NEW HOLLAND

B90B B90BLR



NEW TIER 3A ENGINE

MECHANICAL OR PILOT "COMMAND CONTROLS"

HIGH FRONT LOADER PERFORMANCE

NEW HOLLAND CONSTRUCTION

BUILT AROUND YOU

B90B

NEW CNH TIER 3A MECANICAL ENGINE

- High torque at low r.p.m.
- Higher reliability
- Longer lifespan

BEST AVAILABLE HYDRAULIC SYSTEM

- Load sensing, closed centre
- Maximum power available where needed
- Simultaneous movements under every load

COMFORT & SAFETY

- Outstanding spacious operator cab
- All-round cinemascope visibility
- Choice of backhoe: piloted or mechanical



EASY MAINTENANCE AND SERVICEABILITY

- New tiltable engine hood for wide, easier ground level access to main components
- Automatic belt tensioner
- Extended oil change intervals

POWERFUL & COMFORTABLE TRANSMISSION

- Powershuttle 4x4
- Quick and smooth direction change
- Enhanced traction force



NEW TIER 3A MECHANICAL ENGINE



This new CNH Tier 3A mechanical engine is a jewel of a simple, high performance technology.
As a matter of fact simple, being a mechanical type engine, does not mean that it is a low performer.
On the contrary, this power plant performances - in terms of power output balanced to the application requirements and maximum torque at lower engine revolution - are at the top of its class.
Moreover, the well known mechanical concept is a guarantee of robustness which goes side by side with high reliability and long lifespan.
In other words: reduced operating costs and high resale value.

OR PRODUCTION



This engine, with its high torque at low r.p.m. combined with its superb and environmentally friendly performances, makes the B90B particularly suitable for work in urban or populated areas.

A new efficient, durable and economic engine which contributes to a reduction in operating costs, thereby increasing your profit.

B90B INTELLIGE

LOAD SENSING - CLOSED CENTRE MAXIMUM POWER WHERE NEEDED

The B90B features an **integrated** Hydraulic and Steering System.
It consists of two gear type pumps mounted in series with a total delivery of 160 l/min, **Load Sensing** regulated and working at a maximum pressure of 210 bars.
When the machine is steering, the steering wheel first actuates the Orbitrol steering valve, then - via a priority valve - the increased flow required for faster steering effect is diverted from one of the two hydraulic gear pumps.



FRONT LOADER

If the operator is using the front attachment, when required, a special button on the new loader control lever disconnects the transmission so that total engine power is utilised as hydraulic power on the front loader for maximum productivity and efficiency.



