CATERPILLAR®

General Service Information

SELD0080-13 Cylinder Packs, Con Rods & Piston Packs
SELD0179-11 3500 Engines and Short Blocks
SELD0189-08 3304 and 3306 Long Blocks
SELD0190-07 3406 and C-15 Long Blocks
SELD0191-06 3408 and 3412 Long Blocks
SELD0196-05 3116 Long Blocks
SELD0249-05 3208 Long Blocks
SELD0250-04 3126 and C7 Long Blocks
SELD0267-01 C-10 and C-12 Long Blocks
SELD0276-00 Short Blocks (3116, 3126, 3204, 3208, 3304, 3306, C-10, C-12, 3406, 3456, C7, C-15, C-16)
SELD0301-00 3046 and 3066 Long Blocks

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Cylinder Packs, Con Rods & Piston Packs

General Service Information GU08-02

CAT® *Technical Supplement*

August 2008

Cylinder Packs, Con Rods & Piston Packs

Remanufactured Cylinder Pack Part Number	Model	Piston	Rod	Cylinder Liner	Piston Pin	Ring Groups/ Rings	Kit/Seals	Footnotes
0R4284	3304/ 3306 DI, Keystone Ring, 15:1 CR	129-0360 (6I3650)	0R0914, 8N1721 [F]	110-5800	7N9805 (177-0450)	2W1707 Top, 5S6750 Mid, 7E6047 Oil	5P8768 kit	F- 8N1721- For higher rated engines (43.2 mm (1.7") pin bore
0R1695	3304/ 3306 PC, Keystone Ring, 1.70" Dia Pin, Dbl Iron Band	9N5403	0R0914 (tapered), 8N1721 [F], 6N8069, 5R1450, 5S2793	110-5800	7N9805 (177-0450)	2W1707 Top 2W1708 Mid, 7E6047 Oil	5P8768 kit	F- 8N1721- For higher rated engines (43.2 mm (1.7") pin bore
0R1696 [H, I]	3304/3306 DI, 15:1 CR, Rect Ring	129-0358 (1W6757)	0R0914 (tapered), 6N8069, 8N1721 [F], 5R1450, 5S2793	110-5800	7N9805 (177-0450)	9S3029 Top, 5S6750 Mid, 7E6047 Oil	5P8768 kit	H- 0R1696 and 0R4488 cannot be mixed in the same engine. I -1W6759 Piston Gp built prior to 1/10/94 use 0R1696 (1W6757 Body) and after 1/10/94 use 0R4488 (4P8132 Body). F- 8N1721-For higher rated engines (43.2 mm (1.7") pin bore).
0R4488 [H, I]	3304/3306 DI, 16:1 CR, Rect Ring	164-6560 (129-0359) (4P8132) (4P8132)	0R0914 (tapered) 8N1721 [F]	110-5800	7N9805 (177-0450)	9S3029 Top 5S6750 Mid 6I0497 Oil	5P8768 kit	H- 0R1696 and 0R4488 cannot be mixed in the same engine. I-1W6759 Piston Gp built prior to 1/10/94 use 0R1696 (1W6757 Body) and after 1/10/94 use 0R4488 (4P8132 Body). F- 8N1721-For higher rated engines (43.2 mm (1.7") pin bore).
0R1697	3304/3306 DI. Keystone Ring, 1.70" Dia Pin, 15:1 CR	165-4262 (8N-3102)	0R0914 (tapered), 8N1721 [F], 6N8069, 5R1450, 5S2793	110-5800	7N9805, (177-0450)	2W1707 Top, 2W1708 Mid, 6I0497 Oil	5P8768 kit	F-8N1721- For higher rated engines (43.2 mm (1.7") pin bore
0R1694	3304/3306 PC Rect Ring Dbl Iron Band 1.70" Dia Pin 15:01	9N5250	0R0914 (tapered), 8N1721[F], 6N8069, 5R1450, 5S2793	110-5800	7N9805 (177-0450)	9S3029 Top, 5S6750 Mid, 9S7788 Oil	5P8768 kit	F -8N1721- For higher rated engines (43.2 mm (1.7") pin bore
0R1693	3304/3306 PC, 1.50" Dia Pin, Sngl Iron Band, 17.5:1 CR	8N3180	0R0915[G] (tapered), 6N8061, 8N1984 [E]	110-5800	7N9804, (177-0449)	9S3029 Top, 5S6750 Mid, 9S7788 Oil	5P8768 kit	G-0R0915 Connecting Rod can be mixed in same engine with 6N8061, 8N1984 or 5S6360 Connecting Rod; E -8N1984-For lower rated engines (38.1 mm (1.5") pin bore)
0R1692	3304/3306 PC, 1.50" Dia Pin, Double Iron Band	8N3182, 7N9183	0R0915[G], 1P3089, 5S6360, 6N8061, 8N1984 [E]	110-5800	7N9804 (177-0449)	9S3029 Top, 5S6750 Mid, 9S7788 Oil	5P8768 kit	G -0R0915 Connecting Rod can be mixed in same engine with 6N8061, 8N1984 or 5S6360 Connecting Rod; E-8N1984-For lower rated engines (38.1 mm (1.5") pin bore)
0R3660	3304/3306 PC, High Altitude, 21:01	8N3184	0R0915 [G], 6N8061, 8N1984 [E], 1P3089, 5S6360	110-5800	7N9804, (177-0449)	9S3029 Top, 5S6750 Mid, 9S7788 Oil	5P8768 kit	G-0R0915 Connecting Rod can be mixed in same engine with 6N8061, 8N1984 or 5S6360 Connecting Rod. E-8N1984-For lower rated engines (38.1 mm (1.5") pin bore)
0R3661	3304/3306 SI, 10.5:1 CR	4P2654	0R0915C, 6N8061, 8N1984 [E], 1P3089, 5S6360	110-5800	7N9804 (177-0449)	4P2656 Top, 4P2657 Mid, 4P2658 Oil	5P8768 kit	E- 8N1984-For lower rated engines (38.1 mm (1.5") pin bore)

0R3662	3304/3306 SI, 8:1 CR	4P2655	0R0915 G, 6N8061, 8N1984 [E], 1P3089, 5S6360	110-5800	7N9804, (177-0449)	4P2656 Top, 4P2657 Mid, 4P2658 Oil	5P8768 kit	G-0R0915 Connecting Rod can be mixed in same engine with 6N8061, 8N1984, or 5S6360 Connecting Rod. E- 8N1984-For lower rated engines (38.1 mm (1.5") pin bore)
0R3043	3306 DI, 16:1 CR, 1.70" Dia Pin	168-4531	0R0914, (tapered), 6N8069, 8N1721 [F], 5R1450	110-5800	7N9805 (177-0450)	2W1707 Top, 2W1708 Mid, 6I0497 Oil	5P8768 kit	F - 8N1721-For higher rated engines(43.2 mm (1.7") pin bore)
0R4506	3306 DI, 285-305 Hp, 17:1 CR, 1.70" Dia Pin	154-8087, 6I2650	0R0914, 8N1721 [F]	110-5800	7N9805 (177-04450)	2W1707 Top, 2W1708 Mid, 6I0497 Oil	5P8768 kit	F- 8N1721-For higher rated engines(43.2 mm (1.7") pin bore)
10R3637	3306	156-8263		8N1721	110-5800, 7N9805	6I0497, 5S6750, 2W1707	5P8768 kit	
0R4635	3306, 17:1 CR, DI Keystone, 285 - 305 Hp	107-3565	0R0914, 8N1721 [F]	110-5800	7N9805 (177-0450)	100-6694 Top, 100-6695 Mid, 6I0497 Oil	5P8768 kit	F- 8N1721-For higher rated engines(43.2 mm (1.7") pin bore)
10R3201	3406 B/C	160-1131	0R-0905 8N-1726	197-9322	0R-3039 8N-1608	1W-9460 Top, 2P-2817 Mid, 7N-7078 Oil	160-9874	See Note MM
10R1438	3406 B/C Industrial	123-4612 (crown) 163-0930 (skirt)	0R3781 (wide crank journal), 9Y6400	197-9322	8N1608 (0R3039)	1W9460 Top, 2P2817 Int, 7N7078 Oil	160-9874	
0R2693 [M]	3406 DI, Under 350 Hp, 15.2:1 CR	7N3509	0R0718 [N] (narrow pin taper), 7N3231	197-9322	7N9806 (0R3040)	8N0502 Top, 2P2817 Mid, 7N7078 Oil	160-9874	M -These cylinder packs can be used with serial numbers 92U1-2953 only if the crankshaft has been updated. N- Refer to Service Magazine Article "Parts Service Information for Pistons, Connecting Rods, Piston Pins and Rings" (SM Sep 12, 1983) for information on correct combinations of connecting rods and pistons.
0R2694 M, P	3406 DITA/ 3406B, 14.5:1 CR	9Y4004	0R0905 K· (narrow crank journal), 8N1726	197-9322	8N1608 (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	M-These cylinder packs can be used with serial numbers 92U1-2953 only if the crankshaft has been updated. P-0R2694 recommended for following applications:3406 DI (350 Hp & up, 92U2954-up, JWAC) 3406B (7FB1-27301 all Hp JWAC/ATAAC), (8TC1-1412 & 7FB27302-up, 310 Hp & up, JWAC/ATAAC), (4MG1-3599, CARB, 300 Hp, JWAC), D8N (9TC1-5065, 5067; 1XJ1-159) and 824C (85X1-1514) tractors, 825C (86X1-993) and 826C (87X1-1247) compactors, 3406B (4TB) marine engines. K-8N1726/0R0905 replaces 6N3911/0R0719 (straight version).
0R1570 [M]	3406A - PC, 400 Hp, 14.5:1 CR	7N3633	0R0905[K], (narrow crank journal), 8N1726	197-9322	7N9807 (177-0451)	8N0502 Top, 2P2817 Mid, 7N7078 Oil	160-9874	M -These cylinder packs can be used with serial numbers 92U1-2953 only if the crankshaft has been updated. K-8N1726/0R0905 replaces 6N3911/0R0719 (straight version)
0R4285	3406A PC, 460 Hp, Underground mining usage	6N4126	0R0905 K (narrow crank journal), 8N1726	197-9322	7N9807, (177-0451)	8N0502 Top, 2P2817 Mid, 7N7078 Oil	160-9874	K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version)
0R4178***	3406B & C, 460 Hp 14.5:1 CR, Gallery Cooled	160-1131 (113-6045) (7E0489)	0R3781 (wide crank journal), 9Y6400G	197-9322	8N1608 (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	***-Applicable for truck engines 5YG, 2EK, & 4CK; also used in 3406 machine 245B engines 11N
0R3783 [T]	3406B 15.6:1, All mech. ratings '91 & '92, 310 Hp elec. '92	7E8656	0R3781 (wide crank journal), 7E5996, 9Y6400 [U]	197-9322	8N1608, (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	T - Offered in early 3ZJ applications. U -9Y6400 differs from the 7E5996 rod in that it is a bolt & nut style rod. Both styles may be mixed in an engine, however, they each have different torquing methods. Please refer to Service Magazine dated October 26, 1992, p. 12 for torquing instructions.
0R2413 Q·[R]	3406B, Up to 310 Hp, JWAC/ATAAC	9Y3116	0R0905 K (narrow crank journal), 8N1726	197-9322	8N1608 (0R3039)	1W9460 Top 2P2817 Mid 7N7078 Oil	160-9874	Q- 0R2413 packs should be used in complete sets of six. Mixing with 7C3496 piston could cause a vibration problem. R-Applicable for 3406B Truck Engines EPA Code E serial numbers 7FB27302-99999; 4MG1-3599
0R2974	3406B, 310 Hp, 15:6:1 CR	7E8885	0R0905 [K] (narrow crank journal), 8N1726	197-9322	8N1608, (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version)

0R3788	3406B, 310 Hp, 16.4:1 CR	9Y4944	0R0905 [K] (narrow crank journal), 8N1726	197-9322	8N1608, (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version).
0R4596 V	3406B, 350 - 425 Hp, 15.2:1 CR	7E8700	0R0905 K (narrow crank journal) , 8N1726	197-9322	8N1608 (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	V- Applicable for 3ZJ02847 & under. K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version)
0R2975	3406B, 350 - 425 Hp, 1990 PEEC models, 15.2:1 CR	7E0539	0R0905 K, (narrow crank journal), 8N1726	197-9322	8N1608 (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version)
0R2861 [L]	3406B, 350 - 425 Hp, ATAAC, 15.2:1 CR	9Y9889 (7C3406)	0R0905 [K] (narrow crank journal), 8N1726	197-9322	8N1608 (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	L- These cylinder packs are applicable to 1988 model yr 3406 truck engines effective with the following send numbers: 4MG3600-83944, 8TC1413-up. K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version).
0R3585	3406B, 400 Hp CARB	7C0473	0R0905 [K] (narrow crank journal), 8N1726	197-9322	8N1608, (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version).
0R2862 L	3406B, Up to 310 Hp, ATAAC, 15.6:1 CR	9Y7212, (7N3511)	0R0905 K, (narrow crank journal), 8N1726	197-9322	18N1608 (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	L- These cylinder packs are applicable to 1988 model yr 3406 truck engines effective with the following send numbers: 4MG3600-83944, 8TC1413-up. K- 8N1726/0R0905 replaces 6N3911/0R0719 (straight version).
0R4515	3406B/3406C DI, 14.5:1 CR	9Y4004	0R3781 (wide crank journal), 7E5996	197-9322	8N1608, (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	
10R1439	3406B/C 14.6 CR Gen Set / Indust	125-8869 (crown) 130-0241 (skirt)	0R3780 9Y6054	197-9322	168-7246 (0R9624)	1W9460 top 2P2817 Int 7N7078 Oil	160-9874	
0R3782 [S]	3406C, 15.2:1, 350 - 425 Hp, '91& '92 engines	7E8700	0R3781 (wide crank journal), 7E5996, 9Y6400 [U]	197-9322	8N1608, (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	S- Applicable for 3ZJ02848-38056 and 2EK00513 & up. U-9Y6400 differs from the 7E5996 rod in that it is a bolt & nut style rod. Both styles may be mixed in an engine, however, they each have different torquing methods. Please refer to Service Magazine dated October 26, 1992, p. 12 for torquing instructions.
0R9847 Z	3406C, 15.9:1 CR, articulated	168-4540 (crown, 130-0241, (0R8232) (skirt)	0R3780, 9Y6054	197-9322	168-7246, (0R9624)	134-3761 Top, 164-4187 Mid, 172-3284 Oil	160-9874	Z-Optional articulated cylinder pack for aluminum piston 116-8154 (0R8717 cylinder pack). All 6 packs must be replaced. May be used to directly replace 161-8421 piston crowns (from cancelled 0R9425 cylinder pack). See SEPD0494 (SM25OCT99) and SEBD9278.
0R8717 **	3406C, 15.9:1 CR, Gallery Cooled	116-8154	0R3781 (wide crank journal), 7E5996	197-9322	8N1608 (0R3039)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	**-To convert from 116- 8154 aluminum pistons to steel crowns use 0R-9847 cylinder packs. NOTE: All 6 packs must be replaced. See SEPD0494 (SM 25OCT99) or SEBD9278 (EN 1NOV99). (Ref non-truck 1996-up emission engines)
0R8320*	3406C, 16.0:1 CR	117-5063	0R3780, 9Y6054	197-9322	102-9796, (177-0452)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	*-To convert from 117-5063 aluminum pistons to steel crowns use 0R-9424 cylinder packs. NOTE: All 6 packs must be replaced. See SEBD6695 (TEN NOV97) 8PN1-11708.
0R8917 Y	3406C, 16.25:1 CR, articulated	138-1791 (crown, 130-0241, (0R8232), (skirt)	0R3780, 9Y6054	197-9322	168-7246 (0R9624)	144-5901 Top, 144-5902 Mid, 7N7078 Oil	160-9874	Y- Services serial numbers 8PN11709-UP.
0R9424 X	3406C, 16:1 CR, articulated	150-6223 (crown, 130-0241 (0R8232) (skirt)	0R3780, 9Y6054	197-9322	168-7246, (0R9624)	144-5901 Top, 144-5902 Mid, 7N7078 Oil	160-9874	X -Optional articulated cylinder pack for aluminum piston 117-5063 (0R8320 cylinder pack). Serial number range from 8PN1-8PN11708. All 6 packs must be replaced. NOTE: Each cylinder pack contains one 166-3650 (replaced 145-6860) oil jet tube assembly which is necessary for the conversion from aluminum to articulated. Other parts required. See SEBD6695 (TEN NOV97). This cylinder pack replaces 0R8916.
10R3787 QQ	3406C, 310 - 425 HP, 16.4:1 CR, articulated	101-0016 (2 piece) 268-4042, 0R8232	0R3780, 9Y6054	197-9322	168-7246, (0R9624)	134-3761 Top, 144-5902 Mid, 238-0294 Oil	160-9874	W-Applicable for 3ZJ30054 & up

