```
assoced_functionality_wrt_assoced  THM

⊢  ∀a,b,a',b':ℤ. (a ∼ a') ⇒ (b ∼ b') ⇒ ((a ∼ b) ⟺ (a' ∼ b'))
| by BackThru
|    Thm* ∀R:(T→T→Prop).
|         (EquivRel x,y:T. R(x,y))
|         ⇒
|         (∀a,a',b,b':T. R(a,b) ⇒ R(a',b') ⇒ (R(a,a') ⟺ R(b,b')))
|    {equiv_rel_self_functionality}
|
⊢  EquivRel x,y:ℤ. x ∼ y
  by BackThru Thm* EquivRel x,y:ℤ. x ∼ y    {assoced_equiv_rel}
END
```