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From: John Kelley Brown (ledboots@attbi.com)**Date:** 2/1/2002 9:15 PM**Subject:** Mook, a question or two.

Mook,

It wouldn't give any circuit secrets away if you gave us the measurements of the output transformer iron, how 'bout it?

As far as the rest of the circuit goes, I think at some point we have to start using our ears. I'm sure that's what Ken Fischer would tell us. It's a very simple circuit. The toughest part is having a solid understanding of what the amp should sound like, listen to all recording you can find of the Express until you know exactly what you are going for. Build the basic clone then start tweaking values, take the tip from Mook about not bleeding off highs but add more bottom, there are lots of ways to do that, larger value cathode caps in the preamp would be just one idea. The thing is it's all in your ears. An accurate schematic is only going to help so much, some guys can clone a plexi by going by the the exact schematic but miss the tone entirely, you have to know what a plexi should sound like before you can clone one, I think that's the same idea with the Trainwreck stuff. I'm surprised at how many Trainwreck fanatics, (that don't own one but wish they did), that can only refer to a Brian Adams tune as their reference for the Express tone, (they can't even tell you the name of the player). I say, study, study and more study the Express tone, dig into any known recordings that use the Express, know exactly what it should sound like, from that point on you stand a good chance of success even if what you come up with isn't identical to a schematic of a real Express.

Mook, if you could post some sound samples of your Ingrid in all it's glory, clean and distorted tones, cranked but rolled-off from the guitar, with Strat, with Les Paul, etc., you would do more to give away the Express than any schematic info.

Thanks,
Kelley

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From: Mook (Mookie2112@aol.com)**Date:** 2/1/2002 9:29 PM**Subject:** Re: Mook, a question or two.

Mook, if you could post some sound samples of your Ingrid in all it's glory, clean and distorted tones, cranked but rolled-off from the guitar, with Strat, with Les Paul, etc., you would do more to give away the Express than any schematic info.

Mook: I will seriously work on this during the upcoming weeks, but I cannot promise anything! My recording skills are ABSOLUTELY HORRID!!! Everything I record, and I DO mean everything, turns out like is sounds 10 miles away.....either that or it sounds way too bass heavy. I even have a good mike.....it's a Shure with a 1" diaphragm.

I invite anyone close to me to drive out and help record some samples.....I'll buy the beer. I live near Fairfax, Virginia.....so, anyone in Northern Virginia or Southern Maryland (with excellent recording skills) is invited. This is a serious offer.....

Let me know....

Mook

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From: John Kelley Brown (ledboots@attbi.com)
Date: 2/1/2002 10:07 PM
Subject: Re: Mook, a question or two.

Mook,
I have some good recording gear, unfortunately I'm in the Bay Area of California, too bad, I've always wanted to play through an Express.
Kelley

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From: Steve A. (steve_ahola@yahoo.com)
Date: 2/2/2002 1:33 AM
Subject: Two words...

Road Trip!

Kelley said:

I have some good recording gear, unfortunately I'm in the Bay Area of California, too bad, I've always wanted to play through an Express.

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From: Sean C. (sean@thenest.net)
Date: 2/2/2002 6:37 AM
Subject: Re: Mook, a question or two.

Mook, I hope you know that you can bring Ingrid over any time to make sound clips!! Or to do anything else, I just want to play her some more!

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From: John Kelley Brown (ledboots@attbi.com)
Date: 2/2/2002 6:45 AM
Subject: Re: Mook, a question or two.

Well there we go, solutions abound!
Kelley

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From: Mook (Mookie2112@aol.com)
Date: 2/3/2002 2:40 AM
Subject: Re: Mook, a question or two.

Alright! Sean, you're on. When shall we do this?

I'd like to bring my Shure mic. If you want, we can do it at my house.....I have a digital 8 track (but don't know how to use it....).

Let me know....

Mook

START NEW THREAD	REPLY	PREVIOUS	LIST
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From:	Steve A. (steve_ahola@yahoo.com)		
Date:	2/2/2002 1:29 AM		
Subject:	Recording		

Mook:

My recording skills are ABSOLUTELY HORRID!!!

Are you doing digital or analog recordings? Digital is cool as long as you keep the needle out of the red (digital distortion chops off the tops of the waveforms flat as a pancake, with none of the neat effects of tape saturation and compression.) 4-track cassette recording really sucks once you try digital... Jeez, you can have 64 tracks or even more, all for the price of a computer and a decent digital audio card (or two or three!).


For sound samples, a lot of people have just been putting an SM57 right on the speaker cone, sometimes at a 45 degree angle. The recorded sound might be a little brighter or bassier than what you actually hear in the room so its okay to EQ it a bit to make it more accurate. (You can use your better Shure mike for "ambience"... set it back maybe 12 feet from the amp. You do need to check that it is in phase with the main signal.)

