

## Montana Department of Transportation Bridge Bureau Approved Construction Equipment List

<b>Make:</b>	Bomag
<b>Model:</b>	BM 2000 / 60-2
<b>Equipment Type:</b>	Milling Machine
<b>Contractor Modifications:</b>	Knife River max weight 66,800 lb

### Interstate Approval Conditions

<i>Approval Type</i>	Crossing Only
<i>Speed:</i>	No restriction
<i>Weight:</i>	66,800 lb or less
<i>Traffic:</i>	Approved with regular traffic
<i>Location Restrictions:</i>	No restriction

### Non-Interstate Approval Conditions

<i>Approval Type</i>	Denied
<i>Speed:</i>	Denied
<i>Weight:</i>	Denied
<i>Traffic:</i>	Denied
<i>Location Restrictions:</i>	Denied

**Comments:**

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

Note: This approval is not for the maximum operating weight of the Bomag BM 2000/60-2. It is only for a max weight of 66,800 lb.

# SUBMITTAL

 <b>KNIFE RIVER</b> AN MDU RESOURCES COMPANY
Billings Division PO Box 80066, Billings MT 59108

To: James Stevenson
Owner: MDT
E-Mail: <a href="mailto:jstevenson@mt.gov">jstevenson@mt.gov</a>

Job name: <b>Mossmain</b>
Contract No. <b>05422</b>
KRY Job No. 28221021

From: Van Hildreth
E-Mail: <a href="mailto:van.hildreth@kniferiver.com">van.hildreth@kniferiver.com</a>

DATE: <u>03/31/23</u>	SUBMITTAL NUMBER: <u>S-041</u>
	Total pages INCLUDING this sheet <u>3</u>
SUBJECT: <u>ACEL Request - Bomag BM2000 Milling Machine</u>	
SPEC: _____	

<b>SUBMITTAL FORWARDED:</b>
Please find attached information for ACEL approval. NOTE: this machine is similar to Cat PM620 and PM622 currently on ACEL.

<b>REPLY FROM ENGINEER:</b>	Date: <span style="background-color: yellow;"> </span>	
No Exceptions Taken: <input type="checkbox"/>	Rejected: <input type="checkbox"/>	Resubmittal Not Required: <input type="checkbox"/>
Make Corrections Noted: <input type="checkbox"/>	Comments Attached: <input type="checkbox"/>	Resubmit in Entirety: <input type="checkbox"/>
Revision Needed: <input type="checkbox"/>		Revise & Resubmit Noted Items: <input type="checkbox"/>
		Submit Specified Items: <input type="checkbox"/>
This review is for general conformance with design concept only. Any deviation from plans or specifications not clearly noted by the Contractor has not been reviewed. Review by the engineer shall not serve to relieve the Contractor of the contractual responsibility for any error or deviation from the contract requirements.	<u>MDT</u>	Architect, Designer, or Engineer

## **Bomag BM 2000-60 – Milling Machine**

### ACEL request

- Equipment manufacturer's product specifications - **Attached**
- Detailed equipment dimensions and data
  - Vehicle width **98.4in (8.5')**
  - Vehicle length **Conveyor extended: 586.6in (48.9')**, **Conveyor folded: 472.4in (39.4')**
  - Number of axles **Track assembly front and rear, each assembly has 2 "axles"**
  - Track or wheel dimensions **Track Height: 25.8in, Track length: 66.9in, Pad width: 11.8in**
  - Track or wheel spacing (width) **Outside to outside: 73.6in (6.1')**
  - Track or wheel gage spacing (centerline to centerline of wheel lines)
    - **Center front assembly to Center rear assembly: 185.8 in (15.5')**
    - **1<sup>st</sup> to 2<sup>nd</sup> axle: 3.8', 2<sup>nd</sup> to 3<sup>rd</sup>: 11.7', 3<sup>rd</sup> to 4<sup>th</sup>: 3.8'**
  - **Gross vehicle weight rating Operating Weight: 66,800 lbs**
  - Hauling capacity (weight) **Does not haul**
- Maximum operating speed **3.1 MPH**
- Potential dynamic or vibratory effects of vehicle during operation (note that some vehicle attributes may preclude inclusion onto the ACEL) **None**
- Information on any equipment modifications for your vehicle (note that some modifications may preclude inclusion onto the ACEL) **None**
- Contractor's contact information for ACEL analysis-related correspondence or follow-up information. **Van Hildreth, Knife River, [van.hildreth@kniferiver.com](mailto:van.hildreth@kniferiver.com) 406.672.0954**

