

Bergmann Magne

# TANGENTIALLY INGENIOUS

By Dr. Uwe Heckers. Fotografie: Ingo Schulz


The linear tracking of records is sometimes a difficult task to perform. The Danish manufacturer Bergmann shows that it is as simple as it is elegant.

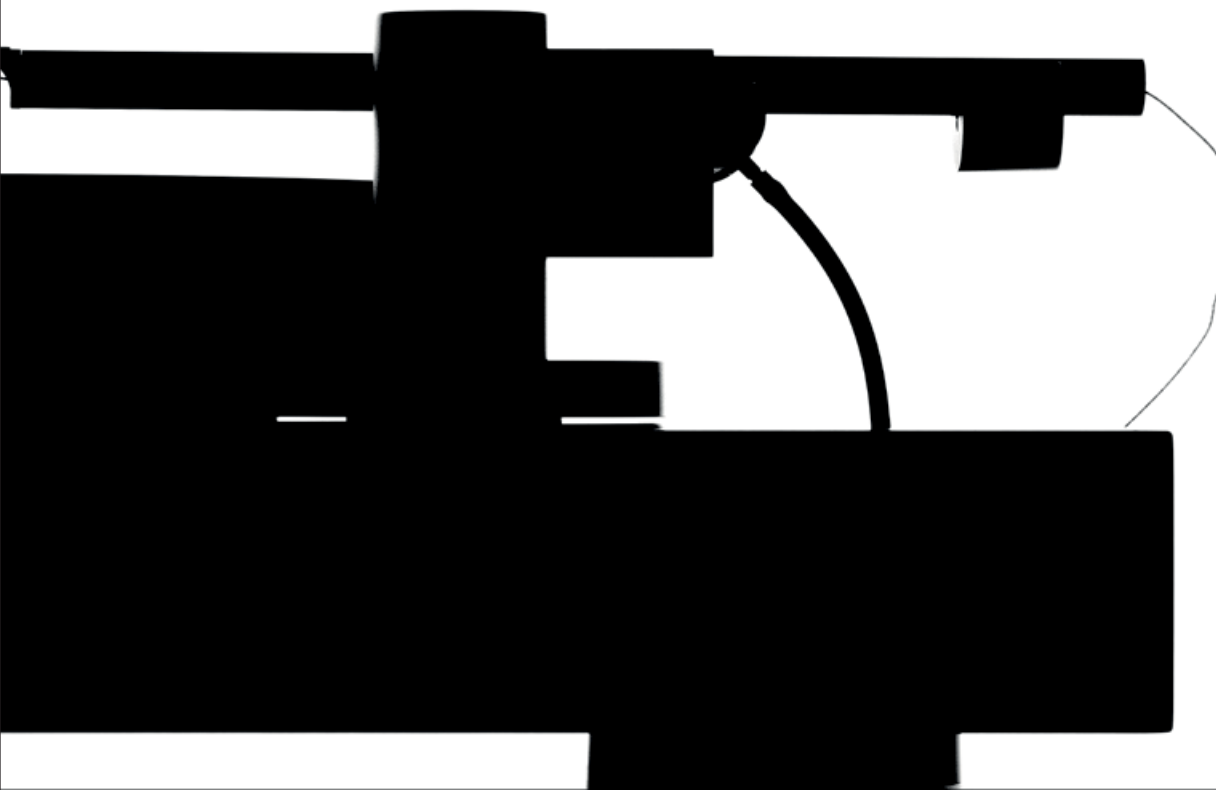


— Tonearms that guide the cartridge tangential over a record side are considered to be the ideal solution. The reason for this is that the lacquer or copper foils, which are the starting point in the production of analogue records, are cut tangentially in the cutting machine as well. This avoids mis-tracking and distortion during playback.

The difficulty with linear tracking tonearms, is that they must be moved in a straight line with as little friction as possible without exerting any significant additional force on the record's groove walls.

The Dane Johnnie Bergmann Rasmussen is certainly not the first one to come with the idea of using a continuous air stream

escaping from small nozzles of a hollow tube as a friction bearing. Nevertheless, it is no exaggeration to state that he has been offering the most elegant solutions for this design since 2008. The currently cheapest package from Denmark consists of his Magne turntable with the corresponding tonearm. When this combo was offered to me for testing, initially mixed feelings 





crept upon me. On the other hand, I was very much looking forward to finally listen to a Bergmann- being for me definitely one of the most beautiful turntables around. On the other hand, I had never before put a linear tracking air-bearing tonearm into operation. And I know from colleagues that representatives of this species sometimes tend to be real mimosas.