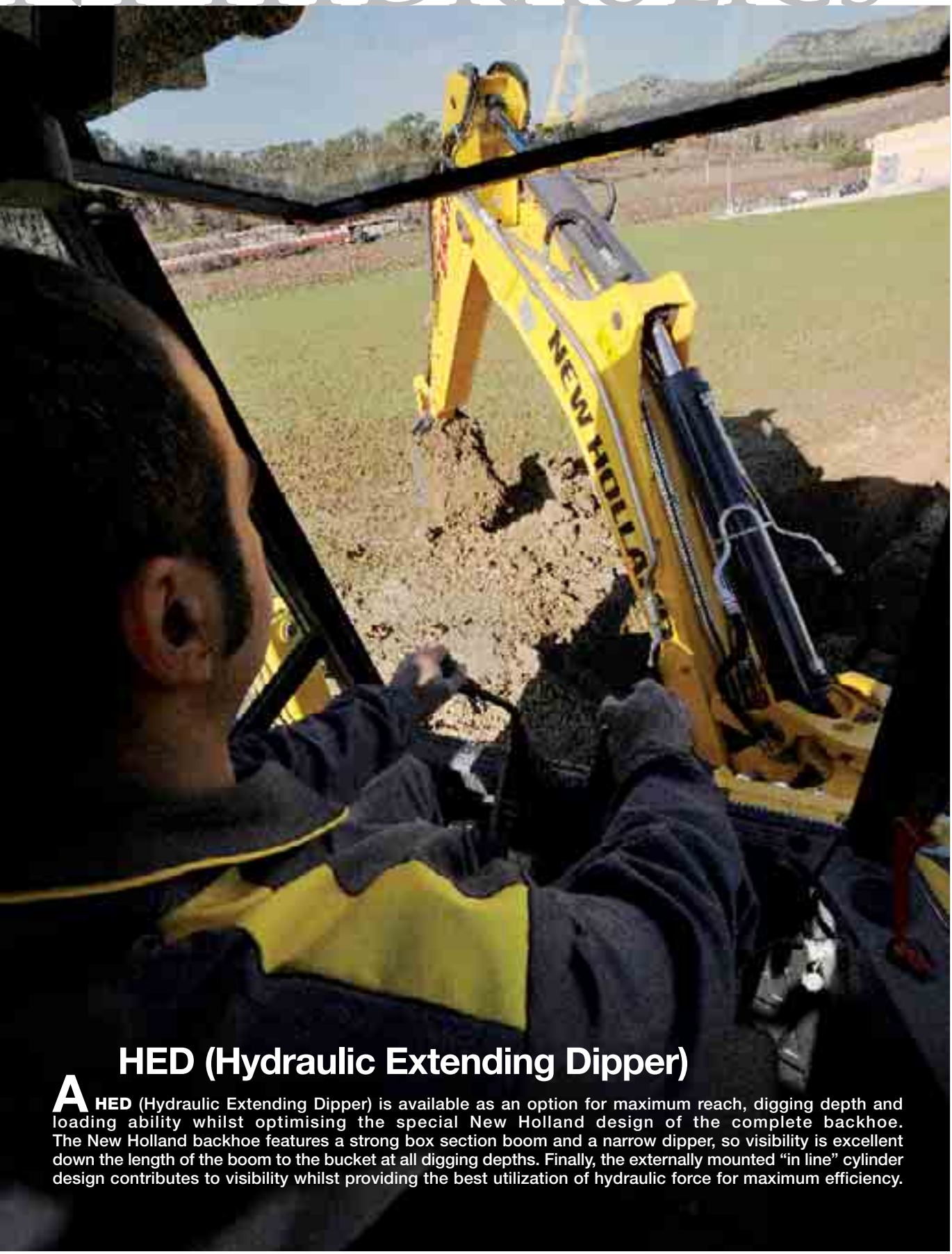


The **handle on the loader control lever**, includes:
- a "rocker", to proportionally control the additional hydraulic function. It allows, for example, use of the 4-in-1 bucket as a pincer, thus dramatically expanding the New Holland backhoe loader's flexibility
- the horn button (only PowerShift version)
- the transmission disconnect button to utilise the optimum available hydraulic power on the front attachment for maximum productivity and efficiency.

BACKHOE

If backhoe is in operation, thanks to its **Closed Centre** main control valve, the hydraulic system delivers its power when and where it is needed, while simultaneous movements are allowed independently from power required and engine r.p.m., for maximum performance, faster cycle times and maximum production.

NT HYDRAULICS



HED (Hydraulic Extending Dipper)

A HED (Hydraulic Extending Dipper) is available as an option for maximum reach, digging depth and loading ability whilst optimising the special New Holland design of the complete backhoe. The New Holland backhoe features a strong box section boom and a narrow dipper, so visibility is excellent down the length of the boom to the bucket at all digging depths. Finally, the externally mounted “in line” cylinder design contributes to visibility whilst providing the best utilization of hydraulic force for maximum efficiency.

B90B DOMINAT



4x4 POWERSHUTTLE TRANSMISSION

The synchronised, four speed modulated PowerShuttle transmission enables operators to shuttle between forward and reverse quickly and smoothly.
This eliminates shock load in the driveline components, increasing durability, enhancing operator comfort and giving safer control of load handling.

E THE GROUND



This transmissions, fitted on the B90B, is designed to better match the torque of the engine.
It efficiently follows the quicker response of the new engine to the operator demand and translates it into higher traction.
This means shorter cycles and superior pushing capability in front loader operations, thus providing higher productivity and customer profit.

