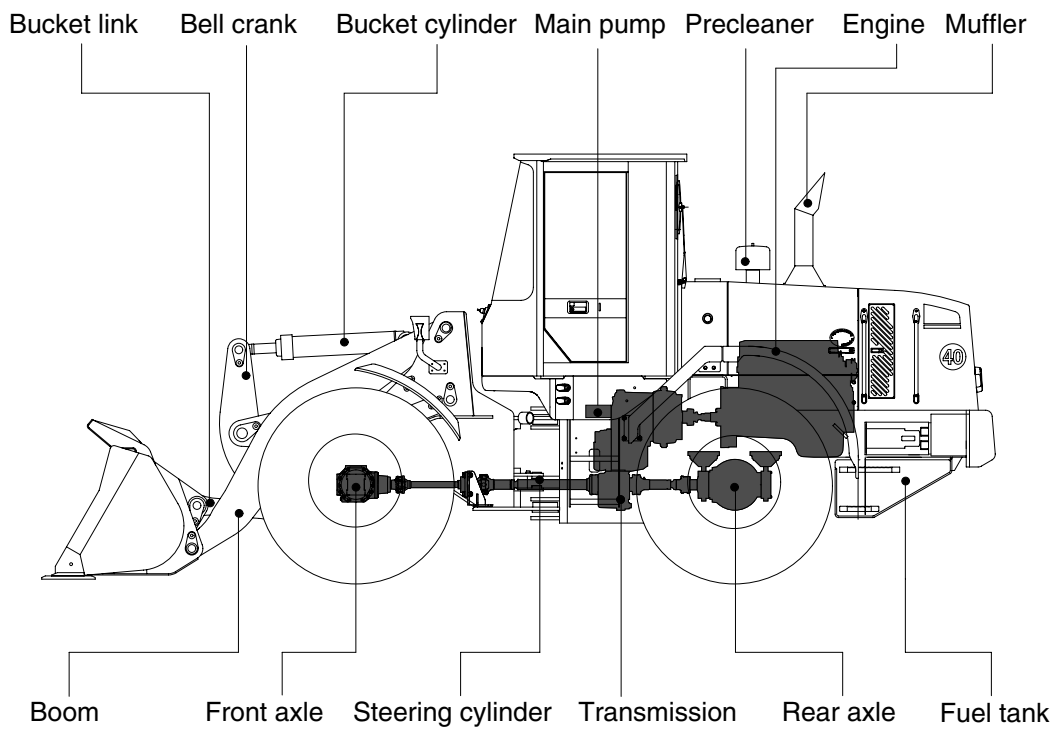
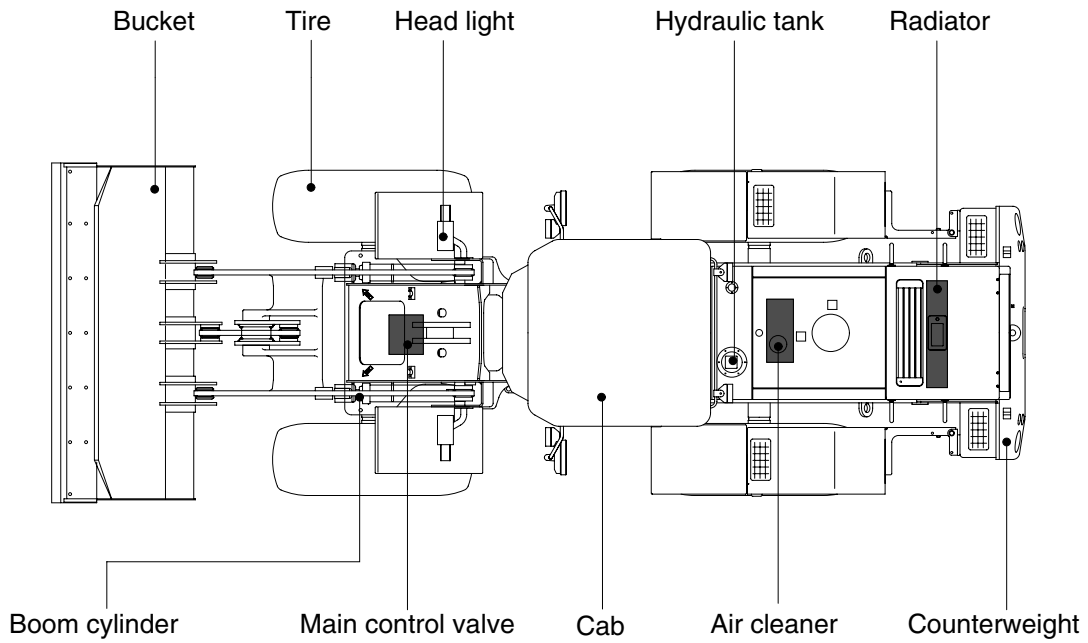


