Subject: alternative speakers for Ten Pi
Posted by bikehorn on Wed, 20 Aug 2003 00:22:47 GMT
View Forum Message <> Reply to Message

i don't really have the kind of cash for a JBL 2226...are there any other speakers that would work well? what about speakers specifically designed for electric bass, like the Eminence Legend B15, Fane Axiom 15. Celestion BL-15-300, or something similar? any recommendations? thanks.

Subject: Re: alternative speakers for Ten Pi
Posted by Bill Martinelli on Wed, 20 Aug 2003 00:39:18 GMT
View Forum Message <> Reply to Message

I'll take a shot and say the Eminence Omega would work well at half the price of a 2226. The peavey BW 1505's have very close specs to a 2226 and will work in the same enclosures. I like the newer 1505's that have a paper dust cover over the metal dust cover. Wayne will have some good advise too.Bill

Subject: Re: alternative speakers for Ten Pi
Posted by Wayne Parham on Wed, 20 Aug 2003 04:17:24 GMT
View Forum Message <> Reply to Message

I agree with Bill's comments - He pretty much hit it on the head. The Omega 15 sounds good in

combination isn't matched well, and is too boomy in the midbass. The Kilomax is an excellent driver, but it needs a much larger cabinet. And if it were to be used in a horn, the horn would have to be much larger.There are certainly many other motors that would work well, but these are the only ones I've tried. Several people have used other JBL's, such as the 130's in Shanko's system. And there are motors from other manufacturers that would work as well. However, there are also

shouldn't be used in a portable free-standing basshorn, or at least not one of small proportions. The Eminence Delta 15 is a definite no-go, as are the other entry-level Eminence products. Adam Bird tried a Kappa 15 if I remember correctly, and I think he would characterize them as a moderate success.If I were going to look at another driver, I'd definitely run the numbers first. What I like to see is a small peak at cutoff to help out the bottom-end response of a midbass driver. It's the exact opposite of reactance annulling - The horn becomes a resonator down low, and generates a peak that augments the lowest half-octave. A 2226 is not generating much below 60Hz without this horn on it, but with it, you get a whallop between 40Hz and 60Hz.But that can also get you into trouble. If your choice of driver in this horn forms a combination that peaks too much, you'll have a "one-note system." You want to find a combination that provides a

response curve having about a 3-5dB peak at horn cutoff and that should be below the rolloff of the motor/chamber system. The midband response curve should have a gradual negative slope free of large peaks and nulls, usable pistonic output from maybe 40Hz to 400Hz. With this sort of response curve, you have a lot of options. You can use the subsystem through the pistonic frequency range only, as a midbass/midrange device. Of if the driver has rising response, it can be used well above this because the diagonal panels form reflectors. You'd be surprised how much vocal energy and even overtones are generated by this device.In a home, the room is usually small enough that a single horn can be considered to be in eighth space. In an open area, you should calculate based on half-space, and then two of them in near proximity would combine to act as quarter-space. Because of this, the horn - while often used in wide open spaces - will function as though it were in quarter-space.Anyway, the bottom line is that I'd suggest that you stick with the intended driver, or with another having very similar characteristics. If going with another speaker motor, I'd strongly encourage you to model the system before you build.

Subject: Re: alternative speakers for Ten Pi
Posted by Adam on Wed, 20 Aug 2003 15:38:48 GMT
View Forum Message <> Reply to Message

To follow up on Wayne's mention of my system, the Kappa 15LF's performed reasonably well in the ten pi enclosures I designed for them. Unfortunately, output (while incredibly loud) is also somewhat chesty, and just didn't have the bottom end I wanted. Additional cabinet bracing would have helped the situation a fair bit, but not enough to fully make up for the difference. As I have nothing to weigh against, I woudl say the project was a modest sucess, although not worth all the work. Adding a subwoofer to cover the 60 Hz and below region, now wow... That was another story. Having a subwoofer to fill out the bottom octaves truly eliminated that chesty sound from the ten pi's and delivered an excellent sounding system. I'm not sure if this is typical of Wayne's horn design or improper implimentation of the woofer, but the bottom end response simply didn't do it for me. The same driver in a standard ported box, tuned to around 40 Hz was not as loud, but provided a far smoother bass and midbass sound, superior midrange characteristics and deeper response.Adam

---

Subject: thanks all!
Posted by bikehorn on Wed, 20 Aug 2003 22:42:39 GMT
View Forum Message <> Reply to Message

I guess i'll go for the Peavey BW 1505 then, if its characteristics are close to the 2226. thanks again

---

Subject: Re: alternative speakers for Ten Pi
Posted by steve f on Thu, 21 Aug 2003 00:16:45 GMT
View Forum Message <> Reply to Message

Hi Guys,Didn't somebody use a 15" Selenium driver in the same cabinet with success? Steve

Subject: Re: alternative speakers for Ten Pi
Posted by Wayne Parham on Thu, 21 Aug 2003 02:14:58 GMT
View Forum Message <> Reply to Message

to the wavelengths it reproduces, and this is what makes it more sensitive. This is true of all portable basshorns - They're really somewhat undersized, so placement and choice of drivers becomes more important than otherwise would be the case.Anyway, the point is that the Selenium

can confirm its suitability for this particular purpose.

Subject: Black Widow
Posted by Wayne Parham on Thu, 21 Aug 2003 02:22:55 GMT
View Forum Message <> Reply to Message

I'm not sure about the Black Widows. My gut feeling is that they may be a bit midbass-heavy in this design. Please see my post to Steve on this matter; You might want to check out your options, ideally model its performance before building or maybe try out a borrowed driver that can be swapped if it doesn't work.It is good to have a selection of suitable second-source drivers, so please post back a report of what you find if you try alternate parts.