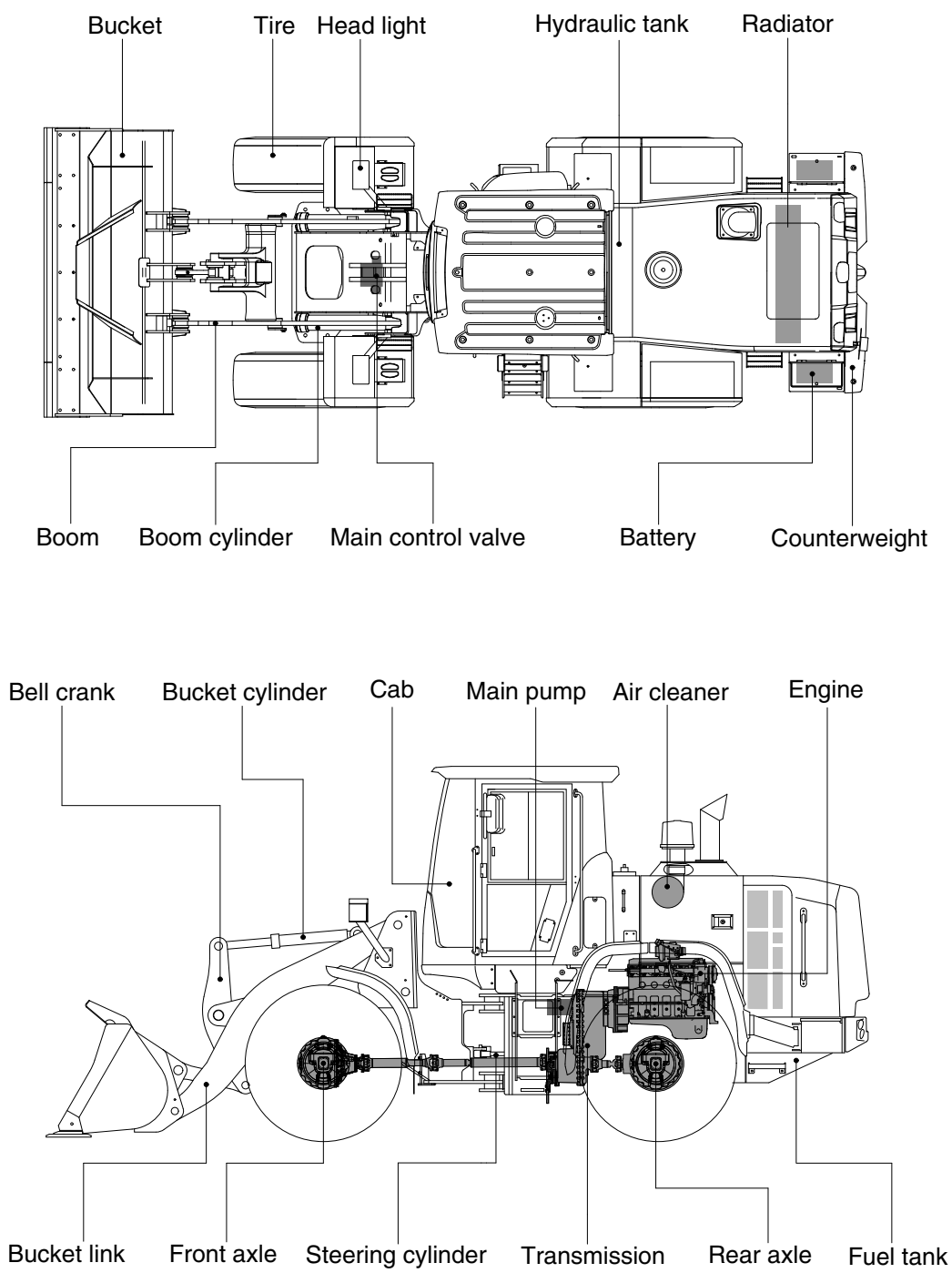


2. SPECIFICATIONS

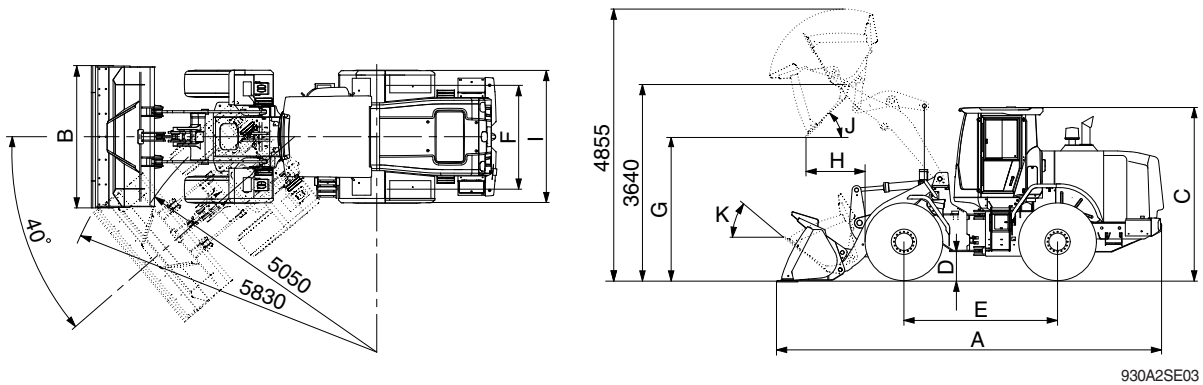
1. MAJOR COMPONENTS



930A2SE01