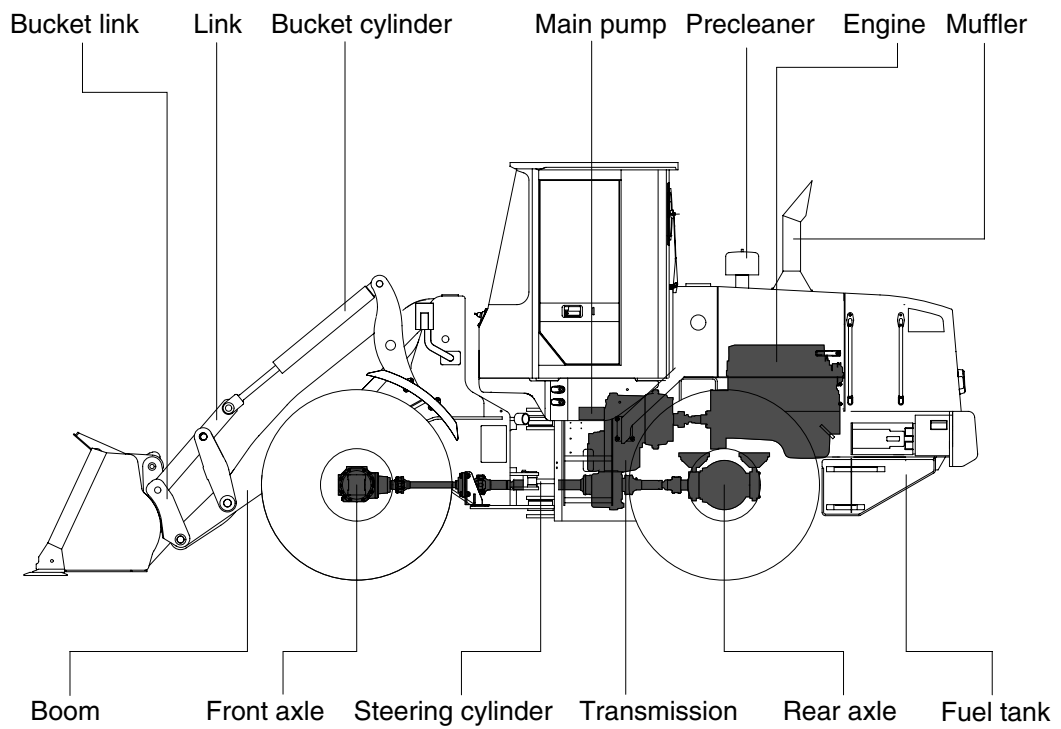
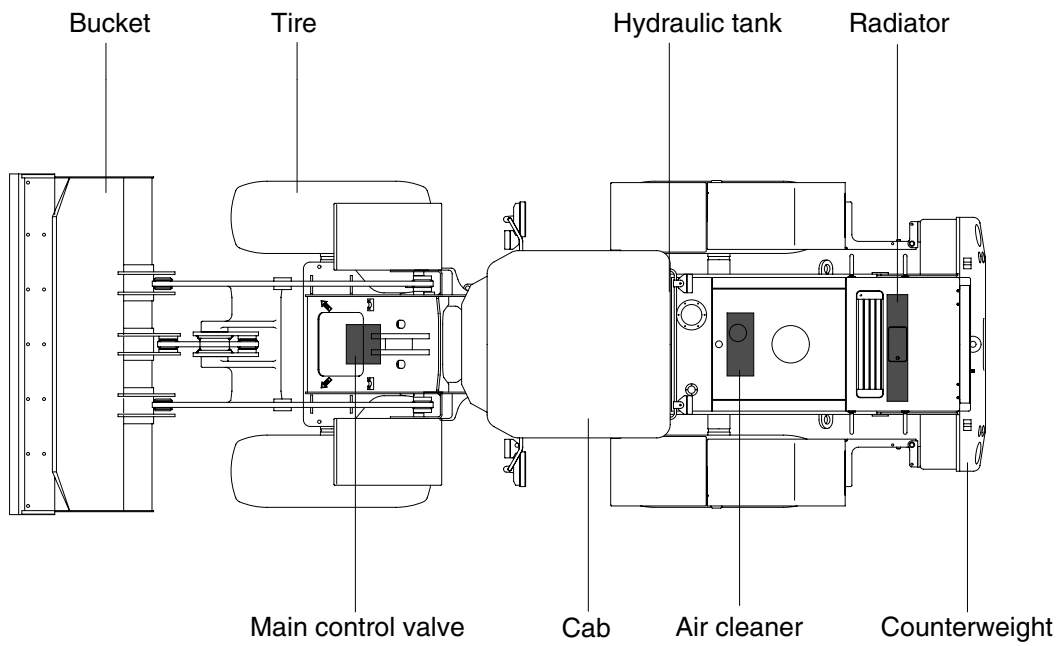
GROUP 2 SPECIFICATION

1. MAJOR COMPONENT(HL740-7A, HL740XTD-7A)



7407A2SP01

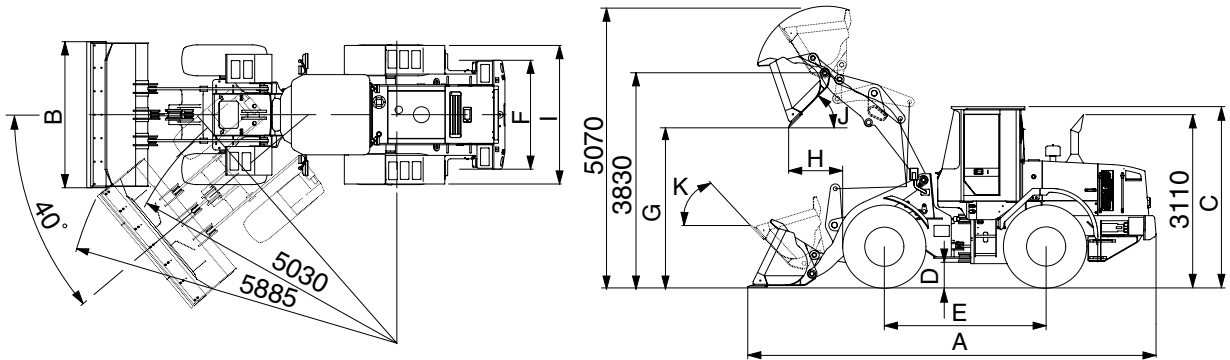
MAJOR COMPONENT(HL740TM-7A)



