

ZW-7 series

HITACHI

Reliable Solutions

ZW100-7

LANDCROS



WHEEL LOADER

Model code : ZW100-7

Engine maximum power : 100 HP (74 kW)

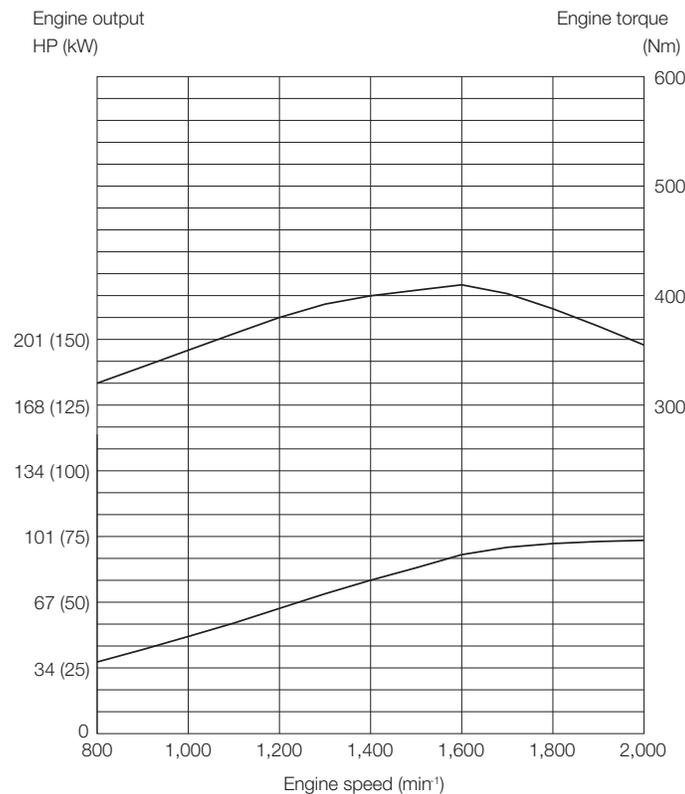
Operating weight : 17,250 - 18,110 lb (7,820 - 8,210 kg)

Bucket capacity : 1.4 - 2.1 yd³ (1.1 - 1.6 m³)

SPECIFICATIONS

ZW100-7

| ENGINE | |
|------------------------|---|
| Model | DEUTZ TCD3.6 |
| Type | 4 cycle water-cooled, direct injection |
| Aspiration | Turbocharger and intercooled |
| Aftertreatment | DOC/DPF+SCR system |
| No. of cylinders | 4 |
| Maximum power | |
| ECE R120 gross | 100 HP (74 kW) at 2,000 min ⁻¹ |
| ISO 9249 : 2007 net | 97 HP (73 kW) at 2,000 min ⁻¹ |
| Rated power | |
| ISO 14396 : 2002 gross | 100 HP (74 kW) at 2,000 min ⁻¹ |
| ISO 9249 : 2007 net | 97 HP (73 kW) at 2,000 min ⁻¹ |
| Maximum torque | |
| ISO 9249 : 2007 net | 296 lbf ft (401 Nm) at 1,600 min ⁻¹ |
| Bore and stroke | 3.9" x 4.7" (98 mm X 120 mm) |
| Piston displacement | 221.0 in ³ (3.621 L) |
| Batteries | 2 x 12 V |
| Air cleaner | Two element dry type with restriction indicator |



| POWER TRAIN | | |
|---------------------------------|--|---------------------------|
| Transmission | Electronically controlled 1 motor hydrostatic transmission with gear box, 2-speed (High and Low), powershift countershaft type | |
| Cooling method | Forced circulation type | |
| Travel speed* Forward / Reverse | | |
| Operating Mode | Standard Mode | Power Mode |
| Low speed (L) mph (km/h) | 7.1 (11.5) / 7.1 (11.5) | 7.1 (11.5) / 7.1 (11.5) |
| High speed (H) mph (km/h) | 21.4 (34.5) / 21.4 (34.5) | 21.4 (34.5) / 21.4 (34.5) |

