

ENGINE

| | |
|------------------------|---|
| Model | Cummins QSM 11, Tier III Certified |
| Type | 4-stroke, turbocharged and air-to-air cooled |
| Cylinders | 6 |
| Bore/Stroke | 4.92 in x 5.79 in (125 mm x 147 mm) |
| Displacement | 660 in ³ (10.8 L) |
| Fuel injection | Electronic |
| Fuel | #2 Diesel |
| Fuel filter | Replaceable, full flow spin-on cartridge |
| Fuel cooler | |
| Air filter | Dry type element w/warning restriction indicator |
| Fan – Hydraulic drive | |
| Style | 6 blade pusher |
| Water pump | Integral |
| Engine oil | |
| Pump operating angles | |
| Side-to-side | 45° |
| Fore and aft | 45° |
| Oil filtration | Replaceable, full flow, spin-on cartridge |
| Engine speeds (rpm) | |
| Rated speed, full load | 2100 |
| Horsepower – Peak | |
| Max Power Range | |
| Gross | 320 (239 kW) @ 1800 rpm |
| Net | 297 (221 kW) @ 1800 rpm |
| Standard Power Range | |
| Gross | 297 (221 kW) @ 1800 rpm |
| Net | 274 (204 kW) @ 1800 rpm |
| Economy Power Range | |
| Gross | 241 (179 kW) @ 1400 rpm |
| Net | 229 (171 kW) @ 1400 rpm |

NOTE: Gross horsepower and torque per SAE J1995.
Net horsepower and torque per SAE J1349.

ENGINE (CONTD.)

| | |
|----------------------|-----------------------------------|
| Torque – Peak | |
| Max Power Range | |
| Gross | 1,090 lb-ft (1478 N-m) @ 1000 rpm |
| Net | 1,066 lb-ft (1446 N-m) @ 1000 rpm |
| Standard Power Range | |
| Gross | 1,013 lb-ft (1373 N-m) @ 900 rpm |
| Net | 995 lb-ft (1349 N-m) @ 900 rpm |
| Economy Power Range | |
| Gross | 1,013 lb-ft (1373 N-m) @ 1000 rpm |
| Net | 995 lb-ft (1349 N-m) @ 1000 rpm |
| Torque rise | |
| Standard power | 50.1% |

DRIVETRAIN

| | | |
|--|---|-------------|
| Transmission | 4F/3R Proportional w/Electronic Control Module torque sensing autoshift/manual shift and modulation | |
| Gears | Helical cut | |
| Gear ratios | Forward | Reverse |
| 1st | 3.712 | 3.712 |
| 2nd | 2.062 | 2.062 |
| 3rd | 1.064 | 1.064 |
| 4th | 0.685 | NA |
| Torque converter | | |
| Stall ratio | 2.985:1 | |
| Differential | Limited slip w/30% transfer on front w/45% transfer on rear axles | |
| Rear axle oscillation | 24° total | |
| Front and rear axle | | |
| Differential ratio | 3.89 | |
| Planetary ratio | 6.00 | |
| Final axle ratio | 23.33 | |
| Planetaries | Outboard | |
| Service brakes | Hydraulically actuated, maintenance-free, multiple wet disc to all four wheels, w/accumulator for each axle | |
| Brake surface area | | |
| Front | 900 in ² per hub (0.58 m ²) | |
| Rear | 713 in ² per hub (0.46 m ²) | |
| Parking brakes | Spring-applied hydraulic release disc on transmission output shaft | |
| Travel speeds – mph (km/h) w/26.5R25XHA Tires | | |
| | Forward | Reverse |
| 1st | 5.0 (8.0) | 5.0 (8.0) |
| 2nd | 8.2 (13.2) | 8.7 (14.1) |
| 3rd | 16.1 (25.8) | 16.1 (25.8) |
| 4th | 23.2 (37.4) | NA |

NOTE: Travel speeds at full engine throttle.

