

Component Group	Engine Models											
	C7	C9	C10	C11	C12	C13	C15	C16	C18	C27	C30	C32
CRANKSHAFT & BLOCK COMPONENTS												
BAND FILLER							2	1	1	1	1	1
BEARING		1		1		1	1		1			
BEARING SLEEVE		2	3		3		3					
BOLT							10	6	5	8	2	6
CAM BUSHING	2	1								2	2	2
CLAMP, HOSE		1										
CRANKSHAFT SEAL GROUP	1	1										
CYLINDER LINER		1										
EXCLUDER SEAL	1	1										
GASKET	3	4	1	3	1	3	10	3	7	7	4	9
GASKET, OIL PAN	1	2					2	1	2	1		1
GASKET, PLATE										1	1	1
GASKET, REAR COVER							1		1		1	1
GASKET, SPACER PLATE							2	1	1			
GASKET-PAN			1		1		1					
ISOLATOR			1		1		1					
KEY, WOODRUFF	1	1										
LINER O RING		1					2	1		1		
LINER SEAL			1	1	1	1	1					
LINER WITH SEALS, CREVICE TYPE							2					
LINER, CYL				1	1	1	3				1	
LOCKWASHER							1		1			
MAIN BEARING .025							2	1	1	1	1	1
MAIN BEARING .050							2	1	1	1	1	1
MAIN BEARING .25MM	1											
MAIN BEARING .25MM THRUST	1											
MAIN BEARING .50MM	1		2		2	2	2					
MAIN BEARING .50MM THRUST	1											
MAIN BEARING 0.25MM		1										
MAIN BEARING STD	1	1	2	2	2	2	2					
MAIN BEARING THRUST STD	1											
MAIN BEARING, STD (DIESEL)							2		1	1	1	1
OIL SEAL GROUP	1											
OIL SEAL GROUP, CRANKSHAFT							4	2	2	2	2	2
PLUG							1		1			
PLUG, CORE	2	2	1	1	1	1	1			1	1	1
PLUG, PIPE									1	1		1
SEAL	2	1	1		1		10	4	5	1	1	1
SEAL GROUP	1											
SEAL, O-RING	8	23	10	14	12	23	51	16	29	10	5	18
SEAL-ISOLATION							2	1	1			
SPACER PLATE							2	1	1			
THRUST PLATE		1	1	1	1	1	3	1	1	1	1	1
WASHER							3	1	1	1	1	2
WASHER, HARDENED	1	1	1	2	1	2	5	2	2	1	1	1

Component Group	Engine Models											
	C7	C9	C10	C11	C12	C13	C15	C16	C18	C27	C30	C32
CYLINDER HEAD COMPONENTS												
BASE, INJECTOR POSITIONING			1		1		1					
CAM BUSHING .010							2	1	1	1		1
CAM BUSHING .030							2	1	1	1		1
CAM BUSHING STD.							2	1	1	1		1
GASKET .058"											1	1
GASKET BASE			1		1		1					
GASKET, CYLINDER HEAD	1	1	1		1		4	2	2	1		1
INJECTOR SLEEVE	1		1		1		1					
INSERT, VALVE SEAT EXHAUST	1	1										
INSERT, VALVE SEAT INTAKE		2										
INSERT, VALVE SEAT, EXHAUST											1	1
INSERT, VALVE SEAT, INTAKE											1	1
PLUG, CORE		1	1	1	1	1	4	2	2	2	2	2
RETAINER, VALVE SPRING	1	2										
RETAINER-SPRING	1											
ROTOCOIL							2	1	1	1		1
ROTOCOIL W/SHIELD											1	1
SEAL	2	1		1		1						
SEAL, O-RING	11	10		4		4	13	9	11	5	6	10
SEAL, VALVE STEM	1	2		1		1	2	1	1	1		1
SEAL, WATER							2	1	1	1	1	1
SEAT, VALVE		2										
SEAT, VALVE SPRING		3										
SEAT-VALVE SPRING	1											
SHIELD											1	1
SLEEVE							2	1	1			
SPRING, VALVE	2		2	3	3	3	5	2	2	2	1	3
SPRING, VALVE INNER		2										
SPRING, VALVE, INNER			1		1		1					
STUD, TAPER LOCK									1	1	1	1
VALVE GUIDE	2											
VALVE GUIDE INTAKE/EXHAUST			1		1		1					
VALVE GUIDE, INTAKE/EXHAUST							2	1	1	1	1	2
VALVE LOCK	2	2	1	1	1	1	2	1	1	1	1	1
VALVE, EXHAUST	1	2	1		1		3	1	1	1	1	2
VALVE, INTAKE	1	1	1		1		3	2	2	1	1	2
WASHER, HARDENED		1					2	1	1	1	2	2

