



December 15, 2021

To: Users of SFI Specs 2.2
From: SFI Foundation, Inc.
Subject: Spec 2.2D, Revision, effective December 3, 2021

The above referenced SFI Specs for Front Engine Dragster Roll Cage 5.99 Seconds and Quicker have been revised, effective December 3, 2021. The revised version is designated as SFI Specs 2.2D and is immediately available from SFI for use by sanctioning bodies and chassis builders.

The extent of these revisions is indicated by underlining and highlighting as follows, and this document may be used in conjunction with the prior version of each Spec:

Section II.4:

4. Holes in the frame rail between the rear end upright or wing support, whichever is the furthest back and the most forward front suspension mounting point must have visible reinforcement with an oval or circular patch/cap, equal in area to the hole size. Any hole that exceeds 33% of the diameter of the parent tube must have a tube-type reinforcement. Nominal thickness .049" material must be used for all reinforcement and must be welded around the outside perimeter.

Section II.7:

7. All step-down splice welded joints (e.g., an upper frame rail that steps down from 1-1/2" od to 1-3/8" od) in all roll cage/frame area must be installed at a 30° minimum to 45° maximum angle with respect to the tube axis unless otherwise specified. This does not apply to butt weld joints such as the typical joint in the upper or lower frame rails behind the driver; those joints do require reinforcement as noted in paragraph ii.5 of the specifications.

Section II.8:

8. Diagonals and "K" members can be oriented in any direction, unless otherwise specified. Example: left to right, top to bottom, forward to rear, etc. Side bay and floor diagonals, X-members, and K-members must intersect within three tubing diameters of the intersection of the upright or cross member and the frame rail **within the same plane** (measured edge-to-edge, using tube diameter of the diagonal, X, or K.).

Section III.1.b:

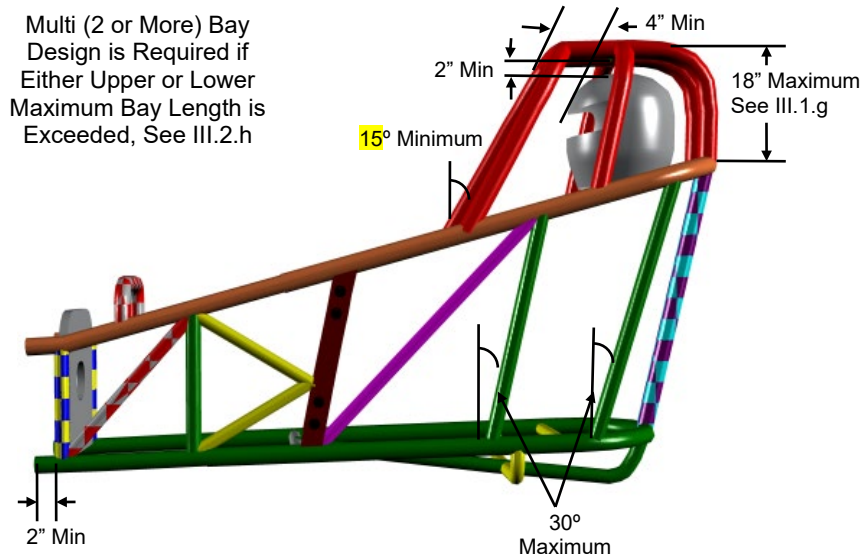
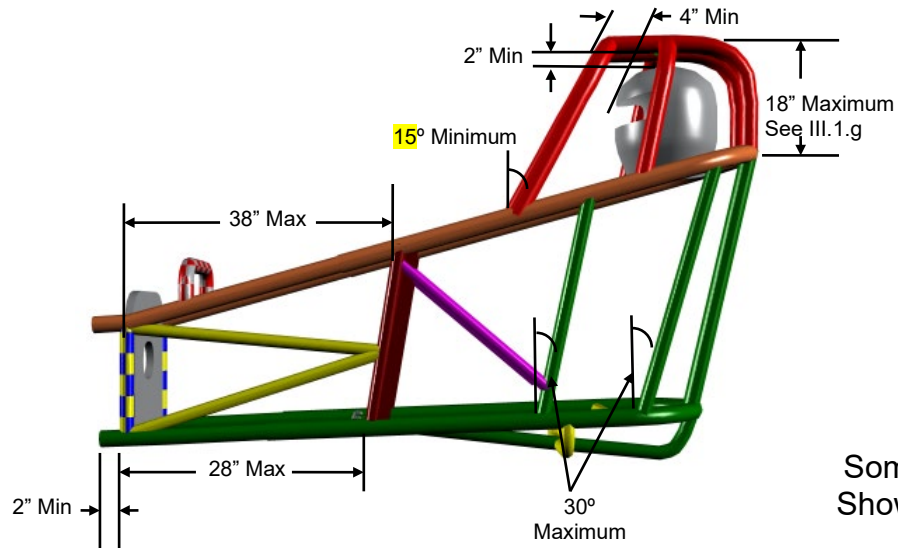
- b. The forward roll cage hoop (#1) must be installed to the shoulder hoops (#3) at a minimum angle of **15°** from vertical.

