

# the **CLEMENT** **BRIDGER**

*Designed especially for:*  
**-Hazardous Waste -Scrap -Solid Waste**



***Up to 8,000 pounds more legal payload with the Bridger Roll-Off***

## ***Experience***

Clement built the first frameless roll-off trailer in 1965. Years of dependable service have shown that its tried and proven design can stand the test of time. And hundreds of satisfied owners in markets from coast to coast have benefited from the extra profits made possible by Clement's ingenuity.

The forte of the original Clement Roll-Off trailer was minimum tare weight and maximum payloads. Once thought to be ahead of their time, these design exclusives are now necessities for the professional hauler. Federal bridge laws are being rigidly enforced nationwide, a situation that makes high tech, computer-aided construction mandatory to ensure maximum profits for the hauler.

## ***Innovation***

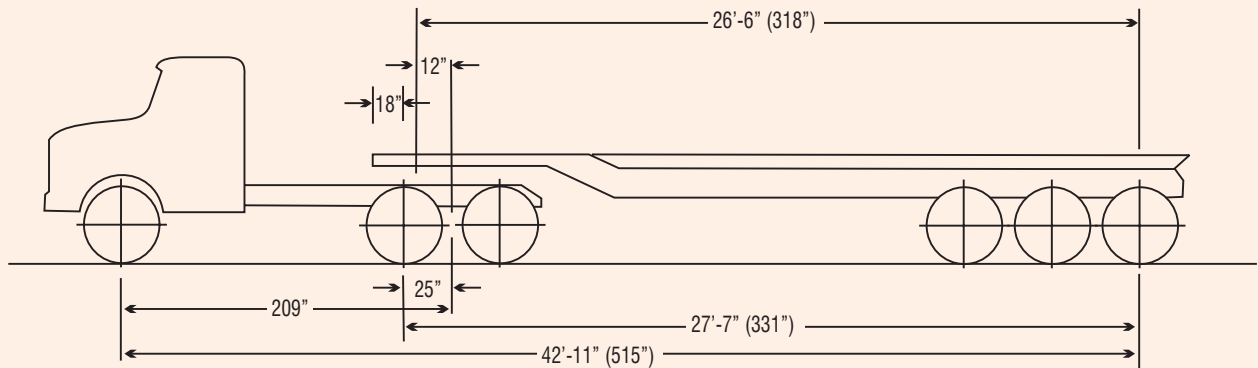
True innovation lies in knowing how to take a superior product and make it the best performer around. And better performance means more dollars in your pocket. Our team of engineers and designers took the popular Clement Long-Haul and adapted it to the nationally successful Clement "Bridger" concept.

The principle is simple. The "Bridger" is a patented sliding tandem that extends both the internal and external bridges. This addition makes it possible to haul dramatically larger payloads legally and with the advantages normally associated with shorter trailers. When the final destination is reached, the sliding process is reversed so that the load can be dumped over the rear tandem as usual.

# Why haul 20.5 tons, when you can haul nearly 25 tons?

**Compare - A 32' frametype tri-axle roll-off with a 209" wheelbase tractor to a 36' tandem Bridger Roll-Off with a 210" wheelbase tractor**

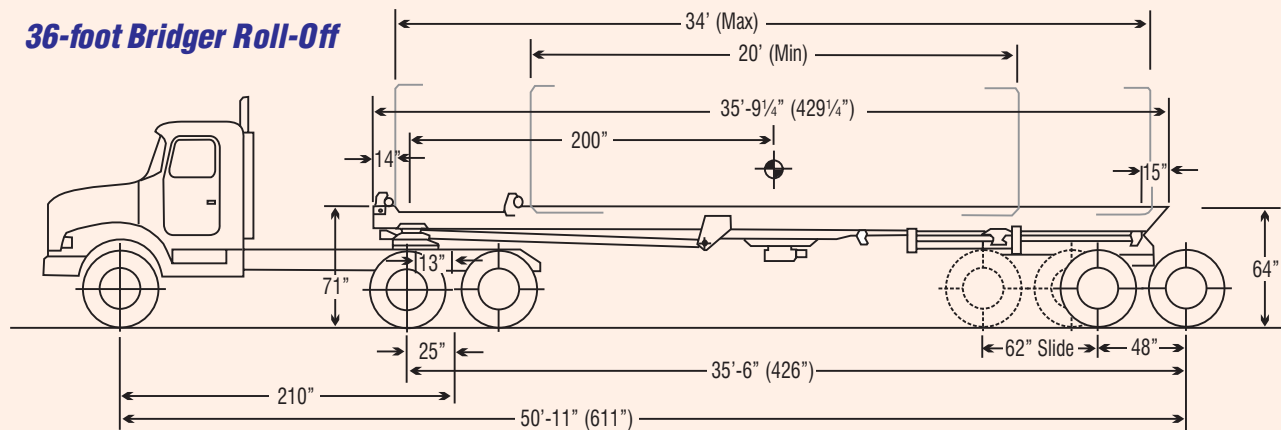
## 32-foot frametype tri-axle roll-off



16,300	8,700	Tractor	7,600		
19,000	384	Trailer	6,316	Trailer	12,300
40,507	1,223	Payload & Container	20,084	Payload & Container	19,200
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75,807	10,307	TOTAL	34,000	TOTAL	31,500
			65,500 Max.		

