

1085D Engine

Cummins 6BT5.9, turbo charged, 6-cylinder, 4-cycle, liquid-cooled, isolation-mounted diesel engine. 148 peak hp (110 kw) @ 2200 rpm, 133 net hp (99kw) @ 2200 rpm, 440 ft.-lbs. Peak torque (597Nm) @ 1600 rpm, 359 cid (5.88L), 4.02" bore x 4.72 stroke, (102mm x 120mm), 17.5:1 compression ratio. Two-stage dry-type air cleaner with safety element. Spin-on lube and fuel/water separator filters. 24 volt DC, 700 CCA @ 0 degrees F (-22 degrees C). Radiator: Fin and flat tube type. *Fuel Tank: 75-gal. (284L) with in-line filter.

Transmission:

Clark power shift, 6-speed forward, with 12.6" (320mm) converter. Electric shift with downshift inhibitor.

Gear Ratios:

- 1st gear: high 3.94:1, low 8.81:1.
- 2nd gear: high 2.00:1, low 4.49:1.
- 3rd gear: high 2.00:1, low 1.58:1.

Axles

Torque proportioning (high traction) differentials.

Front: Planetary, steering axle oscillates and is equipped with oscillation lockouts.

Rear: Planetary, rigid, non-steering axle.

Optional: Rear axle with Driver-controlled locking differentials.

Steering

Hydrostatic power steering.

Turning Radius

Inside Curb: 15'7" (4.75m).

Outside Curb: 25'6" (7.77m).

Brakes

Service and working: Foot-operated, hydraulic dry disc on each wheel.

Parking: Spring-applied, hydraulic released. Located on rear axle input.

Maximum Gradeability

95% with no load and 17.5-25 tires on a paved surface.

Note: Gradeability is a measure of tractive effort only and does not represent grades on which the machine can operate.

Tires

Standard: 17.5-25, 20PR, Goodyear Rock E-3 G-3 L-3.

Optional: 17.5-25, 20PR, Goodyear Traction

E-2 G-2 L-2

Optional: 17.5-25, 24PR, General Rock E-3 G-3 L-3

Optional: 17.5R25*, 16PR, Michelin Rock G-3

L-3.

Optional: 17.5R25*, 16PR Michelin Traction G-2 L-2

Frame

Designed for heavy-duty excavation work. The strong, durable, all-welded frame structure is built with large cross-sections for maximum stiffness.

Platinum Cab

All controls for both the lower and upper works are located in a single, spacious, ergonomic, all-steel, deluxe weatherproof cab, with easy operator access. Tinted, tempered glass windshield slides open and is stored in an up-and-over position.

Enlarged tinted tempered glass side and rear sliding windows. Plush, 5-way adjustable suspension seat with armrests and seatbelt. Totally integrated joysticks for all digging functions. Tilt, telescope steering with automotive column controls for wiper and washer, turn signals, and four-way hazard. Engine throttle and steering reversal controls. Windshield wiper and washer. Sound abatement system, floor and wall carpeting, cup holder, ashtray. Cigarette lighter, cab interior light and and garment hook. (Operator controls can be easily interchanged to satisfy techniques of most operators).

Cab Options

Hydraulic heat & air conditioning, or LP heater. West Coast mirrors, (2) 12 volt power outlets, AM/FM cassette radio or AM/FM cassette radio/CD player. Pedal controls for Wrist-O-Twist and Extendastick.

Standard Equipment

Sealed halogen headlights. Turn signals, taillights, stop and 4-way hazard lights. Electric signal horn. Key-operated ignition/start. Lighted gauges for engine oil pressure and coolant temperature, voltage, fuel level, and hour meter. Audio-visual alarm monitors engine oil pressure, engine water temperature, low brake pressure, and low battery charge. Cab controls for all operations. Warning lights for air cleaner filter restriction. Literature, hydraulic oil level, torque converter oil temp, and hydraulic oil filter restriction. Literature compartment. Auxiliary hydraulic circuit controls. 13'8" (4.2m) grading and excavating boom. Hydraulic oil filters. Hydraulically operated rear outriggers. 4-wheel drive. Automatic ether-start. 3-speed engine mode selector/auto engine deceleration.

