#### **NET HORSEPOWER**

29.5 kW **40 HP** @ 2450 rpm

#### **OPERATING WEIGHT**

D21A-8: 3940 kg **8,690 lb** D21P-8: 4240 kg 9,350 lb

# KOMATSU®

**D21A-8 D21P-8** 





CRAWLER DOZER



## WALK-AROUND

#### **Responsive Operation:**

A single joystick on the left controls all speed and directional changes including:

- 1st to 2nd
- Forward and reverse
- · Right and left steering

A single joystick on the right controls all blade functions including:

- Lifting/Digging
- Angling
- Tilting

This left and right joystick system offers unparalleled control for shorter cycle times.







#### **Easy-to-see instrument panel:**

Ergonomically arranged meters and lamps make it easier to check the machine condition. In addition, fuel meter and dust indicator lamp installed on the panel for easy servicing.

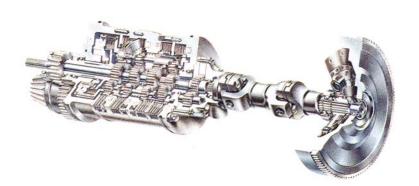
#### Walk-through operator's compartment:

The operator's compartment has a complete walk-through design, making for easy getting on and off.





#### CRAWLER DOZER



#### **Efficient HYDROSHIFT transmission:**

The D21-8 is equipped with Komatsu's unique HYDROSHIFT transmission, assuring smooth gear shifts, powerful traction and low fuel consumption.

It consists of a damper and planetary gear packs. The HYDROSHIFT transmission makes two previously incompatible factors compatible: It efficiently converts engine power to traction with minimal power loss through a damper and it offers smooth, easy shifting through a powershift transmission.

Unlike ordinary powershift transmissions with torque converters, traction does not decrease, even when the engine is running at partial throttle.

#### Long track:

The long track and well-positioned center of gravity give good machine balance and make grading operations and operations on slopes easy. In addition, the machine can travel over soft ground easily, and it can escape from muddy areas without problem.



Photos may include optional equipment.

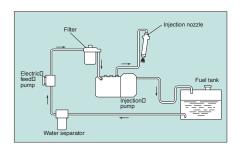
# Lifetime lubricated idlers, track rollers and links

#### Simplified maintenance:

Spin-on type filters are used throughout the machine, making it easy to replace filter elements. Air cleaner with automatic evacuator extends cleaning interval of the air cleaner.

## Automatic de-airation system with electric feed pump

Ejects air in the fuel system, simply turning on the ignition key when restarting the engine.



#### FLYWHEEL HORSEPOWER 29.5 kW 40 HP @ 2450 rpm

#### **OPERATING WEIGHT**

D21A-8: 3940 kg **8,690 lb** D21P-8: 4240 kg **9,350 lb** 

#### **BLADE CAPACITY**

D21A-8: 0.57m<sup>3</sup> **0.75 yd**<sup>3</sup> D21P-8: 0.68m<sup>3</sup> **0.89 yd**<sup>3</sup>

#### Single-lever steering/speed/ directional change:

All the directional changes are carried out with single lever, ensuring smooth turn and superior productivity.

#### Fuel-efficient 4D94LE-2 engine:

The Komatsu 4D94LE-2 features a direct-injection fuel system. Intake air is swirled into the combustion chamber where it is mixed with injected, atomized fuel, providing optimum combustion. This fuel system not only contributes to greater power and fuel savings, but also ensures reduced noise and cleaner exhaust. A cushion mounted engine reduces noise and vibration.





Komatsu's highly productive, innovative technology, environmentally friendly machines built for the 21st century.

## **SPECIFICATIONS**



#### **ENGINE**

Model Type Aspiration Number of cylinders	Water-cooled, diesel
Bore	94 mm <b>3.70</b> "
Stroke	
Piston displacement	3.053 ltr 186 in <sup>3</sup>
Gross horsepower	. 32.2 kW <b>43.1 HP</b> @ 2450 rpm
Net flywheel horsepower*:	
SAE J1349	29.5 kW <b>40 HP</b> @ 2450 rpm
DIN 6270	29.5 kW <b>40 PS</b> @ 2450 rpm
Net maximum torque 152 Nm	15.5 kg m <b>112 lb ft</b> @ 1300 rpm
Governor	All-speed, mechanical
Filter	Full-flow

Direct injection fuel system. All-speed mechanical governor. Pump driven forced lubrication.Dry-type air cleaner with automatic dust evacuator for longer element service and dust indicator lamp for simplified maintenance. 2.3 kW/12 V electrical starter motor. 40 A/12 V alternator. 80 Ah/1 x 12 V battery.

\*Net flywheel horsepower output for standard engine (SAE J1349) including air cleaner, alternator (not charging), water pump, lubricating oil pump, fuel pump, muffler, and fan.

