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Wyetech Labs Sapphire 300B



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Source: Wyetech Labs

Price: \$7,000.00 US/pair

Rating: 🎵🎵🎵

Regular readers are likely familiar with Wyetech Labs, manufacturer of the Opal preamplifier and the Onyx monoblock amplifiers we use for some of our evaluations. The company is operated by Roger Hebert who is a prime example of a perfectionist. In business since 1996, Hebert has produced some of the best high-end amplifiers and preamplifiers we have had the pleasure to audition. Presently Wyetech Labs manufactures and markets four preamplifiers—the Opal, the Jade, the Pearl and the Coral three power amplifiers, the Topaz, the Onyx and the Sapphire under review. A phono stage will be available

in the future. Hebert has named all his models after precious stones—gems—which may be a bit presumptuous on his part, but may well convey the overall behaviour of these components in an audio system. Be that as it may, let us first describe the amplifiers'...

Appearance:

The chassis used for these monoblocks is the same as the one used in the Onyx. However, whereas the Onyx (reviewed in Vol. 13 #4) is a single ended amplifier using 1 dual triode, 9-pin base 5814A (JAN MILITARY NOS) in the input/driver stage and 2 dual triode octal base 6080WC in the output stage, the Sapphire is a first for Hebert using 300B tubes and different transformers with gold-plated tops. The tubes are arranged at the front of the deep lavender chassis with brass name plates on the transformer, stating Sapphire 300B. The chassis is made of rugged 14 gauge steel welded to further reduce vibration induced signal aberrations.

On the sides, polished brass handles allow for easy lifting and accent the chassis' appearance. Hebert has used quality paint with a primer coat and a final baked-on finish to further compliment the appearance. The deep lavender colour accentuates the satin black finish of the output transformer and power toroid with black aluminium cover. Two toggle switches on the chassis' top allow selection of 2, 4, 8 or 12 ohms (auditioning will determine what sounds best in your system). The RCA inputs as well as the speaker terminals are located on the unit's top rear. The on/off switch and indicator light are on the top front of the chassis. Each amplifier measures 9.5 inches wide, 16 inches deep, 8.5 inches high and weighs 33 pounds. The Sapphire amplifiers are handsome designs with the tube filaments facing forward for additional effect.

Technology:

As with all Wyetech Labs designs, the circuitry layout is augmented by extremely beefy, high voltage DC power supplies, well separated from the output stage. Filtered DC on the filament of the input/driver tube was implemented to keep hum and noise as low as possible. The 300B output filaments have dedicated, regulated DC 5 volt supplies that cancel additional adjustments for hum and noise, thus maintaining signal purity. Analogous with the Onyx, a quasi-parallel circuit design allows each of the two output triodes independent, automatic biasing. The plates are the only parts tied together to drive the output transformer—a method which doubles the parts in the biasing circuit over conventional designs. This results in signal clarity comparable to a single triode (as in the flagship Topaz amp). A custom Hammond output transformer was chosen to provide swift reaction to bass information while extending frequency response all the way up to 40kHz.

In addition to the carefully matched 300B tubes (Full Music), the Sapphire amps employ rugged 5687 NOS triode tubes for voltage and gain stages.

The amplifiers boast delayed DC power sequencing circuits to prevent cathode emission deterioration, thereby maximizing tube life. Large Solen signal capacitors along with the earlier mentioned wide bandwidth output transformer assure minimal overall distortion at maximum power and are likely responsible for the feeling that one is listening to much more than the rated 18 watts (per channel).

All stages operate in pure Class A1 mode and, needless to say, the design features absolutely no feedback. Frequency response is from 11Hz to 28kHz at +0/-1dB and from 6Hz to 43kHz at +0/-3dB gain (sensitivity); input impedance is 20dB (1.28Vrms) @ 55kΩ (low), 25dB (0.6Vrms) @ 50kΩ (medium) and 30dB (0.38Vrms) @ 200kΩ (high). Now to the important part ...