## Simple construction

As it quickly turns out, this concern is completely ungrounded. On the one hand, this is due to the detailed operating

Instruction, which unfortunately are only in English, and on the other hand to the really logical and comprehensible steps that have to be taken until the first tone emerges. The first thing to do – as with any other turntable is to find the most levelled and stable location possible. In this respect, the three height-adjustable feet of the Bergmann Magne are useful: If the footprint turns out to be uneven, the Magne can still be quickly levelled out. After filling in the required amount of oil, the subplatter can be installed. It is immediately noticeable that the spindle is conspicuously short and hasn't got

any kind of tip. And it doesn't really need one, since the platter is pressed upwards by a barely noticeable air flow during operating, so that the bearing only has to absorb the lateral force. The necessary compressed air is generated by a quite large box, that is included in the scope of delivery, and is pumped through a transparent air tube into the rear side of the turntable. Inside, the air flow is distributed to the bearing and the tonearm. The air flow can be regulated separately for both the tonearm and platter bearing. But one should think carefully about




Modifying these settings. Johnnie Bergmann Rasmussen meticulously adjusts the air flows to the optimal values before delivering his turntables.

## Hidden technology

Inside the almost square plinth when viewed from above, there is a lot of technology hidden away. Among other things, there is an electronic motor control unit regulating the DC motor. The operating elements are located on the right of the plinth and are integrated in there just as unobtrusive as the two

unobtrusively gleaming diodes that indicate the selected speed: 33 and 45 rpm are available. The speed can be finally adjusted with the aid of two additional buttons and a stroboscopic disc, which is not included in the scope of delivery. Taking into account that Bergmann has oriented himself at least a little on the ideas of Tom Fletcher - the founder of Nottingham Analogue - and deliberately selected a relatively weak motor, can be seen from the fact that the motor takes about half a minute to get the six kilogram weighing platter going. And this one does

without a mat. The necessary "grip" to the record is provided by the supplied platter weight or puck. That the Magne is a well thought-out turntable in every respect is manifested not least by the fact that it's uncritical in terms of placement. In any case, it felt audibly comfortable on my side table made of solid wood and did not require any further footfall sound insulation measures.

But the real attraction of the Bergmann Magne is of course its tonearm, which is "powered" by the same pump as the turntable itself. Although it is not 

The thin signal cable appears fragile, but its design makes sense: its low capacity prevents negative effects on the sliding capacity of the arm, which glides on an air cushion.



completely inaudible, it is so quiet that it can be placed beneath the turntable- as it is here in my case. Nevertheless, perfectionists will want to place it as far away from the listening position as possible. Bergmann's tonearm is exceptionally easy to adjust. The cartridge is screwed into the two half-inch holes on the headshell. The adjustment of the overhang is done by moving the tonearm in its base to and fro. To perform this, only two allen screws have to be loosened and then tightened again. The adjustment of the tracking force is done by the counterweight, which is decoupled by a

silicone damper and rests on the rather long tonearm end. This is also done with astonishing sensitivity and yet as nimble as the adjustment of the tonearm height. It is pure joy to operate this tonearm. Only the very thin cables made of high-purity copper, are very delicate. Although they are not firmly connected to the tonearm tube, they have a certain clearance- nevertheless being still very thin. So a little bit of tact is required here, if you don't want to delight yourself with soldering of new cable lugs.

## Homework- properly done

Unfortunately, due to time reasons, I only managed to try out the interplay with the Ortofon Quintet Black. But this I did in full depth. Routine tracking and resonance tests confirm the high quality of Bergmann's tonearm. The Ortofon effortlessly achieves a depth of 70µm tracking capability at a track force of 23 millinewtons. The resonance test showed hardly any amplitudes worth mentioning, so I wasn't able to determine a specific resonance frequency. Bergmann states an

Effective mass of 11grams, which identifies the tonearm as a typical representative in the medium-weight class. It should therefore be compliant to the majority of all cartridges available on the market. Just how uncritical this tonearm behaves in practice is also demonstrated by an experiment - although a not quite fair one, I must say. For ages I have had the original soundtrack of *Superman* - The movie on my record shelf, which is not only clearly warped, but whose center hole is also off-set. The tonearm therefore has to considerably "work" if it wants to keep the cartridge under control. It is not uncommon for unfavourable tonearm-cartridge combinations to jump out of the groove or make at least a velar howling to be heard. Nothing of the sort with the Bergmann! The tonearm glides practically weightlessly back and forth and up and down on its air cushion. Neither clear movements of the cantilever nor other disturbance of the tracking process can be observed - a downright exceptional fine mechanical master piece.

