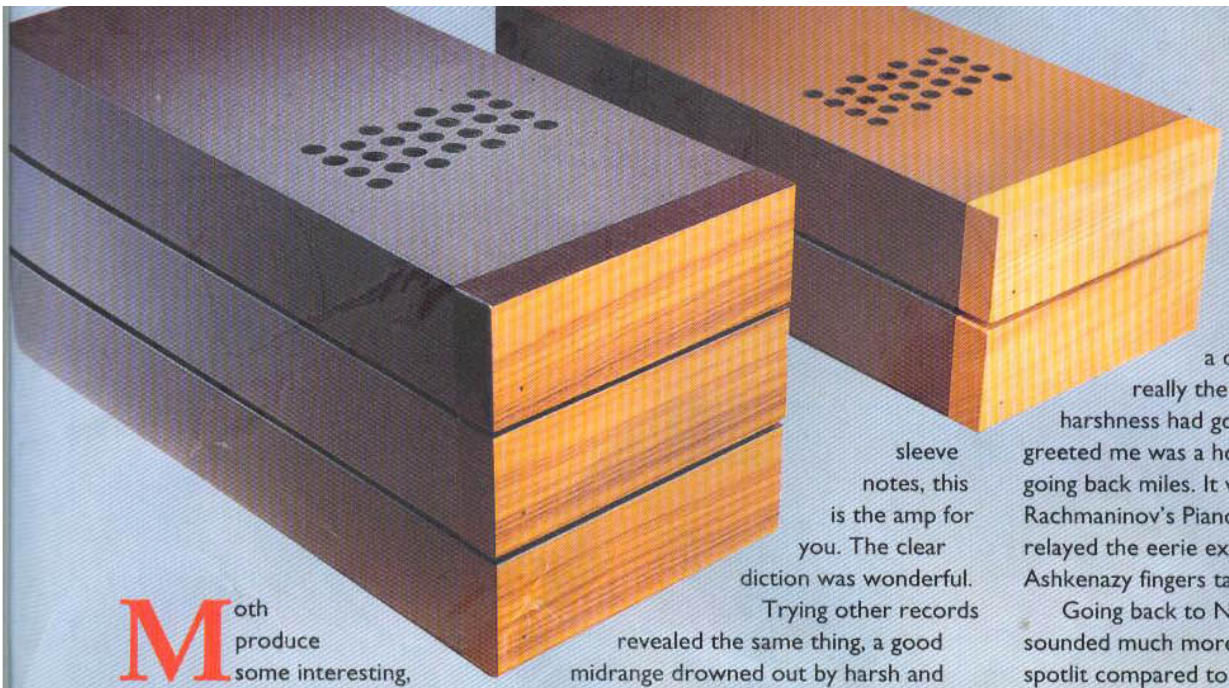


LIGHT ATTRACTION

Peter Downs thinks Moth's new Mono 100 amplifier is a bright new flame. But with the Stereo 60 you might get burnt.

Moth produce some interesting, no frills amplifiers, including passive and active preamplifiers, a phono stage, four power amps and an integrated. They share the same modular construction of a simple deep aluminium box with a plain wooden front panel.

Reviewed here are the all-new Stereo 60 and Mono 100 power amplifiers. They share common circuitry, enabling Moth to offer an upgrade facility, so that you only pay the difference between the Stereo 60 and Mono 100.

STEREO 60

The Stereo 60 comes in two boxes, one box for the electronics and one for the 400 VA transformer. First reactions were of a crisp sound with bags of detail, but a lean bass. As listening progressed it was clear the overriding quality was a harshness that coloured everything.

Switching to a valve preamp helped a little bit, but it did not solve the problem. A pity, because fighting to be heard was a superb midrange. Neil Young's vocals never sounded so good. If you don't like following lyrics on the sleeve notes, this is the amp for you. The clear diction was wonderful.

Trying other records revealed the same thing, a good midrange drowned out by harsh and somewhat strident treble. I made the mistake of playing Diane Reeves' 'Never Too Far' which was not a happy experience. The forward mix of the record was too much.

The sound stage was quite open but lacked depth. 'Towards the Unknown' by Vaughan Williams showed great width, but a flatish depth, as if the orchestra was squashed together. Bass was dry and tight. Even an old mono record of 'The Clifford Brown All Stars' which should be quite mellow, came across as too polished with prominent tape hiss and added glare to sax. Timing was good and the Stereo 60 didn't lose control of complex passages.

MONO 100

After my experience with the Stereo 60, and bearing in mind the similar circuitry, I was not looking forward to listening to this three-box combination. The difference between the Mono 100 and the Stereo 60 is that each channel has its own enclosure and the power supply houses two 400VA transformers.

Gingerly, I put on the first record. Was this suicide playing Diane Reeves again? Wow! What a difference. Was this really the same design? The harshness had gone and what greeted me was a holographic midrange going back miles. It was like being there. Rachmaninov's Piano Concerto No.2 relayed the eerie experience of hearing Ashkenazy fingers tapping on the keys.

Going back to Neil Young, he sounded much more natural, if slightly spotlit compared to the rest of the sound. The bass was a little subdued and lacked slam, and treble was still a bit bright, but it was nowhere near as harsh as the Stereo 60. The more I listened, the more I had the feeling that the balance had been tinkered with. Some instruments would zing out of the mix with such force that I was almost ducking for cover. Side 2 of Young's Harvest has a harp appear out of nowhere, almost drowning out the lyrics.

