



Shell Load Securement Requirements

General Responsibilities:

- ❑ The driver is ultimately responsible for the proper securement of the load
- ❑ The driver shall don appropriate PPE when securing or unsecuring a load
- ❑ Load securement activities and loading/offloading activities shall not occur simultaneously
- ❑ The load must be secured as well as any vehicle equipment such as securement devices, spare tires, tarpaulins etc

Securement Systems:

- ❑ A tie-down can be chain or nylon strap meeting U.S. Manufacturing Standards
- ❑ Chain must be a minimum of 5/16 inch, Grade 70
 - Grade 70 chain will be embossed with 7, 70, or 700
 - Check for gouges, bends, twists, elongation
- ❑ Nylon straps must be a minimum of 2 inches in diameter
 - Check for knots, tears, holes, and splices
- ❑ Chain binders shall be ratchet type (lever binders are prohibited)
- ❑ Chain binders shall be rated at Grade 70 or greater
- ❑ Each item shall be secured with a minimum of 2 tie-downs
- ❑ The total working load limit (WWL) of the combined securement devices must equal at least 100% of the weight of the cargo being secured

Tubular Transport (pipe & casing):

- ❑ When transporting large quantities of tubular goods, trailer shall be outfitted with (2) pipe bunks (4 upright stanchions) to restrain cargo from lateral movement
- ❑ The pipe bunks must be covered or padded in such a way that prevents metal-to-metal contact
- ❑ Each layer of pipe shall be separated with adequate stripping (2X4 for less than 5" in diameter, 4X4 for greater than 5" in diameter)
- ❑ Each layer of pipe shall have four chocks installed (plastic or wood)
- ❑ 4-inch strap shall be used to secure tubular goods - chains are not to be used
- ❑ A minimum of one strap shall be applied over each layer of tubular goods – the top layer shall be secured with straps at 10-foot intervals
- ❑ Tubular goods shall be fully supported on the deck of the trailer



Shell Load Securement Requirements

		Grade 70 Chain Size, WWL		
		5/16", 4700#	3/8", 6600#	1/2", 11300#
Cargo Weight in Pounds	5,000	2	2	2
	10,000	3	2	2
	15,000	4	3	2
	20,000	5	4	2
	25,000	6	4	3
	30,000	7	5	3
	35,000	8	6	4
	40,000	9	7	4
	45,000	10	7	4
	50,000	11	8	5
	55,000	12	9	5
	60,000	13	10	6
	65,000	14	10	6
	70,000	15	11	7
	75,000	16	12	7
	80,000	18	13	8
	85,000	19	13	8
	90,000	20	14	8
	95,000	21	15	9
	100,000	22	16	9

Synthetic Webbing, WWL

If not clearly marked, assume:

- 2-inch strap = 2,000 lbs
- 3-inch strap = 3,000 lbs
- 4-inch strap = 4,000 lbs