0R4943	3406C, 375 HEX, 14.6:1 CR, articulated	126-0736 (crown), 130-0241 (0R8232) (skirt)	0R3780, 9Y6054	197-9322	168-7246 (0R9624)	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	
0R8915 ^	3406E & C-15, 16.6:1 CR, articulated	180-7352 (crown, 132-6663 (skirt)	0R3780, 9Y6054	197-9322	168-7246 (0R9624)	177-7496 Top, 176-5749 Mid, 176-5750 Oil	160-9874	^ - Services serial numbers 1LW-1-up and 2WS1-up (for all Hp) and 6NZ1-up (435-550 Hp)
0R8918 AA	3406E & C-16, 600 Hp, 16.1:1 CR, articulated	139-8500 (crown)158-0446, (skirt)	0R3780, 9Y6054	132-6881	168-7246, (0R9624)	153-4101 Top, 139-8504 Mid, 139-8505 Oil	154-1642	AA- Services serial numbers 5DS1-up, 1MM1-up and 7CZ1-up.
0R8912	3406E 16.25:1 CR Articulated	133-7537 (crown), 130-0241 (skirt)	0R3780, 9Y6054	197-9322	168-7246 (0R9624)	134-3761 Top 2P2817 Int 7N7078 Oil	160-9874	
0R8017	3406E, 15.9:1 CR, articulated, Industrial	176-5744 (crown), 132-6663 (skirt)	0R3780, 9Y6054	197-9322	168-7246, (0R9624)	134-3761 Top, 176-5749 Mid, 189-9771 Oil		
0R8333 ^^, BB	3406E, 16.25:1 CR, articulated	1352837 (crown), 130-0241 (skirt)	0R3780, 9Y6054	197-9322	168-7246, (0R9624)	134-3761 Top, 144-5902 Mid, 7N7078 Oil	160-9874	^^- Each pack requires jet 166-3650 (replaces 145-6860) if converting from 7E0525 or 108-2716 aluminum pistons to articulated pistons all 6 packs must be replaced (Applies to 5EK1-5EK80000). BB -See O.I.L. ED 9208-01 ("Pick Your Power" overhaul program).
0R8913 BB, DD, EE	3406E, 16.25:1 CR, articulated	149-5566 (crown)130-0241 (skirt)	0R3780, 9Y6054	197-9322	168-7246, (0R9624)	134-3761 Top, 144-5902 Mid, 7N7078 Oil	160-9874	BB- See O.I.L. ED 9208-01 ("Pick Your Power" overhaul program). DD- 0R8913 cylinder pack services 5EK53004-up (435 Hp & 455 Hp), 5EK67193-up (475Hp) and 6TS1-up. Replaces crowns 133-7537 & 116-1372 except in EURO II arrangements 130-2314 & 143-0532. EE- Service replacement for 132-6664 Crown, 147-6955 Skirt, 147-6953 Top Ring, 147-6954 Mid Ring, and 147-7327 Oil Ring. 0R8913 Packs MUST be used in complete sets of six. 6TS12328-12791 and 6TS12916-13499.
0R8108	G3406 SI, 10.4:1 CR	4P8996	0R3781 (wide crank journal), 7E5996	197-9322	8N1608 (0R3039)	101-9047 Top, 133-3836 Mid, 100-5079 Oil	160-9874	
10R6215	C15 18:1 CR	306-7460	10R2117 224-3245	197-9322	180-7350	310-4188 Top 306-4016 Mid 306-4014 Oil	160-9874	
10R6007	C15 18:1 CR	247-6123	224-3245 10R2117	197-9322	180-7350	247-6130 Top 164-4187 Mid, 238-0294 Oil	160-9874	
10R7172	C15 16:1 CR	252-0656	224-3245 10rR2117	197-9322	180-7350	247-6130 Top 164-4187 Mid, 238-0294 Oil	160-9874	
10R3304	C15 Low HP 18:1 CR One Pc Stl	248-5514	10R2117, 224-3245	238-2700	180-7350	237-0194 Top, 238-4737 Int, 238-0294 Oil	160-9874	
10R3305	C15 High HP 17:1 CR One Piece Stl	248-5516	10R-2117, 224-3245	238-2700	180-7350	237-0194 Top, 283-4737 Int, 238-0294 Oil	160-9874	
10R2114	C-15 18:1 CR One Pc Stl	232-6557	10R2117, 224-3245	238-2700	180-7350	237-0194 Top, 238-4737 Int, 238-0294 Oil	160-9874	
0R9942 CC	C-15 Low Hp, 18:1CR articulated, 355-375 Hp, 375-435 MT	180-7351 (crown) 132-6663 (skirt)	0R3780, 9Y6054	197-9322	168-7246 (0R9624)	177-7496 Top, 176-5749 Mid, 176-5750 Oil	160-9874	CC- Services serial numbers 6NZ1-up. 0R9942 is service repair for the 154-8648 crown.

10R1503	C-15, 16.6:1 CR, articulated	225-0115 (crown), 10R-1368, 132-6663 (skirt)	0R3780, 9Y6054	197-9322	168-7246, (0R9624)	225-7010 Top, 176-5749 Mid, 189-9771 Oil	160-9874	
10R7159	C18 16.5:1CR	239-7844	224-3245 10R2117	253-8766	180-7350	223-9159 Top 238-2707 Mid 246-5659 Oil	258-8117	
10R7158	C18 14.5:1 CR	235-8098	224-3245 10R7117	253-8766	180-7350	223-9159 Top 238-2707 Mid 246-5659 Oil	258-8117	
10R3583	C18 16.3:1 CR	247-7745	224-3245 10R2117	253-8766	180-7350	223-9159 Top 238-2707 Mid 246-5659 Oil	258-8117	
10R1441	3408/12 14.6 CR	197-9314 (Crown) 163-0930 (skirt)	0R0916, 160-8178, (8N1728)	197-9322	8N1608 (0R3039)	134-3761 Top, 144-5902 Int, 7N7078 Oil	160-9874	
10R1440	3408/12 14.7 CR	174-6103	0R0916, 160-8178, (8N1728)	197-9322	8N1608 (0R3039)	1W9460 Top 2P2817 Int 7N7078 Oil	160-9874	
0R4636 FF	3408/3412 B,C,E, 14:1 CR, Gallery cooled	174-6102, (112-2876) (7E4367)	0R0916, 160-8178, (8N1728)	197-9322	8N1608	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	FF- New piston included after package date code 12/99. Pistons 174-6102 and 172-3280 require the 168-4538 oil jet tube as. And 150-1156 oil jet bolt. Refer to SEBE7179.
0R1572	3408/3412 DI, 14.5:1 CR	9Y7212, (7N3511), (2W0865)	0R0916, 160-8178, (8N1728)	197-9322	8N1608, 0R3039	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	
0R1571	3408/3412 PC, 14.5:1 CR	7N3633	0R0917, 7N3229 (narrow taper)	197-9322	7N9807	8N0502 Top, 2P2817 Mid, 7N7078 Oil	160-9874	
10R3270	3408/3412E, 16:1 CR, Steel Piston	192-2209	0R0916, 160-8178	197-9322	173-0148	134-3761 Top, 192-8807 Mid, 213-7454 Oil	160-9874	
0R8200 FF	3408/3412E, 15.5:1 CR (HEUI), Gallery cooled	172-3280, (116-8152)	0R0916, 160-8178, (8N1728)	197-9322	8N1608	1W9460 Top, 2P2817 Mid, 7N7078 Oil	160-9874	FF - New piston included after package date code 12/99. Pistons 174-6102 and 172-3280 require the 168-4538 oil jet tube as. And 150-1156 oil jet bolt. Refer to SEBE7179.
0R7858	3408/3412E, 15.5:1 CR, Steel Piston	192-2208	0R0916, 160-8178, (8N1728)	197-9322	173-0148	177-7496 Top, 192-8807 Mid, 187-1507 Oil	160-9874	
10R6010	C27 16.5:1 CR	247-7791	10R5457 232-3232	197-9322	180-7350	247-6130 Top, 164-4187 Mid, 187-1507 Oil	160-9874	
10R6011	C27 18:1 CR	247-7792	10R5457 232-3232	197-9322	180-7350	247-6130 Top, 164-4187 Mid, 187-1507 Oil	160-9874	
10R6008	C32 16.5:1 CR	247-7789	10R5457 232-3232	253-8766	180-7350	223-9159 Top 238-2707 Mid 246-5659 Oil	258-8117	

10R6009	C32 15:1 CR	247-7790	10R5457 232-3232	253-8766	180-7350	223-9159 Top 238-2707 Mid 246-5659 Oil	258-8117	
0R9393	3456, 16.0:1 CR, articulated, Industrial	192-8810 (crown), 158-0446 (skirt)	0R3780, 9Y6054	132-6881	168-7246 (0R9624)	153-4101 Top, 147-1730 Mid, 139-8505 Oil	154-1642	
0R9962	3500 Long Stroke	172-0919 (Crown) 155-5271 (Skirt)	0R-9963, 203-2157	211-7826	138-8508	151-2778 Top, 144-5695 Mid, 165-6668 Oil	6V3774	
10R4378	3500 One Pc Stl	282-0644	0R9200, 161-2500, 144-0725	211-7826	263-8955	214-6066 Top, 144-5695 Int, 233-6361 Oil	6V3774	
0R7700 HH	3500 SI, 11:1 CR	126-9495	0R9200, 144-0725	211-7826	138-8506	7E7581 Top, 8N1234 Mid, 7W2221 Oil	6V3774	HH- 0R7700 uses an E.B. Welded Piston. It may be used to directly replace 6I4609 Cast Aluminum Pistons (former 0R4451 Cylinder Pack).
0R4452	3500 SI, 12:5:1 CR	134-3802	0R9200, 144-0725	211-7826	138-8506	7E7581 Top, 8N1234 Mid, 7W2221 Oil	6V3774	
0R4449	3500 SI, 8:1 CR	101-4140	10R-1537, 144-0725	211-7826	138-8506	7E7581 Top, 8N1234 Mid, 7W2221 Oil	6V3774	
0R4450	3500 SI, 9:1 CR	7E7600	10R-1537, 144-0725	211-7826	138-8506	7E7581 Top, 8N1234 Mid, 7W2221 Oil	6V3774	
0R4447 GG	3500 Vehicular 13.5:1 CR	9Y2100	0R9200, 144-0725	211-7826	138-8506	8N1233 Top, 8N7810 Mid, 7W2221 Oil	6V3774	GG - For information on piston changes and replacement options please refer to the March 6, 1995 (for liner) and August 10, 1998 Service Magazine issue (for rings updated June 4, 1999) for the article entitled, "Piston and Piston Ring Reference Chart for 3500 and 3500B Engines."
0R3841[A]	3500, 13.0:1 CR	7C2431	0R9200, 144-0725	123-8206	138-8506	8N1233 Top, 8N7810 Mid, 7W2221 Oil	6V3774	A-For information on piston changes and replacement options please refer to the March 6, 1995 (for liner) and August 10, 1998 Service Magazine issue (for rings updated June 4, 1999) for the article entitled, "Piston and Piston Ring Reference Chart for 3500 and 3500B Engines."
0R4446[GG]	3500, Ind/Mar/Gen, 13:1 CR	9Y4124	0R3036, 144-0725	211-7826	138-8506	8N1233 Top, 8N7810 Mid, 7W2221 Oil	6V3774	GG- For information on piston changes and replacement options please refer to the March 6, 1995 (for liner) and August 10, 1998 Service Magazine issue (for rings updated June 4, 1999) for the article entitled, "Piston and Piston Ring Reference Chart for 3500 and 3500B Engines."
10R4343	3500B One Pc Stl	278-0247	0R9200	211-7826	263-8955	214-6066 Top, 223-6061 Oil, 144-5695	6V3774	
0R-9007 GG	3500B, 14:1 CR, articulated	144-0720, (180-7494) (crown) 0R8718	0R9200, 144-0725	211-7826	138-8507, (177-0453)	229-1631 Top, 144-5695 Mid, 123-4268 Oil	6V3774	GG- For information on piston changes and replacement options please refer to the March 6, 1995 (for liner) and August 10, 1998 Service Magazine issue (for rings updated June 4, 1999) for the article entitled, "Piston and Piston Ring Reference Chart for 3500 and 3500B Engines."
10R4029	3512B HD, 3516B HD	10R1468	10R4030	211-7826	138-3508	144-5695 Mid, 165-6668 Oil, 229-1632	6V3774	
0R4395[D]	3176B, 300-365Hp, 16:1 CR	4P5852 (0R4799) (crown) 101-2042 (183-2915) (skirts)	0R2929, 113-8984	6I3550	197-9335	168-7212 Top, 109-5319 Mid, 4P1659 Oil	1—4P9388 1—6I3549	D-An engine overhaul kit (0R8216) is also available for this engine
10R5454	C9	238-2701 (Crown) 238-2709 (Skirt)	160-8199 (10R2037)	190-3562	166-3648	197-9392 Top 161-3424 Mid	167-0024	

						168-7211 Oil		
10R6213	C9	262-0731	10R6211 256-9658	267-6686	238-2731	300-1319 Top 262-2888 Mid 262-2891 Oil	267-6686	
10R4402	C9 17:1 CR	197-9345 (Crown) 238-2709 (Skirt)	168-8199 10R2037	190-3562	166-3847	197-9299 Top 161-3425 Mid 168-7209 Oil	167-0024	
10R6013	C9 16.1:1 CR	265-1401 (Crown) 238-2709 (Skirt)	168-8198 10R2037	190-3562	166-3648	197-9392 Top 161-3424 Mid 168-7211 Oil	167-0024	
0R8778	C-10, 16:1 CR	133-7098 (187-9739) (crown) 101-2042 (183-2915) (skirt)	0R8188, 155-6629	148-2125	197-9335	168-7212 Top, 109-5319 Mid, 4P1659 Oil	104-3560	
10R1502	C-10, 16:1 CR	197-9358 (crown) 101-2042 (183-2915) (skirt)	0R8188, 155-6629	148-2125	197-9335	168-7212 Top, 197-9249 Mid, 4P1659 Oil	104-3560	
0R8187	C-10, 16:1 CR and 3176	4P5852 (0R4799) (crown) 101-2042 (183-2915) (skirt)	0R8188, 155-6629	148-2125	197-9335	168-7212 Top, 109-5319 Mid, 4P1659 Oil	104-3560	
10R2138	C11	197-9381	10R4299, 10R2788, 160-8192, 223-9133	197-9330	197-9327	197-9341 Top, 197-9257 Mid, 238-2704 Oil	104-3560	
0R8189	C-12, 16:1 CR, 1YN	187-9740, (crown)187-5284 (skirt)	0R8190, 113-9016	148-2130	197-9251	197-9341 Top, 216-8570 Mid, 238-2704 Oil	104-3560	
0R8777	C-12, 16:1 CR, 9NS	188-0201, (crown), 187-5284 (skirt)	0R8190, 113-9016	148-2130	197-9251	197-9341 Top, 216-8570 Mid, 238-2704 Oil	104-3560	
10R2274	C9 17:1 CR	10R2273, 197-9345 (Crown), 238-2709 (Skirt)	10R2037, 160-8198	166-3648	197-9392 Top, 161-3424 Mid, 168-7211 Oil			
10R1501	C-12, 16:2 CR, MBL	197-9374 (crown)187-5284 (skirt)	0R8190, 113-9016	148-2130	197-9251	197-9341 Top, 216-8570 Mid, 238-2704 Oil	104-3560	
10R2139	C13	197-9383	10R4300, 10R2789, 160-8229, 223-9150	197-9330	197-9327	197-9341 Top, 197-9257 Mid, 238-2704 Oil	104-3560	
10R6014	C13 17:1 CR	267-2068	223-9150 10R2789	197-9330	197-9327	238-2717 Top 197-9257 Mid 265-1113 Oil	104-3560	
10R6012	C13 17:1 CR	265-1313	223-9150 10R2789	197-9330	197-9327	295-5421 Top 197-9257 Mid 265-1113 Oil	104-3560	
10R6214	C13 17:1 CR	286-7208	223-9150 10R2789	197-9330	197-9327	295-5421 Top 300-3086	104-3560	

