Articulated Truck

FRHFPP TA230



Operating Weight:23,300 kgEngine Output:270 kW/367 HPDump Body Capacity:19.0 m³Payload:30,000 kg



LIEBHERR

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Technical Data



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Liebherr Diesel Engine Design	 D 936 L A6 6-cylinder inline engine, water cooled, turbo-charger, water cooled intercooler, emission improved
Displacement	_ 10.5 l
Performance (ISO 3046)	_270 KW/367 HP at 1,900 rpm
	_ 1,800 Nm at 1,400 rpm
Exhaust emissions	according to guideline 97/68/EG stage IIIA and EPA/CARB Tier 3
Injection	electronic direct injection
Air filter	dry air filter with precleaner, main and safety element
Cooling	fan hydrostatically driven and temperature regulated
Operating voltage	_24 V
Battery	_ 2 x 12 V/170 Ah
	2 x 3-phase generator 28 V/80 A
Starter	_7.8 kW

Drive Tro	ain
Transmission Speeds Drive train	 electronically controlled, automatic powershift transmission, torque converter with lock-up clutch, 8 gears forward, 4 gears reverse, integrated distributor gear with powershift lateral differential 57 km/h forward with reduced engine rpm 16 km/h backwards (electronically limited) 6 x 6 standard drive train with powershift lateral differential between front axle and rear axles
Front axle	 rocker arm axle with two hydro-pneumatic cushioning cylinders, cushioning travel ± 75 mm, maintenance-free bearings, self- locking transverse differential, 45% lock value
Rear axles	heavy duty axles with self-locking transverse differentials, 40 % lock value
Gear ratio	$_{-}$ planetary gears in the wheel hubs

Brakes

Operating brake	retarder function consisting of engine brake and transmission retarder, variable adjust- ment, acting upon all wheels
Safety brake	 2 circuit, hydraulically operated, oil cooled wet disc brake acting on front and middle axle
Parking brake	 spring applied disc brake acting upon the driveshaft of rear axles (hydraulically releasable)



Design	hydraulic, 2 dual acting cylinders, com- bined articulated and oscillating joint with
Steering angle Steering wheel turns from	Liebherr ball bearing ring $_{\pm} 45^{\circ}$
stop to stop	_ 4.5



Standard tires ______ 23.5R25 Design ______ earthmoving radial, tubeless Special tires ______ 750/65R25

Hydraulic System

Hydraulic circuit	on-demand flow control, engine driven
	axial piston pump, wheel driven piston
	pump for emergency steering
Max. flow	_ 344 l/min.
Max. operating pressure_	_25 MPa
Operation	
Dumping	_ dump body operating lever with automatic
	engine rpm increase
Retarder	variably adjustable hand lever, retarder
	steps preselectable, gas pedal overrides
	retarder
Transmission	automatic mode, gear preselection, manual
	shift possible
Filtration	_ return filter, 12 μm

Operator's Cab

Cab	elastic suspension, closed pressure ventila- tion, electro-hydraulically tiltable by 45° to the right, integrated ROPS/FOPS structure, tinted safety glass, wiper/washing system with interval operation for front window, sound isolated, telescopic and horizontally adjustable steering column, sliding window left and right, fresh air filter with prefilter, additional recirculated air filter, exterior mirror and front window heater
Operator's seat	6-way adjustable, cushioned operator's seat with automatic seat belt, adjustable to the weight of the operator, additional trainer's seat
Ventilation	heater and air conditioning, pressure venti- lation with fresh air intake and filtration, variable fan
Heating	warm water heater, defrost function for front and side windows

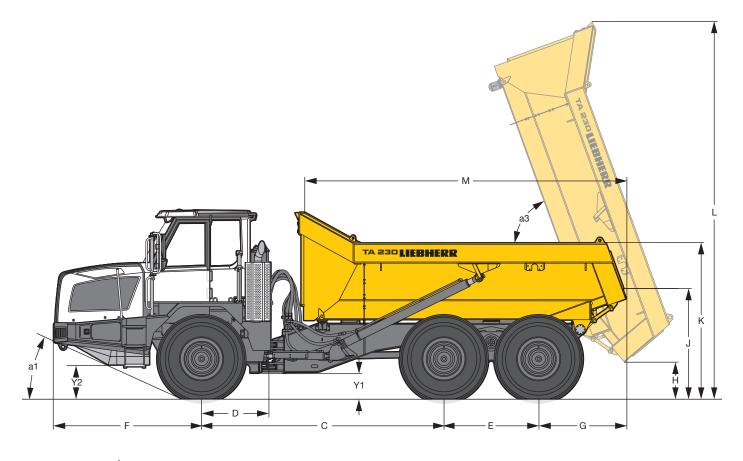
Filling Quantities

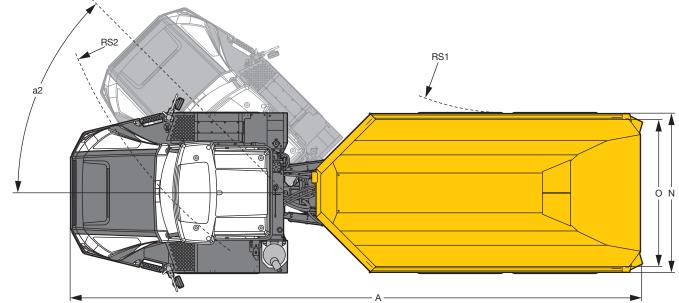
Fuel tank	400 I
Cooling system	120
Engine oil (incl. filter)	34 I
Hydraulic tank	250 I
Cooling oil tank brake	64
Transmission	55 I
Wheel hub each	3.3
Axles	33 I
Differential	18

