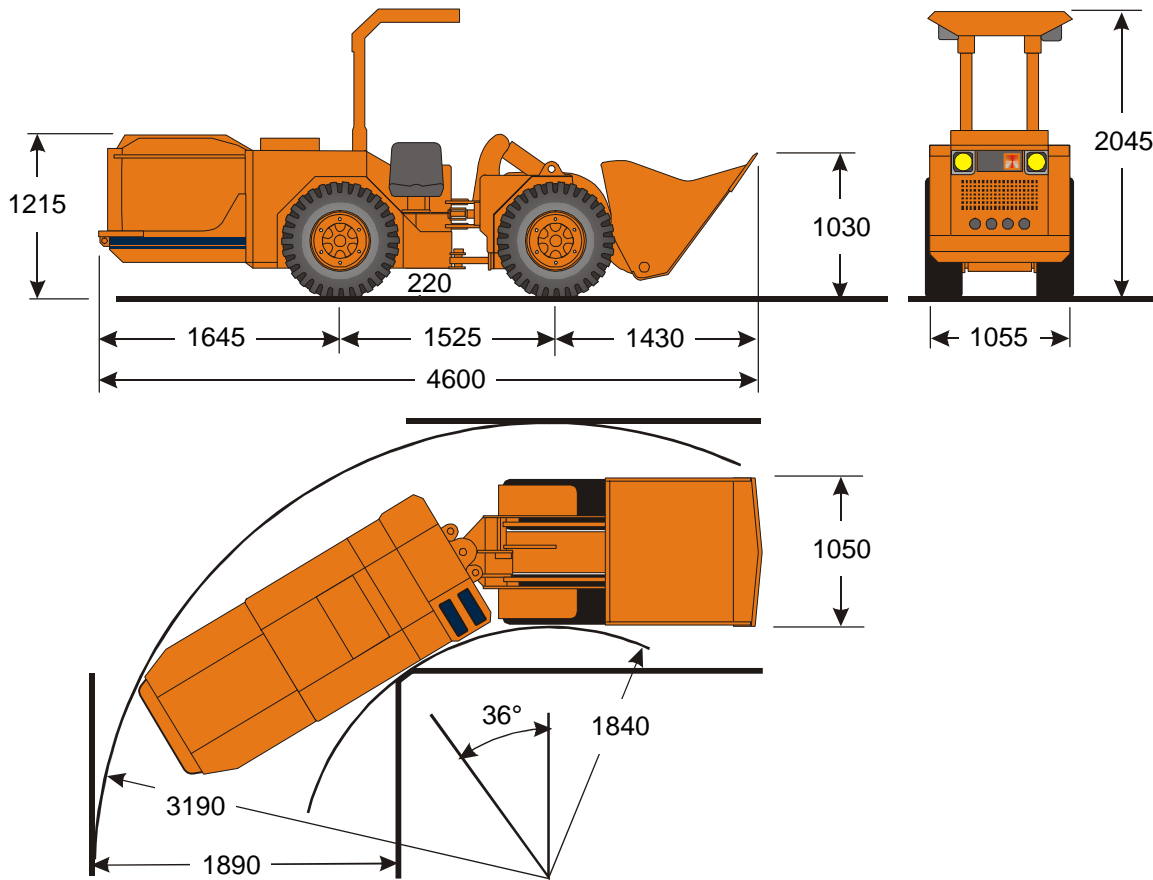


MICROSCOOP 100D



APPLICATION

The Microscoop 100D is a true compact and flexible full Diesel loader for narrow vein mining.

The highest possible rate of productivity is ensured by fast and easy one pass loading.

The M100D layout is designed for good visibility and balance.

This and the powerful four-wheel-drive articulated chassis ensure fast and safe manoeuvring in tight spaces.

All the service points are well protected but easy to access.