Enjoy the



power



EASY ACCESS TO ALL SERVICE POINTS

The B90B is designed for simple and easy maintenance and service procedures, thanks to its new tiltable engine hood which grants excellent ground ground level access to all the most important components. Easy and regular maintenance of the machine, such as control of air filter and so on, can only improve durability and reliability, already designed and built-in by New Holland engineers.



NTENANCE



ONE LOCATION CHECK POINTS

On the machine's left side, just above the fuel tank, you can easily reach the pressure check points for the main hydraulic system, steering circuit and pilot control, all grouped together for time and cost reduction whilst improving efficiency, durability and performances of your B90B.



PROTECTED BATTERY

The battery is both well protected and easy to reach for regular checks, in the box located on the right side, underneath the cab.
By simply removing a panel it is possible to reach it and the master switch.



Proactive maintenance assistance to improve machine durability, increase performance and reduce operating costs.

B90B COMFOR







SPACE CAB

The features and customer advantages of the B90B cab are so many that they cannot be summarised in a single sentence. **"Space Cab"** best describes it as it is incredibly roomy, with ample glass area to assure all-round cinemascopic visibility. Controls are ergonomically positioned, easy to reach and to read. Side windoes can be fully or partially opened for good ventilation whilst, for the most severe climatic conditions, optional air conditioning is available. From his adjustable seat, the operator has his "world" under complete and comfortable control. For operator safety, the cab has an integral **ROPS** and **FOPS** structure and can be supplied with an optional electronic engine immobiliser.

T AND SAFETY



P.C.C. (PILOT COMMAND CONTROLS)*

Backhoe Pilot Command Controls, like those used on the latest generation excavators, are available on the B90B to provide operators with an extremely comfortable working environment.
They guarantee a personalised working position, as manipulators may be moved and adjusted longitudinally and laterally. In addition, two tiltable and vertically adjustable wrist rests offer perfect support to operate joysticks with surgical precision.
To suit operator requirements, command can be switched between backhoe and excavator pattern on demand, whilst the pilot control can be quickly disabled for safety reasons.

* In alternative simple and effective mechanical controls are available



DECELERATION BUTTON

The right manipulator is now equipped with a **new button** which, when pushed, returns the engine r.p.m. to Idle. It contributes to a reduction in fuel consumption and the operator can avoid continuous use of the hand throttle, located on the instrument panel, for maximum economy and comfort.



INSTRUMENT PANEL

The B90B is equipped with a completely new, elegant car-style instrument panel which groups, on the cab right-hand side, the ignition key, the function buttons, high visibility analogic gauges, which monitor engine coolant temperature, engine r.p.m. and fuel level. In addition, there is a complete set of warning and signal lights, allowing the operator to constantly monitor the main machine parameters.
An elegant and practical instrument panel designed by New Holland engineers to help operators to perform better and more easily, in the most comfortable and productive way.

A cab designed for maximum operator comfort and safety thus allowing him to fully concentrate on the job for higher productivity and for a quick return on investment.

B90B SPECIFICATIONS

ENGINE TIER 3A

Maximum power (ISO 14396/ECE R 120) .....72 kW/97 hp
Rated engine speed .....2200 rpm
Make and mode .....CNH 445TA/ML5
Type .....Diesel, 4 stoke, Direct injection, Turbo, Aftercooler
Displacement .....4.5 l
Number of cylinders 4
Bore x stroke .....104 x 132 mm
Maximum torque at 1250 rpm .....40 daNm
Electronic engine control, dial type
Deceleration button: returns engine to minimum rpm when activated.
-23°C outside temperature start as standard equipment
The engine complies with 97/68/EC standards TIER 3A

ELECTRICAL SYSTEM

Voltage .....12 V
Alternator .....90 A
Starter motor .....2.7 kW
Standard maintenance-free battery 1
Capacity .....95 Ah

HYDRAULIC SYSTEM

Load sensing, closed centre hydraulic system to maximise power exploitation and outstanding digging performance, top lifting capacity and fast loading cycle

Pumps .....2 gear type
Total maximum flow .....160 l/min
Max working pressure .....210 bar

BACKHOE CONTROL
Choice of:
Mechanical Controls to provide simple and precise movements
Pilot "Command Controls" to assure effortless and precise movements with extremely comfortable working conditions.
Pilot Command Controls and wrist rests are fully adjustable to guarantee the most ergonomic operator position for maximum productivity. For safety, Pilot Controls can be switched-off.

