# **HITACHI**

**ZVV 370 G Type** 



# **WHEEL LOADER**

- Model Code : ZW370-G
- Operating Weight: 28 970 29 700 kg
   Bucket Capacity: ISO Heaped: 4.2 7.5 m³
   Max. Engine Output: 255 kW (340 HP)



# **Introducing the New Productive Wheel Loaders:**

# Z Series

**Top-Class Production with High Dependability** 

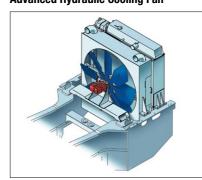
# **Extra Power and Performance for Top-Class Productivity**

#### **Computer-Controlled Engine**



The Engine Control Module (ECM) provides essential operating data for efficient fault diagnosis and troubleshooting. The Cummins diagnosis tools also provide key engine data for quick, accurate analysis.

#### **Advanced Hydraulic Cooling Fan**



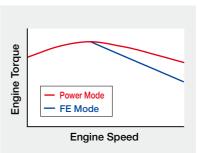
Hydraulic cooling fan speed varies with changes in operating temperatures to reduce noise and fuel consumption.

#### **Outboard Wet Disc Brakes**



The outboard-mounted, sealed wet disc brakes produce plenty of braking force, and keep out dirt. Dual lines are independently provided for front and rear axles for added safety.

#### **Power Mode and Fuel-Efficient Mode**

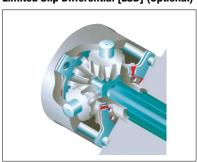


There are two engine modes — Power mode and Fuel-Efficient mode. Select the Power mode to boost power for higher production, and the Fuel-Efficient mode for fuel economy.

#### **Load-Sensing Hydraulic Steering System**

The load-sensing hydraulic steering system boosts steering force, when needed, in the main hydraulic circuit. This makes possible the full use of pump torque for higher job efficiency.

#### **Limited Slip Differential [LSD] (Optional)**



The Limited Slip Differential (LSD) effectively yields big traction force to suit job needs.

#### Torque Proportional Differential [TPD]

The Torque Proportional Differential (TPD) adjusts torque to both wheels. When road resistances under both wheels are different, the TPD prevents the slippage of a wheel on softer ground, unlike conventional differentials. This feature allows the ZW370 to easily get out of swamps and rough terrains.



## **Comfortable**

#### **High Visibility**



The cab gives good visibility with inside and outside rear view mirrors. The front windshield is a flat glass mounted with rubber gaskets for easy replacement. The cab rests on viscous mounting to absorb shocks and noise for operator comfort.

#### **ROPS/FOPS Cab (Optional)**



This ROPS/FOPS cab is adopted to protect the operator from injury in the case of an accident.

ROPS: Roll-Over Protective Structure,

ISO3471

FOPS: Falling Object Protective Structure, ISO3449

#### **Full-Auto Air Conditioner/Heater**



The air conditioner/heater is controlled automatically and thermostatically to enhance operator comfort. Air vents promote good air circulation inside, and defrosting all the year around. The cab is pressurized to keep out dirt.

#### **Single Shift Lever**

The single shift lever with twist grip is provided on the steering column for the convenience of handling.

#### Fully Adjustable Mechanical Suspension Seat



The suspension seat is fully adjustable for riding comfort, reducing operator fatigue and increasing operator's productivity.

#### **Assortment of Accessories**

An assortment of accessories, including radio (optional), glove box, cup holder and storage compartment, are conveniently located inside.

#### **Down-Shift Switch**

The down-shift switch, mounted on the lift arm control lever, allows the operator to make easy downshifting from the 2nd to 1st gear.

#### **Adjustable Steering Column**



The steering column is tiltable and telescopic to suit operator's build for comfortable positioning and operation.

# **Durable and Dependable**

#### **Strong Lift Arms and Bucket**

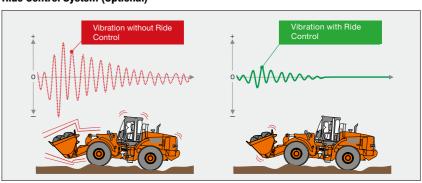


The strong lift arms and linkage yield high production during digging, loading and hauling. Big bucket breakout force and optimum bucket rollback bring about high production and good load retention. Buckets are designed and shaped for efficient scooping-up and loading. Bolton cutting edges are easy to replace. The bucket leveler and boom kickout come standard.

#### **Buffer Rings for Hydraulic Cylinders**

Hydraulic cylinders utilize buffer rings for better sealing with less leakage.