						Mid 265-1113 Oil		
0R3756 [B]	D342	7N1366	0R1076 for 4S6867 (D/G)	8N5676	7N9809, (177-0455)	8N5654 Top, 6N5026 Mid, 3H0811 Oil	5P9221 kit	B-D8H 46A12099 - up
0R3758	D343	9N2874	0R0925, 3S8285 (D/G)	126-0739	7N9806, (0R-3040)	8N0502 Top. 2P2817 Mid, 7N7078 Oil	5P8789 kit	
0R3299	D346, 348/349, Even Cyl	8N0931	0R3300 (serrated), 4N9002 (D/G)	6N8700, 126-0739	7N9808, (177-0454)	8N0502 Top, 2P2817 Mid, 7N7078 Oil	5P8789 kit	
0R3297	D346, 348/349, Odd Cyl	8N0931	0R3298 (serrated), 4N9001 (D/G)	6N8700, 126-0739	7N9808, (177-0454)	8N0502 Top, 2P2817 Mid, 7N7078 Oil	5P8789 kit	
0R4283	D353	3S-5501, 7N4515 Rectangular	0R0924, 9S8492 (D/G)	8N9174	7N9810, (177-0456)	9S7507 Top, 3S4059 Mid, 1W5061 Oil	5P8970 kit	
0R3296	D353	7N5036[A] Keystone	0R0924, 9S8492 (D/G)	8N9174	7N9810, (177-0456)	1N3592 Top, 6N6640 Mid, 1W5061 Oil	5P8970 kit	A-7N5036 piston body with Keystone rings is recommended for all vehicular diesel applications. For vehicular engines with the 7N4515 piston body, changing all pistons to the 5N5036 piston is recommended. CAUTION: Do not mix 5N5036 and 7N4515 pistons in the same engine. Cores returned with the 7N4515 pistons are eligible for full core deposit refund.
0R3037	D379/ 398/399 Diesel	7N4515	0R0921, 1P0009, 1S4618, 4L3840 [C]	8N9174	7N9810, (177-0456)	9S7507 Top, 3S4059 Mid, 1W5061 Oil	5P8970 kit	C-4L3840 is a non-serrated rod. Do not mix serrated rods (0R0921; 1P0009, and 1S4618) in same engine. 4L3840 is acceptable for full core refund.
0R9599	G3408/3412 SI, 11.4:1 CR	160-7992	0R0916, 160-8178, (8N1728)	197-9322	8N1608, 0R3039	150-4789 Top, 150-4791 Mid, 150-4792 Oil	160-9874	
0R9598	G3408/3412 SI, 8.5:1 CR	160-7994	0R0916, 160-8178, (8N1728)	197-9322	8N1608, 0R3039	150-4789 Top, 150-4791 Mid, 150-4792 Oil	160-9874	
0R8109	G3408/3412 SI, 9.5:1 CR	4P8996	0R0916, 160-8178, (8N1728)	197-9322	8N1608, 0R3039	150-4789 Top, 150-4791 Mid, 150-4792 Oil	160-9874	
0R3286	G379/398 Spark Ignited 10:1 CR	3S1826	0R0921, 1P0009, 1S4618, 4L3840 [C]	8N9174	7N9810, (177-0456)	9S7507 Top, 3S4059 Mid, 1W5104 Oil	5P8970 kit	C-4L3840 is a non-serrated rod. Do not mix serrated rods (0R0921; 1P0009, and 1S4618) in same engine. 4L3840 is acceptable for full core refund.
0R3285	G379/398 Spark Ignited 7:1 CR	3S1824	0R0921, 1P0009, 1S4618, 4L3840 [C]	8N9174	7N9810, (177-0456)	9S7507 Top, 3S4059 Mid, 1W5104 Oil	5P8970 kit	C-4L3840 is a non-serrated rod. Do not mix serrated rods (0R0921; 1P0009, and 1S4618) in same engine. 4L3840 is acceptable for full core refund.

Model	Remanufactured Piston Pack Part Number	Piston	Rod	Piston Pin	Rings	Footnotes
3044	10R7708	2344814	1039680	2344815	2268204 Group	
3044	10R7709	2344816 SS	1039680	2344815	2388281 Group	SS - 0.5mm oversized piston
3044	10R7710	2344817 RR	1039680	2344815	2388280 Group	RR - 0.25mm oversized piston
3046	10R7717	1070984	1039680	2344815	1032857 Group	
3046	10R7712	1078255 RR	1039680	2344815	1032858 Group	RR - 0.25mm oversized piston
3046	10R7713	1078256 SS	1039680	2344815	1032859 Group	SS - 0.5mm oversized piston
3046	10R7717	1078366	1039680	2344815	1032857 Group	
3046	10R7719	1282952	1039680	2344815	2268204 Group	
3046	10R7717	1283295	1039680	2344815	1032857 Group	

3046	10R7717	1606600	1039680	2344815	1032857 Group	
3046	10R7719	2007904	1039680	2344815	2268204 Group	
3046	10R7719	2254284	1039680	2344815	2268204 Group	
3064 & 3066	10R7720	2977753	5I7668	0947134	1786543 Group	
3064 & 3066	10R7721	2977760 RR	5I7668	0947134	1786544 Group	RR - 0.25mm oversized piston
3064 & 3066	10R7722	2977761 SS	5I7668	0947134	1786545 Group	SS - 0.5mm oversized piston
3064 & 3066	10R7723	2128484	5I7668	0947134	1786543 Group	
3064 & 3066	10R7724	2128485 RR	5I7668	0947134	1786544 Group	RR - 0.25mm oversized piston
3064 & 3066	10R7725	2128486 SS	5I7668	0947134	1786545 Group	SS - 0.5mm oversized piston
3064 & 3066	10R7726	2977752	5I7668	0947134	5I7538 Group	
3064 & 3066	10R7727	2977758 RR	5I7668	0947134	5I7790 Group	RR - 0.25mm oversized piston
3064 & 3066	10R7728	2977759 SS	5I7668	0947134	5I7791 Group	SS - 0.5mm oversized piston
3116	0R9870 LL	7C5668	0R2741, 2W9128, 213-3193	7C0115, (177-0459)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116	0R9871 LL	6I1144	0R2741, 2W9128, 213-3193	7C0115, (177-0459)	107-7787 Top, 4P1807 Mid, 4P1806 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116	0R9873 LL	7E3428 (swirl)	0R2741, 2W9128, 213-3193	7C0115 (177-0459)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116	0R9874 LL	115-4124	0R2741, 2W9128, 213-3193	7C0115 (177-0459)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116	0R9876 LL	105-1710	0R2741, 2W9128, 213-3193	7C0115 (177-0459)	107-7787 Top, 4P1807 Mid, 4P1806 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116 15.5:1	0R9872 LL	7E1298	0R2741, 2W9128, 213-3193	7C0115, (177-0459)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116 15.5:1	0R9875 LL	9Y7452	0R2741, 2W9128, 213-3193	7C0115 (177-0459)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116 17.0:1	0R9878 LL	107-7563	0R2741, 2W9128, 213-3193	7C0115 (177-0459)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
3116 18.0:1	0R9877 LL	101-4495	0R2741, 2W9128, 213-3193	7C0115 (177-0459)	100-4295 Top, 4P1807 Mid, 4P1806 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
C7 High Hp One Pc Stl	10R1930 NN	238-2720	0R2741, 2W9128, 213-3193	197-9371	197-9386 Top, 197-9353 Int, 238-2706 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.

C7 Low Hp Aluminum	10R1929 NN	238-2698	0R2741, 2W9128, 213-3193	168-7224	197-9386 Top, 167-9353 Int, 197-9354 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
C7 16.5:1 CR	10R6414 NN	278-0574	0R2741 213-3193	193-9371	299-7612 Top 266-3110 Mid 238-2743 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
C7 16.5:1 CR	10R6264 NN	262-9288	0R2741 213-3193	168-7224	299-7612 Top 266-3110 Mid 238-2743 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
C7 16.5:1 CR	10R6212 NN	262-7330	10R6210 259-3230	238-2735	299-7612 Top 266-3110 Mid 238-2743 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.

Remanufactured Piston Pack Part Number [A]	Model	Crown (Skirt)	Rod	Piston Pin	Rings	Footnotes
0R9882LL	3116 16:01	6I4248, (107-7791), 0R-2543 (0R-2542)	0R2741, 2W9128, 213-3193	7C3901, (177-0458)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
0R9891B	3116 16:01	183-6340, 115-4088 (107-7791), (0R-2542)	0R2741, 2W9128, 213-3193	7C3901 (177-0458)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
0R9880LL	3116 16.7:1	6I1210, (107-7791), 0R8205, (0R-2542)	0R2741, 2W9128, 213-3193	7C3901, (177-0458)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
0R9886 LL	3116 16.7:1	107-7545, (107-7791), 0R-8206, (0R-2542)	0R2741, 2W9128, 213-3193	7C3901 (177-0458)	107-7787 Top, 7E5786 Mid, 7C5232 Oil	LL -Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
0R9892 LL	3116 16.7:1	142-7307 (107-7791), 183-6341, (0R-2542)	0R2741, (107-7791), 213-3193	7C3901, (177-0458)	107-7787 Top, 4P1807 Mid, 4P1806 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
0R9890 LL	3116 17:01	107-7852 (107-7791), 183-6339, (0R-2542)	0R2741, 2W9128, 213-3193	7C3901 (177-0458)	107-7787 Top, 100-4297 Mid, 4P1806 Oil	LL -Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
0R9888 LL	3116 17.55:1	107-7553 (107-7791), 0R-4434, (0R-2542)	0R2741, 2W9128, 213-3193	7C3901 (177-0458)	107-7787 Top, 4P1807 Mid, 4P1806 Oil	B-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
0R9884 LL	3116 18:01	105-1720 (107-7791), 0R-2544, (0R-2542)	0R2741, 2W9128, 213-3193	7C3901, (177-0458)	107-7787 Top, 100-4297 Mid, 4P1806 Oil	LL-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should sleeving of the block be necessary, the sleeve for the 3114/16 engine is 7C6208. A remanufactured bare block is also available for replacement of the 149-5403 block. The bare block part number is 0R3317.
0R9894 NN	3126 15:01	164-6556 (115-4083), 183-6343, (183-6413)	0R2741, 2W9128, 213-3193	168-7226 (177-0460)	132-5246 Top, 115-4102 Mid, 107-7566 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
0R9895 NN	3126 16:01	133-5044 (115-4083), 10R-0763, (183-6413)	0R2741, 2W9128, 213-3193	168-7226, (177-0460)	132-5246 Top, 107-7630 Mid, 107-7566 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.

0R9896 NN	3126 16:01	144-3444 (115-4083), 183-6345 (183-6413)	0R2741, 2W9128, 213-3193	168-7226, (177-0460)	119-3011 Top, 107-7630 Mid, 107-7566 Oil	JJ - The 0R9941 connecting rod is a 0.010" oversized crank bore version of the 0R-0921. It is sold outright with no core required. Applicable bearings for this rod are as follows: 8N7773 for 0.025" undersize crank, 8N7774 for 0.050" undersize crank.
0R9893 NN	3126 17:01	133-4983 (115-4083) 183-6342, (183-6413)	0R2741, 2W9128, 213-3193	168-7226 (177-0460)	132-5246 Top, 107-7630 Mid, 107-7566 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
0R9897NN	3126 16:01	150-4621 (115-4083), 183-6346, (183-6413)	0R2741, 2W9128, 213-3193	168-7226, (177-0460)	119-3011 Top, 107-7630 Mid, 107-7566 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.
10R0650 NN	3126 16.1:1 Aluminum	238-2729	0R2741, 2W9128, 213-3193	168-7224	197-9386 Top, 197-9277 Mid, 197-9354 Oil	NN-Piston Packs are designed to be used in engines with standard sized cylinder bores. Please refer to your engine's Disassembly & Assembly manual, Caterpillar Reuse guidelines and Special Instruction REHS0752 for specific instructions. Should Sleeving of the block be necessary, the sleeve for the 3126 is 107-7604.

Model	Remanufactured Rod Part Number	New Rod Part Number	Bearing (Standard Crank)	Bearing (First Grind Crank)	Bearing (Second Grind Crank)	Footnotes
1100/3100	0R0767	9N8002	9N5923	9N5925	9N5926	
3114/3116	0R2741	2W9128, 213-3193	7W9415 KK	7C6977	N/A	KK- Part numbers are for kits of six individual bearing sets for each application.
3176	0R2929	113-8984, (4P2232), (9Y1171)	4P8167	7E7721	N/A	
3204	0R3274	8N3753	8N6308	1N3822	1W3906	
3208	0R0768	9N0407	7E7894	9N5921	9N5922	
3208	0R0820	7E4728, (1W2961)	7E7894	9N5921	9N5922	
3306	0R0914	8N1721	4W5739	8N8222	8N8223	
3306	0R0915	8N1984	4W5739	8N8222	8N8223	
3406/3456	0R0718	7N3231	9Y9497 (9Y6188 KK)	4W5702	4W5703	KK- Part numbers are for kits of six individual bearing sets for each application.
3408/3412	0R0916	160-8178 (9N1728)	9Y9497	4W5702	4W5703	
3408/3412	0R0917	7N3229	9Y9497	4W5702	4W5703	
3500	0R9200	144-0725	1W7538	4W5709	4W5710	
3500 Long Stroke	10R4030	203-2157	1W7538	4W5709	4W5710	
3606/3608 In-line	0R3282	263-1852	4W6502	7W1040	7W1041	
3612/3616	0R3283	263-1853	4W6502	7W1040	7W1041	
C-9/C9	10R2037	160-8199	213-3190	N/A	N/A	
C9	10R6211	256-9658	269-7290	N/A	N/A	
C-10	0R8188	155-6629	119-3782	128-0390	128-0391	
C-12	0R8190	113-9016	116-1089	128-0395	128-0396	
C15	10R2117	224-3245	224-3246	224-3235	224-3236	
C-15/C-16	0R0905	8N1726	9Y9497 (9Y6188 KK)	4W5702	4W5703	KK- Part numbers are for kits of six individual bearing sets for each application.
C-15/C-16	0R3780	9Y6054	9Y7735 (117-5973 KK)	7E0558	7E0559	KK- Part numbers are for kits of six individual bearing sets for each application.
C-15/C-16	0R3781	7E5996 (9Y6044)	9Y7735 (117-5973 KK)	7E0558	7E0559	KK- Part numbers are for kits of six individual bearing sets for each application.
C27/32	10R5457	232-3232	232-3226	N/A	N/A	
D342	0R1076	4S6867	8N7933 KK	8N7934	8N7935	KK- Part numbers are for kits of six individual bearing sets for each application.
D343	0R0925	3S8285	7W2136 KK	8N5339	8N5338	KK- Part numbers are for kits of six individual bearing sets for each application.
D346/D348	0R3298	4N9001	1W8539	4W5693	4W5694	
D346/D348	0R3300	4N9002	1W8539	4W5693	4W5694	
D353	0R0924	9S8492	1N4336 KK	1N4337	1N4338	KK- Part numbers are for kits of six individual bearing sets for each application.
D379/D398	0R0921	1P0009	8N7769	8N7770	8N7771	
D399, G379/G398	0R9941 JJ	N/A	8N7772	8N7773	8N7774	JJ - The 0R9941 connecting rod is a 0.010" oversized crank bore version of the 0R-0921. It is sold outright with no core required. Applicable bearings for this rod are as follows: 8N7773 for 0.025" undersize crank, 8N7774 for 0.050" undersize crank.

3500 Engines and Short Blocks

General Service Information GU08-13

CAT® *Technical Supplement*

August 2008

3500 Engines and Short Blocks

Engine Configurations and "Updates"

Cat Remanufactured 3500 Engines may require modifications and additional parts for installation. To determine the correct Reman engine for each application, refer to the machine model and new engine arrangement number in the engine application chart on the following page. Caution: Some Reman engines are serviced at a slightly different level than their new engine counterparts. The new engine may not include a fan drive, for example, when the Reman engine does. If in doubt about the exact consist of a Reman engine, consult your dealership technical coordinator. Another source of information is the Reman "Hot Line" (in North America) on 1-888-88-REMAN.

Cat Remanufactured engines are remanufactured to the latest critical engineering changes. Customers will receive the most technically advanced engine available at time of engine remanufacture. Critical engineering changes incorporated into the Reman engine may require machine modifications at the time of engine installation. Search the latest service literature for the engine model being purchased (especially Service Magazine articles) and read any Installation Special Instructions shipped with the engine. Together, the service literature and Special Instructions will tell what engineering updates are included in the Reman engine and what modifications may need to be made to the machine before engine installation.

To look up replacement parts for a Remanufactured engine, refer to the new engine serial prefix and arrangement numbers. New parts are directly interchangeable unless the block has been bored or the crankshaft remachined undersized. The corresponding new engine arrangement number can be found on the Reman engine block identification plate. The engine block identification plate also includes the crankshaft rod and main journal sizes for each engine.

"Future Dated Orders" (FDO) vs. :Distribution" (Dist.) engines

Reman "Future Dated Orders" (FDO) 3500 engines will ship from the Caterpillar engine plant (Lafayette, Indiana) 90 days after the order is received by Caterpillar. Reman "Distribution" (Dist.) engines ship immediately from stock, using normal Cat parts distribution procedures.

Retrofitting newer engines to older machines

Reman is often used to update older machines in the field. When a Reman 3500 engine is used to update an older machine, the pricing logic is as follows: Dealers are charged the purchase price and core charge for the engine purchased. Dealers receive the core refund for the core returned. For example: MIU (Mechanical Unit Injection) engine cores are eligible for full MUI core deposit refund when purchasing a Reman EUI (Electronic Unit Injection) engine, subject to normal core acceptance criteria. The MUI core refund may be slightly less than the EUI core deposit. See the Core Acceptance Criteria for 3500 Engines (SELD0164) and EUI retrofit Special Instructions (777B-SEHS9690, 785-SEHS9688, 789- SEHS9674, and 793-SEHS9686) for detailed conversion information.