*Typical inner & outer bridge of a competitive trailer*

## 36-foot Bridger Roll-Off



16,300	8,700	Tractor	7,600		
14,300	676	Trailer	4,324	Trailer	9,300
49,400	2,624	Payload & Container	22,076	Payload & Container	24,700
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80,000	12,000	TOTAL	34,000	TOTAL	34,000

*Above represents minimum inner & outer bridge to qualify for 80,000-lb. gross with tandem trailer.*

# Unloading sequence - the Bridger Roll-Off is simplicity in motion.



**Photo 1**

In the unit's transport position, the "Bridger" extends both internal and external bridges, and thus increases the payload.

**Photo 2**

To begin the unloading process, the driver sets the trailer brakes and moves the trailer backward, positioning the axles correctly for dumping.

**Photo 3**

After locking the tandem, the box can be unloaded, loaded or emptied in a conventional manner.



## Clement's Dead Lift Roll-Off

Featuring large tail rollers, the Dead Lift literally raises the box to the rails thus permitting loading and unloading with a minimum of overhead clearance.

## What the Bridger's 8,000 lbs. of extra payload will mean to your operation.

Below is a table of hypothetical benefits based on 4 extra tons of payload per trip. Insert your own figures to see how the Roll-Off Bridger will benefit your operation.

	Our Example	Insert Your Actual Figures
Revenue per Ton	\$7.84*	
Additional Tons per Trip	4	
Times Trips per Week	15	
Times Weeks per Year	45	
Increased Revenue per Year	<b>\$21,176.00</b>	

\* Revenue per ton is based on a 17-ton payload, hauling 3 loads per day with a revenue of \$400.

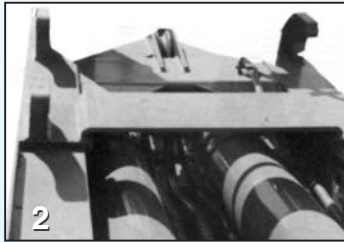
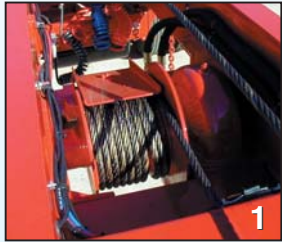
## Federal Bridge Table A

Permissible gross loads for vehicles in regular operation  
Based on weight formula  $W=500 \left( \frac{LN}{N-1} + 12N + 96 \right)$  modified\*

Distance in feet between the extremes of any group of 2 or more consecutive axles	Maximum load in pounds carried on any group of 2 or more consecutive axles**								
	2 axles	3 axles	4 axles	5 axles	6 axles	7 axles	8 axles	9 axles	
4	34,000								
5	34,000								
6	34,000								
7	34,000								
8 and less	34,000	34,000							
More than 8	34,000	42,000							
9	39,000	42,500							
10	40,000	43,500							
11	44,000	44,000							
12	45,000	45,000	50,000						
13	45,500	50,500							
14	46,500	51,500							
15	47,000	52,000							
16	48,000	52,500	58,000						
17	48,500	43,500	58,500						
18	49,500	54,000	59,000						
19	50,000	54,500	60,000						
20	51,000	55,500	60,500	66,000					
21	Example	51,500	56,000	61,000	66,500				
22	52,500	56,500	61,500	67,000					
23	53,000	57,500	62,500	68,000					
24	54,000	58,000	63,000	68,500	74,000				
25	54,500	58,500	63,500	69,000	74,500				
26	55,500	59,500	64,000	69,500	75,000				
27	56,000	60,000	65,000	70,000	75,500				
28	57,000	60,500	65,500	71,000	76,500	82,000			
29	57,500	61,500	66,000	71,500	77,000	82,500			
30	58,500	62,000	66,500	72,000	77,500	83,000			
31	59,000	62,500	67,500	72,500	78,000	83,500			
32	60,000	63,500	68,000	73,000	78,500	84,500	90,000		
33	64,000	64,000	68,500	74,000	79,000	85,000	90,500		
34	64,500	69,000	74,500	80,000	85,500	91,000			
35	65,500	70,000	75,000	80,500	86,000	91,500			
36	66,000	70,500	75,500	81,000	86,500	92,000			
37	Exception	66,500	71,000	76,000	81,500	87,000	93,000		
38	67,500	71,500	77,000	82,000	87,500	93,500			
39	68,000	72,500	77,500	82,500	88,500	94,000			
40	68,500	73,000	78,000	83,500	89,000	94,500			
41	69,500	73,500	78,500	84,000	89,500	95,000			
42	70,000	74,000	79,000	84,500	90,000	95,500			
43	70,500	75,000	80,000	85,000	90,500	96,000			
44	71,500	75,500	80,500	85,500	91,000	96,500			
45	72,000	76,000	81,000	86,000	91,500	97,000			
46	72,500	76,500	81,500	87,000	92,500	98,000			
47	73,500	77,500	82,000	87,500	93,000	98,500			
48	74,000	78,000	83,000	88,500	93,500	99,000			
49	74,500	78,500	83,500	88,500	94,000	99,500			
50	75,500	79,000	84,000	89,000	94,500	100,000			
51	76,000	80,000	84,500	89,500	95,000	100,500			
52	76,500	80,500	85,000	90,500	95,500	101,000			
53	77,500	81,000	86,000	91,000	96,500	102,000			
54	78,000	81,500	86,500	91,500	97,000	102,500			
55	78,500	82,500	87,000	92,000	97,500	103,000			
56	79,500	83,000	87,500	92,500	98,000	103,500			
57	Interstate Gross Weight Limit	80,000	83,500	88,000	93,000	98,500	104,000		
58		84,000	89,000	94,000	99,000	104,500			
59		85,000	89,500	94,500	99,500	105,000			
60		85,500	90,000	95,000	100,500	105,500			

