```
is_intersection_wf  THM

⊢  ∀T:Type, eq:{T≡₂}, L,M:T List. L∩(eq)M ∈ Type
| by RepeatFor 3 (Analyze 0)
|
1. T : Type
2. eq : {T≡₂}
3. L : T List
⊢  ∀M:T List. L∩(eq)M ∈ Type  by ListInd -1
|
|\
| ⊢  ∀M:T List. nil∩(eq)M ∈ Type  by AbReduce 0
|
.\
. 4. u : T
. 5. v : T List
. 6. ∀M:T List. v∩(eq)M ∈ Type
. ⊢  ∀M:T List. (u.v)∩(eq)M ∈ Type  by Analyze 0 THEN AbReduce 0
. |
. 7. M : T List
. ⊢  (u(∈eq) M ∨ ∃x∈v.x(∈eq) M) ∈ Type
.   by Auto THEN HypBackchain THEN Trivial
END
```