Former MAO Options

Effective January 1, 2004, the "Made As Ordered" (MAO) prgram was cancelled. It has been replaced with the "Future Dated Order" (FDO) program. The "MAO" program offered the ability to order engine arrangements in different paint stock colors, please note this option is no longer available in the new program. In addition, factory installed MAO attachments are no longer available. Service parts will need to be ordered through the normal distribution channels.

Engine Model	New Arrangement Number	Reman Part Number (c)	Net HP	RPM	Gross Weight (lbs)	Cubic Inch Dimensions (HxWxL)	Perform Specs	Serial Number Prefixes Machine	Serial Number Prefixes Engine New
3508 EUI DITA	6I2758	0R3985	700	1750	11270	86x67x92	2T6721	5ZL	7YG
3516 EUI DITA	100-6339	0R3986	1468	1750	18440	86x67x136	2T6722	7LL	2PK
3508B	135-0135	0R8552	800	1750	11270	86x67x92	2T9685	4CS	2GR
3508B	163-2630	0R9843	800	1750	11270	86x67x92	0K3637	4CS	2GR
3516B HD	157-2835	0R8558	1554	1750	18440	86x67x136	OK3644	4HZ	7TR
3508 MUI DITA	2W0174	0R3951b	870	1750	11270	86x67x92	2T5443	6JC	99W
3508 EUI DITA	7E9078 121-5777	0R3981	870	1750	11270	86x67x92	2T5357	2TK	7YG
3508B	104-4777	0R8551	939	1750	11270	86x67x92	2T9101/2	5ER	2GR
3508B	155-0537	0R9841	939	1750	11270	86x67x92	0K3634/5	AFS	2GR
3508B	195-3816	10R-5596	1000 920	1750 1750	11270	86X67X92	0K8108 0K8109	AFS	2GR
3508 MUI DITA	2W0174	0R3951b	870	1750	11270	86x67x92	2T5443	4YC	99W
3508 EUI DITA	7E9078 121-5777	0R3981	870	1750	11270	86x67x92	2T5357	4XJ	7YG
3508B	104-4777	0R8551	939	1750	11270	86x67x92	2T9101/2	3PR	2GR
3508B	155-0537	0R9841	939	1750	11270	86x67x92	0K3634/5	AGC	2GR
3512 EUI DITA	7E9079 121-5785	0R3982	1290	1750	13740	86x67x114	2T5358	5RK	4WJ

3512B	175-5285	0R9844 d	1348	1750	13740	86x67x114	0K3638/9	2PZ1-105	8BR605-940
3512 MUI DITA	1W5220	0R3952b	1290	1750	13740	86x67x114	2T4444	8GB	96Z
3512 EUI DITA	7E9079 121-5785	0R3982	1290	1750	13740	86x67x114	2T5358	6HK	4WJ
3512B	100-8085	0R8554	1348	1750	13740	86x67x114	0K0584 0K6372	1HW	8BR
3512B	175-5285	0R9844 d	1348	1750	13740	86x67x114	0K3638/9	APX1-450	8BR605-940
3512B	175-5285	10R6700 g	1348	1750	13740	86x67x114	0K3838/9	APX	8BR
3516 MUI DITA	2W3691	0R3953b	1705	1750	18440	86x67x136	2T5445	9ZC	54Z
3516 EUI DITA	7E9080 121-5789	0R3983	1705	1750	18440	86x67x136	2T5359	7EK	2PK
3516 EUI DITA	156-6250	0R9583 d	1705	1750	18440	86x67x136	2T5359	7EK	2PK
3516B	100-8089	0R8556d	1790	1750	18440	86x67x136	0K0584 0K6371	2BW1-658	7TR1-1435
3516B	175-5289	0R9845d	1790	1750	18440	86x67x136	0K3640/1	2BW1-658	7TR1-1435
3516B High Altitude	246-5600	10R2854	1690	1750	18440	86x67x136	0K5847	2BW1-658	8WM
3516B	175-5289	10R6702 g	1790	1750	18440	86x67x136	0K2122/3	2BW1-658	7TR
3516 MUI DITA	9Y8881	0R3954	2057	1750	19640	86x67x136	2T5446	3SJ	54Z
3516 EUI DITA	7E6499 121-5793 155-0530	0R3959	2057	1750	19640	86x67x136	2T5360	1HL	2PK
3516 EUI High Altitude	155-0538	0R9659	2057	1750	19640	86x67x136	0K1302	1HL	2PK
3516B HD Without fan drive	N.A.	10R0946e	2057	1750	19640	86x67x136	0K3677	1HL	N.A
3516B Freeport	167-9570	0R9551d	2166	1750	19640	86x67x136	0K1303 0K1304	4AR 4GZ	7TR
3516B HD Without fan drive d	147-0797	0R7568d f	2166	1750	19640	86x67x136	0K3572/3	4AR	8WM
3516B HIGH ALT. Without fan drive d	187-4593	10R2851 d	2166	1750	19640	86x67x136	0K1303/4	4GZ ATY	7TR
3516B HIGH ALT. Without fan drived	100-8093	0R8842	2166	1750	19640	86x67x136	2T9416/7	4AR	7TR
3516B HIGH ALT. Without fan drived	147-0793	0R8842	2166	1750	19640	86x67x136	2T9416/7	4GZ	7TR
3516B HIGH ALT. Without fan drived	156-6240	0R9558d	2166	1750	19640	86x67x136	0K1303/4		7TR
3516B LOW ALT. Without fan drived	100-8093	0R8557	2166	1750	19640	86x67x136	2T9416/7	4AR	7TR
3516B LOW ALT. Without fan drived	147-0840	0R8557	2166	1750	19640	86x67x136	2T9416/7	4GZ	7TR
3516B LOW ALT. Without fan drived	156-6230	0R9557d	2166	1750	19640	86x67x136	2T9416/7		7TR
3516B HD Emissions	235-0300	10R-2852	2415 2270 2160	1750 1750 1750	19640	86X67X136	0K5842 0K5843 0K5844	FDM	8WM
3524B HD	136-3200 186-4797	0R8668	3400	1750	35670	94x92x198	0K6347	5YW	3TN
3524B HD	209-5260 213-6610	10R1433	3550	1750	35670	94x92x198	0K6349	JSM	3TN
3524B HD	209-5259 213-6600	10R1676	3550	1750	35670	94x88x198	0K6348	JSM	3TN
3508B	161-1592	0R9842	801	1750	11270	86x67x92	0K3636	AMP	2GR
3508B	107-8762	0R8553	801	1750	11270	86x67x92	2T9684	7HR	2GR
3508B	161-1592	0R9842	801	1750	11270	86x67x92	0K3636	ADZ	2GR
3516 MUI DITA	9Y9200	0R3955	1250	1600	18440	86x67x136	2T5447	9YF	54Z
3516B	100-8094	0R8555	1307	1600	18440	86x67x136	0K0775	3TZ	7TR
3516B HD	240-7750	10R-2853	1577	1600	18440	86X67X136	0K5845	442	8WM
3508 EUI DITA	7E9077 127-4511	0R3980	770	1800	11270	86x67x92	2T5356	4HK	7YG
3508 MUI DITA	8N9602 147-0811	0R3950	770	1800	11270	86x67x92	2T5402	74Z	99W
3508 EUI DITA	127-4511	0R3980	770	1800	11270	86x67x92	2T5356	8ZR	7YG
3508 B	100-8111	0R8550	850	1800	11270	86x67x92	2T9969	9TR	2GR
3508B	155-5556	0R9840	850	1800	11270	86x67x92	OK4747	7PZ	2GR
3508 B	100-8111	0R8550	850	1800	11270	86x67x92	2T9969	9XR	2GR
3508B	155-5556	0R9840	850	1800	11270	86x67x92	OK4747	AAF	2GR
Engine Model	**Usage**	**Piston, Rod Configuration**							
3512B	Prime Product Commercial	101-0829 281-6139							
3508B	Prime Product Commercial	101-0829 281-6139							
3516B	Prime Product Commercial	101-0829 281-6139							

Notes

a- Non-North American Dealers must provide complete shipping instructions, including port of entry, when they place the FDO order with their assigned Caterpillar Distribution Center.

b- Reman engines have limited thermal heat shielding. Earlier serial numbered engines and vehicles have full thermal heat shielding. Refer to Special Instructions SEHS9256 to modify full heat shield vehicles to limited heat shield applications. In addition to several modifications, a fire suppression system is recommended if

not already equipped. FAILURE TO COMPLY COULD LEAD TO PHYSICAL INJURY OR A FIRE HAZARD.
c- Includes engine stand part numbers 3508- 0R3874, 3512- 0R3904, 3516- 0R3914, or 3524- 188-4440 Engine cores must be returned on the stand the reman engine shipped on.
d- These engines are shipped with a TF-1000 air compressor.
e- Engine is 793B upgrade to 3516B HD engine. Reference IRM PELJ0954 for information regarding 793B upgrade to 3516B HD engine.
f- Engine maybe used to upgrade an older 793C to 3516B HD engine. Reference IRM PELE0872 for information regarding 793C upgrade to 3516B HD engine.
g- These engines are shipped with 2-cylinder air compressor

Reman 3500 Engine Special Instructions and Other Media

Correct installation is essential for proper performance and longevity. Please review REHS0082, "Mining Truck Major Component Removal and Installation Enhancement".

Media Common to all 3500 Reman Engines

These publications are shipped with every Reman 3500 engine.

Envelope	01-755-82719
Core Acceptance Criteria	SELD0164
Core Credit Request/Packing List	01-84927
Engine Delivery Service Record	01-83995
Lubrication Recommendations	SEBU6250
Torque Specifications	SENR3130

Some of the following application-specific service literature may be shipped with each Cat Remanufactured 3500 Engine.

Document	Title
REHS0130	Procedure to Retrofit 3516B EUI Engine In 793B Off-Highway Trucks equipped with Vital Information Management System (VIMS)
REHS0203	Converting the Engine from the IMRM Radiator Configuration to the Folded Core Radiator Configuration for Use in the D11 Track Type Tractors
SEBU5596	Identification Number Location Guide
SEBU6019	D11N Track Type Tractor
SEBU6024	776B and 777B Off-Highway Tractor and Truck
SEBU6039	789 Off-Highway Truck
SEBU6092	785 Off-Highway Truck
SEBU6329	994 Wheel Loader
SEBU6333	793 Off-Highway Truck
SEBU6407	776C and 777C Off-Highway Tractor and Truck
SEBU6517	784B and 785B Off-Highway Truck/Tractors
SEBU6518	789B Off-Highway Truck
SEBU6519	793B Off-Highway Truck
SEBU6551	5130 Excavator
SEBU6670	D11N Track Type Tractor
SEBU6737	5230 Excavator
SEBU6757	776D Off-Highway Tractor & 777D Off-Highway Truck
SEBU6995	793C Off-Highway Truck
SEBU7103	D11R Track-Type Tractor
SEHS8830	Governor and Decelerator Control Linkage Modification
SEHS8863	Installation of 8W7507 Off-Highway Truck Engine Overspeed Warning Indicator Group
SEHS9227	Installation of Switches/Sensors with Sure-Seal Connectors
SEHS9241	Operator Instruction Card for the Automatic Ether Injection System (AEIS)
SEHS9256	Thermal Heat Shield Removal
SEHS9257	Installation of Overspeed Monitoring System
SEHS9293	Installation of Automatic Ether Injection System
SEHS9329	Installation of Automatic Ether Injection System
SEHS9340	Jacket Water Heater Installation Procedures
SEHS9375	Installation of Elevated Low Idle Control on 785 and 789 Trucks
SEHS9397	Installation of Multipoint Pressure Sensing System (MPPS) Version of Automatic Ether Injector System (AEIS)
SEHS9398	Installation of Multipoint Pressure Sensing System (MPPS) Version of Automatic Ether Injector System (AEIS)
SEHS9399	Installation of Multipoint Pressure Sensing System (MPPS) Version of Automatic Ether Injector System (AEIS)
SEHS9628	Installation of 0R3950 and 0R3960 3508 (MUI) Remanufactured Engines in D11N Off-Highway Tractors
SEHS9629	Installation of 0R3951 and 0R3961 3508 (MUI) Remanufactured Engines in 776B Off-Highway Tractors and 777B Off-Highway Trucks
SEHS9630	Installation of 0R3952 and 0R3962 3512 (MUI) Remanufactured Engines in 785 Off-Highway Trucks
SEHS9631	Installation of 0R3953 and 0R3963 3516 (MUI) Remanufactured Engines in 789 Off-Highway Trucks
SEHS9632	Installation of 0R3954 and 0R3964 3516 (MUI) Remanufactured Engines in 793 Off-Highway Trucks
SEHS9633	Installation of 0R3955 and 0R3965 3516 (MUI) Remanufactured Engines in 994 Off-Highway Wheel Loaders
SEHS9634	Installation of 0R3980 and 0R3990 3508 (EUI) Remanufactured Engines in D11N Off-Highway Tractors
SEHS9635	Installation of 0R3981 and 0R3991 3508 (EUI) Remanufactured Engines in 776C/777C Off-Highway Tractors/Trucks
SEHS9636	Installation of 0R3982 and 0R3992 3512 (EUI) Remanufactured Engines in 785B Off-Highway Trucks
SEHS9637	Installation of 0R3983 and 0R3993 3516 (EUI) Remanufactured Engines in 789B Off-Highway Trucks
SEHS8895	Installation of Fumes Disposal Tube
SEHS8951	Installation of 6Y2396 Engine Enclosure Group
SEHS9173	Installation of Automatic Ether Injection System (AEIS)

3304 and 3306 Long Blocks

General Service Information

GU08-04

CAT®

Technical Supplement

August 2008

3304 and 3306 Long Blocks

Long Block Selection: General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar Remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind.

Long blocks are not available for every engine application. The long blocks we do offer can, however, be used to service many applications even though the long block does not exactly match the original engine configuration. When the consist of the Reman product offering differs from the consist of a customer's engine, only the dealer and customer can decide whether or not it makes economic sense to change the parts that differ.

It's Caterpillar's policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons which are in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs that do not use parts called for by the original parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

3300 Long Block General Information

All Reman 3300 long block offerings are of the spacer plate block design. Pre-combustion chambers are not included with the long block. If new pre-combustion chambers are needed, they must be ordered separately. Alteration of the oil supply at the rear face where the flywheel housing mounts may be necessary. Some blocks use a 1S1768 sleeve, while others use a 4B3938 plug in the oil supply hole. The flywheel housing locating dowel also varies. Some configurations use a 4L3395 and others a 2A3798 dowel. In each of these situations, the easiest way to ensure correct installation when replacing an existing block with a Remanufactured Long (or Short) Block is to use exactly the same part numbers found on the existing block. Sleeves and dowels to accommodate all applications are shipped together with the long block in a separate package. Also inspect the oil drain and supply on the right side of the block to ensure it matches the fuel injection pump supply and drain configuration.

Some long blocks are shipped with two engine oil coolers. Use the one that matches the original engine. Return both the unopened, unused oil cooler, and the customer's used oil cooler, along with the long block core. Following this rule will help avoid unnecessary add charges for missing parts.

CAUTION: DO NOT USE 3300 LONG BLOCKS IN D330C AND D333C ENGINE APPLICATIONS.

Identification of 3304

When the 0R3613 long block is used to replace a counterbore block, care must be taken to ensure the cylinder head on the long block is compatible with the old engine components. The old engine must be able to use one of the following Reman head numbers: 0R1394, 0R0821, 0R2086, 0R2674, 0R2175, 0R2672, or 0R2178. This is required because the differences between a D330C and a 3304 are difficult to distinguish. The water bypass from the cylinder head to the water pump is different. The cylinder heads are not interchangeable.

If the old engine can use any of these Reman head numbers it is a 3304 and a long block may be available based upon the cylinder pack you would use in the old engine.

The 0R3664 is a cylinder head similar to 0R2674, less the prechambers. This provides a cylinder head with inlet valves and exhaust seat inserts which are acceptable in all horsepower ranges.

Identification of 3306

When the 0R3611 long block is used to replace a counterbore block, care must be taken to ensure the cylinder head on the long block is compatible with the old engine components. The old engine must be able to use one of the following Reman head numbers: 0R1367, 0R1347, 0R1255, 0R0822, 0R2087, 0R1077, 0R2149, 0R1078, 0R2150, 0R0978, 0R2146. This is required because the differences between a D333C and a 3306 are difficult to distinguish. The water bypass from the cylinder head to the water pump is different. The cylinder heads are not interchangeable.

If the old engine can use any of these Reman head numbers it is a 3306 and a long block may be available based upon the cylinder pack you would use in the old engine.

The 0R3663 is a cylinder head similar to 0R0978, less than prechambers. This provides a cylinder head with inlet valves and exhaust seat inserts which are acceptable in all horsepower ranges.

