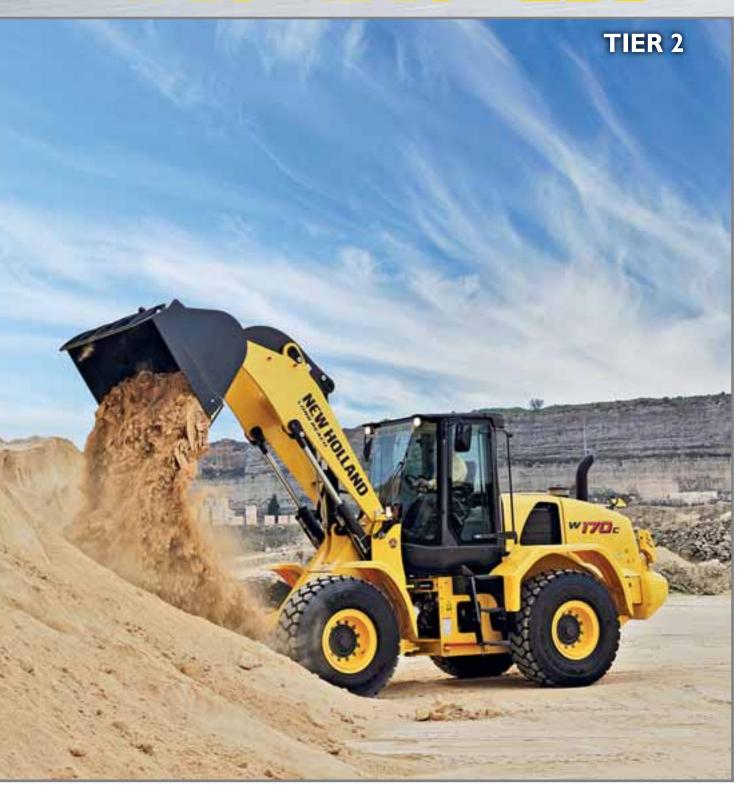
# wito, wiso, waso,



	W170C	W190C	W230C
<b>BUCKET VOLUME</b>	2.7 - 6.0 m <sup>3</sup>	$3.1 - 7.0 \text{ m}^3$	3.8 - 8.0 m <sup>3</sup>
BUCKET PAYLOAD	5.0 ton	6.4 ton	7.1 ton
PRODUCTIVITY (50 m DISTANCE)	280 t/h	320 t/h	375 t/h
OPERATING WEIGHT	14.5 ton	18.3 ton	20.0 ton
PEAK GROSS POWER	195 hp	230 hp	255 hp



## **AS LONG AS MAN SHAPES MATERIAL**



## S, WE WILL PROVIDE THE TOOLS.



## THE MAIN COMPONENTS OF OUR W



Type: ZF Power-Shift countershaft design whit four forward and three reverse speeds. Ecoshift uses engine de-rating to make each gearshift smoother and to optimize the pushing power of the torque converter. The Electronic Transmission System (ETS) include Inch declutching, Hold function, Kick-down and Downshift system allows the operator to dedicate 100% attention to the work cycles.



## **HEEL LOADER**



## **MORE PRODUCTIVITY**





#### THE BIGGEST PAYLOAD

We designed our wheel loaders to give you the biggest bucket payload in the industry so that you can get the job done with fewer loading cycles: with just 3 passes the W170C and W230C will load a 15-tonnes and 21-tonnes payload truck respectively.



#### PRODUCTIVITY-BOOSTING BUCKETS

Our flat bottom buckets make all the difference. They have a better penetration in the pile and superior material retention. Their shape allows for a better roll back of the material inside the bucket, so once it's in, it stays in and you will get the job done with fewer trips.



#### **OUTSTANDING GRIP AND RELIABILITY**

**Outstanding grip** with front auto-lock differential: it delivers the best pushing power when you need it, as it ensures 0% slip between the wheels. When in manual mode, it is activated with a control under your left foot.

Heavy duty axles ensure superior reliability.

Note: For a limited investment, standard axles with limited slip differential are also available on the W170C and W190C. On the W230C standard axles are available with open differential without auto-lock, for flat, hard surfaces like tarmac.





