

SECTION **11**

ENGINES

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High quality: The Komatsu diesel engine is a true achievement of our total engine production system—from casting all the way through machining processes using Komatsu-made machine tools to the final steps of assembly.

Proven reliability: The Komatsu diesel engine matched with our heavy-duty construction equipment create a powerful combination of unbeatable performance and high durability.

Economical operations: The Direct injection system and special fuel—minimizing design of Komatsu diesel engines provide maximum economy. Low lube oil consumption is also a remarkable advantage.

(Model 4D95S–1 is equipped with the swirl combustion chamber system.)

Compact design: Advanced design and an efficient production system make Komatsu diesel engines compact and lightweight, enhancing their versatility.

Low-noise operation: Ideal designs keep engine noise and vibration to a minimum.

Wider applications: A wide range of optional equipment offer a variety of applications to meet specific customer requirements.

Main Engines Mounted on the Komatsu machines

MODEL	FLYWHEEL HORSEPOWER (GROSS) HP(kw)/RPM	CONFIGU- RATION	ASPI- RATION *	FUEL INJECTION SYSTEM **	DISPLACEMENT ltr.(cu.in)	BORE × STROKE mm(in)
3D72-2	13(10)/2000	3In-Line	NA	TC	0.879 (53.6)	72 × 72 (2.83" × 2.83")
3D75-2	19(14)/2600	3In-Line	NA	DI	0.994 (60.7)	75 × 75 (2.95" × 2.95")
3D78-1	26(19)/3350	3In-Line	NA	DI	1.232 (75.2)	78 × 86 (3.07" × 3.39")
3D84-1	30(22)/2700	3In-Line	NA	TC	1.413 (86.2)	84 × 85 (3.31" × 3.35")
2D94-2	30(22)/2500	2In-Line	NA	PC	1.47 (90)	94 × 106 (3.70" × 4.17")
3D94-2	47(35)/2800	3In-Line	NA	PC	2.21 (135)	94 × 106 (3.70" × 4.17")
4D94-3	51(38)/2400	4In-Line	NA	DI	2.94 (179)	94 × 106 (3.70" × 4.17")
3D95S-W	37(28)/2650	3In-Line	NA	TC	2.02 (123)	95 × 95 (3.74" × 3.74")
4D95S-W	71(53)/3600	4In-Line	NA	TC	2.69 (164)	95 × 95 (3.74" × 3.74")
4D95L-W	64(48)/2500	4In-Line	NA	TC	3.26 (199)	95 × 115 (3.74" × 4.52")
4D95L-1	80(60)/3000	4In-Line	NA	DI	3.26 (199)	95 × 115 (3.74" × 4.52")
S4D95L-1	90(67)/3000	4In-Line	T	DI	3.26 (199)	95 × 115 (3.74" × 4.52")
6D95L-1	120(90)/3000	6In-Line	NA	DI	4.89 (298)	95 × 115 (3.74" × 4.52")
S6D95L-1	145(108)/3000	6In-Line	T	DI	4.89 (298)	95 × 115 (3.74" × 4.52")
4D105-5	84(63)/2500	4In-Line	NA	DI	4.33 (264)	105 × 125 (4.13" × 4.92")
S4D105-5	108(81)/2500	4In-Line	T	DI	4.33 (264)	105 × 125 (4.13" × 4.92")
6D105-1	123(92)/2500	6In-Line	NA	DI	6.49 (396)	105 × 125 (4.13" × 4.92")
S6D105-1	168(125)/2500	6In-Line	T	DI	6.49 (396)	105 × 125 (4.13" × 4.92")
S6D110-1	182(136)/2500	6In-Line	T	DI	7.13 (435)	110 × 125 (4.33" × 4.92")
SA6D110-1	217(162)/2500	6In-Line	TA	DI	7.13 (435)	110 × 125 (4.33" × 4.92")
6D125-1	227(169)/2200	6In-Line	NA	DI	11.04 (674)	125 × 150 (4.92" × 5.91")
S6D125-1	296(221)/2200	6In-Line	T	DI	11.04 (674)	125 × 150 (4.92" × 5.91")
SA6D125-1	370(276)/2200	6In-Line	TA	DI	11.04 (674)	125 × 150 (4.92" × 5.91")
4D130-1	115(86)/2000	4In-Line	NA	PC	8.49 (518)	130 × 160 (5.12" × 6.30")
S4D130-1	141(105)/2000	4In-Line	T	PC	8.49 (518)	130 × 160 (5.12" × 6.30")
6D140-1	225(168)/2000	6In-Line	NA	DI	15.20 (927)	140 × 165 (5.51" × 6.50")
S6D140-1	394(294)/2100	6In-Line	T	DI	15.20 (927)	140 × 165 (5.51" × 6.50")
SA6D140-1	493(368)/2100	6In-Line	NA	DI	15.20 (927)	140 × 165 (5.51" × 6.50")
S6D155-4	424(316)/2000	6In-Line	T	DI	19.26 (1,175)	155 × 170 (6.10" × 6.69")
SA6D155-4	523(390)/2000	6In-Line	TA	DI	19.26 (1,175)	155 × 170 (6.10" × 6.69")