#### **Ride Control System (Optional)**



The ride control system can reduce pitching and bouncing when traveling on rough terrain and snow road. This system automatically controls the implement to reduce shocks and vibration.

#### **Full Box-Section Track Frame**



The track frame is box-section structured to resist twisting loads.

#### **Sealed Bucket Hinge Pins**



The bucket hinge pins are hermetically sealed to retain grease inside for longer service life.

# **Easy Access for Quick Servicing**

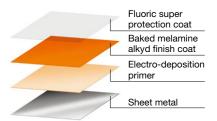
#### Easy Access to Engine and Filters



Machine covers open wide for easy access to the engine and filters for efficient servicing and inspection. Filters and grease fittings are grouped for the convenience of replacement and lubrication.

#### **Multi-Coat Painting Process**

Hitachi's advanced multi-coat painting process, consisting of electro-deposition (ED) primer, baked melamine alkyd finish coat and fluoric super protection coat, is applied to sheet metal parts like covers, achieving durable and attractive finish with high resistance to corrosion and damage.



#### **Halogen Head Lights**



Front and rear working lights are bright halogen lamps for safer night-shift operation.

# LED Brake and Tail Lights (Optional)



The rear tail lights are long-life LED lamps that are very bright and durable.

#### **DT Connectors**



Sealed Deutsch DT connectors are used throughout the electrical system to reduce corrosion and ensure positive connection.

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# **SPECIFICATIONS**

#### **ENGINE**

Model..... Cummins QSX15

Aspiration...... Turbocharger and intercooled

No. of cylinders ...... 6

Maximum power Net

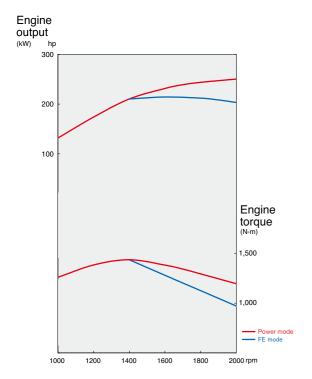
ISO 9249, net............ 255 kW (340 HP) at 2 100 min<sup>-1</sup> (rpm)

Bore and stroke ........... 137 mm X 170 mm

Piston displacement.... 15.03 L

Batteries...... 2 X 12 V / 1 146 CCA, 140 Ah

Air cleaner ...... Two element dry type with restriction indicator



#### **POWER TRAIN**

I OWEIT IIIAII	
Transmission	Torque converter, planetary gear type powershift with computer-controlled automatic shift and manual shift features included.
Torque converter	Three element, single stage, single phase
Main clutch	Wet hydraulic, multi-disc type
Cooling method	Forced circulation type
Travel speed* (km/h)	Forward / Reverse
1st	7.7 / 8.2
2nd	14.2 / 15.0
3rd	22.9 / 24.0
4th	34.0 / -

\*With 29.5-25-22PR (L3) tubeless

#### **AXLE AND FINAL DRIVE**

AXLL AND FINAL	DUIAF
Drive system	Four-wheel drive system
Front & rear axle	Full-floating
Front	Fixed to the front frame
Rear	Trunnion support
Reduction and	
differential gear	Spiral bevel gear with torque proportional differential
Oscillation angle	Total 24° (+12°,-12°)
Final drives	Heavy-duty planetary, mounted outboard

#### **TIRES**

#### **BRAKES**

Service brakes ........... Inboard mounted fully hydraulic 4 wheel wet disc brake. Front & rear independent brake circuit.

#### STEERING SYSTEM

Туре	Articulated frame steering
Steering mechanism	Completely hydraulic power steering
Steering angle	Each direction 40°; total 80°
Cylinders	Two double-acting piston type
No. x Bore x Stroke	2 x 90 mm x 600 mm
Minimum turning	

... 6 110 mm

#### **HYDRAULIC SYSTEM**

radius at the centerline

of outside tire ....

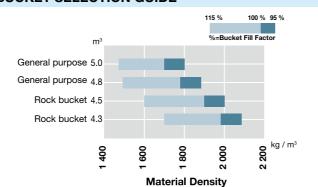
Lift arm and bucket are controlled by independent control lever. Lift arm controls ....... Four position valve ; Raise, hold, lower, float Bucket controls with automatic bucket return-to-dig control..... Three position valve; Roll back, hold, dump Main pump / Steering pump ... Fixed displacement type gear pump Charging pump / Fan pump / Brake and assist pump...... Fixed displacement type gear pump Hydraulic cylinders Type...... Two lift arm and two bucket, double acting type No. x Bore x Stroke.. Arm: 2 x 190 mm x 953 mm Bucket: 2 x 160 mm x 605 mm Full-flow 28 micron return filter in reservoir Hydraulic cycle times Lift arm raise...... 6.7 s Lift arm lower..... 4.0 s Bucket dump..... 1.5 s

