SHOP MANUAL

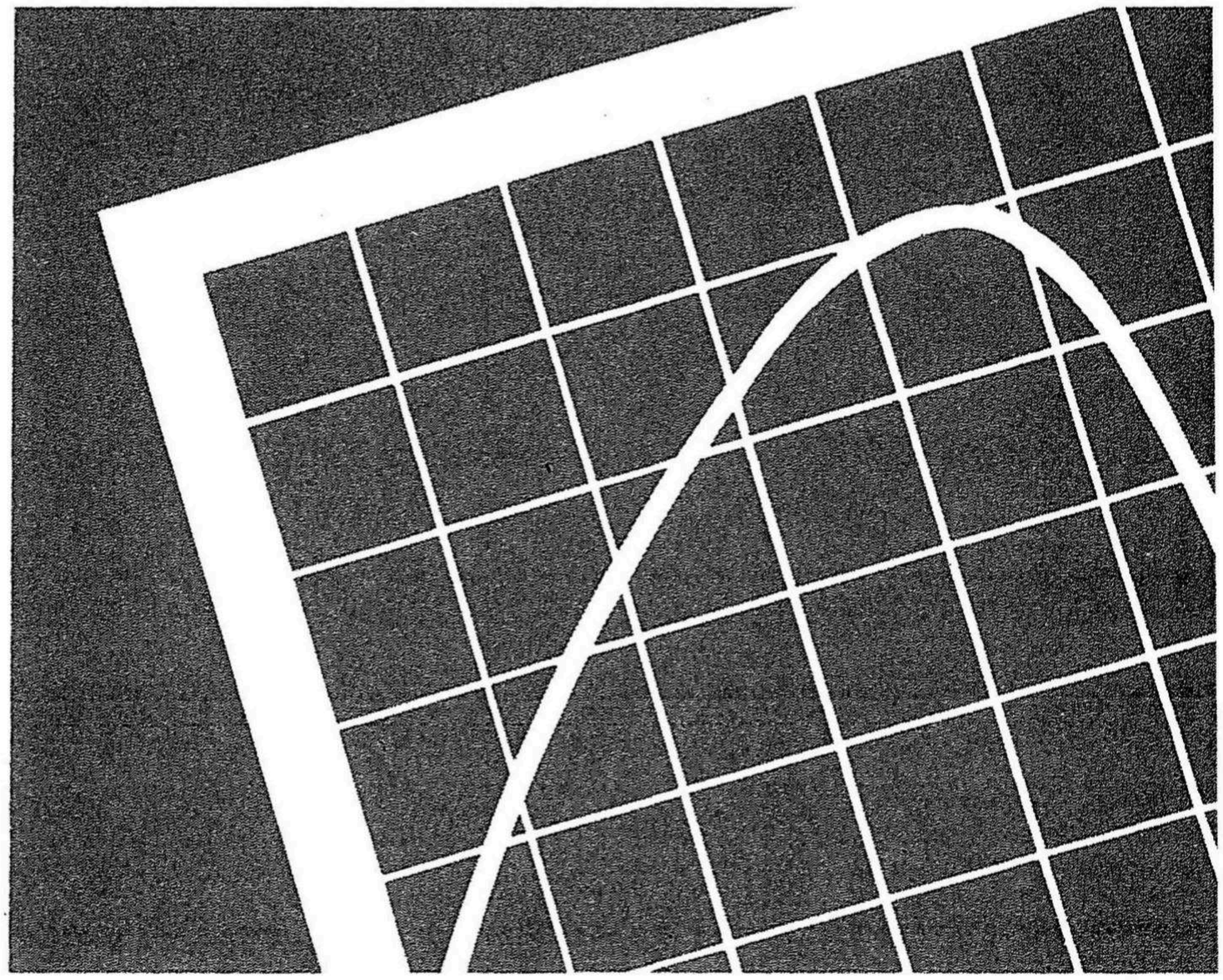
D31-16

SERIAL NUMBERS

D31S-16 25001~

D31Q-16 25001~

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MidWestTech | Komatsu D31S-16, D31SQ-16 Dozer Crawler Loader Service Manual | Publication D31S-Q-BE1

