MONTANA Department of Transportation

MDT-BRG-015 04/23

Montana Department of Transportation
Bridge Bureau
Approved Construction Equipment List

mdtacel@mt.gov

Make: Astec/Roadtec

Model: SB-3000 with empty surge bin

Equipment Type: material transfer vehicle

Contractor Modifications: see requested weight

Interstate Approval Conditions

Approval Type	**crossing only**
Speed:	**no restriction**
Weight:	**77,200 lb or less**
Traffic:	**approved with regular traffic**
Location Restrictions:	**no restriction**

Non-Interstate Approval Conditions

Approval Type	**denied**
Speed:	**denied**
Weight:	**denied**
Traffic:	**denied**
Location Restrictions:	**denied**

Comments:

Equipment configuration, weights, and specifications on following pages. Approval does not apply to load posted bridges. Other construction equipment is not allowed to operate on or cross bridge at the same time this equipment is on the bridge.

From:
Sent:
To:
Subject:
Attachments:

We are requesting that the attached equipment can be considered for inclusion to the ACEL list . Please consider both interstate and non-interstate condi ons for both full and empty condi ons. Please note that in the attached documenta on, the wheel track width is labeled as transport width.

Attached are the dimensional drawing and spec sheet for the SB-3000.
The table below provides the ground pressure data from empty to loaded at 25 tons in 5 ton increments.

SB-3000	TONS	0	5	10	15	20	25
Total weight	(lb)	77,190	87,190	97,190	107,190	117,190	127,190
Axle Load (Front)	(lb)	39,900	44,300	48,600	53,000	57,300	61,700
Tire Contact Area (Front)	(in^2)	266	291	316	340	363	386
Ground Pressure per Tire (Front)	(psi)	75	76	77	78	79	80
Axle Load (Rear)	(lb)	37,300	42,900	48,600	54,200	59,900	65,500
Tire Contact Area (Rear)	(in^2)	249	282	316	347	379	409
Ground Pressure per Tire (Rear)	(psi)	75	76	77	78	79	80
Ground Pressure per Tire (Front)	(LBs/Ft^2)	10,800	10,944	11,088	11,232	11,376	11,520
Ground Pressure per Tire (Rear)	(LBs/Ft^2)	10,800	10,944	11,088	11,232	11,376	11,520

SB-3000

Shuttle Buggy® Material Transfer Vehicle



Engine
- Stage V, Cummins® B6.7 310hp @ 2,000 rpm

Cooling System
- Quiet operation, dual, variable speed hydraulically driven fans

Weights
- 77,190lb

Construction
- Stability without unnecessary weight
- Replaceable wear plate in all high wear areas

Electrical System
- Two 4D batteries
- 24v system with master disconnect switches.
- Electric-over-hydraulic solenoids with manual override

Propel System
- Hydrostatic drive with continuously variable speed control with two speed ranges to all wheels
- Optional rear steer

Speed
- Working: 0-3.0 mph
- Travel: 0-10 mph

Brake System
- Hydrodynamic multi-disc brake pack

Tires
- 21" wide x 35" interior diameter high-flotation tires

Operator Stations
- Two operator stations (left & right side) with deluxe adjustable seats
- Operator stations can rotate 90-degrees out past the edge of the machine for visibility
- Bridge platform allows safe crossing of paving line

Ground Controls
- Tool holders
- (2) front dump hopper control boxes
- Patent pending ground operator stations with seats

Fume Extraction System
- Clearview FXS® system to draw fumes away from operator
- Fixed stack needs no intervention for shipping

Truck Dump Hopper
- Front hopper has swivel support casters. Vibrating floor plate. 9' wide truck opening
- Adjustable width option available
- Hydraulic adjustable oscillating push rollers
- Hydraulic front hopper baffle adjustable for optimal material flow
- 26" o.d. cast, ni-hard, segmented auger

Dump Hopper Unloading Conveyor (C1)

- Drag conveyor with 1,000 tph (907 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors lined with replaceable AR 500 wear plates
- High wear chrome carbide wear plate upgrade

Surge Bin and Remixing Auger

- 25 tons (22.7 mat) storage capacity
- 26" o.d. cast, ni-hard, variable triple pitch augers
- Drag conveyor with 600 tph (544 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors lined with replaceable AR 500 wear plates
- High wear chrome carbide wear plate upgrade

Paver Loading Conveyor (C3)

- Drag conveyor with 600 tph (544 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors made of AR 500
- High wear chrome carbide floor upgrade
- Insulated conveyor floor
- Controls interlock with surge bin unloading conveyor
- Conveyor can be positioned up to 14' 3" to either side of center
- Conveyor guard rails