# EASY DUMPING WITH INCH DECLUTHING SYSTEM

Inch function is part of the ECOSHIFT transmission, it gives you the control of a hydrostatic transmission and the pushing power of a powershift.



#### **SHORTER V-CYCLE DISTANCE**

The lifting of the loader arm is faster, so you can do a V-cycle at full speed with the pick up point just 10 meters from the truck you are loading.



# FASTER ACCELERATION, FASTER CYCLES

With ECOSHIFT you can reach maximum speed in just 100 meters. This can save you as much as 30 seconds for every loading cycle.

## REDUCED COST OF OWNERSHIP



#### SAVE FUEL WITH LOWER ENGINE RPM

With ECOSHIFT transmission you can work at lower rpm and save fuel.

#### SAVE FUEL WITH SMOOTHER GEAR SHIFTS

ECOSHIFT makes gear shifts very fast 8/10<sup>th</sup> second) and smooth by optimizing the gear shift depending on the working mode that you have selected. This results in fuel saving, better material retention and great comfort.

#### **CUT FUEL WASTE WITH ECOSTOP**

ECOSTOP automatically shuts down the engine and the electric system after 5 minutes of idling, so there is no waste of fuel.

#### LESS FUEL WITH BETTER COMBUSTION

With Common Rail technology engine combustion is optimized for efficiency, guaranteeing the best engine output for power and fuel efficiency.



## LESS MAINTENANCE WITH OPEN DIFFERENTIAL AND ECOSHIFT

The open differentials and front auto-lock reduce tire wear because of no wheel slippage.

The absence of friction in the differentials increases oil life by 50% (1500 h). The lower rpm and smoother gearshifts of ECOSHIFT increase transmission oil replacement intervals by 50% (1500 h).

More effective lubrication with longer lasting effect increases reliability.

#### LESS MAINTENANCE WITH THE COOLING BOX

We designed our cooling system to maximise its efficiency, making a box of the radiators rather than following the traditional approach of having them overlap. Our design significantly improves the cooling performance, lengthening the life of the oil 50% (1.500 h). The better quality of the oil also means a longer life for your wheel loader.

## **WELCOME ON BOARD**



#### **EXTRA WIDE ACCESS**

The 4 wide steps and 2 handles make it easy for you to reach the cab; the wide door with no obstacles makes it easy to gain access.

#### **OUTSTANDING VISIBILITY**

You can work fast and confidently with excellent all-round visibility, further enhanced by the curved shape of the rear hood, which is very low due to the small cooling package.

#### **SUPERIOR AIR VENTILATION**

You can work in comfort with the efficient ventilation ensured by 16 air vents and the optional air conditioning system. In addition, the doors open  $180^{\circ}$  and can be easily locked in open position or unlocked from the driver's seat





#### OPERATOR SAFETY AND LOW VIBRATIONS

You will enjoy the protection of our reinforced cab, which guarantees protection against roll over (ROPS) and falling objects (FOPS). We placed the engine at the back of the machine, far from the cab, so that you will feel lower vibrations in the cab. Moreover the ECOSHIFT transmission electronically optimises gear shifts according to the working mode you select, ensuring smooth shifting, so you can work comfortably.

## SITTING COMFORTABLY WITH CONTROLS AT YOUR FINGERTIPS

You will enjoy the comfort of the heated seat with high vibration absorption. You can focus entirely on the job at hand and work comfortably with the steering knob, the joystick or the 2-lever control with the reverse button under your thumb. The control panel is positioned ergonomically under your right hand. The overhead radio positioning and ample storage add up to great convenience for you.

