ALLEN CONCRETE PAVERS™

MODEL 4836B
BRIDGE DECK FINISHER

OPERATIONS AND PARTS MANUAL

050362

REV 1 - July 2009

allen® ENGINEERING CORPORATION

SPECIFICATIONS

STANDARD UNIT

- All welded steel construction
- Crown changes at any hinge point or travel rail.
- Machine automatically moves forward (0 to 12 Inches) at the end of each carriage pass.
- Machine Width.....36 Ft - (10.97 M) Can be extended to 90 Ft (27.43 M)
- Leg Span..... Max 33.4 Ft (10.18M) Min 15.0 Ft (4.57 M)
- Finishing Width ..... Max 31.3 Ft (9.54 M) Min 12 Ft (3.66 M)
- Legs ..... 4 Inch, Heavy duty
- Bogie Assembly (2 Wheels per Bogie) ..... 3 Ft Wheel Center to Wheel Center (0.914 M)
- Power Unit .....Kohler Gasoline 27 HP

PAVING CARRIAGE

- Pivotable mounting to allow for skewed decks.
- Independently adjustable augers.
- Four foot long dual rollers.
- Independent roller rotation with automatic roller reversing or non-roller reversing.
- Automatic cushioned paving carriage travel reversal.
- Adjustable Drag Pan and Texturing Drag
- Roller Tamper Vibration System
- Power Unit .....Kohler Gasoline 27 HP

OPTIONAL ACCESSORIES

- Extension Inserts - 18 Ft (5.49 M), 15 Ft (4.57 M), 12 Ft (3.65 M), 6 Ft (1.83 M), and 3 Ft (0.91 M)
- Power Crown Adjustment
- Four Wheel Transport
- Adjustable Towing Tongue
- Skew Bar Kit
- Swing Out Legs
- Roller Tamper Vibration System
- Auxillary Internal Vibrator
- Carriage Lift
- 6-Wheel Bogie System
- Bogie Wheel Selection
- Automatic Grade Control

SERIAL NUMBER LOCATION

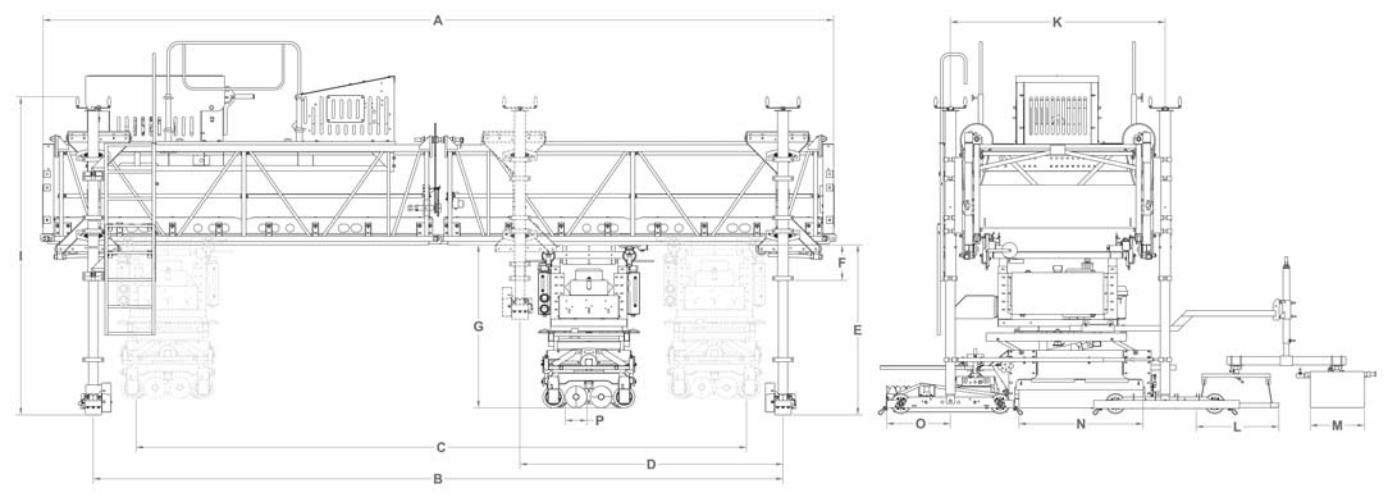
Always provide the Serial Number assigned to your machine when ordering parts or when requesting service or information. The Serial Number is stamped on Serial Plates and are located on the Power Unit and the Paving Carriage. We suggest that you write the serial number and other information below:

