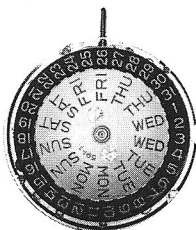


# BULOVA WATCH COMPANY, Inc.

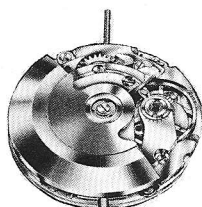
## TECHNICAL BULLETIN



DIAL SIDE



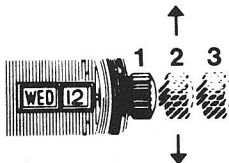
TRAIN SIDE



**BULOVA MODEL® 1133.10**  
**CARAVELLE® MODEL 1133.50**  
 Automatic, Sweep Second  
 Instant Change Date and Day

**Crown with Three Positions**

- 1** For Winding
- 2** ↑ For Date Correction  
 ↓ For Day Correction  
 (Setting wanted language if indicator bilingual)
- 3** For Setting The Hands



### SPECIFICATIONS

11½ Ligne 17 Jewel Movement  
 Diameter of the Plate 25.60mm.  
 Sweep Second Hand  
 Date Corrector  
 Instantaneous Date and Day  
 Total Running Time App. 52 Hours  
 Screwless Balance  
 21,600 beats per hour  
 Adjustable stud holder  
 Shock Resistant  
 Angle of lift 52°

### DESIGNATION OF TYPES

Caliber	Description	Ht.
1133.10	11½ Bulova Automatic, Day-Date with Sweep Second	5.50
1133.50	11½ Caravelle Automatic, Day-Date with Sweep Second	5.50