#### **EASY OPERATING**

For more comfort and productivity during repetitive activities the following functions, which can be activated or de-activated according to your preferences, will free your right hand for steering:

Auto-lift: automatically lifts the boom to the max height or to the height you have set

**Reverse button:** allows you to use your left hand for steering and activate reverse speed from the joystick with your right hand **Return to dig:** automatically brings back the bucket in the right position for loading again

**Return to travel:** automatically lowers the boom to carry position; it can be adjusted according to your tyres and bucket **Auto-shift:** ensures the machine always operates in the most suitable gear according to speed, kick down and engine braking **Auto-Glide Ride:** reduces loader arm bounce during travel, maintaining maximum material retention on all surfaces. It's activated from 7 km/h

## A COMMITTED PARTNER



#### THE CENTRAL COOLING PACK

- The central cooling pack is mounted away from dust and debris, providing increased cooling capacity and easy cleaning. This results in prolonged engine oil and coolant life and reducing operating cost.
- The engine in both machines is mounted at the rear of the chassis, behind the cooling pack behaving as natural counterweight. This allows for a lighter counterweight, has a positive effect on lifting and digging performance, resulting in less stress for driveline components and reduced fuel consumption as the overall machine weight is lower

#### LEADER IN SUSTAINABILITY

New Holland's extensive offering of low emission products, our continued focus on reducing our environmental footprint throughout our products' entire life cycle and our involvement in the community have contributed to our parent company, CNH Industrial, being recognised as Industry Leader by the Dow Jones Sustainability Index (DJSI) World and DJSI Europe. These prestigious equity indexes only admit companies that are best-in-class in managing their businesses, from an economic as well as social and environmental perspective. CNH Industrial received a score of 88/100 compared to an average of 49/100 for all companies in its sector, and was awarded first place.



#### **EASY MAINTENANCE FROM GROUND LEVEL**

#### • Designed for easy access

The one-piece electric hood, with alternative opening solution, makes it very quick and easy to access all the service points. We positioned the engine at the rear to give you full access to the engine compartment from the ground.

#### • Designed for fast servicing

We grouped all the service points so you save time: the fuel and engine oil filling points are next to each other and all the 3 oil drains are positioned together.

#### • Designed for less maintenance

We positioned the radiators at the back of the cab, which means they will need less cleaning.

#### Designed for easy cleaning

With our cooling box design, you can clean each radiator separately, and you can activate the reversible fan from the cab.

#### SAFETY FIRST

#### • Designed for safe operation

You can work with confidence knowing that in our cabs you are protected from roll over and falling objects. Our cabs are all ROPS and FOPS certified.

The outstanding all round visibility means that you have a full view of the bucket and all the area around the machine.

#### • Designed for safe maintenance

We designed our wheel loaders so that all the main service points are easily accessible from the ground, so you can safely carry out your daily maintenance.

# **WI70**C

#### **SPECIFICATIONS**

## t/h PRODUCTIVITY

#### (50-METER DISTANCE CYCLE)



#### **ENGINE TIER 2**

Compliant with tier 2 (EU stage II regulations) FPT turbocharged engine F4HFA613B with:

- 100% fresh air combustion
- Air to Air intercooler
- Second generation common rail (1.600 bar)
- Multiple injections similar to multi-jet automotive technology to achieve best in class load response, max torque and power with the minimum fuel consumption.

6 cylinders -6,7 liters

Max power SAE J1995 ......145 kW / 195 hp @1800 rpm Maximum torque SAE J1995 ......950 Nm @1300 rpm



#### **TRANSMISSION**

All-wheel drive with planetary axles kick-down function

#### 4-speed torque converter

4-speed auto Powershift switchable to manual shifting ZF, switchable to manual shifting

Adjustable transmission declutch



#### **AXLES AND DIFFERENTIAL**

### For outstanding traction with 50% longer maintenance intervals and 30% less tire wear

Front auto-lock differential............ I 00% of available torque is always guaranted on the wheel(s) with traction

Front and rear ZF Heavy Duty axles (options) with Open Differential

#### **Excellent traction:**



#### **TYRES**



#### **BRAKES**



#### **HYDRAULIC SYSTEM**

Valves....... Rexroth Closed-center, Load sensing hydraulic system.