CAPACITIES

| | |
|----------------------|---|
| Tramming capacity | 1 000 kg (2 200 lb) |
| Breakout force, lftt | 10.7 kN - 1 094 kg (2 407 lb) |
| Breakout force, tilt | 36.9 kN - 3 766 kg (8 285 lb) |
| Tipping load | 2 941 kg (6 470 lb) |
| Bucket std. | 0.54 m ³ (0.7 yd ³), 500 BNH lip |

BUCKET MOTION TIMES

| | |
|---------------|----------|
| Raising time | 2.6 sec. |
| Lowering time | 1.5 sec. |
| Tipping time | 4.1 sec. |

WEIGHTS

| | |
|---|----------------------|
| Operating weight | 3 650 kg (8 030 lb) |
| Total loaded weight | 4 650 kg (10 230 lb) |
| Shipping weight | |
| Axle weights without load | |
| Front axle | 1 300 kg (2 860 lb) |
| Rear axle | 1 900 kg (4 180 lb) |
| Axle weights with load | |
| Front axle | 2 800 kg (6 160 lb) |
| Rear axle | 1 400 kg (3 080 lb) |
| Unit weight is dependent on the selected options. | |

DRIVING SPEEDS FORWARD AND REVERSE

| | |
|-------------|------------------|
| Loaded, max | 9 km/h (5.6 mph) |
|-------------|------------------|

MICROSCOOP 100D

SERVICE CAPACITIES

| | |
|-----------------------------------|-----------------------|
| Fuel tank | 40 liters (10.5 gal.) |
| Hydraulic oil tank | 62 liters (16.4 gal.) |
| Hydrostatic transmission oil tank | 31 liters (8.2 gal.) |

FRAME

| | |
|----------------------|-------------------------------------|
| Rear and front frame | Welded steel construction |
| Material | E 36.3 |
| Central hinge | Spherical bearings (large angle) |

ENGINE

| | |
|----------------------|------------------------------|
| Diesel engine | Deutz F3L 912W |
| Output | 33 kW (45 hp) / 2 500 rpm |
| Torque | 170 Nm / 1 500 rpm |
| Number of cylinder | In line 3 |
| Displacement | 2 827 cm ³ |
| Cooling system | Air cooled |
| Combustion principle | 4-stroke, 2-stage combustion |
| Electric system | 12 V starter and accessories |
| Air filtering | Oil bath air cleaner |
| Exhaust system | Catalytic purifier |

TRANSMISSION

| | |
|--------------------------|--|
| Hydrostatic transmission | Variable flow fully reversible |
| One pump | Linde, variable displacement 0 to 42 cm ³ /rev |
| One motor | Linde, fixed 35 cm ³ /rev |

TRANSFER CASE

| | |
|----------|-----------|
| Type | Gear |
| Location | Rear axle |

AXLES

| | |
|---------------------------|---|
| Front and rear | Tamrock, fixed No-spin in front axle |
| Central hinge oscillation | ± 10° |

WHEELS

| | |
|------------------------------|-------------------|
| Tires | 8.25 x 15 |
| Air pressure, front and rear | 3.5 bar (350 kPa) |

BRAKES

Dynamic service brake through the hydrostatic transmission.

The parking and emergency brake is spring applied, hydraulically released multidisc oil immersed brakes inclosed on the rear axle.

STEERING

Full hydraulic, centre-point articulation, power steering with two double acting cylinders. Steering controlled by stick, interlock protection.

| | |
|----------------|---|
| Turning angle | ± 36° |
| Turning radius | inner 1840 mm (72") outer 3190 mm (125") |

Main components in steering system:

| | |
|------------------------------|----------------------------------|
| Main valve | HPI |
| Control valve | Danfoss |
| Steering hydraulic cylinders | 2 pcs, 60 mm (2.36"), Tamrock |

Pressure settings:

| | |
|-------------------|--------------------|
| Main relief valve | 14.0 Mpa (170 bar) |
| Shock load valves | 17.5 Mpa (175 bar) |

BUCKET HYDRAULICS

Full hydraulic open center system with one gear pump. The oil flow from steering hydraulic pump is directed to bucket hydraulics when steering is not used.

Equipped with mechanical dual control lever.

| | |
|---------------|-----------------------|
| Lift cylinder | 1 pcs, ø100 mm (3.9") |
| Tilt cylinder | 1 pcs, ø120 mm (4.7") |

Pressure setting for:

| | |
|-------------------|--------------------|
| Main relief valve | 14.0 Mpa (140 bar) |
| Bucket tilt | 6.0 Mpa (60 bar) |
| Bucket roll-back | 18.0 Mpa (180 bar) |
| Boom raise | 18.0 Mpa (180 bar) |
| Boom lower | 6.0 Mpa (60 bar) |

Main components:

| | |
|----------------------------|-----------------------|
| Bucket hydraulic cylinders | Tamrock |
| Control valve | Commercial hydraulics |
| Fittings | JIC |

ELECTRICAL EQUIPMENT

| | |
|----------------------------|--|
| Alternator | 45 A, Bosch |
| Battery | 1 x 12 V, 95 Ah |
| Starter | 1.7 kW, 12 V |
| Driving and working lights | font, 2 pcs (H1 55 W) rear, 2 pcs (H1 55 W) |

OPTIONAL EQUIPMENT

*) Bucket size 0.5 m³ (0.7 yd³), width 950 mm (37").