CONCLUSION

I couldn't recommend the Stereo 60 unless you have a dull, warm system in need of brightening up. The Mono 100 was much better balanced, if still biased towards the midrange. Its clinical approach was sometimes too clean for comfort, but given the right material it could shine. If you are in the market for an amplifier which brings terrific detail and a wonderfully deep soundstage, then the Moth Mono 100 is the one for you ●

Moth Stereo 60 **£549**
Month Mono100 **£879**

Moth Group, 10 Dane Lane, Wilstead, Bedford MK45 3HT
☎ 01234 741152

WORLD VERDICT

Stereo 60: ●●
Sharp treble and poor depth.
Mono 100 ●●●
Great staging and plenty of detail.

Measured Performance see p113-121

AMPLIFIERS

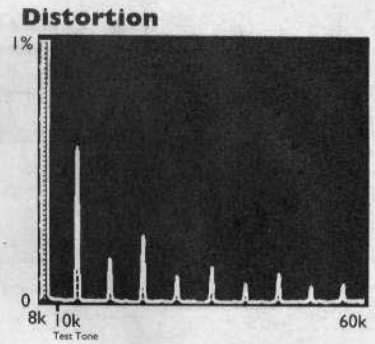
MOTH 60/100

The Moth 60 is an unusual and rather daring design. Distortion rose at low levels, reaching 1% in the midband, with extended harmonics, below 1watt. This is high and will produce coarseness. Feedback was low for solid-state, obvious by the difference between channels and with level. Transistors are not as consistent as valves - they must have some feedback. Output measured a healthy 80watts, however, and frequency response was wide, although sensitivity is low at 900mV.

The Moth 100 was unusual. It produced little distortion, but also less power - 60watts - into 8Ω. However, regulation was unusually good, power doubling to 120watts into 4Ω. Distortion behaviour was completely different to the 60. Levels were much lower and decreased with power, staying below 0.06%, a far more beign result. Bandwidth was wide at 4Hz-100kHz.

The Moth 60 produces far too much unpleasant solid-state distortion at low levels. The 100 works well. **NK**

MOTH 60	
Power	84watts
CD/tuner/aux.	
Frequency response	4Hz-126kHz
Separation	80dB
Noise	-83dB
Distortion	0.2%
Sensitivity	900mV
dc offset	5/4mV
MOTH 100	
Power	60watts
CD/tuner/aux.	
Frequency response	4Hz-100kHz
Separation	90dB
Noise	-85dB
Distortion	0.06%
Sensitivity	850mV
dc offset	1.27/10mV



The Moth 60 has unacceptable levels of distortion.

JOHN SHEARNE PHASE 2 & 3

John Shearne amplifiers have been designed to mimic the valve sound. In truth, solid-state can do no such thing perfectly, but certain features of valve amp performance are hinted at: these amps have a different and engaging "flavour", I've found. However, measured performance is, shall we say, unconventional. I measured both the Phase 2 integrated amplifier and the Phase 3 power amplifier for this report and they were much alike, as expected.

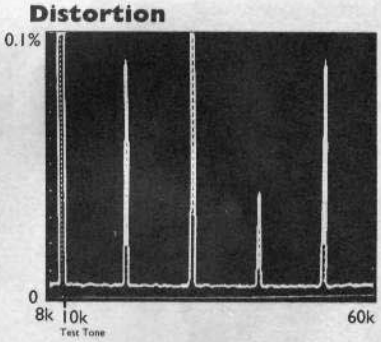
Producing a healthy 45watts into 8ohms, power declines steeply to 25watts into 4ohms. According to (simplistic) current wisdom, this should result in soft bass, but it seems not to in any significant manner. The distortion spectrum was extended, especially at 10kHz, but levels did not rise above 0.2%. Some muddle is likely. The Phase 2 is very sensitive, has low noise and low D.C. offset.

Both amps have a high frequency response limited strictly to 20kHz, but an extended bass response that reaches down to 4Hz.

These amps are well engineered, but are unusual - deliberately so. **NK**

TEST RESULTS

Power	45watts
CD/tuner/aux.	
Frequency response	4Hz-21kHz
Separation	75dB
Noise	-88dB
Distortion	0.2%
Sensitivity	125mV
dc offset	1.8/3.3mV



SUGDEN OPTIMA

Like all Sugden amplifiers, the Optima measured well and produced a very clean all-round performance. It has a benign distortion characteristic, even at high frequencies, where second harmonic predominates at all levels, as our analysis clearly shows. Measured distortion levels were low at all output powers and frequencies, in fact. I know from experience that Sugden amplifiers produce relatively sweet treble as solid-state designs go and this is one reason why, if not the only one.

Frequency response was wide, stretching from a low 6Hz right up to 105kHz, within 1dB. It isn't difficult to engineer a wide response, and it usually results in a bright, open presentation.

Power output measured a healthy 70watts and there was plenty of grunt for low loads. The Optima 140 will drive loudspeakers to high levels.

My only gripe was a little more d.c. offset than usual at -40mV on one channel (17mV on the other). The usual figure is less than 10mV. Otherwise, this amplifier has been well designed and will deliver good results. **NK**

TEST RESULTS

Power	70watts
CD/tuner/aux.	
Frequency response	6Hz-105kHz
Separation	80dB
Noise	-95dB
Distortion	0.015%
Sensitivity	140mV
d.c. offset	-17/-40mV