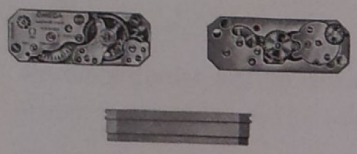
OMEGA Ω

TECHNICAL GUIDE

N° 26 1962

THE BAGUETTE CALIBRE 690

(R7 PC AM 17 jewels)



Today we present our new calibre movement which greatly enhances our range of bracelet and gem set watches. Although smaller than normal calibres, all parts are interchangeable and it will prove in every way as reliable as on other small calibres. Despite the unusual construction no difficulties should be encountered in servicing if the instructions given are observed.

CHARACTERISTICS

Dimensions

Total length 18.80 mm
Total width 7.00 mm
Casing dimensions length 18.60 mm
Casing dimensions width 7.00 mm
Total height 3.78 mm

Vibrations

Number of vibrations 21,600

Ebauche

It comprises:
The lower plate in which are pivoted the barrel, centre wheel, third, fourth and escape wheels,
the top plate in which are pivoted the balance (lower) pallets, third and fourth wheels,
the pallet cock,
the escape wheel bridge,
the balance cock.

Finish

Rose gilt with large wave effect

Jewelling

17 jewels as follows:

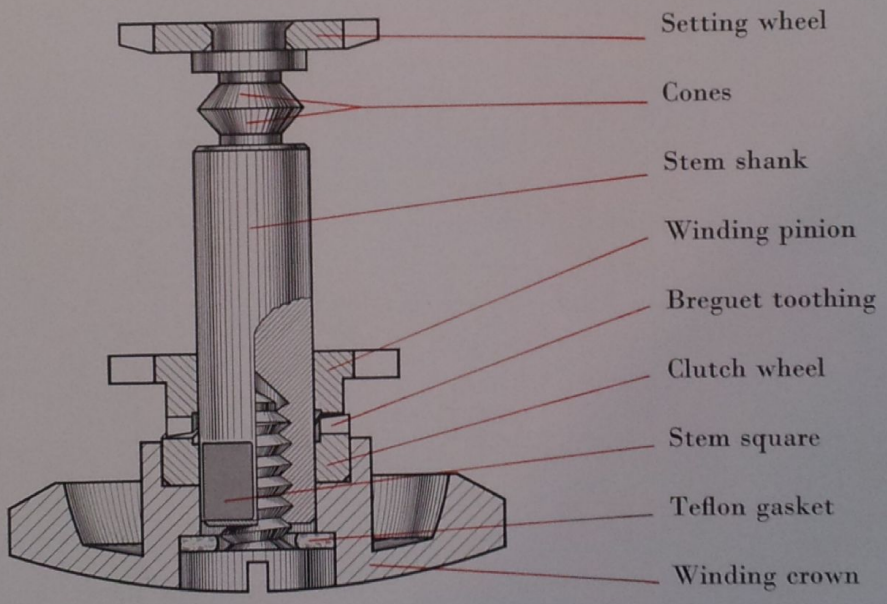
1 jewel for barrel arbor, upper
1 jewel for centrewheel, upper
2 jewels for third wheel
2 jewels for fourth wheel
2 jewels for escape wheel
2 jewels for pallet-staff
2 jewels for balance and 2 cap-jewels
2 pallet stones and the roller jewel

Running time

The mainspring is of a stainless steel alloy, is unbreakable and non-distorting. It develops at least five turns and has a minimum running time of 48 hours.