LOADER CONTROL
Multifunction lever with a new handle which includes proportional control for auxiliary hydraulic function (i.e. 4 in 1 bucket) and transmission disconnect button to maximise productivity and efficiency of front loader

CAB AND CONTROLS

High Space cab designed with the operator in mind to offer spacious and ergonomic environment and outstanding cinemascope, all-round visibility. Operator comfort is assured thanks to fully adjustable seat, mechanical or air suspension type and - fully or partially - opening side windows for good through-flow ventilation. New instrument panel to provide perfect visibility and control of all major machine parameters.

TRANSMISSION

Choice between:
Synchronised 4 x 4 Power Shuttle transmission to ensure forward & reverse quick and smooth shifting, resulting in high operator comfort.
Torque converter stall ratio 2.34:1

Forward speeds	**km/h**
1	6.3
2	10.2
3	21.8
4	38.9

Reverse speeds	**km/h**
1	7.6
2	12.3
3	26.2
4	46.4

BRAKES

Service brakes .....oil bath disc brakes, 4 per side on rear axle, mechanically operated by independent right and left pedals, which may be mechanically locked together. A three position switch in the cab, allows the operator to select:
- rear wheel drive brakes
- all wheel drive brakes
- rear wheel drive, all wheel brakes

Parking brake .....caliper disc brake on transmission output shaft.

STEERING SYSTEM

Type .....ORBITROL with priority valve on one gear pump of the hydraulic system
Turning radius*:
Outside tyres .....4400 mm
Bucket corner .....5700 mm
* Tyre size may effect turning radius.

TYRES

Front	**Rear**
12.5 - 18	18.4 - 26
320/80 - R 18	480/80 - R 26
12.5 -18	16.9 - 28

CAPACITIES

	Litres
Fuel tank	125
Hydraulic tank	40
Hydraulic system	118
Engine cooling system	24
Engine oil	14
Transmission oil:	
Power Shuttle	18

