```
fair-fifo_wf  THM

⊢  ∀the_w:World. FairFifo ∈ Prop
| by Unfold ‘fair-fifo‘ 0
|    THEN
|    Try (Unfold ‘w-Msg‘ 0 THEN Complete Auto)
|
.....subterm .....
1. the_w : World
2. i : Id
3. t : ℕ
4. l : IdLnk
5. isrcv(l;a(i;t))
6. ||queue(l;t)||≥1
⊢  msg(a(i;t)) ∈ Msg
| by FwdThru
|    Thm* ∀the_w:World, l:IdLnk, i:Id, a:Action(i).
|         isrcv(l;a) ⇒ ¬isnull(a) & isrcv(kind(a)) & lnk(kind(a)) = l
|    {assert_DASH_w_DASH_isrcvl}
|    [-2]
|
1. the_w : World
2. i : Id
3. t : ℕ
4. l : IdLnk
5. isrcv(l;a(i;t))
6. ||queue(l;t)||≥1
7. ¬isnull(a(i;t)) & isrcv(kind(a(i;t))) & lnk(kind(a(i;t))) = l
⊢  msg(a(i;t)) ∈ Msg
| by Using [‘l’,lnk(kind(a(i;t)))]
|    (BackThru
|     Thm* ∀the_w:World, i:Id, a:Action(i), l:IdLnk.
|          isrcv(l;a) ⇒ msg(a) ∈ Msg
|     {w_DASH_msg_wf})
|
1. the_w : World
2. i : Id
3. t : ℕ
4. l : IdLnk
5. isrcv(l;a(i;t))
6. ||queue(l;t)||≥1
7. ¬isnull(a(i;t))
8. isrcv(kind(a(i;t)))
9. lnk(kind(a(i;t))) = l
⊢  isrcv(lnk(kind(a(i;t)));a(i;t))  by HypSubst -1 0
END
```