

ROKBAK

ARTICULATED HAULER SPECIFICATIONS

RA30



SPECIFICATIONS

Maximum Payload	28 tonne (30.9 US ton)
Heaped Capacity	17.5m ³ (22.9yd ³)
Gross Power	276kW (370hp)

FEATURES

Ergonomically designed environment for high levels of operator comfort

Calibrated with the correct balance of power and gearing for effective productive drive to the wheels on all working applications

Moves high levels of materials quickly and efficiently

Lean burning engine for low cost of ownership

Independent front suspension

Available with EPA Tier 4 Final, EU Stage V or Tier 2 compliant engines

8 Speed highly efficient transmission

Rokbak RA30 articulated hauler – a smart investment for all working applications

ROKBAK SPECIFICATIONS: RA30

ENGINE



Engine	Scania DC9
Type	5 cylinder, in-line, four cycle, direct injection diesel, water cooled, turbo charged with air-to-air charge cooling, electronic engine management and engine exhaust brake.
Piston Displacement litres (in³)	9.3 (568)
Bore x Stroke mm (in)	130 x 140 (5.12 x 5.51)
Gross Power kW (hp) @ rpm	276 (370) @ 1,800
Net Power kW (hp) @ rpm	257 (345) @ 2,100
Maximum Torque Nm (lbf ft) @ rpm	1880 (1387) @ 1,400
Gross Power Rated	SAE J1995 Jun 90
Engine Emissions	US EPA Tier 4F, EU Stage V, Tier 2 derivatives
Electrical	24 volt electric start. 100 A alternator. Two 12 volt 180 Ah batteries.
Air Cleaner	Dry-type 3-stage, aspirated air cleaner with safety element, automatic dust ejector and restriction indicator.
Fan	Modulating fan reduces noise level and consumes engine power as required. Note: Net hp with fan clutch disengaged.
Altitude m (ft)	Electronic derate from 2,000 (6,561)

TRANSMISSION



Type	ZF 8EP320. Fully automatic with manual over-ride and retarder.	
Assembly	Remote mounted countershaft input/planetary output configuration. Fully automatic with manual over-ride function, promoting smooth gearshifts designed for high productivity and low operator fatigue. Installed with integral retarder and inter-axle differential lock. On-board diagnostics provide performance and operational data feedback.	
Speeds km/h (mph)		
Gear	Forward	Reverse
1	5 (3.1)	5.4 (3.3)
2	8 (5)	7.5 (4.7)
3	11 (6.8)	10.5 (6.5)
4	15 (9.3)	15 (9.3)
5	21 (13)	–
6	29 (18)	–
7	40 (24.8)	–
8	55 (34.1)	–

AXLES



Type	Heavy duty axles with fully floating axle shafts and outboard planetary reduction gearing. The three axles are in permanent all-wheel drive (6x6) with a differential coupling between the front and rear axles. All three axles also have hydraulically actuated multiplate transverse diff lock differentials for 100% cross-axle lock up. The inter-axle and cross-axle diff locks are controlled by the operator, and can be actuated when required in poor traction conditions.
Differential Ratio	3.875 : 1
Planetary Reduction	5.71 : 1
Overall Drivetrain Reduction	22.12 : 1

SUSPENSION



Front	Fully independent suspension and wheel movement is provided by a double wishbone design. This is coupled with 4 x hydraulic dampers/coil over springs.
Back	Each axle is coupled to the frame by three rubber-bushed links with lateral restraint by a transverse link. Pivoting inter-axle balance beams equalise load on each rear axle. Suspension movement is cushioned by rubber/metal laminated compression units between each axle and underside of balance beam ends. Pivot points on leading and trailing links are rubber-bushed and maintenance-free.

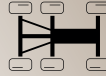
STEERING



Type	Hydrostatic power steering by two double-acting cushioned steering cylinders with pressure supplied by a variable displacement/load sensing piston pump. Secondary steering pressure provided by a ground driven pump.
Steering Angle to Either Side	45°
Lock to Lock Turns, Steering Wheel	4
System Pressure Bar (lbf/in²)	241 (3,500)
SAE Turning Radius mm (ft-in)	8,470 (27-9)
Clearing Radius mm (ft-in)	8,950 (29-4)

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FRAME



Type

Front and rear frames are all-welded high grade steel fabrications with rectangular box-section beams forming the main side and cross members. Inter-frame oscillation is provided by a large diameter cylindrical coupling which houses nylon bushings. Frames articulated 45° to either side for steering by means of two widely-spaced pivot pins in back-to-back sealed taper roller bearings.

