

KOMATSU®

WB140-2N WB140PS-2N
WB150-2N WB150PS-2N
WB150AWS-2N

NET HORSEPOWER
WB140 65.1 kW **87 HP** @ 2200 rpm
WB150 70.1 kW **94 HP** @ 2200 rpm

OPERATING WEIGHT
7525 - 8950 kg
16,600 - 19,731 lb

Utility

WB
140
150



BACKHOE LOADERS

WALK-AROUND

Komatsu backhoe loaders bring together the versatility of a backhoe loader with the performance of an excavator. Komatsu's exclusive HydraMind™ hydraulic system is the ultimate combination of power and precision creating one of the most productive backhoe loaders in the world.

Increased hydraulic speed

during loader and backhoe operations for increased productivity

High altitude/high ambient

temperature package available as an option

Improved operator-friendly accelerator and parking brake lever design

Komatsu's new Tier 2 engine

provides for low emissions and excellent fuel economy

New loader bucket design

for better penetration into the pile and easier loading of material

Steel reinforced front grille

and tiltable plastic hood for durability and ease of service

1.0 m³ 1.3 yd³ multi-purpose loader bucket

offers increased capacity (1.04 m³ 1.36 yd³ bucket available for WB150AWS)



Improved brake performance with new 4-wheel braking feature (4th gear only)

Lateral engine air intake

for improved visibility to bucket during loader operation

Newberry Manufacturing Operation

We constantly strive to bring new innovations to the market

High visibility maintenance

eyebrow panels with white backed gauges for improved visibility

Improved air filtration system

for longer service life

Flexible fenders

are impact and crack resistant

Two Backhoe Function Modes

- **Power** for increased power and speed
- **Economy** for fine control when excavating around in-ground utilities

New excavator type BH controls

(available as an option)

New backhoe buckets

with K VX style teeth (optional)

Newly designed

boom transport lock for enhanced reliability



Photos may include optional equipment.

Greaseless telescopic arm wear pads

for reduced maintenance cost

Three lever with **foot swing control pattern**

available as an option

NET HORSEPOWER

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OPERATING WEIGHT

7525 - 8950 kg

16,600 - 19,731 lb

OPERATOR COMFORT

Engineered For Maximum Operator Performance and Comfort

Improved 360° Visibility and More Leg Room

Cabin interior design with excavator-type controls (optional)



New Gray Color Cab/ROPS

Less glare and reflection inside the cab, improved visibility, and safer operation



Excavator-Type Control Dash Panel



ROPS Canopy Windshield with Wiper and Washer (optional)

Protects operator during roading operation



Function Mode Button (just like larger excavators)

- Power mode for increased power and speed
- Economy mode for fine control when excavating around in-ground utilities
- Increased sensitivity during backhoe operations while maintaining max. performance
- Increased fuel efficiency



Stabilizer Switches

Controlled by the operator in either front/rear working positions



12V Cell Phone Power Outlet



Easier Control

Excavator-Type Controls



Servo-Controlled Joysticks for Backhoe Operation

- Excellent metering and fine control
- Telescopic arm is electro-hydraulically controlled
- Very low effort
- Ergonomic joysticks
- Control pattern change valve in cab, allows easy conversion from excavator to backhoe control patterns
- More legroom
- Better visibility of the entire boom area

Two Tilttable Control Towers

- Tilt is easily adjusted to always have the best visibility of the excavation area
- Wrist support (with adjustable height) for more comfort during operation
- Comfort: every operator can easily find the correct working position thanks to the mechanical memory lock



Infinitely Adjustable Joysticks

Can move the joysticks to any position within a 15° range



Shift-on-the-Fly Gear Selector (PS version only)

Just twist shifter up or down to change gear selection

- User-friendly design for ease of use
- Improved cycle times
- Less operator fatigue



PRODUCTIVITY FEATURES

High Productivity and Low Fuel Consumption

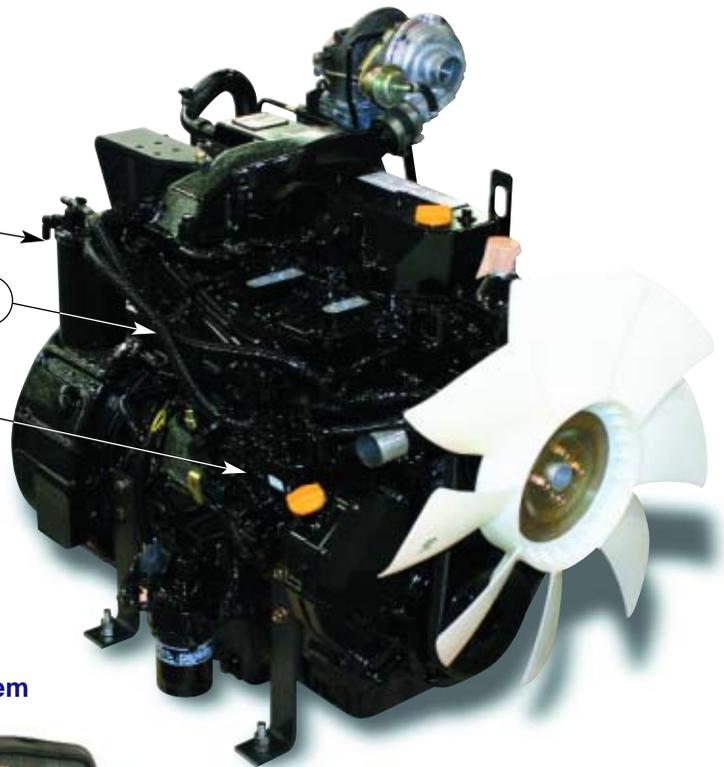
A powerful Komatsu S4D106-2XFH/2SFA Turbocharged water-cooled diesel engine provides output of 65.1 kW **87 HP** for the WB140-2N/WB140PS-2N, and output of 70.1 kW **94 HP** for the WB150-2N/ WB150PS-2N/ WB150AWS-2N. This engine is EPA Tier 2, EU and Japan emissions certified without sacrificing power or machine productivity. The large piston displacement of these engines, 4.4 ltr **269 in³**, ensures high torque and power, and above all exceptional reliability.