2. SPECIFICATIONS

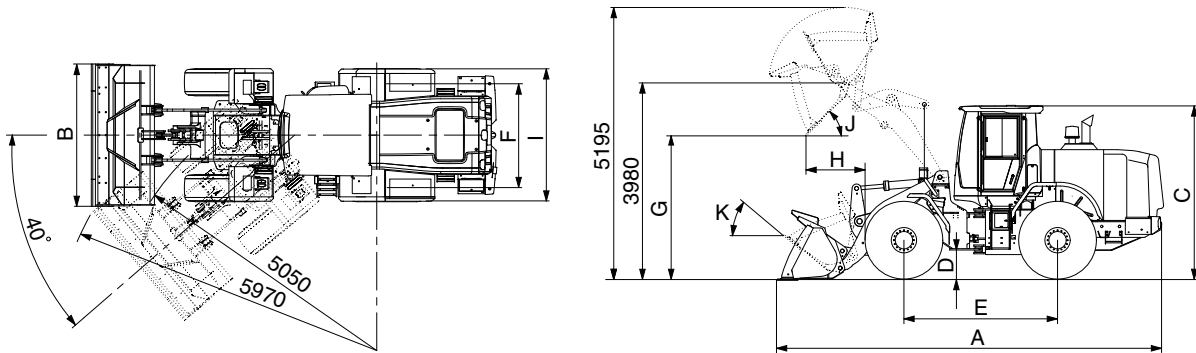
1) WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL930A)



