

Naclean Mine-Mate



TM3 TRANSMIXER

The use of sprayed concrete in underground mines requires reliable equipment to ensure the final product is of high quality and is applied in an efficient manner. The Mine-Mate™ TM-3 Transmixer is an integral part of the wet shotcrete process and provides a high capacity, high speed transport of shotcrete/concrete in a fit for purpose package.

Features

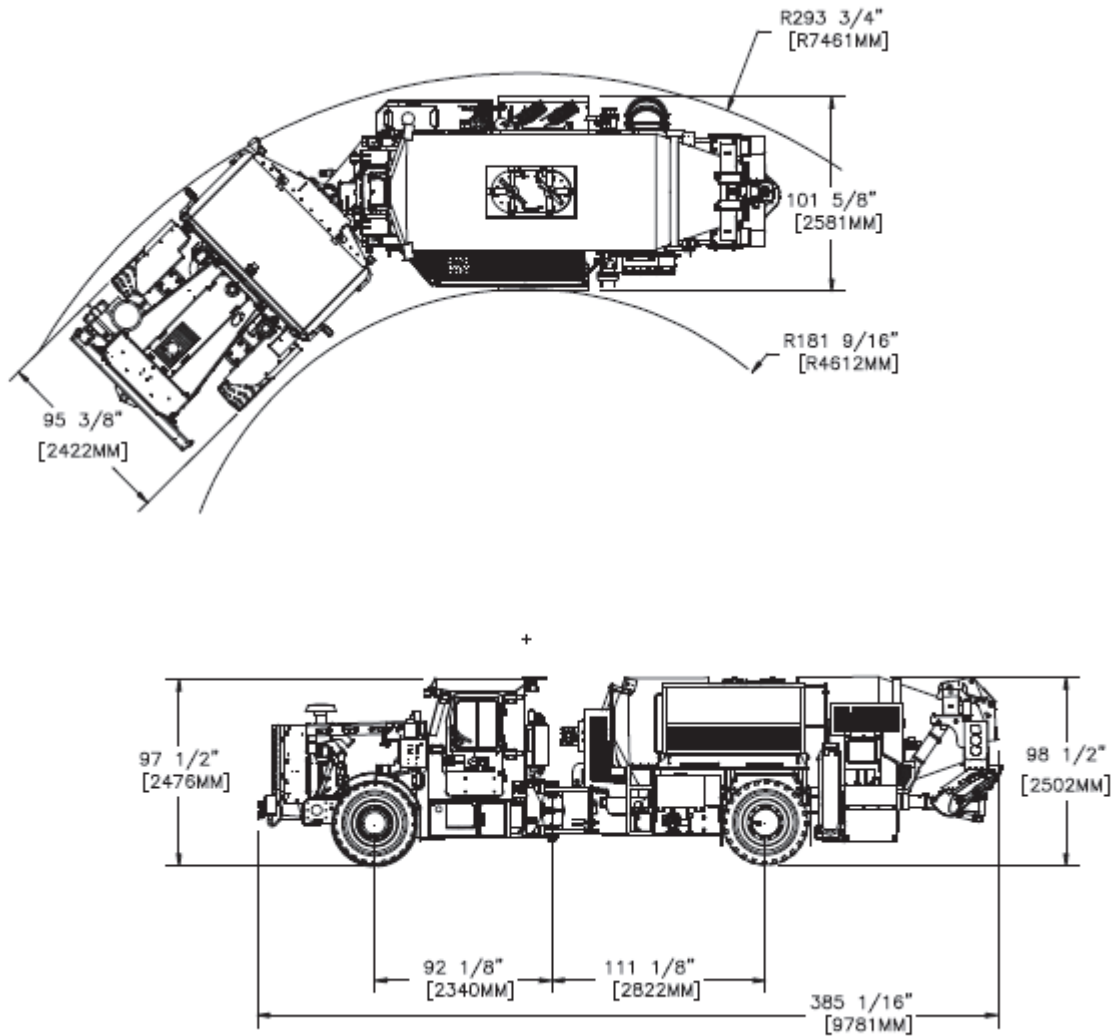
- Up to 7.8 cubic yards (6.0 m³) concrete payload
- Low profile drum
- Drum tilt option with 19" (0.5 m) vertical travel
- Exterior mounted, proportionally controlled discharge door
- Stabilizing / lift jacks
- Heavy duty frame construction
- Auxiliary support systems
- Clean high powered, electronically controlled engines
- Reliable, proven power train components
- Four wheel drive, articulated steer carrier
- Canopy and enclosed cab option

Benefits

- External hydraulically actuated discharge door is operator friendly and reduces damage to door opening mechanism
- Large oval charging port provides operator flexibility and convenience with setups
- Drum tilt option allows transmixer discharge to interface to a wide range of shotcrete hopper heights
- Axles and tires are sized for extreme load conditions
- Clean burning, fuel-efficient engine minimizes harmful emissions
- Low cost, dependable mine supply vehicle
- Ease of maintenance with electronic engine diagnostics, accessible fuel filling and grease points
- Superior traction due to four wheel drive and Powershift transmission

Applications

- Bulk transport of wet shotcrete/concrete for ground support or construction applications
- Transportation between surface and underground levels via internal ramp network



Configuration - TM-3 with 6.0 m³ concrete capacity drum

Note: Configuration is shown with optional equipment included.

Weights and Dimensions

Empty vehicle weight – 18,150 kg approx.

Load capacity – 13,800 kg

Gross Vehicle Weight – 31,950 kg approx.