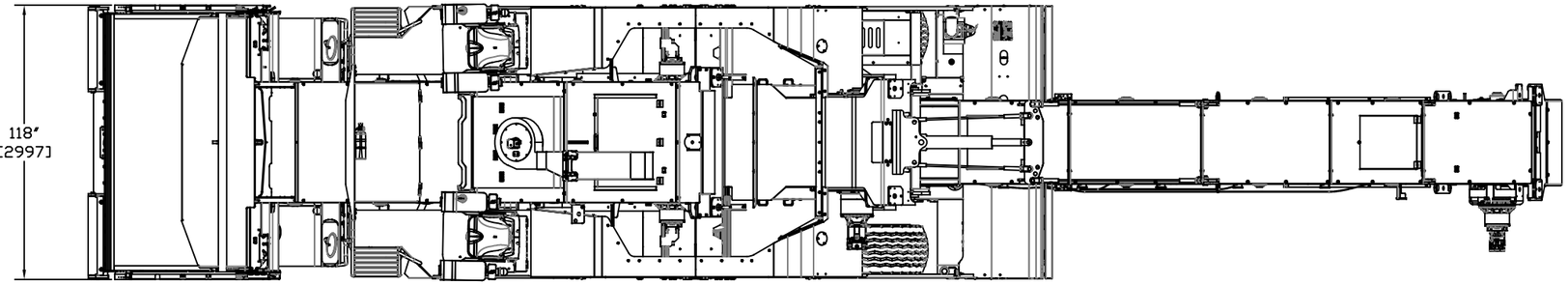
Service Capabilities

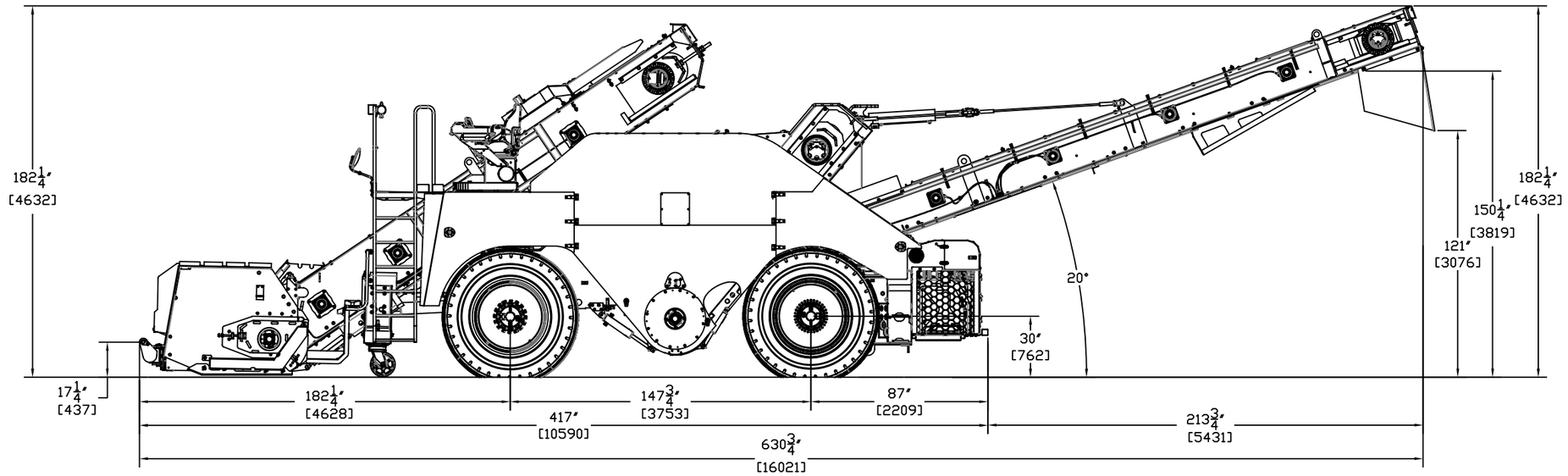
- Fuel Tank - 140 gal
- Hydraulic Fluid Tank - 92 gal
- DEF - 15 gal

