



# Cal. AL82A

**15.3×17.8 mm**  
**H 4.15 mm**

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Date: 29/May/'06

**S.EPSON Products**

## MOVEMENT SPECIFICATIONS

CAL. AL82A

Analog Quartz 6 3/4 × 8" size Movement / Three Hands (H/M/S) with Calendar

## 1. MOVEMENT DIMENSIONS

*Outside diameter	16.30mm(3-9H) × 18.20mm(12-6H)
*Casing diameter	15.30mm(3-9H) × 17.80mm(12-6H)
*Total height	4.15mm (including battery)

## 2. TIME STANDARD

*Type of quartz oscillator	Tuning fork
*Frequency of quartz oscillator	32,768 Hz
*Accuracy	±20 seconds per month ( on wrist )
*Operating temperature range	-5°C to +50°C
*Regulation device	Nil (Pre-adjusted)

## 3. INDICATOR / FUNCTIONS

*3 Hands	Hour / Minute / Second
*Calendar	Instant setting device for date calendar
*Reset switch	
*Setting mechanism	Crown at normal position : Free Crown pulled out 1st click : Instant date change Crown pulled out 2nd click : Time setting / Reset

## 4. FEATURES

*Jewels	0 Jewel
*Anti-magnetism	Over 1600A/m ( Direct current magnetic field )
*Maximum unbalance of hands	Second hand : 6 μg·m Minute hand : 60 μg·m Hour hand : 50 μg·m

## 5. BATTERY

*Type / Size	Silver oxide battery / φ 6.8mm × t 2.6mm
*Recommended battery	SR626SW
*Nominal voltage.	1.55 V
*Battery life	Approx. 2 years
*Driving current consumption	Approx. 1.5μA
*Operation stopping voltage	1.1 V

## 6. SEPARATED PARTS (Parts code)

*Battery	SR626SW
*Hand setting stem	0351177

## 7. TEST OF ACCURACY

*Equipment to be used	SEIKO quartz tester QT-99, Greiner quartz timer-C , Witschi Q-tester 4000
*Duration of measurement	10 seconds
*Microphone to be used	Electromagnetic detection type

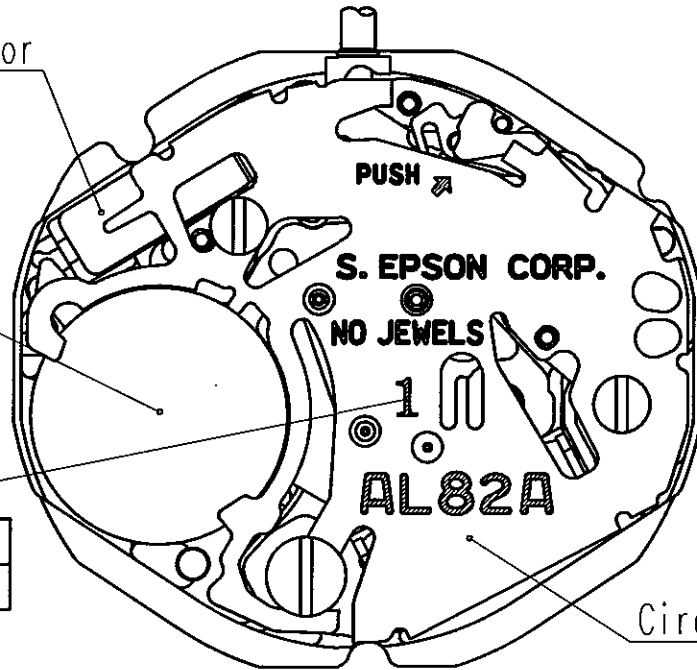
All specifications are subject to change without notice.

