Bench Tests

Peavey, Trainwreck, VHT, Ampeg Tube Heads

BY ART THOMPSON

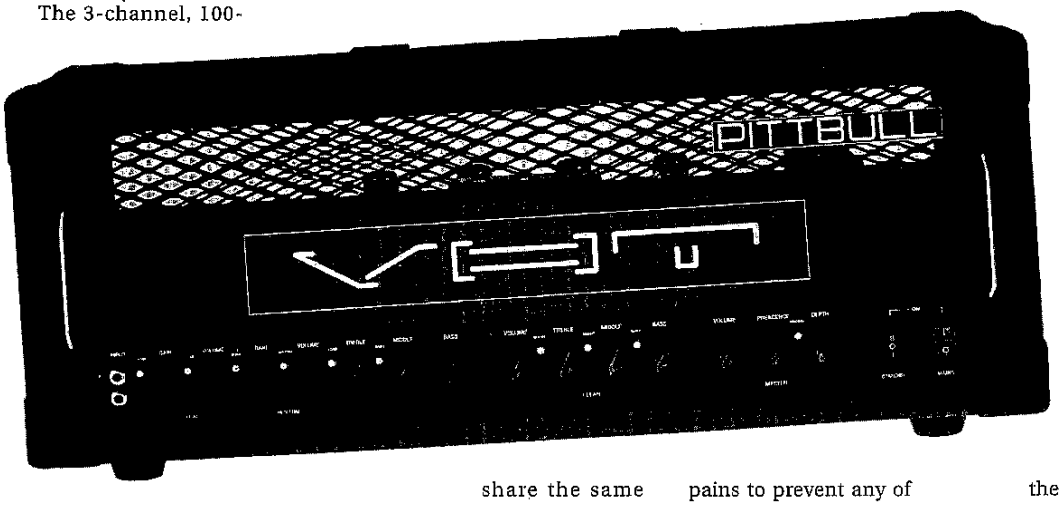
WHERE WOULD rockers be without raging tube heads? [*Ed. note: Probably playing jazz.*] Recently we've noticed a bumper crop of intriguing new amps on the market. Just for you, we rounded up four and took 'em for a spin.

The 3-channel, 100-watt, all-tube **VHT Pittbull** ($1,795) comes in three versions: the Classic, which uses four EL34 output tubes, the One Hundred, which features a dual KT88 or 6550 output stage, and the Sixty-Six, which is optimized for 6L6s. We tested the Classic and One Hundred. Both models share the same preamp and features; we'll discuss their sonic differences momentarily. Inside the Pittbull's powder-coated steel chassis lies a very clean circuit. Cables are cut to minimum length and neatly bundled; soldering is grade A. The American parts are a refreshing sight.

Although most of the components—including tubes—are mounted on two large PC boards, VHT has taken great pains to prevent any of the usual problems associated with this type of construction (i.e., cracking of board traces, heat stress from board-mounted tube sockets, etc.). A few examples: The high-quality glass/epoxy circuit boards sport heavy copper plating. Molded aluminum bushings give the pots a wide base of support against the front panel and minimize flexing. Preamp tube sockets are beefed up by a center shield pin soldered to a large pad. The power section is protected by high-voltage diodes and shunt caps to prevent arcing between the tube pins. The output transformer is safeguarded against open load conditions, such as having the speaker cord yanked out at full volume. (We tried it, and the transformer lived.) The list goes on.

The Pittbull's effects send and return, line out, and speaker outputs are all wired in phase with the input. This means you can use the amp in different ways in the studio without fear of phase cancellation. For example, you could mike the cabs on a rhythm track, use preamp direct out on a lead track, lay down additional effects tracks, and have everything in phase at mixdown. Another unusual feature: The amp uses a 12AU7 driver tube instead of the usual higher-gain 12AX7. According to VHT, the 12AU7 yields the sweetest sound. Switching to a 12AX7 gives more shred, while a 12AT7 kicks harder with more definition.

Both models feature a pentode/triode switch that cuts the



The Pittbull delivers furious overdrive and happening clean tones, but takes a big bite out of your wallet.

"Rock stars are going to start going deaf."—PETE TOWNSHEND, MAY '72 *GP*

power to 50 watts in the triode position. The Classic also features a half-power switch that bypasses the two inside power tubes. In half-power triode mode, the output drops to a soulful 25 watts.