EXHAUST MANIFOLD GROUP												
BOLT											2	4
GASKET	2	1	1		1		2		2	1	3	3
GASKET, EXHAUST							1		1	1		1
LOCK NUT							1		1	1	1	1
PLUG, CORE												1
PLUG, PIPE	1	1								1		1
SEAL, O-RING	8								3		2	5
SEALING RING												1
SPACER							3	1	2	1		1
STUD											1	1
STUD, TAPER LOCK							5	2	3	1		1
WASHER, HARDENED	1						1		1	1	1	1

Component Group	Engine Models											
	C7	C9	C10	C11	C12	C13	C15	C16	C18	C27	C30	C32
FRONT TIMING GEAR GROUP												
BEARING, IDLER							1	1	1	1	1	1
BOLT							2	1	1	1	1	1
KEY, WOODRUFF							2	1	1	1	1	1
SEAL, O-RING							4	2	2	2		2
WASHER, HARDENED										1		

FUEL RELATED COMPONENTS												
BOLT							7	2	6	5		5
GASKET	1	2	2	2	2	4	3	1	2	1	1	1
LOCK		1	1	1		1						
LOCKWASHER									1	1		
NUT							2					1
PUMP GROUP, FUEL HAND PRIMING		1										
SCREW									1			
SEAL	3	3	1	2	1	2	5		2	4	1	4
SEAL, O-RING	18	23	13	16	13	17	30	9	17	13	4	12
SPACER				1		1	1		1			
WASHER, HARDENED	1	2	1	2	1	2	4	2	2	2	1	2

GASKET KITS												
CYLINDER HEAD REPLACEMENT SET		1				2						
FRONT STRUCTURE								1				
GASKET SET, AIR COMPRESSOR			1			3		5				
GASKET SET, BRAKE SAVER								2				
GASKET SET, CENTRAL & LOWER						1		1		1		
GASKET SET, CYL BLOCK/OIL PAN						2						
GASKET SET, CYLINDER HEAD REPLACEMENT								1				
GASKET SET, FRONT COVER						3		2				
GASKET SET, FUEL SYSTEM			6			7		5				
GASKET SET, OIL COOLER			1			1						
GASKET SET, OIL COOLER & LINES			3			5		3		1		
GASKET SET, OIL COOLER/LINES						1						
GASKET SET, OIL PUMP			1			1						
GASKET SET, REAR COVER								1				
GASKET SET, REAR COVER/HSG			1			1						
GASKET SET, REAR STRUCTURE			1			1		1				
GASKET SET, SINGLE CYL HEAD			1			2		3		1		
GASKET SET, SINGLE CYL LINER						1		1				
GASKET SET, SINGLE CYLINDER HEAD			2			2		1				
GASKET SET, SINGLE FUEL INJ						1		1				
GASKET SET, SINGLE FUEL INJ.			1			1						
GASKET SET, TURBO MOUNTING			3			3		5		1		
GASKET SET, WATER PUMP			3			4		2		1		
GASKET SET,CYL BLOCK/OIL PAN			1			1						
GASKET SET,FRONT COVER/HSG			1			1						
GASKET SET,TURBO MOUNTING						1						
IN-FRAME OH KIT		1				7		2				
OUT-OF-FRAME OVERHAUL SET								2				
SINGLE FUEL INJECTOR KIT								1		1		

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	C7	C9	C10	C11	C12	C13	C15	C16	C18	C27	C30	C32
HOUSING & REGULATOR GROUP												
GASKET	4	2					1					
PLUG, CORE	1											
REGULATOR		2										
SEAL		1					1					
SEAL, O-RING	5	2					2					
SEAL, THERMOSTAT		1										
WASHER, HARDENED	1						2					

IN & OUT OF FRAME KITS												
IF NO SKIRT PIN THRUST							1					
IN-FRAME KIT IPD STEEL PISTON					7		2					
IN-FRAME KIT IPD STEEL PISTON & CS LINER							2					
IN-FRAME OH KIT W/O CROWN							2					
OUT OF FRAME KIT IPD STEEL PISTON							2					
OUT OF FRAME KIT IPD STEEL PISTON & CS LINER							2					
OUT OF FRAME OH KIT W/O CROWN							2					

