# D7E

## Track-Type Tractor


| Engine | | |
|---|---|---|
| Engine Model | Cat® C9.3 ACERT™ | |
| Emissions | U.S. EPA Tier 4 Final/EU Stage IV/ Japan 2014 (Tier 4 Final) | |
| Net Power (Rated) | | |
| ISO 9249/SAE J1349 | 178 kW | 238 hp |
| ISO 9249/SAE J1349 (DIN) | | 241 hp |

| Engine (continued) | | |
|---|---|---|
| Net Power (Maximum) | | |
| ISO 9249 | 187 kW | 251 hp |
| ISO 9249 (DIN) | | 254 hp |
| **Weights** | | |
| Operating Weight – STD SU | 26 055 kg | 57,441 lb |
| Operating Weight – LGP S | 28 525 kg | 62,886 lb |

## Engine

| | | |
|---|---|---|
| Engine Model | Cat C9.3 ACERT | |
| Global Emissions | Tier 4 Final/Stage IV/ Japan 2014 (Tier 4 Final) | |
| Engine Power (Maximum) | | |
| SAE J1995 | 201 kW | 270 hp |
| ISO 14396 | 198 kW | 266 hp |
| ISO 14396 (DIN) | | 270 hp |
| Net Power (Rated) | | |
| ISO 9249/SAE J1349 | 178 kW | 238 hp |
| ISO 9249/SAE J1349 (DIN) | | 241 hp |
| Net Power (Maximum) | | |
| ISO 9249/SAE J1349 | 187 kW | 251 hp |
| ISO 9249/SAE J1349 (DIN) | | 254 hp |
| Bore | 115 mm | 4.5 in |
| Stroke | 149 mm | 5.9 in |
| Displacement | 9.3 L | 567 $in^3$ |

- Maximum Engine Power at 1,600 rpm, Rated Net Power at 1,700 rpm, Maximum Net Power at 1,450 rpm.
- Net power advertised is the power available at the flywheel when engine is equipped with fan, air cleaner, and muffler.
- No derating required up to 3200 m (10,500 ft) altitude, beyond 3200 m (10,500 ft) automatic derating occurs.
- All non road Tier 4 Interim and Final, Stage IIIB and IV, and Japan 2011 and 2014 (Tier 4 Interim and Tier 4 Final) diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214). Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your OMM for further machine specific fuel recommendations.
- DEF used in Cat Selective Catalytic Reduction (SCR) systems must meet the requirements outlined in the International Organization for Standardization (ISO) standard 22241.

## Service Refill Capacities

| | | |
|---|---|---|
| Fuel Tank | 409 L | 108 gal |
| DEF Tank | 17.5 L | 4.6 gal |
| Cooling System | 87 L | 22.5 gal |
| Engine Crankcase | 30 L | 8 gal |
| Power Train | 60 L | 16 gal |
| Final Drives (each) | 28 L | 7 gal |
| Final Drive (LGP each) | 34 L | 9 gal |
| Pivot Shaft Compartment | 7 L | 1.8 gal |
| Hydraulic Tank | 76 L | 20 gal |

## Weights

| | | |
|---|---|---|
| Shipping Weight | 21 955 kg | 48,402 lb |
| Operating Weight – STD SU | 26 055 kg | 57,441 lb |
| Operating Weight – LGP S | 28 525 kg | 62,886 lb |
| Shipping Weight – LGP | 24 335 kg | 53,649 lb |

- Shipping Weight includes lubricants, coolant, ROPS/FOPS cab, standard track and 10% fuel.
- Operating Weight includes blade, lubricants, coolant, full fuel tank, standard track, ROPS/FOPS cab, drawbar and operator.

## Hydraulic Controls – Pump

| | | |
|---|---|---|
| Pump Output – Steering | 312 L/min | 82.4 gal/min |
| Pump Output – Implement | 200 L/min | 52.8 gal/min |
| Lift Cylinder Flow | 200 L/min | 52.8 gal/min |
| Ripper Cylinder Flow | 200 L/min | 52.8 gal/min |
| Pump Type | Piston, Variable Displacement | |
| Tilt Cylinder Flow – Head End Flow | 93 L/min | 24.6 gal/min |
| Tilt Cylinder Flow – Rod End Flow | 66 L/min | 17.4 gal/min |

## Hydraulic Controls – Main Relief Valve

| | | |
|---|---|---|
| Pressure Setting – Steering | 27 600 kPa | 4,000 psi |

- Rated Implement Pump Speed 2,000 rpm.
- Rated Steering Pump Speed 2,500 rpm.