*With 16.9-24-10 (L2) tires

| AXLE AND FINAL DRIVE | |
|---------------------------------|---|
| Drive system | Four-wheel drive system |
| Front and rear axle | Semi-floating |
| Front | Fixed to the front frame |
| Rear | Trunnion support |
| Reduction and differential gear | Two-stage reduction with torque proportional differential |
| Oscillation angle | Total 18° (+9°, -9°) |
| Final drives | Heavy-duty planetary, mounted inboard |

| TIRES | |
|-----------|-------------------|
| Tire size | 16.9-24-10PR (L2) |

| BRAKES | |
|----------------|--|
| Service brakes | Inboard mounted fully hydraulic 4-wheel wet disc brakes. Front and rear independent brake circuit, HST (Hydro Static Transmission) system provides additional hydraulic braking capacity |
| Parking brakes | Spring-applied, hydraulically-released, transmission output shaft mounted multi wet disc |

| STEERING SYSTEM | |
|---------------------|---------------------------------------|
| Type | Articulated frame steering |
| Steering angle | Each direction 40° ; total 80° |
| Cylinders | Double-acting piston type |
| No. x Bore x Stroke | 2 x 2.4" x 15.6" (2 x 60 mm x 395 mm) |

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| HYDRAULIC SYSTEM | |
|---|---|
| Arm and bucket are controlled by multifunction lever | |
| Arm controls | Four position valve; Raise, hold, lower, float |
| Bucket controls with automatic bucket return-to-dig control | |
| Three position valve; Roll back, hold, dump | |
| Main pump (Serve as steering pump) | |
| Fixed Displacement Gear Pump | |
| Maximum flow | 30 gal (112 L) / min at 2,000 min ⁻¹ |
| Maximum pressure | 2,990 psi (20.6 MPa) |
| Main pump (Serve as brake pump) | |
| Fixed Displacement Gear Pump | |
| Maximum flow | 5.8 gal (22 L) / min at 2,000 min ⁻¹ |
| Maximum pressure | 247 psi (1.7 MPa) |
| Fan pump | |
| Fixed Displacement Gear Pump | |
| Maximum flow | 9.5 gal (36 L) / min at 2,000 min ⁻¹ |
| Maximum pressure | 1,460 psi (10.1 MPa) |
| HST charging pump | |
| Maximum flow | 10 gal (38 L) / min at 2,000 min ⁻¹ |
| Maximum pressure | 360 psi (2.5 MPa) |
| Hydraulic cylinders | |
| Type | Double acting type |
| No. x Bore x Stroke | Arm: 2 x 4.1" x 28" (2 x 105 mm x 710 mm) |
| | Bucket: 1 x 4.9" x 17.5" (1 x 125 mm x 445 mm) |
| Filters | Full-flow 10 micron return filter in reservoir |
| Hydraulic cycle times | |
| Lift arm raise | 5.5 s |
| Lift arm lower | 2.9 s |
| Bucket dump | 1.1 s |
| Total | 9.5 s |

*Data at Power Mode

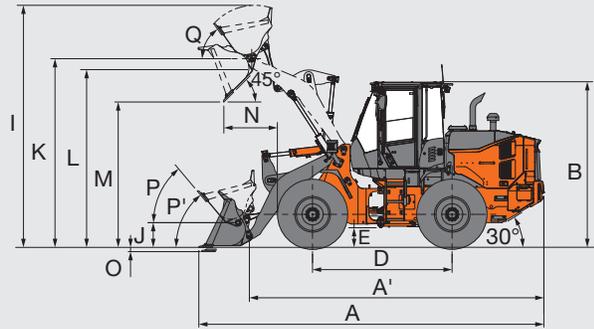
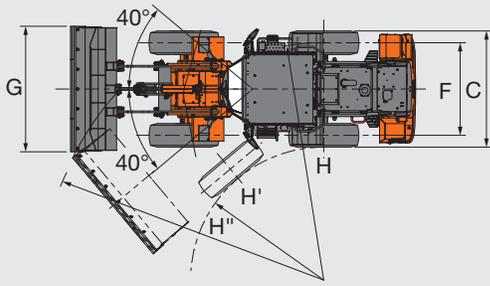
| ENVIRONMENT | |
|--|---------------|
| Engine Emissions | |
| EPA Final Tier 4 / EU stage V | |
| Sound level | |
| Sound level in cab according to ISO 6396: 2008 | LpA 70 dB(A) |
| External sound level according to ISO 6395: 2008 and EU Directive 2000/14/EC | LwA 102 dB(A) |

| SERVICE REFILL CAPACITIES | |
|--------------------------------|------------------|
| Fuel tank | 37.0 gal (140 L) |
| Engine coolant | 4.5 gal (17 L) |
| Engine oil (Including oil pan) | 2.9 gal (11 L) |
| Front axle | 2.4 gal (9 L) |
| Rear axle | 2.4 gal (9 L) |
| Hydraulic oil tank | 23.2 gal (88 L) |
| DEF/AdBlue® tank | 6.2 gal (24 L) |