# KOMATSU HYDROSHIFT

The unique Komatsu HYDROSHIFT transmission with planetary gears is hydraulically-controlled and force-lubricated. Efficient power flow and simplified direction and speed changes (2 forward and 2 reverse).

Travel Speed	Forward	Rated Drawbar Pull	Reverse
1st	2.6 km/h <b>1.6 mph</b>	3410 kg <b>7,520 lb</b> /33.4 kN	3.3 km/h <b>2.1 mph</b>
2nd	4.4 km/h <b>2.7 mph</b>	1890 kg <b>4,170 lb</b> /18.5 kN	5.6 km/h <b>3.5 mph</b>

Maximum drawbar pull:

D21A-8	4520 kg <b>9,970 lb</b> /44.3kN
D21P-8	4480 ka <b>9 880 lb</b> /43 9 kN



#### STEERING SYSTEM

Single steering lever controls all direction movement. Dry, multipledisc steering clutches are PPC controlled and interconnected with dry, contracting-band, steering brkes to allow easy, light-touch steering/braking actions. A PPC valve built into the steering circuit facilitates smooth shockless steering control. Inching pedal assures smooth, easy starting and stopping, pecise inching approaches to obstacles and impact digging.

Minimum turning radius:

D21A-8	2.0 m <b>6'7"</b>
D21P-8	23 m <b>7'7</b> "

(As measured by track marks on the ground)



Spur gear, single-reduction final drives.

#### UNDERCARRIAGE

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Unique dust seals prevent entry of dust into pin-to-bushing clearances for extended service. Track tension is easily adjusted with a grease gun.

	D21A-8	D21P-8
Number of carrier rollers (each side)	1	1
Number of track rollers (each side)	5	5
Number of shoes (each side)	37	37
Grouser height	39 mm <b>1.5"</b>	39 mm <b>1.5"</b>
Shoe width (standard)	300 mm <b>11.8</b> "	510 mm <b>20.1"</b>
Ground contact area	10110 cm² <b>1,570 in</b> ²	17190 cm² <b>2,664 in</b> ²
Ground pressure (tractor)	32.9 kPa 0.34 kgf/cm² <b>4.77 psi</b>	20.6 kPa 0.21 kgf/cm² <b>3.0 psi</b>



# COOLANT AND LUBRICANT CAPACITY (REFILL)

Coolant	tr 2.6 U.S. gal
Fuel tank	tr 15.9 U.S. gal
Engine	tr 1.7 U.S. gal
Damper case	r 0.2 U.S. gal
Transmission	tr 2.9 U.S. gal
Bevel gear case	tr 3.4 U.S. gal
Final drive each side (D21A-8)6 lt	tr 1.6 U.S. gal
Final drive each side (D21P-8)8 li	tr 2.1 U.S. gal
Hydraulic tank	tr 5.5 U.S. gal



#### **OPERATING WEIGHT** (APPROXIMATE)

Tractor weight:

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

D21A-8	. 3390 kg <b>7,475 lb</b>
D21P-8	. 3360 kg <b>8,070 lb</b>

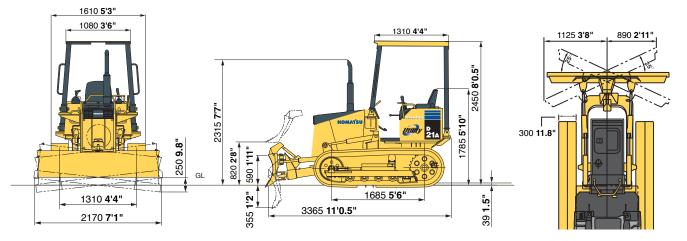
Operating weight:

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

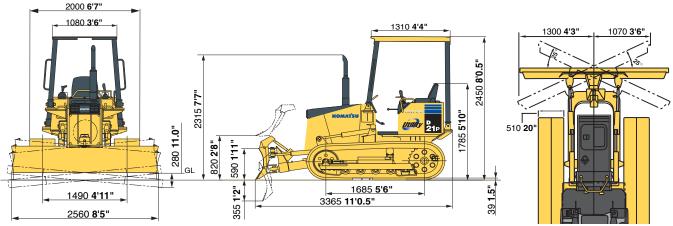
		,			-,											
D21A-8	 		٠.								 		3940	kg	8,690	) lb
D21P-8	 						 				 		4240	kg	9,350	) lb



#### D21A-8



#### D21P-8





Hydraulic control unit: Gear-type hydraulic pump mounted on rear of engine with capacity (discharge flow) of 59 ltr. **15.6 U.S. gal/**min. at ratedengine RPM.