MODEL:_____

SERIAL NUMBER:_____

PRODUCTION YEAR:_____

SPECIFICATIONS (cont'd)



KEY	DESCRIPTION	MEASUREMENT	
A	Overall Machine Length	36 Ft 6 In	11.12 M
B	Leg Span - Independently Adjustable Jack Mounts	33 Ft 3 In	10.15 M
C	Finishing Width	31 Ft 4 In	9.55 M
D	Maximum Leg Travel -Independently Adjustable Jack Mounts	15 Ft 3 In	4.66 M
E	Maximum Frame Clearance Above Screed Rail	47 In	119.38 Cm
F	Minimum Frame Clearance Above Screed Rail	15 In	38.10 Cm
G	Frame Clearance Above Finished Concrete	36 In	91.44 Cm
H			
I	Height to Top of Leg	103 In	2.62 M
J	Height of framework	36 In	91.44 Cm
K	Leg Center Spacing	67 3/8 In	1.71 M
L	Drag Pan Length	33 In	83.82 Cm
M	Burlap Drag Length	19 In	48.26 Cm
N	Finishing Roller Length	46 In	116.84 Cm
O	Auger Length	32 In	81.28 Cm
P	Auger Diameter	8 In	20.3 Cm

EXAMPLE					
DEAD LOADS	**TOTAL WEIGHT (LBS)**		**IDLER END (LBS PER WHEEL)**		**POWER UNIT END (LBS PER WHEEL)**
BASIC MACHINE WEIGHT	4376	/8	547		547
EXTRA INSERTS	1016	/8	127		127
MACHINE ACCESSORIES	480	/8	60		60
MACHINE TRANSFER WEIGHT		-	175	+	175
LIVE LOADS					
BASIC CARRIAGE WEIGHT	2130	/4	533		533
CARRIAGE ACCESSORIES	900	/4	225		225
OPERATOR WEIGHT	200	/4	50		50
TOTAL WEIGHTS	9102 (LBS)		1367 (LBS PER WHEEL)		1717 (LBS PER WHEEL)

YOUR MACHINE					
DEAD LOADS	**TOTAL WEIGHT (LBS)**		**IDLER END (LBS PER WHEEL)**		**POWER UNIT END (LBS PER WHEEL)**
BASIC MACHINE WEIGHT		/8			
EXTRA INSERTS		/8			
MACHINE ACCESSORIES		/8			
MACHINE TRANSFER WEIGHT		-		+	
LIVE LOADS					
BASIC CARRIAGE WEIGHT		/4			
CARRIAGE ACCESSORIES		/4			
OPERATOR WEIGHT		/4			
TOTAL WEIGHTS	(LBS)		(LBS PER WHEEL)		(LBS PER WHEEL)

MACHINE WEIGHTS (cont'd)

MACHINE WEIGHTS - All Weights are Approximate.
Weight of Basic Unit Assembled at Factory (Does not include Weight of Paving Carriage or Machine Accessories) All weights are approximate.

- Two (2) 12 Ft Insert Sections with leg rail .....4376 lbs (1985 Kg)
- Two (2) 12 Ft Insert Sections & Two (2) 6 Ft Insert Sections with leg rail .....5240 lbs (2377 Kg)
- Three (3) 12 Ft Insert Sections with leg rail .....5305 lbs (2406 Kg)
- Two (2) 15 Ft Insert Sections with leg rail .....4640 lbs (2105 Kg)
- Two (2) 15 Ft Insert Sections & One (1) 6 Ft Insert Section with leg rail .....5072 lbs (2301 Kg)
- Two (2) 18 Ft Insert Sections with leg rail .....4950 lbs (2245 Kg)

The Basic Weight of your machine is _____lbs, assembled from _____ sections at the factory. Write the basic weight of your machine into the Total Weight column on Page 2. Divide the Total Weight by 8 (the number of machine wheels) to get the weight per wheel on the Idler End and the Power Unit End of the machine.

Example: 4376 lbs TOTAL WEIGHT / 8 = 547 lbs. Write the weight per wheel of your machine in the Idler End and Power Unit End columns on Page 2.