Main valve with 3 sections

Steering ...... The steering orbitrol hydraulically is actuated with priority valve

Type of pump......Tandem Variable displacement pump (206 l/min @2000 rpm)

Automatic hydraulic functions

- Bucket Return-to-dig
- Boom Return-to-travel
- Auto.lift (to adjustableheight)

Control type.....Pilot control with single joystick or two levers



#### **CAPACITIES**

Fuel tank	246 usable litres
Cooling system	28 litres
	15 litres
Hydraulic oil	Tank: 91 litres, total system: 180 litres
Transmission oil	34 litres



#### **CAB AND CONTROLS**

For you safety the cab complies to:
protection against falling objects (FOPS).....ISO EN3449
protection against roll over (ROPS) .....ISO EN13510

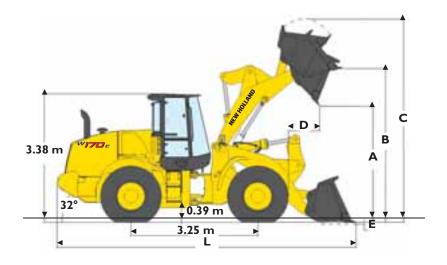


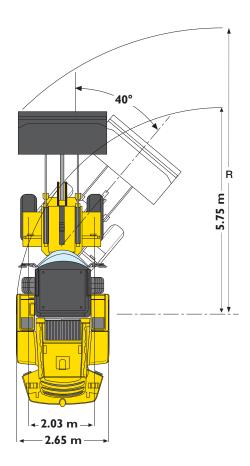
#### **NOISE AND VIBRATION**



#### **ELECTRICAL SYSTEM**

### **PERFORMANCE DATA**





		Z-B	AR buck	ets	LONG REACH buckets TC bu			ıckets	
W170C		2.7 m <sup>3</sup>	2.3 m <sup>3</sup> w/QC	4.2 m <sup>3</sup>	2.7 m <sup>3</sup>	2.5 m <sup>3</sup>	2.3 m <sup>3</sup> w/QC	2.3 w/0	m³ QC
	Bucket with bolt on:	Edge light duty	Teeth general purpose	Edge light duty	Edge light duty	Teeth medium duty	Edge general purpose	Edge general purpose	Teeth general purpose
SAE Bucket volume (heaped)	m³	2,7	2,3	4,2	2,7	2,5	2,3	2,3	2,3
Bucket Payload	kg	5199	4839	4878	4342	4433	4481	4481	4568
Maximum material density	ton/m³	1,9	2,1	1,2	1,6	1,8	1,8	1,8	1,8
Bucket outside width	mm	2700	2682	2700	2700	2732	2700	2700	2732
Bucket weight	kg	1280	1657	1372	1280	1225	1566	1566	1490
Tipping load - straight	kg	11896	11114	11182	9993	10194	10289	10289	10475
Tipping load - Articulated at 40°	kg	10397	10403	9755	8683	8866	8962	8962	9135
Breakout force	kg	13486	11780	10112	13414	15265	12637	12637	13541
Hydraulic Lift capacity from ground	kg	13307	12634	12682	11070	11267	14074	14074	14056
A - Dump height at 45° at full height	mm	2891	2753	2617	3286	3226	2921	2921	2822
B - Hinge pin height	mm	3979	3978	3979	4374	4374	4160	4160	4160
C - Overall height	mm	5297	5307	5669	5692	5623	5519	5519	5519
D - Bucket reach at full height / 45°	mm	1171	1441	1316	1172	1236	1279	1279	1386
E - Dig depth	mm	74	86	110	76	81	86	86	93
L - Overall length with bucket on the ground	mm	7708	7917	8119	8066	8157	7931	7931	8083
<b>R</b> - Turning radius to front corner of the bucket	mm	12671	12785	12,923	12996	13087	12592	12592	12687
Bucket rollback in carry position	0	43	43	43	41	41	58	58	58
Dump angle at full height	۰	55	55	55	55	55	55	55	55
Machine operating weight	kg	14387	14764	14478	14605	14550	14772	14772	14696

Note: bucket specification can slightly differ according to plant source. More bucket choice is available, please contact your local dealer.

LOADER SPEED		
Raising time (loaded)	sec	5.2
Dump time (loaded)	sec	1.2
Lowering time (empty, power down)	sec	2.5
Lowering time (empty, float down)	sec	2.4

# **W190C**

#### **SPECIFICATIONS**



#### (50-METER DISTANCE CYCLE)



#### **ENGINE TIER 2**

Compliant with tier 2 (EU stage II regulations) FPT turbocharged engine FAHFE613X with:

- 100% fresh air combustion
- Air to Air intercooler
- Second generation common rail (1.600 bar)
- Multiple injections similar to multi-jet automotive technology to achieve best in class load response, max torque and power with the minimum fuel consumption.

