



## The ARVA Model 744RBL Rapid Backhoe Loader Specifications

### SPECIFICATIONS

#### engine

Make	Cummins
Model	6BTAISB205
Type	In-line, 4 stroke, liquid cooled, electronic fuel control
Fuel	F-34 (JP-8) #2 diesel
Cylinders	6
Bore and Stroke	102 mm x 120 mm
Displacement	5.9 litres
Compression Ratio	17.5:1
Horsepower, Gross	205 HP at 2500 RPM
Maximum Torque	520 lb.ft. (705 N.m.)
Air Cleaner	Dry type

#### electrical

System Voltage	24 volts, negative ground
Battery	Maintenance-free 450 CCA at -28.9 degrees Centigrade
Alternator	110 amp.

#### hydraulic system

Pumps	Gear type tandem, driven at engine RPM off of torque converter
Load Pump	32 gpm at 3,000 psi (120 l/min. at 205 bar)
Load Control Valve	Sectional 3 or 4 spool, electric / hydraulic joystick control for lift, tilt, clam, optional winch positive hold float and return to dig
Backhoe Pump	43 gpm at 3,000 psi (162 l/min. at 205 bar)
Backhoe Control Valve	Sectional 8 spool, open centre valve parallel circuit with regeneration. Boom, dipper, bucket, stabilizers (2), auxiliary hydraulic circuit and tool circuit hydraulics
Filtration	10 micron
Oil Cooler	Full flow, heavy duty
Reservoir with Filter	35 gal. (132 l)

**Constant improvement and engineering progress make it necessary for ARVA to reserve the right to make specifications, equipment, and price changes without notice.**

## power train

Transmission	Funk Model 2000 6-speed button up, long drop, power shift
Axle	Dana Model SD-66 and D-66 differential lock on front and rear axle
Brakes - Service	Air power actuated, shoe type
Brakes - Parking	Fail safe, spring applied, hydraulically released
Drive	4-wheel drive, electric over hydraulic, front axle disconnect
Axle Rating	Front and rear 20,196 lbs. (9 180 kg)
Axle Oscillation	Front: 17 degrees Rear: 17 degrees
Steering	2-wheel steering – hydrostatic. Load sensing, double acting cylinder design Dead Engine emergency steering system
Travel Speeds	Forward: 56 mph (90 km/h) Reverse: 10 mph (16 km/h)
Tires	Front and rear: Michelin 14.00 x 20, non-directional XZL tread
Suspension	Air suspension front and rear with reserve air tanks. Selector valve permits lock up for working mode and /or front and rear axle suspension for high speed highway and off-road travel

## tractor dimensions

Height	11'-6" (3.5 m)
Width	Tires 97" (246 cm) Overall 98" (249 cm)
Length	Overall travel position: 27'-7" (8.41 m) Aircraft loading position: 35'-4" (10.77 m)
Wheelbase	10'-4" (3.15 m)
Ground Clearance	Differential: 16.9" (43 cm) Suspension: 15.0" (38 cm) Transmission: 15.75" (40 cm)
Fuel Range	280 miles (450.8 km)
Fuel Capacity	66 gal. (250 l)
Fording Depth	29.5" (75 cm)
Turning Radius	Curb to curb: 2-wheel 26'-3" (8.0 m)
Cross Trench at 45 degrees	31.5" wide (80 cm wide)
Slope Operations	60 percent UP and DOWN
Cab	Complies with ROPS And FOPS criteria
Operational Temperature	Minus 46 degrees Centigrade to plus 49 degrees Centigrade
Weight with Loader Backhoe	<b>Total</b> 22,600 lbs. (10 300 kg) <b>Travel</b> Front: 10,219 lbs. (4 645 kg) Rear: 12,440 lbs. (5 655 kg) <b>Aircraft Loading</b> Front: 10,640 lbs. (4 820 kg) Rear: 10,054 lbs. (4 570 kg) Loading Dolly Wheel: 2,200 lbs. (1 000 kg)

Constant improvement and engineering progress make it necessary for ARVA to reserve the right to make specifications, equipment, and price changes without notice.