740TM7A2SP01

2. SPECIFICATIONS

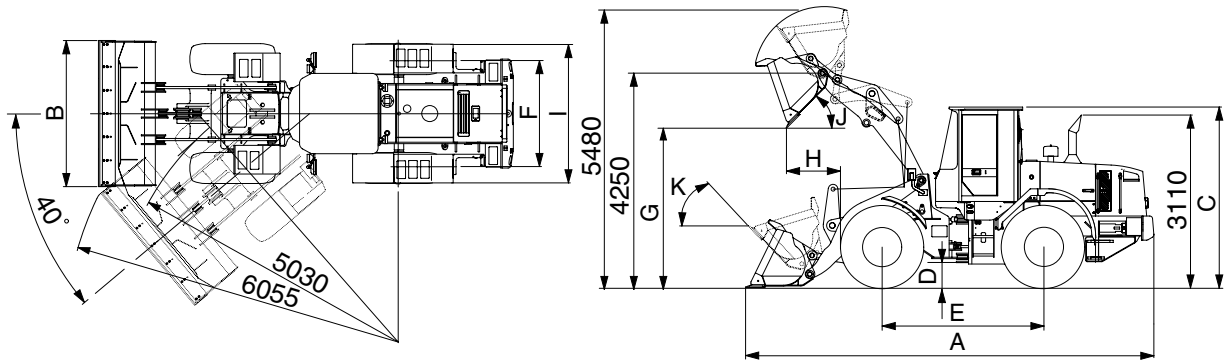
1) WITH BOLT-ON CUTTING EDGE TYPE BUCKET(HL740-7A)



7407A2SP02

| Description | | Unit | Specification | |
|--|-----------------|-----------------------------------|---------------|----|
| Operating weight | | kg(lb) | 11550(2550) | |
| Bucket capacity | Struck | m ³ (yd ³) | 1.78(2.3) | |
| | Heaped | | 2.1(2.7) | |
| Overall length | A | mm(ft-in) | 7270(23' 7") | |
| Overall width | B | | 2550(8' 4") | |
| Overall height | C | | 3260(10' 8") | |
| Ground clearance | D | | 417(1' 4") | |
| Wheelbase | E | | 2900(9' 6") | |
| Tread | F | | 1900(6' 3") | |
| Dump clearance at 45° | G | | 2850(9' 4") | |
| Dump reach(Full lift) | H | | 970(3' 2") | |
| Width over tires | I | | 2430(8' 0") | |
| Dump angle | J | | Degree (°) | 48 |
| Roll back angle(Carry position) | K | | | 47 |
| Cycle time | Lift(With load) | sec | 5.5 | |
| | Dump(With load) | | 1.2 | |
| | Lower(Empty) | | 2.8 | |
| Maximum travel speed | | km/hr(mph) | 36.3(22.7) | |
| Braking distance | | m(ft-in) | 12(39' 4") | |
| Minimum turning radius(Center of outside tire) | | | 5.03(16' 6") | |
| Gradability | | Degree (°) | 30 | |
| Travel speed | Forward | First gear | 6.4(4.0) | |
| | | Second gear | 11.7(7.3) | |
| | | Third gear | 22.3(13.9) | |
| | | Fourth gear | 36.3(22.7) | |
| | Reverse | First gear | 6.8(4.2) | |
| | | Second gear | 12.4(7.7) | |
| Third gear | | 23.4(14.6) | | |

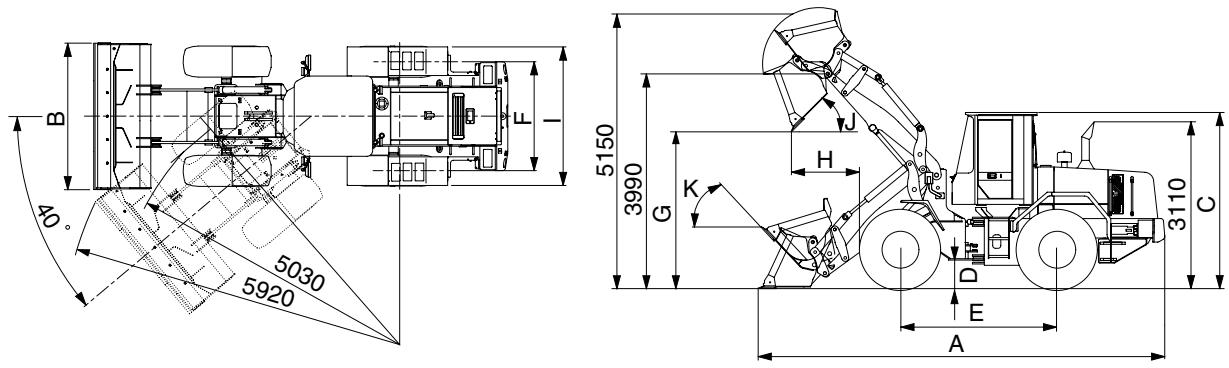
WITH BOLT-ON CUTTING EDGE TYPE BUCKET(HL740XTD-7A)