ELECTRICAL

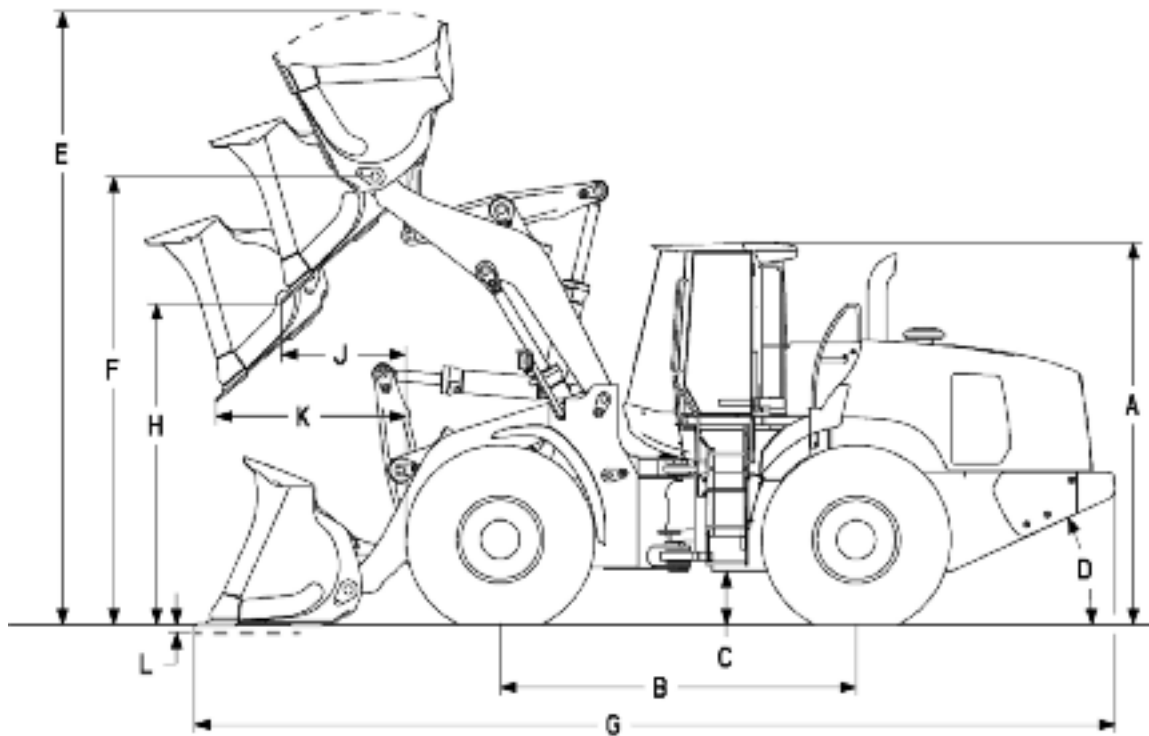
| | |
|------------|---------------------------|
| Voltage | 24 Volts, negative ground |
| Alternator | 95 amp |
| Batteries | (2) 12 volt |

HYDRAULICS

| | | |
|---------------------------|--|--|
| Pump (steering/implement) | Closed centered pressure/flow compensated | |
| Variable displacement (2) | 5.19 in ³ /rev 42.8 gpm @ 2000 rpm @ 3600 psi (85 cc/rev. 162.1 L/min @ 2000 rpm @ 24 821 kPa) | |
| Implement pump | Closed centered pressure/flow compensated | |
| Loader control valve | Closed-center, sectional 2, 3 or 4-spool with pilot control for lift, tilt and auxiliary hydraulics, electromagnetic detents in float, raise and rollback | |
| Loader auxiliary steering | Hydraulic orbital center-pivot articulating w/on-demand oil flow | |
| High pressure standby | 3625 psi (25 000 kPa) | |
| Filtration | 10-micron, full flow replaceable cartridges on return line, condition indicator light for filter | |