FOPS-ROPS safety canopy.

Reverse alarm.

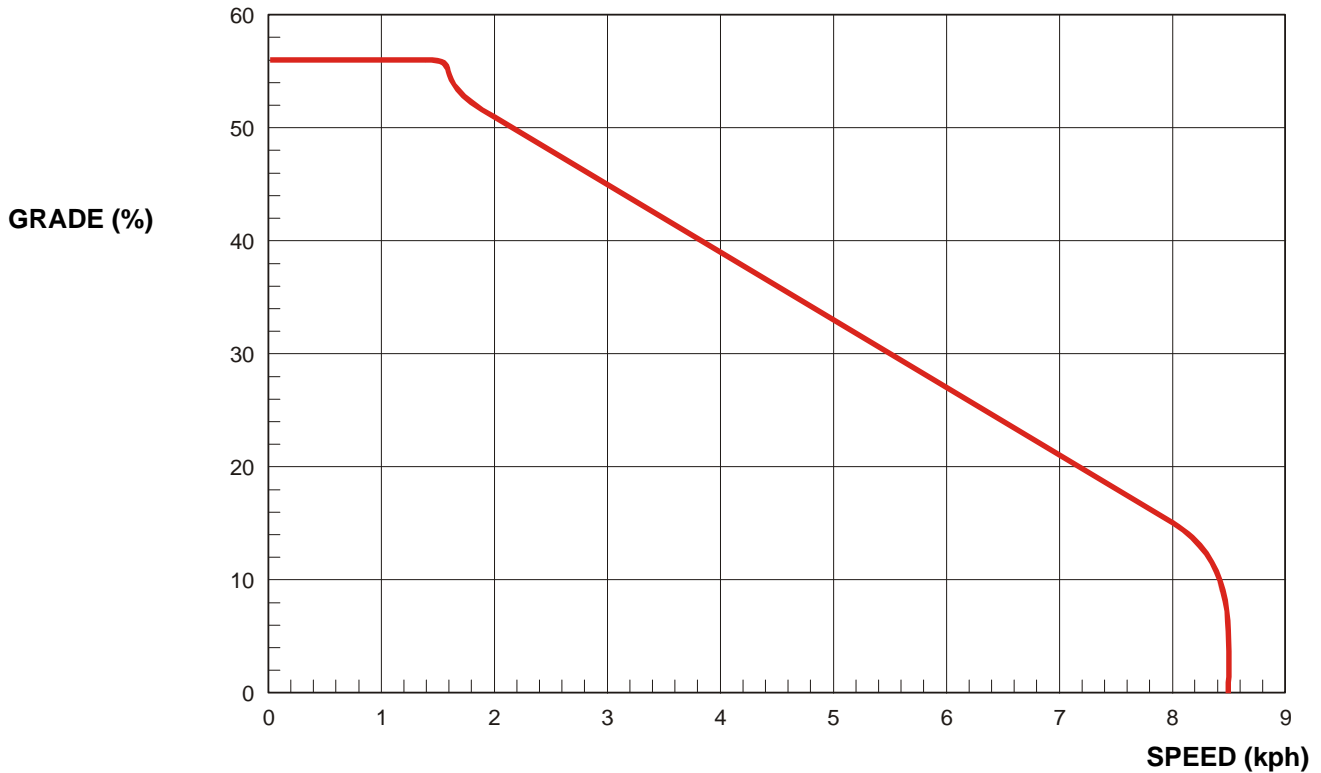
Emergency steering system.

Complete spare wheel.