BODY



Type

All-welded construction, fabricated from high hardness (min 360 BHN) 1,000 Mpa (145,000 lbf/in²) yield strength steel. Dual slope tailchute improves material ejection from body.

Plate Thickness mm(in): Floor and Tailchute Sides Front

14.0 (0.55)
12.0 (0.47)
8.0 (0.31)

Volume m³ (yd³): Struck Heaped 2:1 (SAE)

13.8 (18.0)
17.5 (22.9)

HOIST



Type

Two single-stage, double-acting hoist cylinders, cushioned at the base end. Variable displacement/load sensing piston pump driven from power take-off on transmission. Full flow return line filtration. Full electro-hydraulic hoist control, with electronic detent in power down.

System Pressure bar (lbf/in²)

220 (3,200)

Pump Output Flow Rate: litre/sec (gal/sec)

4.9 (1.29)

Raise (loaded) Seconds

12

Lower Seconds

7.5

TYRES AND WHEELS



Tyres

Standard 23.5. Optional 750/65

Rims

Standard 25x19.50. For optional tyre, 25x22.00

Wheels

3-piece earthmover rims with 12 stud fixing

BRAKES



Tyres

All hydraulic braking systems with multiplate sealed and oil cooled brake packs at each wheel. Independent circuits for front and rear brake systems.

Parking

Spring-applied, hydraulic-released disc on rear driveline.

Secondary

Secondary brake control actuates service and parking brakes.