Weight of Machine Insert Sections (Includes braces, carriage travel chain and hydraulic hose)

- 3 Ft Section ..... With Leg Rail = 292 lbs (132 Kg)
- 3 Ft Section ..... Without Leg Rail = 278 lbs (126 Kg)
- 4 Ft Section ..... With Leg Rail = 363 lbs (164 Kg)
- 4 Ft Section ..... Without Leg Rail = 325 lbs (147 Kg)
- 6 Ft Section ..... With Leg Rail = 432 lbs (196 Kg)
- 6 Ft Section ..... Without Leg Rail = 384 lbs (174 Kg)
- 12 Ft Section ..... With Leg Rail = 736 lbs (334 Kg)
- 12 Ft Section .....Without Leg Rail = 620 lbs (281 Kg)
- 15 Ft Section ..... With Leg Rail = 868 lbs (394 Kg)
- 15 Ft Section .....Without Leg Rail = 732 lbs (332 Kg)
- 18 Ft Section ..... With Leg Rail = 1023 lbs (464 Kg)
- 18 Ft Section .....Without Leg Rail = 889 lbs (403 Kg)

Determine the number of each length and type of insert section that are going to be added to the basic machine. Add the weights of those sections to get the total weight of extra sections. Example: (2) 3 Ft Insert with rail 292 lbs + (1) 6 Ft Insert with rail 432 lbs = 1016 lbs. Write this weight in the Total Weight column. Divide the total weight of the extra inserts by the number of wheels (8) to determine weight per wheel on the Idler End and the Power Unit End of the machine.

Example 1016 lbs / 8 = 127 lbs PER WHEEL. Weight of Machine Accessories (These weights take into consideration any basic machine parts that the accessory replaced). Unfortunately, not all accessory weights are currently available. If your accessory is not included in the list below, contact the Bidwell Service Department.

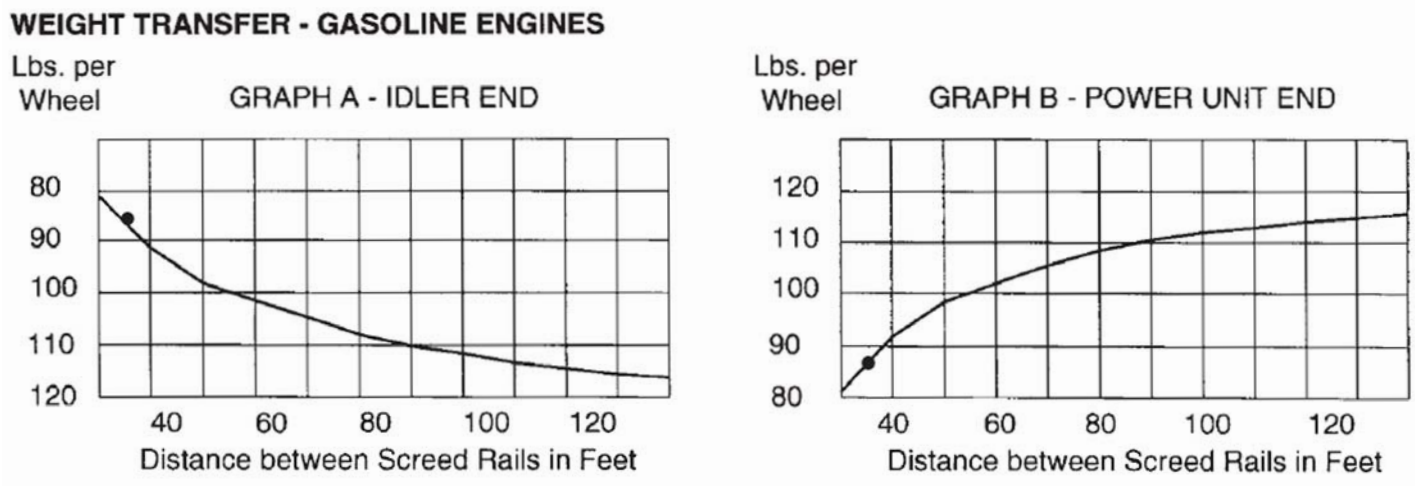
- 4 Inch Swing Legs (2 Ends - Set of 4) ..... 480 lbs (218 Kg)
- Power Crown Adjuster less 65 lbs Manual Crown ..... 410 lbs (186 Kg)
- Towing Tongue ..... 97 lbs (44 Kg)
- Power Widening (1 End of Machine) ..... 100 lbs (45 Kg)

* Six Wheel Bogie System ..... 840 lbs (381 Kg)

Determine the number of accessories being added to the basic machine. Add the additional weights of those accessories. Example: Swing Legs = 480 lbs. Write this weight in the Total Weight column. Divide the total weight of the extra inserts by the number of wheels (8) to determine weight per wheel on the Idler End and the Power Unit End of the machine. Example 480 lbs / 8 = 60 lbs PER WHEEL

Weight Transfer of Power Units with Diesel and Gasoline Engines

The graphs below list the additional weight that the Power Unit adds to the wheel load on the Power Unit End of the machine. Graph A lists the weight to be deducted from the Idler End of the machine and Graph B lists the weight to be added to the Power Unit End of the machine. The total weight of the Power Unit is included in the basic machine weight. The longer the total length of the machine, the more the Power Unit weight is transferred to the Power Unit End of the machine and away from the Idler End of the machine. Consult the appropriate graph and determine the wheel loads for the idler end and the power end of the machine. Write the wheel loads of your machine into the weight per wheel columns.



