

State Highway and Transportation Department High Strength Bolts Inspector's Checklist

1. Obtain Manufacturer's mill test reports to cover all lengths and sizes of bolts and nuts
2. Assure that the parts to be connected or spliced are clean and properly pinned and bolted (erection bolts) to provide full contact between all parts and proper hole alignment
3. Assure bolts, nuts, washers and Direct Tension Indicators are of the correct type, material and marked
4. Assure bolts are of proper length, relatively free of dirt, oil, rust and all other substances that would prevent solid seating of the parts or that would interfere with the development of friction between the parts connected. Black bolts should be oily to the touch when delivered and installed.
5. Verify hardened washers are provided over all slotted and oversized holes
6. Assure bolts with damaged threads are not used
7. Verify Contractor inspection of galvanized nuts for proper lubrication of the threads
8. Verify bolt installation is as per specs. Installation per specs require approval by Bridge Engineer
9. Follow Manufacturer's Instruction Manual for installation and tightening
10. Verify all plies of the steel are drawn together by snugging the bolts prior to final tightening operations
11. Verify tightening and snugging begins from the fixed or rigid part of the connection and proceeds to the free edge
12. Verify Contractor follows instructions of the manufacturer of the direct tension indicators for tightening the bolted assemblies
13. Verify the minimum gap required between bolt head and direct tension indicator
14. Assure bolts are not loosened then retightened
15. Visually inspect every bolt in every connection for proper gaps
16. Check at least 10% of the bolts, but not less than 2 bolts in each connection using pointed feeler gages following recommended procedures described in manufacturer's instructions and in ASTM F959