Subject: Proud Papa Syndrome (Check out my new amp...)
Posted by TubeCraft on Sun, 30 Jan 2005 14:42:10 GMT
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Hi there all,I just finished my new PP 6B4 amp. It uses the ST70 transformer set on a prototype stainless chassis, with brass and stainless hardware. I doesn't mean much, when I say that it's best thing I ever heard, because I haven't heard a lot of good amps, but I have experienced (and participated in as a sound technician) a lot of live music and theatre over the years. It has an incredibly rich tone with a lot of interior subtlety.The circuit is a 6S4 cascaded into a 7044, driving a Hammond 124E IT in a parafeed config. I basically copied the topology of the WE86A. I call it the Franklin 15.This was taken before the amp was wired. Now it's a thing of beauty with all the tubes lit up at night.TC
Franklin 15 Schematic

Subject: Re: Proud Papa Syndrome (Check out my new amp...)
Posted by Wayne Parham on Sun, 30 Jan 2005 15:27:20 GMT
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Oh, man, that's excellent! I'd love to hear your creation; Thanks for posting the photo.

Subject: Re: Proud Papa Syndrome (Check out my new amp...)
Posted by Manualblock on Sun, 30 Jan 2005 16:11:45 GMT
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Looks to be about as good as it gets. Can you tell me exactly what the dimensions of the top plate are. And in the schematic it calls for 5687 driving the IT but you don't mention that tube in your description. What speakers are you driving with this amp and which taps off the opt's, 8ohm? She's a beauty.

Subject: Re: Proud Papa Syndrome (Check out my new amp...)
Posted by TubeCraft on Sun, 30 Jan 2005 16:50:49 GMT
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She'll take a 5687 or a 7044 or a 6900 (should you be lucky enough to have any of those), they're similar enough to work in that spot. It'll take most any 5v rectifier that can deliver the current. 5u4 or 5AR4 or GZ37. At the moment, the B+ is right for NOS 6B4s - when I run the Sovteks I can

crank up the B+. It's also easily converted to fixed bias for up to 15wpc. It's 7wpc currently.The chassis is 10x17. The largest that would fit in my cheapo cabinet.Speakers are old Klipsch Heresys circa 1977 - still alnico magnets then - at least on the mids and tweeters. (They're slightly modified.) Driven from the 8 ohm tap.TC

Subject: Re: Proud Papa Syndrome (Check out my new amp...)
Posted by Manualblock on Sun, 30 Jan 2005 18:47:01 GMT
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Nice combo; I used Forte's for years and still think they sound good. If I may, what decided you on 6B4?

Subject: Niiiice!
Posted by PakProtector on Sun, 30 Jan 2005 19:19:13 GMT
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Hey-Hey!!!,that is the first mention I have heard of the 6S4 in a bit. Nice looking chassis. I would try some small motor run oilers instead of the Solen caps. My experience has not been positive with the dry metalized solens(except when I have taken them out!).I'd love to hear it.regards,Douglas

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Subject: Re: Proud Papa Syndrome (Check out my new amp...)
Posted by TubeCraft on Sun, 30 Jan 2005 19:52:50 GMT
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Triode performance. Availability. Price. Pin-out compatability with an incredible range of power tubes. I like to experiment. Beautiful NOS examples still available for reasonable prices.TC

Subject: Re: Niiiice!
Posted by TubeCraft on Sun, 30 Jan 2005 20:07:43 GMT
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Yeah, I'll be replacing the solens in various positions as time goes by and as I collect more motor-run caps and Vitamin Q's. The chassis is a bit small to go as wild in this direction as I want

to.I'm not as impressed with the Cerafines as I had hoped - perhaps they need to breakin longer...I'm getting some Angela tin foil caps to try. My budget is a bit limited for the more exotic types. The world needs a good $10 1uf 600v Teflon cap.Alternately, I'm going to obtain some some input transformers and go the completely balanced route - that'll get a few caps out of the chain.I like the 6S4s - they're pretty NOS black plate Tung-Sols - NJs finest...