Section III.2.b:

- b. The motor plate uprights (#9) must be 1 1/4" x .049" or **1 3/4 x 1 x .065 Rectangular tubing.**

Section III.2.h:

- h. The maximum lengths of a bay are 38 inches (96.5cm), as measured along the upper frame rails (#4) and 28 inches (71.1cm) as measured along the lower frame rails (#16 & #17). Bays exceeding any maximum length must be divided by an upright (#21) of 1 1/4" x .058" tubing. Any bay immediately forward of the rear end upright (#8) must contain a 1" x .058" K-member (#24) only, with the point of the K-member facing aft, attached to the rear end upright (#8). A single diagonal or X-member is not acceptable in this bay. In a multi (2 or more) bay design, each bay not immediately forward of the rear end upright (#8) must contain diagonals (#22) of 1 1/8" x .058" tubing or X's or K's (#23) of 1" x .058" tubing. **For other configurations on existing cars constructed prior to 2011, see "SFI 2.2 Legacy Tech Advisory" available from SFI.**



Section III.2.j:

- j. The upper frame rails (#4) and shoulder hoop(s) (#3) must be 1 1/2" x .058" tubing with an .058" wall interior roll bar reinforcement tube in each side. The interior reinforcement tubes must match the internal diameters of the upper frame rails (#4) and shoulder hoop(s) (#3) and visible rosette welds are required. See Detail A.

The forward edges of the forward seat uprights (#10) must be at least one (1) inch (25.4mm) but not more than six (6) inches (15.2cm) behind the rear edges of the forward roll cage hoop (#1) with the interior reinforcement tubes extending one (1) inch (25.4mm) minimum ahead of the forward edge of the forward roll cage hoop (#1) to one (1) inch (25.4mm) minimum behind the rear edges of the forward seat uprights (#10).

Or

The rear edges of the rear end uprights (#8) must be at least one (1) inch (25.4mm) but not more than six (6) inches (15.2cm) in front of the forward edge of the forward roll cage hoop (#1) with the interior reinforcement tubes extending one (1) inch (25.4mm) minimum ahead of the forward edges of the rear end uprights (#8) to one (1) inch minimum behind the rear edges of the forward roll cage hoop (#1). See Detail B on page 8.

Butt weld splicing of the upper frame rails (#4) to the shoulder hoop(s) (#3) is permitted between the centerlines of the forward roll cage hoop (#1) and the forward seat uprights (#10). If butt weld splicing is used here, an interior sleeve(s) is required, extending a minimum of three (3) inches (7.6cm) on each side of the seam. See Detail A on page 8. The interior reinforcement tubes and the butt weld interior sleeve(s) may be one and the same if the minimum dimensions of each and all are met. Butt weld splicing of the shoulder hoop(s) (#3) is also permitted in the rear center. If butt weld splicing is used here, an interior sleeve is required. For requirements of chassis built prior to 2006 without an internal roll bar reinforcement, consult the "SFI 2.2 Legacy Tech Advisory" document available from SFI.

Interior Reinforcement Tube

Some Tubes Not Shown For Clarity

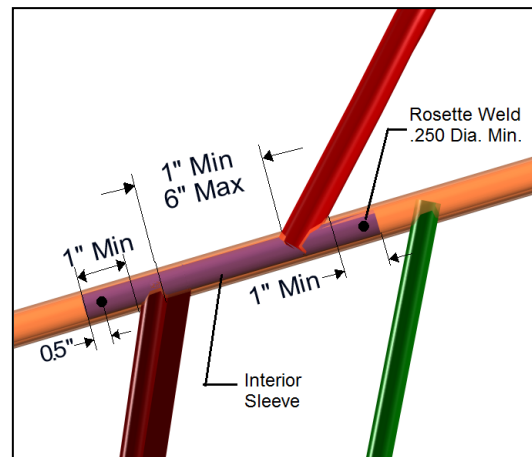
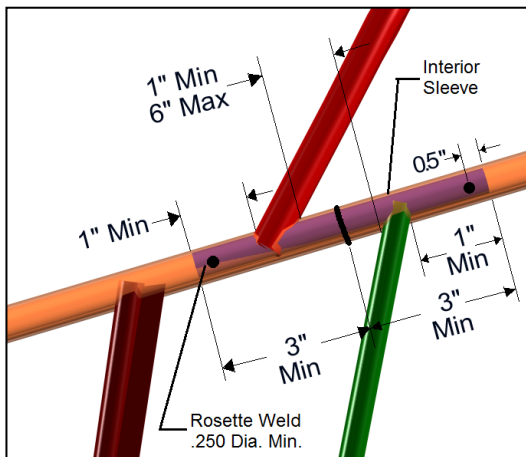


Detail A

Interior Reinforcement Tube Supported by Forward Seat Inrigh (#10)

Detail B

Interior Reinforcement Tube Supported by Rear End Inrigh



Section IV.2:

2. BOLTED DIRECT

The rear end housing must have one (1) 1/4" (6.4mm) SAE 4130N steel plate welded on each side of the housing. The plates must be fully welded to the housing and the plates and welds must wrap around the housing a minimum of 180°. Welding on only one side is acceptable unless the plate exceeds 1/4" in thickness.