## World class sound

However, such experiments do not tell much about the sonic properties of a component. But, they do give an indication as to whether a manufacturer has done his homework, or not. And this is entirely true with the entire Bergmann Magne package. Since I am wandering through the world of soundtracks anyway, I'll continue with the multiple Academy Award-winning composer John Williams. *Star Wars - the return Of The Jedi* is staged enormous vehemence and authority. The spatial imaging is not only large, it is utterly gigantic and yet still credible. Finest nuances and shades, which often get lost in this acoustic spectacle, are inserted into the sound painting as lifelike as natural. When large orchestral music is reproduced so well, I know from my experience that even smaller formations, no matter what kind of music, are reproduced at least as good as this.

Two tracks taken from *Kill Bill, Vol. 1* may serve as an example. The presentation of the radio play-like scene in which O-Ren Ishii emphatically makes it clear to the congregated underworld bosses who calls the shots within the Yakuza's from now on, is depicted so authentically that one unintentionally cringes when the served head of a disgraced member thumps on the table of the conference room. In the following, the US-American rapper RZA interprets "Ode to O-Ren Ishii" with such a direct brashness that only one word emerges in my mind: master tape quality. The interpretation of the soundtrack to James Horner's *The name of the Rose* is as impressive as it is frightening. Right from the beginning, the oppressive atmosphere in this medieval crime thriller is congenially musically underscored with mixture of synthesizer sounds, medieval instruments and Gregorian chants. The Bergmann immediately evokes the images of the 1986



ANZEIGE

## TEAMMATES

Turntable: Technics SL-120MK2, Tonearm: SME Series V, Technics EPA-120/ Headshell: Audio Technica MG-10, Audio Technica MS-8 Technics/ Cartridge: Audio Technica AT-20SlA, Audio Technica AT-OC9/III, Dynavector DV-17DX(Karat), Goldring G-2200, Ortofon Concorde 30, Ortofon Quintet Black/ Phono preamplifier: Musical Fidelity MX-VYNL/ Preamplifier: Bryston BPS-25MC/ Headphones: Sony MDR-1 RNC/ Active speakers: Neumann KH 310 A

Luxeryuxu bag bellow:-A look inside the mandatory airsupply reveals...nothing.The installed pump is encapsulated in black housings for the lowest possible noise emission. The trick works perfectly- the box is hardly to be heard.



movie, so that while listening to the music, the oppressive atmosphere of this film creeps up anew.

Instead of enumerating other extremely stimulating musical experiences, I prefer to say it hones and frank: May the Magne merely be the entry-level product from the Bergmann company, but in fact, it's nothing less than an absolute world-class turntable, whose design, technology and above all its sound doesn't need fear whatsoever comparison, regardless of price range.

**Turntable: Bergmann Magne**

**Functional principle (turntable):** medium-heavy mass loaded turntable with belt drive

**Special features:** air-bearing platter, platter

weight (puck). **Rotation speeds:** 33 and 45rpm/

**Weight of platter / (incl. sub platter):** 6kg. **Total**

**weight (incl. tonearm):** 18.5kg/ **Dimensions**

**(W/H/D):** 50/17/45cm/ **Warranty period:** 2

years/

**Airsupply**

**Weight:** 5,4kg/ **Dimension:** 19/18/30cm

**Tonearm**

**Functional principle:** linear tracking airbearing

tonearm./ **Special features:** permanently installed

tonearm cable, connection sockets (Cinch, XLR,DIN)

selectable./ **Effective mass:** 11gr./ **Permissible**

**cartridge weight:** not specified./ **Warranty peride:** 2

years./ **Price:** 9.350€

HERAUSFORDERND =   
INTUITIV = 

**Conclusion:****Bergmann Magne**

Elegant world-class turntable with  
air-bearing platter and linear tracking  
air-bearing tonearm, whose design  
and technology are as convincing as  
its sound