New fuel filter

Feed pump with electric control

New injection pump

New fuel hoses layout



Air Filter



Improved Air Filtration
Donaldson Filter

Tremendous Hydraulic Power Under Your Complete Control With Proven HydraMind Excavator Technology

Komatsu's exclusive HydraMind hydraulic system is the ultimate combination of power and precision creating one of the most productive backhoe loaders in the world. The system consists of a single variable flow axial piston pump and an

Cooling System



Large Capacity Side-by-Side Radiator

"intelligent" hydraulic circuit that allows the machine to adapt instantaneously to the specific operation being carried out. Superior lift capacities and breakout forces are achieved with HydraMind.

Closed-Center Load Sensing System (CLSS)

The Closed-Center Load Sensing System, together with the variable flow

pump, means that only the amount of oil necessary for ensuring high operating pressure is generated and used. This guarantees greater efficiency, lower fuel consumption and quiet operation.

Load Independent Flow Divider (LIFD)

Another Komatsu innovation is the Load Independent Flow Divider hydraulic valve block. The speed of each movement is completely independent from that of the others, and the proportions between the various movements remain constant even when the load resistance varies, resulting in shorter cycle times and greater productivity. Engine power is transmitted hydraulically to a transfer case, then manually out to the differentials and out to the four driving wheels.

INCREASED RELIABILITY AND SERVICEABILITY

More Dependable

Komatsu backhoe loaders are the only machines that combine the versatility of a backhoe loader with the performance of an excavator.

Steel Reinforced Front Grill

Protects radiator/oil cooler from external damage



Flexible Fenders

Impact and crack resistant and maintain their shape



Return-to-Dig Sensor

New design for enhanced durability



Cabin and Canopy Roof / Improved Lighting

New design provides more strength, durability, and better visibility with four lights, front and rear (optional).

Front View



Rear View



Fuel Cap

Resistant to fading from the sun



Reinforced structure



View from underneath

WB140/150 BACKHOE LOADERS

SPECIFICATIONS



ENGINE

Model	WB140-2N/WB140PS-2N	Komatsu S4D106-2XFH
	WB150-2N/WB150PS-2N/WB150AWS-2N ..	Komatsu S4D106-2SFA
Type	Vertical, 4-cycle water-cooled diesel engine	
Aspiration	Turbocharged	
Combustion	Direct injection	
Compression ratio	17:1	
Number of cylinders	4	
Cylinder, bore x stroke	106 x 125 mm 4.2" x 4.9"	
Piston displacement	4.4 ltr 269 in³	
Horsepower rating - WB140-2N/WB140PS-2N		
Gross horsepower @ 2200 rpm	69.5 kW 93 Hp	
Flywheel/net horsepower @ 2200 rpm (SAE J 1349)	65.1 kW 87 Hp	
Max. torque @ 1400 rpm	348 Nm 257 ft lb	
Horsepower rating - WB150-2N/WB150PS-2N/ WB150AWS-2N		
Gross horsepower @ 2200 rpm	74.5 kW 100 Hp	
Flywheel/net horsepower @ 2200 rpm (SAE J 1349)	70.1 kW 94 Hp	
Max. torque @ 1600 rpm	368 Nm 271 ft lb	
Air cleaner	dry, dual element with dust evacuator and indicator	



ELECTRICAL SYSTEM

Electric circuit with protected connections in all exposed areas	
Voltage	12 V
Battery	120 Ah (860 cca)
Alternator	80 A
Electric starting	3 kW



HYDRAULIC SYSTEM

The HydraMind hydraulic system affords the operator very precise backhoe movements. This system is energy efficient and incorporates two different working modes: economy and constant power. The advanced hydraulic system includes the "speed up" function to increase the working speed of the front loader.