The amp offers high- and low-sensitivity input jacks; the former has a brighter tone, the latter yields a darker sound. There's a lead gain control and pre-effects lead volume. A frequency-dependent "lead edge" switch increases the gain slightly as you move up the neck. The footswitchable lead channel overrides the rhythm and clean channels, and must be off for the rhythm and clean channels to operate. The gain boost switch allows you to configure the rhythm channel as a crunch or medium gain affair. Other rhythm channel controls include gain, pre-effects volume, and edge switch. The lead and rhythm channels share the treble, shift switch (which lowers the treble, middle, and bass frequency shelving), middle, and bass controls.

The clean channel offers volume, treble, middle, and bass knobs, as well as boost, bright, and shift switches. The master section contains post-effects power amp volume, presence, a frequency voicing switch, and a variable power amp damping control. There's even a power amp mute switch that lets you use the Pittbull as a preamp.

Hands on. With its unbelievable gain, the Pittbull's lead channel is *extremely* intense. Even the most anemic pickups should produce gobs of sustain. The rhythm channel is perfectly structured for any kind of grind chords imaginable and—with the boost switch on—is excellent for lead. Both models have miles of headroom and keep their tight, well-defined low end at absolutely ear-blistering levels. Even fully cranked, there's no noticeable compression in the preamp stages. Like their canine counterparts, these amps just don't back down.

It's refreshing to see a high-gain amp builder take clean sounds seriously: On either amp, the clean tones are very crisp and usable. (The clean channel has a fairly wide gain range and can actually drive itself and the power stage into decent levels of distortion if desired.) To my ears, the EL34 Classic produces a sweeter, more multi-dimensional overdrive than the KT88 One Hundred. The latter, however, is tighter and boasts a bigger bottom and harder midrange.

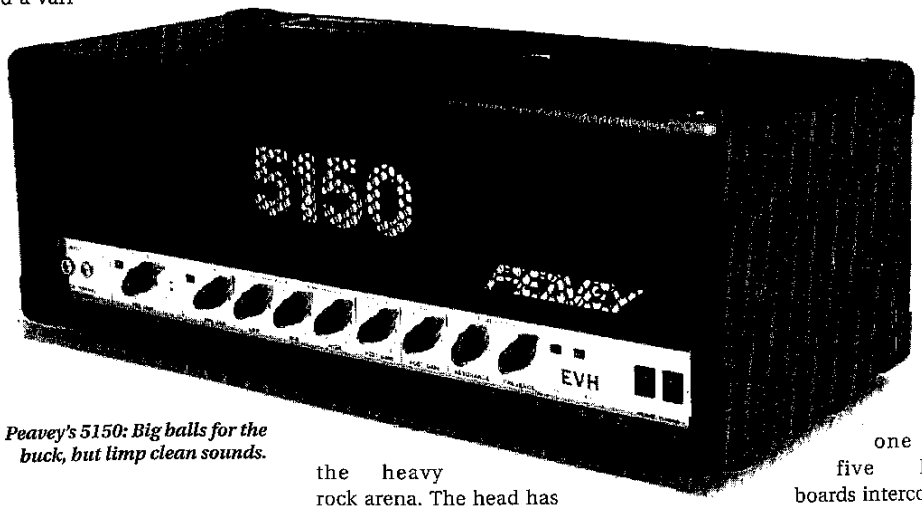
The Lee Jackson-designed **Ampeg VL-1002** ($1,300) represents the company's latest entry into the heavy rock arena. The head has two footswitchable channels, reverb, power attenuation, effects loop, and a unique bias selector that allows you to use either 6550s or EL34s. The VL's construction looks strong and clean, though in certain areas excessive lengths of wire are simply bundled and tied instead of being trimmed to fit. All the pots, jacks (except reverb send and return), and most of the switches are mounted to one of five PC boards interconnected by wire harnesses that plug into terminal blocks.

The Ampeg VL-1002: For best results, play it loud.

The pots and most of the other small components appear to be imports. The four output tube sockets are mounted directly to the steel chassis, but the seven preamp and driver tubes are all mounted to the PC board with the tube shields attached to the chassis.

