

Longines 6641,6642,6651,6652 Movement Parts (1)

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# CAL. 6641/6642 6651/6652 VINTAGE RESTORATIONS



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

## EMMYWATCH

#### CALIBER 6652

VINTAGE RESTORATIONS

Automatic, with rotor sweep second instantaneous calendar 17 jewels

## 1) Presentation

These optimalized 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

#### 2.4 Mainspring

Stainless, self-lubricated

#### 2.5 Power reserve

Sufficient for 42 hours' operation

#### 2.2 Balance

Annular, screwless, protected by shock-absorbers

#### 2.6 Rate-adjustment

Spirofin system

#### 2.3 Hairspring

Non-magnetic, self-compensating

## 3) Technical description A 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 berylliumbronze bushes, which are extremely resistant to wear.

#### 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.

#### 3.2 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.

#### 3.4 Regulating organ

The screwless monometal balance, which is coupled with a self-compensating hair-spring 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 (detent) Setting-lever spring (set bridge)

450	XX	XX	XX	XX
452	XX	XX	XX	XX
154	XX	XX	XX	XX
171	XX	XX	XX	XX
179	XX	XX	XX	XX
198	XX	XX	XX	XX
705	XX	XX	XX	XX
710	XX	XX	XX	XX
721	XX	XX	XX	XX
963	XX	XX	XX	XX
141	XX	2121	XX	121
1141	202	XX	2121	XX
1141	XX	AA		2121
	AA	XX		
1142		AA	XX	
1142		+	AA	XX
1142	VV	VV	XX	XX
1143	XX	XX		
L481	XX	XX	XX	XX
1482	XX	XX	XX	XX
1499	XX	XX	XX	XX
1515	XX	XX	XX	XX
1535/1	XX	XX	XX	XX
1561	XX	XX	XX	XX
562	XX	XX	XX	XX
2535			XX	XX
2543			XX	XX
2557/1			XX	XX
2558			XX	_XX -
2575			XX	XX
2576			XX	XX
2628		TY	XX V	XX
2632/1			XX	XX
2633	V	INT	/XX	
2649			XX	XX
5105	XX	XX	XX	XX
5110	XX	XX	XX	XX
5121/3	XX	XX	XX	XX
5125	XX	XX	XX	XX
5166	XX	XX	XX	XX
5415	XX	XX	XX	XX
5423	XX	XX	XX	XX
5425	XX	XX	XX	XX
5445	XX	XX	XX	XX
5454	XX	XX	XX	XX
5471	XX	XX	XX	XX
5479	XX	XX	XX	XX
	XX	XX	XX	XX
5738	XX	XX	XX	XX
5750			-	
51141	XX	XX	XX	XX
51142	XX	XX	XX	XX
51142	XX	XX	XX	XX
51143	XX	XX	XX	XX
52535			XX	XX
52543			XX	XX

Setting-wheel Ratchet-winding wheel Swing lever for ratchet-winding wheel Friction spring for sweep-second pinion Pressure spring for setting-lever Friction washer Escape wheel Jeweled pallet fork and staff Balance with flat hairspring, regulated Stem for water-resistant crown Lower bridge for automatic device Lower bridge for automatic device Upper bridge for automatic device Oscillating weight Reduction gear Driving-gear for ratchet wheel Reverser connecting-wheel Connecting-wheel for auxiliary reverser Reversing-gear, mounted Centering-ring for oscillating weight Pressure spring for centering-ring osc. weight Date-indicator guard Intermediate date wheel Date-indicator, transferred Double-toothing hour wheel Date-jumper spring Date jumper Unlocking-yoke cam Unlocking-yoke for date-indic., mounted Unlocking-yoke spring Pusher for date-indicator Barrel-bridge screw Train-bridge screw Balance-cock screw Pallet-cock screw ·Casing-clamp screw Ratchet-wheel screw Screw for crown-wheel core Click screw Screw for setting-lever spring Screw for swing-lever for ratchet-winding wheel Screw for fric. spring for sweep-sec.pin. Screw for pressure spring for setting-lever Hairspring-stud screw Dial screw Screw for lower bridge of automat. device Screw for upper bridge of automat. dev. (L.1.55) Screw for upper bridge of automat. dev. (L.2.80 Oscillating-weight screw Screw for date indicator guard Screw for intermediate date wheel

