



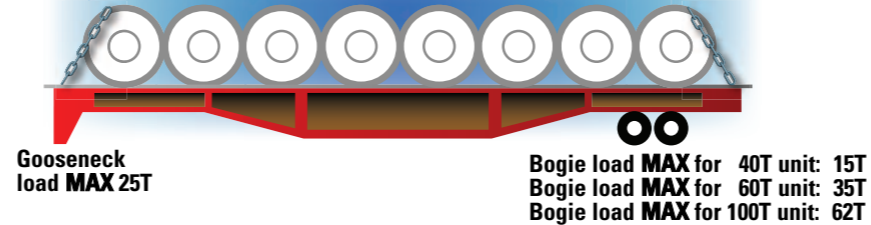
## SAFE LOADING OF LONG ROLL TRAILERS

### ACLU 604, 606 & 610 series

These roll trailers were developed to carry long, self-supporting cargoes. While the long deck length allows you more flexibility, it is prone to bending. Loading on the gooseneck and bogie remains the same. However, extreme caution must be taken to ensure that the deck is not overloaded with concentrated loads. The following examples illustrate right and wrong ways to load a roll trailer.

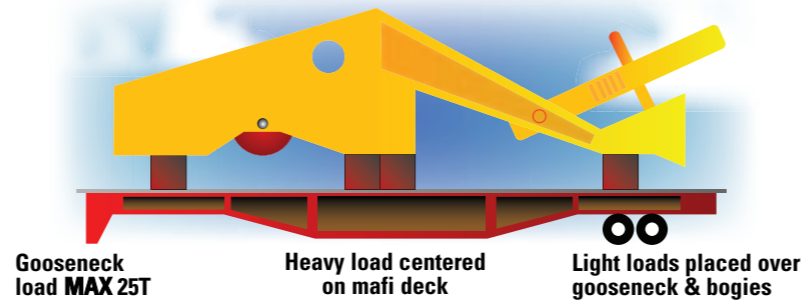
Permissible Loads for Long Mafis  
**ACLU 604 Series: 40T**  
**ACLU 606 Series: 60T**  
**ACLU 610 Series: 87T**

40T cargo load: 660 kg/ft length of mafi  
 60T cargo load: 1000 kg/ft length of mafi  
 87T cargo load: 1450 kg/ft length of mafi



### EXAMPLE 1 ACCEPTABLE

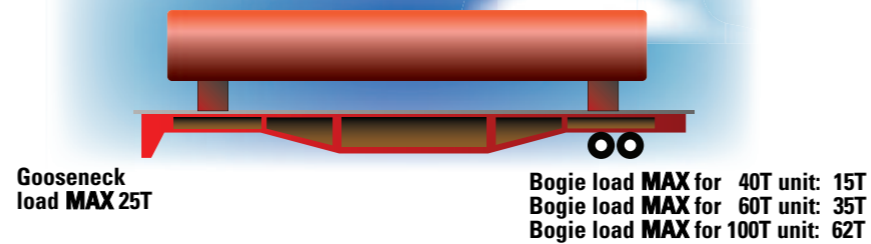
Standard format of a uniformly distributed load with maximum payload. Please take note of the loading per foot criteria. For a short load, the maximum payload is reduced.



### EXAMPLE 2 REJECT

DO NOT load trailers this way! Shown above is a complex shaped load. The heaviest load is placed in the center of the mafi deck over the smallest area. This configuration will damage the roll trailer. Heavy, concentrated loads cause bending at the frame and costly, major repairs.

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### EXAMPLE 3 PERFECT

The perfect load arrangement that utilizes the roll trailer exactly the way it was designed to be. This arrangement allows for maximum gooseneck and bogie loading without causing any bending stress to the deck.

## ROLL TRAILER SAFETY CHECKLIST

- 1 Refer to ACL's Specification Chart in this folder for correct weight and length requirements and to determine which roll trailer is suitable to fit your cargo.
- 2 Always check position of the cargo in compliance with ACL's Safe Loading Guidelines.
- 3 Consider minimum length as well as the width of the cargo load. Will the load need to be spread out to the load bearing beams?
- 4 Review these important questions for cargo compliance:
  - Load too concentrated? If so, will it bend the trailer?
  - Are the wheels and axles overloaded?
  - Too much load on the gooseneck preventing it from being lifted?
  - Too little load on the gooseneck?