930A2SE03

| Description | | | Unit | Specification |
|---|------------------|-------------|-------------|---------------|
| Operating weight | | | kg (lb) | 11500 (25355) |
| Bucket capacity | Struck | | m³ (yd³) | 1.6 (2.1) |
| | Heaped | | | 1.9 (2.5) |
| Overall length | A | | mm (ft-in) | 7125 (23' 5") |
| Overall width | B | | | 2450 (8' 0") |
| Overall height | C | | | 3170 (10' 5") |
| Ground clearance | D | | | 370 (1' 3") |
| Wheelbase | E | | | 2900 (9' 6") |
| Tread | F | | | 1930 (6' 4") |
| Dump clearance at 45° | G | | | 2700 (8' 10") |
| Dump reach (full lift) | H | | | 1065 (3' 6") |
| Width over tires | I | | | 2375 (7' 10") |
| Dump angle | J | | | degree (°) |
| Rollback angle (carry position) | K | | 47 | |
| Cycle time | Lift (with load) | | sec | 5.8 |
| | Dump (with load) | | | 1.5 |
| | Lower (empty) | | | 3.6 |
| Maximum travel speed | | | km/hr (mph) | 39.5 (24.5) |
| Braking distance | | | m (ft-in) | 13.0 (42' 8") |
| Minimum turning radius (center of outside tire) | | | | 5.05 (16' 7") |
| Gradeability | | | degree (°) | 30 |
| Breakout force | | | kg (lb) | 9150 (20065) |
| Travel speed | Forward | First gear | km/hr (mph) | 6.6 (4.1) |
| | | Second gear | | 12.1 (7.5) |
| | | Third gear | | 23.6 (14.7) |
| | | Fourth gear | | 39.5 (24.5) |
| | Reverse | First gear | | 7.0 (4.3) |
| | | Second gear | | 12.7 (7.9) |
| | | Third gear | | 24.8 (15.4) |

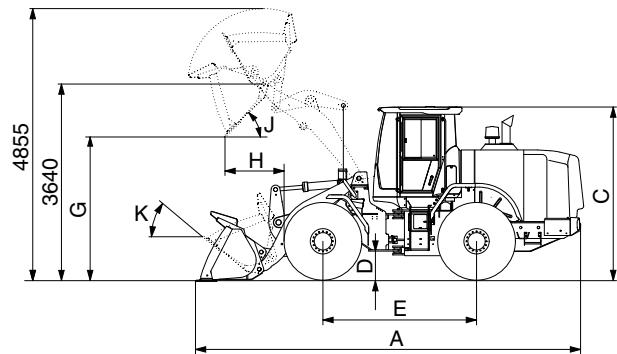
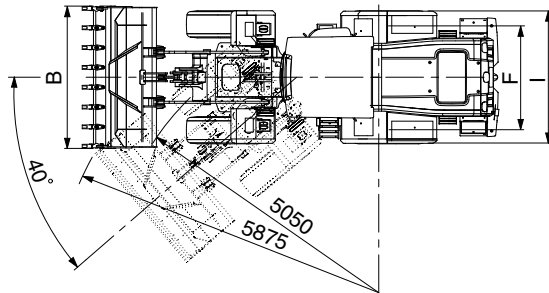
WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL930A XT)



930A2SE03-2

| Description | | | Unit | Specification |
|---|------------------|-------------|-------------|---------------|
| Operating weight | | | kg (lb) | 11700 (25795) |
| Bucket capacity | Struck | | m³ (yd³) | 1.6 (2.1) |
| | Heaped | | | 1.9 (2.5) |
| Overall length | A | | mm (ft-in) | 7415 (24' 4") |
| Overall width | B | | | 2450 (8' 0") |
| Overall height | C | | | 3170 (10' 5") |
| Ground clearance | D | | | 370 (1' 3") |
| Wheelbase | E | | | 2900 (9' 6") |
| Tread | F | | | 1930 (6' 4") |
| Dump clearance at 45° | G | | | 3035 (9' 11") |
| Dump reach (full lift) | H | | | 1035 (3' 5") |
| Width over tires | I | | | 2375 (7' 10") |
| Dump angle | J | | | degree (°) |
| Rollback angle (carry position) | K | | 48 | |
| Cycle time | Lift (with load) | | sec | 5.8 |
| | Dump (with load) | | | 1.5 |
| | Lower (empty) | | | 3.6 |
| Maximum travel speed | | | km/hr (mph) | 39.5 (24.5) |
| Braking distance | | | m (ft-in) | 13.0 (42' 8") |
| Minimum turning radius (center of outside tire) | | | | 5.05 (16' 7") |
| Gradeability | | | degree (°) | 30 |
| Breakout force | | | kg (lb) | 9070 (20000) |
| Travel speed | Forward | First gear | km/hr (mph) | 6.6 (4.1) |
| | | Second gear | | 12.1 (7.5) |
| | | Third gear | | 23.6 (14.7) |
| | | Fourth gear | | 39.5 (24.5) |
| | Reverse | First gear | | 7.0 (4.3) |
| | | Second gear | | 12.7 (7.9) |
| | | Third gear | | 24.8 (15.4) |