*Aspiration NA : Natural Aspiration
 T : Turbocharged
 TA : Turbocharged and after-cooled

**Fuel Injection System DI : Direct Injection
 PC : Precombustion
 TC : Turbulence-chamber

Main Engines Mounted on the Komatsu machines						
MODEL	FLYWHEEL HORSEPOWER (GROSS) HP(kw)/RPM	CONFIGU- RATION	ASPI- RATION *	FUEL INJECTION SYSTEM **	DISPLACEMENT ltr.(cu.in)	BORE × STROKE mm(in)
S6D170-1	542(405)/2100	6In-Line	T	DI	23.15 (1,413)	170 × 170(6.69" × 6.69")
SA6D170-1	739(552)/2100	6In-Line	TA	DI	23.15 (1,413)	170 × 170(6.69" × 6.69")
SA8V170-1	986(736)/2000	8V	TA	DI	30.9 (1,886)	170 × 170(6.69" × 6.69")
SA12V170-1	1479(1103)2000	12V	TA	DI	46.3 (2,825)	170 × 170(6.69" × 6.69")

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Engines used in KOMATSU Machines

● By Engine Model

ENGINES

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Engine Model	Machine
3D72-2	PC05-5,PW05-1
3D75-2	PC10-5
3D78-1	PC15-1,WA20-1
3D84-1	PC20-5,PC28UU-1,PC30-5,PW20-1 PW30-1,WA30-2,SK07-2
2D94-2	EC25Z(S)-1
3D94-3	
4D94-3	
3D95S-W	PC40-5,PC50UU-1,EC35Z(S)-2
4D95S-W	D20A·P·PL·PLL·S·Q-6 D20P-6A,D21A·E·P·PL·S·Q-6 D21P-6A,D21P-6B,D21S-6A, EC50Z(S)-5
4D95L-W	WA40-1,WA70-1,EG33B(S)-1,
4D95L-1	PC60·L·U-5,PC80-3,PW60-3, EC75Z(S)-3,EG40B(S)-1,
S4D95L-1	
6D95L-1	D31E·P·S·Q-18,D31P-18A, D37E·P-2,PC100·L·U-3, PC120-3,PW150-1,WA100-1,WA120-1 WR11,EG60B(S)-1
S6D95L-1	PC150·LC·HD·NHD-3, PC180LC·LLC·NLC-3, PW100-3,WA150-1,WA180-1, WA180M-1,GD461A-1,GD501R-1, GD511A-1,GD511R-1,GD513A-1, GD513R-1,EG85(S)-1,
4D105-5	GD200A-1,GD300A-1
S4D105-5	DF800-1,EC105Z(S)-1
6D105-1	D40A·P-3,D41A·E·P·S·Q-3, D41A-3A,WA200-1
S6D105-1	PC200·LC-3,PC210·LC-3, PC220·LC-3,PF5, PC240·LC·NLC-3,PW210-1, WA250-1,WA250M-1,WA300-1 WA320-1,GD521A·R-1 GD523A·R-1,GD525A-1,