#### **SERVICE REFILL CAPACITIES**

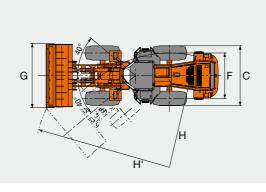
Total...... 12.2 s

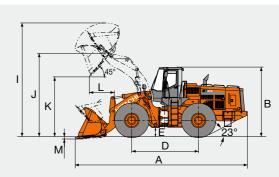
	liters
Fuel tank	425.0
Engine coolant (including oil pan)	96.0
Engine oil	45.0
Torque convertor & transmission	65.0
Front axle differential & wheel hubs	100.0
Rear axle differential & wheel hubs	100.0
Hydraulic reservoir tank (including oil pan)	265.0

#### **BUCKET SELECTION GUIDE**



#### **DIMENSIONS & SPECIFICATIONS**





Equipped with general purpose bolt-on edges 5.0 m³ bucket, 29.5-25-22PR (L3) tubeless tire and soft cab.

Arm type			Standard arm					High Lift arm
Bucket type			General purpose Rock bucket			Coal bucket	General purpose	
			Round bottom		Straight edge V-edge		Round bottom	Round bottom
вискет ту		With bolt-on cutting edges	With bolt-on teeth	With bolt-on teeth	With bolt-on teeth	With bolt-on cutting edges	With bolt-on cutting edges	
Puolest soppoitu	ISO heaped	m³	5.0	4.8	4.3	4.5	7.5	4.2
Bucket capacity	ISO struck	m <sup>3</sup>	4.3	4.1	3.7	3.8	6.4	3.6
A Overall length		mm	9 280	9 420	9 420	9 600	9 410	9 590
B Overall height (Top of cab)		mm			3 7	'60		
C Width over tires		mm			3 2	220		
D Wheel base		mm			3 5	660		
E Ground clearance		mm			50	00		
F Tread		mm			2.4	40		
G Bucket width mm			3 450	3 465	3 465	3 465	4 090	3 450
H Turning radius (Centerline of ou	utside tire)	mm			6 1	10		
H' Loader clearance circle, bucket in carry position m		mm	7 275	7 320	7 320	7 320	7 610	7 430
I Overall operating height		mm	6 130	6 130	6 190	6 190	6 415	6 425
J Height to bucket hinge pin, full	y raised	mm			4 490			4 900
K Dumping clearance 45 degree	, full height	mm	3 220	3 105	3 100	2 970	3 135	3 710
L Reach, 45 degree dump, full he	eight	mm	1 350	1 420	1 425	1 550	1 430	1 320
M Digging depth (Horizontal diggi	ing angle)	mm	80	110	110	110	80	80
Bucket weight		kgf	2 760	2 590	3 050	3 180	3 320	2 570
Otatia timaina landi*	Straight	kgf	22 350	22 510	22 080	21 740	21 780	18 860
Static tipping load ^	Straight kgf  Full 40 degree turn kgf	18 320	18 450	18 090	17 820	17 860	15 460	
Breakout force		kN	245	265	265	226	223	267
		(kgf)	(25 000)	(27 000)	(27 000)	(23 000)	(22 800)	(27 200)
Operating weight * kg			29 140	28 970	29 430	29 560	29 700	29 300

Note:1. All dimensions, weight and perfomance data based on ISO 6746-1:1987, ISO 7137:1997 and ISO 7546:1983

2.Static tipping load and operating weight marked with\* include 29.5-25-22PR (L3) tires (No ballast) with lubricants, standard counterweight, full fuel tank and operator. Machine stability and operating weight depend on counterweight, tire size and other attachments.

#### **WEIGHT CHANGE**

Option item		Operating	Tipping load (kgf)		Overall width (mm)	Overall height	Overall length
		weight(kg)	Straight	Full turn	(outside tire)	(mm)	(mm)
	26.5-25-24PR(L3)	-420	-320	-280	-90	-50	+40
Tires	26.5-25-24PR(L5)	+570	+430	+380	-60	-10	+10
	29.5-25-22PR(L3)	Standard	Standard	Standard	Standard	Standard	Standard
	29.5-25-22PR(L4)	+730	+560	+490	+10	+35	-30
	29.5-25-22PR(L5)	+1,080	+820	+730	+10	+40	-40
ROPS/FC	PS cab	+ 300	+ 290	+ 280	-	-	-
Heavy co	unterweight	+410	+1,020	+850	-	-	-
Under qua	ard	+230	+390	+340	-	_	_

6

## **EQUIPMENT**

#### STANDARD EQUIPMENT

Standard equipment may vary by country, so please consult your Hitachi dealer for details.