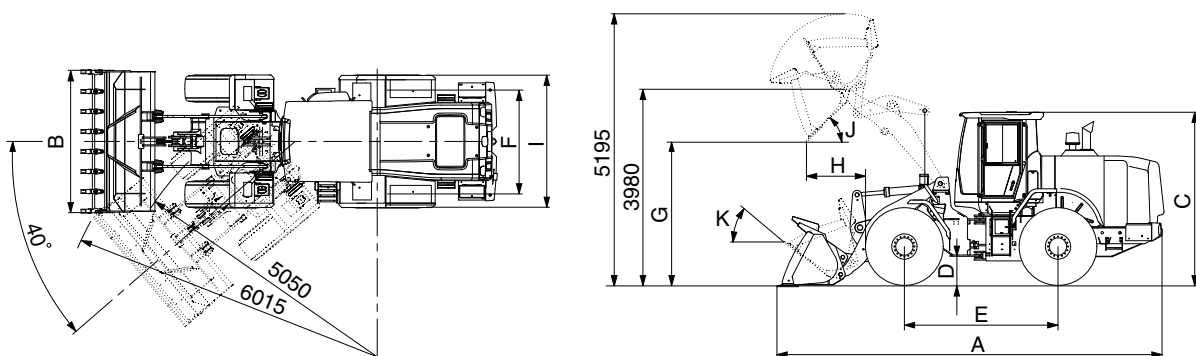
WITH 1-TOOTH TYPE BUCKET (HL930A)



930A2SE02

| Description | | | Unit | Specification |
|---|------------------|-------------|-------------|---------------|
| Operating weight | | | kg (lb) | 11420 (25180) |
| Bucket capacity | Struck | | m³ (yd³) | 1.5 (2.0) |
| | Heaped | | | 1.8 (2.4) |
| Overall length | A | | mm (ft-in) | 7240 (23' 9") |
| Overall width | B | | | 2480 (8' 2") |
| Overall height | C | | | 3170 (10' 5") |
| Ground clearance | D | | | 370 (1' 3") |
| Wheelbase | E | | | 2900 (9' 6") |
| Tread | F | | | 1930 (6' 4") |
| Dump clearance at 45° | G | | | 2620 (8' 7") |
| Dump reach (full lift) | H | | | 1145 (3' 9") |
| Width over tires | I | | | 2375 (7' 10") |
| Dump angle | J | | | degree (°) |
| Roll back angle (carry position) | K | | 47 | |
| Cycle time | Lift (with load) | | sec | 5.8 |
| | Dump (with load) | | | 1.5 |
| | Lower (empty) | | | 3.6 |
| Maximum travel speed | | | km/hr (mph) | 39.5 (24.5) |
| Braking distance | | | m (ft-in) | 13.0 (42' 8") |
| Minimum turning radius (center of outside tire) | | | | 5.05 (16' 7") |
| Gradeability | | | degree (°) | 30 |
| Breakout force | | | kg (lb) | 9770 (21540) |
| Travel speed | Forward | First gear | km/hr (mph) | 6.6 (4.1) |
| | | Second gear | | 12.1 (7.5) |
| | | Third gear | | 23.6 (14.7) |
| | | Fourth gear | | 39.5 (24.5) |
| | Reverse | First gear | | 7.0 (4.3) |
| | | Second gear | | 12.7 (7.9) |
| | | Third gear | | 24.8 (15.4) |

WITH 1-TOOTH TYPE BUCKET (HL930A XT)