7407A2SP03

| Description | | Unit | Specification | |
|--|-----------------|-----------------------------------|---------------|-----|
| Operating weight | | kg(lb) | 11850(26120) | |
| Bucket capacity | Struck | m ³ (yd ³) | 1.78(2.3) | |
| | Heaped | | 2.1(2.7) | |
| Overall length | A | mm(ft-in) | 7750(25' 5") | |
| Overall width | B | | 2550(8' 4") | |
| Overall height | C | | 3260(10' 8") | |
| Ground clearance | D | | 417(1' 4") | |
| Wheelbase | E | | 2900(9' 6") | |
| Tread | F | | 1900(6' 3") | |
| Dump clearance at 45° | G | | 3270(10' 9") | |
| Dump reach(Full lift) | H | | 965(3' 2") | |
| Width over tires | I | | 2430(8' 0") | |
| Dump angle | J | | Degree (°) | 47 |
| Roll back angle(Carry position) | K | | | 49 |
| Cycle time | Lift(With load) | | sec | 5.5 |
| | Dump(With load) | | | 1.3 |
| | Lower(Empty) | 2.8 | | |
| Maximum travel speed | | km/hr(mph) | 36.3(22.7) | |
| Braking distance | | m(ft-in) | 12(39' 4") | |
| Minimum turning radius(Center of outside tire) | | | 5.03(16' 6") | |
| Gradability | | Degree (°) | 30 | |
| Travel speed | Forward | First gear | 6.4(4.0) | |
| | | Second gear | 11.7(7.3) | |
| | | Third gear | 22.3(13.9) | |
| | | Fourth gear | 36.3(22.7) | |
| | Reverse | First gear | 6.8(4.2) | |
| | | Second gear | 12.4(7.7) | |
| Third gear | | 23.4(14.6) | | |

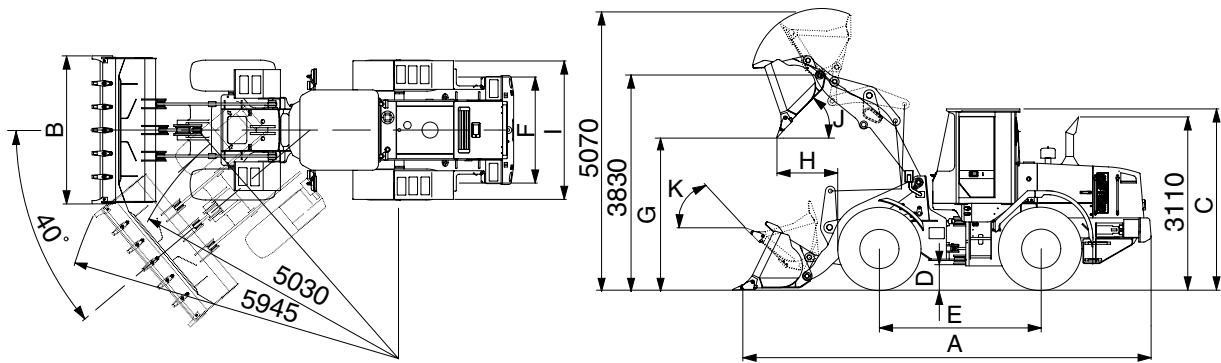
WITH BOLT-ON CUTTING EDGE TYPE BUCKET(HL740TM-7A)



740TM7A2SP03

| Description | | Unit | Specification | |
|--|-----------------|-----------------------------------|---------------|----|
| Operating weight | | kg(lb) | 12100(26700) | |
| Bucket capacity | Struck | m ³ (yd ³) | 1.7(2.2) | |
| | Heaped | | 2.0(2.6) | |
| Overall length | A | mm(ft-in) | 7550(24' 9") | |
| Overall width | B | | 2550(8' 4") | |
| Overall height | C | | 3260(10' 8") | |
| Ground clearance | D | | 417(1' 4") | |
| Wheelbase | E | | 2900(9' 6") | |
| Tread | F | | 1900(6' 3") | |
| Dump clearance at 45° | G | | 2915(9' 7") | |
| Dump reach(Full lift) | H | | 1275(4' 2") | |
| Width over tires | I | | 2430(8' 0") | |
| Dump angle | J | | Degree (°) | 50 |
| Roll back angle(Carry position) | K | | | 54 |
| Cycle time | Lift(With load) | sec | 5.5 | |
| | Dump(With load) | | 1.4 | |
| | Lower(Empty) | | 2.7 | |
| Maximum travel speed | | km/hr(mph) | 36.3(22.7) | |
| Braking distance | | m(ft-in) | 12(39' 4") | |
| Minimum turning radius(Center of outside tire) | | | 5.03(16' 6") | |
| Gradability | | Degree (°) | 30 | |
| Travel speed | Forward | km/hr(mph) | First gear | |
| | | | Second gear | |
| | | | Third gear | |
| | | | Fourth gear | |
| | Reverse | | First gear | |
| | | | Second gear | |
| Third gear | | | | |

