





High Fidelity

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TEST

Turntable + tonearm
turntables.lt
BLACK STORK + REED 3Q

Prices:
Black Stork – 4000 euro
Reed 3Q – 4600 euro

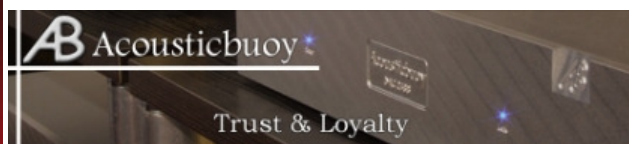
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r e k l a m a





A turntable is about mechanics and electronics, well mostly about mechanics. To design a good turntable one needs knowledge of both micro-mechanics and electronics. But to get a good sound you need also high-quality records. That's probably a reason why most of quality turntables come from Great Britain, USA or Germany. Nowadays this „rule” is not so strict anymore as one of the best in the world is [Australian Continuum Audio Labs](#) turntable, but still those who have most experience with such a complex setup as deck/tonerarm/cartridge (these are still British, American and German companies) have in general a clear advantage over the other competitors. Surely we can't forget another exception - [French Verdier](#). Manufacturers in Eastern Europe had enough knowledge of both – mechanics and electronics but they simply didn't have an access to high-quality pressings and that limited what could be achieved with (among others) Polish turntables. I'm not saying that they were poor products, no they weren't but even some upgrades couldn't elevate sound quality to a higher level so there was no use to keep making them. Surely there were more reasons why Bernard, Daniel and [Unitra's](#) decks with simple tonearms were the top achievements but the truth is they were. Just to make my point clear – these were quite some achievements of Polish manufacturers considering circumstances. I personally owned Unitra's GS-464 as the first „real” turntable and still remember its sound. Surely it wasn't first class sound but it was good enough then.



One day out of the blue I got an information from ... I think Srajan from 6moons.com magazine, that he had found out about some Lithuanian company making expensive high-end turntables. I don't know which one of us was more surprised but without any delay I opened their web page – [turntables.lt](#) (that is also a brand name which is not in my opinion a very catchy one). And surprise, surprise! Tonearms caught my attention immediately – wonderful designs with some elements known only from the most expensive solutions on the market. At the first glimpse they looked bit like products of [DaVinci](#) but than I learned these were proprietary products. Surely some details, solutions were „borrowed” from some other designs but this is what the progress is about – you don't have to start from scratch, you can make some already existing things better. After all this is more like cumulative

The sound is very coherent throughout the whole frequency range. Well – this is some kind of disinformation because we all realize when listening to *Giant Steps* by Coltrane, that this is not a real „live” sound of the instruments, that microphones had to be placed very closely, that placing of each instrument on the stage was decided by sound engineer and not by real placement in the studio during session. But when listening we accept what we get as something real, as a recreation of real event even though particular tones are more casual, less connected with each other as they should be. But it's different in audio – here „real” equals „continuity”, everything is connected, coexistent. You need to get used to it and you can't simply compare your experience from live concerts with what you hear from your loudspeakers – by definition these are two separate worlds.



Still we should look for the „truth” in the sound and this „truth” should be a decisive factor telling us if particular audio system is closer to reality or far from it. Lithuanian turntable comes very close to the truth, and to achieve that it finds its own way – I think quite similar to some other device I had a chance to listen to – [Hansen Audio Prince v2](#) loudspeakers. They offer somehow similar, dark (in a very positive meaning of this word) sound, that delivers fantastic experience without trying to be best in bass extension, spacing, transparency and so on. These devices simply don't have to try, because they start already from a level that for many competitors is not achievable under any circumstances. Bit later you might realize that in fact there are some compromises for the greater good. Maybe some resolution was sacrificed to get better coherence and when comparing this aspect you might find Bergmann bit more detailed, better differentiating low-frequency tones. And it is true – these are advantages of Sindre. But if we consider sound as a whole that should deliver pasture for our mind and soul delivered exactly in the same moment of magical experience then we have to admit that Black Stork does a marvelous job. Yet I should also say that it lacks bit of resolution – I mentioned already that deck was able to show differences between tonearms very easily. But on the other hand the whole turntable was able to show differences between Air Tight PC-1 Supreme and [Miyajima Laboratories](#) Waza almost immediately This quick comparison was possible not because this turntable allowed me to analyze separate aspects of sound but it rather delivered the final, complete result at once. In this respect this is absolutely extraordinary device. Sure – some things can be done better - SME30 offers better dynamics, Sindre better resolution. But considering Black Stork's price it is a great value.

