SANDVIK

Sandvik TH430L

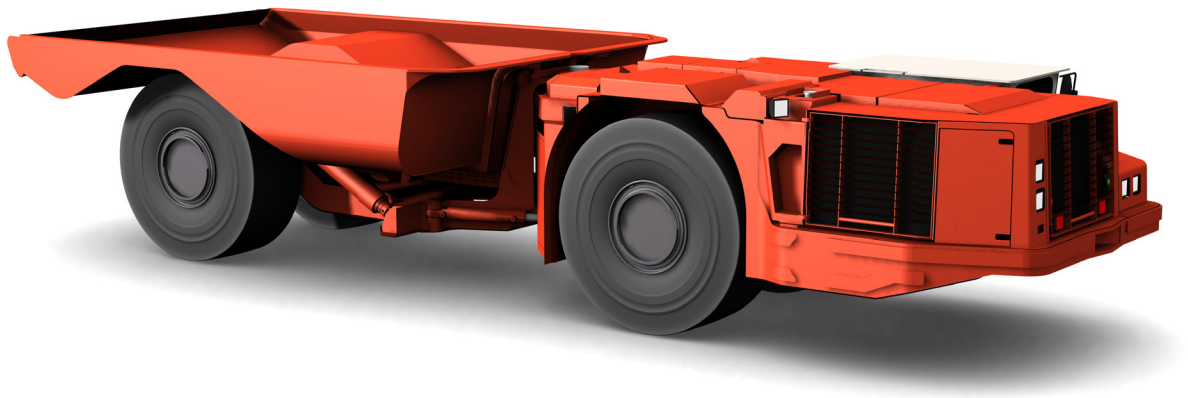
Safer.
Stronger.
Smarter.



Technical specification
Sandvik TH430L

Sandvik TH430L is a 30 metric tonne articulated low profile dump truck that will fit in a 4 × 2 m envelope.

Sandvik TH430L is an ideal choice for:
- Ramp or level production haulage in medium sized low profile mines.
- Mine development projects in medium and large low profile mines.



Capacities	
Maximum payload capacity (SAE heaped 2:1)	30 000 kg
Standard dump box	15 m³

Speeds (level/loaded) with Volvo TAD1342VE engine	
1st gear	6.6 km/h
2nd gear	11.7 km/h
3rd gear	20.4 km/h
4th gear	36.0 km/h

Dump box motion times & movements	
Discharging time	19 sec
Dumping angle	61 °

Operating weights*	
Total operating weight	28 300 kg
Front axle	16 600 kg
Rear axle	11 500 kg

Loaded weights*	
Total loaded weight	58 000 kg
Front axle	26 400 kg
Rear axle	31 700 kg

* Unit weight is dependent on the selected options

Operational conditions and limits	
Environmental temperature	From -20°C to +50°C
Standard operating altitude	With engine Volvo TAD1342VE-B from -1500 m to +4000 m at 25 °C without rated power derate

Requirements and compliance
Compliance with 2006/95/EC Low voltage directive
Compliance with 2004/108/EC Electromagnetic compatibility directive
Design based on EN 1889-1. Machines for underground mines. Mobile machines working underground. Safety. Part 1: Rubber tyred vehicles.
Design based on MDG 15. Guideline for mobile and transportable equipment for use in mines. (Equipment for Australia, achieved with relevant options)
Electrical system based on IEC 60204-1. Safety of machinery – Electrical equipment of machines – Part 1: General requirements

Engine	
Diesel engine	Volvo TAD1342VE (Tier 2)
Output	310 kw (416 hp) @ 2100 rpm
Torque	2005 Nm @ 1260 rpm
Number of cylinders	In-line 6
Displacement	12.8 l
Cooling system	Liquid cooled
Combustion principle	4-stroke, direct injection, turbo, after cooler
Air filtration	Dry Type
Electric system	24 V
Emissions	Tier 2, Euro Stage II
Ventilation rate (Ultra low sulphur diesel)	CANMET 31,400 CFM, MSHA 18,500 CFM Ventilation Rate
Particulate index (Ultra low sulphur diesel)	MSHA Particulate Ventilation Index 10,500 CFM
Exhaust system	Catalytic converter with muffler
Average fuel consumption at 50% load	37 l/h
Fuel tank refill capacity	610 l
Compatible with paraffinic diesel fuel (EN 15940)	Yes