--Good luck!

Steve Ahola

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From:	Carl Z (carl@zwengelamps.com)		
Date:	2/6/2002 5:06 AM		
Subject:	Re: Recording		

Steve;

The sound clips I've got on my site were all done with a cheap ass tascam 4 track deck and a pair of SM57's about 3 feet away from the amp. I'm going to try like hell to make some time to hook up with a guy out here that has a really sweet recording and practice facility. He's out on a farm in an old converted hog house! You can go in there and run half a dozen marshalls flat out and never worry about pissing anybody off. I know cuz we've done it!  It's a beautiful thing!

He does radio spots and voice overs for the local advertisers and radio stations. Normally, he uses an old RCA ribbon mic. According to him those are absolutely the shit but you can't close mic so we might need to do a little experimenting to see what works with this setup.

Carl Z

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From: John Kelley Brown (ledboots@attbi.com)
Date: 2/7/2002 2:27 AM
Subject: Re: Recording

The Royer mic is a new production ribbon mic made specifically for close micing loud guitar amps, these are supposed to be "the shit", unfortunately they are around \$800 to \$900.
Kelley

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From: Nigel Brewer (nigelbrew@webtv.net)
Date: 2/5/2002 2:17 PM
Subject: Re: Mook, a question or two.

I live in Reston VAI own a Tascam 564 Sunday is my day off I can emial you my phone number if you like, but i will be happy to assist you in getting some good recorded sounds. by the way, can ou get Pyramid Snowcap in any of you local stores?

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From: JWK (jkilmer@usadatanet.net)
Date: 2/5/2002 11:49 PM
Subject: Pyramid Snowcap - The best brew in existence

I got all the Pyramid Snowcap I wanted when I lived in Oregon. Then I moved back to New York state and I haven't been able to find it anywhere. Maybe it's not the very best brew in existence (sort of like claiming the best amp, huh?), but it certainly must fall into the top five in the world IMHO. 😊

John

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From: Regan (regan_2002@yahoo.com)
Date: 2/2/2002 8:16 AM
Subject: Re: Mook, a question or two.

Kelley,
I have been wondering about this.
Everybody says that "Cuts like a Knife", is a trainwreck, but I thought they were using ac30's up until after reckless.
Cuts like a knife came out in maybe 80, 81 when was the first trainwreck made?
My bet would have been Reckless, maybe "It's only love"
I grew up near Vancouver, and I remember reading interviews and I don't remember anything but ac30's, but then I was a kid.
Regan

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From: Greg (MusicWard@aol.com)
Date: 2/2/2002 4:12 PM
Subject: You wanna hear Wrecks?

Novella- Rocket
BB & the Stingers- Liverpool
Greg

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From: anonymous
Date: 2/2/2002 6:41 PM
Subject: Re: You wanna hear Wrecks?

Greg are you from NJ (bb and the stingers)

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From: Greg (MusicWard@aol.com)
Date: 2/3/2002 2:50 AM
Subject: Re: You wanna hear Wrecks?

Hey anon
Nope just a west coaster with large ears!

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From: Naked Clarke (aclarke3@aol.com)
Date: 2/3/2002 2:38 PM
Subject: Re: You wanna hear Wrecks?

I am from NJ. I see Bernie play from time to time on Sunday nights at Orphan Annie's.

NC

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From: Ross M. (ross1201@crosstel.net)
Date: 2/4/2002 5:35 AM
Subject: Re: You wanna hear Wrecks?

Forgive my ignorance; Why are you keeping the guts a secret?

Ross M.


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From: Stefaan Van Slycken (vanslycken@pandora.be)
Date: 2/4/2002 9:51 AM
Subject: Re: You wanna hear Wrecks?

would you give away the secrets of your 12.5K amp?

SVS.

P.S. I think *I* would, but then again, i'm an idiot with a soft heart 

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From: Mook (Mookie2112@aol.com)
Date: 2/4/2002 2:39 PM
Subject: Please forgive the intrusion...

My objective in this whole thread as not to give away secrets, or brag, or start an argument....

My objective was truly to imply that perhaps the Espresso schematic is not quite as complete as people originally thought....

I've seen various posts on Ampage over the years about increasing the bass. It eludes everyone (including myself). Quite a few people have talked about adjusting the cap/resistor network before the 3rd stage. Sure this will help to adjust the bass, by my objective was to tell people they should concentrate elsewhere.

In addition to that, my Express has (what I would consider) 4 major differences from the schem. So, again, my objective was to propose that the schem is still a little "off".

