



CAL. 6641/6642 6651/6652



CAL. 6641/6642



CAL. 6651/6652

CALIBER 6641

Automatic, with rotor
sweep second
25 jewels

Round movement, 11 $\frac{1}{2}$ '''

Lever escapement

28,800 vibrations per hour

CALIBER 6642

Automatic, with rotor
sweep second
17 jewels

CALIBER 6651

Automatic, with rotor
sweep second
instantaneous calendar
25 jewels

CALIBER 6652

Automatic, with rotor
sweep second
instantaneous calendar
17 jewels

1) Presentation

These optimized high-frequency movements of the second generation are of robust, modern design and insure remarkable stability of rate. Thanks to the use of well-tried technical procedures in accordance with the severest LONGINES quality standards, constructional simplicity is combined with func-

tional reliability. Particular importance has been attached to the aesthetic quality of the product. A slender profile and reduced thickness permit the creation of elegant models that meet the most exacting requirements.

2) General characteristics

2.1 Casing

Diameter	25.60 mm
Height	
cal. 6641/6642	4.30 mm
cal. 6651/6652	4.80 mm

2.2 Balance

Annular, screwless, protected by shock-absorbers

2.3 Hairspring

Non-magnetic, self-compensating

2.4 Mainspring

Stainless, self-lubricated

2.5 Power reserve

Sufficient for 42 hours' operation

2.6 Rate-adjustment

Spirofin system

3) Technical description and instructions

3.1 Motor organ

The barrel cover is marked "Ne pas ouvrir - Do not open". The mainspring of stainless alloy is self-lubricated and practically unbreakable; it needs no attention and should not be removed from the barrel.

In the event of damage, the motor organ should be replaced with a genuine factory-made complete barrel (ref. No. 6641 - 180/1).

The barrel arbor turns in two beryllium-bronze bushes, which are extremely resistant to wear.

3.2 Transmission organ

The train is composed of four jeweled runners. The third wheel drives the sweep-second pinion, which turns in two beryllium-bronze bushes; these are driven in at each end of the center pinion.

Regular movement of the second hand is insured by a friction spring, also of beryllium bronze, which presses lightly on the end of the second pinion.

3.3 Escapement

The escapement is of the standard lever type. The steel escape wheel has 21 teeth.

3.4 Regulating organ

The screwless monometal balance, which is coupled with a self-compensating hairspring that is insensitive to variations of temperature and ordinary magnetic fields, insures an excellent rate in actual wear.

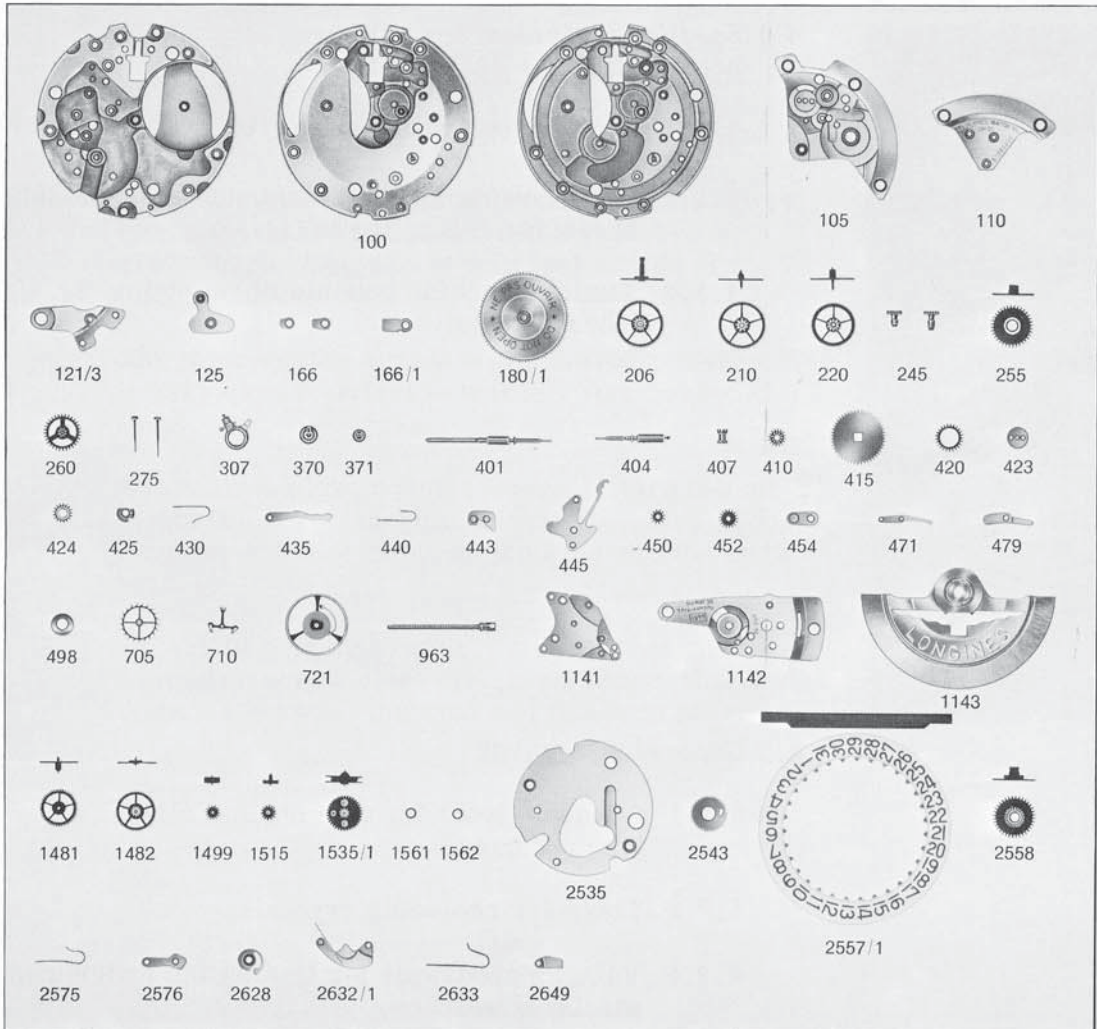
The balance pivots are protected from shocks by a shock-absorber device. The rate is adjusted by means of the Spirofin system. See section 5.