CYLINDERS

| | |
|---------------|--------------------|
| Lift cylinder | |
| Bore diameter | 6.5 in (165.1 mm) |
| Rod diameter | 4.0 in (101.6 mm) |
| Stroke | 34.2 in (867.7 mm) |
| Dump cylinder | |
| Bore diameter | 7.0 in (177.7 mm) |
| Rod diameter | 4.0 in (101.6 mm) |
| Stroke | 29.3 in (745.3 mm) |



DIMENSIONS

| | | |
|-----------------|------------------------------|-------------------|
| Height to – | | |
| A. | Top of ROPS cab | 145.5 in (3.70 m) |
| | Drawbar | 51.0 in (1.30 m) |
| B. | Wheelbase | 134.0 in (3.40 m) |
| C. | Ground clearance | 19.3 in (489 mm) |
| D. | Angle of departure | 34° |
| Width – | | |
| | Overall* w/o bucket | 117.7 in (3.00 m) |
| | Centerline tread | 88.6 in (2.25 m) |
| | Turning radius* – outside | 270.3 in (6.87 m) |
| Turning angle – | | |
| | From center | 40° |
| | Total angle | 80° |
| | Rear axle oscillation, total | 24° |

NOTE: *Dimensions taken with 26.5-25 XHAT tires. Additional dimensions on pages 3 and 4.

WEIGHT ADJUSTMENTS

| Select Options | Weight Adjustment | Tipping Load Adjustment Straight | Tipping Load Adjustment 40° Turn |
|------------------|---------------------|----------------------------------|----------------------------------|
| 26.5-25 L2 tires | -912 lb (-413 kg) | -746 lb (-338 kg) | -658 lb (-299 kg) |
| 26.5-25 L4 tires | +704 lb (+320 kg) | +577 lb (+262 kg) | +508 lb (+230 kg) |
| 26.5-25 L5 tires | +1,132 lb (+514 kg) | +927 lb (+420 kg) | +817 lb (+370 kg) |
| Rops Canopy | -295 lb (-134 kg) | -339 lb (-154 kg) | -314 lb (-142 kg) |

NOTE: **Unit equipped with Z-Bar loader arms, 5.75 yd³ (4.4 m³) general purpose pin on bucket, 26.5-25 XHAT tires, ROPS cab with heater, counterweight, standard batteries, front and rear fenders, full fuel and 175 lb (79 kg) operator. Adjust select options from rated weight.

PERFORMANCE DATA

| 921E Z-Bar | 5.75 yd ³ (4.4 m ³) | 5.75 yd ³ (4.4 m ³) |
|--|--|--|
| | Bucket w/Bolt-on Edge | Bucket w/Teeth |
| SAE bucket capacity – struck | 4.88 yd ³ (3.73 m ³) | 4.88 yd ³ (3.73 m ³) |
| Heaped | 5.78 yd ³ (4.42 m ³) | 5.78 yd ³ (4.42 m ³) |
| Bucket width – outside | 124.8 in (3.17 m) | 126.2 in (3.21 m) |
| Inside | 120.9 in (3.07 m) | 120.9 in (3.07 m) |
| Bucket weight | 4,955 lb (2248 kg) | 5,185 lb (2352 kg) |
| E. Operating height – fully raised w/spillguard | 230.2 in (5.85 m) | 230.2 in (5.85 m) |
| F. Hinge pin height – fully raised | 168.4 in (4.28 m) | 168.4 in (4.78 m) |
| G. Overall length – bucket level on ground | 346.3 in (8.80 m) | 355.3 in (9.02 m) |
| Dump angle – fully raised | 55° | 55° |
| H. Dump height – fully raised, 45° dump | 121.2 in (3.08 m) | 115.3 in (2.93 m) |
| J. Bucket reach – fully raised, 45° dump | 50.1 in (1.27 m) | 56.2 in (1.43 m) |
| K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump | 74.6 in (1.90 m) | 78.1 in (1.98 m) |
| Operating load – ISO | 18,306 lb (8303 kg) | 18,147 lb (8231 kg) |
| Maximum material density – ISO | 3,166 lb/yd ³ (1879 kg/m ³) | 3,139 lb/yd ³ (1863 kg/m ³) |
| Tipping load – ISO | | |
| Straight | 42,592 lb (19 319 kg) | 42,274 lb (19 175 kg) |
| 40° turn | 36,612 lb (16 607 kg) | 36,294 lb (16 463 kg) |
| Lift capacity – | | |
| Full height | 29,738 lb (13 489 kg) | 29,537 lb (13 398 kg) |
| Maximum reach | 41,906 lb (19 008 kg) | 41,667 lb (18 900 kg) |
| Ground | 49,607 lb (22 501 kg) | 49,316 lb (22 370 kg) |
| Breakout force w/tilt cylinder | 44,476 lb (20 174 kg) | 38,030 lb (17 250 kg) |
| Maximum rollback – | | |
| Ground | 41° | 42° |
| Carry position | 43° | 43° |
| @ Maximum reach | 67° | 67° |
| @ Full height | 63° | 63° |
| L. Dig depth | 4.8 in (121 mm) | 5.3 in (135 mm) |
| Maximum grading angle w/bucket – back dragging | 62° | 64° |
| Loader clearance circle | 540.6 in (13.73 m) | 547.5 in (13.91 m) |