DESCRIPTION

Designers from Lithuanian company [turntables.lt](#) - Jonas Jakutis and Vidmantas Trūkė live in Kaunas. Both are engineers with several

branch of science (like physics or maths) rather than facultative (like Polish philology). Short email exchange with guys from Lithuania and ... everything was set. I was supposed to get a turntable equipped with arm in six month time as this was their estimation of period necessary to get a CE sign for their product and to make it more or less repetitious one. So half a year later I could finally shake hands with two guys in charge - Jonas Jakutis and Vidmantas Triukas who came to me from Kovno. As I already mentioned in my leader in April's issue the meeting was very enjoyable both socially and professionally, and both my guests turned out to be „cool guys” so to speak. We had a long conversation (in Russian, English and Polish), spent a great time and than they left. But there was a small „souvenir” standing next to my Base rack. It was the Black Stork turntable with its own integrated base similar to ones offered by [Transtotor](#), [Acoustic Solid](#) or [Clearaudio](#) equipped with three tonearms: Reed 3Q, Reed 2P and Reed 2A, all of them with 12” length. There are also 9” and 10,5” versions available.

SOUND

Records used during this review:

- Freddie Hubbard, *Open Sesame*, Blue Note/Classic Records, 4040, 200 g LP.
- Gerry Mulligan&Thelonious Monk, *Mulligan Meets Monk*, Riverside/Analogue Productions, 1106, 2 x 180 g, 45 rpm LP.
- Kraftwerk, *Autobahn*, Capital Records/KlingKlang/Mute Records, STUMM 303, 180 g LP (2009); review [HERE](#).
- Kraftwerk, *Tour The France Soundtracks*, EMI Records, 591 708 1, 2 x 180 g LP; review [HERE](#).
- Led Zeppelin, *MotherShip*, Atlantic Records, R1 34470, 4 x 180 g LP.
- Nirvana, *Unplugged in New York*, Geffen/Universal Music/Original Recordings Group, ORG 034, 180 g LP; review [HERE](#).
- John Coltrane, *Giant Steps*, Atlantic/Rhino, R1 512581, 2 x 45 rpm LP.
- Frank Sinatra, *Sinatra & Strings*, Warner Music/Mobile Fidelity, MFSL 1-313, No. 199, 180 g LP; review [HERE](#).
- Yamamoto, Tsuyoshi Trio, *Midnight Sugar*, Three Blind Mice/Cisco Music, TBM-23-45, 45 rpm, 2 x 180 g LP; recereviewnzja [HERE](#). Electric Light Orchestra, *Time*, Jet Records, JET LP 236, LP.
- Depeche Mode, *Wrong*, Mute Records, 12BONG40, maxi-SP; review [HERE](#).
- J. S. Bach, *The Works of Johann Sebastian Bach. IX. Research Period*, Archive Production, ARC 3162, LP.
- Boney M., *Take The Heat Of Me*, Hansa International, 65 201, LP.
- Boney M., *Ocean Of Fantasy*, Hansa, 200 888-320, LP.

All Japanese issues are available at [CD Japan](#).

Lets start with tonearm, or the material it is made of. As already mentioned there are couple of versions and the main difference is the material the armwand is made of. I received for test two versions - „pantzerholtz” and „western redcedar” (there is also one made of carbon fibre). Most of the time I used this second one but I exchanged it with the first one for some particular listening sessions too. Even if I had any doubts before listening session now they were all gone. When Jonas and Vidmantas explained how the wooden arm worked they also told me that in their opinion the best choice was American Red Cedar, although my „logic” suggested that „pantzerholz” should have been better as it was harder, more rigid and so on. After listening I realized that Lithuanian guys were right – Cedar makes sound much more attractive, than any other tonearm's material. And I don't simply mean a different sound as it was to be expected. The point is that these changes in the sound are more profound than just a change in tonal balance (which is present too of course).