System	HydraMind
Type	Closed center Load Sensing System (CLSS) with economy/power selector switch (power mode is the default setting)
Pump type	Variable displacement axial piston
Pump control system	Load Sensing set to adjust the hydraulic power
Main Valve	"Load Independent Flow Divider" LIFD modular type
Max delivery	165 ltr/min 43.6 gal/min
Work pressure	
WB140-2N/WB140PS-2N	207 bar 3,000 psi
WB150-2N/WB150PS-2N/ WB150AWS-2N	221 bar 3,200 psi



REFILL CAPACITIES

Engine oil	7.9 ltr 2.1US gal
Cooling system	14 ltr 3.7 US gal
Diesel tank	130 ltr 34.3 US gal
Hydraulic oil tank	92 ltr 24.3 US gal
Front axle oil	8.5 ltr 2.3 US gal
Rear axle oil	17.5 ltr 4.6 US gal
Gear box oil	17 ltr 4.5 US gal



STEERING

WB140-2N/WB140PS-2N/WB150-2N/WB150PS-2N

The front wheels are controlled by a hydrostatic load sensing steering priority valve system

Turning radius at outer edge of front tire:

Without Brakes	4300 mm 14'1"
With Brakes	3400 mm 11'2"

WB150AWS-2N

The new Komatsu steering system ensures excellent maneuverability and versatility and allows the operator to choose from the following three different steering modes by the push of a button: **Two Wheel Steering, Four Wheel Coordinated Steering, Crab Steering**

Turning radius (4 wheel coordinated steering mode, w/o individual braking):	
Edge of tire	4175 mm 13'8"
Edge of bucket	4700 mm 15'5"



AXLES

WB140-2N/WB140PS-2N/WB150-2N/WB150PS-2N

Heavy duty axles with planetary reduction gears in the wheel hubs. Front axle total oscillation angle is 20°. Differential lock in the rear axle controlled by electro-hydraulic system with a switch on loader lever.

Max front strength (Dynamic)	6300 daN 14,175 lb
Max front strength (Static)	15750 daN 35,406 lb
Max rear strength (Dynamic)	12000 daN 27,000 lb
Max rear strength (Static)	32500 daN 73,060 lb

WB150AWS-2N

Axles are limited slip, allowing for power traction, even while turning. Front axle total oscillation angle is 16°.

Max front strength (Dynamic)	10000 daN 22,480 lb
Max front strength (Static)	25000 daN 56,200 lb
Max rear strength (Dynamic)	10000 daN 22,480 lb
Max rear strength (Static)	25000 daN 56,200 lb



TRANSMISSION

WB140-2N/WB150-2N

Switching between 2WD and 4WD is achieved through an electro-hydraulic system. The transmission is operated through a torque converter and a power shift reversing shuttle; the mechanical 4-speed gearbox is synchronized.

Travel Speeds	1st		2nd		3rd		4th	
	km/h	mph	km/h	mph	km/h	mph	km/h	mph
Forward	6.3	3.9	11.4	7.1	21.3	13.2	37.8	23.5
Reverse	6.3	3.9	11.4	7.1	21.3	13.2	37.8	23.5

WB140PS-2N/WB150PS-2N/WB150AWS-2N

Electronically-controlled, four-wheel-drive, full powershift transmission. Twist Grip or EGM™ (Electronic Gear Management) gear Controls for changing driving direction and gears at full power without disengaging the drive.

Twist Grip Controls in manual mode on WB140PS-2N/WB150PS-2N
EGM™ Gear Controls in automatic or manual mode on WB150AWS-2N

Travel Speeds	1st		2nd		3rd		4th	
	km/h	mph	km/h	mph	km/h	mph	km/h	mph
Forward	6.5	4.0	12.0	7.5	23.0	14.3	4.0	24.9
Reverse	6.35	4.0	12.0	7.5	23.0	14.3	—	—



LOADER

The design of the front loader allows for better tensile strength distribution and parallel movements when lifting and lowering the bucket. Due to the linkage geometry, the greasing points have been dramatically reduced.

- Standard bucket width 2355 mm **7'9"**
- Capacity (SAE) 0.95 m³ **1.25yd³**
- STD bucket weight 454 kg **1,000 lb**
- Lifting capacity at maximum height:
- WB140-2N/WB140PS-2N** 3675 daN **8,270 lb**
- WB150-2N/WB150PS-2N/WB150AWS-2N** 3965 daN **8,925 lb**
- Lifting capacity at ground level:
- WB140-2N/WB140PS-2N** 4700 daN **10,580 lb**
- WB150-2N/WB150PS-2N/WB150AWS-2N** 5075 daN **11,420 lb**
- Breakout force:
- WB140-2N/WB140PS-2N** 5685 daN **12,790 lb**
- WB150-2N/WB150PS-2N/WB150AWS-2N** 6145 daN **13,825 lb**



