FLYWHEEL HORSEPOWER:
70 HP 52 kW @ 2350 RPM
OPERATING WEIGHT:
D31E-20 : 6270 kg 13,820 lb
D31P-20 : 6840 kg 15,080 lb
(1450 mm 4’9” track gauge)
(1650 mm 5’5” track gauge)
6940 kg 15,300 lb

OPERATOR ORIENTED DESIGN FOR EASY OPERATION
• Wrist-control type single-lever (joystick) for steering/speed/directional change ensures easy and smooth operation.
• Wrist-control type single-lever (joystick) for blade control ensures less operating effort for blade angling.
• With a HYDROSHIFT transmission, speed and directional changes (F3/R3) can be done instantly.

SIMPLIFIED MAINTENANCE
• Spin-on filters, air cleaner with dust evacuator and easy-to-drain fuel tank greatly minimize maintenance.
• Automatic fan belt tensioner and radiator coolant reservoir facilitate simplified maintenance.

FOR VERSATILE OPERATION AND SUPERIOR PRODUCTIVITY
• Single-lever steering/speed/directional change ensures smooth turning and superior productivity.
• Efficient HYDROSHIFT transmission and S4D102E engine provide powerful and fuel-saving operation.
• Long tracks provide greater stability and superior grading ability.
• Inching pedal permits precise movement in tight quarters and surer approaches.
SPECIFICATIONS

ENGINE

Model: Komatsu S4D102E-1
Type: 4-cycle, water-cooled, direct injection
Aspiration: Turbocharged
No. of cylinders: 4
Bore: 4.02" 102 mm
Stroke: 4.72" 120 mm
Piston Displacement: 240 in³ 3.9 ltr
Flywheel Horsepower:
SAE J1349: 70 HP 52 kW @ 2350 RPM
DIN 6270 NET: 71 PS 52 kW @ 2350 RPM
Governor: All-speed, mechanical

DAMPER

Wet-type damper, with built-in torsion and friction springs, absorbs engine torque vibrations as well as stress from external impacts.

HYDROSHIFT TRANSMISSION

The unique Komatsu HYDROSHIFT transmission with planetary gears is hydraulically-controlled and force-lubricated. Efficient power flow and simplified direction and speed changes (3 forward and 3 reverse).

D31E-20

<table>
<thead>
<tr>
<th>Travel speed</th>
<th>Forward</th>
<th>Rated drawbar pull</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>2.2 km/h</td>
<td>16,180 lb/72.0 kN</td>
<td>2.4 km/h</td>
</tr>
<tr>
<td>2nd</td>
<td>3.9 km/h</td>
<td>16,700 lb/75.0 kN</td>
<td>4.3 km/h</td>
</tr>
<tr>
<td>3rd</td>
<td>6.5 km/h</td>
<td>12,700 lb/57.5 kN</td>
<td>7.1 km/h</td>
</tr>
<tr>
<td>Max. drawbar pull</td>
<td>9030 kg 19,910 lb/88.6 kN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D31P-20

<table>
<thead>
<tr>
<th>Travel speed</th>
<th>Forward</th>
<th>Rated drawbar pull</th>
<th>Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>2.3 km/h</td>
<td>16,070 lb/71.5 kN</td>
<td>2.4 km/h</td>
</tr>
<tr>
<td>2nd</td>
<td>3.9 km/h</td>
<td>3900 kg</td>
<td>4.3 km/h</td>
</tr>
<tr>
<td>3rd</td>
<td>6.5 km/h</td>
<td>2100 kg</td>
<td>7.1 km/h</td>
</tr>
<tr>
<td>Max. drawbar pull</td>
<td>8960 kg 19,760 lb/87.9 kN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STEERING

Single steering lever controls all direction movement. Wet, multiple-disc steering clutches are PPC controlled and interconnected with wet, contracting-band, steering brakes 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, precise inching approaches to obstacles and impact digging.

FINAL DRIVE

Spur gear, single-reduction final drives. Bolt-on type sprockets for easy replacement.

