SEBMW01100

SHOP MANUAL

KOMATSU®

WD420-3

SOIL COMPACTOR

MACHINE MODEL	SERIAL No.
WD420-3	**53114 and up**

- This shop manual may contain attachments and optional equipment that are not available in your area. Pleases consult your local Komatu distributor for those items you may require. Materials and specifications are subject to change without notice.

- WD420-3 mount the SA6D108 engine. For details of the engine, see the 108 Series Engine Shop Manual.

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SPECIFICATIONS

	Machine model			WD420-3
	Serial No.			53114 and up
Weight	Operating weight		kg	20950
	Distribution (front)		kg	9950
	Disteibution (rear)		kg	11000
Perfomance	Blade (with straight blade)		m^3	2.65
	Travel speed	FORWARD 1st	km/h	6.3
		FORWARD 2nd	km/h	11.7
		FORWARD 3rd	km/h	20.5
		FORWARD 4th	km/h	32.8
		REVERSE 1st	km/h	6.6
		REVERSE 2nd	km/h	12.2
		REVERSE 3rd	km/h	21.2
		REVERSE 4th	km/h	33.9
	Max. rimpull		kN (kg)	177.5 (18100)
	Gradeability		deg	25.0
	Min. turning radius	Center of outside wheel	mm	5650
		Outside portion of chassis (with straight blade)	mm	6675
Dimensions	Overall length		mm	7255
	Overall width (chassis)		mm	3180
	Blade width (with straight blade)		mm	3910
	Overall height (top rops canopy)		mm	3355
	Wheelbase		mm	3300
	Tread		mm	2200
	Min. ground clearance		mm	420
	Max lift above ground		mm	1215
	Max drop below ground		mm	500
	Max tilt adjustment		mm	550

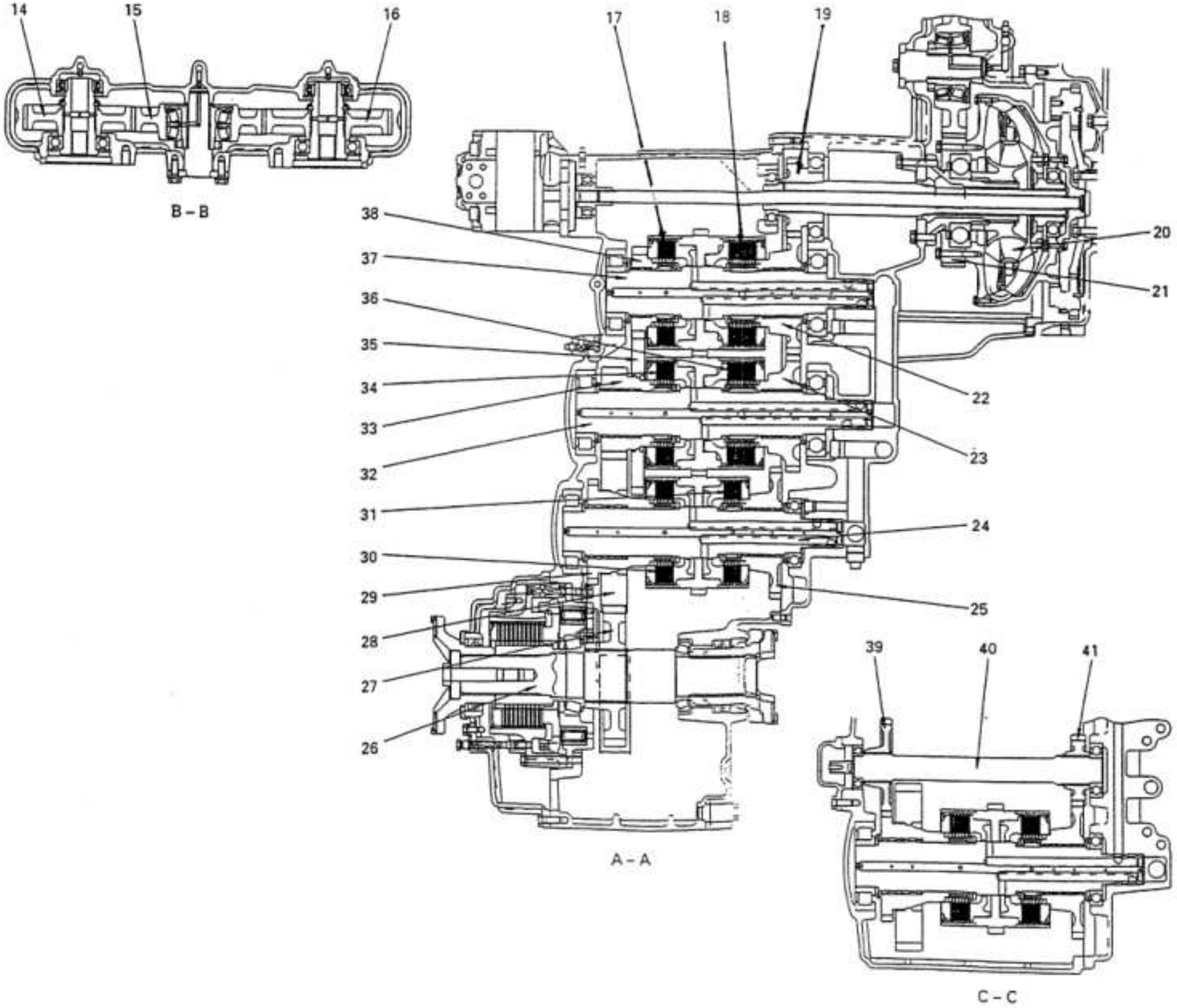
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Machine model			WD420-3
Serial No.			53114 and up
Engine	Model		KomatsuSA6D108
	Type		4-cycle, water-cooled,in-line, 6-cylinder, direct injection,with turbocharger
	No. of cylinders · bore×stroke	mm	6-108mm×130mm
	Piston displacement	l{cc}	7.15{7,150}
	Flywheel horsepower	kW{HP}/rpm	167.0 (224) / 2200
	Maximum torque	Nm{kgm}/rpm	847 {86.4} / 1500
	Fuel consumption ratio	g/kWh{g/HPh}	218 (160)
	High idling speed	rpm	2450
	Low idling speed	rpm	750
	Starting motor		24V 7.5kW
	Alternator		24V 50A
	Battery		12V 150Ah×2
Power train	Torque converter		3-element, 1-stage, single-phase (KomatsuTCA37-2Z)
	Transmission		Spur gear, constant-mesh multiple-disc, hydraulically actuated, modulation type
	Reduction gear		Spiral bevel gear, splash lubrication
	Differential		Straight bevel gear, torque proportioning
	Final drive		Planetary gear single stage, splash lubrication
Axle, wheel	Drive type		Front-, rear-wheel drive
	Front wheel		Fixed frame, full-floating type
	Rear wheel		Center pin support full-floating type
	Steel wheel		
	Diameter with foot	mm	1470
	without foot	mm	1090
	width	mm	980
Brakes	Service brake		Front-, rear-wheel independent system control, sealed multiple-disc wet-type disc brake With hydraulic booster
	Parking brake		Drive shaft, wet type disc brake Hydraulically released spring type

