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Subject: OT: How much force in "pounds" do you think.....  
Posted by [brandon\[2\]](#) on Fri, 25 Aug 2006 14:20:38 GMT  
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This is a multi-part message in MIME format.

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charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

How much force in "pounds" do you think is applied to=20

a kick drum from the beater hitting the head? (range)

Thanks

--=20  
Brandon  
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<P><FONT size=3D3>Thanks</FONT></P></FONT></FONT></DIV><FONT =
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Subject: Re: OT: How much force in "pounds" do you think.....

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Posted by [Neil](#) on Fri, 25 Aug 2006 15:00:14 GMT

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---

Trying to make a robotic kick drum, are ya? :)

Is that why you needed the solenoid?

Neil

"Brandon" <a@a.com> wrote:

```
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>How much force in "pounds" do you think is applied to=20
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Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Deej \[1\]](#) on Fri, 25 Aug 2006 15:02:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Ahhh.....so that's why the penis pump wouldn't work!

;o)

"Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...

>

> Trying to make a robotic kick drum, are ya? :)

>

> Is that why you needed the solenoid?

>

> Neil

>

>

> "Brandon" <a@a.com> wrote:

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> >How much force in "pounds" do you think is applied to=20

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> >Thanks

> >

> >

> >--=20

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> > face=3DArial>

> ><DIV><BR>-- <BR>Brandon </FONT></DIV></BODY></HTML>

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> >

>

Subject: Re: OT: How much force in "pounds" do you think.....  
Posted by [Neil](#) on Fri, 25 Aug 2006 15:10:26 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Unless you flipped the mic out of phase...

:)

"DJ" <animix\_spam-this-ahole\_@animas.net> wrote:

>Ahhh.....so that's why the penis pump wouldn't work!

>

>;o)

>

>"Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...

>>

>> Trying to make a robotic kick drum, are ya? :)

>>

>> Is that why you needed the solenoid?

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>>

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>> >

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Subject: Re: OT: How much force in "pounds" do you think.....  
Posted by [brandon\[2\]](#) on Fri, 25 Aug 2006 15:29:48 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

The solenoid is for work. Trying to make an upgrade to our electronics production line.

The kick question came up last night at the studio with my friends band and now I am curious.  
I am guessing around 20 pounds.

--  
Brandon

"Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...

```
>
> Trying to make a robotic kick drum, are ya? :)
>
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>
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> "Brandon" <a@a.com> wrote:
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> >
> >
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> ><DIV><BR>-- <BR>Brandon </FONT></DIV></BODY></HTML>
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```

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Subject: Re: OT: How much force in "pounds" do you think.....  
Posted by [Tony Benson](#) on Fri, 25 Aug 2006 17:56:48 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

I think it'd be much higher myself. You'd have to measure in pounds per square inch also for the measure to have much meaning. Since the beater head is probably only contacting a little over 1 square inch, I'm guessing a good hard hit will be pretty substantial. Now you got me wondering.

Tony

"Brandon" <a@a.com> wrote in message news:44ef162d\$1@linux...  
> The solenoid is for work. Trying to make an upgrade to our electronics  
> production line.  
>  
> The kick question came up last night at the studio with my friends band  
> and  
> now I am curious.  
> I am guessing around 20 pounds.  
>  
>  
> --  
> Brandon  
>

>  
> "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...  
>>  
>> Trying to make a robotic kick drum, are ya? :)  
>>  
>> Is that why you needed the solenoid?  
>>  
>> Neil  
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Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Deej \[1\]](#) on Fri, 25 Aug 2006 18:06:17 GMT

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---

stick a digital bathroom scale between the beater and the head and give the pedal a good stomp.

;o)

"Tony Benson" <tony@standinghampton.com> wrote in message  
news:44ef3868@linux...

> I think it'd be much higher myself. You'd have to measure in pounds per  
> square inch also for the measure to have much meaning. Since the beater  
head

> is probably only contacting a little over 1 square inch, I'm guessing a  
good

> hard hit will be pretty substantial. Now you got me wondering.