As is, the schem still makes a very nice amp, but I think we should have some people out there experiment some more and post their findings....

There is one hint in the Dave Funk book.....try and concentrate on that. I understand it's a very far out hint, but it's true, moreso than I originally thought.....

Mook

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From: PeteRH (psharps@bigpond.net.au)
Date: 2/4/2002 8:35 PM
Subject: Re: Please forgive the intrusion...

Hi Mook,

Can you at least narrow it down a wee bit? Is the hint in Funks book in the first 160 pages of text OR the 250 pages of schematics?

Cheers

Pete

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From: dpcoyle (dcoyle@nm.net)

Date: 2/4/2002 9:42 PM

Subject: Re: Pete...

Do you have the Funk book? What does it say about trex?

Thanks,
Dan

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From: Dr Rico (rmyers@recombineer.com)

Date: 2/5/2002 1:09 AM

Subject: Funk Logic

"A step up from the Vox is the Trainwreck Rocket amp, which is a Vox taken to heaven. If you want to compare the sound of different rectifiers, use a Rocket. The amp has such clarity that Ken won't build one, unless he can get a Mullard GZ34 to ship with it. Anything less, and the amp won't perform to the level that Ken demands. The closest thing I've found to a Mullard GZ34 is an RCA 5Y3 I have. Ken points out that it depends on what week the tube was made. One week it might be DuPont chemicals, and the next week Dow chemical coatings. Everything affects tone." - copyright Thunderfunk Labs Inc. 1996 "Dave Funk's Tube Amp Workbook" first ed. p. 63 by Dave Funk

On topology of preamps: "Trainwreck Rocket 1+1; Trainwreck Express 1+2" where "+" signifies where the EQ is inserted. IBID p.100

"The Trainwreck Express is setup the same way but doesn't have this problem because the Gain Structure is such that the Power Amp distorts before any stage of the preamp, including the inverter Driver. The result is pure Power Amp Distortion, closely followed by Preamp Distortion. This adds a smooth flow of distortion turnover and points out the hardest thing to make a distortion amp do; change smoothly from clean to dirty. That is the edge where a lot of players like to hang out. If you get a touch going, where the dynamics of the players touch changes the texture of the distortion, you'll get everyone excited about your amp. Ken Fischer has done just that with his Trainwrecks. His output transformers have this great mid-range frequency response. Another reason Ken's amps work so well is that they are all around 30 watts of power. This allows Trainwrecks to be used for Power Amp Distortion. If I haven't said this before, I'll say it now. If you're not on Ken's waiting list, you should get on it now. It's the only amp I know that ALWAYS sells for more used than new. It's impossible to lose money on the deal, if you ever wanted to part with one." p. 106 IBID

If I were to guess, I'd reckon that monkeying with OT choice could be worthwhile. Getting a tranny that is not matched to textbook specs might help tame the high end and shift the voice to something a bit middier. Then the bottom could be reinforced during voicing. Think I'll try something along these lines.

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From: Morris Mitchell (mitchellm@gosaints.org)

Date: 2/5/2002 1:09 AM

Subject: The Trainwreck Rocket Topology

In the previous post it mentions that the topology for the Rocket is 1+1. Is that right? I thought it was the same topology as an AC30, with two gain stages followed by a cathode follower to drive the tone stack. How many preamp tubes are in a Rocket? Thanks in advance.

Morris

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From: Dr Rico (rmyers@recombineer.com)
Date: 2/5/2002 5:11 AM
Subject: Re: The Trainwreck Rocket Topology

I was quoting verbatim from Funk's book with no claims to its accuracy. I've never seen a Rocket schematic ar ANY Wreck up close and personal like.

Hasta -> Rico

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From: Jason A. (j1c1a1@aol.com)			
Date: 2/5/2002 1:49 AM			
Subject: All righty--3 hours is not enough time			

Tonight I spoke to Ken about TMJ, CFIDS, how I got screwed by the sellers during the walk through of our prospective new house we waited 5 months for and how we walked away from buying that piece of shit and Ken's high property taxes in NJ, the Komet, Pi Filtering in the power supply [in case nobody told you--look here if you want to try to get a lot closer--think about resonant frequencies and how they would coincide with guitar frequencies--hint about the bias filtering as well], Dirty Little Monster voltages and topology [class B single ended EL-34 output with real high voltages--like above 450VDC], Heybour transformers [as Kenny described them, "microscopically perfect!"], the Komet's power supply and how it keeps on giving when using a 5AR4 but not a solid state device--hint: those series 4007's in conjunction with a sand state rectifier turn out mushy, however, when used with a tube rectifier, they work great. So on and so forth.

