```
bif_wf  THM

⊢  ∀A:Type, b:𝔹, x:(b→A), y:((¬b)→A). bif(b; bx.x(bx); by.y(by)) ∈ A
| by Id THEN StrongAuto
|
1. A : Type
2. b : 𝔹
3. x : b→A
4. y : (¬b)→A
⊢  bif(b; bx.x(bx); by.y(by)) ∈ A  by BoolNorm THEN StrongAuto
|
|\
| .....subterm .....
| 1. A : Type
| 2. True→A
| 3. (¬True)→A
| ⊢  · ∈ True  by Unab [‘bif‘] THEN Reduce 0 THEN StrongAuto
| |
| .....subterm .....
| 1. A : Type
| 2. True→A
| 3. (¬True)→A
| ⊢  · ∈ True  by Unab [‘true‘;‘it‘] THEN StrongAuto
|
.\
. .....subterm .....
. 1. A : Type
. 2. False→A
. 3. (¬False)→A
. ⊢  (λx.x) ∈ (¬False)  by Unab [‘bif‘] THEN Reduce 0 THEN StrongAuto
. |
. .....subterm .....
. 1. A : Type
. 2. False→A
. 3. (¬False)→A
. ⊢  (λx.x) ∈ (¬False)  by Unab [‘false‘;‘not‘] THEN StrongAuto
END
```