Tonearm made of Cedar offered more quiet sound. My friend, who

Vidmantas Triukas and Jonas Jakutis. Both are engineers with several years of experience in Science Institute of Kaunas. When working on a design they had to choose one of the philosophies of building a turntable. The most common one says that you have to build a turntable that is decoupled from the motor, or is heavy enough so that the vibrations are turned into heat. These vibrations are unwanted as they find their way to the stylus. Again the most common solution is to build a tonearm that should carry away these vibrations as quickly as possible and via mechanical connection transfer them to the floor. In suspended designs (like Linn, Thorens) it can't be done in a described way so they increase the weight of a platter so that it can suppress vibrations and at the same time soft suspension allows much less vibrations to get to the stylus. It can be done quite easily in heavy decks but there are always some vibration that would come back to stylus eventually. The amplitude is not too big but considering the size of the groove they still might introduce some distortion. This is why carbon-fibre tonearm have become so popular in the last years – this kind of material transfers vibrations very quickly and changes their structure.

Our Lithuanian designers decided to damp vibrations right on the start – that's why their tonearms are made of wood. As real engineers they started with scientific approach. First they built a device that would show them how the vibrations travel through the wood – in terms of amplitude and time. They were after finding out which material has clearly expressed resonant frequencies, and its sound damping characteristics is close to exponential function. Few types of wood were chosen this way and than next phase – listening session - began. Finally they decided that the best choice was American RedCedar but there were also couple more woods offering very interesting sound so they became optional choices for Customers. And how is the tonearm bearing solved? These are carbide points (gimballed-arm) and when they created their first prototype it was based on the solution from ... Polish Unitra arms. Well it was made of some other material, some details differ but the main ideas – bearing, offset angle, carbide point's shape and so on came directly from Polish design.

As already mentioned Reed tonearm's designs are based on technical/acoustic analyzes but also suggestions from audiophiles. The base is made of steel. It is screwed down to brass (?) housing that might be coated with gold, mat gold or some other material – lots of options to choose from. Tonearm base is an element that really differs three models of Reed arm. The most expensive one - 3Q, is integrated with mechanism equipped with laser that allows VTA adjustment, which also helps to adjust cartridge azimuth. Unlike in most tonearms here azimuth adjustment is not realized via armwand movement, but it is located in headshell. There is logic in it as turning armwand changes more than only azimuth – axis of the turn is not perpendicular to the stylus or cantilever but to the arm. Lithuanian solution makes headshell design much more complex but it is worth the effort. Headshell is made of titanium or aluminum. The less expensive version of tonearm still has VTA adjustment mechanism but without laser support. The least expensive arm is the only one without VTA adjustment on-the-fly. Arm's suspension is, as already mentioned, realized via cardan points that are semi-round and the thrust pad is made of sapphire. The counterweight is made of steel. In fact there are two elements – the bigger one off-centered with centre of gravity at the level of a stylus, it can be moved along armwand and it has additional element that can be screwed in or out for super-precise downforce adjustment. The smaller one serves the purpose of reasonable arrangement of the weight of counterweight. Arm also sports lever antiskating mechanism supported by sapphire bearings (idea by the way comes also from Unitra's products). Wiring is based on silver plated C37 copper, that can be terminated with WBTs or Eichmann Bullet Plug. Build quality, finish and the design are simply outstanding.



had a chance to listen to [Transtrotor Argos](#), and [Bergmann Audio Sindre](#) during my tests, said when listening to the Black Stork, that instruments were less „real”, not so well differentiated – and all that despite the fact that these two turntables played with AirTight's PC1 cartridge and the Stork with absolutely brilliant version of this cartridge - [Supreme](#). And I can understand him up to some point – it's true that Bergmann offered more open sound with better resolution. Just as ... Black Stork with pantzerholtz arm. Sindre delivered bit more precise sound, particular layers were emphasized in stronger fashion, but in my opinion Lithuanian turntable presented it more natural – more like what I remember from my listening session with Argos. The last opinion concerns turntable. It with... Cedar arm.