**PARTS FOR BULOVA MODEL 1133.10  
CARAVELLE MODEL 1133.50**

**201** (10.020)

**203** (10.041)

**205** (10.048)

**212** (10.058,21/61)

**216** (10.057)

**148** (10.106)

**106** (80.400)

**1S**

**4E** (30.012)

**5** (30.025)

**6K** (30.027)

**94X** (31.083)

**7** (31.046)

**8** (31.041)

**35** (40.301, 21/61)

**23** (40.200)

**16A** (51.010)

**17** (31.121)

**18** (31.120)

**13** (31.020)

**14** (31.023)

**32D** (51.120)

**24** (51.050)

**25/167** (51.080)

**28/26** (51.090)

**29** (31.100)

**9** (10.062)

**59** (30.040)

**57** (40.010)

**54** (40.050)

**342** (12.030)

**340** (12.051)

**344** (22.010.06)

**308** (32.031)

**309** (32.033)

**317U** (32.037)

**315** (32.020)

**316U** (32.038)

**56** (40.100)

**58** (40.020)

**60** (40.120)

**45** (10.020.01)

**37** (10.048.01)

**338** (12.051.01)

**41** (31.020.01)

**40** (31.023.01)

**(Left Thread)**

**335** (12.030.01)

**364** (32.020.01)

3 : 1

**CALENDAR PARTS**

**FLAT**

**CURVED**

**606** (33.028)

**576** (91.440)

**576** (91.440)

**591** (91.441)

**637** (53.022)

**581** (33.011)

**639** (53.201.01)

**660** (13.111)

**583** (53.040)

**584** (63.012)

**662** (13.109)

**648** (83.171)

**651** (53.089)

**638** ((53.201)

**661** (53.204)

**44A** (10.062.01)

**663** (13.111.01)

# PARTS LIST BULOVA MODEL 1133.10

Original Bulova Number	ISO Number	Part Name	Original Bulova Number	ISO Number	Part Name	Original Bulova Number	ISO Number	Part Name
1S	—	Sealed Barrel	47D	10.300	Dial Bolt	340	12.051	Lower Automatic Device Bridge
4E	30.012	Intermediate Wheel	54	40.050	Balance Complete—Flat	342	12.030	Automatic Device Framework
5	30.025	Third Wheel	56	40.100	Balance Staff	344	22.010.06	Oscillating Weight
6K	30.027	Sweep Second Wheel	57	40.010	Pallet s/s Pivot	364	32.020.01	Oscillating Weight Bearing WL Scw.
7	31.046	Hour Wheel — Hts. 1.75 — 2.05	58	40.020	Pallet Arbor s/s Pivot	576	91.440	Curved Date Indicator
8	31.041	Minute Wheel	59	30.040	Escape Wheel s/s Pivot	576	91.440	Flat Date Indicator
9	10.062	Minute Wheel Bridge	60	40.120	Roller	581	33.011	Intermediate Date Wheel
13	31.020	Ratchet Wheel	63-64	—	Minute & Hour Hands (Use 11BSACB)	583	53.040	Date Indicator Unlocking Yoke
14	31.023	Crown Wheel	65C	—	Sweep Second Hand	584	63.012	Date Indicator Unlocking Yoke Spg.
16A	51.010	Stem Tap 9 — Tap 10	94X	31.083	Cannon Pinion & Drive Wheel Ht. 2.70 — 2.95	591	91.441	Day Star w/Dial Disc
17	31.121	Clutch Wheel	106	80.400	Center Pipe	606	33.028	Calendar Driving Wheel
18	31.120	Winding Pinion	*148	10.106	Dial Rest	637	53.022	Guide Lever for Date Corrector
23	40.200	Stud Holder	201	10.020	Lower Plate	638	53.201	Day Corrector
24	51.050	Clutch Lever	203	10.041	Barrel Bridge	639	53.201.01	Day Corrector Screw
25/167	51.080	Set Lever With Axle	205	10.048	Train Wheel Bridge	648	83.171	Day Disc Spring—Clip
28/26	51.090	Setting Bridge & Spring	212	10.058.	Balance Bridge Flat	651	53.089	Day/Date Jumper
29	31.100	Setting Wheel	216	10.057	Pallet Bridge	660	13.111	Date Jumper Guard
32D	51.120	Spring/Click	308	32.031	Reduction Gear	661	53.204	Double Corrector
35	40.301	Regulator Flat—21/61	309	32.033	Ratchet Wheel Drive Gear	662	13.109	Unlocking Yoke Maintaining Plate
37	10.048.01	Barrel & Train Bridge Screw	315	32.020	Oscillating Weight Bearing Wheel	663	13.111.01	Date Jumper Guard Screw
38	10.058.01	Balance Bridge Screw (Use 37)	316U	32.038	Additional Pawl Winding Wheel			Flat or curved Date Indicator (Specify)
39	10.057.01	Pallet Bridge Screw (Use 37)	317U	32.037	Pawl Winding Wheel Complete			
40	31.023.01	Crown Wheel Screw	335	12.030.01	Automatic Device Framework Screw (Blue)			
41	31.020.01	Ratchet Wheel Screw	338	12.051.01	Lower Automatic Device Bridge Screw			
44	51.090.01	Setting Bridge Screw (Use 37)						
44A	10.062.01	Minute Wheel Bridge Screw						
*45	10.020.01	Case Screw ½ Hd						
47	—	Dial (See 47D)						

\*Used only on some models

\*Used only on some models

## DISASSEMBLY

### REMOVING THE STEM

To remove the stem, press the setting lever axle with a screw driver 1.40 mm. in diameter (the same diameter used for the bridge screws). Pointed articles — such as tweezers — should not be used because if the setting lever is pressed down too far, it will jam.

### REMOVING THE DIAL

To remove the dial, push a hooked (or pointed) tool against the nose of the bolt at "C", in the direction of the arrow D until the dial is free. (See. Fig. 1)

### REMOVING THE BALANCE BRIDGE ASSEMBLY

Because of the reduced outer dimension of the oscillating weight, the balance bridge is more exposed. This facilitates regulation. It also permits the removal and installation of the bridge assembly without removing the oscillating weight.

**Note:** See stud "A" (Fig. 2) and note the absence of a hairspring stud screw.

The outer end of the hairspring is cemented into a special stud. The stud is held by the flexible arms of the stud holder B. To remove the stud from its holder, place a pointed wedged shaped (oval or rectangular) tool between the two arms (B) and ease the stud out.

- A Stud  
 B Flexible Arms of Stud Holder  
 C Regulator Block  
 D Flexible Arms of Regulator

## ASSEMBLY

### PLAY OF THE HAIRSPRING BETWEEN REGULATOR PINS


The flexible arms of the stud holder "B" and of the regulator "D" permit the quick adjustment of the hairspring play between the regulator pins by turning either the stud "A" or the regulator block "C".

**TIP:** The hairspring in the flat tends to pull upwards — never downwards.

### SPRING/CLICK 32D

The spring/click is inserted after the crown wheel has been installed. The purpose of this arrangement is to prevent the mainspring from unwinding suddenly. (See Fig. 3)

### WIND-SET MECHANISM

Be sure to place into position guide lever date corrector #637  before assembling wind-set mechanism.