UNDERCARRIAGE

Suspension: Rigid type
Track roller frame: High-tensile-strength steel construction.
Rollers and idlers: Lubricated idlers, track and carrier rollers are sealed with floating seals.

Number of track rollers: 5 each (D31E-20)
Number of carrier rollers: 6 each (D31P-20)
Track gauge: 1650 mm 55" (D31E-20, D31P-20)
Track shoes: Single-grouser shoes (D31E-20)
Circular-arc ramp shoes (D31P-20)
Unique dust seals prevent entry of dust into pin-to-bushing clearances for extended service. Track tension is easily adjusted with a grease gun.

COOLANT & LUBRICANT CAPACITY (refilling)

<table>
<thead>
<tr>
<th></th>
<th>D31E-20</th>
<th>D31P-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant</td>
<td>22 ltr.</td>
<td>5.8 U.S. gal</td>
</tr>
<tr>
<td>Fuel tank</td>
<td>115 ltr.</td>
<td>30.4 U.S. gal</td>
</tr>
<tr>
<td>Engine</td>
<td>12 ltr.</td>
<td>3.2 U.S. gal</td>
</tr>
<tr>
<td>Damper case</td>
<td>0.7 ltr.</td>
<td>0.2 U.S. gal</td>
</tr>
<tr>
<td>Transmission</td>
<td>13 ltr.</td>
<td>3.4 U.S. gal</td>
</tr>
<tr>
<td>Bevel gear case/Steering clutch</td>
<td>47 ltr.</td>
<td>12.4 U.S. gal</td>
</tr>
<tr>
<td>Final drive (each side)</td>
<td>(1450 mm track gauge)</td>
<td>9.5 ltr.</td>
</tr>
<tr>
<td></td>
<td>(1650 mm track gauge)</td>
<td>12 ltr.</td>
</tr>
</tbody>
</table>

OPERATING WEIGHT (approximate)

Tractor weight, including rated capacity of lubricant, coolant, full fuel tank, operator and standard equipment
D31E-20: 5240 kg 11,550 lb
D31P-20 (1450 mm track gauge): 5890 kg 13,000 lb
(1650 mm track gauge): 5860 kg 12,920 lb
Operating weight, including dozer, operator, standard equipment, rated capacity of lubricant, coolant and full fuel tank
D31E-20 (Power-angle-tilldozer) | 6270 kg 13,820 lb
D31P-20 (1450 mm track gauge with straight-tilldozer) | 6840 kg 15,080 lb
(1650 mm track gauge with power-angle-tilldozer) | 6940 kg 15,300 lb

HYDRAULIC SYSTEM

Hydraulic control unit: Gear-type hydraulic pump mounted on rear of engine with capacity (discharge flow) of 90 ltr. 24.0 U.S. gal/min, at rated engine RPM.
Relief valve setting 175 kg/cm² 2,490 PSI/17.2 MPa
Control valves:
• Three control valves for power-angle-tilldozer
  Positions: Blade lift, Raise, hold, lower and float
  Blade angle, Left, hold and right
  Blade tilt, Left, hold and right
• Two control valves for trimmer dozer
  Positions: Blade lift, Raise, hold, lower and float
  Trimming, Forward, hold and backward
  Additional control valve required for ripper
  Positions: Ripper lift, Raise, hold, lower and float
Hydraulic cylinders: Double-acting, piston type

<table>
<thead>
<tr>
<th>Number of cylinders</th>
<th>Bore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade lift</td>
<td>2</td>
</tr>
<tr>
<td>Blade tilt</td>
<td>1</td>
</tr>
<tr>
<td>Blade angling</td>
<td>2</td>
</tr>
</tbody>
</table>
DOZER EQUIPMENT

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.

