

Low Amplitude Issues after Servicing the Movement

- **Demagnetize**
- **Confirm the correct lift angle**
- **Uncase the watch**
- re-check the amplitude
- remove the hands and dial
- re-check the amplitude.
- remove any parts necessary to allow you to get to the cannon pinion for its removal.

*** Disconnect Cannon Pinion***

Re-check the amplitude afterwards to determine if the problem was on the dial side. If the amplitude is still the same, if so, proceed using the checks below.

**** Begin checking from the balance towards the barrel****

***Note:** Some components will have to be re-cleaned for proper assessment

*Make the following checks and inspections in these areas:

1. Balance Area

1. Pivot defects (sideshake, wear and straightness)
2. Hairspring centering / flatness / touching
3. Balance jewels (oil, lack of oil, cleanliness, wear)
4. Shock springs (stressed or not fully engaged)
5. Bad cap jewel or tilted
6. Ill-fitting parts
7. Jewel settings (shock settings) pivot hole area damaged or burred
8. Endshake of the balance
9. Lint / cleanliness issues
10. Free rotation of the balance wheel
11. Bad division of parts (check in different positions)

2. Escapement Area

1. Lint / cleanliness issues
2. Pallet stone settings (too deep or too shallow and dropping onto the impulse plane)
3. Lubrication (type and amount) Must be able to see a lubrication track.
4. Fix-o-Drop interactions
5. Ill-fitting parts and check the pivots for straightness
6. Worn escape wheel locking corner

7. Worn escapement tooth (impulse face)
8. Endshake and sideshake of pallet staff (and free angular movement)
9. Grooves in pallet stones
10. Wear in the fork notch / slot
11. Escapement divisions
12. Free rotation of the escape wheel.
13. Damaged banking or banking pin issues
14. Check the outside of the pallet fork horns for damaged from banking contact
15. Bent guard pin (can show in a vertical position) check clearance DP + 90 degrees.
16. Check for a non-concentric roller at 180 and 270 degrees.
17. Defective pallet bridge (banking locations are not correct) try a new bridge.

3. Great Train

1. Pivots (condition)
2. Endshakes
3. Tilted or defective jewels
4. lack of lubrication and type
5. Free rotation of gear train

4. Barrel Area

1. Barrel arbor endshake
2. Excessive sideshake (tilting of the barrel)
3. Damaged barrel (lower barrel hole)
4. Bad jewel or bushing (maybe tilted or worn)
5. Worn braking notches / proper braking grease
6. Bent mainplate (barrel area)
7. Ratchet wheel freedom (if there are movable jewels or bushings)
8. Free rotation of the barrel
9. Worn barrel teeth
10. Re-check the strength of the new mainspring (measuring thickness)
Replace mainspring if it is not new.

5. Other things

1. Watch is still dirty and was not clean
2. Jewels needed to be pegged
3. Old oils used

^^^ This chart was developed to help you when you have a persistent problem that is not being discovered. There may be other causes not addressed here.