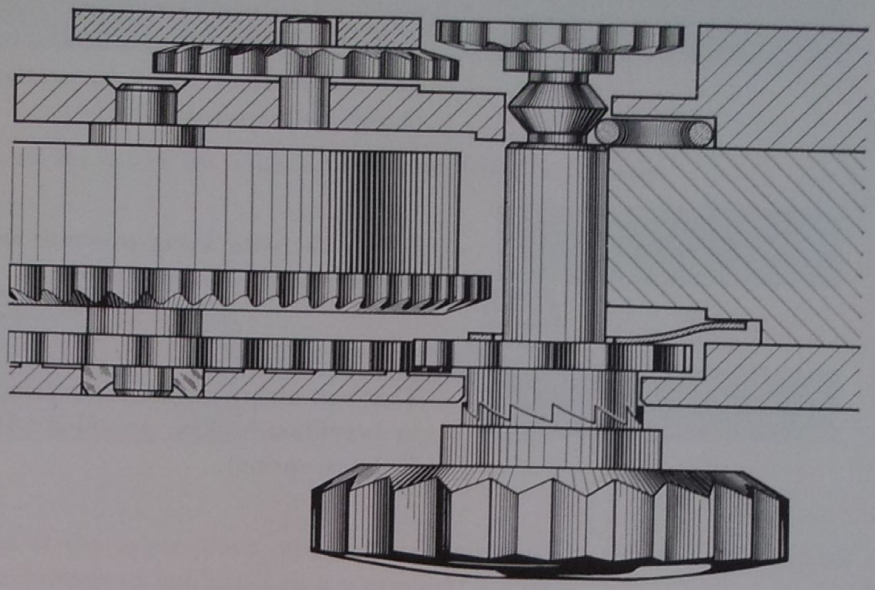
Winding and Setting

Both operations are carried out by means of the winding crown which is located on the back of the watch.



To one end of the winding stem is fitted the setting wheel; to the other, which is squared, is tightly fitted and held in position by a screw, is the clutch wheel and winding crown. A small Teflon plastic washer is fitted which prevents ingress of dust etc. The winding pinion is located and is free to move on the shank of the stem.

Winding mechanism

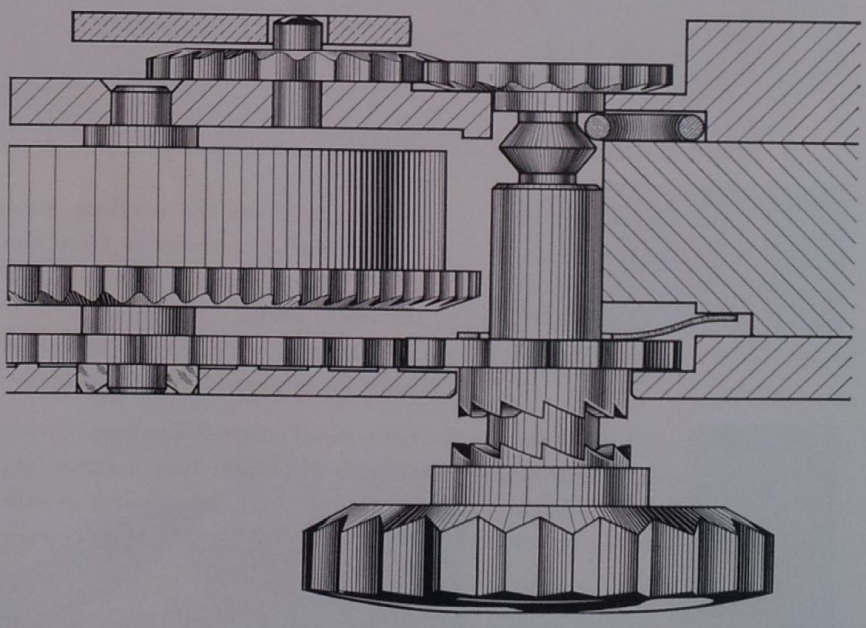


On winding the watch, the clutch wheel which turns with the crown and stem, drives the winding pinion which in turn drives the ratchet wheel fitted on the barrel arbor.

The winding pinion return spring keeps the pinion engaged with the clutch wheel and returns it to its original position on release.

The position of the winding stem is maintained by a round section spring, which is made to bear against one of the faces on the double cone on the stem.

Hand-Setting



On pulling out the winding crown the winding stem spring gives and bears against the other face of the double cone, thus maintaining the stem in the position which allows engagement of the setting wheel with the motion work, thus setting the hands.

