

From:
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Subject:
Attachments:

Our chassis rear extension steel spec called out on our drawings is for 36 ksi steel. Samples tensile tested at PEI of the rear extensions we received from MR are in excess of this requirement. These extensions were removed from a coach having warranty work performed.

LS 42.6 ksi and RS 55.5 ksi.

Although not what we were looking for please note the differences in yield strengths between the samples of approximately 25%. Possibly information we would want to share with MR.

Subject: Tensile Test Results

Gary,

I have attached the results of the tensile testing. Let me know if you have any questions.

Thanks,
Jacob Bontrager
Project Manager



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12/21/2016
PEI tensile test
results on
Failed extension
~~from CH 02392~~
11 (2)

Progressive Engineering Inc.

ASTM E8 Tensile Test

Date: 12/21/2016

Client: Thor Motor Coach

Specimen: **Steel Samples**

Temperature: 70°F

Humidity: 19% R.H.

Load Rate (in/min): 0.125

Specimen No.	Sample		Cross-Sectional Area (in ²)	Load at 0.2 offset (lbf)	Max Load (lbf)	Yield Strength (ksi)	Ultimate Strength (ksi)	Failure Mode
	Width	Thick.						
LH-1	0.496"	0.2519"	0.125	5,310	8,230	42.5	65.9	a
LH-2	0.496"	0.2512"	0.125	5,310	8,210	42.6	65.9	a
Average	0.496"	0.2516"	0.125	5,310	8,220	42.6	65.9	

Specimen No.	Sample		Cross-Sectional Area (in ²)	Load at 0.2 offset (lbf)	Max Load (lbf)	Yield Strength (ksi)	Ultimate Strength (ksi)	Failure Mode
	Width	Thick.						
RH-1	0.497"	0.2511"	0.125	6,970	8,180	55.9	65.5	a
RH-2	0.497"	0.2510"	0.125	6,870	8,140	55.1	65.3	a
Average	0.497"	0.2511"	0.125	6,920	8,160	55.5	65.4	

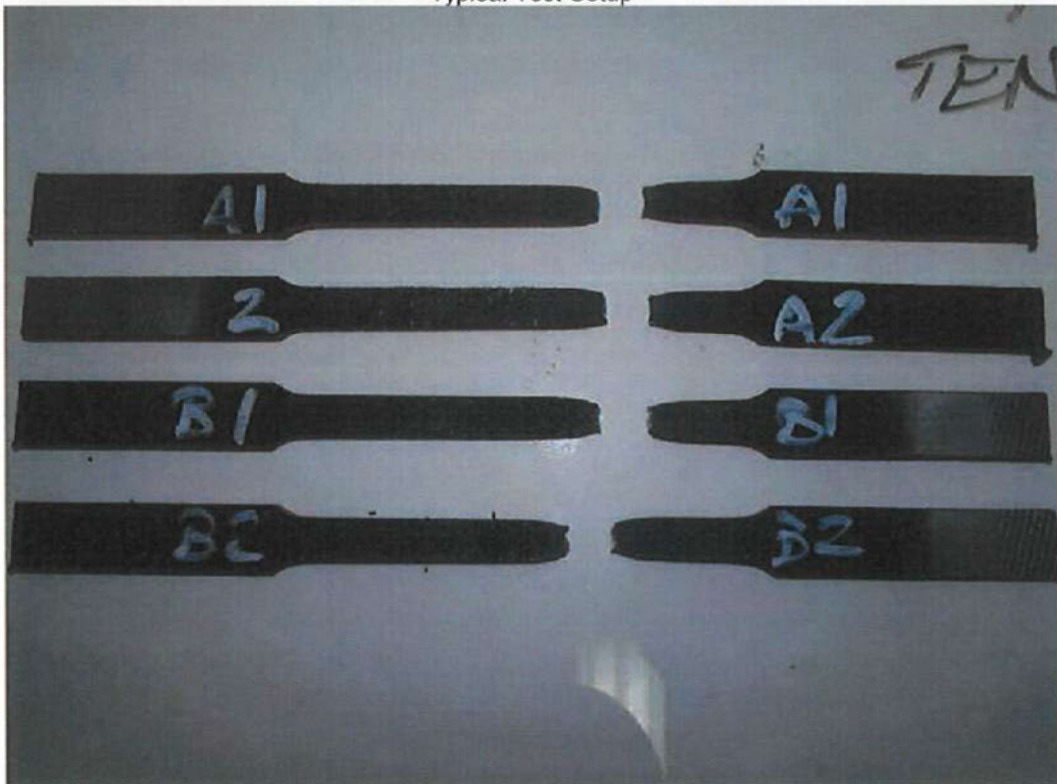
Failure Codes

- a = Specimen broke perpendicular to edge near center of reduced section.
- b = Specimen broke perpendicular to edge near radius.
- c = Specimen broke perpendicular to edge near grips.
- d = Specimen broke at an angle near center of reduced section.
- e = Specimen broke at an angle near radius.

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Typical Test Setup



A' Samples are LH and 'B' Samples are RH