Channel 1 offers preamp level and low, mid, and high controls. Channel 2 provides preamp level, gain, a 5-position frequency switch, and low, mid, and high controls. The reverb, master volume, and presence knobs affect both channels. You need a key to turn on the mains. This power lock system is intended to prevent sonic interlopers from playing your amp. I suppose it could come in handy at times, but if you lose your keys as much as I do, it could also be a real drag. Fortunately, there's a spare key inside the amp that you can access by removing four screws. And those with a genetic propensity for losing keys can leave the amp locked "on" and run it from the on/off and standby switches.

Hands on. In lead mode, the



Peavey's 5150: Big balls for the buck, but limp clean sounds.

MANUFACTURERS' ADDRESSES:

Ampeg, dist. by St. Louis Music, 1400 Ferguson Ave., St. Louis, MO 63133; (314) 727-4512.
Peavey Electronics, 711 A St., Meridian, MS 39301; (601) 483-5365.
Trainwreck Circuits, 59 Preston Rd., Colonia, NJ 07067; (908) 381-5126.
VHT Amplification, 10644 ½ Magnolia, North Hollywood, CA 91601; (818) 505-1150.

VL has plenty of gain and enough definition to allow articulate soloing, though at extreme settings the preamp begins to compress and the sound gets a little mushy. (According to Ampeg, the high-gain channel is designed to compress and yield slower note recovery when boosted to the max.) The clean channel is structured for fairly high gain and is much better suited for crunch rhythm than clean tones. The latter timbres are rather generic. The VL's spring reverb operates on both clean and distortion channels. It sounds fine, but seems a bit out of place on this type of head. The variable power attenuator is cool, allowing you to maintain reasonable volume levels at high settings without drastically sacrificing dynamics. (Typical master-volume designs aren't so cooperative.) The amp's active EQ is quite effective, though you may or may not like the radical voicing changes that occur as you boost or cut different ranges. The frequency selector is a nice addition: It lets you tailor the amp's overall midrange response. I like the sound of the VL best at full volume with the 6550s running flat out. Remember, the VL is also compatible with EL34s. We popped in a set and flicked the bias switch to the EL34 position. Sure enough, a sweeter, more open tone emerged from the speakers. The trade-off was a looser bottom end.

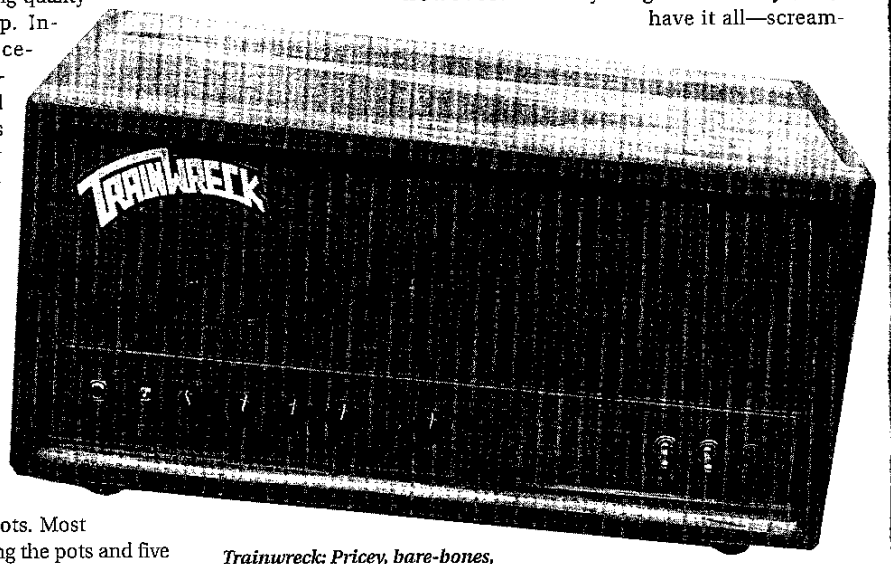
The all-tube 120-watt Edward Van Halen-inspired **Peavey EVH 5150** ($899.99) has dual footswitchable channels and a switchable effects loop. It offers high- and low-gain input jacks, bright and crunch switches, and rhythm pre-gain, lead pre-gain, rhythm post-gain, lead post-gain, low, mid, and high, resonance, and presence controls. (Whew!) There's also a preamp output jack.

The amp uses four 6L6s, tubes that are noted for retaining their high end at loud volume. This is a bit surprising: More Brit than Yank, the amp sounds like it's equipped with EL34s.