SPECIFICATIONS

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DIMENSIONS AND SPECIFICATIONS



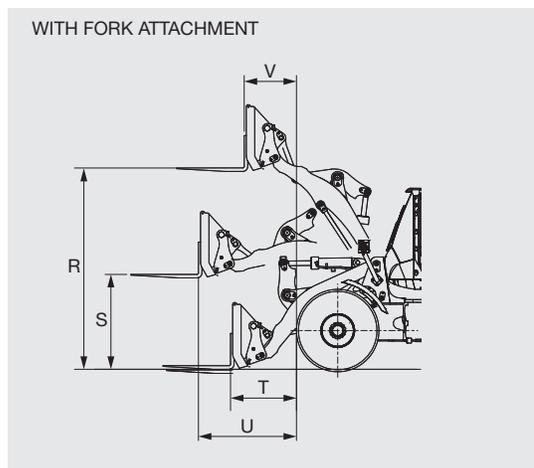
| Bucket type | | | Standard arm | Standard arm with Quick coupler | Standard arm |
|-----------------|---|-----------------------------------|----------------------|---------------------------------|----------------------|
| | | | General purpose | General purpose | Material handling |
| | | | Bolt-on cutting edge | Bolt-on cutting edge | Bolt-on cutting edge |
| Bucket capacity | ISO 7546: 1983 Heaped | yd ³ (m ³) | 1.7 (1.3) | 1.4 (1.1) | 2.1 (1.6) |
| | ISO 7546: 1983 Struck | yd ³ (m ³) | 1.4 (1.1) | 1.2 (0.9) | 1.7 (1.3) |
| A | Overall length | ft-in (mm) | 21' 3" (6,460) | 22' 0" (6,705) | 21' 9" (6,620) |
| A' | Overall length (without bucket) | ft-in (mm) | 18' 1" (5,500) | 18' 1" (5,500) | 18' 1" (5,500) |
| B | Overall height | up to cab top ft-in (mm) | 10' 2" (3,090) | 10' 2" (3,090) | 10' 2" (3,090) |
| C | Width over tires | outside tire ft-in (mm) | 7' 2" (2,180) | 7' 2" (2,180) | 7' 2" (2,180) |
| D | Wheel base | ft-in (mm) | 8' 6" (2,600) | 8' 6" (2,600) | 8' 6" (2,600) |
| E | Ground clearance | Minimum ft-in (mm) | 1' 2" (365) | 1' 2" (365) | 1' 2" (365) |
| F | Tread | ft-in (mm) | 5' 8" (1,725) | 5' 8" (1,725) | 5' 8" (1,725) |
| G | Bucket width | ft-in (mm) | 7' 9" (2,350) | 7' 9" (2,350) | 7' 9" (2,350) |
| H | Turning radius (centerline of outside tire) | ft-in (mm) | 14' 7" (4,450) | 14' 7" (4,450) | 14' 7" (4,450) |
| H' | Turning radius to inside of tires | ft-in (mm) | 8' 3" (2,500) | 8' 3" (2,500) | 8' 3" (2,500) |
| H'' | Loader clearance radius, bucket in carry position | ft-in (mm) | 17' 2" (5,230) | 17' 5" (5,300) | 17' 4" (5,270) |
| I | Overall operating height | bucket full raise ft-in (mm) | 14' 9" (4,490) | 15' 1" (4,590) | 15' 7" (4,735) |
| J | Carry height of bucket pin | at carry position ft-in (mm) | 1' 6" (460) | 1' 6" (460) | 1' 6" (460) |
| K | Height to bucket hinge pin, fully raised | ft-in (mm) | 11' 6" (3,515) | 11' 6" (3,515) | 11' 6" (3,515) |
| L | Lift arm clearance at max lift | ft-in (mm) | 10' 10" (3,315) | 10' 10" (3,315) | 10' 10" (3,315) |
| M | Dumping clearance 45 degree, full height | ft-in (mm) | 8' 9" (2,685) | 8' 3" (2,515) | 8' 5" (2,575) |
| N | Reach, 45 degree dump, full height | ft-in (mm) | 3' 4" (1,030) | 3' 11" (1,200) | 3' 9" (1,140) |
| O | Digging depth (horizontal digging angle) | ft-in (mm) | 3' 1" (80) | 3' 1" (80) | 3' 1" (80) |
| P | Max. roll back at carry position | deg | 50 | 50 | 50 |
| P' | Max. roll back at ground level | deg | 42 | 42 | 42 |
| Q | Roll back angle at full height | deg | 55 | 55 | 55 |