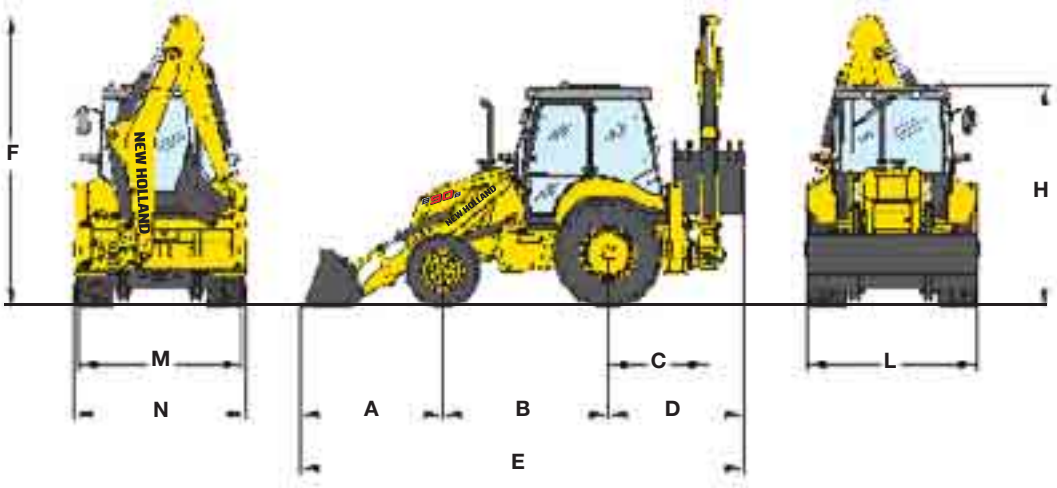
STANDARD EQUIPMENT

- 12V power socket
- 2+2 front and rear working lights
- 2-4 wheel drive mode selector
- 40km/h travel speeds
- Adjustable opening windows
- All tinted glass
- Alternator 90A
- Backup alarm
- CNH Tier 3A diesel engin
- Free maintenance battery, 95 Ah
- Front and rear windshield wipers
- Front attachment with automatic return to dig
- Front counterweight
- Fuel filter with water separator
- Gauges for:
  Engine coolant temperature
  Engine rpm
  Fuel level
- Ground line fuel fill with 125 litre capacity
- Hand throttle control
- Horn
- Instrument panel with diagnostic port
- Load sensing, closed centre hydraulic system
- Multidisc oil bath brakes
- Powershuttle 4+4 transmission
- Rear axle with differential lock
- Road travel lights
- ROPS/FOPS cab with heating system
- Side mirrors
- Side shift
- Stabilisers control
- Transmission disconnect button

OPTIONS

- 20km/h travel speed
- Additional working lights
- Air conditioning
- Anti-theft device
- Backhoe buckets
- Backhoe quick coupler
- Biological hydraulic oil
- Cyclonic air pre-filter
- Dual batteries
- Front wheel fenders
- Hammer circuit
- Heavier counterweight
- Industrial or agricultural tyres
- Loader buckets
- Loader lock-out valves
- Loader quick coupler
- Mechanical or air suspension seat with belt
- Mechanical or pilot control
- Object handling kit with backhoe lifting hook and safety valves
- Road homologation
- Rotating beacon
- Stabiliser pads
- Standard or HED dipperstick
- Tool box

B90B
DIMENSIONS





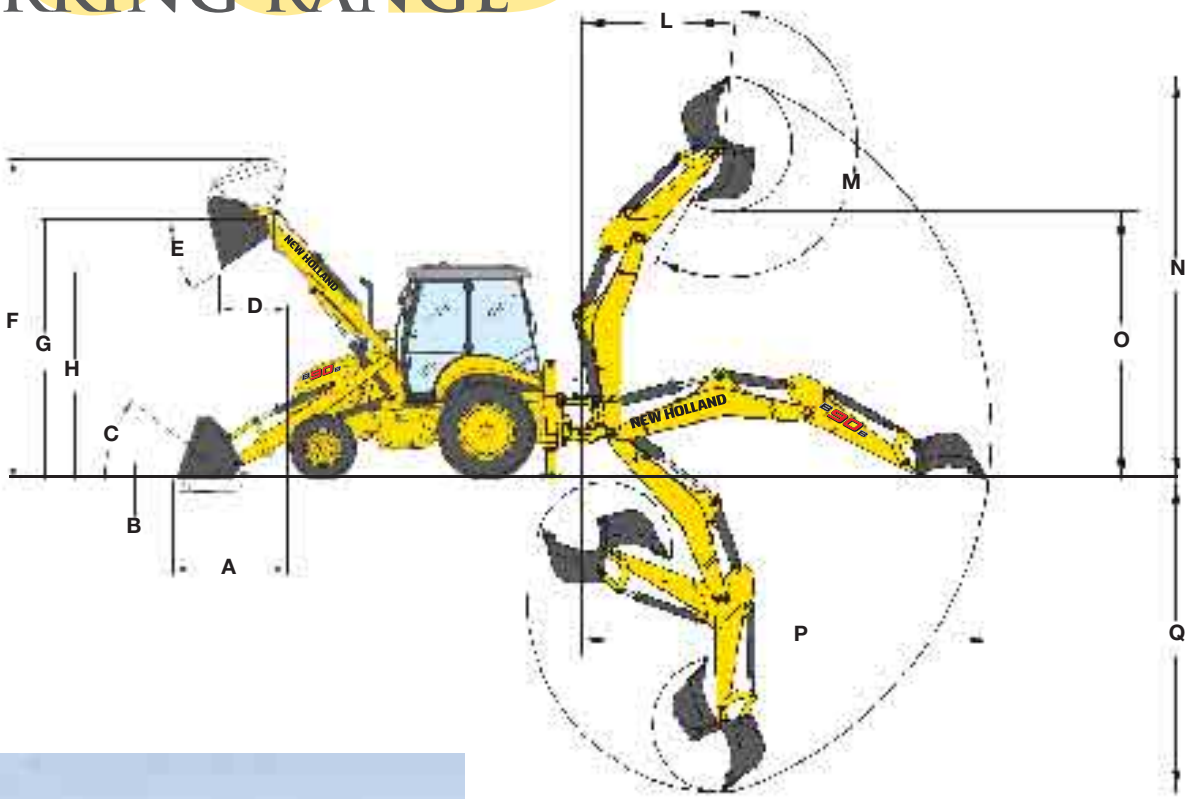
OVERALL DIMENSIONS		
A Ground distance over front axle	**mm**	1870
B Wheelbase	**mm**	2175
C Pivot distance over rear axle	**mm**	1320
D Max distance over rear axle (with 915mm backhoe bucket)	**mm**	1780
E Overall lenght	**mm**	5825
F Height to top of boom	**mm**	3875
G Back ramp angle	°	23°
H Cab height	**mm**	2940
L Loader bucket width	**mm**	2250
M Stabiliser width	**mm**	2250
N Overall width	**mm**	2325

