

670 Hydro-Scopic

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SPECIFICATIONS

670 Carrier Engine

Cummins QSB6.7-240-Tier 3, turbo-charged, charge-air cooled, 6-cylinder, 4-cycle, liquid-cooled, isolation mounted diesel engine. 250 peak hp (186kw) @ 2,300 rpm, 728 lbs.-ft. peak torque (987Nm) @ 1,500 rpm, 409 cid (6.7L), 4.21" bore x 4.88" stroke (107mm x 124mm), 18.0:1 compression ratio. 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. Exhaust gas particulate filter is not required.

Battery: One SAE 12-volt DC, 1,150 CCA @ 0° 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 QSC-280, turbo-charged, charge-air cooled, 6-cylinder, 4-cycle, liquid-cooled, isolation-mounted diesel engine. 300 peak hp (224kw) @ 2,000 rpm; peak torque 1,000 lbs.-ft. (1,356Nm) @ 1,500 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: 13,200 lb (5,987kg) rated capacity. **6 x 6 Front:** Eaton SS-180-S: 16,000 lb. (7,257kg) rated capacity with 4.88:1.00 ratio.

Rear: Eaton 405 tandem: 40,000 lb (18,144kg) rated capacity. Cab-controlled inter-axle and differential lock with 4.88:1.00 ratio.

Optional Rear Axle: Eaton 461 tandem: 46,000 lb. (20,865kg) rated capacity.

Steering

Integral hydraulic power steering.

Drive Line

Spicer 1710 series needle bearing universal joints.

Suspension

Front: Two 14-leaf springs 41.50" 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 CamMaster 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 and Rear: Disc

6 x 6 Front and 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) 18PR front highway tread.

Option: 11R-22.5 (G) 14 PR dual rear traction tread.

Frame

Reinforced wide-flange "I" beams 12" x 35 lbs/ft (31cm x 52kg/m), fully welded crossmembers. 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. One 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, tail lights, 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. Dual 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 lever, 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.

Carrier Options

Spark arrestor. Vandalism covers. Hydraulic stabilizers, controls in upper cab. Maintenance-free battery. Air-ride seat. Air conditioning.

Upperstructure Engine

Cummins QSB-4.5-Tier 3, turbo-charged, 4-cylinder, 4-cycle liquid-cooled, isolation-mounted diesel engine. 160 peak hp (119kw) @ 2,200 rpm, 460 lbs.-ft. peak torque (624Nm) @ 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.

Battery: One SAE 12 volt DC 1,150 CCA A 0 deg. 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 (241CL) compressor. Bendix AD-9 desiccant type air dryer with heated automatic ejector valve, spin-on cartridge.

Hydraulic System, Variable Flow

Two tandem-section gear-type, one single-section gear-type hydraulic pumps. Pumps mounted to engine by gear box, 11" (28cm) single plate clutch for cold weather starting. Cross pressure sensing unloading valves in both tandem pumps provide variable flow output for horsepower summation: minimum 106 gpm (401L/min), maximum 124 gpm (470L/min) @ 2,200 rpm, 100° F (38° C) oil temperature. Manual pump unload selector valve.

Hydraulic System, Fixed Flow

Three-section triple gear-type hydraulic pump direct flange mounted to engine. Maximum 121 gpm (460L/min) @ 2,200 rpm and 100° F (38° C) oil temperature.

Six double-acting cylinders: Two boom hoist: 5" ID (127mm), 2.5 (63mm) rod, 40.87" (1,038mm) stroke, seal aligning bearing in rod end. One tool: 5" ID (127mm), 2.5" (63mm) rod, 18.09" (460mm) stroke, self-aligning in housing end. Two axle lockouts: 3" ID (76mm), 1.25" (32mm) rod, 5" (127mm) stroke. One 44 hp (33kw) hydraulic swing motor, dual staging relief valves and oil-cooled automatic swing/parking break. One 80 hp (60kw) hydraulic remote travel motor. One cylinder-type rotary actuator 6" ID (152mm), 180° rotation.

Hydraulic Remote Control

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

Swing

Speed: 8 rpm, 0° 90° 2.7 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. Swing-open side door, manual holder and interior light.

Upperstructure Control

Upperstructure digging control: two hydraulic joystick controllers with adjustable pedestals for tool-hoist and swing telescope functions and electrical rocker switch for boom tilt function. Carrier remote travel control: one hydraulic heel-toe pedal for propel functions, one rocker pedal for steering. All controls are dead-man type: when released, machine movements automatically stop. Electrical rocker switch for dual electric horns. 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), 72" (183cm).

Excavating Buckets: 24" (61cm), 30" (76cm), 36" (91cm), 42" (107cm), 48" (122cm).

Specialty Buckets: 42" (107cm) pavement removal bucket.

Boom Extensions: 4' (1.2m), 6' (1.8m), 8' (2.4m), 12' (3.7m), material (uploading).

Attachments: 8' (2.4m) grading blade, single-tooth ripper, brush mower, grapple, magnet, hammer and auger attachments also available.

Operating Weights

Approximate working weight of carrier and upperstructure, including 36" (91cm) excavating bucket and full fuel tanks.

6 x 4: 45,500 lbs. (20,638kg).

6 x 6: 47,700 lbs. (21,636kg).



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217 Patneau Drive
Winona, Minnesota 55987

Phone: (507) 454-1563

Fax: (507) 453-6441

www.badgerequipment.com

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