>

> Tony

>

>

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> > production line.

> >

> > The kick question came up last night at the studio with my friends band

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> > I am guessing around 20 pounds.

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> >

> > --

> > Brandon

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> >

> > "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...

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> >> Trying to make a robotic kick drum, are ya? :)

> >>

> >> Is that why you needed the solenoid?

> >>

> >> Neil

> >>

> >>

> >> "Brandon" <a@a.com> wrote:

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> >> >

> >> >How much force in "pounds" do you think is applied to=20

> >> >

---

Well I was thinking of how much the head moves inward when the beater hits it.

So wouldn't that be equivalent? Perhaps its a little more 30 or 40.

--

Brandon

"Tony Benson" <tony@standinghampton.com> wrote in message  
news:44ef3868@linux...

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>

>

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> > Brandon

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> >> >

> >> >

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> >> >Thanks
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```

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Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Tony Benson](#) on Fri, 25 Aug 2006 19:00:39 GMT

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---

Hum? I'm not a physics dude, but I think besides just the deflection of the head, you'd have to account for the velocity of the beater head, etc. I'm just not sure if you can equate a static weight on the head with the actual force of a moving beater hitting it for a split second. I know several real smart math and electronics nerds (PhD types), but no physics docs. I might check around and see if I can find someone who can tell me how to figure this out. Now where did I put that dang accelerometer? ;>)

Tony

"Brandon" <a@a.com> wrote in message news:44ef3c45@linux...

> Well I was thinking of how much the head moves inward when the beater hits

> it.  
> I was thinking maybe 1"-2". So, if I took the bass drum and turned it on  
> its  
> side  
> and placed a 20 pound weight focused down to a 1 square inch area in the  
> center of the drum head I think it would displace the drum head by at  
> least  
> 1 1/2".  
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> Brandon  
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>  
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>> Tony  
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>> > The kick question came up last night at the studio with my friends band  
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Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Nil](#) on Fri, 25 Aug 2006 19:31:19 GMT

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---

What if you got a fish-weighing scale, attached it with an

eye-hook to the wall behind the beater then attached a wire/cable connecting the scale to the beater itself, then whacked away? Film the scale with a high-speed IMAX camera, then review frame by frame until you find the one with the maximum deflection on the scale, and there you have it!

:)

(Just trying to find the most DJ-esque solution to the problem)

"Tony Benson" <tony@standinghampton.com> wrote:

>Hum? I'm not a physics dude, but I think besides just the deflection of the

>head, you'd have to account for the velocity of the beater head,etc. I'm

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>

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>> I was thinking maybe 1"-2". So, if I took the bass drum and turned it on

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>> and placed a 20 pound weight focused down to a 1 square inch area in the center of the drum head I think it would displace the drum head by at

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>> So wouldn't that be equivalent? Perhaps its a little more 30 or 40.