I liked listening to the way Ken described how he goes about designing amps. The way he likes to put it is that he Engineers them from scratch. He actually plots operating points [loadlines and such] for given brands of tubes and designs the amps around these parameters. After all is said and done, he then does the final tweaks by ear. If you ask me, his ears are pretty fucking good. We spoke about this thread, and one of his comments was aobut how cloning never gets it quite right--reason being that he is more than 50 years old and has been playing with different parts, transformers, layouts, etc. since 12 years old. Makes perfect sense to me. The guy has just tried a bunch of differing ideas out and has created great amps from the trials and tribulations. He also explained a lot about how Public Domain patents are strategically guarded by some very lofty folks in the amp world [switchable rectifiers anybody?].

One of the things during our conversation today was that I brought up HiWatt only to learn that Harry Joyce died of cancer a few months back. Very saddening news, to me at least.

The ultimate point I am trying to make [have I succeeded?] is that Ken is very helpful, cool as hell to shoot the shit with, and willing to give answers to the nagging problems of amplification is you just ask nicely and aren't out to screw him over. Try it, you'll see. He even agreed to let me take him out to lunch some upcoming weekend, listen to, play, and critique my amps, and meet my future wife. A pretty cool guy who I respect greatly. Instead of being tantilized with teases about Trainwreck, why not write a letter or contact him yourselves.

No flames please--if it was you trying to get through this afternoon and into the evening, I apologize for keeping on the phone so long. If it says anything, we got disconnected 3 times because of his cordless, so you had 3 chances to connect. My apologies to anyone who could not get through.

Jason C. Arthur

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From: Greg (MusicWard@aol.com)			
Date: 2/5/2002 2:39 AM			
Subject: Re: All righty--3 hours is not enough time			

Nice post Jason!
Ken is a genuine good guy.

Thanks for the info.
Greg

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From:	Dai Hirokawa (DHirokawa@aol.com)		
Date:	2/5/2002 3:49 AM		
Subject:	Re: All righty--3 hours is not enough time		

Nice post Jason!

Ditto! Really interesting stuff!

Thanks!

Dai

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From:	Mitch		
Date:	2/5/2002 4:43 AM		
Subject:	Re: All righty--3 hours is not enough time		

Jason,

I had got Kens phone number back in the early 90's and called him on the phone to ask about different ways to biasing EL34's after reading his posts in the tube amp book 3 by Pittman. This was in the days I was just getting into modding amps just slightly. What I found was a really cool guy that was willing to give out info that most techs wouldn't even bother trying to do. I know as I tried to get the techs at Evans music City (Houston, TX) to give me some info back then and they snuffed me off the phone in the first minute I had called. Anyway Ken was so cool to talk with and gave out so much vast info that I was stoked about getting into mods even more. He is the all around cool super tech and a damn nice guy. I sure hope that Ken gets well from his illness and can get back to doing what he loves most, sonic art. The mans got golden ears.

Mitch

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From:	Steve A. (steve_ahola@yahoo.com)		
Date:	2/5/2002 5:47 AM		
Subject:	Re: All righty--3 hours is not enough time		

Mitch:

I've heard from at least a dozen people who have had long discussions with Ken about their amps, and he has been a source of inspiration to all of them. I guess he gets tired of people asking about Trainwrecks but he loves to talk amps and help you debug problems in your own projects and designs.

I sure hope that Ken gets well from his illness...

Well, I think that modern medicine is still trying to figure out exactly what Chronic Fatigue Syndrome is, and it may be quite some time before they find a cure for it.

--Thanks for your post!

Steve Ahola

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From:	Anthony Noel (anoel@gte.net)		
Date:	2/5/2002 7:58 PM		
Subject:	Re: All righty--3 hours is not enough time		

Well, I think that modern medicine is still trying to figure out exactly what Chronic Fatigue Syndrome is, and it may be quite some time before they find a cure for it.

Let's just hope that it turns out to be something simple like "He's just been bored for the last few years." and not something medically serious.

Not trying to make light of Ken's illness, but just hoping that it's nothing that will prevent him from having a good life.

START NEW THREAD	REPLY	PREVIOUS	LIST
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From:	Dai Hirokawa (DHirokawa@aol.com)		
Date:	2/5/2002 9:20 PM		
Subject:	Re: All righty--3 hours is not enough time		

Let's just hope that it turns out to be something simple like "He's just been bored for the last few years." and not something medically serious.

Not trying to make light of Ken's illness, but just hoping that it's nothing that will prevent him from having a good life.