Converter
Dana C8000 Series with Lock up

Transmission
Fully automatic transmission with electric remote shifting system. Four forward and two reverse gears.
Dana 6000 Series

Axles	
Front axle	Kessler D102 series spring applied hydraulic operated brakes, equipped with standard differential, oscillation
Rear axle	Kessler D102 series spring applied hydraulic operated brakes, equipped with standard differential

Tires	
Tire size (Tires are application approved. Brand and type subject to availability.)	26.5 R 25 E4 **

Canopy
ROPS certification according to EN ISO 3471
FOPS certification according to EN ISO 3449
No high pressure hoses in the operator's compartment
Inclinometers to indicate operating angle
Emergency exit
Floor washable with water to reduce dust
Three-point contact access system with replaceable and colour coded handles and steps
Remote circuit breaker switch

Control system, dashboard and displays
Sandvik Intelligent Control system
Critical warnings and alarms displayed as text and with light
5,7 " LCD display with adjustable contrast and brightness
Instrument panel with illuminated switches
My Sandvik Digital Services Knowledge Box™ on-board hardware
Supports 3G, 4G, LTE and WLAN data transfer

Rear and front frame
High strength structure with optimized material thicknesses. Reduced own weight for higher overall hauling capacity and long structural lifetime. Welded steel construction.
Central hinge with adjustable lower bearing
Tanks are part of the frame structure
Automatic central lubrication

Hydraulics	
Main components	
Filling pump for hydraulic oil	
Filtration	
Door interlock for brakes and box hydraulics	
Oil cooler for hydraulic and transmission oil	Capability up to 90 °C ambient temperature
Fittings	ORFS
Hydraulic oil tank capacity	265 l
Sight glass for oil level	2 pcs

Steering hydraulics	
Fully hydraulic, center articulad, power steering with two double acting cylinders. Closed-center system with a load sensing piston type pump and pilot operated orbital wheel steering.	
Steering main valve	Pilot operated
Steering hydraulic cylinders	100 mm, 2 pcs
Steering pump	Variable displacement piston pump

Dump box hydraulics	
Fully hydraulic system, equipped with variable displacement piston pump. Oil flows to box hydraulic system from the steering hydraulics. Oil flow from the brake circuit pump is divided to the brake system and oil cooler motor.	
Hydraulic pump	Variable displacement piston pump
Control valve	Solenoid operated
Main valve	Solenoid operated
Cylinders	185 mm, 2 pcs

Brakes
Service brakes are spring applied; hydraulically operated multi disc wet brakes on all wheels. Two independent circuits: one for the front and one for the rear axle. Service brakes also function as an emergency and parking brake. Brake system performance complies with requirements of EN ISO 3450, AS2958.1 and SABS 1589.
Neutral brake, brake activates after 3sec in neutral gear
Automatic brake activation system, ABA
Electrically driven emergency brake release pump
Brake pedal valve foot operated pedal, fully modulated
Brake oil tank capacity 100l

Main components	
Alternator	24 V, 150 A
Batteries	2 × 12V, 950 CCA
Starter	24 V, 7 kW
Driving lights	Halogen lights: 4 pcs in the front of the unit 2 pcs in the rear of the unit
Working lights	Halogen lights: 2 pcs in the front frame, towards the rear
Parking, brake and indicator (blinkers) lights	LED lights: 2 pcs in the front of the unit 2 pcs in the rear of the unit
Cameras	Reverse and front camera
Control system	5,7 ” LCD color display, 3 modules, inbuilt system diagnostics
Reverse alarm	

Fire safety
Portable fire extinguisher, 2 × 6 kg
Hot side - cold side design
Isolation of combustibles and ignition sources
Heat insulation on exhaust manifold, turbo, and isolated exhaust pipe