BACKHOE

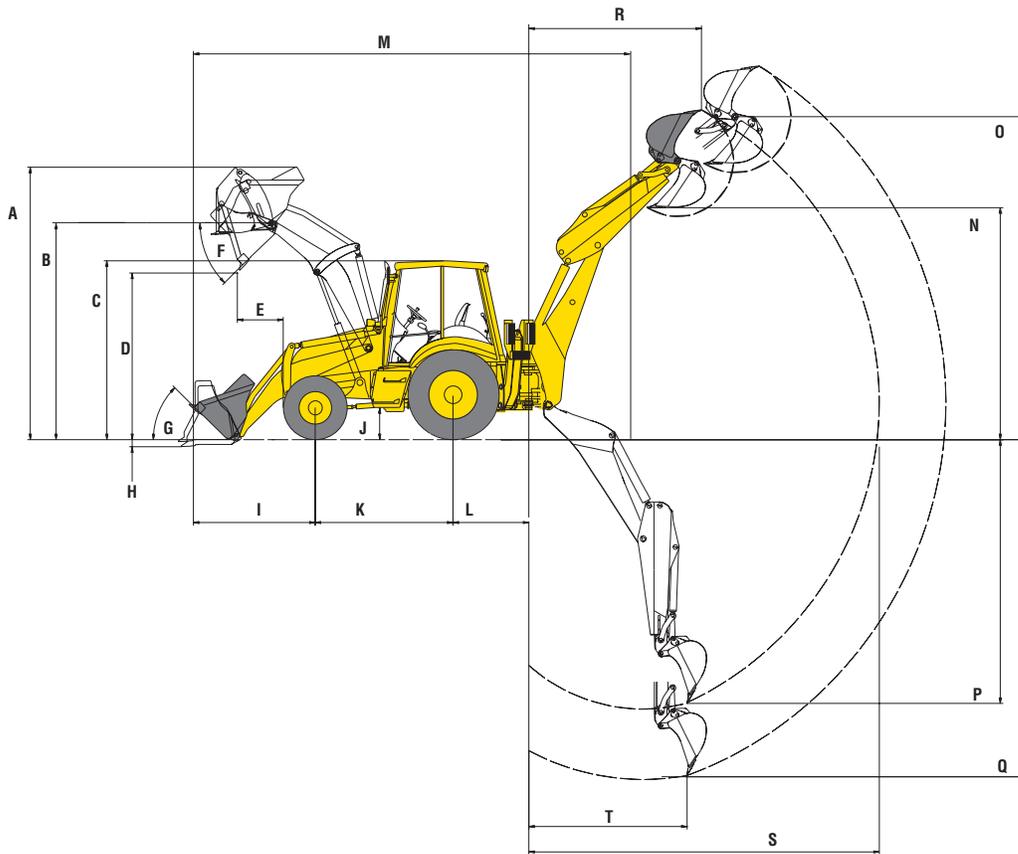
The boom has a rounded profile and a reinforced structure built with cast ends, allowing 180° rotation while maintaining high rotation torque.

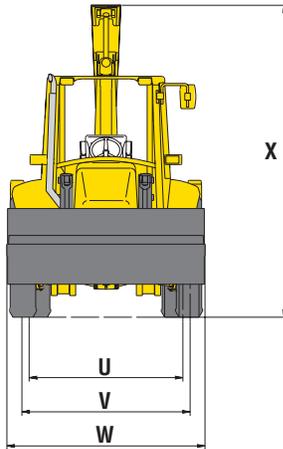
- Bucket breakout force:
- WB140-2N/WB140PS-2N** 6005 daN **13,515 lb**
- WB150-2N/WB150PS-2N/WB150AWS-2N** 6525 daN **14,685 lb**
- Dipper digging force:
- WB140-2N/WB140PS-2N** 3925 daN **8,825 lb**
- WB150-2N/WB150PS-2N/WB150AWS-2N** 4155 daN **9,350 lb**

