

460 Hydro-Scopic

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SPECIFICATIONS

460 Carrier Engine

Cummins ISB-280, turbo-charged, charge-air cooled, 6-cylinder, 4-cycle, liquid-cooled, isolation-mounted diesel engine. 280 peak hp (209kw) @ 2,300 rpm, 660 lbs.-ft. peak torque (895Nm) @ 1,600 rpm, 409 cid (6.7L), 4.21" bore x 4.88 stroke (107mm x 124mm), 17.3:1 compression ratio. Electronically controlled exhaust gas particulate filter. Two-stage dry-type air cleaner. Spin-on coolant, fuel/water separator and combination full flow/bypass lube filters. 12 volt DC, 100 amp alternator with integral solid-state regulator. Electronically controlled fuel pump. **Battery:** One SAE 12 volt DC, 1,150 CCA @ 0 deg. F (-22° C) **Radiator:** Fin and flat tube type radiator with silicone coolant and heater hoses. Brazed aluminum charge-air cooler. **Fuel Tank:** 50-gal. (189L) fuel tank with in-line filter.

Optional Carrier Engine

Cummins ISC-300 turbo-charged, charge-air cooled, 6-cylinder, 4-cycle, liquid cooled, isolation-mounted diesel engine. 300 peak hp (224kw) @ 2,000 rpm; peak torque 860 lbs.-ft. (1,166Nm) @ 1,300 rpm; 504.5 cid (8.3L).

Carrier Air System

13.2 cfm (374CL) compressor. Bendix AD-9 desiccant type air dryer with heated automatic ejector valve, spin-on cartridge.

Transmission

Eaton Fuller RT8908LL manual, 10 speeds forward, 3 reverse with Spicer 14" (356mm) diameter two-disc hydraulic clutch. Air operated countershaft brake and multi-mesh gearing. **Transfer Case:** Fabco TC170 with cab-controlled front axle disconnect

Axles

6 x 4 Front: Rockwell FF-942: 13,200lb. (5,987kg) rated capacity. **6 x 6 Front:** Fabco SDA-1600: 16,000lb (7,257kg) rated capacity with 4.88:1.00 ratio **Rear:** Eaton 405 tandem: 40,000lb. (18,144kg) rated capacity. Cab-controlled inter-axle and differential lock with 4.88:1.00 ratio. **Optional Rear Axle:** Eaton 461 tandem: 46,000lb. (20,865kg) rated capacity.

Steering

Integral hydraulic power steering

Drive Line

Spicer 1710 series needle bearing universal joints.

Suspension

Front: Two 14-leaf spring 41.5" x 3" (105cm x 7.6cm) with mechanical stops. **Rear:** Hendrickson cast steel equalizer teams with 54" (137cm) axle center, 8" (20cm) oscillation.

Brakes

Independent front and rear service brake system incorporates spring set emergency and air applied service and parking brakes with automatic slack adjusters on both rear axles. **6 x 4 Front:** Rockwell Cam/Master 16.5" x 5" (41.9cm x 12.7cm). **6 x 6 Front:** Eaton standard Service Cam 16.5" x 5" (41.9cm x 12.7cm) **Rear:** Eaton Extended Service Cam 16.5" x 7" (41.9cm x 17.8cm).

Wheels

6 x 4 Front: Disc
6 x 6 Front: Disc
6 x 6 Rear: Disc

Tires

6 x 4 and 6 x 6: 11R-22.5 (G) 14 PR front and dual rear highway tread
Option: 385/65R-22.5 (J) 18 PR front highway tread.
Option: 11R-22.5 (G) 14 PR dual rear traction tread.

Frame

Reinforced wide-flange "I" beams 10" x 39 lbs./ft. (25cm x 58kg/m), fully welded cross members. Bolt-on front bumper.

Carrier Cab

All-weather steel cab, isolation-mounted, acoustic-lined, with Bostrom T-bar seat, seat belt, tinted safety glass windows with adjustable side windows, ventilator in cowl, 2-speed electric windshield wiper with washer, fire extinguisher, sun visor, heat and defroster fans, and interior light.

Carrier Controls

Individual foot pedals hydraulically actuate the clutch and mechanically actuate the dual air brake valve and engine throttle. Once manual transmission shift lever with air-operated range selector.

Carrier Standard Equipment

Sealed halogen high/low beam headlights with high-beam indicator. Turn signals, clearance lights, taillights, back-up lights, stop lights, and 4-way hazard lights. 3-light identification cluster front and rear. Cab interior light. West-coast and convex mirrors. Tow hooks front and rear. Dual electric horns. Dial electric travel alarms signal remote control movement and reverse movement. Key-operated ignition/start. Lighted gauges for engine oil pressure and coolant temperature, voltage, fuel level, speedometer, odometer, tachometer, hour meter and dual air pressure. Audio-visual alarm system monitors: low coolant level, high coolant temperature, and low engine oil pressure. Low air pressure warning light. Push-pull air valve for emergency/parking brakes with flashing indicator light. Disc wheels.