Dump Body Capacity

Volume	
swept	_ 14.2 m ³
stacked 2:1	18.0 m ³ according to ISO 6483
with flap swept	14.8 m ³
with flap stacked 2:1	19.0 m ³ according to ISO 6483
	_ 30,000 kg
Dumping time	_12 s
Lowering time	_8 s
Dump angle	_ 70°

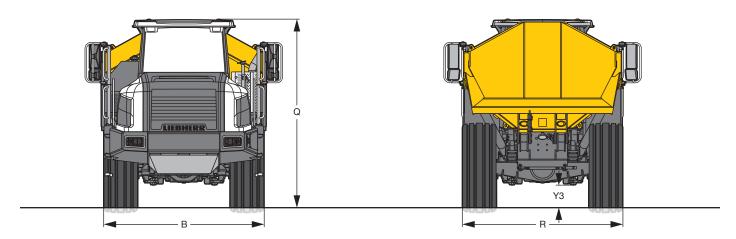
Dimensions



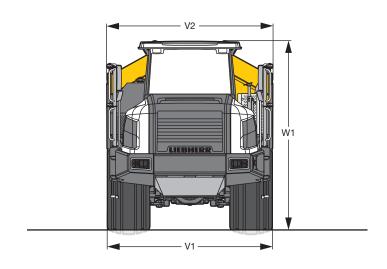


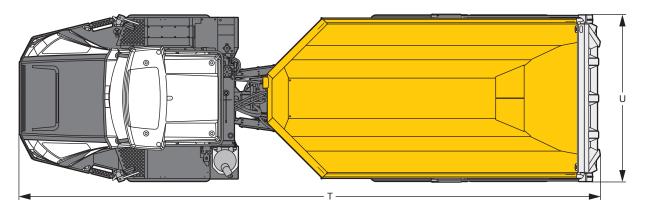
	mm		mm
А	10,225	Ν	2,845
С	4,350	0	2,645
D	1,210	RS1	4,260
E	1,700	RS2	8,385 465
F	2,650	Y1	465
G	1,525	Y2	615
Н	670		
J	1,985	a1	24°
K	2,815	a2	45°
L	6,775	a3	70°
Μ	5,725		

Dimensions



Transport Dimensions Incl. option for dump body flap and including special tires





	mm		mm
В	2,885	V1	2,960
Q	3,395	V2	2,980
R	2,885	W1	3,395
Т	10,325	Y3	410
U	2,960		
0	2,000		

Equipment

/TL>	
	Vehicle

Steps (all) on front carriage in visual range of operator	•
Tires 750/65 R25 earthmover radial, tubeless	+
Refueling from the ground	٠
Cabine tiltable electro-hydraulically to the right	•
Low temperature equipment	+
Articulating lock	٠
Wet disk brakes	٠
Liebherr particle filter	+
Air filter maintenance reduced, due to maintenance-free precleaner	+
Engine hood opening electro-hydraulically	٠
Engine preheating	+
Dump body heating	+
Dump body flap	+
Dump body safety support	٠
Oil filling – Liebherr-Hydraulic-Plus	٠
Transverse differentials self-locking	٠
Retarder function highly effective, consisting of a combination of	
engine brake and transmission retarder	٠
Retarder function variably adjustable, overridable by the gas pedal	٠
Additional back-up light on the rear carriage (dump body)	+
Additional back-up light on the front carriage	+
Back-up alarm acoustic	٠
Rear-view mirrors electrically adjustable and heatable	•
Rear-view mirror standard and wide angle	٠
Standard 6 x 6 drive train with powershiftable lateral differential	
between front axle and rear axle	•
Custom paint	+
Wear protection for dump body (therefore reduced payload)	+
Maintenance reduced	•
Immobilizer electronic	•
Two-circuit brake system	•

A	el.
Operator's	Cap

Storage bins	•	
Analog instruments for speed, rpm, fuel tank, coolant temperature		
Working floodlights on cabine back		
Working floodlights front		
Ashtray		
Ventilation system pressure cabine for special applications		
On-board computer with multifunctional display		
Document pocket		
Operator's seat with automatic seat belt, 6-way adjustable, air		
suspended	•	
Vehicle operating data transfer via GSM-GPRS-network	+	
Vehicle position determination via GSM- or GPRS-network		
Fire extinguisher	٠	
CB system		
Floor mat removable		
Bottle holder small and large		
Rear window protective grid		
Interior light		
Coat hook		
Air conditioner		
Electrical cooler		
Radio system		
Radio preparation		
ROPS and FOPS structure integrated		
Rear view camera	٠	
Single beacon	+	
Double beacon	+	
Window heater front window	٠	
Sliding window front left and right	٠	
Seat heater	+	
Sun blind front window	٠	
Auxiliary heater	+	
Additional power socket 12 V		
Additional power socket 24 V		
Rock guard roof	+	
Trainer seat with automatic seat belt	٠	
Cigarette lighter		

• = Standard, + = Option

Options and/or special attachments, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr to retain warranty.

All illustrations and data may differ from standard equipment. Subject to change without notice.

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Wide product range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's highvalue products and services enjoy a high reputation in many other fields, too. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional customer benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

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To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured inhouse, for instance the entire drive and control technology for construction equipment.

Worldwide and independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 100 companies with over 32,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

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Printed in Germany by DWS RG-BK-RP LHB/VF 11003821-2-04.10_enGB

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