WB140/150 BACKHOE LOADERS



DIMENSIONS AND WORKING RANGE





		WB140-2N WB140PS-2N		WB150-2N WB150PS-2N		WB150AWS-2N	
A	Max. height	4185 mm	13'9"	4185 mm	13'9"	4220 mm	13'10"
B	Hinge pin height	3365 mm	11'0"	3365 mm	11'0"	3400 mm	11'2"
C	Cab height	2750 mm	9'0"	2750 mm	9'0"	2875 mm	9'5"
D	Dumping height	2750 mm	9'0"	2750 mm	9'0"	2730 mm	8'11"
E	Dumping reach	670 mm	2'2"	670 mm	2'2"	610 mm	2'0"
F	Dumping angle	45°		45°		45°	
G	Rollback angle	45°		45°		45°	
H	Digging depth	90 mm	4"	90 mm	4"	100 mm	4"
I	Bucket reach (in transport)	2080 mm	6'10"	2080 mm	6'10"	2150 mm	7'1"
J	Ground clearance	320 mm	1'1"	320 mm	1'1"	430 mm	1'5"
K	Wheel base	2175 mm	7'2"	2175 mm	7'2"	2175 mm	7'2"
L	Backhoe swing center distance	1175 mm	3'10"	1175 mm	3'10"	1175 mm	3'10"
M	Transport length	7310 mm	24'0"	7310 mm	24'0"	7255 mm	23'10"
N	Max. dumping height	3490 mm	11'5"	3710 mm	12'2"	4060 mm	13'4"
	with telescopic arm	4160 mm	13'8"	4160 mm	13'8"	4510 mm	14'10"
O	Max. digging height	4930 mm	16'2"	5155 mm	16'11"	5500 mm	18'1"
	with telescopic arm	5595 mm	18'4"	5595 mm	18'4"	5940 mm	19'6"
P	Digging depth (SAE)	4420 mm	14'6"	4725 mm	15'6"	4490 mm	14'9"
	retracted telescopic arm	4475 mm	14'8"	4475 mm	14'8"	4155 mm	13'8"
	extended telescopic arm	5565 mm	18'3"	5565 mm	18'5"	5270 mm	17'3"
Q	Max digging depth	4445 mm	14'7"	4750 mm	15'7"	4545 mm	14'11"
	retracted telescopic arm	4500 mm	14'9"	4500 mm	14'9"	4210 mm	13'10"
	extended telescopic arm	5590 mm	18'4"	5590 mm	18'4"	5325 mm	17'6"
R	Reach at max. height	2860 mm	9'5"	3100 mm	10'2"	3100 mm	10'2"
	with telescopic arm	3810 mm	12'6"	3810 mm	12'6"	3810 mm	12'6"
S	Max. reach from swing center	5520 mm	18'1"	5715 mm	18'9"	5800 mm	19'0"
	with telescopic arm	6575 mm	21'7"	6575 mm	21'7"	6580 mm	21'7"
T	Digging reach	2750 mm	9'0"	2750 mm	9'0"	2900 mm	9'6"
U	Rear tread	1800 mm	5'11"	1800 mm	5'11"	1950 mm	6'5"
V	Front tread	1890 mm	6'2"	1890 mm	6'2"	1950 mm	6'5"
W	Overall width (with bucket)	2355 mm	7'9"	2355 mm	7'9"	2455 mm	8'1"
X	Backhoe transport height	3550 mm	11'8"	3550 mm	11'8"	3600 mm	11'10"

WB140/150 BACKHOE LOADERS



LIFTING CAPACITY

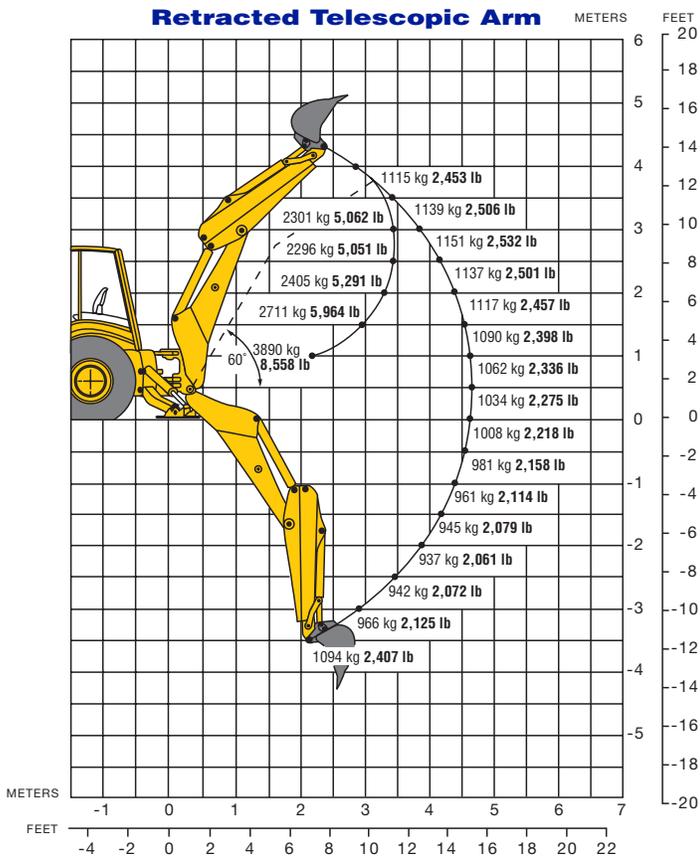
WB140-2N/WB140PS-2N

PRESSURE: 211 kg/cm²
3000 psi

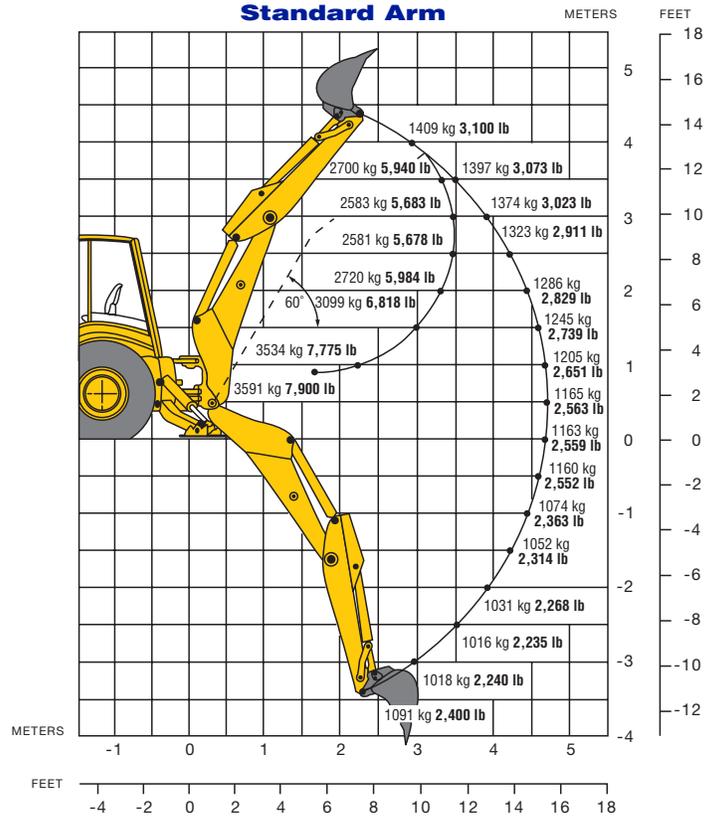
Lift capacity figures comply with SAE J31.

