```
hlist_ty_def  THM

⊢  ∀'a:S.
|  exists
|  (λrep:hlist('a) → hprod((hnum → 'a); hnum). type_definition
|                                                (is_list_rep
|                                                ,rep))
| by HN THEN StrongAuto THEN Try (Complete (Unfold `label` 0))
|
1. 'a : S
⊢  ∃rep:(hlist('a) → hprod((hnum → 'a); hnum)).
|  type_definition(hprod((hnum → 'a); hnum);hlist
|  ('a);is_list_rep;rep)
| by TypeDefIso rep_list abs_list THEN StrongAuto
|    THEN
|    Try (Complete (Unfold `label` 0))
|
.....antecedent .....
1. 'a : S
⊢  iso_pair(hlist('a);hprod
   ((hnum → 'a); hnum);is_list_rep;rep_list;abs_list)
  by L
     Thm* ∀'a:S.
          iso_pair('a List;(ℕ→'a)×ℕ;is_list_rep;rep_list;abs_list)
     {list_iso}
     THEN
     StrongAuto
     THEN
     Try (Complete (Unfold `label` 0))
END
```