

KOMATSU®

D51EX-24 **D51PX-24** *Tier 4 Final Engine*

CRAWLER DOZER

D51



Photos may include optional equipment.

NET HORSEPOWER

131 HP @ 2200 rpm
98 kW @ 2200 rpm

OPERATING WEIGHT

D51EX-24: 30,821 lb 13980 kg
D51PX-24: 31,438 lb 14260 kg

BLADE CAPACITY

Power Angle Tilt (PAT) Dozer:
D51EX-24: 3.5 yd³ 2.7 m³
D51PX-24: 4.4 yd³ 3.4 m³

SPECIFICATIONS



ENGINE

Model..... Komatsu SAA4D107E-3*
 Type 4-cycle, water-cooled, direct injection
 Aspiration..... Variable geometry, water-cooled, turbocharged, air-to-air aftercooled
 Number of cylinders..... 4
 Bore x stroke..... 107 mm x 124 mm **4.21" x 4.88"**
 Piston displacement..... 4.5 ltr **275 in³**
 Governor..... All-speed, electronic
 Horsepower
 SAE J1995.....Gross 99 kW **133 HP**
 ISO 9249 / SAE J1349.....Net 98 kW **131 HP**
 Hydraulic fan at maximum speed.....Net 91 kW **122 HP**
 Rated rpm.....2200 rpm
 Fan drive type.....Hydraulic
 Lubrication system
 Method.....Gear pump, force lubrication
 Filter.....Full-flow

*EPA Tier 4 Final emissions certified



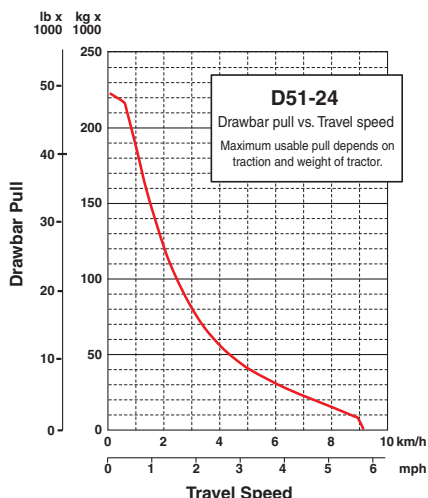
HYDROSTATIC TRANSMISSION

Dual-path, hydrostatic transmission provides infinite speed changes up to 9.0 km/h **5.6 mph**. The variable capacity travel motors allow the operator to select the optimum speed to match specific jobs. Travel control lock lever and neutral switch.

Travel speed (quick shift mode)*	Forward	Reverse
1st	0-3.4 km/h 0-2.1 mph	0-4.1 km/h 0-2.5 mph
2nd	0-5.6 km/h 0-3.5 mph	0-6.5 km/h 0-4.0 mph
3rd	0-9.0 km/h 0-5.6 mph	0-9.0 km/h 0-5.6 mph

Travel speed (variable mode)	Forward	Reverse
	0-9.0 km/h 0-5.6 mph	0-9.0 km/h 0-5.6 mph

*Quick shift speeds are adjustable in the monitor.



Note: The maximum usable pull depends on traction and weight of tractor including mounted equipment.



FINAL DRIVES

In-shoe mounted, axial-piston-type travel motors, with integrated two-stage planetary gear reduction. Compact, in-shoe mount reduces risk of damage by debris. Bolt-on sprocket ring with triple labyrinth seal design.



STEERING SYSTEM

Palm Command Control System (PCCS) joystick control for all directional movements. Pushing the joystick forward results in forward machine travel, while pulling it back reverses the machine. Simply tilt the joystick to the left or right to make a turn. Tilting the joystick fully to the left or right activates counter-rotation.

Hydrostatic Transmission (HST) provides smooth, powerful turns. Fully electronic control enables smooth control that can be adjusted in the monitor. The PCCS utilizes shift buttons to increase and decrease speed.

Minimum turning radius*

D51EX-24 2.4 m **94"**

D51PX-24 2.6 m **102"**

*As measured by track marks on the ground at pivot turn.



UNDERCARRIAGE

Suspension Rigid type
 Track roller frame Monocoque, large section, durable construction
 Rollers & idlers Lubricated track rollers

Sealed & lubricated track...Track tension easily adjusted w/grease gun

	D51EX-24	D51PX-24
Number of track rollers (each side)	7	7
Type of shoes (standard)	Single grouser	Single grouser
Number of shoes (each side)	44	44
Grouser height	mm in 55 2.2"	55 2.2"
Shoe width (standard)	mm in 560 22"	710 28"
Ground contact area	cm ² 30750	38980
	in ² 4,766	6,042
Ground pressure (with dozer, ROPS cab)	kPa 39.9	32.1
(ISO 16754)	kgf/cm ² 0.40	0.32
	psi 5.79	4.66
Track gauge	mm ft.in 1790 5'10"	1880 6'2"
Length of track on ground	mm ft.in 2745 9'0"	2745 9'0"



SERVICE REFILL CAPACITIES

Coolant 37 ltr **9.8 U.S. gal**
 Fuel tank 270 ltr **71.3 U.S. gal**
 Engine oil 16 ltr **4.2 U.S. gal**
 Hydraulic tank 64 ltr **17 U.S. gal**
 Final drive (each side)..... 5.5 ltr **1.5 U.S. gal**
 Diesel Exhaust Fluid (DEF) tank20.5 ltr **5.42 U.S. gal**



OPERATING WEIGHT (APPROXIMATE)

Tractor weight:

Including ROPS cab, U frame for Power Angle Tilt (PAT) dozer, rated capacity of lubricant, coolant, full fuel tank, operator, and standard equipment.