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Machine model				WD420-3
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Steering system	Type			Articulated steering
	Structure			Fully hydraulic power steering
Hydraulic system	Hydraulic pump type			Gear pump
	Delivery	Hydraulic pump	l/min	82
		Switch pump		111
		Steering pump		137
		Accumulator charge pump		62
	Control valve	Set pressure for work equipment	MPa{kg/cm²}	2-spool type 20.58 {210}
		Set pressure for steering	MPa{kg/cm²}	Spool type 20.58 {210}
	Cylinder	Lift cylinder		Reciprocating piston
		No.-bore × stroke	mm	1-130 × 870
		Tilt cylinder		Reciprocating piston
		No.-bore × stroke	mm	1-130 × 210
		Steering cylinder		Reciprocating piston
		No.-bore × stroke	mm	2-90 × 442
Work equipment	Type			Straight hydraulic tilting

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14. PTO gear (No. of teeth: 65)
15. PTO gear (No. of teeth: 76)
16. PTO gear (No. of teeth: 74)
17. 1st clutch (No. of teeth: 26)
18. FORWARD clutch
19. Input gear (No. of teeth: 29)
20. Torque converter
21. PTO drive gear (No. of teeth: 74)
22. FORWARD gear (No. of teeth: 49)
23. REVERSE gear (No. of teeth: 47)
24. 3rd, 4th shaft
25. 4th gear (No. of teeth: 53)
26. Output shaft
27. Output gear (No. of teeth: 43)
28. 3rd gear (No. of teeth: 49)
29. 3rd gear (No. of teeth: 43)
30. 3rd clutch
31. 4th clutch
32. REVERSE, 2nd shaft
33. 2nd gear (No. of teeth: 26)
34. 2nd clutch
35. 2nd gear (No. of teeth: 50)
36. REVERSE clutch
37. FORWARD, 1st shaft
38. 1st gear (No. of teeth: 26)
39. 3rd gear (No. of teeth: 37)
40. Countershaft
41. 4th Counter gear (No. of teeth: 27)

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