Units are equipped with standard equipment and 610 mm 24" heavy duty backhoe bucket.

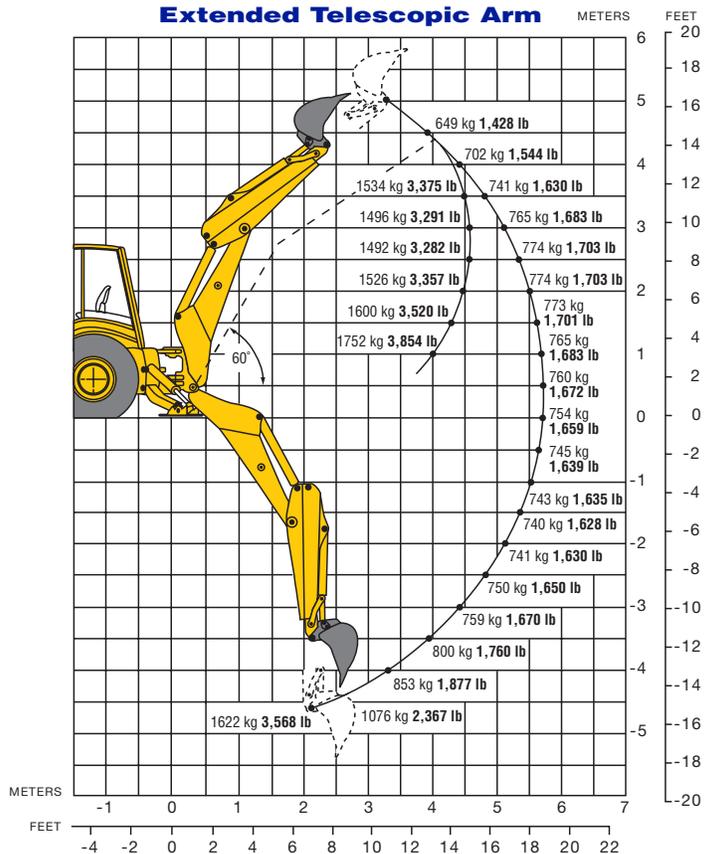
Retracted Telescopic Arm



Standard Arm



Extended Telescopic Arm





LIFTING CAPACITY

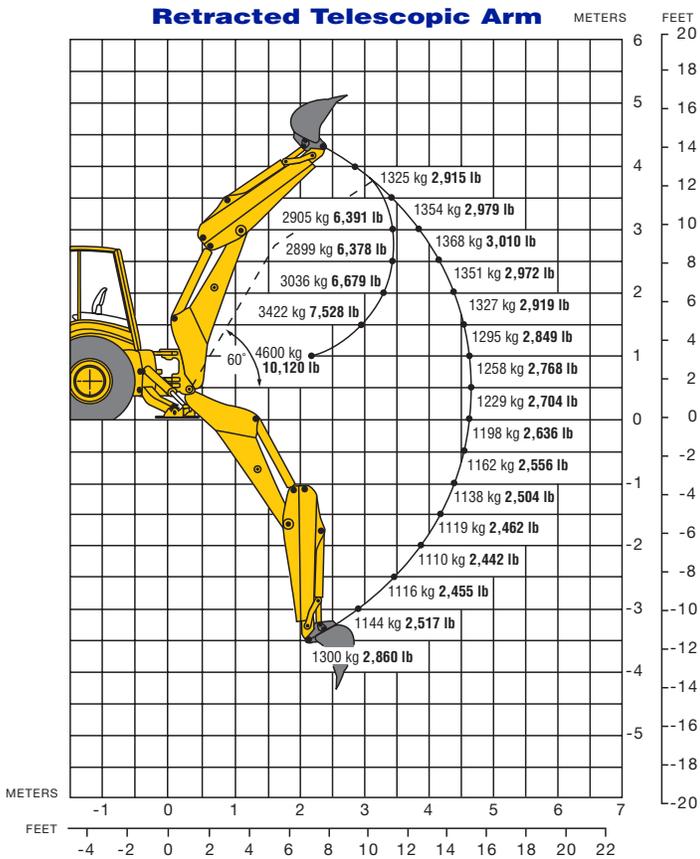