Live Loads for 4836 Machines

The Paving Carriage, accessories and the operator are considered live loads because they move from one end of the machine to the other. Therefore, it is necessary to figure that the entire weight of these live loads will be carried by only one end of the machine at a time. The Basic Weight of the standard Paving Carriage is listed below.

• 4836 Paving Carriage with Dual Rollers (Gasoline Engine with full Fuel Tank) ...1860 lbs (844 Kg)

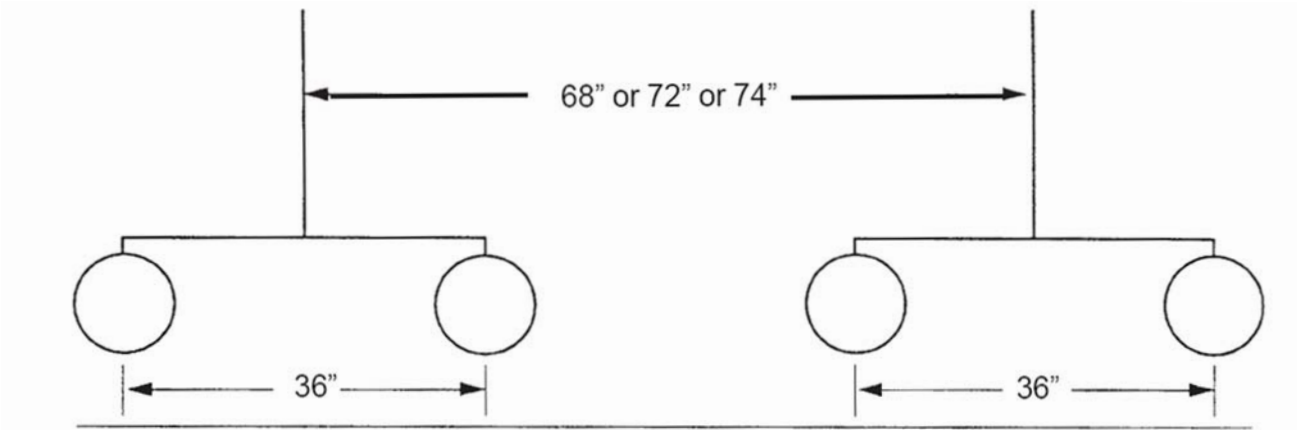
The weight Per Wheel is the Basic Weight Assembled at Factory divided by the number of wheels at each end of the machine. Write the weight of the basic carriage into the Total Weight column. Divide the total weight by 4 to obtain the weight per wheel on the Idler End and the Power Unit End of the machine. Write the wheel loads of your machine into the weight per wheel columns. Example: 2130 lbs / 4 = 533 lbs PER WHEEL.

Weight of Paving Carriage Accessories (These weights take into consideration any basic carriage parts that the accessory replaced). Unfortunately, not all accessory weights are currently available. If your accessory is not included in the list below, contact the Bidwell Service Department.

- Auxillary Internal Vibrator..... 285 lbs (129 Kg)
- Carriage Spray System (Includes the weight of 50 Gallons of water) ..... 900 lbs (408 Kg)
- Skew Bar Kit ..... 237 lbs (107 Kg)

SECTION 1
INTRODUCTION

Determine the number of accessories being added to the basic carriage. Add the additional weights of those accessories to get the total additional weight of the accessories. Example: Carriage Spray System = 900 lbs. Write this weight into the total weight column. Divide the total weight by 4 to obtain the weight per wheel on the Idler End and the Power Unit End of the machine. Example: 900 lbs / 4 = 225 lbs. Write the wheel loads of your machine into the weight per wheel columns. The weight of 200 lbs has been used as an estimate for a typical operator. If your operator is heavier than 200 lbs, enter the appropriate weight. If other people, other than the operator, are required to be on the machine, their weights should be included. Divide the weight by the number of wheels. Write the wheel loads of your machine into the weight per wheel columns. Example: 200 lbs / 4 = 50 lbs PER WHEEL



THE 4836 IS SUPPORTED BY 8 WHEELS, WITH 4 WHEELS TO EACH SIDE AS SHOWN ABOVE

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