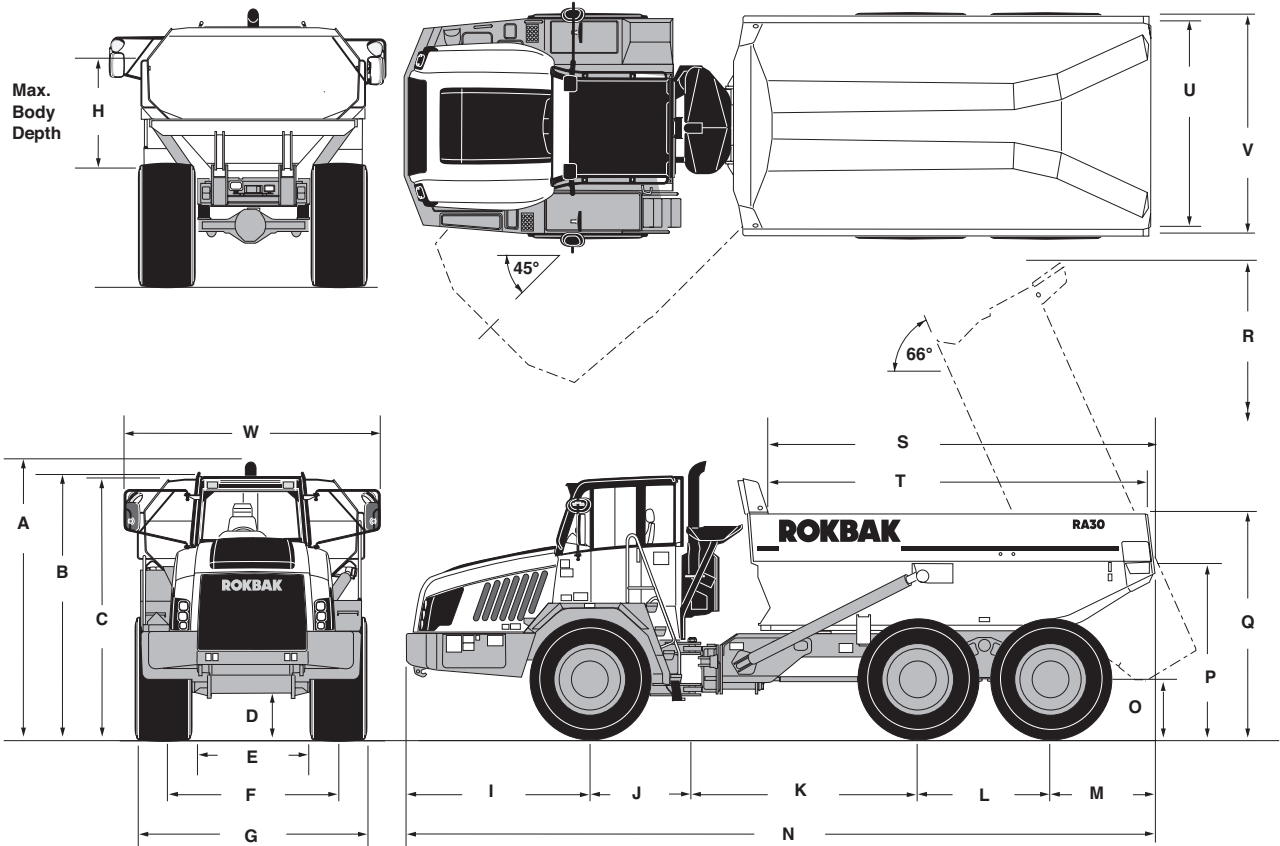
Retarder

Exhaust brake and transmission retarder.



DIMENSIONS

	mm	ft-in
A	3,560	11-8
B	3,525	11-7
C	3,432	11-2
D	510	1-10
E	1,540	5-2
F	2,200	7-2
G	2,860	9-5
H	1,445	4-9
I	2,575	8-5
J	1,310	4-4
K	2,945	9-8
L	1,690	5-6
M	1,410	4-9
N	9,930	32-6
O	755	2-4
P	2,224	7-3
Q	2,986	9-10
R	6,236	20-5
S	5,010	16-5
T	4,855	16-0
U	2,705	8-11
V	2,890	9-6
W	3,244	10-6



WEIGHTS



	EU Stage V Models		Tier 4 Final Models		Tier 2 Models	
	kg	lb	kg	lb	kg	lb
Net Distribution						
Front Axle	13,213	29,129	13,540	29,851	13,266	29,247
Centre Axle	5,872	12,945	5,486	12,095	5,460	12,037
Rear Axle	5,826	12,844	5,586	12,315	5,493	12,110
Vehicle, Net	24,911	54,919	24,612	54,260	24,219	53,394
Payload	28,000	61,729	28,000	61,729	28,000	61,729
Gross Distribution	kg	lb	kg	lb	kg	lb
Front Axle	15,980	35,300	15,852	34,948	15,097	33,283
Centre Axle	18,319	40,386	18,225	40,179	18,256	40,248
Rear Axle	18,339	40,431	18,535	40,863	18,866	41,592
Vehicle Gross	52,638	116,047	52,612	115,990	52,219	115,123
Ancillary Weights	kg	lb	kg	lb	kg	lb
Frame	3,727	8,217	3,727	8,217	3,727	8,217
Body	3,776	8,325	3,776	8,325	3,776	8,325
Hoist, Pair	530	1,170	530	1,170	530	1,170

GROUND PRESSURE



These figures are for total contact area, total area within the ellipse of contact.

Tyres	23.5 R25		750/65	
Loaded	kPa	Psi	kPa	Psi
Front	406	59	310	45
Rear	462	67	351	51

These pressures are for standard tyres.

CAPACITIES



	Litres	US gal
Fuel Tank	370	98
Hydraulic System (steering and body)	164	43.3
Engine Crankcase	34	9
Cooling System	48.8	12.9
Transmission (inc filters and cooler)	50.2	13.3
Differential – Front and Rear (each)	28.8	7.6
Differential – Centre	31	8.2
Planetaries – (each)	8.5	2.2
Brake Cooling System	–	–
DEF System*	38	10