>>

>>

```

>> --
>> Brandon
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>> "Tony Benson" <tony@standinghampton.com> wrote in message
>> news:44ef3868@linux...
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>>> > production line.
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Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Tony Benson](#) on Fri, 25 Aug 2006 20:16:43 GMT

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Hah! DeeJ Goldberg! I like it!

I'm sure there's some kind of all-in-one device out there that would measure this actually.

Tony

"Neil" <IUOIU@OIU.com> wrote in message news:44ef5007\$1@linux...  
>  
> What if you got a fish-weighing scale, attached it with an  
> eye-hook to the wall behind the beater then attached a  
> wire/cable connecting the scale to the beater itself, then  
> whacked away? Film the scale with a high-speed IMAX camera, then  
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>>> I was thinking maybe 1"-2". So, if I took the bass drum and turned it  
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>>> good
>>>> hard hit will be pretty substantial. Now you got me wondering.
>>>>
>>>> Tony
>>>>
>>>>
>>>> "Brandon" <a@a.com> wrote in message news:44ef162d$1@linux...
>>>> > The solenoid is for work. Trying to make an upgrade to our
>>>> > electronics
>>>> > production line.
>>>> >
>>>> > The kick question came up last night at the studio with my friends
> band
>>>> > and
>>>> > now I am curious.
>>>> > I am guessing around 20 pounds.
>>>> >
>>>> >
>>>> > --
>>>> > Brandon
>>>> >
>>>> >
>>>> > "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e$1@linux...
>>>> >>
>>>> >> Trying to make a robotic kick drum, are ya? :)
>>>> >>
>>>> >> Is that why you needed the solenoid?
>>>> >>
>>>> >> Neil
>>>> >>
>>>> >>
>>>> >> "Brandon" <a@a.com> wrote:

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>>>> >> >
>>>> >> >
>>>> >> >How much force in "pounds" do you think is applied to=20
>>>> >> >
>>>> >> >a kick drum from the beater hitting the head? (range)
>>>> >> >
>>>> >> >
>>>> >> >
>>>> >> >Thanks
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>>>> >> >
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>>>> >> >Brandon
>>>> >> >
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>>>> >> >
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Subject: Re: OT: How much force in "pounds" do you think.....  
 Posted by [Victor Lethbridge](#) on Fri, 25 Aug 2006 20:25:05 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

In article <44ef162d\$1@linux>, "Brandon" <a@a.com> wrote:

I think it has to be more. For light quiet stuff maybe 10-20lbs but if you have a rock thumper going it would be quit a bit more. Set the kick drum with the beater head facing upwards. Put 20lbs on the head and see how much deflection there is. Compare the deflection when someone give the kick a whack. It might give you somewhat of an idea.

I've seen a couple "lead-footers" manage to put a beater through a new, properly seated, skin. They had a felt beater! I know the force was applied only through the beater but the overall force had to be quite substantial.

> The solenoid is for work. Trying to make an upgrade to our electronics  
> production line.  
>  
> The kick question came up last night at the studio with my friends band and  
> now I am curious.  
> I am guessing around 20 pounds.  
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> Brandon  
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> "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...  
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> > Trying to make a robotic kick drum, are ya? :)  
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> > Is that why you needed the solenoid?  
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> > >Thanks  
> > >  
> > >  
> > >=20  
> > >Brandon  
> > >