930A2SE02-1

| Description | | | Unit | Specification |
|---|------------------|-------------|--------------|---------------|
| Operating weight | | | kg (lb) | 11620 (25620) |
| Bucket capacity | Struck | | m³ (yd³) | 1.5 (2.0) |
| | Heaped | | | 1.8 (2.4) |
| Overall length | A | | mm (ft-in) | 7530 (24' 8") |
| Overall width | B | | | 2480 (8' 2") |
| Overall height | C | | | 3170 (10' 5") |
| Ground clearance | D | | | 370 (1' 3") |
| Wheelbase | E | | | 2900 (9' 10") |
| Tread | F | | | 1930 (6' 4") |
| Dump clearance at 45° | G | | | 2955 (9' 8") |
| Dump reach (full lift) | H | | | 1115 (3' 8") |
| Width over tires | I | | | 2375 (7' 10") |
| Dump angle | J | | | degree (°) |
| Rollback angle (carry position) | K | | 48 | |
| Cycle time | Lift (with load) | | sec | 5.8 |
| | Dump (with load) | | | 1.5 |
| | Lower (empty) | | | 3.6 |
| Maximum travel speed | | | km/hr (mph) | 39.5 (24.5) |
| Braking distance | | | m (ft-in) | 13.0 (42' 8") |
| Minimum turning radius (center of outside tire) | | | | 5.05 (16' 7") |
| Gradeability | | | degree (°) | 30 |
| Breakout force | | | kg (lb) | 9690 (21365) |
| Travel speed | Forward | First gear | km/hr (mph) | 6.6 (4.1) |
| | | Second gear | | 12.1 (7.5) |
| | | Third gear | | 23.6 (14.7) |
| | | Fourth gear | | 39.5 (24.5) |
| | Reverse | First gear | | 7.0 (4.3) |
| | | Second gear | | 12.7 (7.9) |
| | | Third gear | | 24.8 (15.4) |

3. WEIGHT

| Item | | kg | lb |
|---|-----------|-------|---------|
| Front frame assembly | | 878 | 1936 |
| Rear frame assembly | | 1200 | 2646 |
| Front fender (LH & RH) | | 54 | 119 |
| Counterweight | HL930A | 310 | 684 |
| | HL930A XT | 420 | 926 |
| Cab assembly | | 814 | 1795 |
| Engine assembly | | 383 | 845 |
| Transmission assembly | | 430 | 948 |
| Driveshaft (front) | | 19 | 41 |
| Driveshaft (center) | | 17 | 38 |
| Driveshaft (rear) | | 12 | 27 |
| Front axle (include differential) | | 750 | 1653 |
| Rear axle (include differential) | | 750 | 1653 |
| Tire (17.5 R5, ★★, L3) | | 154 | 340 |
| Hydraulic tank assembly | | 157 | 347 |
| Fuel tank assembly | | 198 | 437 |
| Main pump assembly | | 36 | 80 |
| Fan & brake pump assembly | | 6 | 14 |
| Main control valve (2/3 spool) | | 42/55 | 93/122 |
| Boom assembly | HL930A | 550 | 1213 |
| | HL930A XT | 625 | 1378 |
| Bell crank assembly | | 136 | 300 |
| Quick coupler assembly | | 293 | 646 |
| Bucket link | | 30 | 67 |
| 1.9 m³ bucket, with bolt on cutting edge | | 810 | 1786 |
| 1.8 m³ bucket, with 1-tooth | | 730 | 1610 |
| Boom cylinder assembly (LH & RH) | | 145 | 320 |
| Bucket cylinder assembly (HL930A/HL930A XT) | | 65/78 | 144/172 |
| Steering cylinder assembly (LH & RH) | | 32 | 71 |
| Seat | | 70 | 154 |
| Battery | | 28 | 62 |