WB150-2N/WB150PS-2N/WB150AWS-2N

PRESSURE: 225 kg/cm²
3200 psi

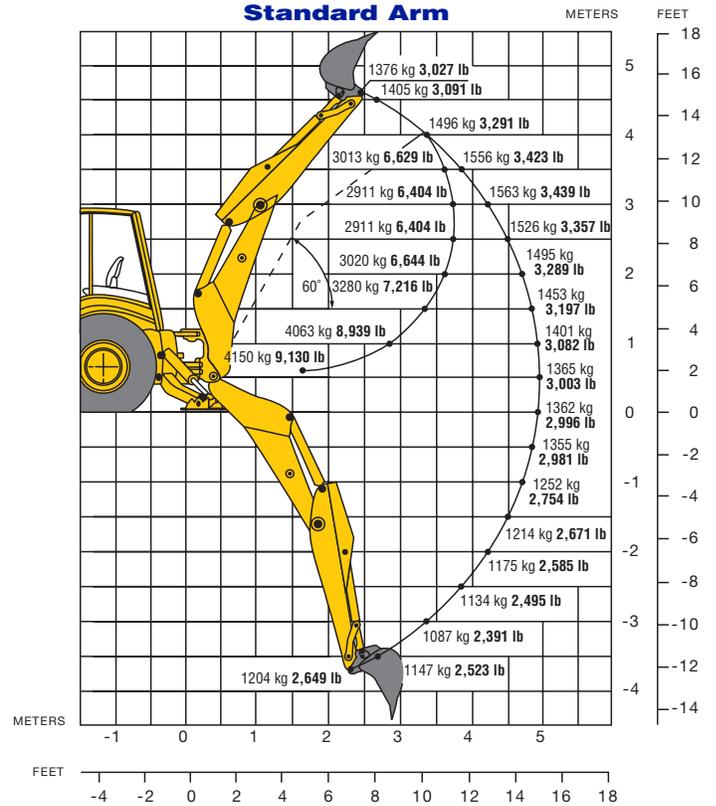
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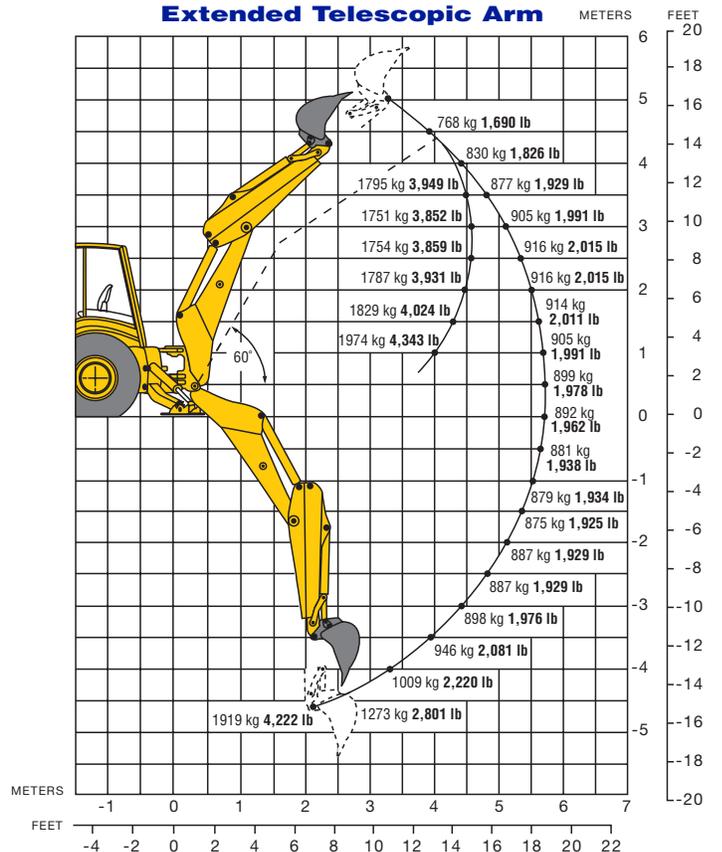
Retracted Telescopic Arm



