Prestress Strand Restraining Devices

General Strand Restraining Device Notes:

1. Safe working loads shown in this publication provide a factor of safety of approximately 1.5:1.
2. Safe working loads should be determined by calculating the upward forces and adding a percentage increase for friction losses. (Add 5% friction for swivel units and 15% for non-swivel units).
3. Strand restraining devices are rated by uplift per strand as well as total uplift per unit. Care must be taken to see that neither rating is exceeded.
4. Maximum number of strands per unit is determined by dividing the maximum safe working load per unit by the actual strand load plus friction losses.
5. When H-53 Strand Restraining Devices are required:
   A. With one through four strands, the device will be supplied with single side frames.
   B. With five or more strands, the device will be supplied with double side frames and heat treated lugs.
6. When H-40 units are required:
   A. With one through three strands, the device will be supplied with single side frames.
   B. With four or more strands, the device will be supplied with double side frames and heat treated lugs.
7. H-41, H-41-R, H-56, H-56-R or H-56-S units are supplied with double side frames and heat treated lugs.
8. Any unit with a 'B' dimension of 6" (150 mm) or greater will be supplied with a Spacer Bolt and Nut above the swivel lug.

Stressing Notes:

A. All strand restraining devices should be loaded (stressed) in descending order from top strand(s) down to lower strand(s).

B. Two vertical strand restraining devices should be loaded by stressing alternating strands. Loading more than one strand per side at one time will cause unbalanced loading that may result in premature failure of the unit.

C. Three vertical row strand restraining devices should be loaded by stressing the center row first, then alternating the outside rows in a symmetrical manner. Failure to do so may result in a premature failure of the unit.