Optional Equipment

12.5' (3.8m) rigid dipper. 15' (4.6m) rigid dipper. Extendastick dipper. 9'1" (5.8m) excavating boom / 9'(2.7m) rigid dipper. Wrist-O-Twist with quick latch. Secondary steering. Boom work light package. Rear pintle hitch. Tool box. Shroud Vandal covers. Lift and tie down brackets. Strobe light. Engine block heater. 30 gpm auxiliary hydraulic circuit to end of dipper. Spare tire and wheel. Slow moving vehicle emblem. Optional engine shutdown for engine oil pressure, engine water temperature, low brake pressure, low battery charge, low coolant level, and low secondary steering pressure.

Outriggers

Two rear and front (optional) individually or simultaneously controlled from cab.

Swing

360 deg. Continuous swing @ 11.5 rpm. Positive operator control with hydraulic motor, automatic disc brake, 24.23:1 gear reducer and swing torque of 24,884 lb./ft. (33,738Nm)

Controls

Totally integrated joysticks with low operating forces and short stroke, control boom, bucket, dipper, and swing functions.

Hydraulic System

One fixed displacement gear pump for the crowd and swing circuits @ 52 gpm (197L/min). One fixed displacement gear pump for the hoist and tool circuits @ 52 gpm (197L/min). And one variable displacement pump for the steering, brake, and pilot circuits @ 0 to 26 gpm (98L/min.). 2,650 psi (18,271 kpa) main relief valve pressure setting. Positive radiator type hydraulic oil cooler. Two sectional – 4 spool control valves for hoist, crowd, tool, swing, and two auxiliary functions.

Double-acting cylinders with bolt-on heads. Hoist: 6.5" ID (165mm), 55.4 (1,410mm) stroke. Dipper 6.5" ID (165mm), 55.4" (1,290mm) stroke. Tool: 5.5" ID (140mm), 37.5" (953mm) stroke. Outriggers: two standard, four optional: 5.5" ID (140mm), 17.5" (445mm) stroke. Two single-acting hydraulic cylinders for axle oscillation lock: 3.5" ID (89mm), 5.35" (136mm) stroke.

Optional: Extendastick 4" ID (102mm), 60" (1,520mm) stroke. Wrist-O-Twist 4" ID (102mm), 7.5" (191mm) stroke.

Breakout Force

Dipper Cylinder:

Extendastick extended: 11,442 lbf (50, 897N).

Extendastick retracted: 15,596 lbf (69,374N)

Bucket:

Standard pin position: 19,822 lbf (88,173N).

Power pin position: 23,298 lbf (103,635N)N.

Buckets and Attachments

Buckets fabricated of steel plate with T-1 steel cutting edges and wear strips, replaceable tooth points with flex pins on general purpose buckets.

General Purpose Buckets: 24" (610mm), 30" (762mm), 36" (914mm) 42" (1,067mm).

Ditch Forming Buckets: 60" (1,524mm), 72" (1,829mm).

Front Loading Bucket: 60" (1,524mm),

Concrete Removal Bucket: 48" (1,219mm).

Attachments: Brush mower, grapple, magnet, hammer, and auger available.

Operating Weights

Approximate working weight of excavator: 42,980 lbs.

(19,470kg): with rigid dipper, 17.5-25 20PR tires, standard cab with LP heater, rear standard outriggers. 60" (1.5m) ditching bucket, Wrist-O-Twist, full fuel, and 175 lb. (79kg) operator.

Service Capacities

Complete hydraulic system: 75 gallon (284L)

Hydraulic reservoir: 35 gallon (132L)

Cooling system: 9 gallon (34L)

Engine oil with filter: 17 quart (16.1L)

Swing gearbox: 8.5 quart (8L)

Transmission and torque converter: 21 quart (19.9L)

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