Section IV.5:

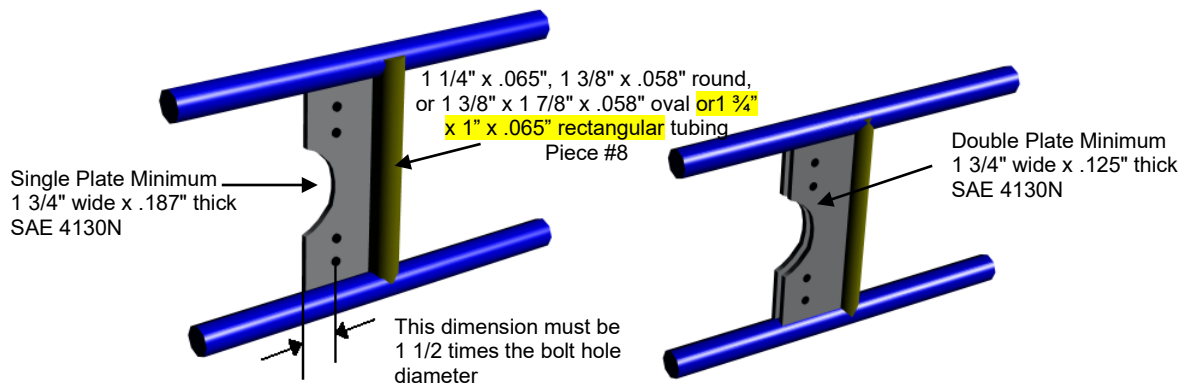
5. WELDED

The rear end housing must have one (1) 1/4" (6.4mm) SAE 4130N steel plate welded on each side of the housing. The plates must be fully welded to the housing and the plates and welds must wrap around the housing a minimum of 180°. Welding on only one side is acceptable unless the plate exceeds 1/4" in thickness. Each plate must also be welded to its adjoining rear end upright (#8) the full length of the upright and to the upper and lower frame rails (#16 & #17) completely on one side of each plate with 1/4" (6.4mm) minimum wrap around the upper and lower frame rails (#16 & #17). The other side must be welded with one (1) inch (25.4mm) minimum skip welds.

Section IV.3:

3. REAR-END UPRIGHTS

1 1/4" x .065", 1 3/8" x .058" round or 1 3/8" x 1 7/8" x .058" oval or 1 3/4" x 1" x .065" rectangular tubing on each side of the chassis with either one (1) 3/16" (4.7 mm) SAE 4130N steel plate per side (no bosses required) or two (2) 1/8" (3.2 mm) SAE 4130N steel plates per side with 3/4" (19 mm) minimum outside diameter bosses. Single plates must be fully welded to the rear end uprights (#8) and to the upper (#4) and lower (#16) frame rails on one side of each plate with 1/4" (6.4 mm) minimum wrap around the upper (#4) and lower (#16) frame rails. The other side can be welded with one (1) inch (25.4 mm) minimum skip welds. Double plates must be fully welded to the rear end uprights (#8) and to the upper (#4) and lower (#16) frame rails on one side of each plate with 1/4" (6.4 mm) minimum wrap around the upper (#4) and lower (#16) frame rails.



Section IV.4:

4) GENERAL

Minimum thickness of attachment tab to chassis and sta rod to main support shall be 1/8" (3.2 mm) SAE 4130N. Minimum thickness of attachment tabs to the main strut and sta rod shall be 2 tabs of 1/8" (3.2 mm) AND one tab of 3/16" (4.8 mm), OR 2 tabs of 1/8" (3.2mm) WITH a 3/4" diameter bushing, .250" thick welded in full circumference on the outside plane of both 1/8" (3.2 mm) tabs. Bolts, main strut to rear end plate shall be 3/8" (9.5 mm). Bolts, main strut to wing shall be 3/8" (9.5 mm), sta rod to main strut and sta rod to chassis shall be 3/8" (9.5 mm) for Alcohol. The distance from the center of any bolt hole in the wing support tabs and/or brackets to the edge of the tab/bracket must be at least 1 1/2

times the bolt diameter. Wing stand attachment points must be in double shear. All attaching bolts shall be SAE Grade 5 or better and no PIP pins permitted.

Sta rods must have doubler plates welded where thru bushings appear. Doubler plates Must be minimum 1" diameter (tear drop shape preferred) and .049" Minimum thickness. Each doubler plate must be welded to both the sta rod and the sta rod bushing/boss. The sta rod bushings must be 5/8" (15.9 mm) minimum diameter with no minimum wall requirement and must be welded to the sta rod and the doubler plate. The centerline of the bolt hole in the mounting tab must be within 3" (7.6 cm) of the centerline of any upright tube in the chassis.

No portion of any wing support structure (e.g. main struts, sta rods, adjuster struts, cross bracing, etc. required inspected or certified to SFI 2.1 may be chrome, nickel, etc. plated. Paint and powder coating are permitted.

Thank you,

SFI Foundation, Inc.