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SPECIFICATIONS

• BODY

Machine model				D31S-16	D31Q-16
Serial number				25001~	25001~
Weight	Operating weight (Prescribed quantity of fuel, lubricant and water)		(kg)	6750	7100
Dimensions	Overall length	Overall length of machine	(mm)	–	–
		Overall length with bucket	(mm)	4155	4050
	Overall width	Overall width of machine	(mm)	1790	2250
		Overall width with bucket	(mm)	1905	2300
	Overall height	Overall height to the top of exhaust pipe	(mm)	2590	2620
		Overall height at the top of operator's seat	(mm)	1955	1985
		Minimum ground clearance	(mm)	315	385
	Undercarriage	Distance between center of tracks	(mm)	1450	1650
		Ground contacting length	(mm)	1880	1880
		Ground contacting pressure	(kg/cm²)	0.54	0.31
		Track width (standard)	(mm)	330	600
Performance	Travelling speed	Forward 1st speed	(km/h)	2.2	
		Forward 2nd speed	(km/h)	3.9	
		Forward 3rd speed	(km/h)	6.5	
		Reverse 1st speed	(km/h)	2.4	
		Reverse 2nd speed	(km/h)	4.3	
		Reverse 3rd speed	(km/h)	7.1	
	Minimum turning radius		(m)	2.2	2.4
	Gradeability		(Degrees)	30	
Water · Oil capacity	Fuel tank		(ℓ)	115	
	Cooling water		(ℓ)	22	
	Engine lubricating oil		(ℓ)	13	
	Damper		(ℓ)	1	
	Hydroshift transmission		(ℓ)	13	
	Bevel gear shaft · Steering device		(ℓ)	15	
	Final drive (each side)		(ℓ)	8.5	11
	Idler (each)		(cc)	150	
	Track roller (each)		(cc)	150	
	Carrier roller (each)		(cc)	115	
	Hydraulic equipment		(ℓ)	52	

Machine model		D31S-16	D31Q-16
Serial number		25001~	25001~
Power transmission	Damper	Wet spring cushion type	
	Hydroshift transmission	Planetary gear, Hydraulic operation, Lubrication oil pressure pumping type	
	Bevel gear	Spiral bevel gear	
	Steering clutch	Dry multi-disk, spring compression type, foot operated hydraulic booster type	
	Steering brake	Dry band type Foot operated interconnected with steering clutch	
	Final drive	Spur gear single stage reduction	
Undercarriage	Suspension	Rigid type	
	Carrier roller	One for each side	
	Track roller	Five for each side	
	Shoe	Assembly type semidouble 37 pieces for each side Pitch 154mm Width 330mm	Assembled arch type shoe 37 pieces for each side Pitch 154mm Width 600mm
Hydraulic system	Link type	Single type	
	Bucket	Full, with teeth 0.8m³	
	Maximum	175kg/cm²	
	Discharge	87 ℓ/min	
	Lift cylinder	Dump cylinder	
	Dump cylinder	Reciprocating piston	
	Hydraulic tank	External operation valve	

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• ENGINE

Engine name			4D105-3
Machines using this engine			D31A-P·S·Q-16
No. of cylinders – bore x stroke		(mm)	4–105x125
Displacement		(cc)	4330
Ignition sequence			1–2–4–3
Dimensions	Total length (Fan – Rear end)	(mm)	955
	Total width	(mm)	614
	Total height (Exhaust pipe – Oil pan)	(mm)	1197
Performance	Power rating	(HP/rpm)	63/2350
	Maximum torque (kg·m/rpm)		25/Approx. 1400
	Maximum unloaded rotation (rpm)		2700±50
	Minimum unloaded rotation (rpm)		700~750
	Minimum fuel consumption (g/HP·h)		170
Dry weight		(kg)	500
Fuel oil			ASTM D975 No.1 or 2
Fuel pump			Bosh type A
Governor			Centrifugal all speed type
Lubricant volume		(ℓ)	13
Cooling water volume		(ℓ)	22
Alternator			24V 25A
Starting motor			24V 5.2kw
Battery			12V 120Ah x 2

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