```
hd_append_back  THM

⊢  ∀l,m:T*. ||l|| = 0 ⇒ ||m||>0 ⇒ hd((l @ m)) = hd(m)  by UnivCD
|
1. T : Type
2. l : T*
3. m : T*
4. ||l|| = 0
5. ||m||>0
⊢  hd((l @ m)) = hd(m)  by ListInd 2
|
|\
| 4. ||m||>0
| ⊢  ||nil|| = 0 ⇒ hd((nil @ m)) = hd(m)  by Reduce 0
|
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. 4. ||m||>0
. 5. u : T
. 6. v : T*
. 7. ||v|| = 0 ⇒ hd((v @ m)) = hd(m)
. ⊢  ||u.v|| = 0 ⇒ hd(((u.v) @ m)) = hd(m)  by Reduce 0
END
```