# Specifications

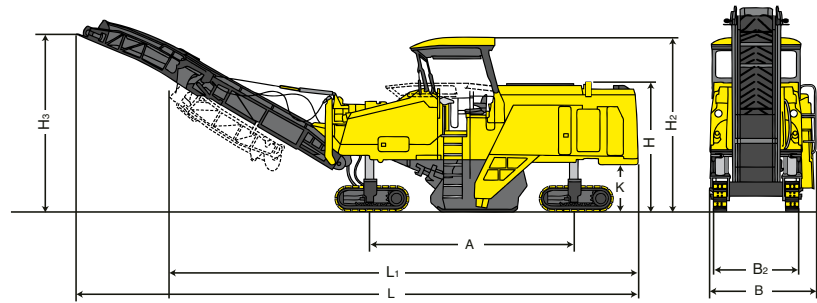
**SHIPPING DIMENSIONS IN INCHES (MM) L X W X H**  
 BM 2000/60-2 472 x 98 x 117 (12000 x 2500 x 2960)

## STANDARD EQUIPMENT

- Four-track steering front or/and rear, crabwalk
- Automatic maximum load control
- Differential lock
- Automatic milling depth control "INTELPLANER"
- 2 INTELPLANER Displays
- Slope control with slope sensor
- Hydraulically foldable conveyor belt
- Display of RPM
- Display of engine oil pressure and temperature
- Display of operating hours
- Display of diesel level
- Display of hydraulic oil temperature
- Display of hydraulic system pressures ground control panels
- Sound insulated engine hood
- 10 removable headlights
- Adjustable water spraying system
- Tool box for servicing and maintenance
- Back-up warning alarm
- Rotary beacon

## OPTIONAL EQUIPMENT

- Hydraulically foldable canopy with windscreens
- Hydraulically driven water pump for refilling
- High pressure wash system
- Electrical diesel pump for fuel refilling
- Compressed air system
- Milling width 86.7 in (2200 mm)



## Dimensions in inches (mm)

	A	B	B2	H	H2	H3	K	L	L1
<b>BM 2000/60-2</b>	185.8 (4720)	98.4 (2500)	73.6 (1870)	116.5 (2960)	157.1 (3990)	177.2 (4500)	44.1 (1120)	586.6 (14900)	472.4 (12000)

## Technical data

### Milling drum

Milling width	inches (mm)
Milling depth	inches (mm)
Milling line distance	inches (mm)
Cutting circle diameter	inches (mm)
Number of cutting teeth	
Output per cutting tooth	Hp (kW)
Speed	rpm

### Engine

Manufacturer / Type	
Cooling	
Cylinder number	
Performance J 1349	Hp (kW)
Speed	rpm
Fuel type	
Voltage	V

### Weights

Max. operating weight w/full fuel tank	lbs (kg)
Operating weight	lbs (kg)
Basic weight	lbs (kg)

### Drive features

Transport speed	mph (kmph)
Working speed	fpm (m/min)
Inside turning radius	ft (m)

### Chassis

Type of chassis	
Width	in (mm)
Height	in (mm)
Length	in (mm)

### Filling capacities

Fuel	gal (l)
Water	gal (l)
Hydraulic oil	gal (l)

### Loading system

Width of gathering belt	in (mm)
Length of gathering belt	in (mm)
Width of loader conveyor belt	in (mm)
Length of loader conveyor belt	in (mm)

### Transport dimensions

Belt lowered, length	in (mm)
Belt lowered, width	in (mm)
Belt lowered, height	in (mm)
Belt folded, length	in (mm)

## BM 2000/60-2

Milling width	78.7 (2000)
Milling depth	0-12.6 (0-320)
Milling line distance	.6 (15)
Cutting circle diameter	42.1 (1070)
Number of cutting teeth	168
Output per cutting tooth	3.5 (2.62)
Speed	108

Manufacturer / Type	Deutz / TCD2015
Cooling	Liquid
Cylinder number	8
Performance J 1349	590 (440)
Speed	1900
Fuel type	Diesel
Voltage	24

Max. operating weight w/full fuel tank	71650 (32500)
Operating weight	66800 (30300)
Basic weight	61950 (28100)

Transport speed	0-3.1 (0-5)
Working speed	0-131.2 (0-40)
Inside turning radius	7 (2.1)

Type of chassis	Track drive
Width	11.8 (300)
Height	25.2 (640)
Length	66.9 (1700)

Fuel	317 (1200)
Water	924.6 (3500)
Hydraulic oil	61 (230)

Width of gathering belt	31.5 (800)
Length of gathering belt	94.5 (2400)
Width of loader conveyor belt	31.5 (800)
Length of loader conveyor belt	299.2 (7600)

Belt lowered, length	586.6 (14900)
Belt lowered, width	98.4 (2500)
Belt lowered, height	116.5 (2960)
Belt folded, length	472.4 (12000)

We reserve the right to make technical changes. Machines may be illustrated with optional accessories.

**BOMAG AMERICAS, INC.**  
 125 Blue Granite Parkway  
 Ridgeway, SC 29130