### Results of Incorrect, Unsafe Loading



There must be a load on the gooseneck to prevent the roll trailer from tipping backwards. This is generally caused by too much load past the wheel cluster.



For more information or other technical questions concerning the correct stowage of cargo on ACL Roll Trailers, please contact your local ACL representative or check our website at:

[www.ACLcargo.com](http://www.ACLcargo.com)

## YOUR GUIDE TO LOADING A ROLL TRAILER

Safety is always ACL's first priority when transporting cargo securely. Use this helpful information guide as a tool to understanding the key factors that are required to properly secure your packed static cargo. These simple guidelines will be a significant help in preventing damage during transit.

## ROLL TRAILER/MAFI SPECIFICATIONS

MAXIMUM PAYLOAD	LENGTH/WIDTH (Ft)	LENGTH/WIDTH (Mtrs)	SERIES	FOR MAX PAYLOAD		
				MIN LOAD LENGTH	T/FEET LENGTH	T/METER LENGTH
65 Tons	30' x 8'	9.144 x 2.438	0653	13 ft (4M)	5.0 T/ft	16.25T/M
65 Tons	40' x 8'	12.192 x 2.438	065	16 ft (5M)	4.1 T/ft	13.00T/M
80 Tons	40' x 8'	12.192 x 2.438	080001-080100	26 ft (8M)	3.1 T/ft	10.0T/M
80 Tons	40' x 8'	12.192 x 2.438	080101-080180	40 ft (12M)	2.0 T/ft	6.7 T/M
100 Tons	60'8" x 9'	18.5 x 2.800	610	60' 8" (18.5M)	1.6 T/ft	5.2 T/M
120 Tons	40'6" x 8'4"	12.37 x 2.540	120	40' 6" (12M)	3 T/ft	10 T/M
130 Tons	40" x 8'	12.285 x 2.700	130	40' 6" (12M)	3 T/ft	10 T/M
150 Tons	80' x 10'	24.300 x 3.000	815	31' 9" (9.7M)	4.7T/ft	15.5 T/M
220 Tons	42'6" x 11'6"	12.954 x 3.505	022	23 ft (7M)	9.6 T/ft	31.5T/M

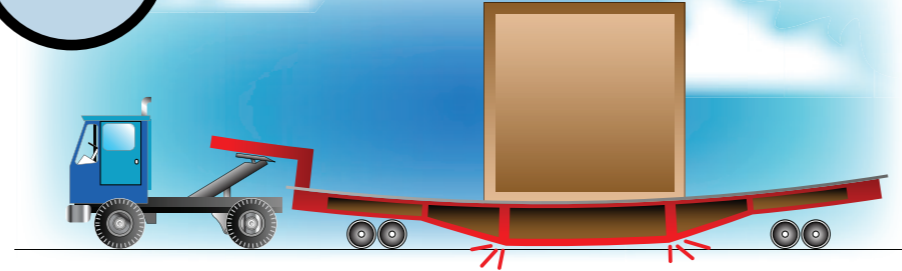


## LIMITING CARGO WEIGHT & SHAPE

Positioning of the load on the roll trailer is one of the most important factors in transporting oversized/overweight cargo. Consider the following three factors that may limit the cargo's weight and shape.

The strength of the frame or chassis. Overweight cargo can bend or break the frame

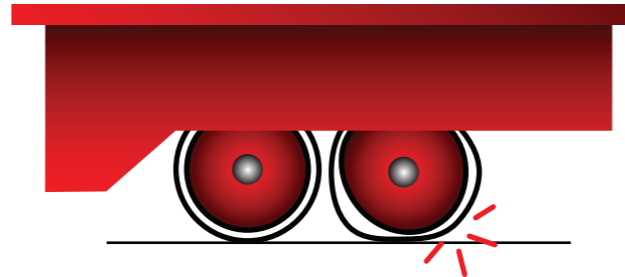
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Capacity of the running gear (axles, wheels and tires)