Not to mix things up any more I should say that the Cedar arm offers dense, bit dark, very well balanced sound. When I say „dark” I don't mean that the treble is somehow limited or withdrawn. This reminds me impressions from listening session of Acrolink's power cord 7N-PC9300. In general it makes sound bit dark, the tonal balance seems rather on the dark side. But only until there is some instrument in the upper frequency – than we get something amazing – perfectly controlled attack with brilliant reverberations. Usually such sound is called „vibrant”. The point is that this time it is not about the „phenomena” of particular moment but about permanent, very basic, fundamental even feature of the sound. Sudden appearance of cymbal tones after what we thought was a piece of dark sound, catches us off-guard, we couldn't see it coming. It is even more special because the noise of stylus moving on the record is very low – such a low noise I encountered only when listening to Argos, and in my friend's system when SME30 was used (report [HERE](#)). Both above mentioned turntables do it even better, they better distinguish what's still music and what's noise/distortion.



Altogether it concluded in very well balanced and tonally extremely rich sound. Not everybody (check at the beginning of „Sound” section) will be happy with this sound, but than they can use another arm to get more energetic, well extended bass range. The best bass is offered by Cedar arm – that could be easily heard during sessions with *Oh, well* from Depeche Mode *Wrong* single, or even from Boney M. records. Continuity of the sound was amazing and the credit should go to both: tonearm and the deck. The latter offers surprisingly good quality and almost no impact on the sound – so in a sense it can be taken out of the equation. Argos or SME are still better in this respect but Lithuanian deck definitely offers more than I could expect from such a, to be honest, simple design. I'm pretty confident that guys from Kaunas can still find some space for improvement, but I admire what they already achieved.