Escapement

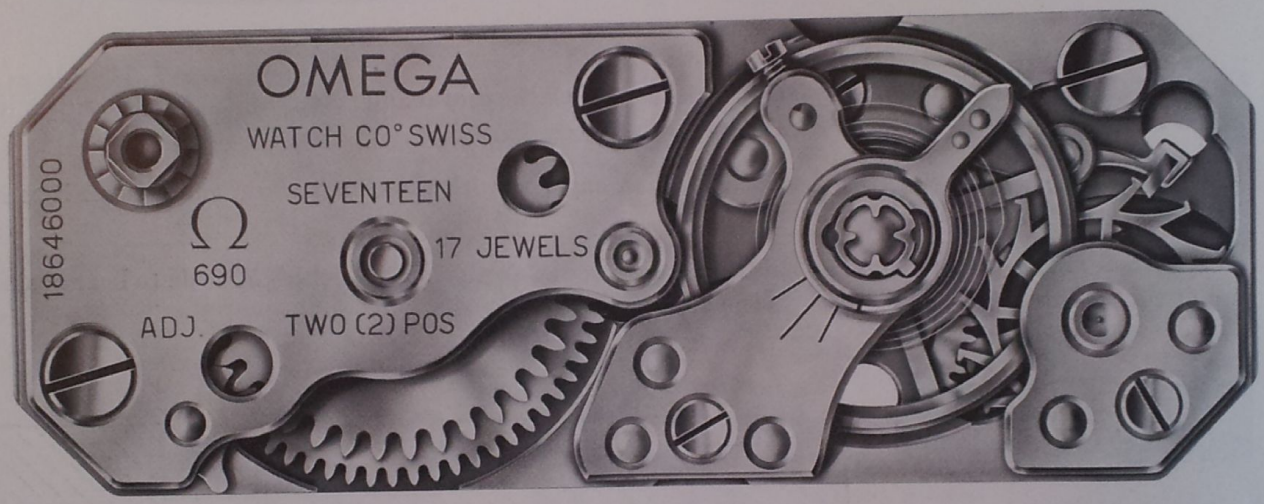
The escape wheel, pallets and roller are of steel. The upper part of the pallets are bevelled, the horns of the lever are pierced and polished and the parts coming into contact with the banking pins are unplated and polished.

Shock Proofing

Kif, both units being pressure set into the upper plate and cock (balance bridge), respectively.

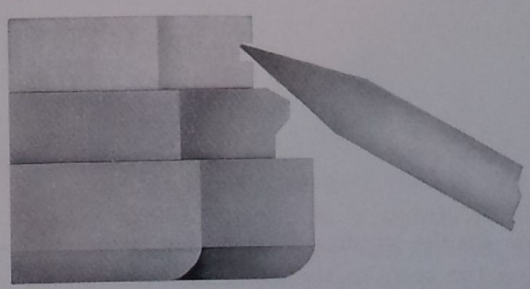
Balance and Spring

This non-magnetic assembly comprises a four arm annular balance in beryllium-bronze, provided with a compensating flat hairspring (balance spring).



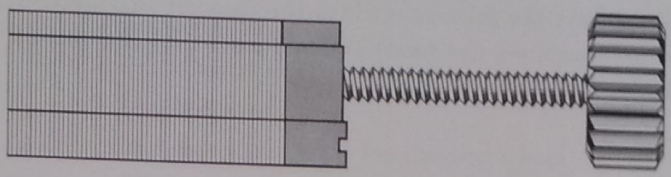
Removing the movement from the case

Having removed the winding crown and clutch wheel the movement may be easily withdrawn from the case by means of a broad screwdriver which may be inserted into notches located on either side of the lower plate.