Physical and Operating Characteristics

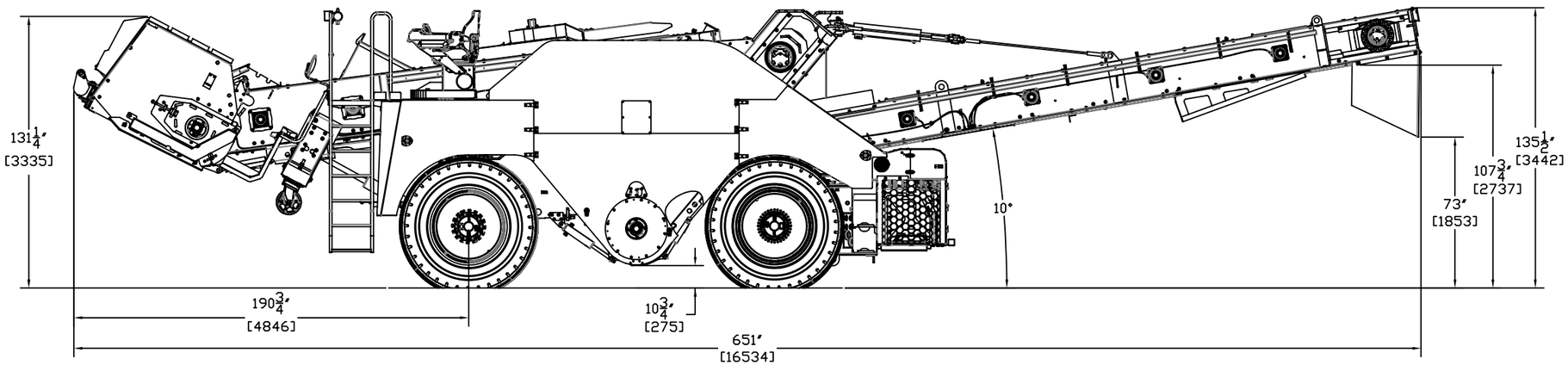
Dimension	Standard	Metric
Engine MFG	Cummins	
Model	Stage V QSB 6.7	
Max Power	310 hp @ 2,000 rpm	231 kW@ 2,000rpm
Number of Cylinders	6	
Electrical System	24v	
Shipping Weight	77,190lb	35,012kg
Operating Length	54' 4"	16.561m
Shipping Width	9' 9"	2.971m
Shipping Height	11' 3"	3.429m
Wheelbase	12' 4"	3.759m
Hydraulic Tank Capacity	92 gal	303 ltr
Fuel Tank Capacity	140 gal	454 ltr
DEF	15 gal	57 ltr
Truck Dump Hopper Width	9' 2"	2,794mm
Dump Hopper Transverse Auger (C1)	26"	660mm
Dump Hopper Unloading Conveyor Capacity	1,000 tph	907 mtph
Surge Bin Storage Capacity	25 tons	22.7 mt
Surge Bin Conveyor Capacity	600 tph	244 mtph
Remixing Augers	26" Triple Pitch	660mm Triple Pitch
Paver Loading Conveyor (C3)	600 tph	544 mtph
Working Speed	0-3 mph	0-4.8 kph
Travel Speed	0-10 mph	0-16 kph
Steering	Single Joystick	
Suspension	21" x 35" High-Flotation Tires	533 x 889mm High-Flotation Tires

Note: Consult factory for exact dimensions, specifications are subject to change without notice.

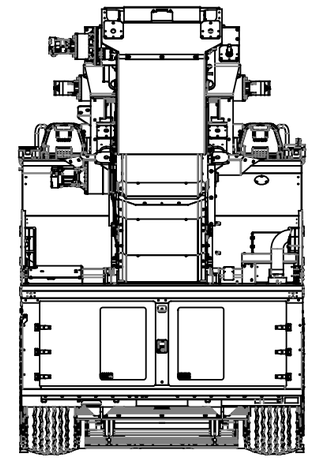


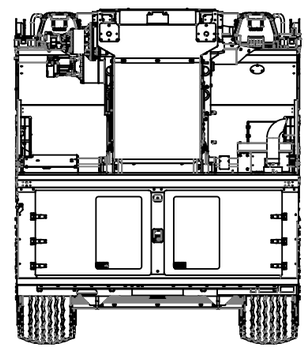


WORKING MODE



TRAVEL MODE





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UNLESS OTHERWISE SPECIFIED, USE A PRE-DRILL SIZE APPROPRIATE FOR THE MAT'L THICKNESS AND TAP STYLE THAT YIELDS 65% TO 75% THREAD ENGAGEMENT.

THREAD CLASS UNLESS OTHERWISE SPECIFIED:
UN THREAD
EXTERNAL 2A
INTERNAL 2B
METRIC THREAD
EXTERNAL 6g
INTERNAL 6H

DIMENSIONS ARE IN INCHES UNLESS NOTED.
TOLERANCES UNLESS NOTED
FRACTIONAL DIMEN ± 1/16″
BEND ANGLE: ± 1/2°
DECIMAL XXX ± .02″
DECIMAL XXXX ± .0005″
MACHINED ANGLE: ± .5°
MACHINED SURFACE: 125

SEE 235094-02 FOR STANDARD ROADTEC BOLT TORQUES. ANY TORQUE INSTRUCTIONS SHOWN ON THIS DRAWING SUPERSEDES 235094-02.

ROADTEC
800 Manufacturers Rd, Chattanooga, TN 37405 | 800-272-7100 | www.roadtec.com

PART NAME:
SB-3000 TRAVEL & WORKING DIMENSIONS

DRAWN BY	TOTAL WEIGHT (LBS)	SHEET NO	FAB CODE
Rick Hoffmann	76,700#(34.8MG)	1 OF 1	BANDS

SCALE	DATE	DWG. NO.	REV
1:32	2020-04-06	SB-3000	