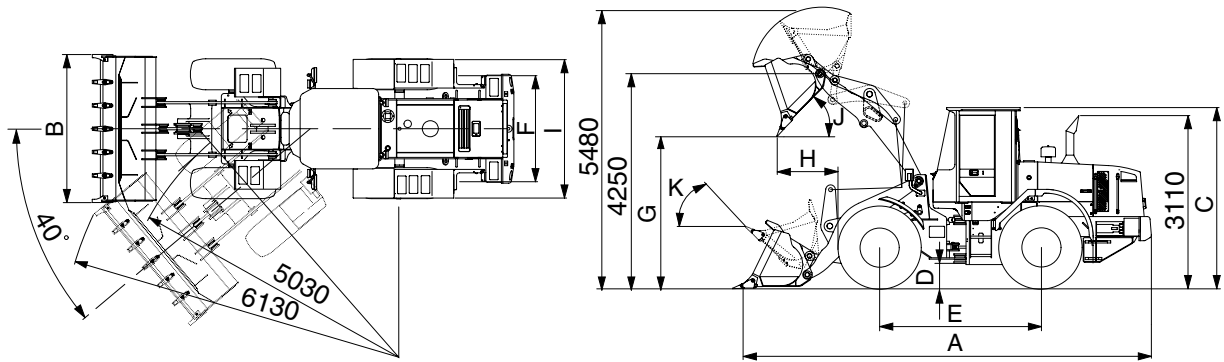
2) WITH TOOTH TYPE BUCKET(HL740-7A)



7407A2SP04

| Description | | Unit | Specification | |
|--|-----------------|-----------------------------------|---------------|----|
| Operating weight | | kg(lb) | 11550(25460) | |
| Bucket capacity | Struck | m ³ (yd ³) | 1.7(2.2) | |
| | Heaped | | 2.0(2.6) | |
| Overall length | A | mm(ft-in) | 7370(24' 2") | |
| Overall width | B | | 2600(8' 6") | |
| Overall height | C | | 3260(10' 8") | |
| Ground clearance | D | | 417(1' 4") | |
| Wheelbase | E | | 2900(9' 6") | |
| Tread | F | | 1900(6' 3") | |
| Dump clearance at 45° | G | | 2770(9'11") | |
| Dump reach(Full lift) | H | | 1035(3' 5") | |
| Width over tires | I | | 2430(8' 0") | |
| Dump angle | J | | Degree (°) | 48 |
| Roll back angle(Carry position) | K | | | 47 |
| Cycle time | Lift(With load) | sec | 5.5 | |
| | Dump(With load) | | 1.2 | |
| | Lower(Empty) | | 2.8 | |
| Maximum travel speed | | km/hr(mph) | 36.3(22.7) | |
| Braking distance | | m(ft-in) | 12(39' 4") | |
| Minimum turning radius(Center of outside tire) | | | 5.03(16' 6") | |
| Gradability | | Degree (°) | 30 | |
| Travel speed | Forward | First gear | 6.4(4.0) | |
| | | Second gear | 11.7(7.3) | |
| | | Third gear | 22.3(13.9) | |
| | | Fourth gear | 36.3(22.7) | |
| | Reverse | First gear | 6.8(4.2) | |
| | | Second gear | 12.4(7.7) | |
| Third gear | | 23.4(14.6) | | |

WITH TOOTH TYPE BUCKET(HL740XTD-7A)



7407A2SP05

| Description | | Unit | Specification | |
|--|-----------------|-----------------------------------|---------------|----|
| Operating weight | | kg(lb) | 11850(26120) | |
| Bucket capacity | Struck | m ³ (yd ³) | 1.7(2.2) | |
| | Heaped | | 2.0(2.6) | |
| Overall length | A | mm(ft-in) | 7890(25' 11") | |
| Overall width | B | | 2600(8' 6") | |
| Overall height | C | | 3260(10' 8") | |
| Ground clearance | D | | 417(1' 4") | |
| Wheelbase | E | | 2900(9' 6") | |
| Tread | F | | 1900(6' 3") | |
| Dump clearance at 45° | G | | 3170(10' 5") | |
| Dump reach(Full lift) | H | | 1045(3' 5") | |
| Width over tires | I | | 2430(8' 0") | |
| Dump angle | J | | Degree (°) | 47 |
| Roll back angle(Carry position) | K | | | 49 |
| Cycle time | Lift(With load) | sec | 5.5 | |
| | Dump(With load) | | 1.3 | |
| | Lower(Empty) | | 2.8 | |
| Maximum travel speed | | km/hr(mph) | 36.3(22.7) | |
| Braking distance | | m(ft-in) | 12(39' 4") | |
| Minimum turning radius(Center of outside tire) | | | 5.03(16' 6") | |
| Gradability | | Degree (°) | 30 | |
| Travel speed | Forward | First gear | 6.4(4.0) | |
| | | Second gear | 11.7(7.3) | |
| | | Third gear | 22.3(13.9) | |
| | | Fourth gear | 36.3(22.7) | |
| | Reverse | First gear | 6.8(4.2) | |
| | | Second gear | 12.4(7.7) | |
| Third gear | | 23.4(14.6) | | |