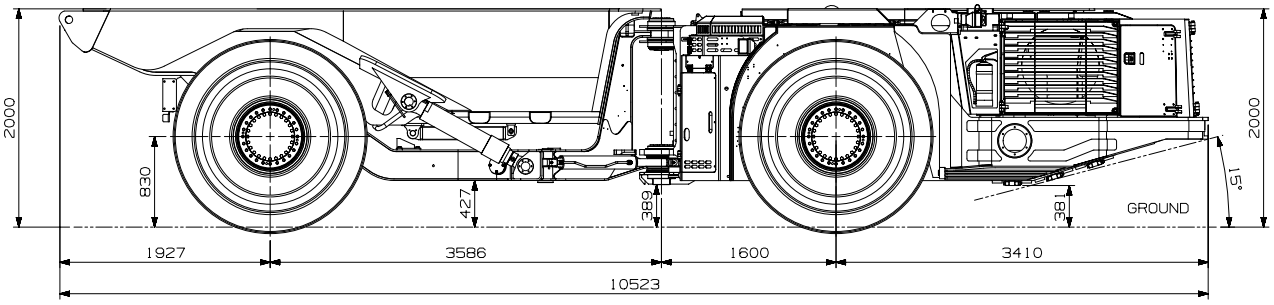
Energy isolation
Lockable main switch, ground level access
Emergency stop push buttons according to EN ISO 13850
Pressure release in the radiator cap
Automatic discharge for pressure accumulators (brake system and pilot circuit)
Frame articulation locking device
Mechanical dump box locking device
Wheel chocks and brackets

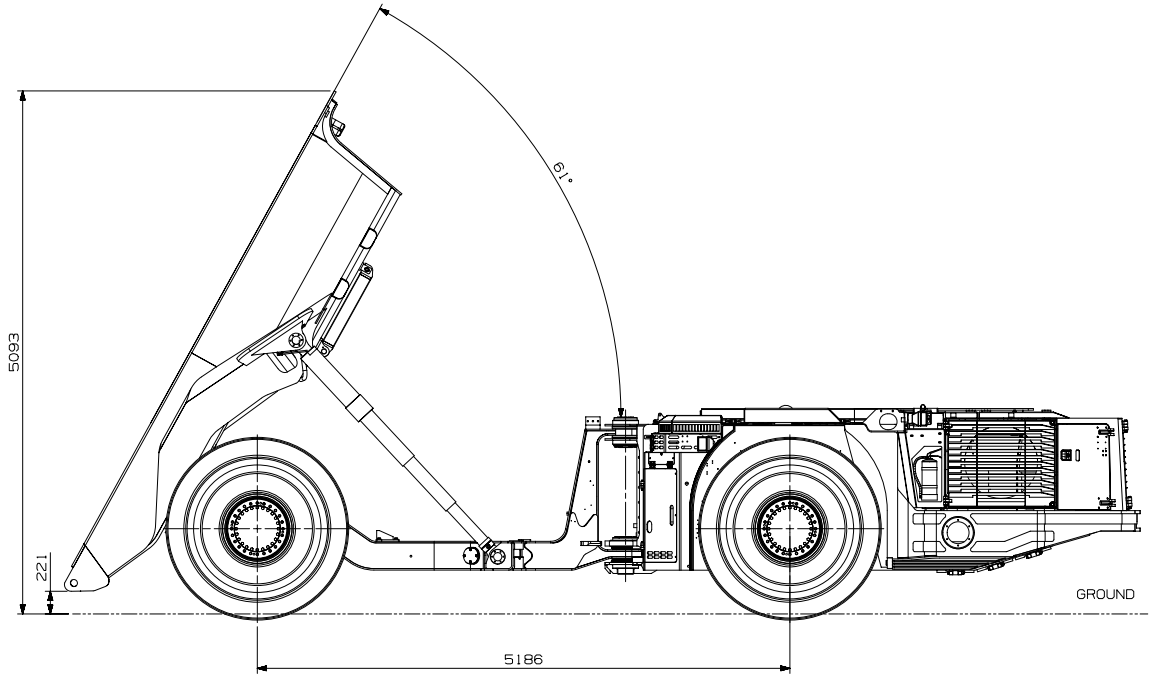
Standard manuals	
Operator’s Manual	English
Maintenance Manual	English
Parts Manual	English
Service and Repair Manual	English
ToolMan	2 × USB stick in PDF format, includes all manuals
Decals	English

