

# KOMATSU®

## D51EXi-22 D51PXi-22 Tier 3 Engine

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**3D GNSS  
MACHINE  
CONTROL**

**NET HORSEPOWER**  
130 HP @ 2200rpm  
97 kW @ 2200rpm

**OPERATING WEIGHT**  
D51EXi-22 12420 kg 27,381 lb  
D51PXi-22 13180 kg 29,057 lb

**BLADE CAPACITY**  
3.5–3.8 yd<sup>3</sup>  
2.7–2.9 m<sup>3</sup>



PHOTOS MAY INCLUDE OPTIONAL EQUIPMENT

**intelligent**™  
**MACHINE CONTROL**



## ENGINE

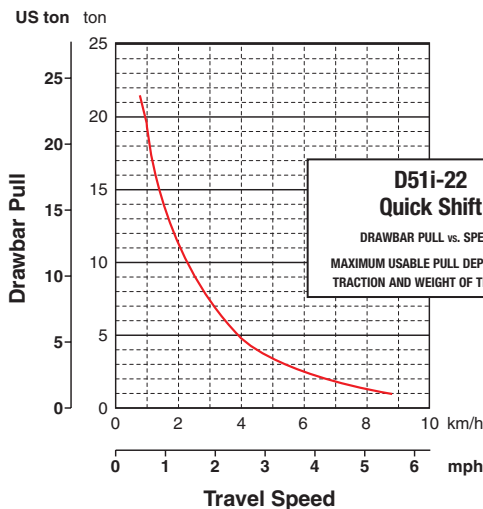
Model.....Komatsu SAA6D107E-1\*  
 Type ..... 4-cycle, water-cooled, direct injection  
 Aspiration..... Turbocharged, air-to-air aftercooled  
 Number of cylinders..... 6  
 Bore x stroke..... 107 mm x 124 mm **4.21" x 4.88"**  
 Piston displacement..... 6.69 ltr **408 in<sup>3</sup>**  
 Governor..... All-speed, electronic  
 Horsepower  
     SAE J1995.....Gross 99 kW **133 HP**  
     ISO 9249 / SAE J1349.....Net 97 kW **130 HP**  
     Hydraulic fan at maximum speed ..... Net 90 kW **120 HP**  
 Rated rpm .....2200 rpm  
 Fan drive type .....Hydraulic (reversible)  
 Lubrication system  
     Method ..... Gear pump, force lubrication  
     Filter..... Full-flow  
 \*EPA Tier 3 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
<b>1st</b>	0-3.4 km/h <b>0-2.1 mph</b>	0-4.1 km/h <b>0-2.5 mph</b>
<b>2nd</b>	0-5.6 km/h <b>0-3.5 mph</b>	0-6.5 km/h <b>0-4.0 mph</b>
<b>3rd</b>	0-9.0 km/h <b>0-5.6 mph</b>	0-9.0 km/h <b>0-5.6 mph</b>
Travel speed (variable mode)	Forward	Reverse
	0-9.0 km/h <b>0-5.6 mph</b>	0-9.0 km/h <b>0-5.6 mph</b>



## FINAL DRIVES

Two-stage planetary gear integrated into axial piston travel motors. Compact in-shoe mount reduces risk of damage by debris. Bolt-on sprocket segments for easy replacement.



## 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 rearward 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) eliminates steering clutches and brakes, providing smooth powerful turns. Fully electronic control enables smooth control. The PCCS utilizes shift buttons to increase and decrease speed.

Minimum turning radius\*  
 D51EXi-22 ..... 2.39 m **7'10"**  
 D51PXi-22 ..... 2.62 m **8'7"**

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



## UNDERCARRIAGE

Suspension..... Oscillating equalizer bar and pivot shaft  
 Track roller frame ..... Monocoque, large section, durable construction  
 Rollers and idlers ..... Lubricated track rollers  
 Lubricated tracks  
     Unique seals help prevent entry of foreign abrasive material into pin to bushing clearances for long service life.  
 Parallel Link Undercarriage System (PLUS)  
     Increased component size and strength, and rotating bushing design provide extended wear life and lower maintenance.

	D51EXi-22	D51PXi-22
Number of track rollers (each side)	7	7
Type of shoes (standard)	Single grouser PLUS	Single grouser PLUS
Number of shoes (each side)	44	44
Grouser height	mm <b>in</b> 55 <b>2.2"</b>	5.5 <b>2.2"</b>
Shoe width (standard)	mm <b>in</b> 560 <b>22"</b>	710 <b>28"</b>
Ground contact area	cm <sup>2</sup> 30643 in <sup>2</sup> <b>4,752</b>	38980 <b>6,042</b>
Ground pressure (with dozer, ROPS cab)	kPa 39.7 kgf/cm <sup>2</sup> 0.41 <b>psi</b> <b>5.76</b>	33.2 0.34 <b>4.81</b>
Track gauge	mm <b>ft.in</b> 1790 <b>5'10"</b>	1880 <b>6'2"</b>
Length of track on ground	mm <b>ft.in</b> 2736 <b>9'0"</b>	2736 <b>9'0"</b>



## SERVICE REFILL CAPACITIES

Coolant .....	35 ltr	<b>9.3 U.S. gal</b>
Fuel tank .....	270 ltr	<b>71.3 U.S. gal</b>
Engine oil .....	20 ltr	<b>5.3 U.S. gal</b>
Hydraulic tank .....	63 ltr	<b>16.6 U.S. gal</b>
Final drive (each side).....	4.0 ltr	<b>1.1 U.S. gal</b>



## OPERATING WEIGHT

Tractor weight:

Including ROPS cab, rated capacity of lubricant, coolant, full fuel tank, operator, and standard equipment.