3.5 Manual winding and hand-setting mechanism

The winding- and hand-setting functions are performed by a mechanism of the standard type. The winding-stem can be extracted or re-inserted by simply pressing the setting-lever axle.

3.6 Table of concordance of components

Number	6641	6642	6651	6652	Name
100	XX	XX			Plate
100			XX	XX	Plate
105	XX	XX	XX	XX	Barrel bridge
110	XX	XX	XX	XX	Train-wheel bridge
121/3	XX	XX	XX	XX	Balance cock
125	XX	XX	XX	XX	Pallet cock
166	XX	XX	XX	XX	Casing-clamp (L. 2.00)
166	XX	XX	XX	XX	Casing-clamp (L. 2.50)
166/1	XX	XX	XX	XX	Casing-clamp
180/1	XX	XX	XX	XX	Barrel, complete (with mainspring)
206	XX	XX	XX	XX	Center wheel
210	XX	XX	XX	XX	Third wheel
220	XX	XX	XX	XX	Fourth wheel
245	XX	XX			Cannon pinion
245			XX	XX	Cannon pinion
255	XX	XX			Hour wheel
260	XX	XX	XX	XX	Minute wheel
275	XX	XX			Sweep-second pinion
275			XX	XX	Sweep-second pinion
307	XX	XX	XX	XX	Regulator device, complete (Spirofin)
370	XX	XX	XX	XX	Kif, jeweled, upper
371	XX	XX	XX	XX	Kif, jeweled, lower
401	XX	XX	XX	XX	Winding-stem
404	XX	XX	XX	XX	Stem for water-resistant case
407	XX	XX	XX	XX	Clutch wheel
410	XX	XX	XX	XX	Winding-pinion
415	XX	XX	XX	XX	Ratchet wheel
420	XX	XX	XX	XX	Crown wheel
423	XX	XX	XX	XX	Crown-wheel core
424	XX	XX	XX	XX	Supplementary crown wheel
425	XX	XX	XX	XX	Click
430	XX	XX	XX	XX	Click spring
435	XX	XX	XX	XX	Yoke (clutch lever)
440	XX	XX	XX	XX	Yoke spring (set spring)
443	XX	XX	XX	XX	Setting-lever (detent)
445	XX	XX	XX	XX	Setting-lever spring (set bridge)



1070.49 (5105) (5110) (51142)	1070.52 (5121/3) (5166)
1070.51 (5125)	1090.37 (5166)
1080.23 (5415)	1050.34 (5423)
1060.43 (5425) (5454)	1070.53 (5445) (5479)
1050.05 (5471)	1040.27 (5738)
1070.54 (5750)	1060.41 (51141)
1070.50 (51142)	1080.24 (51143)
1050.46 (52535) (52543)	