6 cylinders -6,7 liters

Max power SAE J1995 ...... 172kW / 230 hp @1800 rpm Maximum torque SAE J1995 ...... 1184 Nm @1300 rpm



#### **TRANSMISSION**

All-wheel drive with planetary axles kick-down function

#### 4-speed torque converter

4-speed auto Powershift switchable to manual shifting ZF, switchable to manual shifting

Adjustable transmission declutch



#### **AXLES AND DIFFERENTIAL**

## For outstanding traction with 50% longer maintenance intervals and 30% less tire wear

Front auto-lock differential............ I 00% of available torque is always guaranted on the wheel(s) with traction

Front and rear ZF Heavy Duty axles with Open Differential **Excellent traction:** 



#### **TYRES**



#### **BRAKES**



#### **HYDRAULIC SYSTEM**

Valves....... Rexroth Closed-center, Load sensing hydraulic system.

Main valve with 3 sections

Steering ...... The steering orbitrol hydraulically is actuated with priority valve

Type of pump......Tandem Variable displacement pump (240 l/min @2000 rpm)

Automatic hydraulic functions

- Bucket Return-to-dig
- Boom Return-to-travel
- Auto.lift (to adjustableheight)

Control type.....Pilot control with single joystick or two levers



#### **CAPACITIES**

Fuel tank	288 usable litres
Cooling system	30 litres
Engine oil	15 litres
Hydraulic oilT	ank: 91 litres, total system: 180 litres
Transmission oil	34 litres



#### **CAB AND CONTROLS**

For you safety the cab complies to:
protection against falling objects (FOPS).....ISO EN3449
protection against roll over (ROPS) .....ISO EN13510

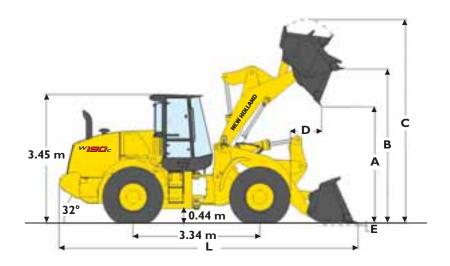


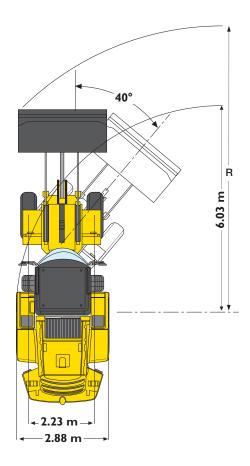
#### **NOISE AND VIBRATION**



#### **ELECTRICAL SYSTEM**

### **PERFORMANCE DATA**





		Z-BAR buckets				LONG REACH buckets			
WI90C		3.4 m³	3.1	m³		m³ QC	3.1 m <sup>3</sup>	2.7 w/0	m³ QC
	Bucket with bolt on:	Edge light duty	Edge medium duty	Teeth medium duty	Edge general purpose	Teeth general purpose	Edge medium duty	Edge general purpose	Teeth general purpose
Bucket volume (heaped)	m³	3,4	3,2	3,2	2,7	2,7	3,2	2,7	2,7
Bucket Payload	kg	6121	6175	6216	5538	5622	4860	4332	4406
Maximum material density	ton/m³	1,8	2	2	2,1	2,2	1,5	1,6	1,8
Bucket outside width	mm	3030	3030	3046	3030	3046	3030	3030	3046
Bucket weight	kg	1591	1561	1581	2181	2091	1561	2181	2091
Tipping load - straight	kg	14155	14275	14371	12891	13069	11336	10199	10354
Tipping load - Articulated at 40°	kg	12241	12349	12432	11076	11244	9720	8664	8811
Breakout force	kg	15580	16029	20099	14618	15640	16283	14853	15888
Hydraulic Lift capacity from ground	kg	17987	18112	18137	14539	15185	13775	12697	12854
A - Dump height at 45° at full height	mm	2961	2983	2995	2916	2815	3424	3357	3256
B - Hinge pin height	mm	4123	4123	4123	4121	4121	4564	4562	4563
C - Overall height	mm	5530	5496	5474	5494	5494	5937	5935	5936
D - Bucket reach at full height / 45°	mm	1133	1107	1085	1186	1299	1219	1298	1412
E - Dig depth	mm	75	75	80	76	81	142	143	148
L - Overall length with bucket on the ground	mm	7894	7859	7838	7962	8118	8345	8449	8604
<b>R</b> - Turning radius to front corner of the bucket	mm	13299	13279	13282	13338	13446	13776	13846	13970
Bucket rollback in carry position	0	44	44	44	44	44	43	43	43
Dump angle at full height	۰	55	55	55	55	55	55	49	49
Machine operating weight	kg	17663	17633	17653	18253	18164	18015	18635	18545