Carrier Options

Spark arrestor. Vandalism covers. Hydraulic stabilizers, control in upper cab. Maintenance-free battery, air ride seat, and air conditioning.

Upperstructure Engine

Cummins QSB4.5-Tier 3 turbo-charged, 4-cylinder, 4-cycle, liquid-cooled, isolation-mounted diesel engine. 140 peak hp (104kw) @ 2,300 rpm, 130 hp (97kw) @ 2,500 rpm, 459 lbs.-ft peak torque (622Nm) @ 1,500 rpm 275 cid (4.5L), 4.21" bore x 4.88 stroke (107mm x 124mm), 17.2:1 compression ratio. Two-stage dry-type air cleaner. Spin-on lube filter, fuel filter/water separator. Electronically controlled fuel pump. 12 volt DC, 105 amp alternator with integral solid-state regulator. Exhaust gas particulate filter is not required. **Battery:** Two SAE 12 volt DC 600 CCA @ 0° F (-22° C). **Radiator:** Fin and flat tube type radiator with box type shroud. Brazed aluminum charge-air cooler. **Fuel Tank:** 50-gal. (189L) fuel tank with in-line filter.

Upperstructure Air System

8.5 cfm (241 CL) compressor. Bendix AD-9 desiccant type air dryer with heated automatic ejector valve, spin-on cartridge.

Hydraulic System, Fixed Flow

One 2-section tandem pump, flange mounted to the engine and driven directly by means of a Lovejoy Centaflex coupling. Maximum 80 gpm (364L/min.) @ 2,500 rpm, and 100° F (38 C) oil temperature. Integral flow divider and relief valve provide flow for remote steer, etc.

Four double-acting cylinders with bolt-on heads: Two boom hoist: 5" ID (127mm), 3.25" (83mm) rod, 30.25" (768mm) stroke, self-aligning bearings. One boom telescope: 4.5" ID (114mm), 3" (76mm) rod, 120" (3,048mm) stroke, self-aligning bearing in rod end. One tool: 5" ID (127mm), 2.5" (63mm) rod, 18" (457mm) stroke, self-aligning bearing in housing end. One 22 hp (16.4kw) hydraulic swing motor with manually or automatic disc type swing brake. One 56hp (41.8kw) hydraulic remote travel motor. Once cylinder-type rotary actuator, 6" ID (152mm), 180° rotation with cushion lock valve

Hydraulic Remote Control

Carrier powered by upperstructure engine through hydraulic motor and P.T.O. attached to transmission. Toggle air valve to select remote control located in carrier cab. Propel, steering levers located in upperstructure cab.

Swing

Speed: 7.9 rpm, 0 deg to 90° 2.5 seconds.

Upperstructure Cab

All-weather, isolation-mounted, acoustic-lined steel cab with tinted safety glass windows and skylight. Heater, defroster fan, fire extinguisher, 3-way adjustable cushioned seat. Front window self-stores in cab. Sliding rear window.

Upperstructure control

Two armrest mounted joysticks control all excavator functions. **Dead-man type self-centering:** when controls are released, machine movements stop automatically. **Remote Control:** One floor mounted rocker pedal controls forward/reverse carrier travel, one joystick mounted rocker switch controls the steering. Both are dead-man type self-centering: when pedal is centered, carrier brakes are set automatically. One operator controlled swing-parking brake switch. Push-pull air valve for emergency brakes.

Upperstructure Options

Vandalism protection package: metal window covers, locks for upperstructure access doors, storage rack (or Lexan windows less storage rack). Tachometer/hour meter. Engine coolant filter. Pump cavitation warning light. Strobe or rotating-beacon and indicator. Light package: two boom-mounted and two frame-mounted halogen work lights, two tail lights on upper shroud. Electric 2-speed windshield wiper with washer. Electric heating element hydraulic reservoir. Kwik-change bucket adapter. Seat belts. Air conditioning.

Buckets and Attachments

Buckets fabricated of steel plate with T-1 steel cutting edges and wear strips, hardened steel bushings in ears, replaceable tooth points with flex pins on excavating buckets **Ditching Buckets:** 60" (152cm), 66" (168cm). **Excavating Buckets:** 24" (61cm), 30" (76cm), 36" (91cm). **Specialty Buckets:** 24" (61cm) V-type bucket, rounded bottom; 60" (152cm) material handling bucket; 30" (76cm) pavement removal bucket. **Boom Extensions:** 2.5' (.8m), 4' (1.2m), 90' Material (unloading). **Attachments:** 8' (2.4m) grading blade, single-tooth ripper, guard rail cleanout, brush mower, grapple, magnet, hammer and auger attachments also available.

Operating Weights

Approximate working weight of carrier and upperstructure, including 60" (152cm) ditching bucket and full fuel tanks. **6 x 4:** 39,200 lbs. (17,781kg). **6 x 6:** 41,400 lbs. (18,779kg).

All specifications are subject to change.



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