

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		

Component Group	Engine Models											
	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

IPD ♦ Torrance, CA 90501 USA ♦ www.ipdparts.com
IPD is an ISO9001:2008 Certified Company

All information is believed to be accurate at time of printing. No guarantee of accuracy is made by IPD, LLC. Please consult your service and parts manual for detailed information. This is intended as a warning only, not a specification.

All manufacturers' names, numbers, symbols and descriptions are for reference only. It is not implied that any part is the product of the manufacturer. Caterpillar® and Cat® are registered trademarks of Caterpillar, Inc, Detroit Diesel® is a registered trademark of Detroit Diesel Corporation. Cummins® is a registered trademark of Cummins Engine Company.