OPERATING WEIGHT		STD DIPPER	HED DIPPER
Standard Bucket 1 m^3	**kg**	7630	7860
4x1 bucket 1 m^3	**kg**	7960	8190
6x1 bucket 1 m^3	**kg**	8120	8350

LOADER BUCKET		STANDARD BUCKET	STANDARD BUCKET W/FORKS	4x1 BUCKET	6x1 BUCKET
Sae Capacity	m^3	1.00	1.00	1.00	1.00
Weight	**kg**	410	570	740	900
Width	**mm**	2250	2250	2250	2250

BACKHOE BUCKET						
Sae Capacity	m^3	0.08	0.14	0.20	0.26	0.32
Weight	**kg**	110	132	150	172	193
Width	**mm**	305	460	610	760	915

B90B
WORKING RANGE





LOADER SPECIFICATIONS		
A Reach at ground level	**mm**	1500
B Digging depth	**mm**	75
C Bucket roll back angle on ground	°	40
D Reach at full height	**mm**	785
E Bucket dump angle at full height	°	45
F Maximum operating height	**mm**	4330
G Hinge pin height	**mm**	3500
H Dump height	**mm**	2780

Maximum loader breakout force	**daN**	6900
Lifting capacity to maximum height	**kg**	3550

BACKHOE BREAKOUT FORCE		
Bucket	**daN**	6400
Dipper breakout force (Std Dipper/HED retracted)	**daN**	4620
Dipper breakout force (HED extended)	**daN**	3200

		B90B		B90BLR	
BACKHOE SPECIFICATIONS		STD DIPPER HED RETRACTED	HED EXTENDED	STD DIPPER HED RETRACTED	HED EXTENDED
L Digging reach at max height	**mm**	2150	3060	2330	3190
M Bucket rotation	°	204	204	204	204
N Digging height	**mm**	5650	6290	5650	6305
O Dumping height	**mm**	3820	4550	3930	4585
P Digging reach at ground level	**mm**	5660	6680	5870	6815
Q Digging depth	**mm**	4450	5570	4710	5750

Machine equipped with: front tires 12.5/18, rear tires 18.4-26; base counterweight; standard bucket 1 m^3.

NEW HOLLAND.
THE POWER OF A GLOBAL BRAND

New Holland is a global brand with a key position in the Construction Equipment business. It supplies a **complete range of 13 product lines and 80 basic models** split into **Compact line** and **Heavy line**. It operates in all the main markets, such as **Europe, North and Latin America, Africa, Asia and Middle East** with the same technology and under the same logo and brand. It manufactures durable, safe and productive machines aimed at supporting customers in developing their own business. **Dealers are company partners**. They play an important role to support the brand in their territories through intense professional relationship with Customers.New Holland is reinforced by its **global alliance with Kobelco**: world leader in hydraulic excavator technology.



AT YOUR OWN DEALERSHIP

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