3300 Long Block Selection:

First, make certain whether the customer's engine is a 3304 or 3306 (see the instructions and caution above). Next, determine whether it has pre-combustion chambers (PC) or direct injection (DI). Normal parts sources (parts book, microfiche, SIS, NPR, etc.) can be used to look up this information by serial number, if necessary. This will narrow down the list of long block candidates shown on the following chart.

If the customer's engine is a 3306, you will have to wait until the next step to further narrow the candidates list. Next, use normal parts sources to look up the correct current piston part number for the customer's engine. Don't forget to check NPR to make sure you are not using obsolete part numbers. If the customer's piston is not one of the numbers shown under "Piston P/N's...", Reman does not have a long block offering. If the customer's piston is shown, you should now have narrowed the candidates down to one or two columns of the chart.

Next, follow the remaining candidate columns down into the consist section of the chart. Check the camshaft, then cylinder head part numbers shown against the part numbers called for by normal parts sources to service the customer's engine. By this point you have narrowed the search down to one candidate long block part number. Now check the other part numbers listed in the same column of the consist chart. For a long block candidate to become a selection, all the part numbers listed under the long block part number should match the correct service part numbers for the customer's engine. If, at any point in the above process the Reman consist fails to match the part numbers called for to service the customer's engine, Reman does not have an offering that matches the customer's engine. You may select a long block that isnt a perfect match if you believe changing the parts that dont match is worth the time and money to do the work.

NOTE: Don't forget to read the "notes" referenced in the last column of the chart. These notes explain, among other things, important adaptability and shipping information.

Reman Long Block	0R3613**	0R-3612	0R-4944	0R-3611	0R-3706	0R-3610	0R-4946*	0R-4956**	0R7444
Applications	3304 PC Rect. Rings	3304 DI Keystone Rings	3304 DI	3306 PC Keystone Rings	3306 DI Keystone Rings	3306 DI Keystone Rings	3306 DI	3306 PC	3306 DI ATAAC (9TL)
Ref. Production Block Gp	9Y3209, 7N-5454	9Y3209, 7N-5454	9Y3209, 7N-5454	7N-8016, 4P-0623, 7N-5456, 8N-4776	8N-5286, 4P-0623, 7N-5456, 8N-4776,	9Y-3210, 4P-0623, 7N-5456, 8N-4776,	9Y-3210, 4P-0623, 7N-5456, 8N-4776	7N-8016, 4P-0623, 7N-5456, 8N-4776,	8N-5286, 4P-0623, 7N-5456, 8N-4776
Ref. Production Piston GP	9N5250, 2P-6270	129-0338, 165-4262, 8N-3102	129-0359, 164-6560, 4P-8132	9N-5403	156-8262, 168-4531, 9Y-8217	129-0338, 165-4262, 8N-3102,	164-6560, 129-0359, 4P-8132,	9N-5250, 2P-6270	107-3565
Long Block Consist									
Block Gp-Cyl **Note H**	0R-2078	0R-2080	0R-4948	0R-2555	0R-3044	0R-2556	0R-4949	0R-3259	0R-9206
Camshaft Gp-S	1N-4436	1N-4436	1N-4436	1N-4406	7E-9777	1N-4406	1N-4406	1N-4406	198-6553
Cover Gp **Note F**	2P-6530	2P-6530	2P-6530	2P-6530	2P-6530	2P-6530	2P-6530	2P-6530	2P-6530
Cover Gp-V Mech	8N-4446	8N-4446	8N-4446	8N-4745	8N-4745	8N-4745	8N-4745	8N-4745	8N-4745
Fastener Gp	7N-9534	7N-9534	7N-9534	7N-9536	7N-9536	7N-9536	7N-9536	7N-9536	7N-9536
Gear Gp-Front **Note G**	1W-5634	1W-5634	1W-5634	1W-5634	1W-4563	1W-5634	1W-5634	1W-5634	4P-9858
Head Gp-Cylinder	8N-1454	1N-4304	1N-4304	8N-1187	8N-0266 0R2549	8N-0266 0R2549	8N-0266 0R2549	0R-3663 8N-1187	0R-4599 107-7914
Lifting Gp-Eng **Note D**	6N-8326	6N-8326	6N-8326	6N-8326	6N-8326	6N-8326	6N-8326	6N-8326	6N-8326
Mechanism Gp-V	7N-8024	7N-8024	7N-8024	7N-8026	7E-9778 10R-2400	7N-8026 10R-2401	7N-8026 10R-2401	7N-8026 10R-2401	7E-9778 10R-2400
Shipped Loose Parts									
Breather As	2W-9162	2W-9162	2W-9162	2W-9162	2W-9162	2W-9162	2W-9162	2W-9162	2W-9162
Core As- Oil Clr	7N-0165	7N-0165	7N-0165	7N-0165, 7N-0110	7N-0110 0R-3501	0R-3501 7N0110	0R-3501 0R-3499 7N-0165 7N0110	0R-3501 0R-3499 7N-0165 7N0110	7N-0110 0R-3501
Pump Gp-Oil-A	6I-1346	6I-1346	6I-1346	6I-1346	0R-2560 6I-1343	0R-0920 6I-1346	0R-0920 6I-1346	0R-0920 6I-1346	0R-2560 6I-1343

* This long block does not provide coverage for engines with the 4P9857 crankshaft assembly.
** This long block can be used for 8N3180 and 8N3182 piston applications also.
D- For shipping and storage. Use the parts from the customer's original engine and return the shipping parts with the core.
F- This group is for protection during shipping and storage. The customer will remove when installing air piping.
G- The (7W-0508) fuel pump drive gear, or (9N-5760) weight assembly (used only with 0R3706), are excluded from the long block, as are their retaining bolt, and washer. If these parts need to be replaced, they must be ordered separately.

H- The crankshaft is positioned at top dead center, number one on the firing stroke, prior to shipping.

3406 and C-15 Long Blocks

General Service Information GU08-05

CAT® *Technical Supplement*

August 2008

3406 and C-15 Long Blocks

Long Block Selection General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind.

Long blocks are not available for every engine application. The long blocks we do offer can, however, be used to service many applications even though the long block does not exactly match the original engine configuration. When the consist of the Reman product offering differs from the consist of a customer's engine, only the dealer and customer can decide whether or not it makes economic sense to change the parts that differ.

It's Caterpillar's policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons which are in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs which do not use parts called for by the original parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

3406 Long Block Selection Instructions

First, decide what design era the customer's engine is from. If the engine is an original 3406 (called 3406A in the following chart), determine whether it has pre-combustion chambers (PC) or direct injection (DI). Normal parts and service sources can be used to look up this information by engine serial number, if necessary. This will narrow down the list of long block candidates shown on the following chart.

If the customer's engine is a 3406B or 3406C, you will have to wait until the next step to further narrow the candidates list. Next, use normal parts sources (parts book, microfiche, SIS, NPR, etc.) to look up the correct current piston part number for the customer's engine. If the customer's piston part number is not shown in the following "3406 Long Block Consist and Selection Chart", use NPR or other sources to find the most current part number intended to service the customer's engine.

If the customer's piston still doesn't appear in the chart, Reman does not offer a perfect service replacement long block. If you are willing to do further research, you may find a Reman long block which can be used as a service repair. The following Engine News articles may help with your research:

"Connecting Rod Changes and Replacement Information", March 12, 1980;

"Reference List of Pistons Used with the Different Types of Connecting Rods", September 10, 1980;

"New Piston Group has a Thicker Top Ring", December 15, 1982.

Don't forget to use NPR to find the most current part numbers which replace the ones shown in these old articles.

Remember, certain 3406B and all 3406C long blocks use the later 3406C-era crankshaft with matching wide taper connecting rods and thick top ring pistons. In many cases these later style parts when used in combination with each other, can be used to service earlier engines. Since the Reman long block uses pistons, rods, and a crankshaft which match each other, the only remaining concern is whether or not the improved product we offer can be used to service the customer's engine. One of the greatest concerns is verifying whether the Reman long block piston will work together with the customer's fuel system to meet applicable emissions standards in an on-highway truck application. If in doubt, don't take any chances which might affect emissions certification.

If the customer's piston or an acceptable service repair piston is shown, you should now have narrowed the candidates down to one or two columns of the chart. Next, follow the remaining candidate columns down into the consist section of the chart. Check the camshaft, then cylinder head part numbers shown against the part numbers called for by normal parts sources to service the customer's engine. By this point you have narrowed the search down to one cadidate long block part number. Now check the other part numbers listed in the same column of the consist chart. For a long block candidate to become a selection, all the part numbers listed under the long block part number should match the correct service part numbers for the customer's engine. You may select a long block which isn't a perfect match if you believe changing the parts which don't match is worth the time and money to do the work.

NOTE: Read the notes referenced in the chart. These notes explain, among other things, important adaptability and shipping information. Note "F", for example, tells about minor differences in some front housing groups which you may be willing to accept when selecting a long block.

Long Block Candidates	0R-1097	0R-3714	0R-3711	0R-3752	0R-3751	0R-4408	0R-4409	0R-0844	0R-7961	10R-1512	
Engine Design	3406E 1LW	3406A (PC)	3406A (DI)	3406B/C (Dual Spring Cyl Head)	3406B/C (Single Spring Cyl Head)	3406C (3ZJ, 2EK, 4CK)	3406C (5YG, 11N, 2EK)	3406C (41Z)	3406E (5EK, 6TS)	3406E (2WS)	
Ref. Production Block Gp	137-8467 137-8466	4N-2257, 7N-1200, 8N-9265,	2W-6039, 7N-1200, 8N-9265, 152-7648	8N9267, 108-3912, 152-7648	8N9267, 108-3912, 152-7648	4P-2098, 7E-9432, 8N-9265,	7E-9432, 108-3912	152-7648, 8N-9265, 7E-9432,	108-3919, 137-2671, 149-8799,	137-8467, 137-8466	

		152-7648				108-3912, 152-7648		108-3912	137-8466, 136-7329		
Ref. Piston Part Nos.	145-6744, 132-6663 (2-piece), 180-7352, 191-7854	7N-3633	1W-9372, 9Y-4004, 290-0017, 7W-8929, 1W-8901, 8N-1606	1W-9372, 9Y-4004, 290-0017, 7W-8929, 1W-8901, 8N-1606	1W-9372, 9Y-4004, 290-0017, 7W-8929, 1W-8901, 8N-1606	7E-8700, 7E-8656, 7E-0292	113-6045, 7E-0489	168-4540, 130-0241 (2-piece), 161-8421, 116-8154	149-5566, 130-0241 (2-piece), 1Y-3658, 116-1372, 133-7537	180-7352, 145-6744 (CROWN), 191-7854	
Long Block Consist											
Camshaft Gp-S	10R-1065	8N-9244 10R-1165	8N-9244 10R-1165	199-9784 7W-3798	8N-9244 10R-1165	199-9784 7W-3798	199-9784, 7W-3798	199-9784, 7W-3798	197-6963	10R-0165	
Drive Gp-Acc	N/A	N/A	N/A	8N-9653	8N-9653	8N-9653	8N-9653	N/A	N/A	N/A	
Fastener Gp	N/A	4N-6006	4N-6006	4N-6006	4N-6006	4N-6006	4N-6006	4N-6006	N/A	N/A	
Mechanism Gp-V-B **Note B**	197-6962 199-7738	4N-2271	4N-2271	4W-2461 or 4N-2271	4W-2461	4W-2461	4W-2461	4W-2461	148-7482	197-6962 199-7738	Note B: Crankshaft is positioned at top dead center number one on the firing stroke prior to shipping.
Gear Gp-Front **Note E**	102-8397 10R-0512	8N-9246 0R-2421	8N-9246 0R-2421	8N-9246 0R-2421	8N-9246 0R-2421	8N-9246 0R-2421	8N-9246 0R-2421	8N-9246 0R-2421	102-8397 10R-0512	124-6818 10R-1514	Note E: The oil pump drive gear, bolt and washer are not included with the long block. If these parts are needed, they must be ordered separately.
Housing Gp-Front **Note F, K**	108-4518 10R-0210	4N-3911	4N-3911	9Y-1579	1W-1468	9Y-1579	9Y-1579	7W-3656	108-4518	178-7598	Note F: The customer may need to remove the wheel stud from the front plate assembly. Form SEHS9670 is attached to the wheel stud located on the front plate assembly above the fuel pump drive area. Note K: The customer will use the front support from their removed engine. Form SEHS9667 is attached to front housing in area of front support mounting.
Lifting Gp **Note G**	111-2088 197-6470	9N-0073	9N-0073	9N-0073	9N-0073	9N-0073	9N-0073	9N-0073	111-2088	111-2088	Note G: The lifting group is for handling during installation and removal from shipping container. The customer may have to use the lifting eyes from their removed engine. Form SEHS9666 is attached to rear eye.
Cover Gp-Mech **Note H**	144-2852	7E-0333	7E-0333	7E-0333	7E-0333	7E-0333	7E-0333	7E-0333	144-2852	152-8616	Note H: Installed with seal, bases, and bolts, these valve covers are for debris protection. The customer will have to use the valve cover lids from their removed engine.
Pump Gp-Water **Note J**	135-4925	9N-3288	9N-3288	9N-3288	9N-3288	9N-3288	9N-3288	199-6530	6I-3642	199-6529	Note J: The o-ring used between the water pump inlet adapter and the water pump cover is "SHIPPED LOOSE".
Head Gp-Cyl	183-5296	4N-2260	4N-2270	4W-2436	1W-1439	4W-2436	4W-2436	199-6768	191-2446	183-5296	
Short Block Gp-Cyl **Note L**	0R-1096	0R-0715	0R-2545	0R-4812	0R-4812	0R-3811	0R-4399	0R-7943	0R-8323	10R1511	Note L: Certain 3406B long blocks may be assembled with 3406C era crankshaft, connecting rods, and pistons. This product improvement requries any future individual cylinder repairs to be made with parts which match the long block, not the original engine's consist. 3406B era parts may be used for a future repair only if they are replaced in matched sets. The pistons and connecting rods must be correct for the crankshaft being used. Different generations of pistons,

											rods, and cranks can not be mixed. A plate on the long block explains how to look up the correct parts to match the long block in the event of a future repair.
Ship Loose Parts											
Breather As	136-1602	9Y-2988	9Y-2988	9Y-2988	9Y-2988	9Y-2988	9Y-2988	4N-4668	123-7045	136-1602	
Core As-O Clr	133-0125	7C-3039	7C-3039	7C-3039	7C3039	7W-2164	7C-3039	7C-3039	133-0125	133-0125	
Pump G-F TRF	190-3442	4W-5481	4W-5481	1W-1700	1W-1700	1W-1700	1W-1700	1W-1700	139-2359	190-3442	

Note B: Crankshaft is positioned at top dead center number one on the firing stroke prior to shipping.
Note E: The oil pump drive gear, bolt and washer are not included with the long block. If these parts are needed, they must be ordered separately.
Note F: The customer may need to remove the wheel stud from the front plate assembly. Form SEHS9670 is attached to the wheel stud located on the front plate assembly above the fuel pump drive area.
Note G: The lifting group is for handling during installation and removal from shipping container. The customer may have to use the lifting eyes from their removed engine. Form SEHS9666 is attached to rear eye.
Note H: Installed with seal, bases, and bolts, these valve covers are for debris protection. The customer will have to use the valve cover lids from their removed engine.
Note J: The o-ring used between the water pump inlet adapter and the water pump cover is "SHIPPED LOOSE".
Note K: The customer will use the front support from their removed engine. Form SEHS9667 is attached to front housing in area of front support mounting.
The customer may also need to change the fan drive mounting studs. Form SEHS9668 is attached to a fan drive mounting stud.
The customer may also need to exchange the water pump gear cover with a bracket or cover from their engine. Form SEHS9669 is attached to the water pump gear cover.
Note L: Certain 3406B long blocks may be assembled with 3406C era crankshaft, connecting rods, and pistons. This product improvement requries any future individual cylinder repairs to be made with parts which match the long block, not the original engine's consist. 3406B era parts may be used for a future repair only if they are replaced in matched sets. The pistons and connecting rods must be correct for the crankshaft being used. Different generations of pistons, rods, and cranks can not be mixed. A plate on the long block explains how to look up the correct parts to match the long block in the event of a future repair.

3408 and 3412 Long Blocks

General Service Information

GU08-06

CAT®

Technical Supplement

August 2008

3408 and 3412 Long Blocks

Long Block Selection: General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind.

Long blocks are not available for every engine application. The long blocks we do offer can, however, be used to service many applications even though the long block does not exactly match the original engine configuration. When the consist of the Reman product offering differs from the consist of a customer's engine, only the dealer and customer can decide whether or not it makes economic sense to change the parts that differ.

It's Caterpillar's policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons which are not in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs, which do not use parts called for by the original parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

3408 and 3412 Long Block General Information

The 3408 and 3412 long blocks are shipped with the front cluster gears in place to maintain the timing between the camshaft and pistons to prevent damage to pistons and/or valves if the long block is rotated from its shipping location of "top dead center, number one firing." (The camshaft drive gear on these engines is not for use in engine arrangements with camshaft-driven fans.) Please reference the following Service Magazine articles for additional information:

"Fan Now Driven By Crankshaft", May 23, 1983.