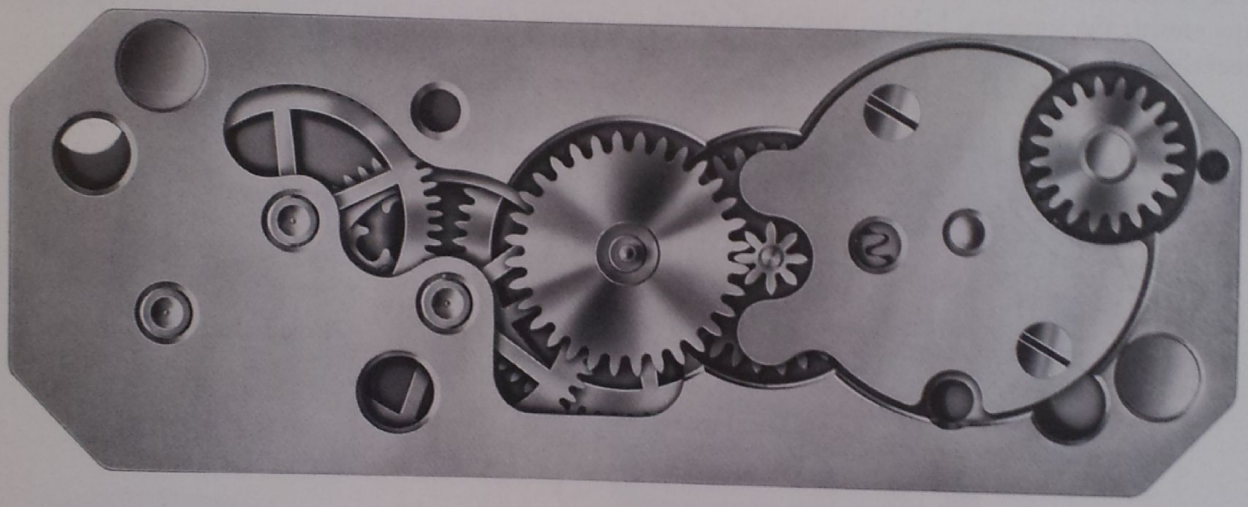


ASSEMBLING THE MOVEMENT

For easy handling of the movement the use of the working stem and crown is advised.



The stem is screwed into the end of the upper plate, and permits inspection of the movement in all positions without holding it in the fingers or holding it in a movement holder.



Assembling the movement is performed as follows:

On the lower plate, fit the winding stem after having oiled the latter on the whole length of its shank and on the cone; then insert the stem-spring in its proper location.

Then successively fit the fourth wheel, third and centre wheels, then after having oiled the Kif protecting device, fit the upper plate; for that purpose, first introduce the winding stem while holding it quite upright—then the pillars of lower plate into their respective holes, while making sure that the pivots of the third and fourth wheels are duly positioned within their jewel holes, and screw down the pillar screw near the balance countersink.

Fit the barrel, ratchet and the winding pinion spring in their respective places and the winding pinion on the stem after having oiled periphery of the Breguet teeth.

Then fit the barrel bridge along with click and spring thereof and screw down the 2 screws, one into the pillar of lower plate and the other into the pillar of the upper plate.

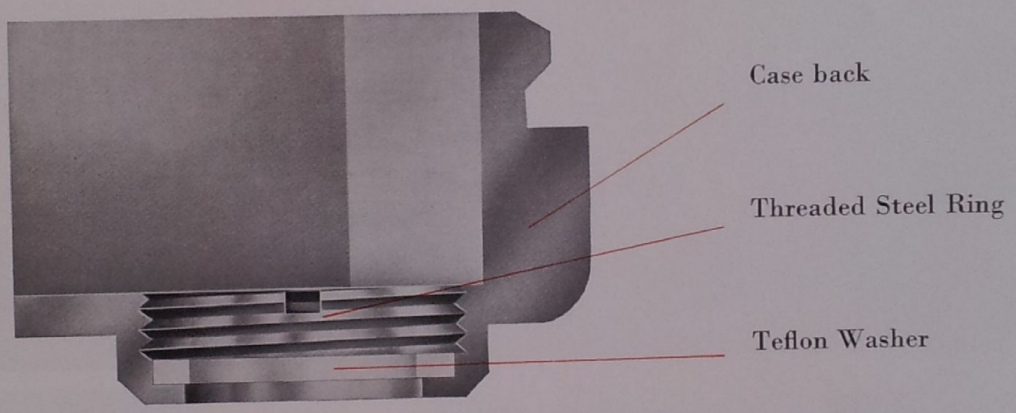
ASSEMBLING THE MOVEMENT (continued)

Place the escape wheel, pallet and balance along with hairspring, and screw down successively their respective bridges. Fit the minute-wheel, then the setting wheel thereof and make sure that the bevel of its toothing duly faces the bevel of the setting wheel riveted on the winding stem; screw the minute wheel bridge and fit the cannon pinion, hour wheel dial and hands as usual.