## 744 loader

Bucket Type	4 in 1 multi-purpose
Bucket Capacity	1.3 cu. yd. (1.0 cu m)
Lift Capacity to Full Height	6,600 lbs. (3 000 kg)
Height to Bucket Hinge Pin Raised	11'-2" (3.4 m)
Overall Operating Height	14'-3" (4.34 m)
Bucket Rollback At Groundline	40 degrees
Breakout Force	Lift cylinders: 8,320 lb.ft. (37 000 N.m.) Dump cylinders: 10,302 lb.ft. (45 825 N.m.)
Dump Angle	At full height: 45 degrees
Maximum Grading Angle	116 degrees
Digging Depth Below Grade	Bucket flat: 6.8" (173 mm) Clam open – dozing 4.1" (104 mm)
Dump Clearance At Full Height 45 Degree Dump	Bucket 8'-11" (2.72 m) Clam open 9'-8" (2.94 m)
Reach from Front Axle Centerline	Bucket on ground 88.5" (2.25 m)
Cutting Edge Width Bucket	98.0" (2.49 m)
Maximum Clam Opening	38.3" (973 mm)
Moldboard Height	36.8" (934 mm)
Raising Time	To full height 4.7 seconds
Bucket Dumping Time	1.2 seconds
Lowering Time	3.1 seconds

## 744 backhoe

Lift Capacity – Maximum Reach	2,200 lbs. at 12' (1 000 kg at 3.66 m)
Digging Depth	14'-1" (4.3 m)
Overall Reach from Rear Axle Centreline	21'-5" (6.53 m)
Overall Reach from Swing Pivot	18'-1" (5.51 m)
Loading Height	11'-2" (3.4 m)
Loading Reach	8'-9" (2.67 m)
Swing Arc	170 degrees
Bucket Rotation	160degrees
Stabilizer Spread	Operational position: 9'-5" (2.87 m) Transport position: 7'-11" (2.4 m)
Digging Force	Bucket cylinder: 11,470 lb.ft. (51 021 N.m.) Dipper cylinder retracted: 7,200 lb.ft. (32 027 N.m.)
Levelling Angle	Max. slope on which backhoe will make vertical cut: 12 degrees
Bucket	Type: heavy duty digging Width: 29.5" (75 cm) Capacity: 0.31 cu. yd. (0.24 cu. m)

**Constant improvement and engineering progress make it necessary for ARVA to reserve the right to make specifications, equipment, and price changes without notice.**

## Options for ARVA 744 RBL

Fork Lift Attachment	Quick attachable Capacity on forks: 4,400 lbs. at 24" (2 000 kg at 60 cm)
Hydraulic Power Take Off	Variable volume from 3 to 8 gals per minute at 2,000 psi (11 to 30 L per minute at 13.78 mega pascals)
Backhoe with Wrist Action	Twists side to side 90 degrees
Air Transportable	See drawing #A-166120 for dimensions. Axle loading less than 13,000 lbs. (5 909 kg)
Camouflage Net Holders	Side of engine compartment
Rifle Holder	2 per machine, inside operator's compartment
Heater, Engine	To be located within engine compartment
MIL Standard Headlights	Properly protected
Snowshoe Holder	Side of engine compartment
Coverall Holder	Inside cab
Paint	U.S. FED-STD -595, green matte # 34094
Extendible Dipper Stick	Provides for an extended digging depth of 17'-8 1/2" (5.4 m)
Winch	Drum pull of 9,000 lbs. (40 kN), speed of 95' / minute (30 m / minute), complete with 98' (30 m) of cable and 4'-1" (1.25 m) single leg chain assembly with hook having same strength as cable, and remote control with 20' (6.1 m) of cable
Tire Chains	Pewag UniradialE 0350114.00 x 20.00
Run Flat Inserts	Hutchison Mine Blast type
General Purpose Bucket	Capacity rated in accordance with SAE J742
Crane Jib	Reach of 6'-6" (2 m) from coupler system face, capacity of 3,300 lbs. (1 500 kg)

36" Trenching Bucket	Width: 36" (90 cm), Capacity: 0.36 cu. yd. (0.27 cu m)
24" Digging Bucket	Width: 24" (61 cm) Capacity: 0.18 cu. yd. (0.18 cu. m) with 4 replaceable teeth
Severe Duty Bucket	Width: 36" (90 cm) Capacity: 0.26 cu. yd. (0.20 cu. m) with 3 replaceable teeth
COTS Parts	Commercially available from Canadian and U.S.A. sources

**Constant improvement and engineering progress make it necessary for ARVA to reserve the right to make specifications, equipment, and price changes without notice.**

**ARVA Industries Inc.**  
43 Gaylord Rd.  
St. Thomas, ON N5P 3R9  
Tel: 1-519-637-1855  
Fax: 1-519-637-1848  
Email: [cranes@real.on.ca](mailto:cranes@real.on.ca)  
[www.arvaindustries.com](http://www.arvaindustries.com)