"Fan Driven Conversion Group Available To Change Fans From Gear Driven to Belt Driven", October 17, 1983.

"Fan Now Driven By Crankshaft", March 8, 1985.

The 3408 long blocks incorporate the thick web/thick cheek crankshaft design found in 3408B series engines. When used together, the new style block, crank and cam will directly replace the previous style components. Some flywheel housing machining may be required to accommodate the thick cheek crankshaft (see: Service Magazine 14, December '87 and

Service Magazine 13, May '85). Since these "new style" long blocks are intended to service all 3408 engines, either style core will be accepted for full core credit.

The 3412 long blocks include the latest design (quieter-running, increased strength, straight-toothed) front gear group. Engines with the previous style helical front gear group will need the oil pump drive gear replaced with the new style gear (2W3875). The effective serial numbers for the change to the new style straight toothed valve gear group are as follows: 38S16935-Up, 60M05364-Up, 81Z1572-Up, 7DB00899-Up, 9XF00076-Up, 7315311-Up.

3408 and 3412 Direct Injection (DI) long blocks incorporate the latest wide taper connecting rods and thick top ring pistons. As of this writing, these improved parts can be be used in combination with each other, to service all 3408 DI and 3412 DI engines back to first production. Any future repairs must be made with parts, which are compatible with the long block. Please review the following Engine News articles for more information:

"Connecting Rod Changes and Replacement Information", March 12, 1980.

"Reference List of Pistons Used with the Different Types of Connecting Rods", September 10, 1980.

"New Piston Group has a Thicker Top Ring", December 15, 1982.

Don't forget to use NPR or other sources to find the most current part numbers that replace the ones shown in these old articles.

3408 and 3412 Reman long blocks are shipped with temporary valve mechanism covers and a valley cover plate (117-5974) to guard against damage and debris during shipment. Lifting eyes are also provided to assist the dealer in removing the block from its packaging. The valley cover plate, the valve mechanism covers and the lifting eyes are to be returned with the core. The valve mechanism covers and lifting eyes from the core engine should be kept for use on the new replacement Reman long block. Information tags are attached to 3408 and 3412 long blocks to remind the mechanic which parts to return.

Long Block Selection: General Information

First, decide whether the customer's engine is a 3408 or 3412 and determine whether it has pre-combustion chambers (PC) or direct injection (DI). Normal parts and service sources can be used to look up this information by engine serial number, if necessary. This will narrow down the list of long block candidates shown on the following chart.

If the customer's engine is a "DI", you will have to wait until the next step to further narrow the candidate's list. Next, use normal parts sources (parts book, microfiche, SIS, etc.) to look up the current piston part number for the customer's engine. If the customer's piston is not one of the numbers shown under "Piston P/N's...", use NPR or other sources to find the most current part number intended to service the customer's engine.

If the customer's piston still doesn't appear in the chart, Reman does not offer a perfect service replacement long block. If you are willing to do further research, you may find a Reman long block which can be used as a service repair. The following articles may help with your research.

"Connecting Rod Changes and Replacement Information" Engine News, March 12, 1980.

"Reference List of Pistons Used with the Different Types of Connecting Rods" Engine News, September 10, 1980.

"New Piston Group has a Thicker Top Ring" Engine News, December 15, 1982.

Don't forget to use NPR or other sources to find the most current part numbers that replace the ones shown in these old articles.

If the customer's piston or an acceptable service repair piston is shown, you should now have narrowed the candidates down to one or two columns of the chart. Next, follow the remaining candidate columns down into the consist section of the chart. Check the camshaft, then cylinder head part numbers shown against the part numbers called for (by normal parts sources) to service the customer's engine. By this point, you have narrowed the search down to one candidate long block part number. Now check the other part numbers listed in the same column of the consist chart. For a long block candidate to become a selection, all the part numbers listed under the long block part number should match the correct service part numbers for the customer's engine. You may select a long block which isn't a perfect match if you believe changing the parts which don't match is worth the time and money to do the work. Remember, 3408 long blocks have a thick cheek crankshaft intended to service all 3408's.

NOTE: Read the notes referenced in the chart. These notes explain, among other things, important adaptability and shipping information.

Long Block Candidates (Non Marine)	0R4274	0R4275	0R4278*	0R9355	0R4276	0R4277	0R4279	0R9360	0R-4851	0R-4853
Engine and Attributes	3408 PC	3408 DI (NOTE H)	3408 DI (NOTE G)	3408E DI	3412 PC	3412 DI (NOTE H)	3412 DI (NOTE G)	3412E DI	G3412	G3408
Ref. Production Block Gp	117-9509	117-9509	117-9509	117-9509	117-9514	117-9514	117-9514	117-9514	101-3720	105-5430
Ref. Production Piston Gp	7N-3633	9Y-7212	9Y-7212	192-2208	7N-3633	9Y-7212	9Y-7212	192-2208	160-7990	160-7990
Long Block Consist										
Head Gp-Cyl [D]	0R-4127	0R-4130	0R-9375	0R-8512	0R-4144	0R-4131	0R-9385	0R-8515	0R-9485	0R-9483
Bracket-Gp	1W-5207	1W-5207	1W-5207	N/A	1W-5207	1W-5207	1W-5207	N/A	N/A	N/A
Support-Hsg Lh	6N-6731	6N-6731	6N-6731	N/A	6N-6733	6N-6733	6N-6733	N/A	N/A	N/A
Support-Hsg	6N-6732	6N-6732	6N-6732	N/A	6N-6734	6N-6734	6N-6734	N/A	N/A	N/A
Bracket-ump	7W-8071	7W-8071	7W-8071	N/A	7W-8071	7W-8071	7W-8071	N/A	N/A	N/A
Manifold	N/A	N/A	N/A	141-6605	N/A	N/A	N/A	141-6607	N/A	N/A
Cylinder Pack	0R-1571	0R-1572	0R-1572	0R-7858 0R-8200	0R-1571	0R-1572	0R-1572	0R-7858	0R-8109	0R-8109
Crankshaft As [J]	1W-5009 or 10R-2033	1W-5009 or 10R-2033	1W-5009 or 10R-2033	1W-5009 or 10R-2033	0R-2812 or 0R-1207	0R-2812 or 0R-1207	0R-2812 or 0R-1207	0R-2812 or 0R-1207	0R-1207	0R-1221
Gear Gp-Front	7N-2840	7N-2840	7N-2840	126-7281	N/A	N/A	N/A	127-3516	4N-6341	7N-2840
Gear As-Idler	N/A	N/A	N/A	7N-7584	2W-4087	2W-4087	2W-4087	2W-4087	2W-4087	7N-7584
Gear As-Idler	N/A	N/A	N/A	7N-7584	2W-4087	2W-4087	2W-4087	2W-4087	2W-4087	7N-7584
Gear As-Idler	N/A	N/A	N/A	N/A	4W-8597	4W-8597	4W-8597	4W-8597	4W-8597	N/A
Washer-Thrust	N/A	N/A	N/A	7N-2443	7N-2443	7N-2443	7N-2443	7N-2443	7N-2443	7N-2443
Shaft-Dr Idler	N/A	N/A	N/A	117-9712	117-9712	117-9712	117-9712	117-9712	117-9712	117-9712
Balancer Gp-R	4N-1092	4N-1092	4N-1092	N/A	N/A	N/A	N/A	N/A	N/A	4N-1092
Gear Gp-Rear	4N-3825	4N-3825	4N-3825	N/A	N/A	N/A	N/A	N/A	N/A	4N-3825
Bracket Lifting [E]	7N-1751	7N-1751	7N-1751	118-8475, 118-9115	7N-1751	7N-1751	7N-1751	7N-1751	7N-1751	7N-1751
Camshaft Gp-s	4N-0963 10R-1865	4N-0963 10R-1865	4N-0963 10R-1865	108-1547	4N-0965	4N-0965	4N-0965	108-1553	4P-6894	4P-7333
Mechanism Gp. V [B]	4N-4298	4N-4298	4N-4298	108-1551	4N-7352	4N-7352	4N-7352	108-1874	104-4217	6I-0244
Base-Arm Cover [F]	4P-5022	4P-5022	4P-5022	106-9488	4P-4980	4P-4980	4P-4980	106-9488	4P-4980	4P-5022
Cover-Rocker [F]	7C-7879	7C-7879	7C-7879	114-8684	6N-2758	6N-2758	6N-2758	114-8684	6N-2758	7C-7879
Shipped "Loose"										
Breather As.	9Y-2988	9Y-2988	9Y-2988	4N-4668	9Y-2988	9Y-2988	9Y-2988	4N-4668	9Y-2988	9Y-2988
Core As – Oil Cooler	0R-5511	0R-5511	0R-5511	0R-5511	0R-5513	0R-5513	0R-5513	0R-5513	0R-5513	0R-5511
Pump Gp - Water	0R-4679	0R-4679	0R-4679	0R-4679	0R-4680	0R-4680	0R-4680	0R-4680	0R-4680	0R-4679

Seal Valve Cover	5P-3218	5P-3218	5P-3218	108-3956	5P-3218	5P-3218	5P-3218	108-3956	5P-3218	5P-3218

NOTE A- This number is for reference only. The Reman consist does not exactly match any production part.
NOTE B- Crankshaft is positioned at top dead center, number one firing, before shipment.
NOTE D- Core Plugs in rear face of Cylinder Heads may not match the customer's application. Form SEHS9776 is attached to rear of Cylinder Head.
NOTE E- The Lifting Group is for handling during installation and removal from shipping container. The customer may have to use the Lifting Eyes from the removed engine. Form SEHS9666 is attached to the Rear Eye.
NOTE F- This Valve Cover Group is for debris protection. The customer will have to use the Valve Cover Lids from the removed engine. Form SEHS9665 is attached to the Front Valve Cover Lid.
NOTE G- With 40 mm Injector Nozzle Adapters for use with later, long, thin, "PENCIL" style Fuel Injector Nozzles (Ref. Nozzle P/N's: 4W7018, 4W7019, and 4W7020). The Injector Nozzles are not included with the Long Block.
NOTE H- With 55 mm Injector Nozzle Adapters for use with short, fat, "CAPSULE" style Fuel Injectors (Ref. Nozzle P/Ns: 4W7012, 4W7013, 4W7014). For more information see: "New Cylinder Heads and Fuel Nozzle Adapters Used", Engine News, July 1985 (and Supplement:4/00/86). The Injector Nozzles are not included with the Long Block.
NOTE J- "Thick/Cheek Web" Crankshaft. This crankshaft, together with the later Cylinder Block, is intended to service early style engines. Do not reject this long block as a candidate just because the Crank and Block part numbers do not match the customer's engine. The parts in the Long Block match each other. Older Style Flywheel Housings will have to be machined to provide clearance for the thick cheek crankshaft. (see: Service Magazine 14 December '87 "Earlier Flywheel Housings Can be Modified for Use with Later Crankshafts" and Service Magazine 13 May '85 "New Crankshaft, Cylinder Block and Camshaft Used"). Heavy duty Rear Gear Group Applications will require exchanging the Rear Gear Group and/or Balancer.
* Use of 0R4278 Long Block for 988F Wheel Loaders having engine serial numbers before 48W40078 requires conversion of Front Gear Train to a helical design. Effective with engine serial number 48W40078, the Front Gear Train contains Helical Gears, and 0R4278 Long Block can be used by transferring components from the production engine, including the 4P3581 Rear Gear Group.

CATERPILLAR®

3116 Long Blocks

General Service Information

GU08-07

CAT®

Technical Supplement

August 2008

3116 Long Blocks

Long Block Selection: General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind:

Long blocks are not available for every engine application. The long blocks we do offer can, however, be used to service any applications even though the long block does not exactly match the original engine configuration. When the consist of the Reman product offering differs from the consist of a customer's engine, only the dealer and customer can decide whether or not it makes economic sense to change the parts that differ.

It's Caterpillar's policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons which are in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs which do not use parts called for by the original parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

3116 Long Block Selection

First, use normal parts information sources (parts books, microfiche, SIS, NPR, the Reman Products Guide, etc.) to look up the Reman short block intended to service the customer's engine arrangement. Next, find that short block in the following chart and read the long block part number from the top of the same column.

Next, follow the long block candidate column down into the consist section of the chart. Check the camshaft, then cylinder head part numbers shown against the part numbers called for by normal parts information sources to service the customer's engine. Don't forget to check the NPR to determine that you are using the most current part number. Now check the other part numbers listed in the same column of the consist chart. For a long block candidate to become a "selection", all the part numbers listed under the long block part number should match the correct service part numbers for the customer's engine. If, at any point in the above process the Reman consist fails to match the part

numbers called for to service the customer's engine, Reman does not have an offering that matches the customer's engine. You may select a long block, which isn't a perfect match, if you believe changing the parts, which don't match, is worth the time and money to do the work.

Miscellaneous Notes

Unlike our other long block product lines, the flywheel housing, internal oil lines, oil pan, and front housing are provided. These additional parts are included to help the dealers compete directly against the "Premium" long block offered by Navistar for their DT466 engine. These additional parts, while making a more complete package, do limit the applications which can use these long blocks without making configuration changes.

These long blocks are shipped with the front housing and gear group in place to maintain the timing between the camshaft and pistons to prevent damage to pistons and/or valves if the long block is rotated from its shipping location of "top dead center, number on firing." The valve mechanism is shipped with a cover to protect the mechanism from debris during shipment. Lifting eyes are also provided to assist the dealer in removing the block from its packaging. Valve mechanism covers and lifting eyes are to be returned with the core. If the covers and/or lifting eyes provided differ from those on the customer's core, reuse the customer's parts and return the Reman valve mechanism covers and/or lifting eyes with the engine core.

Reman Long Block	**0R4563**	**0R4564**	**0R4565**
Application	TRUCK USE ONLY Non E-Brake	TRUCK USE ONLY Non E-Brake	TRUCK USE ONLY Non E-Brake
Ref. Production Block Group	2W-9746, 105-1713, 126-5923, 129-1097, 221-4479	2W-9746, 105-1713, 126-5923, 129-1097, 221-4479	101-3242, 7E2482, 105-1713, 126-5923, 129-1097, 221-4479
Ref. Production Piston Body As	4P-1550, 101-4495	6I-1144	4P-1549, 6I-1210 (2 Piece), 7E-3226, 6I-1512
Long Block Consist			
Short Block	0R-3314	0R-3313	0R-4947
Cylinder Head Gp	10R2054, 7E4204	10R-2048, 160-5130	10R-2048, 160-5130
Camshaft Gp	7E5411, 0R4357	0R4356, 7W5426	0R4356, 7W5426
Pump Gp-Engine Oil	0R2733, 189-8777	0R2733, 189-8777	0R2733, 189-8777
Pump Gp-Water	0R3007, 4P3683	0R3007, 4P3683	0R3007, 4P3683
Gear Gp-Front	10R1118, 2W8475	10R1118, 2W8475	10R1118, 2W8475
Manifold Gp-Intake	4P-1496	4P-1496	4P-1496
Pan Gp-Oil	4P-1723	4P-1723	4P-1723
Mechanism Gp-Valve	4P1372, 10R1806	4P1372, 10R1806	4P1372, 10R1806
Lifting Eye Gp	0R9442, 7E2314	0R9442, 7E2314	0R9442, 7E2314
Lines Gp-Engine Oil	7E-2315	7E-2315	7E-2315
Housing Gp-Front	7L-0002, 10R1071	7L-0002, 10R1071	7L-0002, 10R1071
Control Gp-Fuel Injectors	7W-6989	7W-6989	7W-6989

Cover Gp	7W9847, 0R4546	7W9847, 0R4546	7W9847, 0R4546
Housing Gp-Flywheel	198-7251, 9Y6683	198-7251, 9Y6683	198-7251, 9Y6683
Cover Gp-Valve Mechanism	10R1778, 9Y9507	10R1778, 9Y9507	10R1778, 9Y9507
Ship Loose Parts			
Breather Gp	2W-9162	2W-9162	2W-9162
Core As-Oil Cooler	0R8839, 187-8595	0R8839, 187-8595	0R8839, 187-8595

3208 Long Blocks

General Service Information

GU08-05

CAT®

Technical Supplement

August 2008

3208 Long Blocks

Long Block Selection: General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind.

Long blocks are not available for every engine application. The long blocks we do offer can, however, be used to service many applications even though the long block does not exactly match the original engine configuration. When the consist of the Reman product offering differs from the consist of a customer's engine, only the dealer and customer can decide whether or not it makes economic sense to change the parts that differ.

It's Caterpillar policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons which are in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single Parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs which do not use parts called for by the original Parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

3208 Long Block Selection

First, use normal parts information sources (parts books, microfiche, SIS, NPR, the Reman Products Guide, etc.) to look up the Reman short block intended to service the customer's engine arrangement. Next, find that short block in the following chart and read the long block part number from the top of the same column.