## Hydraulic Controls – Maximum Operating Pressure

| | | |
|---|---|---|
| Bulldozer | 27 600 kPa | 4,000 psi |
| Tilt Cylinder | 27 600 kPa | 4,000 psi |
| Ripper (Lift) | 27 600 kPa | 4,000 psi |
| Ripper (Pitch) | 27 600 kPa | 4,000 psi |
| Steering | 41 000 kPa | 5,950 psi |

# D7E Track-Type Tractor Specifications

## Ripper

| | | |
|---|---|---|
| Type | Multi-Shank | |
| Number of Pockets | 3 | |
| Overall Beam Width | 2088 mm | 82.2 in |
| Beam Cross Section | 355 mm | 14.0 in |
| Maximum Clearance Raised (under tip, pinned in bottom hole) | 588 mm | 23.1 in |
| Maximum Penetration | 650 mm | 25.6 in |
| Maximum Penetration Force | 87.4 kN | 19,639 lbf |
| Pryout Force | 234.4 kN | 52,695 lbf |
| Weight – with One Shank | 1650 kg | 3,572 lb |
| Each Additional Shank | 150 kg | 330 lb |
| Ramp Angle | 26 Degrees | |
| Pocket Spacing | 900 mm | 35.4 in |
| Shank Gauge | 1800 mm | 70.9 in |
| Shank Section | 72 mm × 228 mm | 2.8 in × 9.0 in |

## Winch

| | | |
|---|---|---|
| Winch Model | PA90 | |
| Weight* | 1520 kg | 3,350 lb |
| Oil Capacity | 12 L | 3.2 gal |
| Winch and Bracket Length | 1115 mm | 93.9 in |
| Winch Case Length | 1110 mm | 43.7 in |
| Winch Case Width | 826 mm | 32.5 in |
| Increased Tractor Length – STD | 1032 mm | 93.9 in |
| Increased Tractor Length – LGP | 1032 mm | 93.9 in |
| Drum Diameter | 318 mm | 12.5 in |
| Drum Width | 226 mm | 8.9 in |
| Flange Diameter | 610 mm | 24 in |
| Drum Capacity – 24 mm (1 in) | 62 m | 203 ft |
| Drum Capacity – 29 mm (1.13 in) | 56 m | 185 ft |
| Ferrule Size (O.D. × Length) | 60 mm × 65 mm | 2.38 in × 2.56 in |
| Winch Drive | Hydraulic | |
| Control | Electronic/Hydraulic | |
| Installed Weight | 1520 kg | 3,350 lb |
| Winch Length | 1115 mm | 43.9 in |
| Overall Width | 1090 mm | 43 in |
| Throat Clearance | 218 mm | 8.6 in |
| Rope Diameter (recommended) | 25 mm | 1 in |
| Cable Ferrule Size (O.D. × Length) | 60 mm × 65 mm | 2.38 in × 2.56 in |
| Maximum Bare Drum Line Pull | 400.3 kN | 90,000 lbf |
| Maximum Bare Drum Line Speed | 21 m/min | 70 ft/min |
| Maximum Full Drum Line Pull | 253.5 kN | 57,000 lbf |
| Maximum Full Drum Line Speed | 35 m/min | 116 ft/min |

*Basic winch weight, mounting arrangement, hydraulic and electrical system weight.

## Standards

| | |
|---|---|
| ROPS/FOPS | • Rollover Protective Structure (ROPS) meets the following criteria: ISO 3471:2008<br>• Falling Object Protective Structure (FOPS) meets the following criteria: ISO 3449:2005 Level II |
| Brakes | • Crawler Machine Brake Requirements meets the following criteria: ISO 10265:2008 |
| Cab | ANSI/SAE J1166 OCT98 |

- The declared dynamic operator sound pressure level is 75 dB(A) when "ISO 6396:2008" is used to measure the value for an enclosed cab. The measurement was conducted at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds. The cab was properly installed and maintained. The measurement was conducted with the cab doors and the cab windows closed. The cab was properly installed and maintained.
- Hearing protection may be needed when the machine is operated with an open operator station for extended periods or in a noisy environment. Hearing protection may be needed when the machine is operated with a cab that is not properly maintained, or when the doors and windows are open for extended periods or in a noisy environment.
- The declared exterior sound power level is 110 dB(A) when the value is measured according to the dynamic test procedures and the conditions that are specified in "ISO 6395:2008." The measurement was conducted at 70% of the maximum engine cooling fan speed. The sound level may vary at different engine cooling fan speeds.
- The whole body vibration information is available in HEGQ3339 "Driving Down Vibration" available from your local Cat dealer. The hand/arm vibration of this machine is below 2.5 m/sec$^2$ (8.2 ft/sec$^2$).