```

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> > >
> > >

```

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Subject: Re: OT: How much force in "pounds" do you think.....  
 Posted by [Tony Benson](#) on Fri, 25 Aug 2006 20:50:09 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Looks like we need one of these.

[http://www.pcb.com/techsupport/tech\\_force.php](http://www.pcb.com/techsupport/tech_force.php)

Probably a little more costly than we'd like also! ;>)

Tony

"Brandon" <a@a.com> wrote in message news:44ef3c45@linux...  
 > Well I was thinking of how much the head moves inward when the beater hits  
 > it.  
 > I was thinking maybe 1"-2". So, if I took the bass drum and turned it on  
 > its  
 > side  
 > and placed a 20 pound weight focused down to a 1 square inch area in the  
 > center of the drum head I think it would displace the drum head by at  
 > least  
 > 1 1/2".  
 > So wouldn't that be equivalent? Perhaps its a little more 30 or 40.  
 >  
 >  
 > --  
 > Brandon

>  
>  
> "Tony Benson" <tony@standinghampton.com> wrote in message  
> news:44ef3868@linux...  
>> I think it'd be much higher myself. You'd have to measure in pounds per  
>> square inch also for the measure to have much meaning. Since the beater  
> head  
>> is probably only contacting a little over 1 square inch, I'm guessing a  
> good  
>> hard hit will be pretty substantial. Now you got me wondering.  
>>  
>> Tony  
>>  
>>  
>> "Brandon" <a@a.com> wrote in message news:44ef162d\$1@linux...  
>> > The solenoid is for work. Trying to make an upgrade to our electronics  
>> > production line.  
>> >  
>> > The kick question came up last night at the studio with my friends band  
>> > and  
>> > now I am curious.  
>> > I am guessing around 20 pounds.  
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>> >  
>> > --  
>> > Brandon  
>> >  
>> >  
>> > "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...  
>> >>  
>> >> Trying to make a robotic kick drum, are ya? :)  
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>> >> >  
>> >> >Thanks  
>> >> >

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Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Deej \[1\]](#) on Fri, 25 Aug 2006 22:50:22 GMT

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---

ROTFL!!!! I love it!!

"Neil" <IUOIU@OIU.com> wrote in message news:44ef5007\$1@linux...

>

> What if you got a fish-weighting scale, attached it with an  
> eye-hook to the wall behind the beater then attached a  
> wire/cable connecting the scale to the beater itself, then  
> whacked away? Film the scale with a high-speed IMAX camera, then  
> review frame by frame until you find the one with the maximum  
> deflection on the scale, and there you have it!

>

> :)

> (Just trying to find the most DJ-esque solution to the problem)

>

>  
>  
>  
>  
> "Tony Benson" <tony@standinghampton.com> wrote:  
> >Hum? I'm not a physics dude, but I think besides just the deflection of  
> the  
> >head, you'd have to account for the velocity of the beater head,etc. I'm  
>  
> >just not sure if you can equate a static weight on the head with the  
actual  
>  
> >force of a moving beater hitting it for a split second. I know several  
real  
>  
> >smart math and electronics nerds (PhD types), but no physics docs. I  
might  
>  
> >check around and see if I can find someone who can tell me how to figure  
>  
> >this out. Now where did I put that dang accelerometer? ;>)  
> >  
> >Tony  
> >  
> >  
> >  
> >"Brandon" <a@a.com> wrote in message news:44ef3c45@linux...  
> >> Well I was thinking of how much the head moves inward when the beater  
> hits  
> >> it.  
> >> I was thinking maybe 1"-2". So, if I took the bass drum and turned it  
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> >> its  
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> >> and placed a 20 pound weight focused down to a 1 square inch area in  
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> >>  
> >> --  
> >> Brandon  
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> >> "Tony Benson" <tony@standinghampton.com> wrote in message

> >> news:44ef3868@linux...

> >>> I think it'd be much higher myself. You'd have to measure in pounds per

> >>> square inch also for the measure to have much meaning. Since the beater

> >> head

> >>> is probably only contacting a little over 1 square inch, I'm guessing

> a

> >> good

> >>> hard hit will be pretty substantial. Now you got me wondering.

> >>>

> >>> Tony

> >>>

> >>>

> >>> "Brandon" <a@a.com> wrote in message news:44ef162d\$1@linux...

> >>> > The solenoid is for work. Trying to make an upgrade to our electronics

> >>> > production line.

> >>> >

> >>> > The kick question came up last night at the studio with my friends

> band

> >>> > and

> >>> > now I am curious.

> >>> > I am guessing around 20 pounds.

> >>> >

> >>> >

> >>> > --

> >>> > Brandon

> >>> >

> >>> >

> >>> > "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...

> >>> >>

> >>> >> Trying to make a robotic kick drum, are ya? :)

> >>> >>

> >>> >> Is that why you needed the solenoid?

> >>> >>

> >>> >> Neil

> >>> >>

> >>> >>

> >>> >> "Brandon" <a@a.com> wrote:

> >>> >> >

> >>> >> >

> >>> >> >How much force in "pounds" do you think is applied to=20

> >>> >> >

> >>> >> >a kick drum from the beater hitting the head? (range)

> >>> >> >

> >>> >> >

> >>> >> >

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> >>> >> >Thanks
> >>> >> >
> >>> >> >
> >>> >> >--=20
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Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Aaron Allen](#) on Fri, 25 Aug 2006 23:18:52 GMT

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---

I once bent the heck out of a (borrowed kick pedal.. oops) 5002 DW beater within 30 seconds..... does that say anything about lbs/in at the head, LOL?

AA

"Victor Lethbridge" <tatanka@eidnet.org> wrote in message  
news:tatanka-D6685E.14250425082006@cust0358.vic01.dataco.com.au...

> In article <44ef162d\$1@linux>, "Brandon" <a@a.com> wrote:  
>  
> I think it has to be more. For light quiet stuff maybe 10-20lbs but if  
> you have a rock thumper going it would be quit a bit more. Set the kick  
> drum with the beater head facing upwards. Put 20lbs on the head and see  
> how much deflection there is. Compare the deflection when someone give  
> the kick a whack. It might give you somewhat of an idea.  
>  
> I've seen a couple "lead-footers" manage to put a beater through a new,  
> properly seated, skin. They had a felt beater! I know the force was  
> applied only through the beater but the overall force had to be quite  
> substantial.  
>  
>> The solenoid is for work. Trying to make an upgrade to our electronics  
>> production line.  
>>  
>> The kick question came up last night at the studio with my friends band  
>> and  
>> now I am curious.  
>> I am guessing around 20 pounds.  
>>  
>>  
>> --  
>> Brandon  
>>  
>>  
>> "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e\$1@linux...  
>> >  
>> > Trying to make a robotic kick drum, are ya? :)  
>> >  
>> > Is that why you needed the solenoid?  
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```

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>> >