Width – 2422 mm

Length – 9781 mm

Tramming height – 2502 mm

Wheelbase – 5162 mm

+/- 40 degrees steering angle

Inside turning radius – 5.03 m

Outside turning radius – 7.57 m



Speed Range

Loaded on 0% grade

- 1st gear on flat – 1.9 mph (3 km/h)
- 2nd gear on flat – 4.4 mph (7 km/h)
- 3rd gear on flat – 6.8 mph (11 km/h)

Empty on 15% grade

- 138-156 hp (103-116 kW) – 5.6 mph (9.3 km/h)
- 201-213 hp (150-158 kW) – 7.3 mph (11.7 km/h)

Power End Standard Equipment

Mercedes 906 engine upgrade:

- Rated 201 hp (150 kW) at 2300 rpm – MSHA certified Tier 3
- 6 cylinder – Electronically controlled
- Mesabi radiator and cooling package
- Exhaust Brake and convertor lockup

Dana Clark 32000 series Powershift transmission;

- 3 speeds forward and reverse
- Electric shift control

Dana / Clark-Hurth 113 and 114 axles;

- Internal wet disk brakes – hyd apply
- Internal SAHR emergency/park brakes
- Limited slip differential
- Outboard planetary gears
- +/- 10 degrees oscillation on 113 power end axle
- Fixed mounting on 114 application end axle
- Max Load capacity – 15,000 kg -113
- Max Load capacity - 20,000 kg -114

Brake system;

- Independent front/rear hydraulically operated service brakes
- Spring applied, hydraulic released emergency/park brakes
- Automatic Brake Application (ABA) with manual reset

Wheels and Tires;

- 12.00 x 20 tire size
- solid, lugged thread design

Driver and passenger compartments;

- Side entry away from articulation joint
- Driver's position – Center seated facing outward
- Passenger position – Side seated facing forward
- Deluxe suspension seats with seat belts for driver and passenger
- Stick steering controls
- Anti-slip dimple plate on all step surfaces

Frames;

- Heavy duty plate construction with modular tear down capability
- 40 degrees steering angle with dual steering cylinders
- Grouped grease fittings for articulation joint, steering pins and oscillating axle
- Heavy duty front and rear bumpers with towing capability
- Articulation lock bar
- Wheel chock holders

Hydraulic system;

- Closed center hydraulic circuit
- 30 gpm (110 L/min) piston pump
- 3000 psi (200 bar) system pressure
- 25 US gal (95 L) hydraulic tank
- 10 micron return filter

Electrical system;

- 24 Volt with master disconnect with lock out feature
- 95 amp / 24 volt alternator
- 800 CCA batteries
- 500 amp fuse starter protection
- Re-settable circuit breakers
- 4 LED headlights forward and 4 reverse
- 2 LED worklights forward and 2 reverse
- Back-up alarm
- Strobe light
- Stainless steel enclosures

Exhaust system;

- Purifier and muffler assembly
- Insulation blankets on exposed components
- Emission test port

Application End Standard Equipment

Remixer:

- 7.2 cubic yards (5.5 m³) @ 100% fill
- 5.9 cubic yards (4.5 m³) concrete capacity
- Large 42" x 23" (1.1 m x 0.6 m) charge port
- Hydraulically actuated discharge door with direct proportional control
- Catwalk with pivoting handrail
- Drum controls located at driver's station and at rear of vehicle

Optional Equipment & Features

Mercedes 904 liquid cooled diesel engine:

- Rated 147 hp (110 kW) at 2300 rpm – MSHA certified Tier 3
- 4 cylinder – Electronically controlled
- Turbo charged / Air to air charge cooled
- Mesabi radiator and cooling package
- 40 US gal (150 L) diesel tank

- Exhaust blankets and shielding

Certified ROPS & FOPS open canopy

Certified ROPS & FOPS enclosed cabin;

- Heating and AC systems
- Pressurized air and sound suppression
- Windshield wiper and washer systems

Fire suppression, Checkfire, hand held extinguisher

Auto lube system

Spanish Labels and Manuals

French Labels and Manuals

Air Ride Seat –Driver

Air Ride Seat – Passenger

3rd Gear Lock out

Air Power Pack with emergency discharge

Choice of tires with spares:

- Pneumatics, solids and filled
- Aircraft retreads
- 45 x 16 - 20 36 PR foam fill
- 14.00 x 24 - 28 Ply pneumatics

Choice of drum size:

- (100% fill volume/Maximum concrete capacity):
- 8.0/6.5 cubic yards or 6.1/5.0 m³ upgrade
 - 8.8/7.2 cubic yards or 6.7/5.5 m³ upgrade
 - 9.5/7.8 cubic yards or 7.3/6.0 m³ upgrade

Drum tilt with 19" (0.5 m) vertical travel to provide up to 6 degrees of pivot

Discharge collector and chute system

Hard wired remote control for drum and chute controls

30" (0.76 m) stroke stabilizer jacks on drum side

16" (0.41 m) or 30" (0.76 m) stroke stabilizer jacks on engine side

Brake inter-locking for stabilizer jacks

Accelerator tank and transfer pump

Form oil spray system with hose reel and nozzle

Power washer system with hose reel and wand

10 hp (7 kW) Pneumatic/Hydraulic power pack for emergency payload discharge

20 hp (15 kW) Electric/Hydraulic power pack for operation with shotcrete sprayer, electrical power to be supplied from sprayer

Back-up camera and monitor

*The manufacturer reserves the right to change the specifications or design of this machine at any time without notification.