The inside layout is neat, displaying quality workmanship. Instead of the ceramic disk capacitors and large CTS pots typically found in tube heads, the 5150 boasts custom high-tech miniaturized components, including precision glass monolithic capacitors, carbon-film resistors, and sealed Alps pots. Most parts, including the pots and five additional fuses, are contained on a large glass/epoxy PC board. Four smaller boards hold the rear panel jacks and some additional parts. Five 12AX7 preamp tubes are mounted on one of these boards and are accessible from the rear panel. Nice touch. Power and output transformers and the output tube sockets are mounted directly to the steel chassis.

Hands on. The 5150 is designed to be an all-out rock-and-roll machine. The lead channel has a very high gain structure. Its intensity notwithstanding, I don't really hear Eddie's famous "brown sound" in this channel. Rather, its tone resembles an aggressive modified Marshall. There's probably not a shredder around who won't find something to like about the lead channel, despite its high hiss level.

The rhythm channel is structured for crushing power chords, but it also has enough gain on tap to work well for lead. Cranked, it gets very distorted with a lot of low end that's perfect for earthshaking rhythm or fat Billy Gibbons stabs. The crunch switch adds lots of gain and bottom; I definitely preferred the sound with it on. Trying to coax good clean tone out of the 5150 is a waste of time, however:

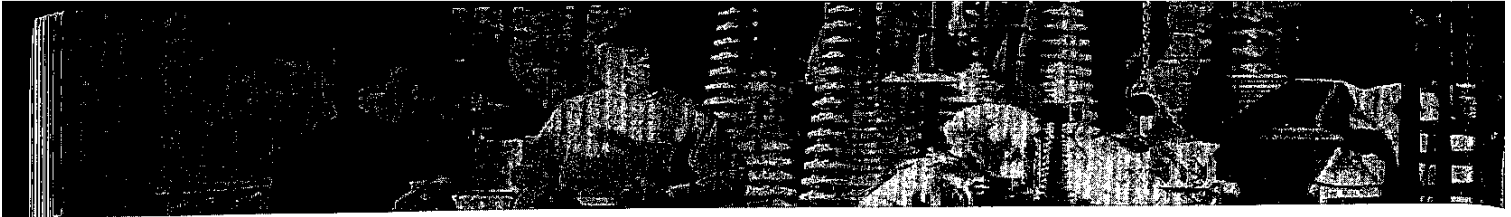


Trainwreck: Pricey, bare-bones, 36-watt tone diety.

In this mode, the sound is dull and uninspiring.

The channels share a passive EQ that's nicely tailored for ample lows and highs with a subtle, but effective, midrange knob. The 5150's resonance control is the most happening feature on the amp; it beefs up the sound by boosting power amp gain in the low frequencies and is intended to offset any low-end speaker cabinet roll-off. It worked quite well with a variety of enclosures. The presence control affects the power amp's high frequencies in the same manner. Overall, the designers voiced the EVH very well for its intended purpose. The footswitchable effects loop is a nice feature. There are, however, no loop level controls, so properly matching your effects to the EVH is somewhat hit or miss. For the record, an assortment of Boss stomp boxes worked fine in the 5150's loop.

If you believe that less is more, the **Trainwreck Express** ($1,500) deserves your attention. Despite an absence of channel switching, effects loop, graphic EQ, or reverb, the Express is one of the most sensitive and dynamic amps we've ever played. The theory is that with one correctly designed channel you can have it all—screaming leads, crisp, clean rhythms, and anything in between—by simply manipulating your guitar volume knob. Hot damn—continuously variable dynamic "channel switching"! With its stained maple cabinet and front panel, the Express has an appealing '50s hi-fi look. Its graphics are hand-applied with a woodburning tool; control functions are marked with a "V"



Speakers play a critical role in any amp's sound. We tested all four heads through a pair of old Marshall cabinets with original 30-watt Celestions, a VHT 4x12 cabinet containing new 25-watt Celestions, and a Peavey 4x12 cabinet with Peavey Sheffield 1200 speakers. It's beyond the scope of this review to get into the fine points of the different cabs and speakers, but both the Peavey and VHT boxes sounded excellent. We were particularly impressed with VHT's minimum bracing design that lets the cabinet "breathe," yet provides enough rigidity for well-defined sound.

for volume, "T" for treble, etc. Tribal! These indications are rather difficult to see in low light or when looking down at the front panel; I found it necessary to memorize the layout. Fortunately, the Express sounds great no matter how you set the knobs.