Next, follow the long block candidate column down into the consist section of the chart. Check the camshaft, then cylinder head part numbers shown against the part numbers called for by normal parts information sources to service the customer's engine. Don't forget to check the NPR to determine that you are using the most current part number. Now check the other part numbers listed in the same column of the consist chart. For a long block candidate to become a "selection", all the part numbers listed under the long block part number should match the correct service part numbers for the customer's engine. If, at any point in the above process, the Reman consist fails to match the

part numbers called for to service the customer's engine, Reman does not have an offering that matches the customer's engine. You may select a long block which isn't a perfect match if you believe changing the parts which don't match is worth the time and money to do the work.

Some Disassembly May Be Required

Lifting eyes and a valve cover (with gasket) are installed for shipping purposes. If these parts do not match the parts from the customer's engine, the customer's parts must be transferred to the long block. Any parts removed from the long block must be returned with the engine core. Add charges will be assessed for any missing parts.

Reman Long Block	**0R0968**	**0R0969**	**0R0970**	**0R4589**	**0R4591**	**0R4593**	**0R7760**	**0R7761**
Application	16.5:1 TURBO	16.5:1 TURBO	16.5:1 TURBO	16.5:1 TURBO	18.2:1 NA	16.5:1 TURBO	17.5:1 TURBO	17.5:1 TURBO
Ref. Production Piston Body As	1W5792 2W4831 9Y5559	1W5792 2W4831 9Y5559	*7E4729 *9Y6773	1W5792 2W4831	7C0893 1W5798 2W8412	1W5792 2W4831 9Y5559	7W3846	7W3846
Crankshaft Gear	7N6290	7N6290	7N6290	7N6290	7N6290	7N6290	7N6290	7N6290
Ref. Cyl. Head Gp	1W2282	1W2282	1W2282	1W4241	1W4241	1W2282	1W2282	1W4241
Reman Engines Covered	0R1150 0R1155	0R1152 0R1154	*0R3687	0R1093 0R1099 0R1098 0R1092 0R0776	0R0975 0R0976	0R3289	0R1151	0R1094 0R1095 0R1777 0R2819 0R3231 0R2875 0R2818 0R2026
Long Block Consist								
Short Block	0R-1153	0R-1153	0R-3686	0R-0778	0R-0936	0R-3038	0R-1157	0R-2076
Cylinder Head Gp	0R1101 1W2282	0R1101 1W2282	0R1101 1W2282	0R1574 1W4241	0R1574 1W4241	0R1101 1W2282	0R1101 1W2282	0R1574 1W4241
Valve Mech Gp	9N-6617 0R-2394	9N-3603 0R-2390	9N-3603 0R-2390	9N-0487 0R-2297	9N-0487 0R-2297	9N-6617 0R-2394	9N-6617 0R-2394	9N-0487 0R-2297
Valve Cover Gp	9L-7429	9L-7429	9L-7429	9L-7429	9L-7429	9L-7429	9L-7429	9L-7429
Camshaft Gp	2W-4239 10R-3774	10R-3776 125-8139	10R-3776 125-8139	2W-4197 10R-3375	2W-4197 10R-3375	10R-3774 2W-4239	10R-3774 2W-4239	2W-4197 10R-3375
Lifting Eye Gp	9N0191	9N-0191	9N0191	9N0191	9N0191	9N0191	9N0191	9N0191
Ship Loose Parts								
PCV valve	128-8011	128-8011	128-8011	128-8011	128-8011	128-8011	128-8011	128-8011
Oil Cooler Core	132-8590 0R-9501	132-8590 0R-9501	132-8590 0R-9501	132-8593 0R-9500	132-8593 0R-9500	132-8597 0R-9499	132-8597 0R-9499	132-8593 0R-9500
Water Pump Gp	2W-1225 0R-0781	2W-1225 0R-0781	2W-1225 0R-0781	2W-1225 0R-0781	2W-1225 0R-0781	2W-1225 0R-0781	2W-1225 0R-0781	2W-1225 0R-0781

* Contains a three ring piston.

3126 and C7 Long Blocks

General Service Information

GU08-10

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Technical Supplement

August 2008

3126 and C7 Long Blocks

Long Block Selection: General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind.

Long blocks are not available for every engine application. The long blocks we do offer can, however, be used to service many applications even though the long block does not exactly match the original engine configuration. When the consist of the Reman product offering differs from the consist of a customer's engine, only the dealer and customer can decide whether or not it makes economic sense to change the parts that differ.

It's Caterpillar's policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons which are in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs that do not use parts called for by the original parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

3126 and C7 Long Block Selection

First, use normal parts information sources (parts books, microfiche, SIS, NPR, the Reman Products Guide, etc.) to look up the Reman short block intended to service the customer's engine arrangement. Next, find that short block in the following chart and read the long block part number from the top of the same column.

Next, follow the long block candidate column down into the consist section of the chart. Check the camshaft, then cylinder head part numbers shown against the part numbers called for by normal parts information sources to service the customer's engine. Don't forget to check the NPR to determine that you are using the most current part number. Now check the other part numbers listed in the same column of the consist chart. For a long block candidate to become a "selection", all the part numbers listed under the long block part number should match the correct service part numbers for the customer's engine. If, at any point in the above process the Reman consist fails to match the part

numbers called for to service the customer's engine, Reman does not have an offering that matches the customer's engine. You may select a long block which isn't a perfect match if you believe changing the parts which don't match is worth the time and money to do the work.

Reman Long Block	0R9904	0R7907	10R4144	10R4145
Application	3126 Truck	3126B Truck	C7 ACERT (HIGH HP)	C7 ACERT (LOW HP)
Ref. Production Block Group	141-8283	129-1164, 129-1165	221-4480	221-4480
Ref. Production Piston Body As	133-5044, 115-4083 (2 piece piston)	150-4621, 115-4083 (2 piece piston)	238-2720	238-2698
Alternate Ref. Production Piston Body As.	-	-	-	-
Long Block Consist				
Short Block	0R-8936	0R-9964	10R4134	10R4139
Cylinder Head Gp	160-5136, 10R-2047, 0R9612	227-5955, 0R-8849	10R4152	10R4152
Alternate Cylinder Head Group	-	-	219-5847	219-5847
Camshaft Gp	0R9432, 127-8841	187-2741, 129-3191	10R4286	10R-4286
Alternate Camshaft Group	-	-	212-4284	212-4284
Pump & Mounting Gp	107-7817, 0R-8945	197-3161	10R4130	10R4130
Alternate Pump & Mounting Gp	-	-	254-4357	254-4357
Gear Gp-Front	10R-1117, 101-4540, 10R-1120	10R-1117, 101-4540, 10R-1120	205-1321	205-1321
Alternate Gear Gp-Front	-	-	-	-
Manifold Gp-Intake	117-1678	None	-	-
Mechanism Gp-Valve	101-3226, 10R-2126	135-2969, 10R-0422	10R4151	10R4151
Alternate Mechanism Gp- Valve	-	-	256-3830	256-3830
Lifting Eye Gp	7E2314, 0R-9942	197-1876	10R4285	10R4285

Alternate Lifting Eye Gp	-	-	228-8927	228-8927
Housing Gp-Front	116-4555	133-5055	165-4446	165-4446
Cover Gp	116-4551, 10R-0500	118-1727, 136-8888, 10R-0499	222-5920	222-5920
Alternate Cover Gp	-	-	-	-
Ship Loose Parts				
Breather Gp	2W9162	164-0210	164-0210	164-0210
Core As-Oil Cooler	187-8595, 0R-8839	187-8595, 0R-8839	0R8839	0R8839
Alternate Core As-Oil Cooler			187-8595	187-8595
Pump Gp-Engine Oil	189-8777, 0R-2733	189-8777, 0R-2733	10R4588	10R4588
Alternate Pump Gp-Engine Oil			189-8777	189-8777

C-10 and C-12 Long Blocks

General Service Information

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Technical Supplement

August 2008

C-10 and C-12 Long Blocks

Long Block Selection: General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind.

It's Caterpillar's policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons that are in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs that do not use parts called for by the original parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

C10 and C12 Long Block Selection

First, use normal parts information sources (parts books, microfiche, SIS, NPR, the Reman Products Guide, etc.) to look up the Reman short block intended to service the customer's engine arrangement. Next, find that short block in the following chart and read the long block part number from the top of the same column.

Next, follow the long block candidate column down into the consist section of the chart. Check the camshaft, then cylinder head part numbers shown against the part numbers called for by normal parts information sources to service the customer's engine. Don't forget to check the NPR to determine that you are using the most current part number. Now check the other part numbers listed in the same column of the consist chart. For a long block candidate to become a "selection", all the part numbers listed under the long block part number should match the correct service part numbers for the customer's engine. If, at any point in the above process the Reman consist fails to match the part numbers called for to service the customer's engine, Reman does not have an offering that matches the customer's engine. You may select a long block that isn't a perfect match if you believe changing the parts that don't match is worth the time and money to do the work.

Reman Long Block	**10R1383**	**10R1384**
Application	C-10 Truck (BRIDGE)	C-12 Truck
Ref. Production Block Group	115-2982	115-2983
Ref. Production Piston Body As	197-9358 183-2915 (2 piece piston)	187-5284 197-9374 (2 piece piston)
Long Block Consist		
Short Block	10R-1493	10R-1491
Cylinder Head Gp	148-2144	148-2144
Camshaft Gp	215-7784	215-7771
Gear Gp-Front	117-2750	117-2750
Mechanism Gp-Valve	0R-9662	0R-9662
Housing Gp-Front	169-4168	169-4168
Cover Gp	113-8987	113-8987
Shipped Loose Parts		
Pump GP-F TFR-A	266-2522	190-3443
Core As-Oil Cooler	4P-3754	115-4517
Pump Gp-Engine Oil	233-5220	233-5220

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Short Blocks

General Service Information

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Short Blocks

Engine Model	Short Block Part Number	Piston Body Part Number	Comp. Ratio	Block Design	Block Part Number	Engine S/N	Horsepower / Vehicle Model	Footnotes
3116 Bare Block	0R3317	—	—	HEUI Compatible	See note 1	—	—	1- Repair for block part numbers 7C3346, 101-3242, 101-4496, 129-1094, 149-5401. HEUI compatability guaranteed.
3116	0R4430	4P1549 & 107-7545 (2 piece)	16.7	Dual Jets	7E2482	—	—	
3116	0R4881	7E3428	17.5	Single Jets	2W9746 105-1713 126-5923 129-1097 221-4479	—	—	
3116	0R4882	107-7563	17	Single Jets	2W9746 105-1713 126-5923 129-1097 221-4479	—	—	
3116	0R8716	6I-4248 & 107-7791 (2-Piece) 7E-3226	16	Dual Jets	7E2482 149-5401 101-3242 101-4496 7C-3346	4KG	Marine & other applications.	
3116	0R9121	105-1720 & 107-7791 (2-Piece) 100-4300	18	Dual Jets	7E2482 105-1713 126-5923 129-1097 221-4479	—	—	
3116	0R9122	7E1298	15.5	Single Jets	2W9746 105-1713 126-5923 129-1097 221-4479	—	—	
3116 DIT ATAAC	0R4947	4P-1549 & 6I-1210 (2 Piece) 7E-3226 6I-1512	16	Dual Jets	101-3242 7E2482 105-1713 126-5923 129-1097 221-4479	7SF, 2BK	—	
3116 DIT ATAAC	0R3311	7E3578 & 115-4124 7W-3578	16.5	Single Jets	2W9746 105-1713 126-5923 129-1097 221-4479	7SF, 2BK	—	
3116 DIT ATAAC	0R3313	6I1144	17	Single Jets	2W9746 105-1713 126-5923 129-1097 221-4479	2BK, 9GK	—	
3116 DIT ATAAC	0R3314	4P1550 101-4495	18	Single Jets	2W9746 105-1713 126-5923 129-1097 221-4479	2BK, 9GK	—	
3116 ATAAC HEUI	0R9422	107-7852 & 107-7791 101-4572	17.1	Dual Jets	7E2482 149-5401 101-3242 129-1094	8WL	—	
3126B Bare Block	0R8943	—	—	—	See Note 2	—	—	
3126 ATAAC HEUI	0R8936	113-6119 & 115-4083 (2-Piece) 133-5044	16	Single Jets	141-8283 126-5923 221-4479 129-1165	1WM	—	
3126	10R1060	144-3444 & 187-1513 (2 Piece)	16	Single Jets	129-1165 126-5923 221-4479	55K	Challenger 55	
3126 Marine	0R9957	164-6556 & 115-4083 (2 Piece) 133-5043 126-0502 115-4241	15	Dual Jets	129-1165 221-4479	8NM, 6MK, 1ZJ	—	
3126B	0R9964	150-4621 & 115-4083 (2 piece) 142-7301 140-7378 136-0626	16	Single Jet	129-1165 126-5923 221-4479	7AS	—	
3126B	0R4890	238-2729 177-7498	16	Single Jet	129-1165 126-5923 221-4479	8YL	175 to 210 HP	
3126 DITA ATAAC	10R1820	133-4983 & 187-1513 (2 Piece) 115-4091	17	—	221-4479 126-5923	—	—	
3204 PC	0R0724	6N4221	17	W/O Jets	2W8953 4N-0100	45V1-17165	D3, 910, 931	*Short Block Part Numbers.

3204 DI	0R0725	7C1146 2W8418 8N5536	17	W/O Jets (4N0100)	2W8954 4N-0100	45V17166-32893	D3, D3B,910, 931, 931B	*Short Block Part Numbers.
3204 DI	0R0727	7C1146 2W8418	17	W/O Jets (7N8600)	2W4227 7N-8600	45V32894-UP, 45V29936-Up**, 10X1-Up**, 6DC1-Up** 7EB1-Up**	D3B, 910, 931B, IT12, 943,D4C, 943, 3204 IND, 3204 IND	*Short Block Part Numbers. **4N0094 Oil Pump Rotor must be used on these S/N ranges.
3204 DIT	0R3592	7E4729 9Y-6773	16.5	W/Jets (7N8600)	2W2024* 2W7902 6I2772* 7N5147 8N9190* 8N9191* 7N-8600	10X1-Up 45V29936-Up, 3PCI-Up, 2TB1-Up	953, 215,D4B/H, 215B, 926, 916, IT18, IT28, D3BSA, 3204 IND	*Short Block Part Numbers.
3208 Bare Block	10R2919	—	—	—	—	—	3208 Turbo	
3208 DI	0R0936	7C0893, 1W5798 2W8412, 9N-5754 1W-2062	18.2	W/O Jets	9N5669 9N-3758	32Y8309-Up 51Z1-Up, 90 N1-Up	175 Hp & Lower	
3208 DI	0R0778	1W5792, 2W4831 9N-6337, 9N-5405 1N-3227, 9Y-5559	16.5	W/O Jets	9N-5190 9N-1876 9N-3100 9N-3557 9N-3758 9N-5270 2W-8122 9N-3933 9N-6358	40S, 32Y, 51Z, 90N, 75V	210 Hp-up Marine	
3208 DI	0R2076 [g]	7W3846	17.5	W/O Jets	9N-3758 9N-1876 9N-3100 9N-3557 9N-5270 2W-8122 9N-3933 9N-6358	90N1-Up	210 HP [g]	g- For 0R1777, 0R2819, 0R3231 and 0R2875 engine applications.
3208 DIT	0R1153	1W5792, 2W4831 9Y5559, 9N-6337 9N-5405, 1N-3227	16.5	W/Jets	2W-1864 2W-8122 7E-0035 4W-6265	2Z(CA), 01Z	250 Hp & up Marine to 375 HP***	***- The crankshaft gear needs to be changed to the design from the original engine for marine applications.
3208 DIT	0R3038	1W5792, 2W4831 9Y5559, 9N-6337 9N-5405, 1N-3227	16.5	W/O Jets	2W-9741 7E-0035 9N-6358 4W-6265 2W-8122	2Z	225 Hp & Below	
3208 DIT	0R1157	7W3846	17.5	W/O Jets	2W-8033 7E-0035 9N-6358 4W-6265 2W-8122	79V, 51Z	—	
3208 DIT	0R3686 [j]	7E4729 9Y6773	16.5	W/Jets	9N-6356 2W-8122 7E-0035 4W-6265	2Z	—	j- When this engine is used in place of a two ring engine application, dynamic vibration may occur. This may require a new crankshaft damper and/or flywheel with the correct bob weight. The additional cost of these parts is not eligible under warranty. See Service Magazine June 19, 1989 (SEBD197100019) for more information. 0R3686 is the correct Short Block for all engine arrangements except the 7E0425 and 101-3714 engine arrangements.
3208 DIT	0R8519	101-0812	15.5	W/Jets	7E0035 9N6356 2W-8122 4W-6265	01Z	Marine & other applications	
3208 Off-Road Certified	0R9811	118-2285	16.5	W/Jets	7E0035	03Z	Ag chemical & lift truck applications	
3304 PC	0R2077	9N5249, 9N5250 8N3180, 8N3182 2P-6270	17.5	Counterbore	2P-8774 6N-7984 2P-0940 7N-5454	78P1-47086, 2B1-11012, 4B1-17148, 5B1-2364	—	
3304 PC	0R2078	9N5250, 8N3180 8N3182, 2P-6270	17.5	Spacer Plate	1N3574 7N-5454	78P47087-Up, 2B11013-Up, 4B17149-Up, 5B2365-Up	—	
3304 DI [h] (Low Hp)	0R2079	1W6757 129-0358	15	Spacer Plate	1N3574 7N-5454	All Direct Injection	—	h- For DI engines, determine piston in engine and select appropriate short block.
3304 DI [h] (High Hp)	0R2080	165-4262, 8N3102 129-0338	15	Spacer Plate	1N3574 7N-5454	All Direct Injection	—	h- For DI engines, determine piston in engine and select appropriate short block.
3304 DI (Low Hp)	0R4948	164-6560,129-0359 4P-8132	16	Spacer Plate	1N3574 7N-5454	—	—	
3304 DI	10R0889	168-4531, 156-8262 9Y-8217	16	Spacer Plate	1N3564 7N-5454	07Z, 09Z	515, 525, 527	
3306 PC	0R3258	9N5250, 8N3180, 8N3182, 2P-6270	17.5	Counterbore	2P6560 2P-0960 6A-6398 4P-0623 7N-5456 8N-4776 6N-7986	—	—	
3306 PC	0R3259	9N5250, 8N3180, 8N3182, 2P-6270	17.5	Spacer Plate	7N8016 4P-0623 7N-5456 8N-4776	—	—	
3306 PCT/TA (High HP)	0R2554 [i]	9N5403, 9N1302	17.5	Counterbore	2P-6560 2P-0960 6A-6398 4P-0623 7N-5456 8N-4776 6N-7986	3N1-79762, 49V, 66D1-26831, 67D1-2863, 76R1-3473	—	i-These short blocks use Keystone piston rings and should not be used in low Hp applications.
3306 PCT/TA (High HP)	0R2555 [i]	9N5403, 9N1302	17.5	Spacer Plate	7N-8016 4P-0623 7N-5456 8N-4776	3N79763-Up, 66D26832-Up I, 76R3474-Up, 67D2864-Up	D7G, 235, 528, 571G, 572G 627B, 637D, 639D, D5B, D6C, 12G, 14G, 140G, 814, 815, 816 966C, 977L	