Standard Arm



Extended Telescopic Arm



WB140/150 BACKHOE LOADERS



STANDARD EQUIPMENT

- Alarm, backup
- Anti-burst/anti-drift valves (outriggers)
- Backhoe, center mount, 2 lever control
- Battery disconnect switch
- Boom transport & swing lock
- Brakes, wet-disc with dual pedals and lock (4 wheel braking in 4th gear only)
- Coat hook (cab only)
- Cup holder (only for a cabin without Air-conditioner)
- Differential lock (100% rear axle on demand)
- Drive shaft guard (4-wheel drive only)
- Exhaust in line with ROPS post
- Fan, suction, and fan guard
- Flexible type rear fender
- Gauges: coolant temperature, fuel level, tachometer, hour meter
- Hydraulic oil cooler, side by side
- Indicators: air cleaner service, engine coolant temperature, engine oil pressure, torque converter oil temperature, 4 wheel drive, low fuel, brake oil level, warning direction indicator, parking brake engagement, brake oil level, differential lock, glow plug preheating, generator warning
- ISO control pattern for backhoe
- Key start/stop system with auxiliary position
- Kickdown switch (AWS only)
- Lamp, overhead for instrument panel (Cab only)
- Lift cylinder lock bar
- Lights, working (2 front, 2 rear)
- Loader return-to-dig and float feature
- Mechanical locks, loader control and backhoe control
- Mirror, interior
- Multi-function loader control lever (transmission disconnect, multi-purpose bucket controls, differential lock, loader speed up)
- O-ring face seal hose connections
- Park brake (automatically disengages transmission when activated)
- Powershift transmission (PS series & AWS only)
- Power shuttle transmission
- Power socket, 12V for a mobile phone (cab only)
- ROPS/FOPS Cab with heater (41,000 BTU) and fan
- Seat belt, retractable, 76 mm 3" wide
- Seat, mechanical suspension with armrests
- Spin-on fuel, engine oil, hydraulic transmission oil filters and water separator
- Stabilizer pads, flip over type
- Stop lights and tail lights
- Steering, hydrostatic, load sensing
- Storage compartment, internal
- Throttles, hand and foot
- Tilttable engine hood with steel reinforced front grill
- Transmission disconnect switch on gearshift lever
- Vandalism protection
- Warning horn, front, electric



OPTIONAL EQUIPMENT

- Air conditioner (32,000 BTU)
- Auxiliary hydraulics for hand hammers
- Backhoe excavator type controls
- Backhoe control pattern conversion kit (field installation)
- Backhoe auxiliary hydraulics for hydraulic hammers or other unidirectional flow work tool (126 l/min 31.7 gpm)
- Backhoe control pattern (on excavator controls only)
- Cold area (-30°C -22°F) arrangement
- External tool box
- High beam lights (2 front)
- Hydraulic quick coupler, loader (FOB JRB/Pemberton)
- Loader Auxiliary hydraulics, multi-purpose
- Load stabilizer system
- Outrigger cylinder guards
- Pre filter
- Pressure Proportional Control, ISO pattern for backhoe
- Rear view mirrors, exterior
- ROPS/FOPS Canopy
- Windshield, front for canopy with a window washer



AVAILABLE ATTACHMENTS

- Couplers (Front & Rear)
- Buckets (Range)
- Hydraulic Breakers
- Brooms / Sweeper
- Compaction Plate — Hydraulic
- Compaction Wheels
- Auger Drives

MAJOR EQUIPMENT CONFIGURATIONS

	WB140-2N	WB1450PS	WB150	WB150PS	WB150AWS
BACKHOE BUCKETS					
0.076 m ³ 0.10 yd³ Bucket, 12"	X	X	X	X	X
0.12 m ³ 0.16 yd³ Bucket, 18"	X	X	X	X	X
0.18 m ³ 0.24 yd³ Bucket, 24"	STD	STD	STD	STD	STD
0.24 m ³ 0.31 yd³ Bucket, 30"	X	X	X	X	X
0.29 m ³ 0.38 yd³ Bucket, 36"	X	X	X	X	X
LOADER BUCKETS					
0.96 m ³ 1.25 yd³ GP Bucket w/Bolt-on Cutting Edge	STD	STD	STD	STD	-
1.15 m ³ 1.50 yd³ GP Bucket w/Bolt-on Cutting Edge	-	-	X	X	STD
1.00 m ³ 1.30 yd³ Multi-Purpose Bucket w/Bolt-on Cutting Edge with Aux. Hydraulics	X	X	X	X	-
1.00 m ³ 1.30 yd³ Multi-Purpose Bucket w/Bolt-on Cutting Edge	X	X	X	X	-
1.04 m ³ 1.36 yd³ Multi-Purpose Bucket w/Bolt-on Cutting Edge with Aux. Hydraulics	-	-	-	-	X
RUBBER TIRES					
11L - 16 (10 PR) Front Tires (2WD)	In Base	-	-	-	-
14L - 17.5 (10 PR) Front Tires (4WD)	In Base	In Base	In Base	In Base	-
19.5L - 24 (10 PR) Rear Tires	In Base	In Base	In Base	In Base	-
16.9L - 24 (12 PR) Front & Rear Tires	-	-	-	-	In Base
16.9L - 28 (12 PR) Front & Rear Tires	-	-	-	-	X
16.9L - R28 Radial Front & Rear Tires, Michelin XM27	-	-	-	-	X
FRONT COUNTERWEIGHT					
Counterweight, 39 Kg 87 lb	In Base	In Base	-	-	-
Counterweight, 150 Kg 330 lb - Mounts Underneath 39 Kg 87 lb Cover	X	X	-	-	-
Counterweight, 300 Kg 660 lb - Replaces 39 Kg 87 lb Cover	X	X	In Base	In Base	In Base
Counterweight, 170 Kg 375 lb - Mounts In Front of 300 Kg 660 lb Counterweight	X	X	X	X	X

Utility Product Line

Crawler Carriers



Dozers



Excavators



Backhoe Loaders



Wheel Loaders



Skid Steer Loaders



This specification sheet may contain attachments and optional equipment that are not available in your area. Please contact your local Komatsu Utility Division distributor for those items you may require. Materials and specifications are subject to change without notice.

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7/04 (EV-1)

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