Remove the working stem, insert the movement into the case, fit successively the clutch-wheel and the winding crown on the stem-square, set the small Teflon gasket into the bottom of the countersink of the screw and screw the latter right home.

WATERPROOFNESS OF CASE BACK

The metal insert located in the case back houses a Teflon washer which provides a waterproof seal for the crown; the washer is held by means of a steel externally threaded ring which screws into the aforementioned metal insert.



Should it be necessary to repair or alter the case, it is essential that the steel ring and Teflon washer be removed if soldering is to be carried out.

SPECIAL TOOL FOR THE REMOVAL OF THREADED RING

We keep at our customers disposal some of the special tools for the removal of the threaded ring. These are mounted as illustrated, having a standard diameter of 4.7 mm.

OILING THE MOVEMENT

Only absolutely clean parts should be oiled.

Synta-Visco-Lube Oil to:

- Winding stem
- Winding pinion
- Setting wheel stud
- Setting wheel stud for minute wheel
- Minute-wheel stud

Moebius Lubricant to:

- Barrel and mainspring

Moebius Oil for chronometers No. 1 to:

- Pivoting points of centre pinion and of barrel arbor within main plate and bridge, cannon pinion

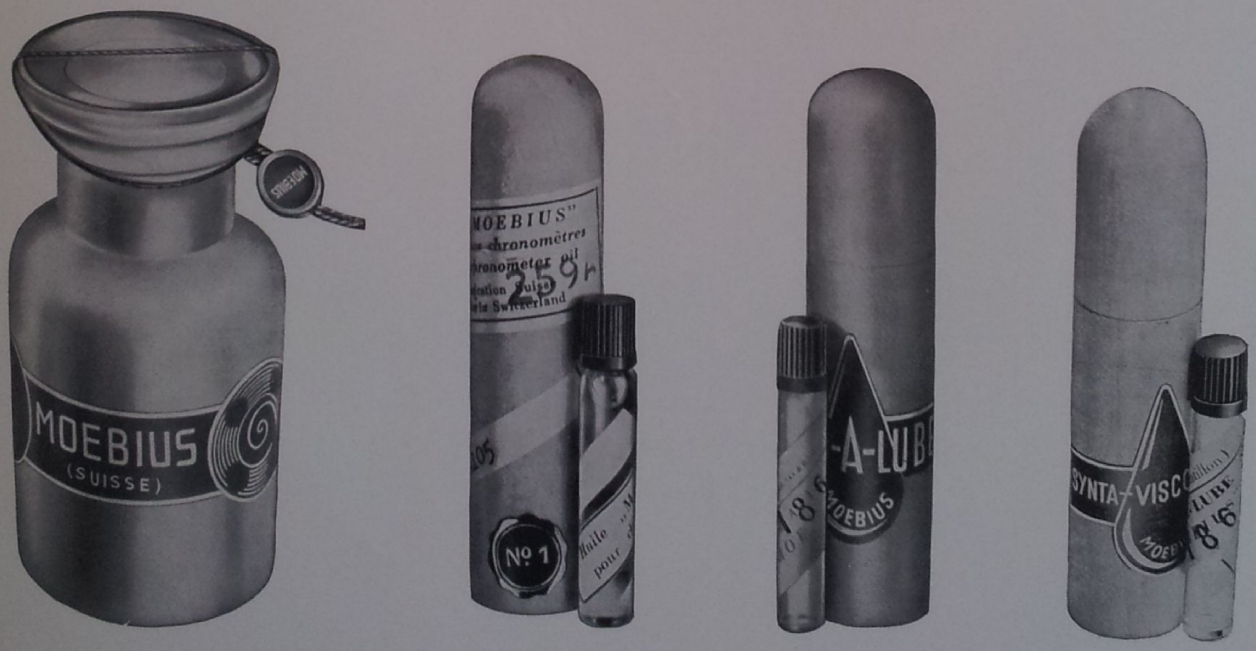
Synt-A-Lube Oil to:

- Pivoting points in gear-train, of escape wheel and balance

Moebius Oil for chronometers No. 1 to:

- Pallet stones

Pallet-staff pivots are not oiled.



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