Crystal oscillator

Battery

Hands type

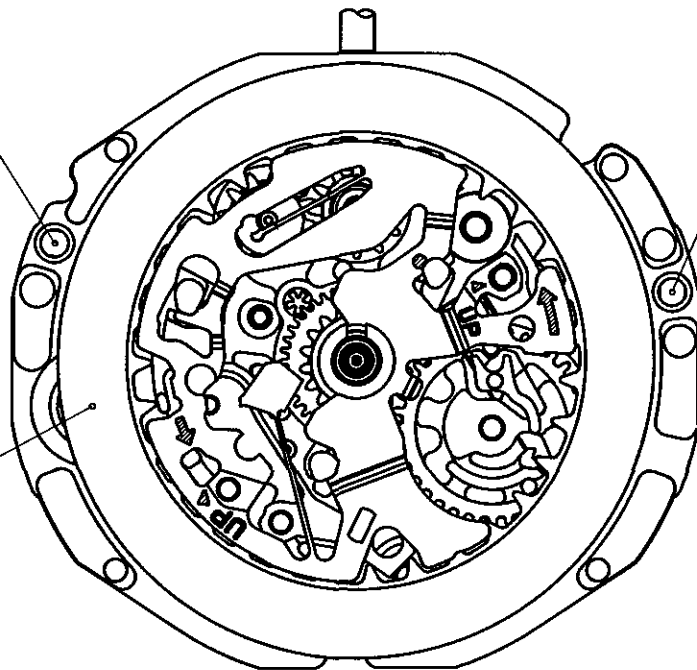
	Mark
Type S (1)	1



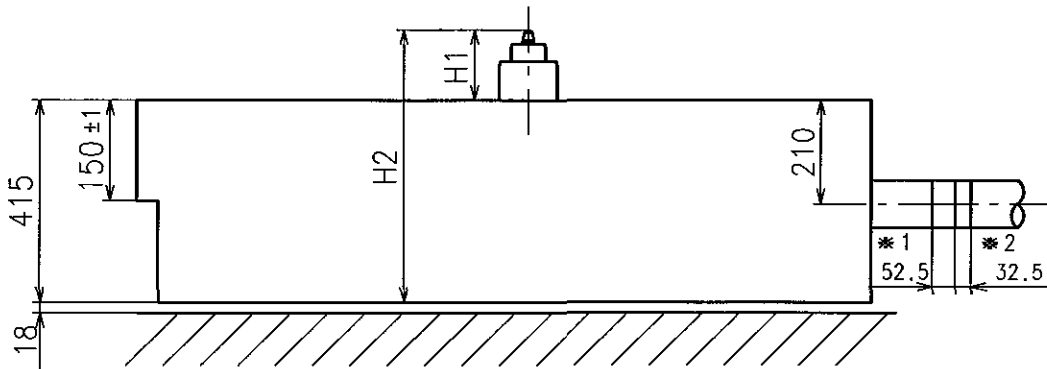
Circuit block cover

Dial leg hole A

Date dial



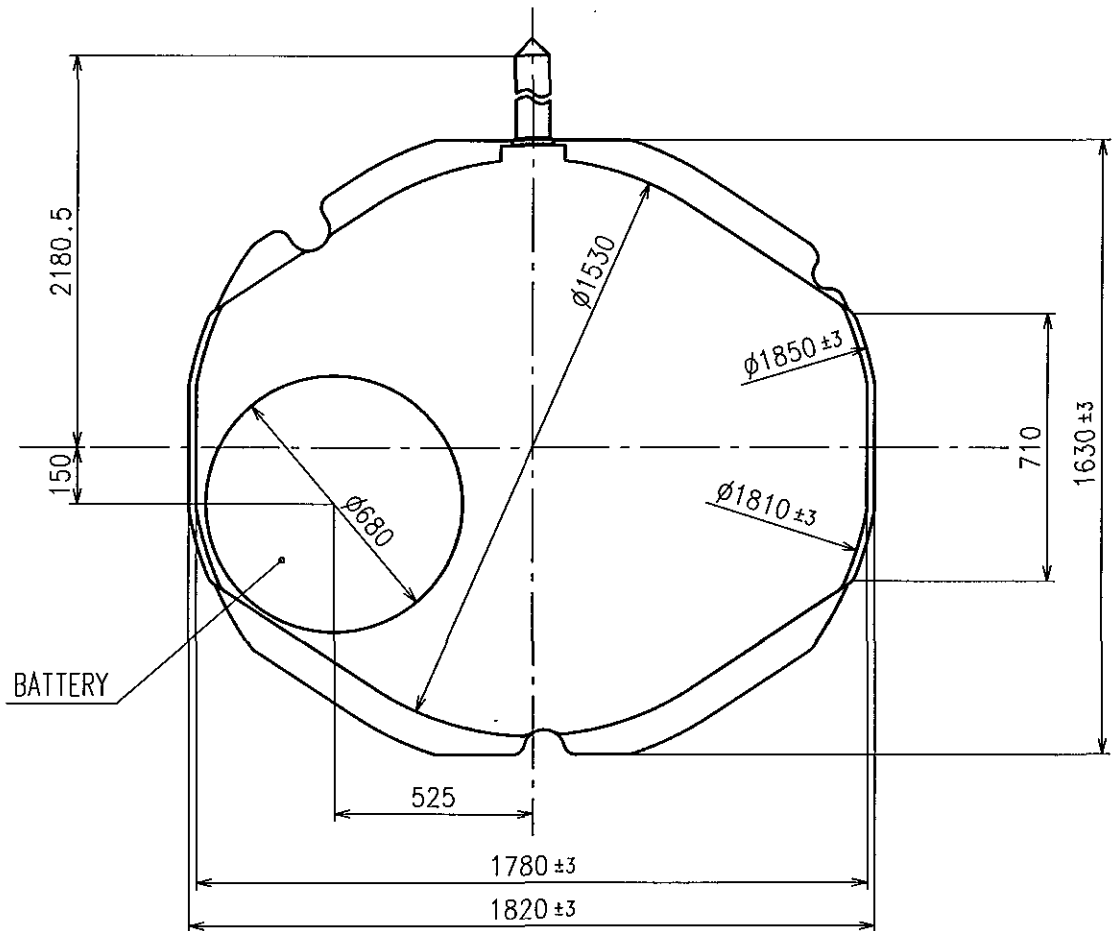
Dial leg hole B