#### **ELECTRICAL**

- -Alternator, 75 ampere and 24 volts
- -Back up alarm
- -Brake and tail lights
- -Electric starter
- -Halogen headlights with high and low beams (2 front)
- -Halogen working lights (4 front and 2 rear)

#### **GAUGES AND INDICATORS**

- -Air cleaner warning lamp
- -Auto shift indicator lamp
- -Battery charge lamp
- -Brake pressure warning lamp
- -Engine coolant temperature gauge and warning lamp
- -Engine oil pressure warning lamp
- -Fuel level gauge
- -High beam indicator lamp
- -Hour meter
- -Neutral indicator lamp
- -Parking brake indicator lamp
- -Tachometer
- -Torque converter oil temperature gauge and warning lamp
- -Transmission oil filter restriction indicator
- -Transmission control warning lamp
- -Transmission clutch cut-off lamp

OPTIONAL EQUIPMENT

- -Transmission status monitor
- -Working light indicator lamp

#### **OPERATOR ENVIRONMENT**

- -Adjustable operator seat with mechanical suspension
- -Two-lever for two-spool control valve
- -FNR lever
- -Down-shift switch
- -Transmission clutch cut-off switch
- -Ashtrav
- -Cup holder
- -Cigarette lighter
- -Coat hook
- -Electric dual horns
- -Rubber floor mat
- -Front and rear wiper and washers
- -Full automatic air conditioner
- -Rear view mirrors (interior and exterior)
- -Soft cab (left and right doors open, sliding windows by regulator handles)
- -Seat belt (2 inch)
- -Storage compartment
- -Sun visor
- -Telescopic and tilt steering wheel
- -Tinted safety glass

#### **POWER TRAIN**

- -Cummins QSX15 diesel engine
- -Full hydraulic enclosed wet multi-disc brakes
- -Auto shift transmission (F4/R3)
- -Torque proportioning differentials (front/rear)
- -Tires, 29.5-25-22 PR(L3) tubeless

#### **OTHERS**

- -Bucket auto leveler
- -Lift arm kick-out
- -Drawbar, with rocking pin
- -Handrails
- -Ladders, left and right
- -Power mode & FE mode
- -Loading linkage, sealed Z-bar type dual cylinders
- -Secondary brake
- -Vandalism protection kit
- -Front/rear fenders

#### **BUCKET**

-General purpose bucket with bolt-on cutting edges: 5.0 m³ (ISO heaped)

## OPERATOR ENVIRONMENT OTH

- -Two-spool main control valve with mono lever
- -Three-spool main control valve with three levers
- -Adjustable operator seat with air suspension
- -Head rest
- -AM/FM Radio
- -Radio antenna and wiring, stereo speakers
- -Turn signals with four-way flasher
- -Seat belt (3 inch)
- -ROPS/FOPS cab (left and right door open, sliding windows by regulator handles)

-Ride control system, speed sensitive automatic

-Brake and tail lights (LED)

**POWER TRAIN** 

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-Pre-air cleaner

-Limited slip differential (LSD)

#### **OTHERS**

- -Heavy counterweight
- -Heavy counterweight for logging
- -Under guard
- -High lift arm
- -Bucket cylinder guard
- -Mud quard for front fender
- -Wide front fender with mud guard
- -Low temperature (-35 degree C)kit

#### **BUCKET**

- -General purpose bucket with bolt-on teeth:
- 4.8 m<sup>3</sup> (ISO heaped)

Optional equipment may vary by country, so please consult your Hitachi dealer for details.

- -Rock bucket (straight edge) with weld-on teeth:
- 4.3 m<sup>3</sup> (ISO heaped)
- -Rock bucket (V-edge) with weld-on teeth:
  - 4.5 m³ (ISO heaped)
- -Coal bucket with bolt-on cutting edges: 7.5 m³ (ISO heaped)
- -High lift arm with bolt-on cutting edges: Rock bucket 4.2m3 (ISO heaped)

Note: \*: ROPS (Roll Over Protective Structure) Conforms to ISO 3471;1994

\*\*: FOPS (Falling Objects Protective Structure) Conforms to ISO 3449; 1992 Level II

-Emergency steering system

These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features.

Before use, read and understand the Operator's Manual for proper operation.

Hitachi Construction Machinery Co., Ltd.

KL-EN037

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