| 921E XR | 5.75 yd ³ (4.4 m ³) | 5.75 yd ³ (4.4 m ³) |
|--|--|--|
| | Bucket w/Bolt-on Edge | Bucket w/Teeth |
| E. Operating height – fully raised w/spillguard | 253.5 in (6440 mm) | 253.5 in (6440 mm) |
| F. Hinge pin height – fully raised | 191.7 in (4870 mm) | 191.7 in (4870 mm) |
| G. Overall length – bucket level on ground | 365.4 in (9281 mm) | 374.2 in (9505 mm) |
| Dump angle – fully raised | 49° | 49° |
| H. Dump height – fully raised, 45° dump | 144.5 in (3670 mm) | 138.6 in (3520 mm) |
| J. Bucket reach – fully raised, 45° dump | 49.0 in (1246 mm) | 55.2 in (1402 mm) |
| K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump | 91.8 in (2331 mm) | 95.6 in (2429 mm) |
| Operating load – ISO | 14,367 lb (6517 kg) | 14,216 lb (6448 kg) |
| Maximum material density – ISO | 2,485 lb/yd ³ (1475 kg/m ³) | 2,459 lb/yd ³ (1459 kg/m ³) |
| Tipping load – ISO | | |
| Straight | 33,872 lb (15 364 kg) | 33,569 lb (15 227 kg) |
| 40° turn | 28,735 lb (13 034 kg) | 28,432 lb (12 897 kg) |
| Lift capacity – | | |
| Full height | 27,049 lb (12 269 kg) | 26,843 lb (12 176 kg) |
| Maximum reach | 35,885 lb (16 277 kg) | 35,637 lb (16 165 kg) |
| Ground | 39,793 lb (18 050 kg) | 39,500 lb (17 917 kg) |
| Breakout force w/tilt cylinder | 44,671 lb (20 262 kg) | 38,215 lb (17 334 kg) |
| Maximum rollback – | | |
| Ground | 41° | 42° |
| Carry position | 43° | 43° |
| @ Maximum reach | 67° | 67° |
| @ Full height | 63° | 63° |
| L. Dig depth | 4.8 in (121 mm) | 5.3 in (135 mm) |
| Maximum grading angle w/bucket – back dragging | 62° | 64° |
| Loader clearance circle | 561.7 in (14 266 mm) | 569.1 in (14 456 mm) |

NOTE: Performance data unit equipped with 26.5-25 XHAT tires, ROPS cab w/heater and A/C, standard counterweight, standard batteries, wide front and rear fenders, full fuel and 175 lb (79 kg) operator. Specifications per SAE J732, J1234, J695, J742 and J818.