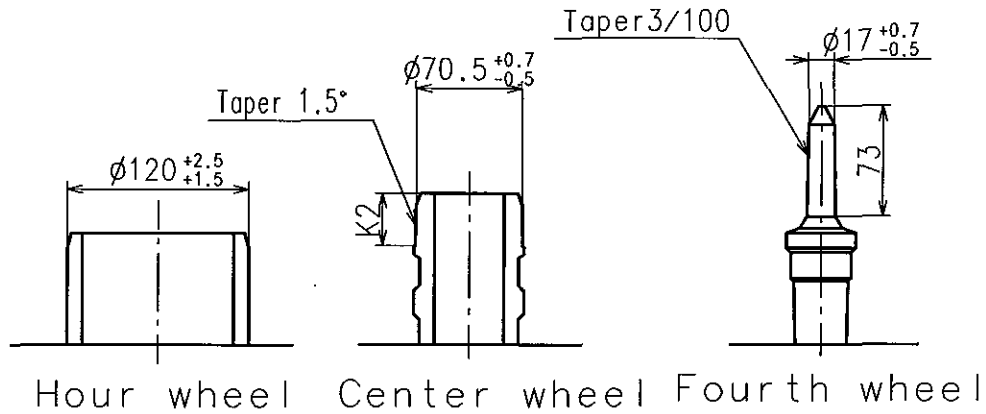
\*1: First pullout stroke

\*2: Second pullout stroke

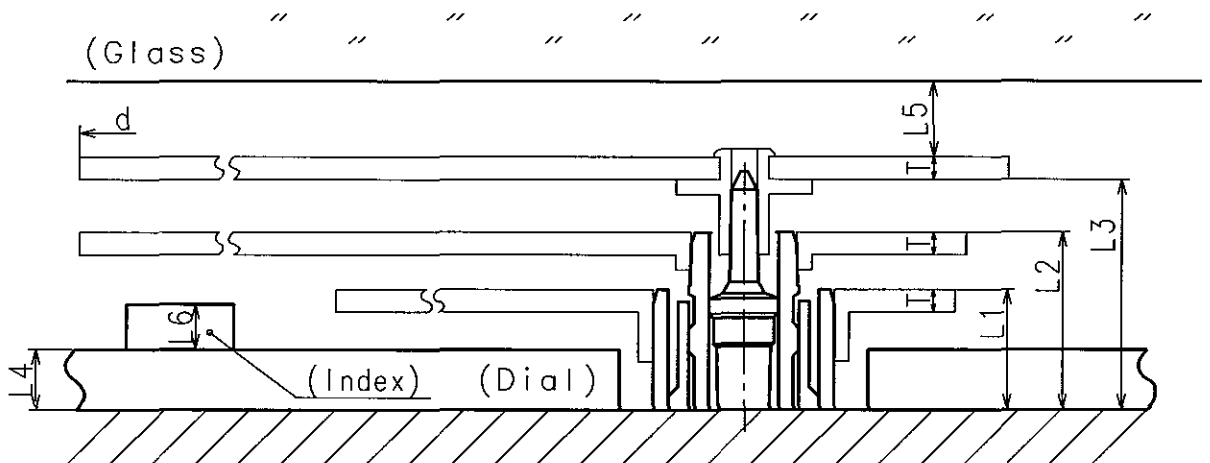
Center post		Type S (1) AL82A
Maximum height from dial support	H1	185
Total height incl. movement	H2	600