The passive treble, mid, bass, and presence controls have a wide response range. Using the 3-position bright switch, it's easy to get a killer distortion sound with the knobs in the middle of their ranges and the guitar full up. Rolling the guitar's volume down decreases crunch; ultimately, you get a ringing, Fender-like clean tone. The only thing missing is reverb.

You pay a price for this glorious one-knob performance: With no master volume control to lower the output as you run up the gain, hiss quickly becomes apparent. I found that with the gain knob at about 10 o'clock (Trainwreck amps don't have numbers on the front panel), I had all the distortion necessary for saturated leads. Pushing the gain further simply increased distortion without adding much level.

The amp's hand-wired interior is simply beautiful to behold: The small parts are mounted on a perforated circuit board, and all connections are made via ultra-neat point-to-point wiring. Trainwreck uses only the highest quality components—silver mica caps, precision resistors, and ceramic tube sockets. The Express features a unique circuit design that lets you use either two 6V6s or EL34s without having to re-bias. This handy feature encourages you to explore the sonic qualities of these very different tubes with ease.

The Express is rated at 36 watts with EL34s. Driving four 10" JBLs, the volume is a bit less than you get from a Fender Super Reverb. Designed primarily as a recording or small club amp, the Express produces superb tone at medium volume. Onstage, if you play with a loud drummer and can't mike the amp, it may simply not have enough volume or headroom.

Like the Pittbull, Trainwreck amps are designed to be "phase coherent"—i.e., the input signal is in phase with the output signal. Designer Ken Fischer also uses solid-core wire throughout, because he feels braided wire contributes to phase and time alignment problems. Another big difference: Trainwreck uses an aluminum chassis, like those on early Marshalls. Ken explains that aluminum doesn't interact with the magnetic field of the output transformer the way steel does, and this improves the amp's overall tone. Amp gurus may dispute the validity of these theories, but they certainly do nothing to hurt the Express' sound.

Hand-built one at a time, Trainwreck amps represent the pinnacle of old-world craftsmanship. Although $1,500 is a chunk of change for an amp that supplies no bells and whistles, the Express is a serious choice for anyone seeking the Holy Grail of tone. The waiting list for an Express is quite long. You pay for the amp when it's finished; if you're unhappy for any reason, simply return it within a week for a refund.

Summary. The VHT Pittbulls capture the essence of that highly transient "in your face" old Marshall tone. They also deliver all the features you expect from a modern rock amp: super high gain, intelligent effects loop, bulletproof construction, and superior clean tones—something others seem happy to ignore. An expensive, first-class act. The more affordable Ampeg VL-1002 gets a great high-volume sound; cool features like the EL34/6550 biasing switch, variable power attenuation, and the 5-position frequency switch make this amp well suited for a variety of tasks. The Peavey 5150 shatters the myth that 6L6 tubes don't sound good for heavy metal, and its resonance control is one of the coolest things we've seen lately. Dollar for dollar, it offers the best price/performance ratio in this roundup—and perhaps the best in its class. Compared to these other amps, the Trainwreck Express is out in left field. But it sounds so wonderful we just had to let you know. This little guy responds to every nuance of your playing, and acts more like an old friend than something you learn to master. It won't knock you down with volume, but its tone should knock you out.

Seymour Duncan Tara Amp

BY JOE GORE

THE FULL NAME OF Seymour Duncan's new amp—"true acoustic response performance system"—makes no mention of its primary purpose: amplifying acoustic guitars. But the tag is more than techno-fetish jive talk. Creative minds will find many uses for this extraordinary amp besides making acoustic guitars sound loud and good, though the Tara performs that task extraordinarily well.

A 39-lb P.A. With its slant front, tolex or tweed covering, and faux-leather handle, the Tara has a comfy, early-'60s look. But it's probably best to think of the unit as a self-contained 100-watt P.A. suitable for amplifying anything that requires clean hi-fi sound (just about everything, that is, except tube-tinged electric guitar). Both its channels have 1/4"-inch (ultra-high-Z, perfect for piezos) *and* XLR (mike) inputs with separate level controls, 5-band graphic equalizers, and pre-EQ effects loops. There's also a master effects loop and a master volume control. The Tara has no built-in effects, not even reverb.

Counting the three mono effects loops (each switchable between +4 and -10 dB), that's *sev-*