Note: bucket specification can slightly differ according to plant source. More bucket choice is available, please contact your local dealer.

LOADER SPEED		
Raising time (loaded)	sec	6.2
Dump time (loaded)	sec	1.2
Lowering time (empty, power down)	sec	2.9
Lowering time (empty, float down)	sec	2.5

# **VV230C**

#### **SPECIFICATIONS**



#### (50-METER DISTANCE CYCLE)

Considering: density: 1,8 t/m³, fill factor: 100%, 52 cycles/hour and each hour includes a 5-minute break.......210 m³/h or 375 t/h 52 loading cycles/h with standard bucket 4.0 m3 or 7.2 ton



#### **ENGINE TIER 2**

compliant with tier 2 (EU stage II regulations) FPT turbocharged engine F4HFA613D with:

- 100% fresh air combustion
- Air to Air intercooler
- Multiple injections similar to multi-jet automotive technology to achieve best in class load response, max torque and power with the minimum fuel consumption.

6 cylinders -6,7 liters

Max power SAE J1995 ...... 190kW / 255 hp @1800 rpm Maximum torque SAE J1995 ...... 1184 Nm @1300 rpm



#### **TRANSMISSION**

All-wheel drive with planetary axles kick-down function

#### 4-speed torque converter

Adjustable transmission declutch



#### **AXLES AND DIFFERENTIAL**

For outstanding traction with 50% longer maintenance intervals and 30%

#### Less tire wear:

Front and rear ZF Heavy Duty axles (ZF type MT-L3095-II) with I 00% front auto-lock differential.

(100% of available torque is always guaranteed on the front wheels)

#### For standard traction:

Front and rear Heavy Duty axle (ZF type MT-L3095-II)
Open differential front and rear.



#### **TYRES**



#### **BRAKES**



#### **HYDRAULIC SYSTEM**

Valves....... Rexroth Closed-center, Load sensing hydraulic system.

Main valve with 3 sections

Steeping or historyl hydraulically is activated with

Steering ...... The steering orbitrol hydraulically is actuated with priority valve

Type of pump......Tandem Variable displacement pump (282 l/min @2000 rpm)

Automatic hydraulic functions

- Bucket Return-to-dig
- Boom Return-to-travel
- Auto.lift (to adjustableheight)

Control type.....Pilot control with single joystick or two levers



#### **CAPACITIES**

Fuel tank	288 usable litres
Cooling system	30 litres
Engine oil	15 litres
Hydraulic oil	Tank: 110 litres, total system: 200 litres
Transmission oil	34 litres



#### **CAB AND CONTROLS**

For you safety the cab complies to: protection against falling objects (FOPS)......ISO EN3449 protection against roll over (ROPS) ......ISO EN13510



#### **NOISE AND VIBRATION**

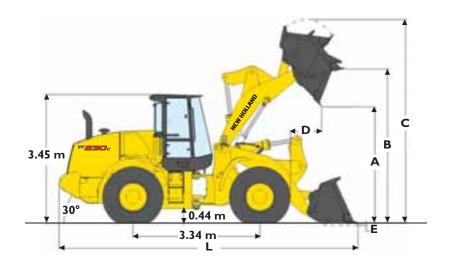
Driving noise in dB (A) 82 to SAE J88 @ 15 meters Interior noise......72 LpA as per ISO6595/6396/3744 Exterior noise.....71 dB(A) at 15 meters as per SAE J88 SEP80 103 LwA according to ISO6395/6396/3744 Switchable reverse gear alarm