*Only applicable on Tier 4 Final/Stage V

SOUND LEVELS



Sound level in cab according to ISO 6396:2008

LpA: dB(A) 72.7

Sound level in cab according to ISO 6395:2008

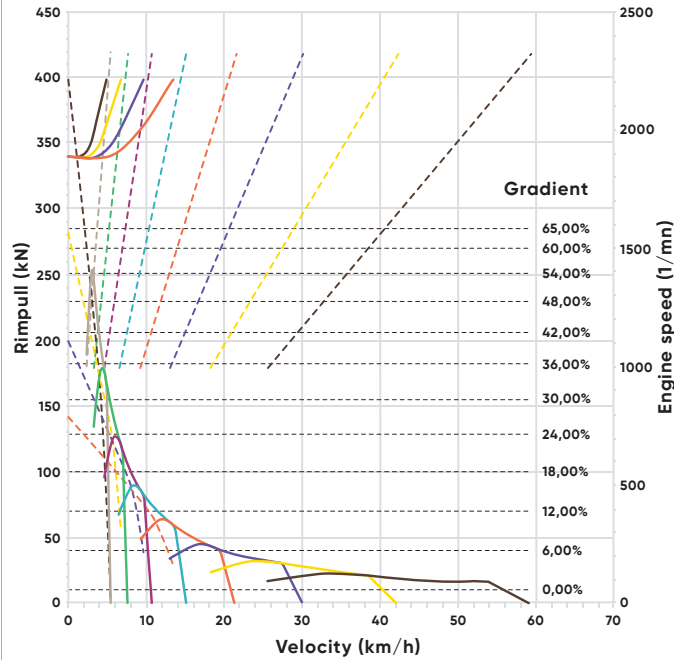
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GRADEABILITY



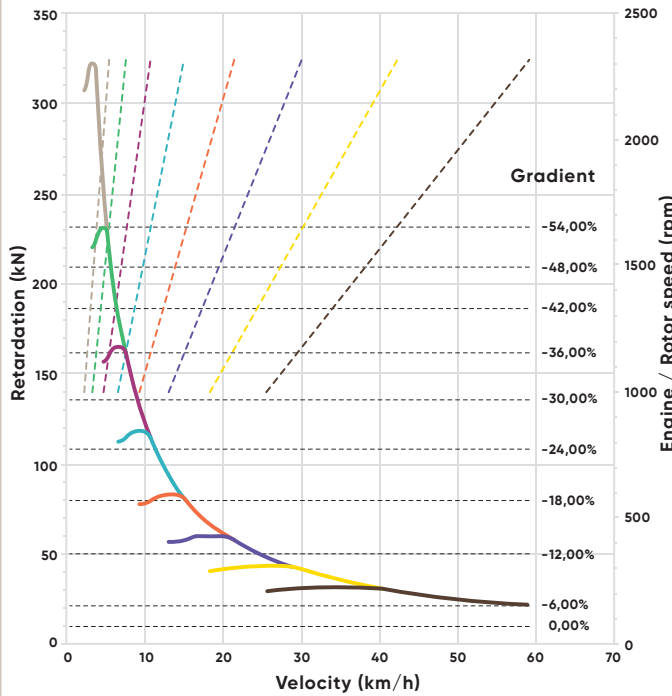
Tractive Effort Diagram Forward – Unit equipped with 23.5 R25 Tyres.
Graphs based on 2% rolling resistance.



RETARDATION



Brake Force Diagram Forward – Instructions: From intersection of vehicle weight with percentage resistance line read across to determine maximum gear attainable, and then downwards for vehicle speed.



STANDARD EQUIPMENT



CAB AND OPERATOR

Air Conditioning	✓	Rear Vision Camera/Monitor	✓
Air Filter Restriction Indicator	✓	ROPS/FOPS Protection ISO3471/3449	✓
Auxiliary Power Outlets 12V & 24V	✓	Seat Belts Retractable J386	✓
CD/Tuner/MP3 Connectivity	✓	Seat, Operator, Air Suspension, High Back, Headrest and Adjustable Armrests	✓
Coat Hook	✓	Seat, Trainer	✓
Engine/Transmission/Hydraulic Diagnostic Facility	✓	Steering Wheel, Tilt/Telescopic	✓
Heating, Ventilation and Air Conditioning System (HVAC)	✓	Storage Compartment	✓
HEPA Cab Air Filter	✓	Sun Visor (internal)	✓
Insulation, Thermal & Acoustic	✓	Tinted Glass	✓
Interior Light	✓	Window Protection Grill, Rear	✓
Mirror Rear View (4)	✓	Wiper and Washer, Front and Rear Windows	✓
Mug Holder	✓	Mirror with wide angle	✓