3. WEIGHT

| Item | | kg | lb |
|---|---------------------|-----------|-------------|
| Front frame assembly | | 850 | 1870 |
| Rear frame assembly | | 1228 | 2710 |
| Front fender(LH & RH) | | 11 | 24 |
| Counterweight | HL740-7A | 520 | 1150 |
| | HL740XTD-7A / TM-7A | 770 | 1700 |
| Cab assembly | | 820 | 1810 |
| Engine assembly | | 475 | 1050 |
| Transmission assembly | | 397 | 875 |
| Drive shaft(Front) | | 18 | 40 |
| Drive shaft(Center) | | 16 | 35 |
| Drive shaft(Rear) | | 13 | 29 |
| Drive shaft(Upper) | | 7 | 15 |
| Front axle(Include differential) | | 575 | 1268 |
| Rear axle(Include differential) | | 560 | 1235 |
| Tire(20.5-25, 16PR, L3) | | 203 | 448 |
| Hydraulic tank assembly | | 170 | 375 |
| Fuel tank assembly | | 306 | 675 |
| Main pump assembly | | 32 | 71 |
| Fan & brake pump assembly | | 7 | 15 |
| Main control valve | | 22 | 49 |
| Boom assembly | HL740-7A / XTD-7A | 725 / 815 | 1600 / 1800 |
| | HL740TM-7A | 663 | 1460 |
| Bell crank assembly | | 230 | 510 |
| Bucket link | | 37 | 80 |
| 2.1m ³ bucket, with bolt on cutting edge | | 975 | 2150 |
| 2.0m ³ bucket, with tooth | | 920 | 2030 |
| Boom cylinder assembly | | 97 | 214 |
| Bucket cylinder assembly | | 115 | 254 |
| Steering cylinder assembly | | 19 | 42 |
| Seat | | 40 | 88 |
| Battery | | 28 | 62 |

4. SPECIFICATION FOR MAJOR COMPONENTS

1) ENGINE

| Item | Specification |
|-------------------------------------|---|
| Model | Cummins QSB6.7 |
| Type | 4-cycle turbocharged and charge air-cooled diesel engine. |
| Cooling method | Water cooling |
| Number of cylinders and arrangement | 6 cylinders, in-line |
| Firing order | 1-5-3-6-2-4 |
| Combustion chamber type | Direct injection type |
| Cylinder bore × stroke | 104 × 132mm(4.1" × 5.2") |
| Piston displacement | 6730cc(409cu in) |
| Compression ratio | 17.2 : 1 |
| Rated gross horse power | 145hp at 2100rpm |
| Maximum gross torque at 1400rpm | 69kgf · m(500lb · ft) |
| Engine oil quantity | 16 l (4.2 U.S. gal) |
| Dry weight | 485kg(1069lb) |
| High idling speed | 2230 ± 50rpm |
| Low idling speed | 950 ± 25rpm |
| Rated fuel consumption | 254g/kw · hr |
| Starting motor | Nippondenso 228000-7902 (24V) |
| Alternator | Delco Remy 24SI(24V-70Amp) |
| Battery | 2 × 12V × 100Ah |

2) MAIN PUMP

| Item | Specification |
|----------------------------|---|
| Type | Fixed displacement tandem helical gear pump |
| Capacity | 46+41cc/rev |
| Maximum operating pressure | 220kgf/cm ² (3129psi) |
| Rated operating speed | 2100rpm |
| Rated output flow | 179 l /min(47.3U.S.gpm) |

3) FAN AND BRAKE PUMP

| Item | Specification | |
|----------------------------|---|-----------------------|
| | Fan | Brake |
| Type | Fixed displacement tandem helical gear pump | |
| Capacity | 16.8cc/rev | 8.2cc/rev |
| Maximum operating pressure | 150kgf/cm ² (2130psi) | |
| Rated operating speed | 2100rpm | |
| Rated output flow | 29 l /min(7.7U.S.gpm) | 17 l /min(4.5U.S.gpm) |

4) MAIN CONTROL VALVE

| Item | Specification |
|------------------------------------|----------------------------------|
| Type | 2 spool(sectional block) |
| Operating method | Hydraulic pilot assist |
| Main relief valve set pressure | 220kgf/cm ² (3129psi) |
| Overload relief valve set pressure | 240kgf/cm ² (3414psi) |

5) REMOTE CONTROL VALVE

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

6) CYLINDER

| Item | Specification |
|-------------------|---|
| Boom cylinder | Bore dia × Rod dia × Stroke ∅ 120 × ∅ 70 × 738mm |
| Bucket cylinder | Bore dia × Rod dia × Stroke ∅ 140 × ∅ 75 × 505mm |
| Steering cylinder | Bore dia × Rod dia × Stroke ∅ 65 × ∅ 40 × 429mm |

7) DYNAMIC POWER TRANSMISSION DEVICES

| Item | | Specification |
|------------------|----------------|--|
| Torque converter | Model | ZF 4WG160 |
| | Type | Single-stage, single-phase |
| Transmission | Type | Full-automatic power shift |
| | Gear shift | Forward fourth gear, reverse third gear |
| | Adjustment | Electrical single lever type, kick-down system |
| Axle | Drive devices | 4-wheel drive |
| | Front | Front fixed location |
| | Rear | Oscillation $\pm 12^\circ$ of center pin-loaded |
| Wheels | Tires | 20.5-25, 16PR(L3) |
| Brakes | Travel | Four-wheel, wet-disc type, full hydraulic |
| | Parking | Spring applied, hydraulic released brake on front axle |
| Steering | Type | Full hydraulic, articulated |
| | Steering angle | 40° to both right and left angle, respectively |