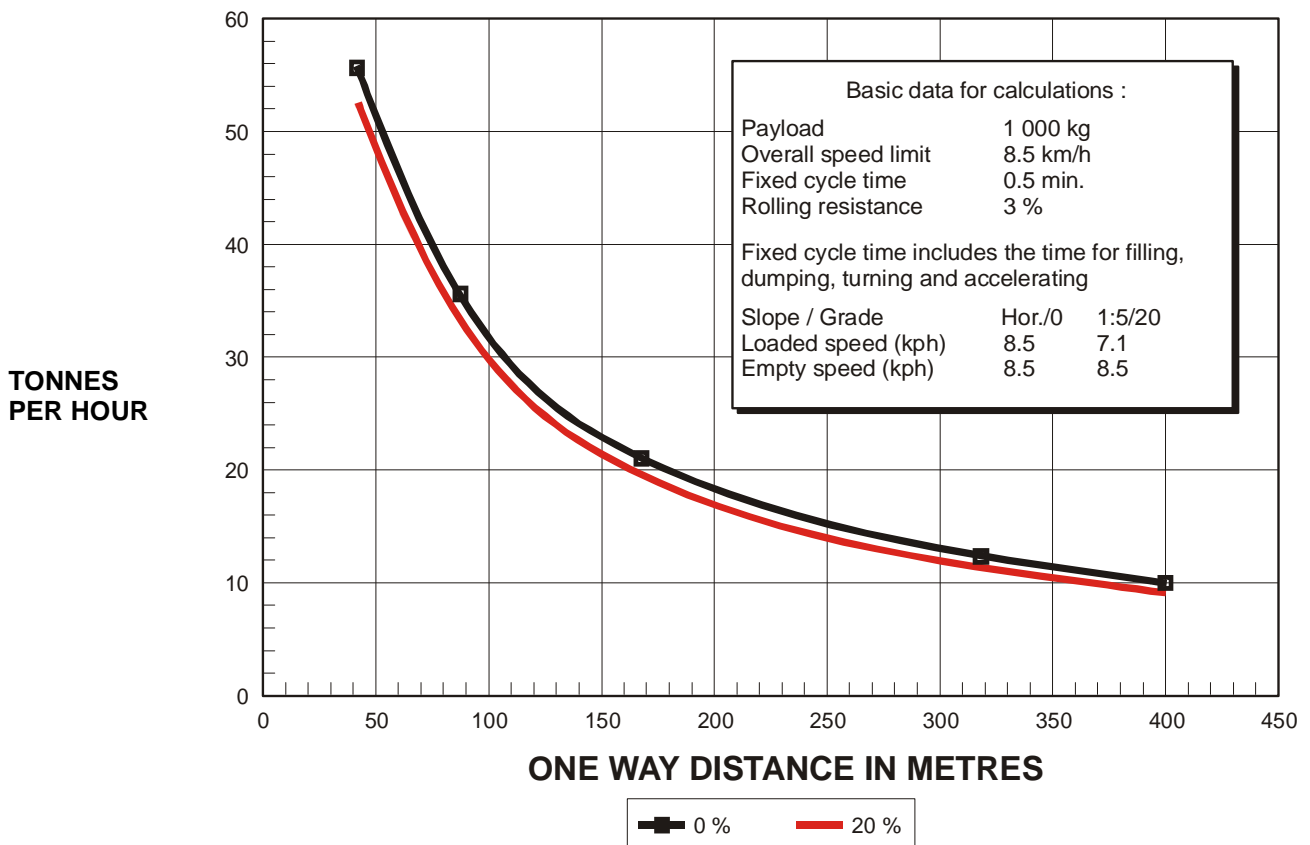
*) EU, UL, CSA, AUS norms package.