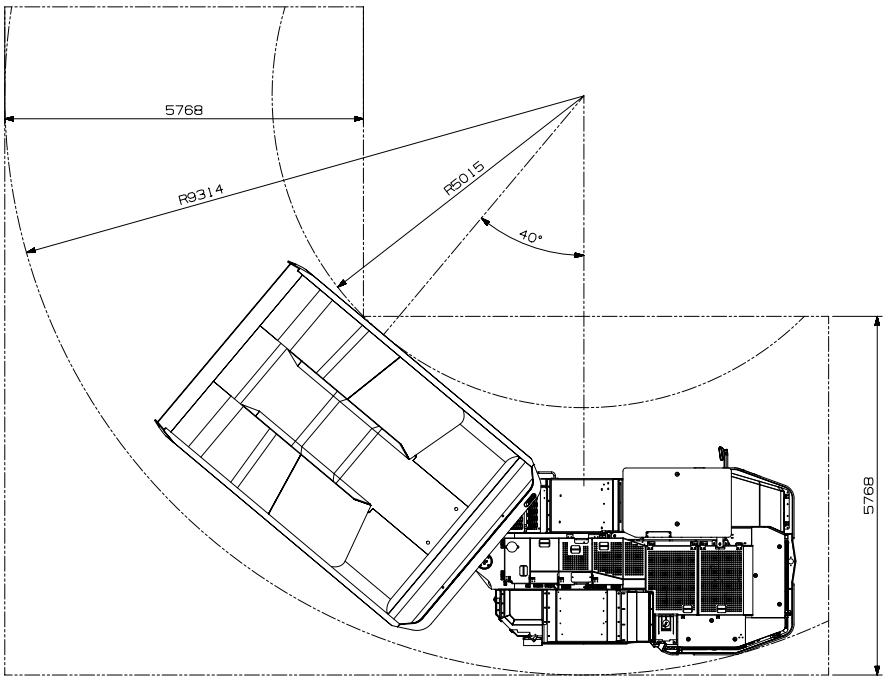
Options
ANSUL Twin Fire suppression system
Control system toolkit
Cover grills for lamps
Driving direction lights (red / green)
Integrated weighing system
Proximity Detection System Interface
Spare rim 22.00-25/3.0 (for tyres 26.5R25)
Tyre pressue monitoring system

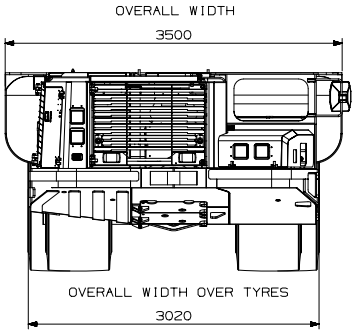
Grade performance									
Volvo TAD1342VE, Tier 2									
Empty									
Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	20.0
Ratio					1:12	1:10	1:8	1:7	1:5
1st gear (km/h)	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5	6.4
2nd gear (km(h)	11.8	11.7	11.7	11.6	11.5	11.5	11.4	11.4	11.2
3rd gear (km/h)	20.6	20.5	20.3	20.1	19.9	19.7	17.5	16.1	
4th gear (km/h)	36.9	36.3	35.7	30.2	25.5				
Loaded									
Percent grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	20.0
Ratio					1:12	1:10	1:8	1:7	1:5
1st gear (km/h)	6.6	6.5	6.5	6.5	6.4	6.4	6.3	6.3	5.9
2nd gear (km(h)	11.7	11.6	11.5	11.3	11.2	10.3	9.0	8.1	
3rd gear (km/h)	20.4	20.0	18.8	15.4					
4th gear (km/h)	36.0	27.7							

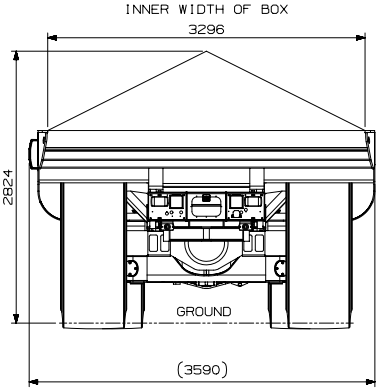
Dimensions


2000
830
427
389
38
2000
15°
GROUND
1927
3586
1600
3410
10523


61°
5093
221
GROUND
5186


5768
R9314
R6015
40°
5768


OVERALL WIDTH
3500
OVERALL WIDTH OVER TYRES
3020


INNER WIDTH OF BOX
3296
2824
GROUND
(3590)

rocktechnology.sandvik

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