4. SPECIFICATION FOR MAJOR COMPONENTS

1) ENGINE

| Item | Specification |
|-------------------------------------|--|
| Model | Cummins B4.5 |
| Type | 4-cycle turbocharged, charge air-cooled, electronic controlled diesel engine |
| Cooling method | Water cooled |
| Number of cylinders and arrangement | 4 cylinders, in-line |
| Firing order | 1-3-2-4 |
| Combustion chamber type | Direct injection type |
| Cylinder bore × stroke | 107 × 124 mm (4.2" × 4.9") |
| Piston displacement | 4.5 ℓ , (275 cu in) |
| Compression ratio | 17.2 : 1 |
| Gross power | 99 kW (133 hp) at 2,200 rpm |
| Net power | 97 kW (130 hp) at 2,200 rpm |
| Max power | 99 kW (133 hp) at 2,200 rpm |
| Peak torque | 64.5 kgf · m (467 lbf · ft) at 1200 rpm |
| Engine oil quantity | 11 ℓ (2.9 US gal) |
| Wet weight or Dry weight | 383 kg (845 lb) |
| Stater motor | 24V - 4.8 kW |
| Alternator | 24V - 95A |

2) MAIN PUMP

| Item | Specification |
|---------------------------------|----------------------|
| Type | Variable piston pump |
| Capacity | 60 cc/rev |
| Maximum operating pressure | 250 bar (3626 psi) |
| Maximum operating speed | 2230 rpm |
| Rated output flow (at 2200 rpm) | 132 ℓ /min |

3) FAN AND BRAKE PUMP

| Item | Specification | |
|----------------------------|---------------|------------|
| | Fan | Brake |
| Type | Gear Pump | |
| Capacity | 11.9 cc/rev | 9.2 cc/rev |
| Maximum operating pressure | 130 bar | 150 bar |
| Maximum operating speed | 2230 rpm | |
| Rated output flow | 26.5 lpm | 20.5 lpm |

4) MAIN CONTROL VALVE

| Item | Specification |
|------------------------------------|------------------------------------|
| Type | 2 spool & 3 spool |
| Operating method | Hydraulic pilot assist |
| Main relief valve set pressure | 250 kgf/cm ² (3560 psi) |
| Overload relief valve set pressure | 340 kgf/cm ² (4840 psi) |

5) REMOTE CONTROL VALVE

| Item | Specification |
|------------------|--|
| Type | Joystick (or with aux lever) |
| Control pressure | Minimum 3.7 kgf/cm ² (52.6 psi) |
| | Maximum 30 kgf/cm ² (427 psi) |

6) CYLINDER

| Item | Specification |
|-----------------------------|--|
| Boom cylinder | Bore dia × Rod dia × Stroke Ø 110 × Ø 65 × 750 mm |
| Bucket cylinder (HL930A) | Bore dia × Rod dia × Stroke Ø 110 × Ø 65 × 510 mm |
| Bucket cylinder (HL930A XT) | Bore dia × Rod dia × Stroke Ø 110 × Ø 65 × 515mm |
| Steering cylinder | Bore dia × Rod dia × Stroke Ø 60 × Ø 35 × 412mm |

7) DYNAMIC POWER TRANSMISSION DEVICES

| Item | | Specification |
|------------------|-----------------|--|
| Torque converter | Model | ZF 4WG130 |
| | Type | Single-stage, single-phase |
| | Ratio | 2.302 : 1 |
| Transmission | Type | Full-automatic power shift |
| | Gear shift | Forward fourth gear, reverse third gear |
| | Control | Electrical single lever type, kick-down system |
| | Pump rated flow | 85 ℓ /min (22.5 U.S.gpm) at 2000 rpm |
| Axle | Drive devices | 4-wheel drive |
| | Front | Front fixed location |
| | Rear | Oscillation $\pm 11^\circ$ of center pin-loaded |
| Wheels | Tires | 17.5 R25, ★★·L3 |
| Brakes | Travel | Four-wheel, wet-disc type, full hydraulic |
| | Parking | Spring applied, hydraulic released brake on transmission |
| Steering | Type | Full hydraulic, articulated |
| | Steering angle | 40° to both right and left angle, respectively |