From the very little that I've read (some book review of an author who had CFS), it's supposed to be extremely debilitating. There do exist ailments that are very debilitating without the person having some obvious problem (like a gaping hole in their head or whatever). I'm sure it must be a shitty depressing experience when he's feeling bad, and I hope he gets better so he can do the things that the disease keeps him from doing.

Dai Hirokawa

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From:	Mook (Mookie2112@aol.com)		
Date:	2/6/2002 1:39 AM		
Subject:	Re: All righty--3 hours is not enough time		

It's not just that.....Ken has had a heart attack AND a stroke.

I'll bet that's part of it, too.

Mook

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From: Jason A. (j1c1a1@aol.com)
Date: 2/5/2002 7:00 PM
Subject: Re: The Trainwreck Rocket Topology

Morris,

A Rocket has three 12AX7's, just like the others. First gain stage, second gain stage, direct coupled to the CF stage and onto the tone stack. Tone stack into the PI. It is a slightly tweaked out AC-30 Top Boost channel (cathode follower). From what I gathered from the man himself, one of the secrets to it's [exceptional] tone is biasing the gain stages into class A2. In otherwords, higher plate voltages. Looks like Kelley's observations on higher preamp plate voltages seem to really work well for harmonically dense tones. I have also tried raising the preamp voltages in my preamps with excellent results. The Rocket happens to be my favorite because of this--I tend to choose the Bassman/Vox/Plexi types of preamps for everything. Currently, I am still looking for 100 Watt Iron to build my metal specialty amp [single channel voiced to get Cantrell grind is on the drawing boards-- I always wanted a great strictly metal amp]. OEI is looking really good here, I just wonder if it will handle a pair of KT-90's with 5-600VDC on the plates. That's another post anyway.

Jason

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From: John Kelley Brown (ledboots@attbi.com)
Date: 2/6/2002 12:47 AM
Subject: Re: The Trainwreck Rocket Topology

Jason,

Humm, that explains why I prefer the tone of lower voltages on the EL34, (411v-413v on the Transatlantic), and higher voltages on the preamps tubes. The power tubes are getting a firm spanking by the preamp, then eventually the preamp starts to distort. Sort of the opposite of a Dumble.

Kelley

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From: Mook (Mookie2112@aol.com)
Date: 2/5/2002 1:44 PM
Subject: Re: Funk Logic

Dr. Rico's comment about the OT is VERY true. The part from page 106 was what I was talking about.

Mook

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From: jaysg (jayfbv@yahoo.com)
Date: 2/5/2002 7:38 PM
Subject: Re: Funk Logic

would the OEI plexi with an intentional mismatch be a good thing to investigate?

3400:4/8/16 or
6800: oh, damn...uh, 2/4/8 or 8/16/32...well you know what I mean.

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From:	Dr Rico (rmyers@recombineer.com)		
Date:	2/6/2002 3:38 AM		
Subject:	Re: Funk Logic		

Oh yeah, oh yeah, its my birthday, oh yeah!

Man, I NEVER win anything. Made my day Mook.

Smoke if you got em!

BTW, still selling the Callie? Is it close enough to be within tweaking distance? Just finished (again!) my wife's bass amp and have been drawing and redrawing layouts for a Wrecking Ball and snatching up iron and suchlike. Zoiks!

Hasta -> Rico


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From:	PeteRH (psharps@bigpond.net.au)		
Date:	2/5/2002 11:44 AM		
Subject:	Re: Pete...		

Dr Rico did a great job on the Trex (I like that) stuff.....but we'll probably never know if this is what Mook was referring to. It could be any of the gems such as the paragraph on a preceding page to one of the Trex quotes. Basically, Dave (sounds better than Funk) talks about sustain/compression relationships. Basically you can't get sustain without compression.....unless "you design the circuit to be locally unstable, you can find a sweet spot where the output couples back to the input, and creates sustain through local feedback. This is a difficult balancing act, unless the amp is built on a circuit board, where the parts can be orientated consistently. The thunderfunk uses this little trick, amongst others." I just started the book and class myself as an absolute beginner with amp theory. FWIW I think it's a great book.
Cheers
Pete

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From:	Steve A. (steve_ahola@yahoo.com)		
Date:	2/6/2002 2:21 AM		
Subject:	Planned Parasitics...?		

Pete:

Basically you can't get sustain without compression.....unless "you design the circuit to be locally unstable, you can find a sweet spot where the output couples back to the input, and creates sustain through local feedback. This is a difficult balancing act, unless the amp is built on a circuit board, where the parts can be orientated consistently. The thunderfunk uses this little trick, amongst others."

Jeez, I got a lot of flak here last year when I suggested that intentional parasitics might be a desirable factor in an amp... wish I had that Funk quote back then! 