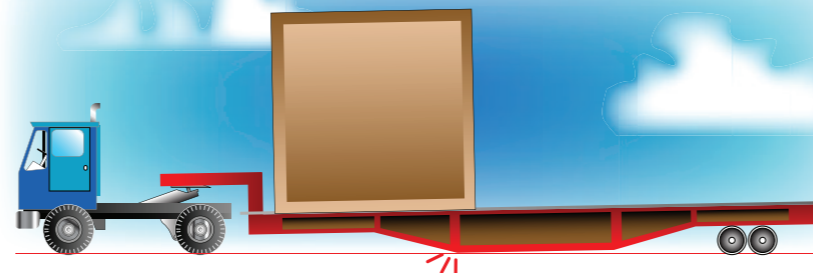
- The tires may be flattened
- The wheels may collapse or bearings break
- The axles can bend or break

2



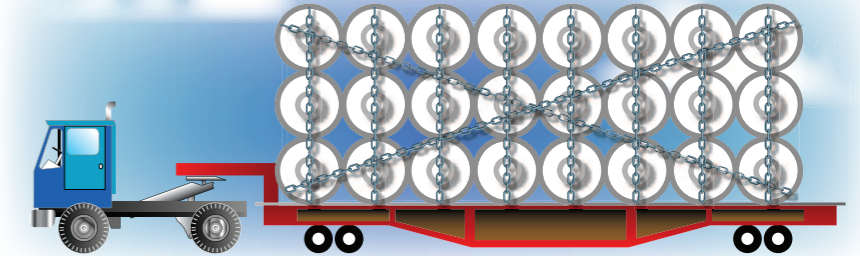
The tug master or yard hustler may not have the capacity to lift the Gooseneck. The illustration below shows that the load is positioned too far forward on the roll trailer

3



## UNIFORMLY DISTRIBUTED LOAD

The published carrying capacity of all ACL-owned roll trailers is based on a uniformly distributed load as shown below. This is the ideal load scenario. There is maximum payload and it conforms within safety limits to the three cargo/weight factors.

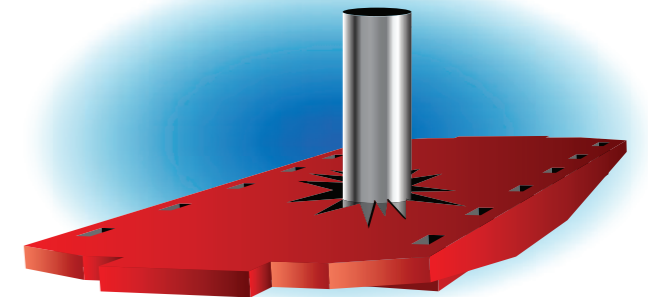


This scenario, however, seldom happens. Therefore, we need guidelines to cover the more common cargo we ship. Loads are often shorter than the standard 40 foot long roll trailers and some loads are much longer. Sometimes it is more economically viable to change the length of the roll trailer to suit particular loads and the changing patterns of cargo available.

The majority of the ACL fleet are 40 foot, 40 ton, roll trailers. In addition, we have special roll trailers that can be used for unusual cargo configurations. We operate new roll trailers of 170 ton capacity and only 26 feet in length. These have proven to be extremely useful for heavy, dense cargo such as generators and transformers. The short heavy frame construction also allows us to satisfy all of our safety parameters.

## CONSTRUCTION OF THE FRAME

The construction of the frame has a fundamental effect, not only on the overall payload capacity, but also on the actual shape of the load surface, or footprint of the load. If the load is narrower than the supporting lengthwise beams, the floor of the roll trailer takes all of the load. In many cases, the load must be spread out to the lengthwise beams or the cargo could penetrate the floor.



To strengthen the floor to prevent this type of failure, there are several different types of construction. Timber may be used to distribute the load in a more favorable manner. We also increase the number of longitudinal beams supporting the floor. Standard capacity roll trailers have two beams, one on each side. We also have some three/four/five beam units, with corresponding higher capacities. Our newer roll trailers have steel decking instead of the traditional wood decking.