OIL COOLER & FILTERS												
BOLT				1			8	2	6	2	1	3
CAP ASSEMBLY, OIL		1					1		1	1		1
ENGINE OIL COOLER	1										1	1
GASKET	2	3		1		1	3	2	4	3	2	7
KEY, WOODRUFF									1			
LOCKWASHER							1		1	1		1
NUT										1		
PLUG, CORE			1		1		2	1	1			
PLUG, PIPE	1					1	1		1		1	1
RING										1		1
SEAL	2		2	2	2	2	2		2			1
SEAL, O-RING	19	22	8	11	10	18	40	8	28	10	7	16
WASHER		1		1		1						
WASHER, HARDENED	1	1	1	1	1	1	5	2	3	1	1	1
WASHER, SEALING	1											

OIL PUMP GROUP												
BEARING SLEEVE	1											
BEARING, OIL PUMP							3	2	2	2	2	2
BOLT							5	1	1	1		
GASKET	1											
PLUNGER							2	1	1			
PUMP GROUP, ENGINE OIL	1											
SEAL, O-RING			5	5	5	8	5					
SHAFT, ENGINE OIL PUMP							4	2	2			
SPRING							2	1	1	1	1	1
WASHER, HARDENED	1	1	1	1	1	1	3	1	1	1	1	1

Component Group	Engine Models											
	C7	C9	C10	C11	C12	C13	C15	C16	C18	C27	C30	C32
REAR GEAR GROUP												
BEARING		1		2		1	1		1			
BEARING, OIL PUMP DRIVE	1	1	1	1	1	1						
BOLT							2		1	2		2
BUSHING, IDLER GEAR	1	1	1	1	1	1						
GASKET				1			1		1			
KEY, WOODRUFF										1		1
LOCK										1		1
SEAL, LIP TYPE		1	1	1	1	1						
SEAL, O-RING	1	10	10	11	10	10	5		7	9		7
WASHER, HARDENED		1	1	1	1	1	1		1		1	2
WEAR SLEEVE									1	1		1

TURBOCHARGER & COMPONENTS												
BOLT					1		5	3	4	2	2	7
CAM BUSHING STD.										1		
GASKET	7	5	8	2	9	3	12	1	9	3	1	6
LOCK NUT							1	1	1	1		1
LOCKWASHER									1		1	1
NUT											2	2
PLUG, CORE	1	1							1	2	1	1
SCREW							1		1			
SEAL	1	1	1		1		3	2	2	1	2	2
SEAL, O-RING	16	15	2	6	4	7	16	5	14	14	1	10
SPACER									1			
STUD, TAPER LOCK										1		
TURBO CARTRIDGE			1		1				1			
TURBOCHARGER					2							
WASHER							1					
WASHER, HARDENED	1	2	1	1	2	1	4	1	2	2	1	1

WATER PUMP & LINES GROUP												
ADAPTER, INLET							1	1				
ADAPTER, INLET (IRON)										1	1	1
BALL BEARING			1	1	1	1	1					
BEARING-AS							2	1	1	1		
BOLT							9	4	6	6	3	8
ENGINE OIL COOLER							3	1	1	2		1
GASKET	5	2	5		5		14	2	10	7	7	11
GASKET, REGULATOR							1	1	1			
LOCKWASHER							2		1	1	1	1
NUT							2		1	1	1	1
OIL SEAL			1	1	1	1	1					
PLUG, CORE							1		1			
PLUG, PIPE							1		1	1		
REBUILD KIT, WATER PUMP							1	1	1	1	1	1
REDUCER BUSHING					1							
REGULATOR		4	1	2	1	2	3	2	3	1	1	1
RETAINER							2	1	1	1	1	1
SCREW							1					

Component Group	Engine Models											
	C7	C9	C10	C11	C12	C13	C15	C16	C18	C27	C30	C32
WATER PUMP & LINES GROUP (Continued)												
SEAL	1	1		1		1	5	2	3	1	1	1
SEAL GP				1		1	1	1	1	1	1	1
SEAL, O-RING	18	16	2	5	6	7	36	9	24	18	5	25
SEAL, THERMOSTAT		1	1	1	1	1	1	1	1	1	1	1
SEAL, WATER	1	1	1		1		1					
SEAL-LIP TYPE							2	1	1	1	1	1
SHAFT, WATER PUMP							1	1	1	1		
WASHER	1						2	1	1	1		
WASHER -HARD							1	1	1	1		
WASHER, HARDENED	1	1	1	1	1	1	4	1	2	1	2	2
WATER PUMP	1		1		1		1			1	1	1
Grand Total	248	267	151	149	213	167	680	175	359	246	139	315

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