

Technical Bulletin

No. LAD001, Rev. A

***Subject:* Top Bracket Anchorage Strength for Lad-Saf® Systems**

DBI/SALA recommends the following values as the required strength of the top bracket connection/support structure per number of users on the system:

1 person	3,375 pounds
2 persons	4,350 pounds
3 persons	5,325 pounds
4 persons	6,300 pounds

These “anchorage” strengths were established as follows:

1. Dynamic testing on the system using a 100-kg sand bag and body belt gave maximum arresting forces at 1,300 pounds.
2. Static pretension in the carrier cable is assumed 750 pounds (per installation instructions).
3. A safety factor of 2 was applied to the dynamic Maximum Arresting Force (MAF).

Result: 1 person system anchorage strength is $(2 \times 1,300) + 750 = 3,350$ pounds.

This figure was rounded to 3,375 pounds or 15 KN. For each additional user on the system, a figure of 975 pounds was added, representing the MAF of a human body (versus a sand bag). An assumption was made that a human body would generate only 75% of the forces created by the sandbag. Therefore, a two person system anchorage is $3,375 + 975 = 4,350$; three person system is $4,350 + 975 = 5,325$; and 4 person system is $5,325 + 975 = 6,300$ pounds.

DBI/SALA is of the opinion that it is very unlikely on a vertical system that more than one user would fall at a time. Therefore, we have decided not to add additional safety factors onto the arrest loads of the second, third and fourth person attached to the system.

The anchorage strengths given here represent the minimum recommended values for newly installed systems. Environmental or use factors that could affect the long-term strength of the anchorage connection must be considered during installation and accounted for.

This document was created with Win2PDF available at <http://www.daneprairie.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.