D51EXi-22..... 10920 kg **24,074 lb**

D51PXi-22..... 11580 kg **25,530 lb**

Operating weight:

Including power angle tilt dozer, ROPS cab, operator, standard equipment, rated capacity of lubricant, coolant, and full fuel tank.

D51EXi-22..... 12420 kg **27,381 lb**

D51PXi-22..... 13180 kg **29,057 lb**

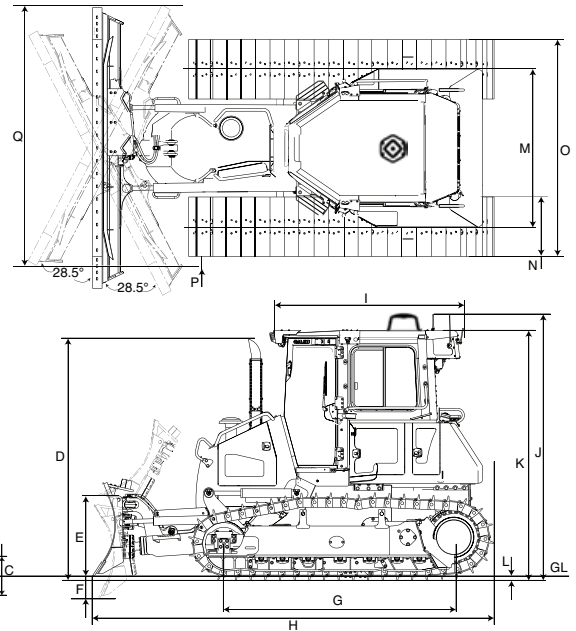


## DIMENSIONS

	D51EXi-22	D51PXi-22
A	1280 mm <b>4'2"</b>	1280 mm <b>4'2"</b>
B	3045 mm <b>10'0"</b>	3350 mm <b>11'0"</b>
B*	3350 mm <b>11'0"</b>	—
C	425 mm <b>1'5"</b>	467 mm <b>1'6"</b>
C*	505 mm <b>1'8"</b>	—
D	2890 mm <b>9'6"</b>	2890 mm <b>9'6"</b>
E	1010 mm <b>3'4"</b>	1010 mm <b>3'4"</b>
F	459 mm <b>1'6"</b>	459 mm <b>1'6"</b>
G	2736 mm <b>9'0"</b>	2736 mm <b>9'0"</b>
H	4800 mm <b>15'9"</b>	4800 mm <b>15'9"</b>
I	2245 mm <b>7'4"</b>	2245 mm <b>7'4"</b>
J	3182 mm <b>10'5"</b>	3182 mm <b>10'5"</b>
K	3002 mm <b>9'10"</b>	3002 mm <b>9'10"</b>
L	55 mm <b>2.2"</b>	55 mm <b>2.2"</b>
M	1790 mm <b>5'10"</b>	1880 mm <b>6'2"</b>
N	560 mm <b>1'10"</b>	710 mm <b>2'4"</b>
O	2350 mm <b>7'9"</b>	2590 mm <b>8'6"</b>
P	26 mm <b>1"</b>	43 mm <b>2"</b>
P*	161 mm <b>6.3"</b>	—
Q	2859 mm <b>9'5"</b>	3038 mm <b>10'0"</b>
Q*	3038 mm <b>10'0"</b>	—

\*Wide blade for D51EXi-22

Ground clearance..... 390 mm **15.4"**





## 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 99 ltr/min **26.2 U.S. gal/min** at rated engine rpm.

Relief valve setting ..... 27.4 MPa 280 kg/cm<sup>2</sup> **3,983 psi**  
 Hydraulic cylinders ..... Double-acting, piston type

	Number of cylinders	Bore
Blade lift	2	90 mm <b>3.54"</b>
Blade tilt	1	100 mm <b>3.94"</b>
Blade angle	2	90 mm <b>3.54"</b>



## DOZER EQUIPMENT

Blade capacities are based on the SAE recommended practice J1265.

Use of high tensile strength steel in moldboard for strengthened blade construction.

	Overall Length With Dozer mm ft.in	Blade Capacity m <sup>3</sup> yd <sup>3</sup>	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	Blade Angle
<b>D51EXi-22 PAT</b>	4800	2.7	3045 x 1110	1107	456	459	28.5°
Standard Blade	<b>15'9"</b>	<b>3.5</b>	<b>10'0" x 3'8"</b>	<b>3'8"</b>	<b>1'6"</b>	<b>1'6"</b>	
<b>D51EXi-22 PAT</b>	4800	2.9	3350 x 1110	1107	456	505	28.5°
Wide Blade	<b>15'9"</b>	<b>3.8</b>	<b>11'0" x 3'8"</b>	<b>3'8"</b>	<b>1'6"</b>	<b>1'8"</b>	
<b>D51PXi-22 PAT</b>	4800	2.9	3350 x 1110	1107	456	505	28.5°
Standard Blade	<b>15'9"</b>	<b>3.8</b>	<b>11'0" x 3'8"</b>	<b>3'8"</b>	<b>1'6"</b>	<b>1'8"</b>	

Hydraulic oil capacity (refill):

Power angle tilt dozer ..... 63 ltr **16.6 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