<table>
<thead>
<tr>
<th></th>
<th>Overall length with dozer</th>
<th>Blade capacity</th>
<th>Blade length x height</th>
<th>Max. lift above ground</th>
<th>Max. drop below ground</th>
<th>Max. tilt adjustment</th>
<th>Additional weight</th>
<th>Additional ground pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>D31E-20 Power-angle tiltdozer</td>
<td>3710 mm 12&quot;2&quot;</td>
<td>1.26 m³ 1.65 cu.yd</td>
<td>2415 mm x 840 mm 7'11&quot;x 2'9&quot;</td>
<td>865 mm 370 mm 2'10&quot;</td>
<td>1'3&quot; 1'2&quot;</td>
<td>850 kg 1,870 lb</td>
<td>0.08 kg/cm² 1.13 PSI 7.8 kPa</td>
<td></td>
</tr>
<tr>
<td>D31P-20 Power-angle tiltdozer</td>
<td>3930 mm 12'11&quot;</td>
<td>1.3 m³ 1.70 cu.yd</td>
<td>2875 mm x 790 mm 9'5&quot;x 2'7&quot;</td>
<td>865 mm 370 mm 2'10&quot;</td>
<td>1'3&quot; 1'5&quot;</td>
<td>900 kg 1,980 lb</td>
<td>0.04 kg/cm² 0.57 PSI 3.9 kPa</td>
<td></td>
</tr>
<tr>
<td>D31P-20 Straight tiltdozer</td>
<td>3845 mm 12'7&quot;</td>
<td>1.2 m³ 1.60 cu.yd</td>
<td>2430 mm x 790 mm 8'x 2'7&quot;</td>
<td>875 mm 335 mm 2'10&quot;</td>
<td>1'1&quot; 1'2&quot;</td>
<td>820 kg 1,810 lb</td>
<td>0.03 kg/cm² 0.50 PSI 3.5 kPa</td>
<td></td>
</tr>
</tbody>
</table>

*(L. Blade length) x (H. Blade height)**  **1450 mm 4'9" track gauge  ***1650 mm 5'5" track gauge.*
STANDARD EQUIPMENT

- HYDROSHIFT transmission
- 330 mm 13" single-grouser shoes (D31E-20), 600 mm 23.6" circular-arc shoes (D31P-20)
- Hydraulic track adjusters
- 24 V, 25A alternator
- 24 V, 5.5 kW electric starting motor
- End track guiding guards
- Inching pedal
- Wet-type, interconnected steering clutches and brakes
- In-line radiator cores
- Dry-type air cleaner with automatic dust evacuator and dust indicator lamp
- 24 V (12 V x 2), 70 Ah batteries
- 5-roller track frames (D31E-20), 6-roller track frames (D31P-20)
- Lighting system (including 2 front and 1 rear lights)
- Blower fan
- Muffler
- Adjustable operator's seat
- Crankcase guard
- Single-lever steering
- Single-lever hydraulic control

ATTACHMENTS AND OPTIONAL EQUIPMENT

ROPS cab*   ROPS canopy*   Trimmingdozer   Swing drawbar

* ROPS cab and ROPS canopy meet ISO 3471, SAE J1040 (APR88) ROPS standards.

Other attachments and optional equipment
- Track-roller guards, center
- Front pull hook
- Hitch type drawbar
- Additional valve and lever for ripper control
- Decelerator pedal
- Vandalism protection locks
- Oil-suspension seat
- Backup alarm
- Tool kit and ordinary spare parts

Optional shoes

<table>
<thead>
<tr>
<th>Model</th>
<th>D31E-20</th>
<th>D31P-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of shoe</td>
<td>400 mm 15.7&quot; single-grouser shoe</td>
<td>600 mm 23.6&quot; single-grouser shoe</td>
</tr>
<tr>
<td>*Additional weight</td>
<td>+80 kg +176 lb</td>
<td>+15 kg +33 lb</td>
</tr>
<tr>
<td>Ground contact area</td>
<td>15040 cm² 2,331 sq.in</td>
<td>26220 cm² 4,064 sq.in</td>
</tr>
<tr>
<td>*Additional ground pressure (tractor)</td>
<td>-0.07 kg/cm² -1.00 PSI -6.9 kPa</td>
<td>±0</td>
</tr>
</tbody>
</table>

*Addition to tractor.

This specification sheet may contain attachments and optional equipment that are not available in your area. Please contact your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

Komatsu