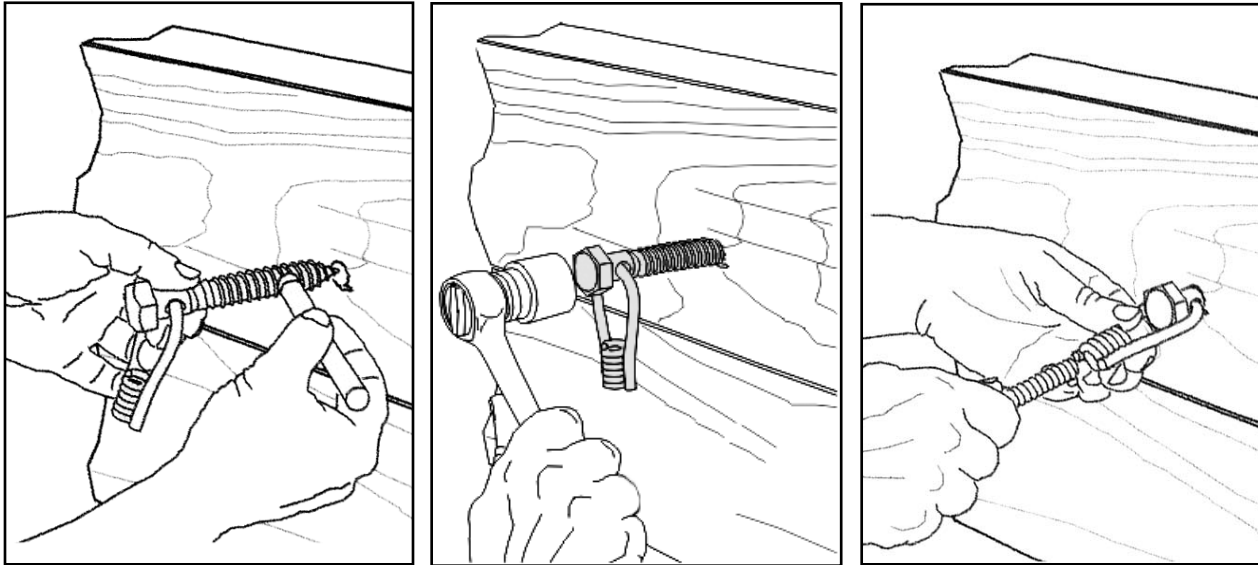


# SHE BOLT



## TIING/HANDSET



### Coil-Lag™

Designed to provide a temporary means of attaching formwork to wood timbers. Typical application: one-sided forming against soldier piles with wood lagging. Standard hex head lag bolt for sock wrench installation. Swivel loop coil tie end to accommodate misalignment between lag bolt placement and formwork tie location. Accepts either industry-standard 1/2" coil rod or N/C rod. Bolt is ASTM A307. Swivel loop is AISI C1038. Maximum safe working load is 3,000 lbs. (2-to-1 safety factor). Actual SWL will depend on pull-out strength of lag in wood and off-axis loading angle.

Wood Species	Specific Gravity <sub>3</sub>	Axial Lag Withdrawal Load in Different Thickness Wood <sub>1,2</sub>					
		1-1/2"	2"	2-1/2"	3"	3-1/2"	4"
Oak, Red	0.62	1,590	2,120	2,660	<b>3,190</b>	<b>3,720</b>	<b>4,250</b>
Western Larch	0.53	1,260	1,680	2,100	2,520	2,940	<b>3,360</b>
Douglas Fir	0.50	1,150	1,540	1,920	2,310	2,690	<b>3,080</b>
Western Hemlock	0.48	1,090	1,450	1,810	2,170	2,530	2,890
Southern Yellow Pine	0.48	1,090	1,450	1,810	2,170	2,530	2,890
Eastern White Pine	0.37	730	980	1,220	1,470	1,710	1,960

Off-Axis Load Angle	Off-Axis Load Factor <sub>4,5</sub>	
	With Grain	Across Grain
10°	1.0	1.0
30°	1.0	0.7
45°	0.9	0.5
60°	0.7	0.4
90°	0.5	0.3

No.	Size	Wt (lbs)
SD SCL4NC	3/4" LAG bolt with 1/2" coil/NC tie.	0.7

1. Load lbs at approximat 3-to-1 safety factor. Figures based on  $p=8,100^2D^3L$ , where G is specific gravity, D is lag shank diameter, and L is penetration of threaded portion in wood (from Forest Products Laboratory Wood Handbook, 1999). Load not to exceed 3000 lbs in any case (chaded areas represent pull-out values which exceed max. SWL of the Coil-Lag™).
2. All load ratings are for bolt installation into side grain in sound wood, minimum 1-1/2" from edge and 4" from end of timber.
3. Specific gravity figures typical for kiln-dried samples of the listed species. Load ratings based on S.G. figures shown, actual S.G. values for wood vary widely. Unless acutal S.G. is known, use lower figure for load calculations.
4. Multiply off-axis load factor times axial lag withdrawal load for allowable off-axis. Example: 60° off-axis, with-the-grain load into 3" Douglas Fir would be  $0.7 \times 2310 = 1617$  lbs max. Remeber: this is the load applied to the swivel loop coil, NOT the axial load on the lag.
5. Bolt must be threaded into timber until swivel loop is in contact with wood surface.

SWL provides a factor of safety of approximately 2 to 1.