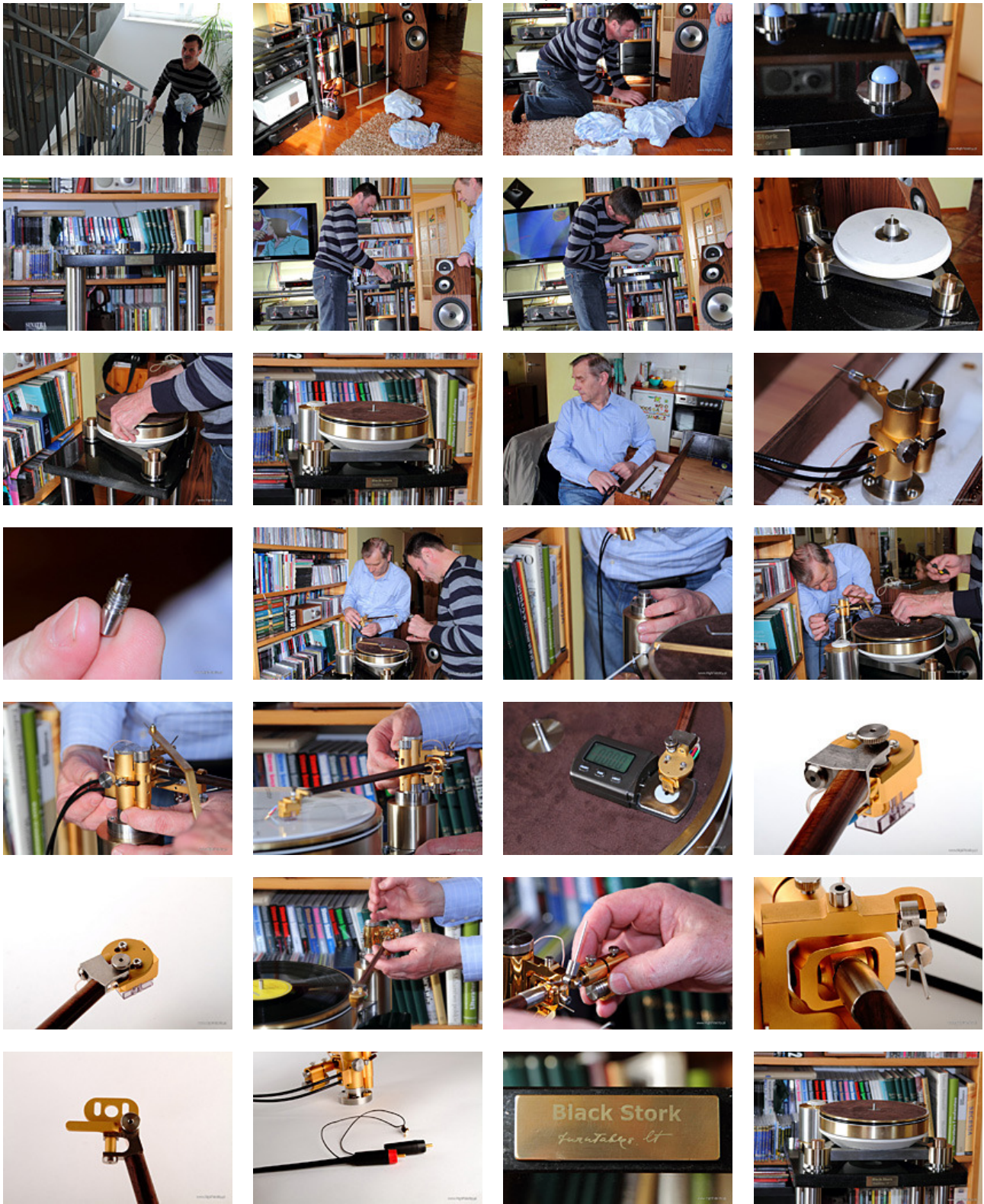


Turntable itself looks quite ordinarily – it's a decoupled design, but realized in a different way than most deck are. There are large metal elements fixed to the base with a three bushes fixed to its top surface end – one needs to put a rubber ball into each of them, and can choose from balls with different compliance/flexibility. Than on top of them one needs to put a triangle made of square steel sections with round elements in corners that help to level whole device. On this tripod one puts piece of shaped granite or marble that weights around 14 kg. This element contains an oil bearing for the platter. Platter is very heavy (12 kg) and it sports three layers – non-magnetic steel, some plastic part with the furrow for drive belt, and the top layer is made of metal. There is a layer of brown velour on the top – it looks just great. One small detail – as platter is bigger than 12” record it is quite difficult to separate it from this velour especially if we want to change side of the record without stopping platter from spinning. Turntable is equipped with synchronous motor with slide bearings (speed 250 rpm), with mechanical on/off switch. Change of speed has to be handled manually. In my opinion high-end turntable requires electronic change of speed, and soft-start (now there is audible „click” in speakers when motor starts to spin). Luckily it can still be done in future as an upgrade. A drive belt is made of white round-shaped rubber. Motor is placed in a steel cylinder that weights 4 kg and is placed on three rubber absorbers. The whole design is quite solid, made with great care for details, but this particular piece looked bit rough because it was the first piece ever – we should call it probably a prototype. The whole turntable with its base weights 86 kg.

All technical details can be found [HERE](#).

Technical data (according to the manufacturer):

Belt-drive
 Speed: 33 1/3, 45 RPM
 Speed variance: +/- 0,2 %
 S/N ratio: 80 dB
 Synchronous Crouzet motor 230 V/50-60 Hz
 Power consumption: 3,5 W
 Platter weight: 12 kg
 Turntable weight: 86 kg
 Dimensions: 1080x485x450 mm



r e k l a m a



ASSOCIATED EQUIPMENT

- CD player: Ancient Audio Lektor Prime (tested [HERE](#))
- Phono preamp: RCM Audio Sensor Prelude IC (tested [HERE](#))
- Preamp: Leben RS-28CX (tested [HERE](#); soon to be changed to Polaris II, tested [HERE](#))
- Power amp: Luxman M-800A (tested [HERE](#))
- Integrated amp: Leben CS300 (reviewed [HERE](#))
- Loudspeakers: Harpia Acoustics Dobermann (tested [HERE](#))
- headphones: AKG K701, Ultrasone PROLine 2500, Beyerdynamic DT-990 Pro, 600 Ω version (reviewed [HERE](#), [HERE](#), and [HERE](#))
- interconnects: CD-preamp: Wireworld Gold Eclipse 52 (tested [HERE](#); soon to be changed to Acrolink Mexcel 7N-DA6300, article [HERE](#)), preamp-power amp: Velum NF-G SE (tested [HERE](#))
- speaker cable: Velum LS-G (tested [HERE](#))
- power cables: Acrolink Mexcel 7N-PC9100 (CD; reviewed [HERE](#)) and 2 x Acrolink Mexcel 7N-PC7100 (preamp, power amp (reviewed [HERE](#)))
- power conditioning: Gigawatt PF-2 Filtering Power Strip (reviewed [HERE](#))
- audio stand Base
- resonance control: Finite Elemente Ceraball under the CD (article [HERE](#)) Turntables change continuously, as do cartridges. My dream setup: SME 30 with Series V tone-arm and Air Tight PC-1 cartridge (also in the PC-1 Mono version).

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