D51EX-24..... 12330 kg **27,182 lb**

D51PX-24..... 12550 kg **27,668 lb**

Operating weight:

Including Power Angle Tilt (PAT) dozer, ROPS cab, operator, standard equipment, rated capacity of lubricant, hydraulic control unit, coolant, and full fuel tank.

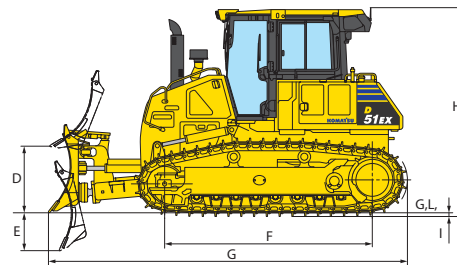
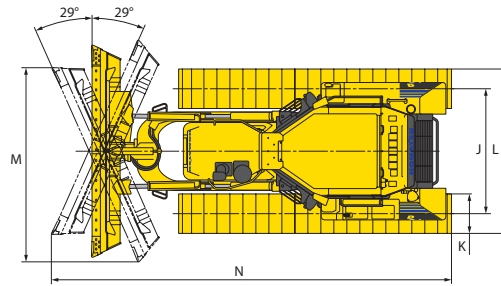
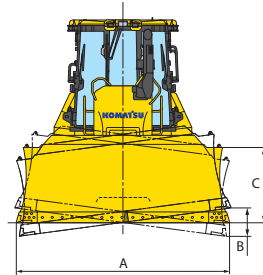
D51EX-24..... 13980 kg **30,821 lb**

D51PX-24..... 14260 kg **31,438 lb**



DIMENSIONS

	D51EX-24		D51PX-24	
A	3045 mm	10'	3350 mm	11'
B	425 mm	1'5"	470 mm	1'7"
C	1120 mm	3'8"	1170 mm	3'10"
D	1015 mm	3'4"	1035 mm	3'5"
E	455 mm	1'6"	475 mm	1'7"
F	2745 mm	9'	2745 mm	9'
G	4800 mm	15'9"	4850 mm	15'11"
H	3015 mm	9'11"	3015 mm	9'11"
I	55 mm	2.2"	55 mm	2.2"
J	1790 mm	5'10"	1880 mm	6'2"
K	560 mm	22"	710 mm	28"
L	2350 mm	7'9"	2590 mm	8'6"
M	2720 mm	8'11"	2990 mm	9'10"
N	5485 mm	18'	5605 mm	18'5"



Ground clearance 390 mm **15"**



HYDRAULIC SYSTEM

Closed-Center Load Sensing System (CLSS) designed for precise and responsive control, and for efficient simultaneous operation.

Hydraulic control unit:

All spool control valves externally mounted remote to the hydraulic tank. Piston-type hydraulic pump with capacity (discharge flow) of 97 ltr/min **26 U.S. gal/min** at rated engine rpm.

Relief valve setting 27.4 MPa 280 kg/cm² **3,974 psi**
 Hydraulic cylinders Double-acting, piston type

	Number of cylinders	Bore
Blade lift	2	90 mm 3.5"
Blade tilt	1	100 mm 4"
Blade angle	2	90 mm 3.5"

Hydraulic oil capacity (refill):

Power angle tilt dozer 64 ltr **17 U.S. gal**

Control valves:

3-spool control valve for Power Angle Tilt dozer

Positions:

Blade lift Raise, hold, lower, and float

Blade tilt Right, hold, and left

Blade angle Right, hold, and left

Additional control valve required for ripper

Positions:

Ripper lift Raise, hold, and lower



DOZER EQUIPMENT

	Overall Length With Dozer mm ft.in	Blade Capacity m ³ yd ³	Blade Width x Height mm ft.in	Max. Lift Above Ground mm ft.in	Max. Drop Below Ground mm ft.in	Max. Tilt Adjustment mm ft.in
D51EX-24	4800	2.7	3045 x 1120*	1015	455	425
Power Angle Tilt Dozer	15'9"	3.5	10' x 3'8"	3'4"	1'6"	1'5"
D51PX-24	4850	3.4	3350 x 1170	1035	475	470
Power Angle Tilt Dozer (High-capacity)	15'11"	4.4	11' x 3'10"	3'5"	1'7"	1'7"

Blade capacities are based on the SAE recommended practice J1265. Use of high-tensile-strength steel in moldboard for strengthened blade construction.

*Optional PAT Dozer Assembly (EX), 11' x 3' 10" (3350 mm x 1170 mm) wide