In any case, the topic was the proper orientation of foil caps and my observation was that by having one of my Orange Drop coupling caps oriented backwards my Blues Express amp was a lot "livelier" and more responsive. When I switched the cap around the noise level dropped but the amp wasn't as much fun to play anymore. 😞

BTW Dave Funk is supposed to be quite an expert on Trainwreck amps so I wonder if the Wrecks also share his little "trick" (which is something that might not be obvious just looking at the schematic or at the amp itself... you'd have to hook it up to a scope to really observe something like that). Hmmm— using perfboard and flea clips you could keep moving the components around until the parasitic loops were "just right"... 😊

Steve Ahola

P.S. The parasitic local feedback loop would have to go back TWO gain stages (or four) for it to add to the sustain; if it went back one or three gain stages, it would reduce the volume and sustain.

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From:	PeteRH		
Date:	2/6/2002 3:05 AM		
Subject:	Re: Planned Parasitics...?		

Remember those threads about two people building the same amps with the same components and they sounded different? Was one of those threads Holgers??

I pictured the same thing with Ken moving those components and flea clips around. I have looked at a few layouts and thought why put that component there? Hmmm....could be something in it?

Pete

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From:	Carl Z (carl@zwengelamps.com)		
Date:	2/6/2002 5:13 AM		
Subject:	Re: Planned Parasitics...?		

I had made mention a few months ago about having built the amp dreams are made of and couldn't repeat it no matter what I did. Since then, I've managed to identify some of the mojo factors and they're NOT what most people would suspect. I've managed to get things to the point where I can get most of my amps close to that original.

Carl Z

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From:	Daver (bluefire@voyager.net)		
Date:	2/7/2002 2:17 AM		
Subject:	Sharing is Caring		


Carl,

Would you care to share what you found? Please? This is the part of amp building I find the most interesting...and frustrating! The whole component layout, lead dress, what you wore to work that day mojo stuff. It wasn't the black Dockers that did it, right? 😊 Thanks for any insight you can provide.

Daver

START NEW THREAD	REPLY	PREVIOUS	LIST
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From:	Carl Z (carl@zwengelamps.com)		
Date:	2/7/2002 3:56 AM		
Subject:	Re: Sharing is Caring		

Well, I'm not about to let the cat out of the bag but I will say that you need to measure ALL the parameters on your caps. Pay particular attention to ESR and inductance. Also, do not underestimate the effect of the caps in the power supply. Less is definitely more...up to a point.

How was that for vague? 

Carl Z

START NEW THREAD	REPLY	PREVIOUS	LIST
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From:	Dai Hirokawa (DHirokawa@aol.com)		
Date:	2/7/2002 4:01 AM		
Subject:	Re: Sharing is Caring		

Also, do not underestimate the effect of the caps in the power supply. Less is definitely more...up to a point.

Do they run out of headroom at a certain point when the amp is pushed and start un-decoupling to go into good oscillation?


(WILD GUESS)

Dai Hirokawa

START NEW THREAD	REPLY	PREVIOUS	LIST
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From:	Daver (bluefire@voyager.net)		
Date:	2/8/2002 1:17 AM		
Subject:	Re: Sharing is Caring		

Carl,

That was vague enough. D'oh! Are you talking about measuring parameters of power supply caps only or coupling caps as well? Was the difference in your amps due to different types or values of caps? Also was layout or lead dress a factor? You don't have to let the cat out of the bag, I just want

to pet it a little. 

Daver

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From:	Shane (shane_dolman@yahoo.com)		
Date:	2/7/2002 6:22 PM		
Subject:	Re: Planned Parasitics...?		

Steve.

Thinking about what's been said so far about possible differences in the Espresso's power supply and combining this with ideas about local feedback loops, has set me thinking about something I read in RDH.

In chapter 12, section 10: Stability, Decoupling and Hum

page 535 under Effect of common impedance in the power supply: it says:

“When two circuits operating at the same frequency have an impedance common to both, there is coupling between them, and the phase relationship may be such that the coupling is regenerative or degenerative. In the former case instability may result.

A two- stage resistance coupled a-f amplifier has degenerative coupling through the common power supply since the plate currents are out of phase. A three stage resistance coupled amplifier has the signal plate currents of the first and third stages in phase”

It then goes on to explain that this is because the total currents through the first and third stages (in phase), are greater than the currents in the second stage, and thus the resultant signal current through the common impedance will be in the direction of the third signal stage. This causes, across the common impedance, a signal frequency voltage drop.

It goes on to say:

“As a result, the signal voltage applied to the grid of V2,(the 2nd stage), through RL,1(its anode resistor), and C1,(its coupling cap to the next stage), will be in phase with the normal signal on the grid of V2 (2nd stage) thus giving positive feedback.”

