

6590201 MAST ARM, SPAN WIRE, AND POLE MOUNTING ASSEMBLIES
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (6-12-19)

659-2.5 has a load (lbs) for a flexure/moment (lbf). Suggest the following: Change "All adjustable hangers must be designed to withstand 740 pounds loading (flexure and 7400 pounds loading (tension." to: All adjustable hangers must be designed to withstand 7400 pounds in tension and a 740 pound load applied perpendicular to the drop pipe at the base of the hanger system.

Response: Changes made. See below for a modified version of the requested change that has been incorporated into the specification:

All adjustable hangers must be designed to withstand 7400 pounds in tension and a 740 pound load applied perpendicular to the hanger~~drop pipe~~ at the base of the hanger system

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Comments: (6-20-19)

659-2.1 General: Paragraph 6, 4th sentence- Consider to add / delete the words shown in bold:- All connection between the teeth of the signal and the upper bracket types must be weather resistant and **shall** incorporate a secondary fail-safe design that would prevent the attached traffic device from **turning upon** failure/slippage of the serrated edge or other connection type. (K.C.Jose).

Response: See below.

Comment 1 regarding adding "shall:" No change made. We don't think this is needed because of the previous "must" used. Also, I understand that we are not using the term "shall" in the standard specs in this type of instance. The specs office can correct me if I am wrong.

Comment 2 regarding deleting "turning upon:" No change made. Rather than writing a design specification, we decided to give the manufacturer the flexibility to modify the disconnect hanger-to-signal connection point in a manner that would prevent the signal from turning upon failure/slippage of the standard disconnect hanger hub-to-signal connection point.

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Comments: (7-1-19)

659-2.1 Secondary fail-safe. Are there any preferred & approved methods that should be used for commonality or will each company need to develop and submit unique methods. 659-2.4 At what location on the signal is the downward force to be applied in relation to the mast arm/clamp kit connection.

Response: See below.

Comment 1 regarding 659-2.1: No change made. Rather than writing a design specification, we decided to give the manufacturer the flexibility to modify the disconnect hanger-to-signal connection point in a manner that would prevent the signal from turning upon failure/slippage of the standard disconnect hanger hub-to-signal connection point.

Comment 2 regarding 659-2.4: No change made. This requirement is for all connections associated with section 659-2.4, which main components are the 1) mast arm clamp and attachment cables, 2) support tube, and 3) top and bottom support arms. The intent of this specification is to require these three component assemblies to be designed so they do not move when 250 pounds of downward force is applied to the completed vehicular traffic signal assembly. During the APL process, a test procedure will be provided indicating how the test is to be performed, which will include the loading points.