*) replaces standard component

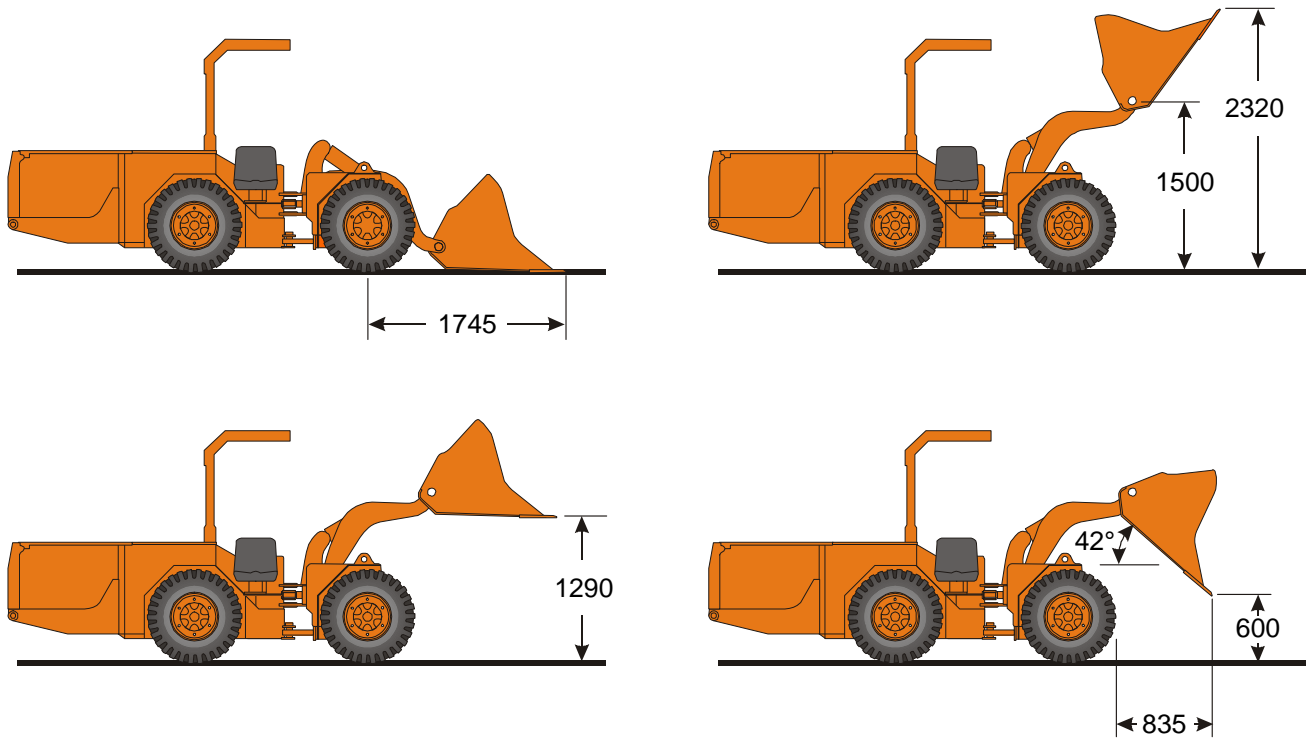
GRADEABILITY & SPEED



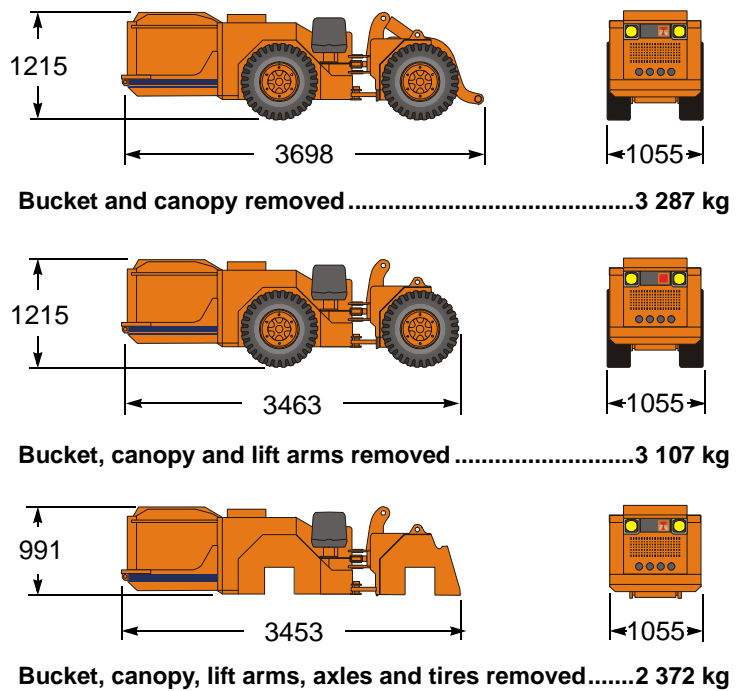
PRODUCTIVITY CURVE



DUMP DATA



CAGING DIMENSIONS



Sandvik Mining and Construction reserves the right to change this specification without further notice.