The Sound:

The amplifier arrived in our listening studio well burned in and the first, though casual, audition got our

attention immediately. For our first listening session, we auditioned the Sapphire with the PSB Platinum Series model T8 speakers reviewed in our last issue. We noticed that the loudspeakers' exemplary resolution in mid and high frequencies now had that certain touch of warm, pleasant radiance for which 300B designs are well known. Unlike most 300B-based amplifiers, however, bass finished with authority and muscle, rounding up harmonics not heard with other amplifiers. As expected, the highs were nothing short of fascinating: smooth, harmonious, lush and exquisitely textured.

For our next listening session, we connected the Coincident Grand Victory loudspeakers reviewed in this issue. This system combination wasn't just good; it seemed to be a match made in (audio) heaven. Once the ribbon tweeters had been operating for about half an hour (see the Coincident review), the highs were impeccable, culminating all the way to the dog-whistle range. While this was noticeable with all amplifiers we used for the Coincident tests, none had the ability to match the Sapphires' harmonious mastery. It has been said that 300B designs cannot completely finish top and bottom frequencies, though midrange information is routinely better. The Sapphire amps, however, didn't merely finish those frequency extremes, they allowed harmonics to survive, adding what can only be called musicality.

We then connected the Editor's Ethera Vitaes loudspeakers (reviewed in 1992) which, though not a recent design, have the uncanny ability to reveal the personality of electronics, cables, etc. Connected in single wired mode, it didn't take long to hear the amplifiers' strength, resolving information without diminishing the musical calibre, and show that loudspeakers with an efficiency rating of about 87dB can and will perform well with 18 watts of 300B power. The Ethera's most endearing characteristic is their handling of complex musical information and imaging—the Sapphire/Ethera system provided musical enjoyment that transcends the equipment.

For our final listening tests, we connected the amplifier to the Angstrom Obligato loudspeakers, also reviewed in this issue. As with the other two sets of loudspeakers, the Sapphire amps asserted their presence with a liquidly smooth, full-range sound that can be described as seductive. Highs as smooth as a baby's bum, midrange as inviting as an easy chair and bloom as beautifully as a cherry tree in spring. We especially liked the loudspeakers' tonal balance, underscored here with the amplifier's ability to handle all frequencies with special musical glow, but without diminishing resolution across the entire bandwidth.

All system combinations established the Sapphires' proficiency to recreate a great sound stage with precisely bordered dimensions, front-to-back layering, superb focus on instruments and voices—all information four feet off the ground, just as one would expect at a live performance.

For all auditioning sessions, source components included the Audio Aero Capitole CD player (reviewed in Vol. 15 #2) and the Chord transport and DAC reviewed in this issue and Nordost Valkyrja cables (reviewed in Vol. 15 #3).

Synopsis & Commentary:

Although loudspeakers used for our listening tests are of excellent quality, they differ in efficiency, design and overall tonal character. However, they allowed our panelists to hear the personality of the amplifier. While this hints at quality loudspeaker design, it also indicates that loudspeakers with efficiency ratings of 88dB or more can be used with this very special amplifier. We feel that Roger Hebert's new design incorporates some of the virtues of his single ended Topaz-resolution, unceasing power reserves and kinetic energy—combined with the gracious and delicate properties for which 300B designs are known. The resulting sound of these amplifiers is not easily described. Our Editor feels that the Topaz is a more precise amplifier, very difficult to label as a vacuum tube or solid state design. The Sapphire monoblocks, on the other hand, exhibit many of the characteristics of the 300B vacuum tubes which lend these amplifiers a more musical glow, although not as uncorrupted as the Topaz amplifier. Ranking an amplifier isn't an easy task, because much depends on personal preference. Those of you with loudspeakers, such as. Quads or other electrostatic designs, may benefit from the "warmth" of the

300B Sapphire amps as they are proficient in "extracting" musically pleasing harmonics. Lean or energetic-sounding dynamic loudspeaker designs will be a great match with the Sapphires. However, those who have full-range loudspeakers with the sonic character we'd call "soft" and who's musical tastes lean toward accuracy should consider the Topaz amplifiers. Nevertheless, we believe this new Wyetech Labs design is an outright bargain, for it performs in line with some of the industry's most expensive amps.

If music is what you'd like to reproduce, both designs are tops and, considering the price discrepancy, choosing an amplifier the calibre of the Sapphire is like choosing a gem stone—all are gems after all.

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