SPECIFICATIONS

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| Bucket type | | Standard arm | | Standard arm with Quick coupler | Standard arm |
|---|-----------|----------------------|----------------|---------------------------------|----------------------|
| | | General purpose | | General purpose | Material handling |
| | | Bolt-on cutting edge | | Bolt-on cutting edge | Bolt-on cutting edge |
| Static tipping load ISO 14397-1: 2007 (Section 1-5) * | Straight | lb (kg) | 13,030 (5,900) | 11,200 (5,080) | 12,550 (5,690) |
| | Full turn | lb (kg) | 11,360 (5,150) | 9,660 (4,380) | 10,900 (4,940) |
| Breakout force | | kN | 58.7 | 43.4 | 48.2 |
| | | lbf (kgf) | 13,100 (5,990) | 9,700 (4,430) | 10,800 (4,920) |
| Operating weight * (With ROPS / FOPS Cab) | | lb (kg) | 17,250 (7,820) | 18,110 (8,210) | 17,620 (7,990) |

Note*: Static tipping load and operating weight marked with* include 16.9-24-10 (L2) tires (No ballast) with lubricants, full fuel tank and operator.
Machine stability and operating weight depend on counterweight, tire size and other attachments.



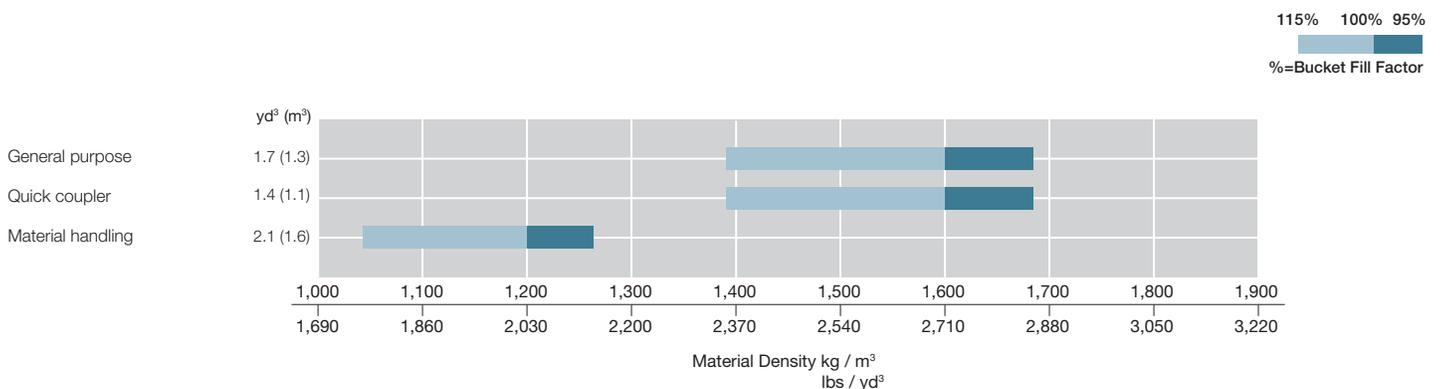
| Attachment type | | Fork |
|--|---------------------------------|---------------------------|
| R | Max. stacking height | ft-in (mm) 11' 2" (3,420) |
| S | Height of fork at maximum reach | ft-in (mm) 5' 8" (1,730) |
| T | Reach at ground level | ft-in (mm) 3' 5" (1,040) |
| U | Max. reach | ft-in (mm) 5' 8" (1,720) |
| V | Reach at max. stacking height | ft-in (mm) 3' 4" (1,040) |
| Static tipping load ISO 14397-1:2007 (Section 1-5) * | Straight | lb (kg) 7,540 (3,420) |
| | Full turn | lb (kg) 6,480 (2,940) |
| Max. payload per EN 474-3, 80 % | | lb (kg) 5,180 (2,350) |
| Max. payload per EN 474-3, 60 % | | lb (kg) 3,890 (1,760) |
| Fork tine length | | in (mm) 48 (1,220) |
| Operating weight * | | lb (kg) 18,040 (8,180) |

Note*: Static tipping load and operating weight marked with* include 16.9-24-10 (L2) tires (No ballast) with lubricants, full fuel tank and operator.
Machine stability and operating weight depend on counterweight, tire size and other attachments.

