	3878	90.00	SWT10026ZZ	1	3.00	x	3.70	11-171	90.00	95.50	47.50			
GASOLINE				13011-69021					13101-60011	TOTAL CLEARANCE					80.00 mm
										-0.04 mm					
										Measure for CYL Clearance					25.15 mm
										0.00 mm from bottom of Skirt.					
											HEAD:	NONE			
										NONE	SKIRT:	NONE			
										J05					
F	6	3878	90.00	DISCONTINUED	1	2.00	x	4.00	DISCONTINUE	90.00	95.65	47.50			
GASOLINE				13011-60040					13101-60020	TOTAL CLEARANCE					80.00 mm
										mm					
										Measure for CYL Clearance					25.15 mm
										mm from bottom of Skirt.					
											HEAD:	NONE			
										NONE	SKIRT:	NONE			

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NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION							
ENGINE MODEL	CYCLE	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P	PISTON RING			PISTON PART #	PISTON INFORMATION				PISTON PIN			
FUEL	L			OEM #	S	B	x	T	OEM #	BORE mm	LENGTH mm	COMP. mm	+	DIST. mm	LENGTH	DIAMETER	
TOYOTA																	
F	6	3878	90.00	SWT10044ZZ	1	2.00	x	4.00	DISCONTINUE	90.00	95.65	47.50					
				13011-60040	2	2.50	x	4.00	13101-60020	TOTAL CLEARANCE				4.00	80.00 mm		
					3					mm							
					O1	4.00	x	4.00		Measure for CYL Clearance						25.15 mm	
					O2	4.00	x	4.00		mm						from bottom of Skirt.	
										CirClip		SURFACE TREATMENT					
										NONE		HEAD:	NONE				
												SKIRT:	NONE				
F	6	3878	90.00	DISCONTINUED	1	2.00	x	4.00	DISCONTINUE	90.00	99.50	47.50	+	4.00			
				13011-60040	2	2.50	x	4.00	13101-60030	TOTAL CLEARANCE				4.00	80.00 mm		
					3					mm							
					O1	4.00	x	4.00		Measure for CYL Clearance						25.15 mm	
					O2	4.00	x	4.00		mm						from bottom of Skirt.	
										CirClip		SURFACE TREATMENT					
										NONE		HEAD:	NONE				
												SKIRT:	NONE				
F	6	3878	90.00	SWT10044ZZ	1	2.00	x	4.00	DISCONTINUE	90.00	99.50	47.50	+	4.00			
				13011-60040	2	2.50	x	4.00	13101-60030	TOTAL CLEARANCE				4.00	80.00 mm		
					3					mm							
					O1	4.00	x	4.00		Measure for CYL Clearance						25.15 mm	
					O2	4.00	x	4.00		mm						from bottom of Skirt.	
										CirClip		SURFACE TREATMENT					
										NONE		HEAD:	NONE				
												SKIRT:	NONE				
2H	6	3980	91.00	SDT10075ZZ	1	2.54	x	4.00	DISCONTINUE	91.00	100.00	50.20	-	2.00			
				13011-68010 13011-68020 13011-96601	2	2.50	x	4.00	13081-78601 13081-96601	TOTAL CLEARANCE				2.00	74.00 mm		
					3					mm							
					O1	4.00	x	4.20		Measure for CYL Clearance						27.00 mm	
					O2					mm						from bottom of Skirt.	
										CirClip		SURFACE TREATMENT					
												HEAD:	NONE				
												SKIRT:	NONE				

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NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION						
ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING B mm	x	T mm	PISTON PART #	PISTON INFORMATION BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	PISTON PIN LENGTH		
FUEL				OEM #					OEM #					DIAMETER		
TOYOTA																
2H	6	3980	91.00	SDT10075ZZ	1	2.54	x	4.00	DISCONTINUE	91.00	100.00	50.20	-	1.80	74.00 mm	
DIESEL				13011-68010 13011-68020 13011-96601					13101-68010	TOTAL CLEARANCE			-	3.00		
										mm						
										Measure for CYL Clearance					29.00 mm	
										mm from bottom of Skirt.						
														CirClip	SURFACE TREATMENT	
															HEAD:	NONE
															SKIRT:	NONE
2H	6	3980	91.00	SDT10075ZZ	1	2.54	x	4.00	DISCONTINUE	91.00	100.00	50.20	-	1.70	74.00 mm	
DIESEL				13011-68010 13011-68020 13011-96601					13101-68011	TOTAL CLEARANCE						
										mm						
										Measure for CYL Clearance					29.00 mm	
										mm from bottom of Skirt.						
														CirClip	SURFACE TREATMENT	
															HEAD:	NONE
															SKIRT:	NONE
2H	6	3980	91.00	SDT10075ZZ	1	2.54	x	4.00	DISCONTINUE	91.00	100.00	50.20	-	1.80	74.00 mm	
DIESEL				13011-68010 13011-68020 13011-96601					13081-31960	TOTAL CLEARANCE				3.00		
										mm						
										Measure for CYL Clearance					29.00 mm	
										mm from bottom of Skirt.						
														CirClip	SURFACE TREATMENT	
															HEAD:	NONE
															SKIRT:	NONE
2F	6	4230	94.00	SWT10049ZZ	1	2.00	x	4.20	11-174	94.00	102.50	47.60	+	6.50	72.00 mm	
GASOLINE				13011-76012					13101-61020	TOTAL CLEARANCE						
										-0.04 mm						
										Measure for CYL Clearance					25.15 mm	
										26.30 mm from bottom of Skirt.						
														CirClip	SURFACE TREATMENT	
															HEAD:	NONE
														T01	SKIRT:	NONE

FORKLIFT & MEDIUM SIZE DIESEL ENGINES



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NOA PISTON RING SPECIFICATION										NOA PISTON SPECIFICATION						
ENGINE MODEL	C Y L	ENGINE SIZE CC	DIA mm	PISTON RING PART #	P S T	PISTON RING			PISTON PART #	PISTON INFORMATION				PISTON PIN		
						B mm	x	T mm		BORE mm	LENGTH mm	COMP. mm	+ DIST. mm	LENGTH	DIAMETER	
FUEL				OEM #					OEM #							
TOYOTA																
2F	6	4230	94.00	DELETE	1	2.00	x	4.20	DELETE	94.00	102.50	47.60	+	6.50	72.00 mm	
GASOLINE				13011-61010					13101-61020	TOTAL CLEARANCE				CirClip		
										-0.04 mm					HEAD: NONE	
										Measure for CYL Clearance						SKIRT: NONE
										26.30 mm					T01	
										from bottom of Skirt.						
2F	6	4230	94.00	SWT10049ZZ	1	2.00	x	4.20	11-175	94.00	95.50	47.60	+	0.40	71.80 mm	
GASOLINE				13011-76012					13101-61010	TOTAL CLEARANCE				CirClip	SURFACE TREATMENT	
									13101-61011	-0.03 mm					HEAD: NONE	
									Measure for CYL Clearance				SKIRT: NONE			
									26.30 mm						T03	
									from bottom of Skirt.							
2F	6	4230	94.00	DELETE	1	2.00	x	4.20	DELETE	94.00	95.50	47.60	+	0.40	71.80 mm	
GASOLINE				13011-61010					13101-61010	TOTAL CLEARANCE				CirClip	SURFACE TREATMENT	
									13101-61011	-0.03 mm					HEAD: NONE	
									Measure for CYL Clearance				SKIRT: NONE			
									26.30 mm						T01	
									from bottom of Skirt.							