WARNING LIGHTS AND AUDIBLE ALARM

Alternator Charging	✓	Engine 'STOP'	✓
Body Up	✓	Exhaust Brake	✓
Brake Cooling Oil Pressure	NA	Front Brake Accumulator Pressure	✓
Brake Cooling Oil Temperature	NA	Headlight High Beam	✓
Differential Lock	✓	Headlights Active	✓
Direction Indicators	✓	Hydraulic Oil Filter Change	✓
Dropbox High/Low Oil Pressure	NA	Hydraulic Oil Level Low	✓
Dropbox High/Oil Temperature	NA	Low Fuel	✓
Dropbox High/Ratio Selected	NA	Parking Brake	✓
Dropbox Low/Ratio Selected	NA	Rear Brake Accumulator Pressure	✓
Engine Air Filter Change	✓	Reverse Alarm Audible J994	✓
Engine 'CHECK'	✓	Secondary Steering	✓
Engine Coolant Level Low	✓	Transmission Check	✓
Engine Oil Pressure Low	✓	Transmission High Oil Temp	✓
Engine Over-speed Active	✓	Transmission Retarder	✓

GENERAL

Articulation and Oscillation Lock	✓	Manual Body Lower	NA
Battery Master Switch	✓	Modulating Cooling Fans	✓
Body Prop	✓	Mudflaps at Front and Centre	✓
Brakes Fully Hydraulic Dual Circuit System	✓	Neutral Start Interlock	✓
Diagnostic Pressure Test Points	✓	Pivot Protection Guard	✓
Differential Locks	✓	Rear Light Guards	✓
Electronic Assisted Body Hoist Control	✓	Secondary Steering	✓
Emergency Body Lower (EU Only)	✓	Security Kit	✓
Engine/Transmission/Hydraulic Electronic Management System	✓	Tilting Cab for Maintenance	✓
Exhaust Brake	✓	Tow Points, Front and Rear	✓
Exhaust Muffler	✓	Transmission Downshift Inhibitor	✓
Handrails on Fenders	✓	Transmission Oil Cooler	✓
Horn, Electric 117db	✓	Transmission Retarder	✓
Hydraulic Filter Restriction Indicator	✓	Transmission Sump Guard	✓
Hydraulic Oil Cooler	✓	Tyre Inflation Nitrogen	✓
Independent Suspension	✓		

GAUGES

Body Tip Counter	✓	Fuel Level	✓
Brake Oil Temperature	✓	Hourmeter	✓
DEF Level Gauge	✓	Hydraulic Oil Temperature	✓
DEF Level Warning	✓	Speedometer/Digital Odometer/Tripmeter	✓
Engine Coolant Temperature	✓	Tachometer	✓
Fuel Consumption/Usage	✓	Transmission Oil Temperature	✓

LIGHTS

Direction and Hazard Warning Indicators (LED on Rear)	✓	Side and Tail (LED)	✓
Front Working Lights, Roof Mounted	✓	2 Halogen Headlamps Dipped Beam	✓
Reverse Warning	✓	2 Halogen Headlamps Main Beam	✓

OPTIONAL EQUIPMENT



BODY OPTIONS

Body Side Extensions	✓	Manual Body Lower for Tier 4 Final/T2 Variations	✓
Heated Body	✓	Spillguard Extension	✓
Liner Plates	✓	Chain Operated, Scissor Type, Rear Tailgate	✓

MIRRORS

Mirror Front Mounted	✓	Mirrors Heated	✓
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LIGHTS

Beacon Flashing	✓	Rear Working Lights, Roof Mounted	✓
Fog Rear	✓	Reverse Flashing	✓

WHEELS AND TYRES

Wide (750/65) tyres	✓	25x22.00 Rims	✓
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OTHER OPTIONS

Automatic Lubrication	✓	Driveline Guard	✓
Fast Fuel	✓	Payload Monitoring System	✓
Fire Extinguisher	✓	Seat Heated	✓
First Aid Kit	✓	Tool Kit	✓
Inclinometer/Body Tilt Warning Buzzer and Dashboard Light	✓	Haul Track Telematics*	✓

*Fitted as standard on EPA Tier 4 Final and EU Stage V engine machines. Ask for details.

ROKBAK

Effective date: September 2021. Product specifications and prices are subject to change without notice or obligation. The photographs and/or drawings in this document are for illustrative purposes only. Refer to the appropriate Operator's Manual for instructions on the proper use of this equipment. Failure to follow the appropriate Operator's Manual when using our equipment or to otherwise act irresponsibly may result in serious injury or death. The only warranty applicable to our equipment is the standard written warranty applicable to the particular product and sale and Rokbak makes no other warranty, express or implied.

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