Engine Model	Machine
S6D105-1	GD611A·R-1,GD613R-1,GD621A·R-1, GD623R-1,GD661A-1, JV100A·WA·WP-1,EC170Z(S)-1, EG125B(S)-2,
S6D110-1	PC280LC·NLC-3,WA350-1,
SA6D110-1	D66S-1,WA380-1,WA400-1, WA420-1,EC210Z-1, EG150B(S)-5
6D125-1	D50A·P·PL-17,D53A·P·S-17, D58E·P-1,D60A·E·P·L·S-8,D63E-1, D65A·E·P·S-8,D68E·P-1, D50F-17,GD613A-1,GD623A-1, GD625A-1,GD663A-1,
S6D125-1	D75A·S5,D83E·P-1, D85A·E·P-21,D85A-21B D60F-8,PC300·LC·NLC-3. PC360LC-3,PC400·LC-3, WA450-1,WA470-1,GD705A-4, EC260Z-1,EG220B(S)-1
SA6D125-1	EG275B(S)-1
4D130-1	
S4D130-1	D57S-1,
6D140-1	
S6D140-1	WA500-1,GD825A-1,WS23-2
S6AD140-1	PC650-3,PC1600-1,HD325-5 WS23S-2,EG380BS-1
S6D155-4	D150A-1,D155A·S·W·C-1 D355C-3,EG300B-3,EG350B-1
SA6D155-4	D355A-3
S6D170-1	WA600-1
SA6V170-1	D375A-1,PC1000-1, EG480B-1,EG580B-1 EG500BS-1,EG600BS-1, HD465-3
SA8V170-1	D475A-1,HD785-2, WA800-1,
SA12V170-1	HD1200-1,HD1200M-1

Altitude deration in percent of flywheel horsepower

MODEL	ENGINE	0~750m(0 ~2500ft.)	750~1500 m(2500~ 5000ft.)	1500~ 2300m (5000~ 7500ft.)	2300~ 3000m (7500~ 10000ft.)	3000~ 3800m (10000~ 12500ft.)	3800~ 4600m (12500~ 15000ft.)
D20A·P·PL·PLL·S·Q-3 D20P-6A	4D95S-W	100	100	100	-	-	-
D21A·E·P·PL·S·Q-6, D21P-6A,D21P-6B D21S-6A	D95S-W	100	100	100	-	-	-
D31E·P·S·Q-18 D31P-18A	6D95L-1	100	100	100	-	-	-
D37E·P-2	6D95L-1	100	100	100	-	-	-
D40A·P-3	6D105-1	100	100	100	-	-	-
D41A·E·P·S·Q-3, D41A-3A	6D105-1	100	100	100	-	-	-
D50A·P·PL-17	6D125-1	100	100	100	100		
D53A·P·S-17	6D125-1	100	100	100	100		
D58E·P-1	6D125-1	100	100	100	100		
D60A·E·PL·S-8	6D125-1	100	100	100	100		
D63E-1	6D125-1	100	100	100	100		
D65A·E·P·S-8	6D125-1	100	100	100	100		
D66S-1	SA6D110-1	100	100	100	100	-	-
D75A·S-5	S6D125-1	100	100	100	100	100	
D85A·E·P-21	S6D125-1	100	100	100	100	100	
D95S-2	NT-855-C	100	100	100	100	-	-
D150A-1	S6D155-4	100	100	100	100	100	88
D155A-1	S6D155-4	100	100	100	100	93	80
D155S-1	S6D155-4	100	100	86	75	67	59
D355A-3	SA6D155-4	100	100	100	100	84	63
D375A-1	SA6D170-1	100	100	100	100		
D455A-1	VTA-1710	100	100	100	96	86	75
D475A-1	SA8V170-1	100	100	100	100		
GD200A-1	4D105-5	100	100	100	-	-	-
GD300A-1	4D105-5	100	100	100	-	-	-
GD511A-1	S6D95L-1	100	100	100	95	-	-
GD521A-1	S6D105-1	100	100	100	100		
GD521R-1	S6D105-1	100	100	100	100		
GD523A-1	S6D105-1	100	100	100	100		
GD523R-1	S6D105-1	100	100	100	100		
GD525A-1	S6D105-1	100	100	100	100		