PERFORMANCE DATA

921E Z-Bar

| | 5.25 yd ³ (4.00 m ³) Bucket w/Bolt-on Edge | 5.25 yd ³ (4.00 m ³) Bucket w/Teeth |
|--|--|---|
| SAE bucket capacity – struck | 4.46 yd ³ (3.41 m ³) | 252.9 yd ³ (6424 m ³) |
| Heaped | 5.28 yd ³ (4.04 m ³) | 191.7 yd ³ (4.04 m ³) |
| Bucket width – outside | 118.9 in (3.02 m) | 120.3 in (3.06 m) |
| Inside | 115.0 in (2.92 m) | 115.0 in (2.92 m) |
| Bucket weight | 4,733 lb (2147 kg) | 4,988 lb (2262 kg) |
| E. Operating height – fully raised w/spillguard | 229.6 in (5.83 m) | 229.6 in (5.83 m) |
| F. Hinge pin height – fully raised | 168.4 in (4.28 m) | 168.4 in (4.28 m) |
| G. Overall length – bucket level on ground | 344.7 in (8.76 m) | 353.7 in (8.98 m) |
| Dump angle – fully raised | 55° | 55° |
| H. Dump height – fully raised, 45° dump | 122.4 in (3.11 m) | 116.5 in (2.96 m) |
| J. Bucket reach – fully raised, 45° dump | 49.8 in (1.26 m) | 55.9 in (1.42 m) |
| K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump | 74.8 in (1.90 m) | 78.4 in (1.99 m) |
| Operating load – ISO | 18,571 lb (8424 kg) | 18,396 lb (8344 kg) |
| Maximum material density – ISO | 3,514 lb/yd ³ (2085 kg/m ³) | 3,481 lb/yd ³ (2066 kg/m ³) |
| Tipping load – ISO | | |
| Straight | 43,165 lb (19 579 kg) | 42,814 lb (19 420 kg) |
| 40° turn | 37,142 lb (16 847 kg) | 36,791 lb (16 688 kg) |
| Lift capacity – | | |
| Full height | 29,875 lb (13 551 kg) | 29,652 lb (13 450 kg) |
| Maximum reach | 42,164 lb (19 125 kg) | 41,899 lb (19 005 kg) |
| Ground | 50,215 lb (27 777 kg) | 49,890 lb (22 630 kg) |
| Breakout force w/tilt cylinder | 45,712 lb (20 735 kg) | 38,954 lb (17 669 kg) |
| Maximum rollback – | | |
| Ground | 41° | 41° |
| Carry position | 43° | 43° |
| @ Maximum reach | 67° | 67° |
| @ Full height | 63° | 63° |
| L. Dig depth | 4.0 in (102 mm) | 4.6 in (116 mm) |
| Maximum grading angle w/bucket – back dragging | 62° | 64° |
| Loader clearance circle | 534.2 in (13.57 m) | 541.1 in (13.74 m) |