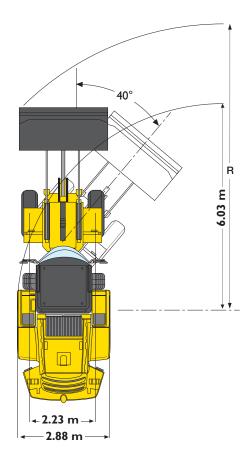
Vibrations .....air-cushioned seat MSG 95A/732 average 1.4m/s2 as per ISO/TR 25398:2006



#### **ELECTRICAL SYSTEM**

#### **PERFORMANCE DATA**





	7 0 4 0 1	hualasta	7 0 4 0 1		LONG REACH buckets *		
		Z-BAR buckets		Z-BAR buckets		LONG REACH DUCKELS	
W230C		3.6 m³		3 m³ w/QC		4.0	m³
	Bucket with bolt on:	Edge general purpose	Teeth general purpose	Edge general purpose	Teeth general purpose	Edge flat bottom light duty	Teeth flat bottom light duty
Bucket volume (heaped)	m³	3,6	3,6	3	3	4	4
Bucket Payload	kg	7123	7233	6427	6530	5702	5735
Maximum material density	ton/m³	2	2	2,1	2,2	1,5	1,5
Bucket outside width	mm	3030	3030	3030	3051	2980	2980
Bucket weight	kg	1783	1715	2309	2234	1922	1807
Tipping load - straight	kg	16579	16820	15039	15264	13381	13463
Tipping load - Articulated at 40°	kg	14245	14465	12854	13061	11404	11471
Breakout force	kg	17034	18203	15288	16129	18041	19209
Hydraulic Lift capacity from ground	kg	21148	21739	15504	16197	16552	16687
A - Dump height at 45° at full height	mm	2906	2815	2815	2715	3321	3217
<b>B</b> - Hinge pin height	mm	4118	4118	4117	4117	4559	4559
C - Overall height	mm	5583	5584	5635	5635	6153	6153
D -Bucket reach at full height / 45°	mm	1194	1302	1300	1414	1190	1298
E - Dig depth	mm	80	80	81	85	140	140
L - Overall length with bucket on the ground	mm	7976	8117	8116	8270	8409	8560
<b>R</b> - Turning radius to front corner of the bucket	mm	13345	13428	13428	13541	13773	13878
Bucket rollback in carry position	0	44	44	44	44	43	43
Dump angle at full height	0	55	55	55	55	44	44
Machine operating weight	kg	19857	19789	20383	20308	20209	20095

Note: bucket specification can slightly differ according to plant source. More bucket choice is available, please contact your local dealer. \* 4 m³ bucket available only from Lecce (IT) plant.

LOADER SPEED		
Raising time (loaded)	sec	6.2
Dump time (loaded)	sec	1.4
Lowering time (empty, power down)	sec	3.8
Lowering time (empty, float down)	sec	3.1

#### PARTS AND SERVICE

The New Holland dealer network is, in itself, the best guarantee of continued productivity for the machines it delivers to its customers. New Holland service technicians are fully equipped to resolve all maintenance and repair issues, with each and every service point providing the high standards they are obliged to observe under New Holland's stringent quality guidelines.

The New Holland global parts network ensures fast reliable replacement parts for less downtime increased productivity and of

The New Holland global parts network ensures fast, reliable, replacement parts for less downtime, increased productivity and, of course, profitable operation for its customers.



#### AT YOUR OWN DEALERSHIP

The information contained in this brochure is intended to be of general nature only. The NEW HOLLAND CONSTRUCTION MACHINERY S.p.A. company may at any time and from time to time, for technical or other necessary reasons, modify any of the details or specifications of the product described in this brochure. Illustrations do not necessarily show products in standard conditions. The dimensions, weights and capacities shown herein, as well as any conversion data used, are approximate only and are subject to variations within normal manufacturing techniques.

Printed in Italy - MediaCross Firenze - Cod IR2401NCGB - Printed 07/12

Printed on recycled paper CoC-FSC 000010 CQ Mixed sources