Altitude Deration

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Altitude deration in percent of flywheel horsepower

MODEL	ENGINE	0~750m(0 ~2500ft.)	750~1500 m(2500~ 5000ft.)	1500~ 2300m (5000~ 7500ft.)	2300~ 3000m (7500~ 10000ft.)	3000~ 3800m (10000~ 12500ft.)	3800~ 4600m (12500~ 15000ft.)
GD623A-1	6D125-1	100	100	100	100		
GD625A-1	6D125-1	100	100	100	100		
GD705A-4	S6D125-1	100	100	100	100	100	
GD825A-1	S6D140-1	100	100	100	100		
PC40-5	3D95S-W	100	90	80	-	-	-
PC60·L·U-5	4D95L-1	100	100	90	-	-	-
PC80-3	4D95L-1	100	90	85	-	-	-
PC100·L·U-3	6D95L-1	100	100	90	-	-	-
PC120-3	6D95L-1	100	90	85	-	-	-
PC150·LC·HD·NHD-3	S6D95L-1	100	100	100	95	-	-
PC200·LC-3	S6D105-1	100	100	100	100	100	
PC220·LC-3	S6D105-1	100	100	100	100		
PC300·LC-3	S6D125-1	100	100	100	100	100	
PC300NLC-3	S6D125-1	100	100	100	100	100	
PC360LC-3	S6D125-1	100	100	100	100	100	
PC400·LC-3	S6D125-1	100	100	100	100	100	
PC650-3	SA6D140-1	100	100	100	100		
PC1000-3	SA6D170-1	100	100	100	100		
PC1600-1	SA6D140-1	100	100	100	100		
PW100-3	S6D95L-1	100	100	100	95	-	-
PW150-1	6D95L-1	100	100	95	-	-	-
HD180-4	NTO-6	100	100	100	100	91	82
HD200-2	NTC-743-C	100	100	100	95	86	76
HD325-5	SA6D140-1	100	100	100	100		
HD465-3	SA6D170-1	100	100	100	98		
HD785-3	SA8V170-1	100	100	100	100		
HD1200-1	SA12V170-1	100	100	100	100		
HD1200M-1	SA12V170-1	100	100	100	100		
HD1600M-1	KTA-3067	100	100	100	100	89	78
WF22A·T-2	NTC-743-C	100	100	100	100	95	84
WS23-2	S6D140-1	100	100	100	100		
WA40-1	4D95L-W	100	100	100	-	-	-
WA70-1	4D95L-W	100	100	100	-	-	-
WA100-1	6D95L-1	100	100	100	-	-	-
WA120-1	6D95L-1	100	100	100	-	-	-
WA150-1	S6D95L-1	100	100	100	90	-	-

Altitude Deration

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Altitude deration in percent of flywheel horsepower

MODEL	ENGINE	0~750m(0~2500ft.)	750~1500m(2500~5000ft.)	1500~2300m(5000~7500ft.)	2300~3000m(7500~10000ft.)	3000~3800m(10000~12500ft.)	3800~4600m(12500~15000ft.)
WA180-1	S6D95L-1	100	100	90	90	—	—
WA200-1	6D105-1	100	100	100	100		
WA300-1	S6D105-1	100	100	100	100	100	
WA350-1	S6D110-1	100	100	100	100		
WA400-1	SA6D110-1	100	100	100			
WA450-1	S6D125-1	100	100	100	100	100	
WA500-1	S6D140-1	100	100	100	100		
WA600-1	S6D170-1	100	100	100	100	100	
WA800-1	SA8V170-1	100	100	100	100		
WR11	6D95L-1	100	100	100	—	—	—