5. TIGHTENING TORQUE OF MAJOR COMPONENT

| No | Items | Size | kgf · m | lbf · ft | |
|----|--------------------|--|-----------|----------|-----------|
| 1 | Engine | Engine mounting bolt(2EA) | M20×2.5 | 57.9±8.7 | 419±62.9 |
| 2 | | Engine mounting bolt(Bracket) | M12×1.75 | 10.7±1.6 | 77.4±11.6 |
| 3 | | Radiator mounting bolt | M16×2.0 | 29.7±4.5 | 215±32.5 |
| 4 | | Fuel tank mounting bolt | M16×2.5 | 29.7±4.5 | 215±32.5 |
| 5 | | Air cleaner mounting bolt(4EA) | M10×1.5 | 6.9±1.4 | 49.9±10.1 |
| 6 | Hydraulic system | Main pump housing mounting bolt | M12×1.75 | 12.8±3.0 | 92.6±21.7 |
| 7 | | Main control valve mounting bolt | M12×1.75 | 12.8±3.0 | 92.6±21.7 |
| 8 | | Steering unit mounting bolt | M10×1.5 | 6.9±1.4 | 49.9±10.1 |
| 9 | | Priority valve | M 8×1.25 | 2.5±0.5 | 18.1±3.6 |
| 10 | | Brake valve mounting bolt | M10×1.5 | 6.9±1.4 | 49.9±10.1 |
| 11 | | Fan and brake pump mounting bolt | M10×1.5 | 6.9±1.4 | 49.9±10.1 |
| 12 | | Cut-off valve mounting bolt | M12×1.75 | 12.8±3.0 | 92.6±21.7 |
| 13 | | Remote control lever mounting bolt | M 6×1.0 | 1.1±0.2 | 8.0±1.4 |
| 14 | | Pilot supply unit mounting bolt | M 8×1.25 | 2.5±0.5 | 18.1±3.6 |
| 15 | | Safety valve | M 8×1.25 | 2.5±0.5 | 18.1±3.6 |
| 16 | | Hydraulic oil tank mounting bolt | M16×2.0 | 29.7±4.5 | 215±32.5 |
| 17 | | Transmission mounting bolt(Bracket, front) | M20×2.5 | 57.9±8.7 | 419±62.9 |
| 18 | Power train system | Transmission mounting bolt(Bracket, rear) | M16×2.0 | 18.4±2.0 | 133±14.5 |
| 19 | | Front axle mounting bolt, nut | M24×2.0 | 100±15 | 723±109 |
| 20 | | Rear axle support mounting bolt, nut | M24×2.0 | 100±15 | 723±109 |
| 21 | | Tire mounting nut(20.5-25 16PR, L3) | M22×1.5 | 70±2.0 | 506±15 |
| 22 | | Drive shaft joint mounting bolt | 3/8-24UNF | 6.0±0.8 | 43.4±5.8 |
| 23 | | Counterweight mounting bolt, nut | M30×3.5 | 199±29.9 | 1439±216 |
| 24 | Others | Operator's seat mounting bolt | M 8×1.25 | 3.4±0.8 | 24.6±5 |
| 25 | | ROPS Cab mounting bolt(4EA) | M27×2.0 | 55±5 | 397±36.2 |

6. TORQUE CHART

Use following table for unspecified torque.

1) BOLT AND NUT

(1) Coarse thread

| Bolt size | 8T | | 10T | |
|------------|-------------|-------------|-------------|-------------|
| | kgf · m | lbf · ft | kgf · m | lbf · ft |
| M 6 × 1.0 | 0.85 ~ 1.25 | 6.15 ~ 9.04 | 1.14 ~ 1.74 | 8.2 ~ 12.6 |
| M 8 × 1.25 | 2.0 ~ 3.0 | 14.5 ~ 21.7 | 2.73 ~ 4.12 | 19.7 ~ 29.8 |
| M10 × 1.5 | 4.0 ~ 6.0 | 28.9 ~ 43.4 | 5.5 ~ 8.3 | 39.8 ~ 60 |
| M12 × 1.75 | 7.4 ~ 11.2 | 53.5 ~ 79.5 | 9.8 ~ 15.8 | 71 ~ 114 |
| M14 × 2.0 | 12.2 ~ 16.6 | 88.2 ~ 120 | 16.7 ~ 22.5 | 121 ~ 167 |
| M16 × 2.0 | 18.6 ~ 25.2 | 135 ~ 182 | 25.2 ~ 34.2 | 182 ~ 247 |
| M18 × 2.5 | 25.8 ~ 35.0 | 187 ~ 253 | 35.1 ~ 47.5 | 254 ~ 343 |
| M20 × 2.5 | 36.2 ~ 49.0 | 262 ~ 354 | 49.2 ~ 66.6 | 356 ~ 482 |
| M22 × 2.5 | 48.3 ~ 63.3 | 350 ~ 457 | 65.8 ~ 98.0 | 476 ~ 709 |
| M24 × 3.0 | 62.5 ~ 84.5 | 452 ~ 611 | 85.0 ~ 115 | 615 ~ 832 |
| M30 × 3.5 | 124 ~ 168 | 898 ~ 1214 | 169 ~ 229 | 1223 ~ 1655 |
| M36 × 4.0 | 174 ~ 236 | 1261 ~ 1703 | 250 ~ 310 | 1808 ~ 2242 |

