

Design and Qualification of a Test Fixture to Experimentally Determine
Global Tire Force Properties

Rea Kimbrell Cauthen III

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in
partial fulfillment of the requirements for the degree of

Master of Science
In
Mechanical Engineering

Robert L. West Jr. Chair
Norman E. Dowling
Saied Taheri

February 21, 2014
Blacksburg, VA

Keywords: tire, suspension, force and moment properties, fixture,
finite elements, Formula SAE

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Doug Milliken

To: Rea Cauthen

Re: Request to use figures in Race Car Vehicle Dynamics

Rea Cauthen,

Always nice to hear from users of our books. As far as the paper copies are concerned, you have permission to use the figures mentioned as long as each is credited in the respective caption, including the original figure number from the book. After the first complete reference, you can shorten to something convenient like, "from RCVD, Figure 2.10, used with permission." It's OK if you find you need a few more figures--but please ask again if you decide to use many more figures, or figures from other chapters.

E-copies -- I have looked previously at the VT ETD website (in responding to a previous request from a VT student), it appears that there are public and private parts.

Will your thesis be available to the public internet, or is there a section where it will only be available within the VT community (and how is this guaranteed going forward)?

** If there is any chance that the electronic version will be available on the internet, then I request that you remove the figures and replace them with a reference to RCVD including page number & figure number. The ~400 figures in the book took about a year to create, as well as significant cost for the commercial artist--we are not interested in making them available for free on the internet, at least not at this time.

Your other option is to redraw the figures, at that point my understanding is that you are the "creator" and have your own copyrighted work. If you redraw them, it's nice to reference the original source (shows that you have used your references), but not required. For example, see Figures 18.5 & 18.6 which reference an excellent paper by Maurice Platt.

Your thesis sounds interesting, if possible, I would appreciate a copy (or link) when it is available.

Please say hello to Dr. Taheri, my father and I met him at Goodyear/Akron well before he moved to VT.

-- Doug Milliken

<http://blog.hemmings.com/index.php/2012/08/27/william-f-milliken-1911-2012/>

On Sat, Jan 18, 2014 at 12:05 AM, Rea Cauthen <rcauthen@vt.edu> wrote:
[Mr. Milliken](#),

[I am writing to request to use figures from Race Car Vehicle Dynamics in my master's thesis.](#)

Title of Work: Race Car Vehicle Dynamics

Product Code: R-146

Copyright Year: 1995

Figures: 2.10, 2.23, 2.24, 2.42, 4.2

Title of Thesis: Design and Qualification of a Test Rig to Determine Global Tire Force and Moment Properties (working title)

School: Virginia Tech

Distribution: To my committee members in paper form and submitted to Virginia Tech's ETD site. Committee members are: Dr. Robert West, Dr. Saied Taheri, and Dr. Norman Dowling.

Expected Published Date: March 2014

If you need any more information please let me know.

Thanks,
- Rea

--

Rea Cauthen
Graduate Research Assistant
Department of Mechanical Engineering
Virginia Tech
rcauthen@vt.edu

Saied Taheri

To: Rea Cauthen

Re: Scheduling for Master's Defense

Hi Rea,

Good to hear from you. I will be traveling Feb 8-14. I am tied up Mondays every week. T-TH every other week starting this coming week. So, right now, Thu 2/6 I am available 8-11 and 1-5 and Fri 2-7, all day. Week of Feb 23, except Tue 9-11 and Wed 11-1, and Monday, I am available. Just remember that these dates are open now. But no guarantee that they will be in a couple of weeks. So, schedule your defense as soon as you can.

You can use the page from the presentation.

Cheers,

Saied Taheri, PhD
Associate Professor and Director
Center for Tire Research (CenTiRe)
Vice President, The Tire Society
Editor, International Journal of Systems Science & Control Engineering
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From: Rea Cauthen <rcauthen@vt.edu>
Date: Saturday, January 18, 2014 2:51 PM
To: Saied Taheri <staheri@vt.edu>
Subject: Scheduling for Master's Defense

Prof. Taheri,

I hope this message finds you well. I expect to be wrapping up my thesis in the next couple of weeks, and I wanted to start looking at scheduling my defense. Can you provide me with your class schedule for this semester and any other dates you might be out of town? Tentatively I am hoping to schedule it for the second or third week of February so I can meet defending student status.

Also, I wanted to ask for your permission to use the figures on Slide 4 from your "Tire Modeling" presentation given to the Spring 2012 Tire Mechanics class (see attached).

Best regards,

--

Rea Cauthen
Graduate Student
Department of Mechanical Engineering
Virginia Tech
rcauthen@vt.edu

Bob West

To: Rea Cauthen

Re: Image Permissions

Rea,

Yes, I give you permission to use the picture of the 2012 FSAE car.

Prof. West

--

Robert L. West Jr., Ph.D.

Associate Professor

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On Thu, Mar 20, 2014 at 4:55 PM, Rea Cauthen <rcauthen@vt.edu> wrote:

Prof. West,

Do you, as an advisor for VT Motorsports, grant permission for me to use the picture of the 2012 FSAE car?

Thanks!

-Rea