Relief valve setting 15.2 MPa155kg/cm<sup>2</sup> 2,200 psi

Hydraulic cylinders: double-acting, piston type

	Number of Cylinders	Bore					
Blade lift	2	70 mm	2.76"				
Blade tilt	1	80 mm	3.15"				
Blade angle	2	70 mm	2.76"				

#### Control valves:

Three control valves for power angle tilt dozer.

Positions:

Blade lift	Raise,	hold, le	ower, a	and float
Blade tilt		. Right	, hold,	and left
Blade angle		. Right	, hold,	and left



#### **DOZER EQUIPMENT (POWER ANGLE TILT DOZER)**

Use of high-tensile-strength steel in moldboard extended service. Hydraulic hoses for blade angling and tilting are covered with steel plates and protected from damage.

	Overall			Blade	Max. lift	Max. drop	Max. tilt	Additi	onal weight	Additional
	Length With dozer	SAE	*LH <sup>2</sup>	length x height	above ground	below ground	adjustment	Blade	Hydraulic control unit	ground pressure
	3365 mm	0.57 m³	0.76 m <sup>3</sup>	2170 mm x 590 mm	820 mm	355 mm	250 mm	480 kg	70 kg	5.3 kPa
D21A-8										0.054 kg/cm <sup>2</sup>
	11'0.5"	0.75 yd³	0.99 yd <sup>3</sup>	7'1" x 1'11"	2'8"	1'2"	9.8"	1,060 lb	150 lb	0.77 psi
	3365 mm	0.68 m <sup>3</sup>	0.89 m³	2560 mm x 590 mm	820 mm	355 mm	280 mm	510 kg	70 kg	3.3 kPa
D21P-8										0.03 kg/cm <sup>2</sup>
	11'.05"	0.89 yd³	1.16 yd³	8'5" x 1'11"	2'8"	1'2"	11"	1,120 lb	150 lb	0.48 psi



- Alternator, 12 V, 40 A
- · Back-up alarm
- Batteries, 12 V, 64 Ah (5 hrs rate capacity)
- Blower fan
- Crankcase guard
- Dry-type air cleaner with automatic dust evacuator and dust indicator lamp
- Dry-type, interconnected steering clutches and brakes
- Electric starting motor, 12 V, 2.3 kW

- End track guiding guards
- · Hydraulic track adjusters
- Hitch
- Inching pedal
- Lighting system (including 2 front and 1 rear lights)
- Lubricated track links
- · Power angle tilt dozer, inside arms
- Muffler
- ROPS canopy\*

- Seat belt, 76 mm 3"
- Suspension seat
- Shoes, 300 mm 11.8" single-grouser(D21A-8)
- Shoes, 510 mm 20.1" single-grouser (D21P-8)
- Single-lever control for blade
- · Single-lever steering
- Transmission, F2- R2
- Vandalism protection locks and filler cap locks
- 5-roller track frames



#### OPTIONAL EQUIPMENT

- 3-point hitch with swing drawbar
- Air conditioner for cab
- Decelerator pedal

- Hydraulics for three point hitch
- Perforated radiator mask
- ROPS cab\*

- Swing drawbar
- Track-roller guards, full length
- \*ROPS cab and ROPS canopy meet ISO 3471, SAE J1040(APR88) ROPS standards.

#### **Optional shoes**

Model	Type of shoe	*Additional weight	Ground contact area	*Additional ground pressure (tractor)
D21A-8	300 mm 11.8" triple-	+20 kg	10110 cm <sup>2</sup>	+0.002 kg/cm <sup>2</sup>
	grouser shoe with hole	+44 lb	1,570 in²	+0.03 PSI +0.2 kPa
	300 mm <b>11.8</b> "	-75 kg	10110 cm <sup>2</sup>	-0.007 kg/cm <sup>2</sup>
	rubber shoe	-165 lb	1,570 in²	<b>-0.1 PSI</b> -0.7 kPa
	340 mm 13.4" single-	+30 kg	11460 cm <sup>2</sup>	-0.04 kg/cm <sup>2</sup>
	grouser shoe	+66 lb	1,780 in²	<b>-0.57 PSI</b> -3.9 kPa
D21P-8	510 mm <b>20.1</b> "	+80 kg	17190 cm <sup>2</sup>	+0.005 kg/cm <sup>2</sup>
	circular arc shoe	+176 lb	2,664 in <sup>2</sup>	<b>+0.07 PSI</b> +0.5 kPa
	500 mm <b>19.7</b> "	+50 kg	16850 cm <sup>2</sup>	+0.008 kg/cm <sup>2</sup>
	rubber shoe	+110 lb	2,612 in²	<b>+0.11 PSI</b> +0.8 kPa

<sup>\*</sup>Including Dozer equipment

KUSS160-00

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DK01(2.5M)PLI

01/05 (EV-1)



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<sup>\*</sup>Rops cab or Rops canopy must be ordered for all machines.