It also goes on to say:

“If the gain of the amplifier is high there may be sufficient positive feedback to cause oscillation, this effect can be prevented by the use of decoupling.”

Now as we know this is why normally no more than two gain stages are supplied from one power supply node, BUT suppose you could get a balance so that oscillations didn't occur but some positive feedback was happening, could this be the type of instability that Dave Funk speaks of?

On Page 142 of Dave's book under combinations of feed back he says:

“However it is possible to combine negative feedback in the O/P stage with positive feedback in an earlier stage to give useful results.

The distortion in a 2 or 3 stage amplifier is mainly in the o/p stage and the distortion in a well designed 1st stage will be relatively small. It is practical to apply positive voltage feedback to the first stage only and then to apply negative voltage feedback over two or three stages to get low distortion and a low o/p impedance”

There's loads of other fascinating stuff about feedback on page 343, which shows a 3-stage amp with a +ve feedback loop between stages 1 and 3, and a -ve loop within this on the 2nd stage. Here it recommends that the -ve loop is about 10% of the +ve loop since it causes distortion in the 3rd stage, (maybe it's nice distortion!).

Infact pages 343-345 make very interesting reading.

Possibly even more so is page 337, which shows a circuit where the FB loop from the O/P transformer secondary on a SE amp, is connected to the bottom of a volume pot which feeds the driver stage grid. From the FB connection at the bottom of the pot this is grounded through a small value resistor, this has the rather interesting effect of increasing -ve FB when the pot is turned down, and decreasing it when the pot is turned up! This could prove interesting in a guitar amp!

I dunno maybe there is something in all this that needs investigating, I mean to go on and read chapter 7 of RDH about stability, phase shift and freq response but the maths in there scares the shit outta me!

Anyway this all might be me getting the wrong end of the stick what do you think?

Cheers

Shane

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Read 60 times

From: dpcoyle (dcoyle@nm.net)

Date: 2/8/2002 1:07 AM

Subject: Re: Planned Parasitics...?

"what do you think?"

I think it's very cool you posted that.

In RF one "loosely" couples circuits back to themselves and vary the coupling to vary the regeneration or positive feedback.

Dan

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Read 1 time

From:	Steve A. (steve_ahola@yahoo.com)
Date:	2/8/2002 7:14 AM
Subject:	Re: Planned Parasitics...?

Shane:

Thanks for the quotes! There was one other "factoid" that I just remembered from somewhere: supposedly the power supply in the Trainwrecks is in phase with the power output section. (Conversely in many other amps the two are not in phase with each other.)

That started to make sense to me one night, but that feeling soon passed. 😞 (I was thinking that it had something to do with the timing of the signals in the power supply vs the output section, but then realized that what might be true with a 500hZ signal might be completely wrong at 750hZ- or whatever.)

Maybe someone else might be able to explain how the power supply and output section might be in phase with each other...

--Thanks!

Steve Ahola

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Read 579 times

From:	John Kelley Brown (ledboots@attbi.com)
Date:	2/4/2002 5:47 AM
Subject:	Re: Mook, a question or two.

So Mook, can you give us the Express output transformer dimensions?
Kelley

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Read 581 times

From:	dr. KT88 (pdebs@mdc-berlin.de)
Date:	2/4/2002 12:10 PM
Subject:	its just an amp

It's just a guitar amp!!!!!!!FWIW, I had the opportunity to hear someone play a trainwreck in Rudys guitar shop about 6 years ago. I was a good sounding amp, but not nirvana. It may well be the holy grail for some, but personally I liked the victoria bassman copy sitting next to it much better.

anyone taking a loan out from the bank to buy a trainwreck is nutso.

Violin players who make a living out of their music are forced to because collectors drive the prices for violins beyond logic. Many of the new productions Violins are great but need about ten years before they "sing" so many are forced to buy an overpriced used older violin.

Just my 0.4 Euros

Dr.Kt88

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Read 555 times

From:	Stefaan Van Slycken (vanslycken@pandora.be)
Date:	2/4/2002 2:56 PM
Subject:	Re: its just an amp

I think the investment is not that crazy at all... these amps will always increase in value... if you need the money you sell it, if you don't, you'll have a blast with that amp... (unless it gets stolen or busted...)

Stefaan.

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Read 425 times

From:	Mark W.
Date:	2/5/2002 3:21 PM
Subject:	Re: its just an amp

Hey Dr. KT88,

Just out of curiosity, who was it that was playing the guitar in Rudy's guitar shop?. What kind of cab was the amp plugged into?. They didn't happen to play "Stairway to Heaven" on it, did they?.....