3306 DIT (High Hp)	0R2556 [l]	8N3102, 129-0338 165-4262	15	Spacer Plate	8N-5286 4P-0623 7N-5456 8N-4776	8Z16129-Up 8Z1-Up, 8Z977-Up 8Z7769-Up, 8Z7808-Up, 8Z3945-Up, 8Z1731-Up 8Z7479-Up,64Z, 84Z, 85Z	D7G, 235, 528, 615, 627B, 637D, 639D, 814B, 815B, 816B 966D, 973 Industrial Marine Gen Set	l-These short blocks use Keystone piston rings and should not be used in low Hp applications.
3306 DIT	0R4949	164-6560 129-0359 4P-8132	16	Spacer Plate	8N-5286 4P-0623 7N-5456 8N-4776	64Z29960-Up, 85Z14644-Up, 1NS00554, 6NC17902-Up	Industrial Gen Set Marine Machine	
3306 DIT	0R2557	1W6757 129-0358	15	Spacer Plate	8N-5286 4P-0623 7N-5456 8N-4776	8Z446-Up, 8Z1848-Up, 8Z1827-Up, 8Z1842-Up, 8Z1-Up, 64Z	D5B, D6D, D6D, D6D, 12G,140G	
3306 DIT	0R3044	168-4531 9Y8217 ^ 156-8262	16	Spacer Plate	8N-5286 4P-0623 7N-5456 8N-4776	63Z	Truck	^See Service Magazine (Aug. 29, 1988). Article title - White Smoke Reduction.
3306	0R9205	6I2650 154-8087	17	Spacer Plate	8N-5286 4P-0623 7N-5456 8N-4776	7RJ	Truck	
3306	0R9206	107-3565	17	Spacer Plate	8N-5286 4P-0623 7N-5456 8N-4776	9TL	Truck	
C-10	0R9661	133-7098 & 101-2042 (2 piece)	16	—	115-2982 128-0406 162-0681 200-2052 200-2055	8YS, 3CS1200-Up*, 3CS1-11999^^	Truck	
C-12	0R9680	144-2948 & 161-8416 (2 piece) 138-2016 130-0862	16	—	115-2983 128-0406 162-0681 200-2052 200-2055	9NS, 2KS40000-UP*, 2KS1-39999^^^	Truck	
C-12	0R8209 m	161-8416 & 111-2669 (2 piece) 197-9328	16	—	115-2983 128-0406 162-0681 200-2052 200-2055	1YN, 2XR	Truck MY 96/97 Marine 3196	
C-12	10R1491	197-9374 & 238-2712 (2 piece) 111-2669	16	—	200-2052 128-0406 162-0681 200-2055	MBL	Truck	
3406A PC	0R0715 [k]	7N3633	15	—	4N2257 7N-1200 8N-9265 152-7648	92U-90U	All PC Applications	k- Some 0R0715 and 0R2545 Remanufactured Short Blocks may require a new fuel injection pump housing when used in 3406 engines built before 1975. The 0R0715 and 0R2545 Remanufactured Short Blocks may be built with either a 7N1200 or 8N9265 block casting. If the 8N9265 casting is used, the short block will not work with a 4N0812 Fuel Injection Pump Housing Assembly. This is because the oil drain seal ring used with this housing will not properly seal the oil drain hole in the block. If this situation occurs, the fuel injection pump housing can be changed or a remanufactured short block with the 7N1200 block casting may be located. See Service Magazine August 31, 1992 (SEPD0124) for more information. Using the 0R715 in early 3406A applications will require some additional parts to ensure proper operation. Please refer to S.M. Article dated September 27, 1993 for details.
3406A DI	0R2545 [k]	8N1606, 1W8901 1W9372, 9Y4004 290-0017, 7W-8929	14.5	—	2W-6039 7N-1200 8N-9265 152-7648	—	—	k- Some 0R0715 and 0R2545 Remanufactured Short Blocks may require a new fuel injection pump housing when used in 3406 engines built before 1975. The 0R0715 and 0R2545 Remanufactured Short Blocks may be built with either a 7N1200 or 8N9265 block casting. If the 8N9265 casting is used, the short block will not work with a 4N0812 Fuel Injection Pump Housing Assembly. This is because the oil drain seal ring used with this housing will not properly seal the oil drain hole in the block. If this situation occurs, the fuel injection pump housing can be changed or a remanufactured short block with the 7N1200 block casting may be located. See Service Magazine August 31, 1992 (SEPD0124) for more information. Using the 0R715 in early 3406A applications will require some additional parts to ensure proper operation. Please refer to S.M. Article dated September 27, 1993 for details.
3406B DI	0R4812	8N1606, 1W8901 1W9372, 9Y4004 290-0017, 7W-8929	14.5	—	2W6039 8N9267 108-3912 152-7648	7FB1-27301, 7FB27302-99999, 4MG1-3599	All Hp Above 310 Hp Above 310 Hp 3406 B Non-truck: Except 400HP Excavator	
3406B ATAAC	0R4815	7C3406 9Y9889	15.2	—	2W-6039 108-3912 152-7648	4MG3600-70271, 4MG70272-Up (Except :425 Mech. @ 2100 RPM & 460 Hp), 8TC1413-8791, 8TC8792-Up	Above 310 Hp Mech. Above 310 Hp Mech. Above 310 Hp PEEC Above 310 HP PEEC (Except 350 Hp)	
3406B ATAAC	0R4816	7E0539 1Y0589	15.2	—	2W-6039 108-3912 152-7648	4MG3945, 8TC08792	350 Mech. & PEEC 425 Mech.	
3406B ATAAC	0R4817	7E8885	15.6	—	4P2098 7E9432 108-3912 152-7648	4MG83945-Up, 3ZJ583-Up	310 Mech.	
3406B ATAAC	0R4813	7W3668 9Y3116	15.2	—	2W-6039 108-3912 152-7648	7FB27302-99999, 4MG1-3599, 8TC1-1412	310 Hp and below Mech. 310 Hp and below Mech. 350 Hp and below PEEC	

3406B ATAAC	0R4814	8N1607 2W0865 9Y7212 7E-7310	15.6	—	2W6039 108-3912 152-7648	4MG3600-Up, 8TC1413-Up	310 Hp and below Mech. 310 Hp and below PEEC	
3406 B/C ATAAC	0R3811 [n]	7E0292 168-4540	15.6	—	4P2098 7E9432 8N-9265 108-3912 152-7648	3ZJ582-Up, 2EK179-Up, 4CK	310-425 Mech. & PEEC	n- Large piston pin and bore, high ring and wide crankshaft.
3406C	0R9392	116-8154 109-5864	15.9	—	108-3912 8N-9265 7E-9432 152-7648	Various	Various	
3406C	0R4282	101-0016 268-4042	16.4	—	108-3912 8N-9265 7E-9432 152-7648	3ZJ30055, 3ZJ31976, 3ZJ37235, 3ZJ38058, 3ZJ39763	425/415 350/330 310/285 400 350	
3406C	0R7698	150-6223 & 130-0241 (2-Piece) 117-5063	16	—	108-3912 8N-9265 7E-9432 152-7648	8PN	350-425 Hp; 1994, 1995, 1996 Mechanical	
3406C	0R7943	168-4540 & 130-0241 (2-Piece) 161-8421 116-8154	15.9	—	108-3912 8N-9265 7E-9432 152-7648	41Z	980G, 583, D8N, D8R, 824G, 825G, 826G	
3406E	0R8323	149-5566 & 130-0241 (2-Piece) 1Y-3658 116-1372 133-7537	16.25	—	136-7329 149-8799 137-8466 108-3918	5EK/6TS	475 - 550 Hp	
3406E	0R9207	135-2837 & 130-0241 (2-Piece)	16.25	—	136-7329	5EK/6TS	355 - 410 Hp	
3406E	0R9208	7C2888 & 130-0241 (2-Piece) 135-2837 108-2716 7E-0525	16.25	—	136-7329 149-8799 137-8466 108-3918	5EK/6TS	435 - 475 Hp	
3406E	0R1096	180-7352 & 132-6663 (2-Piece) 145-6744 191-7854	16.6	—	137-8466	ILW	355 - 550 Hp	
3406E	0R4767	158-0446 & 139--5800 (2-Piece)	16	—	137-8466	5DS	600 Hp	
3406E	0R8385	132-6663 & 176-5744 (2-Piece) 221-2305 136-1560	16	—	137-8466	41Z, 6BR, 9NN	D8R, 980G, D350E, D400E, 824G, 825G, IND	
3406E	10R-1511	180-7352 & 132-6663 (2-Piece) 145-6744 191-7854	16.6	—	137-8466	2WS	435-550 Hp	
3456	0R4761	158-0446 & 134-2256 (2-Piece) 192-8810	16	—	137-8466	7RC,3LW	988G, 836G, 834G, 385B, 5090B, IND	
C7	10R4134	238-2720 197-9370	16.5:1	—	221-4479	KAL, WAX	ACERT (High HP)	
C7	10R4139	238-2698 197-9346	16.5:1	—	221-4479	KAL, WAX	ACERT (Low HP)	
C-15	10R0885	145-6744 & 132-6663 (2 piece) 180-7352 191-7854	16.6	—	155-0057 125-8850	6NZ	435-550 HP Truck	
C15	10R4403	232-6557	18:1	—	222-1974	BXS	435-550 ACERT	
C15	10R4404	248-5514 284-8983	18:1	—	222-1974	MXS/ NXS	435-550 HP	
C15	10R4405	248-5516	17:1	—	222-1974	MXS/ NXS	600-625 HP	
C-16	10R1506	139-8500 & 158-0446 (2-Piece)	16.6	—	155-0740 125-8850	7CZ	575-600 HP	

3046 and 3066 Long Blocks

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CAT® *Technical Supplement*

August 2008

3046 and 3066 Long Blocks

Long Block Selection: General Information

The purpose of this technical supplement is to help you decide if there is a Caterpillar remanufactured long block available for a particular engine application. When making your decision, please keep the following points in mind:

Long blocks are not available for every engine application. The long blocks we do offer can, however, be used to service any applications even though the long block does not exactly match the original engine configuration. When the consist of the Reman product offering differs from the consist of a customer's engine, only the dealer and customer can decide whether or not it makes economic sense to change the parts that differ.

It's Caterpillar's policy to incorporate the latest critical engineering changes into Cat Reman products. Therefore, long blocks may be offered with some parts from a later design era as service repairs for engines from an earlier design era. An example is the 3406C crankshaft, connecting rods, and pistons which are in certain 3406B long blocks. The result is that the parts in the long blocks match each other but do not match the parts consist of new production engines, nor do they match any single parts book. When long block parts consists differ from the official parts list, Reman provides an engine plate alerting the customer to Special Instruction or Service Magazine articles for information on non-standard parts.

Make sure any future engine/long block repairs which do not use parts called for by the original parts book, or official replacements called for by parts and service sources, are carefully documented. If you choose to make any configuration or consist changes, good documentation can prevent problems the next time parts are ordered.

Machine Model	Engine Model	New Arrangement Number	New Long Block Number	Reman Long Block Number	Comments
D3, D3C, D3G	3046	1072350, 1214062, 1214063, 1498742, 1843348, 6I3535, 1154840, 1247729, 1488215, 1498745, 1894294, 1745996, 1863479, 2145157	1935922, 1935923	10R7490	
D4, D4C, D4G	3046	1214064, 1498743, 6I3536, 1154841, 1247730, 1488216, 1498746, 1894295, 1745997, 2145158, 1935922	1935922, 1935923	10R7490	
D5, D5C, D5G	3046	1051997, 1154842, 1214065, 1214066, 1247731, 1488217, 1498744, 1498747, 1745998, 1894296, 2127775, 6I3537	1935922, 1935923	10R7490	
939, 939C	3046	1104741	1935922, 1935923	10R7490	
320, 320B	3066T High Ambient	-	1997732	10R7491	Compatible with 320B series high ambient releases. May require pulley changed on 320A series machines.
320, 320B	3066T Std Ambient	-	1997733	10R7492	Compatible with all non-high ambient 320A & B series 3066 engines. May require pulley changes to get proper fan speed.

320C	3066T Tier 2	2175472, 2724808, 2666255, 2666270, 2175473, 2228190, 2228191, 2228188, 2228187, 2228276, 2553056	2724690	10R7493	

Diesel Engines

ABS	Agco-Sisu
Akasaka	Baudouin
BMW	Bukh
Caterpillar	CHN 25/34
Cummins	Daihatsu
Detroit	Deutz
Doosan-Daewoo	Fiat
Ford	GE
Grenaa	Guascor
Hanshin	Hatz
Hino	Honda
Hyundai	Isotta
Isuzu	Iveco
John-Deere	Kelvin
Kioti	Komatsu
Kubota	Liebherr
Lister	Lombardini
MAK	MAN B&W
Mercedes	Mercruiser
Mirrlees BS	Mitsubishi
MTU	MWM
Niigata	Paxman
Perkins	Pielstick
Rolls / Bergen	Ruggerini
Ruston	Scania
Shibaura	Sisu-Valmet
SKL	Smit-Bolnes
Sole	Stork
VM-Motori	Volvo
Volvo Penta	Westerbeke
Wichmann	Yanmar

Machinery

ABG	Airman
Akerman	Ammann
Astra	Atlas Copco
Atlas Weyha.	Atlet
Bell	Bendi
Bigjoe	Bobcat
Bomag	BT
Carelift	Case
Caterpillar	Cesab
Challenger	Champion
Claas	Clark
Combilift	Crown
Daewoo-Doosan	Demag
Deutz-Fahr	Dressta

Machinery

Drott	Dynapack
Extec	Faun
Fendt	Fiat
Fiatallis	Flexicoil
Furukawa	Gehl
Genie	Grove-gmk
Halla	Hamm
Hangcha	Hanix
Hanomag	Hartl
Haulpack	Hiab
Hidromek	Hino truck
Hitachi	Hyster
Hyundai	IHI
Ingersoll-rand	JCB
JLG	John-Deere
Jungheinrich	Kalmar
Kato	Kioti
Kleeman	Kobelco
Komatsu	Kramer
Kubota	Lamborghini
Landini	Liebherr
Linde	Link-belt
Manitou	Massey-Ferg.
Mccormick	MDI-Yutani
Mitsubishi	Moxy
Mustang	Neusson
New-Holland	Nichiyu
Nissan	OK
OM-Pimespo	others-tech
Pel-Job	PH-mining
Poclain	Powerscreen
Same	Samsung
Sandvik	Scania
Schaefer	Schramm
Sennebogen	Shangli
Shibaura	Steiger
Steinbock	Steyr
Still	Sumitomo
Super-pac	Tadano
Takeuchi	TCM
Terex	Toyota
Valpadana	Venieri
Versatile	Vogele
Volvo	Weidemann
Wirtgen	Yale
YAM	Yanmar