\*The permissible loads are computed to the nearest 500 pounds. The modification consists in limiting the maximum load of any single axle to 20,000 pounds.  
\*\*The following loaded vehicles must not operate over H15-44 bridges: 3-S2 (5 axle) with wheelbase less than 38 feet; 2-S1-2 (5 axle) with wheelbase less than 45 feet; 3-3 (6 axle) with wheelbase less than 45 feet; and 7-, 8-, and 9-axle vehicles regardless of wheelbase.

# Yes, innovation does mean more profit!



### **Cable Reeving System - Cylinder Reeving System**

The grooved drum winch with cable retainer, (photo 1) in combination with a large 11-1/2" sheave at the front, ensures a center line pull on the container at all times.

Optional system: An optional cylinder-style reeving system (photo 2) is available. The disadvantages of this option are the 700 pounds of additional weight it adds to the trailer and about 30% less line pull than the winch.

## **Every Clement Roll-Off incorporates these features:**

### **1. Centipede action**

When your driver finds himself in a muddy or slippery area, he can get extra bonus power from the Roll-Off. Clement's double-acting cylinders allow the driver to alternately shorten and lengthen the wheelbase to get out of low-traction areas. As the trailer goes higher into the air, the trailer is pulled forward and the brakes are locked. As the trailer lowers, the tractor is pushed forward. By repeating this process, the driver can push the tractor and pull the trailer to firm footing.

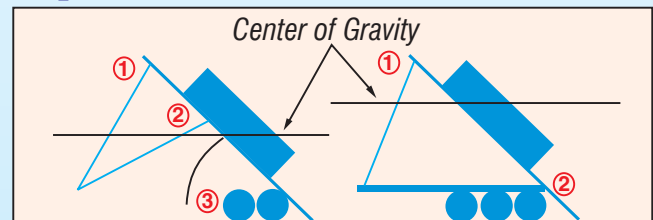
**2. 80,000-lb. lifting, loading and unloading capability** Clement features an 80,000-lb.-capacity winch for handling the tandem on the containers, while most other manufacturers utilize a cylinder reeving system. Why? While it is obvious that other systems can load or unload a container, the name of the game is payload. And Clement's system is hundreds of pounds lighter than our competitors.

### **3. Multiple rollers for proper box support**

Clement utilizes rollers to ensure proper support of various length boxes from 20 feet to 34 feet. They are brass-bushed with grease fittings for superior performance. Various positions are available for locating stop blocks which ensure proper placement of different sized containers.

### **4. Rail Construction**

The rails are 4-inch tubular steel with hi-tensile steel top and bottom straps, and are computer designed for long life.



### **5. Three-point stability**

The Clement Frameless Roll-Off gives you three points of stability: 1) the cylinder, 2) draft arms, and 3) the wide base of the tandem on the ground. Compare this with the two points, 1) cylinder and 2) hinge pin, found in conventional frametype roll-offs. When you're operating in unstable ground conditions such as landfills, Clement's 3-point stability with its low center of gravity makes the difference. This is because the Clement Roll-Off's pivot point starts 2 feet lower than that of the frametype roll-off, therefore its center of gravity stays lower as the trailer is raised into the air.

### **6. Inside/outside roller option**

Provides for maximum flexibility to handle a wide variety of containers. The most versatile roll-off you'll find.

### **7. Control options**

Operations of the Clement Roll-Off can be accomplished with controls in the cab or on the trailer. In-the-cab controls utilize the 5-line wet kit. For maximum utilization of various tractors, controls on the trailer are available.



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