921E XR

| | 5.25 yd ³ (4.00 m ³) Bucket w/Bolt-on Edge | 5.25 yd ³ (4.00 m ³) Bucket w/Teeth |
|--|--|---|
| E. Operating height – fully raised w/spillguard | 252.9 in (6424 mm) | 252.9 in (6424 mm) |
| F. Hinge pin height – fully raised | 191.8 in (4871 mm) | 191.7 in (4870 mm) |
| G. Overall length – bucket level on ground | 363.9 in (9242 mm) | 372.7 in (9467 mm) |
| Dump angle – fully raised | 49° | 49° |
| H. Dump height – fully raised, 45° dump | 145.8 in (3703 mm) | 139.9 in (3552 mm) |
| J. Bucket reach – fully raised, 45° dump | 48.7 in (1237 mm) | 54.9 in (1394 mm) |
| K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump | 91.9 in (2334 mm) | 95.8 in (2435 mm) |
| Operating load – ISO | 14,583 lb (6615 kg) | 14,416 lb (6539 kg) |
| Maximum material density – ISO | 2,760 lb/yd ³ (1638 kg/m ³) | 2,728 lb/yd ³ (1619 kg/m ³) |
| Tipping load – ISO | | |
| Straight | 34,335 lb (15 574 kg) | 34,001 lb (15 422 kg) |
| 40° turn | 29,167 lb (13 230 kg) | 28,833 lb (13 078 kg) |
| Lift capacity – | | |
| Full height | 27,210 lb (12 342 kg) | 26,980 lb (12 238 kg) |
| Maximum reach | 36,169 lb (16 406 kg) | 35,895 lb (16 282 kg) |
| Ground | 40,289 lb (18 275 kg) | 39,964 lb (18 127 kg) |
| Breakout force w/tilt cylinder | 45,888 lb (20 814 kg) | 39,120 lb (17 745 kg) |
| Maximum rollback – | | |
| Ground | 41° | 41° |
| Carry position | 43° | 43° |
| @ Maximum reach | 67° | 67° |
| @ Full height | 63° | 63° |
| L. Dig depth | 4.0 in (102 mm) | 4.6 in (116 mm) |
| Maximum grading angle w/bucket – back dragging | 62° | 64° |
| Loader clearance circle | 555.2 in (14 103 mm) | 562.7 in (14 294 mm) |

INSTRUMENTATION

| |
|--|
| Electronic Information Center |
| Displays/Gauges – |
| Speedometer |
| Tachometer |
| Direction selected F/N/R |
| Transmission modes – Auto shift/Manual shift |
| Gear position |
| Engine coolant temperature |
| Fuel level |
| Transmission oil temperature |
| Hydraulic oil temperature |
| Hourmeter |
| Power mode |
| Indicator lights – |
| Low fuel |
| Turn signals |
| High beam lights |
| Brake pressure |
| Master indicator |
| Auxiliary steering* |
| Parking brake |
| Audible alarms – |
| Caution alarm |
| Critical alarm |
| Backup alarm |
| Horn |

NOTE: *If equipped with option.

OPERATOR ENVIRONMENT

| |
|--|
| ROPS cab w/ heat |
| Key start |
| Articulated power steering w/tilt column |
| Fully adjustable, suspension seat |
| Foot throttle |
| Single lever 2-spool loader control w/wrist rest |
| Cup holder |
| Coat hook |
| (1) Interior rearview mirror |
| 2 in (51 mm) retractable seat belt |
| Storage tray behind seat |
| Cooled lunch box |
| Single brake pedal |
| F/N/R shuttle switch |
| External rear view mirrors |
| Lock box |
| Pressurized air filtering |
| Anti-glare window strip |
| Defroster |
| Side window, partial/fully open |
| Dome light |
| Wipers, rear and intermittent front |
| Windshield washers, front and rear |
| Rubber floor mat |
| Sunscreen |

LOADER

| |
|-------------------------------------|
| Z-bar loader linkage |
| Single control for lift and tilt |
| Positive hold float |
| Automatic return-to-dig |
| Automatic height control |
| Automatic return-to-travel |
| Brake pedal transmission disconnect |
| Bucket position indicator on bucket |

CYCLE TIME

| | |
|---------------------------|---------|
| Raise w/rated bucket load | 6.2 sec |
| Dump w/rated bucket load | 3.6 sec |
| Lower (empty) | |
| Power down | 3.0 sec |
| Float down | 1.2 sec |

SERVICE CAPACITIES

| | |
|---------------------------------|-------------------|
| Fuel tank | 104 gal (393.7 L) |
| Hydraulic system | |
| Total | 64.0 gal (242 L) |
| Reservoir | 34.0 gal (130 L) |
| Transmission | |
| Service w/filter | 10.5 gal (39.7 L) |
| Front and rear axle w/o coolers | |
| Front | 12.5 gal (47.3 L) |
| Rear | 12.5 gal (47.3 L) |
| Engine oil w/filter | 39 qt (36.9 L) |
| Cooling system | 15.0 gal (56.8 L) |