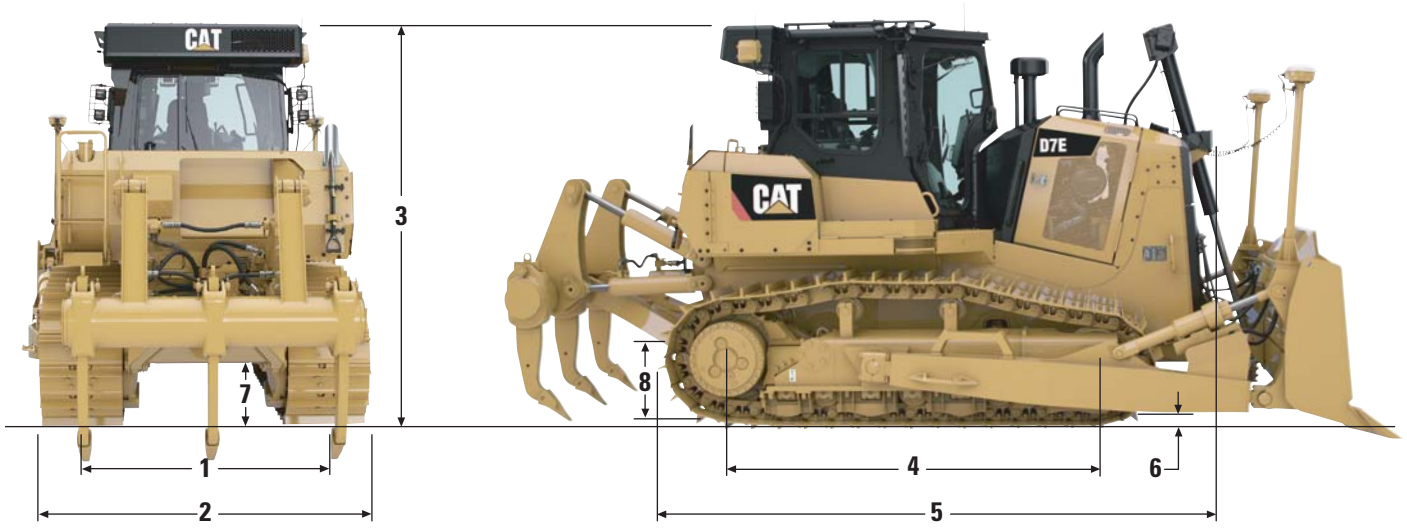
## Drive Train

| | |
|---|---|
| Type | Electric Drive |
| AC Compressor Nominal Input Voltage | 320 Volts |
| AC Compressor Maximum Input Current | 12 Amps |
| AC Generator and Propulsion Module Voltage | 480 Volts |

- Nominal current dependent on heat/humidity loading on HVAC unit.

## Dimensions

All dimensions are approximate




| | | STD | | LGP | |
|---|---|---|---|---|---|
| **1** | Track Gauge | 1981 mm | 78 in | 2286 mm | 90 in |
| **2** | Width of Tractor over Trunnions | 2880 mm | 113 in | 3423 mm | 135 in |
| | Width of Tractor without Trunnions (std. shoes) | 2591 mm | 102 in | 3200 mm | 126 in |
| **3** | Machine Height from Tip of Grouser | | | | |
| | Top of Stack | 3365 mm | 132 in | 3365 mm | 132 in |
| | Top of Standard Cab | 3392 mm | 134 in | 3392 mm | 134 in |
| | From Ground Face of Shoe | 3322 mm | 131 in | 3322 mm | 131 in |
| **4** | Length of Track on Ground | 3016 mm | 119 in | 3450 mm | 136 in |
| **5** | Length of Basic Tractor | 4608 mm | 181 in | 4608 mm | 181 in |
| | With the following attachments add to basic tractor length: | | | | |
| | Ripper (with tip at ground line) | 1391 mm | 55 in | N/A | |
| | Ripper (with tip fully raised) | 1222 mm | 48 in | N/A | |
| | Winch | 1032 mm | 41 in | 1032 mm | 41 in |
| | Drawbar | 270 mm | 10.6 in | 270 mm | 10.6 in |
| | S Blade | 977 mm | 38 in | N/A | |
| | SU Blade | 1187 mm | 47 in | N/A | |
| | U Blade | 1425 mm | 56 in | N/A | |
| | A Blade – Straight | 1230 mm | 48 in | 1230 mm | 48 in |
| | A Blade – Angled 25° | 964 mm | 36 in | 964 mm | 36 in |
| **6** | Height of Grouser | 70 mm | 2.75 in | 70 mm | 2.75 in |
| **7** | Ground Clearance | 472 mm | 18.6 in | 472 mm | 18.6 in |
| | Ground Contact Area (std. shoes) | 3.68 $m^2$ | 5,698 $in^2$ | 6.31 $m^2$ | 9,792 $in^2$ |
| | Number of Shoes per Side | 40 | | 44 | |
| | Standard Shoe Width (Moderate Service) | 610 mm | 24 in | 915 mm | 36 in |
| | Ground Pressure | 69.5 kPa | 10.1 psi | 44.3 kPa | 6.4 psi |
| | Pitch | 215.9 mm | 8.5 in | 215.9 mm | 8.5 in |
| | Track Rollers/Side | 7 | | 8 | |
| | Number of Carrier Rollers | 2 | | 2 | |
| **8** | Drawbar Height (grouser tip to center of clevis) | 719 mm | 28 in | 719 mm | 28 in |