Subject: here's my 'in-progress'
Posted by PakProtector on Sun, 30 Jan 2005 23:08:48 GMT
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It's my new linestage. 12B4A amplifier valve and 12BY7A active loads behind their respective 12B4. It's waiting on acquisition of the four RCA jacks and a few yards of under-hood wiring.DC filament supplies, all L-C single stages with a lot of capacitance. Still need to tune the filter voltages. I considered the 6S4 but don't need all that much gain. I am also fairly comfortable with using the 12B4.regards,Douglas

Subject: Re: she's a beauty!
Posted by TubeCraft on Mon, 31 Jan 2005 11:30:25 GMT
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Very nice! Is it two 12BY7s per channel in the active loads? I did up a 12B4 linestage last year with a couple of Freed line transformers that I scored from Angela years ago. Ya' gotta love the 12B4 - when you can find 'em that aren't microphonic!

Subject: Re: she's a beauty!
Posted by PakProtector on Mon, 31 Jan 2005 11:49:55 GMT
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This is a source of on-going astonishment for me, the microphonic 12B4. I have a small stash of them and have not had any more bad ones than any other sort of valve. Perhaps the sensitive 6SN7 crowd pushed this a little askew, but I have not found the 12B4 particularily microphonic. Two 12BY7's per channel make the active-load/output buffer. 12GN7 is a direct plug-in and at 250% the gm, it won't be ong before I put them in.Still need to get a few bits to put her together. cross your fingers.regards,Douglas

Subject: Re: she's a beauty!
Posted by TubeCraft on Mon, 31 Jan 2005 15:09:21 GMT
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Well the gain is so low that ya' kinda have to shoot 'em with a BB gun to hear it, but it's there in most of the bulk packed ex-millitary stock 12B4s I have ;>) I just use em anyway.It's nothing like a microphonic 12AX7 when you accidentally knock over a Fender Princeton. :o()

Subject: Re: Proud Papa Syndrome (Check out my new amp...)
Posted by Thermionic on Mon, 31 Jan 2005 22:31:46 GMT
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Wow! There's some very talented DIYers here at ART! Beautiful and very impressive work everyone. My hat's off to ya!As I had promised Wayne, here's a pic of a current amp project. Nothing special at all, just a clone of a Dynaco ST-35 for a friend, with some different component values here and there, a better power supply with Fairchild Stealth hyperfast/soft recovery diodes and choke filtration, and a slightly changed circuit. I'm still using the 12DW7 driver, and the iron is all vintage Dynaco pulled from a scrapped ST-35 that my friend's buddy fished out of a dumpster!He wanted it to have as warm, smooth, and romantic of a signature as possible, so all the resistors are carbon comps and the coupling caps are paper in oils.It's not completed yet, but I threw some tubes in it and snapped a quick pic with my cheap, totally blurry camera. Sorry for the poor quality snapshot! I've had to shelve it back for several weeks now due to the avalanche of amp service jobs I've been getting. The left hand control on the Dynaclone is the volume, while the right hand knob is a variable negative feedback control, with 0, 6, or 12dB of feedback. It also changes the voltage amplifier section's bias on the fly with the feedback, to increase the gain a bit in compensation as the feedback is increased. You may be able to see that a couple of transformer mounting screws are missing. There's a bracket inside with the choke and filament tranny on it that mounts on those screws, that's not in place yet. The chrome acorn nuts on the iron are something I do on every amp I build, to me it looks classy and gives a well-finished look. The hammertone bronze and midnight black finishes were at my friend's request.Pretty soon, I'll be building a DRD 300B, DRD 2A3, an EL34 PP with transformer phase inversion, and some various other stuff. All three amps will have choke loaded, battery biased 6C45 drivers, Plitron OPTs, and the DRDs will have motor run oil caps in the PSU. Can't wait!Once again, mungo beautiful amps everybody, one and all! Congratulations!Thermionic

Subject: Re: Proud Papa Syndrome (Check out my new amp...)
Posted by Wayne Parham on Tue, 01 Feb 2005 06:20:39 GMT
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That's a really great looking amp! Thanks for the post!