```

---

Subject: Re: OT: How much force in "pounds" do you think.....

Posted by [Rod Lincoln](#) on Sat, 26 Aug 2006 03:40:02 GMT

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---

I broke a shaft on a DW 5002 beater (rented backline) 2 months ago in Vegas.  
Broke it clean into.

Rod

"Aaron Allen" <know-spam@not\_here.dude> wrote:

>I once bent the heck out of a (borrowed kick pedal.. oops) 5002 DW beater

>within 30 seconds..... does that say anything about lbs/in at the head,

>LOL?

>

>AA

>

>

>"Victor Lethbridge" <tatanka@eidnet.org> wrote in message

>news:tatanka-D6685E.14250425082006@cust0358.vic01.dataco.com.au...

>> In article <44ef162d\$1@linux>, "Brandon" <a@a.com> wrote:

>>

>> I think it has to be more. For light quiet stuff maybe 10-20lbs but if

>> you have a rock thumper going it would be quit a bit more. Set the kick

>> drum with the beater head facing upwards. Put 20lbs on the head and see

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>> the kick a whack. It might give you somewhat of an idea.

```

>>
>> I've seen a couple "lead-footers" manage to put a beater through a new,
>> properly seated, skin. They had a felt beater! I know the force was
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>> substantial.
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>>> The kick question came up last night at the studio with my friends band

>>> and
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>>> I am guessing around 20 pounds.
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>>> --
>>> Brandon
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>>> "Neil" <OIUOIU@OIU.com> wrote in message news:44ef107e$1@linux...
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>>> > >
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Subject: Re: OT: How much force in "pounds" do you think.....  
Posted by [Martin Harrington](#) on Sun, 27 Aug 2006 02:54:29 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

You managed to accomplish the task....;>p

--

Martin Harrington  
[www.lendaneer-sound.com](http://www.lendaneer-sound.com)

"DJ" <animix\_spam-this-ahole\_@animas.net> wrote in message  
news:44ef7f33\$1@linux...

> ROTFL!!!! I love it!!

>

> "Neil" <IUOIU@OIU.com> wrote in message news:44ef5007\$1@linux...

>>

>>SNIP>>>>>

>> :)

>> (Just trying to find the most DJ-esque solution to the problem)

>>

>>

>>

>>

>>

>> "Tony Benson" <tony@standinghampton.com> wrote:

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