WEIGHT CHANGE

| Option item | Operating weight lb (kg) | Tipping load lb (kg) | | Overall width in (mm) (outside tire) | Overall height in (mm) | Overall length in (mm) |
|---|-----------------------------|----------------------|------------|--|---------------------------|---------------------------|
| | | Straight | Full turn | | | |
| Belly guard (bolt on type) (front/rear) | +140 (+60) | +100 (+50) | +100 (+40) | ±0 | ±0 | ±0 |

BUCKET SELECTION GUIDE



EQUIPMENT

ZW100-7

● : Standard equipment ○ : Optional equipment

| ENGINE | ZW100-7 |
|--|---------|
| Aftertreatment device | ● |
| Aftertreatment manual regeneration switch | ● |
| Air filter double elements | ● |
| Cold start automatic warm-up | ● |
| Pre-cleaner (sy-clone type) | ● |
| Anti-clogging radiator (wide fin pitch) | ● |
| Automatic reversible cooling fan with temperature sensing | ● |
| Spin-on type engine oil filter | ● |
| Spin-on type fuel main filter | ● |
| Spin-on type fuel pre-filter (with water separator function) | ● |
| Radiator coolant level sight gauge | ● |
| DEF/AdBlue® tank with magnet adapter with refilling interface magnet | ● |
| Adjustable engine idle auto shut-down system | ● |
| Engine oil remote drain | ● |
| Fan guard | ● |

| BRAKE SYSTEM | ZW100-7 |
|--|---------|
| Front and rear independent brake circuits | ● |
| Inboard mounted fully hydraulic 4 wheel wet disc | ● |
| Spring-applied/Hydraulic-released parking brake | ● |
| Dual brake pedals | ● |

| HYDRAULIC SYSTEM | ZW100-7 |
|---|---------|
| Pilot actuated multi-function (MF) control lever | ● |
| Control lever lock switch | ● |
| Lift arm adjustable dual level kickout settings | ● |
| Bucket auto leveler (automatic return to dig control) | ● |
| Multi-function (MF) lever + 1 lever for 3rd function | ● |
| Hydraulic filters | ● |
| Lift arm float control detent | ● |
| Quick coupler piping with switch control | ● |
| Tank oil level sight gauge | ● |
| Ride control system (OFF-AUTO type) | ● |
| Direct acting hydraulic power steering system | ● |

| CAB | ZW100-7 |
|--|---------|
| Adjustable steering column with POP-UP | ● |
| Air conditioner/heater with auto climate control | ● |
| Fresh and recirculation cab air filters | ● |
| Bluetooth® integrated FM/AM+radio , hands-free calling | ● |
| Camera and monitor | |
| AERIAL ANGLE (Side and rear view camera) | ○* |
| Rear view camera and monitor | ● |
| Coat hook | ● |
| Evacuation hammer | ● |
| Front/rear defroster | ● |
| Glove compartment | ● |
| LED room light | ● |
| Rear obstacle detection system (Automatic speed reduction) | ○* |
| Rear view mirrors | |
| Inside (1) | ● |
| Outside manually adjusted (2) | ● |
| Outside remotely adjusted and heated (2) | ○* |
| ROPS (ISO 3471 : 2008), FOPS (ISO 3449 : 2008 LEVEL II): multi-plane isolation mounted for noise , vibration reduction | ● |
| Rubber floor mat | ● |
| Seat | |
| Heavy duty air suspension seat equipped with horizontal suspension headrest and heater: fabric, high back, adjustable for damper, inclination of the seat, seat depth, weight-height, fore-aft position, reclining angle, armrest angle, headrest height and angle, lumbar support | ● |
| Seat belt reminder indicator | ● |
| Retractable seat belt, 3.0 in (76 mm) | ● |
| Steering wheel sure-grip with steering knob and horn button | ● |
| Storage | |
| Cup holder | ● |
| Document holder | ● |
| Hot and cool box | ● |
| Seatback pocket | ● |
| Smartphone and Tablet device holder | ● |
| Fire extinguisher mounting bracket | ● |
| Retractable windshield sunscreen | ● |
| Tinted safety glass | |
| Front windshield: laminated | ● |
| Others: tempered | ● |
| USB power supply | ● |
| Windshield washer front and rear | ● |
| Windshield wipers front and rear | ● |
| Speakers (2) | ● |
| 8 inch sub monitor | ● |