OPERATING WEIGHTS

Z-Bar

Unit equipped with ROPS cab with heater and A/C, counterweight, 26.5R25 XHA tires, wide front and rear fenders, 5.75 yd³ (4.4 m³) general purpose loader bucket, full fuel, 175 lb (79 kg) operator

50,622 lb (22 962 kg)

XR

Unit equipped with ROPS cab with heater and A/C, counterweight, 26.5R25 XHA tires, wide front and rear fenders, 5.75 yd³ (4.4 m³) general purpose loader bucket, full fuel, 175 lb (79 kg) operator

52,714 lb (23 911 kg)

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 5

ENGINE

Cummins QSM 11
Tier III certified
Selectable work modes
 Max power
 Auto power
 Standard power
 Economy power
Turbocharger
Charge air cooling
Automatic fan belt tensioner
Integral engine oil cooling
Fuel filter w/water trap
Dual element air cleaner
95 amp alternator
(2) 900 CCA 12-volt batteries
Liquid-cooled radiator
Non spark-arresting muffler
Common rail electronic fuel injection

LOADER

See page 5

DRIVETRAIN

4-wheel drive
Axle coolers
4F/3R Selectable autoshift/manual shift transmission
Electronic Control Module – Programmable, computer controlled proportional shifting with programmable gear selection
Onboard diagnostics
Single lever electronic shift control
F/N/R switch in loader control handle
Downshift button
Torque converter
Outboard planetary axles
Limited-slip differentials
Transmission oil cooler
Brake pedal transmission disconnect
Hydraulic wet disc brakes
Spring-applied hydraulic release parking brake
Limp-Home Mode
Lubed-for-life drive shaft

HYDRAULICS

Single lever 2-spool loader control valve
Low-effort steering
Hydraulic driven fan
(8) Diagnostic quick couplers

OTHER

Electric hood lift
Front and rear fenders
Lights –
 (2) Front driving headlights (high/low beam)
 (2) Front flood
 (2) Stop/tail lights
 (2) Rear flood
 Front and rear turn signal/flash
Standard counterweight
Drawbar hitch
Articulation locking bar
Lift arm locking bar
Lift and tie-down points – front/rear
Backup alarm
RH steps and platform

OPTIONAL EQUIPMENT

OPERATOR COMPARTMENT

Cloth-covered air-suspension seat
Cab air-conditioning w/heater
Radio
Radio-ready (12 or 24-volt)
Auxiliary power (12-volt)
Cab convenience package
Rotating beacon
Second brake pedal
Open ROPS
Joystick steering

ENGINE

Cold weather package
 Heavy-duty batteries
 Fuel heater
 Hydraulic oil cooler bypass
 Low temperature hydraulic oil
 Ether

LOADER

Attachment auxiliary hydraulics
Buckets (see page 3 & 4)

HYDRAULICS

Auxiliary hydraulics
Ride Control
Secondary steering
3-spool loader valves with 2 or 3-lever loader control
Hydraulic temperature controlled reversing fan
Hydraulic cooler

TIRES

26.5 x 25 L3 Bias
26.5 x 25 L4 Bias
26.5 x 25 L5 Bias
26.5 R 25 L3 Radial

OTHER

Full coverage fenders
Heavy-duty counterweight
License plate bracket
Lift and tie down brackets
Special paint
Sound Shield noise suppression package
Spark arresting muffler
Tool box

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines meet current EPA emissions requirements.

IMPORTANT: Case Construction Equipment Inc. reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Case Construction Equipment Inc. does not warrant the safety or reliability of attachments from other manufacturers.

Case is a registered trademark of CNH America LLC. Any trademarks referred to herein, in association with goods and/or services of companies other than CNH America LLC, are the property of those respective companies.



www.casece.com