(2) Fine thread

| Bolt size | 8T | | 10T | |
|------------|--------------|-------------|-------------|-------------|
| | kgf · m | lbf · ft | kgf · m | lbf · ft |
| M 8 × 1.0 | 2.17 ~ 3.37 | 15.7 ~ 24.3 | 3.04 ~ 4.44 | 22.0 ~ 32.0 |
| M10 × 1.25 | 4.46 ~ 6.66 | 32.3 ~ 48.2 | 5.93 ~ 8.93 | 42.9 ~ 64.6 |
| M12 × 1.25 | 7.78 ~ 11.58 | 76.3 ~ 83.7 | 10.6 ~ 16.0 | 76.6 ~ 115 |
| M14 × 1.5 | 13.3 ~ 18.1 | 96.2 ~ 130 | 17.9 ~ 24.1 | 130 ~ 174 |
| M16 × 1.5 | 19.9 ~ 26.9 | 144 ~ 194 | 26.6 ~ 36.0 | 193 ~ 260 |
| M18 × 1.5 | 28.6 ~ 43.6 | 207 ~ 315 | 38.4 ~ 52.0 | 278 ~ 376 |
| M20 × 1.5 | 40.0 ~ 54.0 | 289 ~ 390 | 53.4 ~ 72.2 | 386 ~ 522 |
| M22 × 1.5 | 52.7 ~ 71.3 | 381 ~ 515 | 70.7 ~ 95.7 | 512 ~ 692 |
| M24 × 2.0 | 67.9 ~ 91.9 | 491 ~ 664 | 90.9 ~ 123 | 658 ~ 890 |
| M30 × 2.0 | 137 ~ 185 | 990 ~ 1338 | 182 ~ 248 | 1314 ~ 1795 |
| M36 × 3.0 | 192 ~ 260 | 1389 ~ 1879 | 262 ~ 354 | 1893 ~ 2561 |

2) PIPE AND HOSE(FLARE TYPE)

| Thread size | Width across flat(mm) | kgf · m | lbf · ft |
|-------------|-----------------------|---------|----------|
| 1/4" | 19 | 4 | 28.9 |
| 3/8" | 22 | 5 | 36.2 |
| 1/2" | 27 | 9.5 | 68.7 |
| 3/4" | 36 | 18 | 130 |
| 1" | 41 | 21 | 152 |
| 1-1/4" | 50 | 35 | 253 |

3) PIPE AND HOSE(ORFS TYPE)

| Thread size | Width across flat(mm) | kgf · m | lbf · ft |
|-------------|-----------------------|---------|----------|
| 9/16-18 | 19 | 4 | 28.9 |
| 11/16-16 | 22 | 5 | 36.2 |
| 13/16-16 | 27 | 9.5 | 68.7 |
| 1-3/16-12 | 36 | 18 | 130 |
| 1-7/16-12 | 41 | 21 | 152 |
| 1-11/16-12 | 50 | 35 | 253 |

4) FITTING

| Thread size | Width across flat(mm) | kgf · m | lbf · ft |
|-------------|-----------------------|---------|----------|
| 1/4" | 19 | 4 | 28.9 |
| 3/8" | 22 | 5 | 36.2 |
| 1/2" | 27 | 9.5 | 68.7 |
| 3/4" | 36 | 18 | 130 |
| 1" | 41 | 21 | 152 |
| 1-1/4" | 50 | 35 | 253 |

7. RECOMMENDED LUBRICANTS

Use only oils listed below or equivalent.

Do not mix different brand oil.

| Service point | Kind of fluid | Capacity l (U.S. gal) | Ambient temperature °C(°F) | | | | | | | |
|----------------------------------|--|--|-------------------------------------|-------------|-----------|------------|-----------------|------------|-------------|--|
| | | | -20 (-4) | -10 (14) | 0 (32) | 10 (50) | 20 (68) | 30 (86) | 40 (104) | |
| Engine oil pan | Engine oil | 16(4.2) | | | | | SAE 30 | | | |
| | | | SAE 10W | | | | | | | |
| | | | SAE 10W-30 | | | | | | | |
| | | | | | | | SAE 15W-40 | | | |
| Torque converter Transmission | Oil | 26(6.7) | SAE 10W-30 | | | | | | | |
| | | | | | | | SAE 15W-40 | | | |
| Axle | Gear oil | Front : 21.2(5.6) Rear : 21.2(5.6) | SAE 80W-90LS/API GL-5 | | | | | | | |
| Hydraulic tank | Hydraulic oil | Tank: 105(27.7) System: 165(44) | ISO VG 32 | | | | | | | |
| | | | | | | ISO VG 46 | | | | |
| | | | | | ISO VG 68 | | | | | |
| Fuel tank | Diesel fuel | 228(60.2) | ASTM D975 NO. 1 | | | | | | | |
| | | | | | | | ASTM D975 NO. 2 | | | |
| Fitting (Grease nipple) | Grease | As required | NLGI NO. 1 | | | | | | | |
| | | | | | | | NLGI NO. 2 | | | |
| Radiator | Mixture of antifreeze and water 50 : 50 | 35(9.2) | Ethylene glycol base permanent type | | | | | | | |