EQUIPMENT

ZW100-7

● : Standard equipment ○ : Optional equipment

| MONITORING SYSTEM | ZW100-7 |
|---|---------|
| Gauge: coolant temperature, fuel level, transmission oil temperature | ● |
| Indicator lights: clearance lights, control lever lock, fuel level, high beam, parking brake, preheat, turn signals, work lights, fan reverse indicator, seat belt indicator | ● |
| Indicator on multifunction monitor: F-N-R shift position, gear shift position, clock, DEF alarm indicator, DEF level gauge, ECO indicator, forward/reverse selector switch indicator, hour meter, odometer, battery volt, speedometer, tachometer, Warning lights: air filter restriction, brake oil low level communication system error, discharge warning, engine oil low pressure, engine warning, hydraulic oil level, low steering oil pressure, overheat, transmission warning | ● |
| Indicator on sub monitor : rear obstacle detection and warning system (optional) | ● |
| 35 languages selection | ● |

| ELECTRICAL SYSTEM | ZW100-7 |
|--|---------|
| Alternator (24V 100 A) | ● |
| Backup alarm | ● |
| Battery disconnect switch with removable lever | ● |
| Large capacity batteries (2 x 12V-710 CCA) | ● |
| Power outlets 12 V and 24 V | ● |

| LIGHTS | ZW100-7 |
|--|---------|
| LED headlights (low and high beam) | ● |
| LED front combination clearance, turn signal and hazard lights | ● |
| LED rear combination tail, brake, reverse, turn signal and hazard lights | ● |
| Rotating warning beacon | ○ |
| LED working lights (4 front and 2 rear cab, 2 rear grille) | ● |
| Headlight guards | ○ |
| Tail light guards | ○ |

| POWER TRAIN | ZW100-7 |
|---|---------|
| Approach speed control mode switch | ● |
| Machine deceleration mode switch | ● |
| TPD (Torque Proportioning Differential, front and rear) | ● |
| Lever temporary power mode switch | ● |
| Forward/reverse column lever and MF lever switch | ● |
| Standard/Power mode switch | ● |
| Traction control mode switch | ● |
| Low (Lo) speed maximum speed limiter dial | ● |

| TIRES | ZW100-7 |
|----------------------------------|---------|
| 16.9-24-10PR (L2) Yokohama Y580H | ● |

| MISCELLANEOUS | ZW100-7 |
|--|---------|
| Articulation lock bar | ● |
| Belly guard (bolt on type) (front and rear) | ○ |
| Bucket cylinder guard | ○ |
| Cab front and rear top rails | ● |
| Snow windshield wipers (front and rear) | ○ |
| Cab windshield guard (refuse) | ○ |
| Counterweight (bolt-on) | ● |
| Drawbar with locking pin | ● |
| Fenders | |
| Full front with mud flap and half rear coverage | ● |
| Full front with mud flap and full rear coverage | ○* |
| Global e-Service (telematics service) | ● |
| Lift/tie down lugs (front and rear chassis) | ● |
| Standard lift arm | |
| On board and remote systems monitoring | ● |
| Anti-vandalism | |
| Lockable cab door | ● |
| Lockable engine compartment doors | ● |
| Lockable fuel refilling cap | ● |
| Lockable battery box and disconnect switch | ● |
| Lockable DEF tank & tool storage compartment | ● |
| Radiator dust protection screen | ○ |
| Emergency secondary steering (ISO 5010:2019 compliant) | ○*1 |
| Tool storage compartment | ● |
| Servicing tools | ● |

| QUICK LINKS | ZW100-7 |
|------------------------|---|
| Website's Product Page |  |

* Included in Premium Package offering
*1 Standard where regulation mandated