My hats off to all the tube ampsmith's who have a real keen passion to reach outside of the box to achieve even the minutest hint of improvements in sound. (Tone) is such a subjective term and it's an overused word in these circles. Wouldn't we all agree that tone comes from a chain of elements starting with the most important one,...hands.

I personally know of one such amp tech, who happens to be a drummer, that has the most acutely tuned ear for sound that I've ever witnessed. (I bet if he was pressed into playing, "Stairway to Heaven", he'd do it !.) My point here is that I know what it takes, as most all of the readers here, in terms of R&D, time, cost, labor, etc., and to most, yeah, 10K is out of the realm of practicality. On the other hand, there is a true "pride of ownership" and an appreciation factor of all things fine to consider. If one were to tally up and put a price on an end product like a Trainwreck amp or any of the other fine examples of boutique amps offered to us commoners from there inception, the cost would be incalculable.

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Read 371 times

From:	Naked Clarke (acl Clarke3@aol.com)
Date:	2/5/2002 10:52 PM
Subject:	Komet/Trainwreckl

What is the story on this one guys?

<http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1508551791>

NC

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Read 371 times

From: Mook (Mookie2112@aol.com)
Date: 2/6/2002 1:47 AM
Subject: Re: Komet/Trainwreckl

This is a Komet. Built by Holger Notzel and Mike Kennedy @ Riverfront Music in Baton Rouge, LA.

Is is a collaboration between Ken Fischer and Riverfront Music (Holger).

Currently, there are about 130 Komets in existence. It's a brand new amp, that has elements of Marshall, Fender, and Hiwatt (although I don't agree about the Hiwatt).

A great amp!! Also, has the BEST build quality I've EVER seen in an amp! Superb attention to detail. The circuit (a new one) was designed by Ken. The building is done in Louisiana.

www.kometamps.com

Mook

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From: Carl
Date: 2/7/2002 3:56 AM
Subject: Re: Komet/Trainwreckl

Please. It's a \$3600 POS. My Blockhead-100 fucking destroyed that bassless overbuilt pile of shit. I was lucky to dump it. I suspect the 10-14k Trainwreck is nothing more than a Vox knockoffall you idiots clamering around sniffing the horseshit surrounding these pieces of junk is a sad joke. It's a fucking amp made from parts.

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From: PaulC (p.cochrane@worldnet.att.net)
Date: 2/7/2002 4:12 AM
Subject: Re: Komet/Trainwreckl

I was wondering when Carl would be showing up here. Let me just say to everybody PLEASE ignore this guy. He has a personal vendetta with the Komet amp. He will slam it and anybody who says they like it, and then hide behind his "right to free speech". It went so far as to his making a comment about a HC member's 1 year old daughter being into Oral sex. The man is a waste, and he'll drag you down to his level in a heart beat. Just don't even respond to this. If Carl stays to form he'll fire a slam at me, but I'm not going to say anything more on the matter after this post. Trust me everybody - let this end here.

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From: Carl
Date: 2/7/2002 1:46 PM
Subject: Re: Komet/Trainwreckl

This is a Komet. Built by Holger Notzel and Mike Kennedy @ Riverfront Music in Baton Rouge, LA.

It's a loud, harsh, POS. It has no bottom either.

Currently, there are about 130 Komets in existence. It's a brand new amp, that has elements of Marshall, Fender, and Hiwatt (although I don't agree about the Hiwatt).

It has all the elements of an over-hyped \$3600 ripoff. As we speak 2 more are on HC's Classifieds. People are wising up to this joke.

A great amp!! Also, has the BEST build quality I've EVER seen in an amp! Superb attention to detail. The circuit (a new one) was designed by Ken. The building is done in Louisiana.

Great build quality.....shit tone.

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Read 124 times			
From:	Mook (Mookie2112@aol.com)		
Date:	2/7/2002 8:17 PM		
Subject:	Re: Komet/Trainwreckl		

Osama has nothing on you.....

Mook

START NEW THREAD	REPLY	PREVIOUS	LIST
Read 291 times			
From:	dr. KT88 (pdebs@mdc-berlin.de)		
Date:	2/6/2002 8:58 AM		
Subject:	Re: its just an amp		

Jack Morer (sp?), matchless 2x12 cab didn't play stairway

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From:	Chuck		
Date:	2/6/2002 5:55 AM		
Subject:	Re: its just an amp		

When it comes to art, value is hard to quantify. The same can surely be said of collectable boutique amplifiers. I personally would never spend \$12.5k on an amp (I personally couldn't spend \$12.5k on an amp) but that isn't to say it's not worth it.