### POSITIONING THE DATE INDICATOR DISC

A slot see "E" (See Fig. 4) in the date jumper guard #660 makes it possible to assemble and disassemble the date indicator without removing the date indicator guard (which is also the minute wheel bridge). In assembling, position the date indicator on the movement so that some of its teeth are beneath the lip of the minute bridge. Then position the indicator so that one of its teeth lies above slot "E" in the date jumper guard #660. Seat and turn the indicator until it is locked in place. Now the date jumper guard is acting also as an additional date indicator guard.

## BENCH TIPS

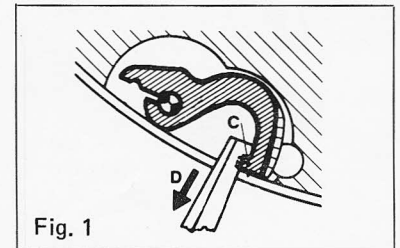


Fig. 1

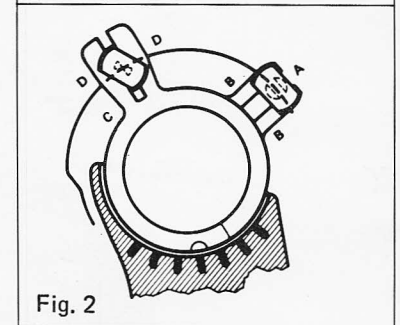


Fig. 2

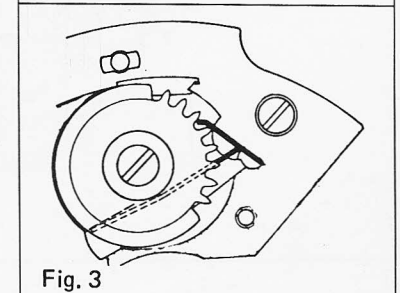


Fig. 3

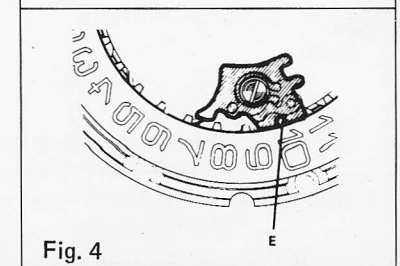
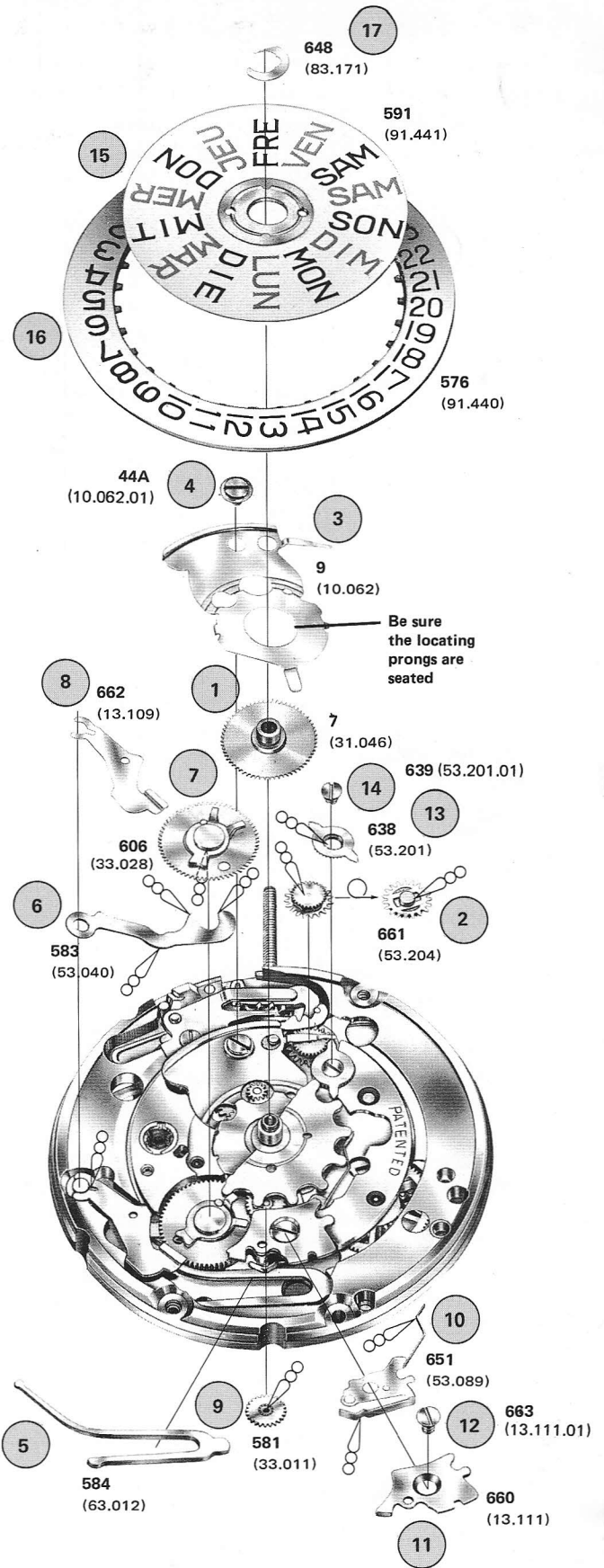
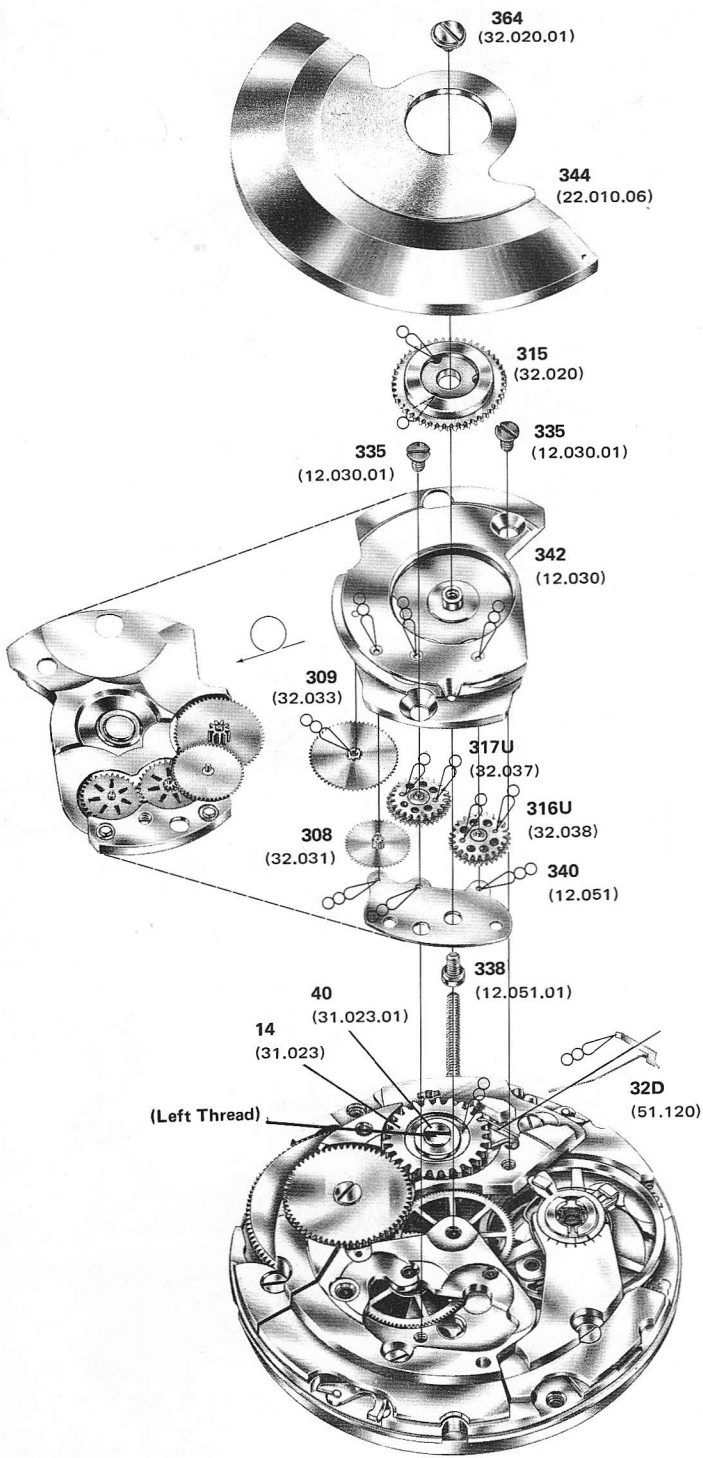


Fig. 4

Disassembly: Follow the encircled numbers in sequence.



**LUBRICATION**

Fine oil	Thick oil or grease	Special oil for pallet stones