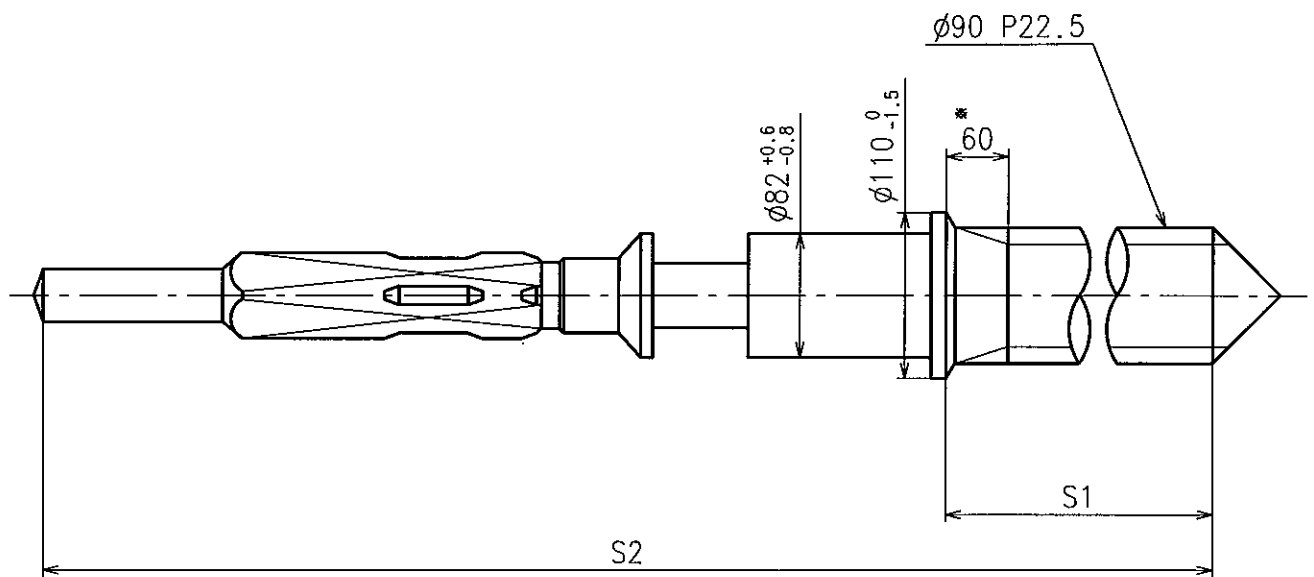
- ※ Second hand unbalance  $\leq 6\mu g \cdot m (0.06\mu N \cdot m)$
- ※ Minute hand unbalance  $\leq 60\mu g \cdot m (0.6\mu N \cdot m)$
- ※ Hour hand unbalance  $\leq 50\mu g \cdot m (0.5\mu N \cdot m)$



	Parts No.			Dimension	
	Hour wheel	Center wheel	Fourth wheel		K2
Type S (1) AL82A	0271517	0221565	0241527		35



	L1	L2	L3	L4	L5	L6	T	d
Type S (1) AL82A	110	150	180	40	MIN: 50	MAX: 30	15	MAX: $\phi 1500$

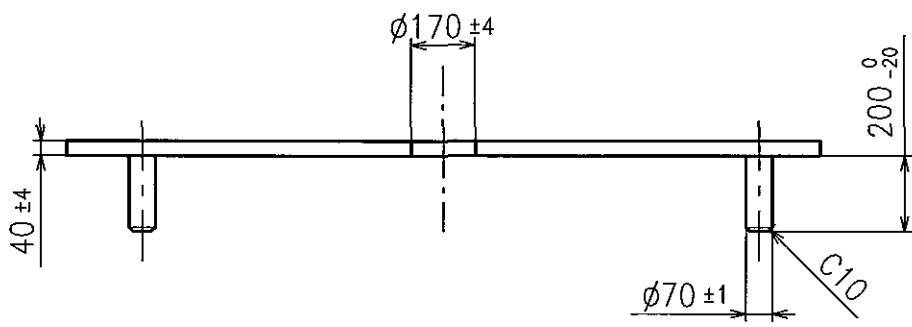
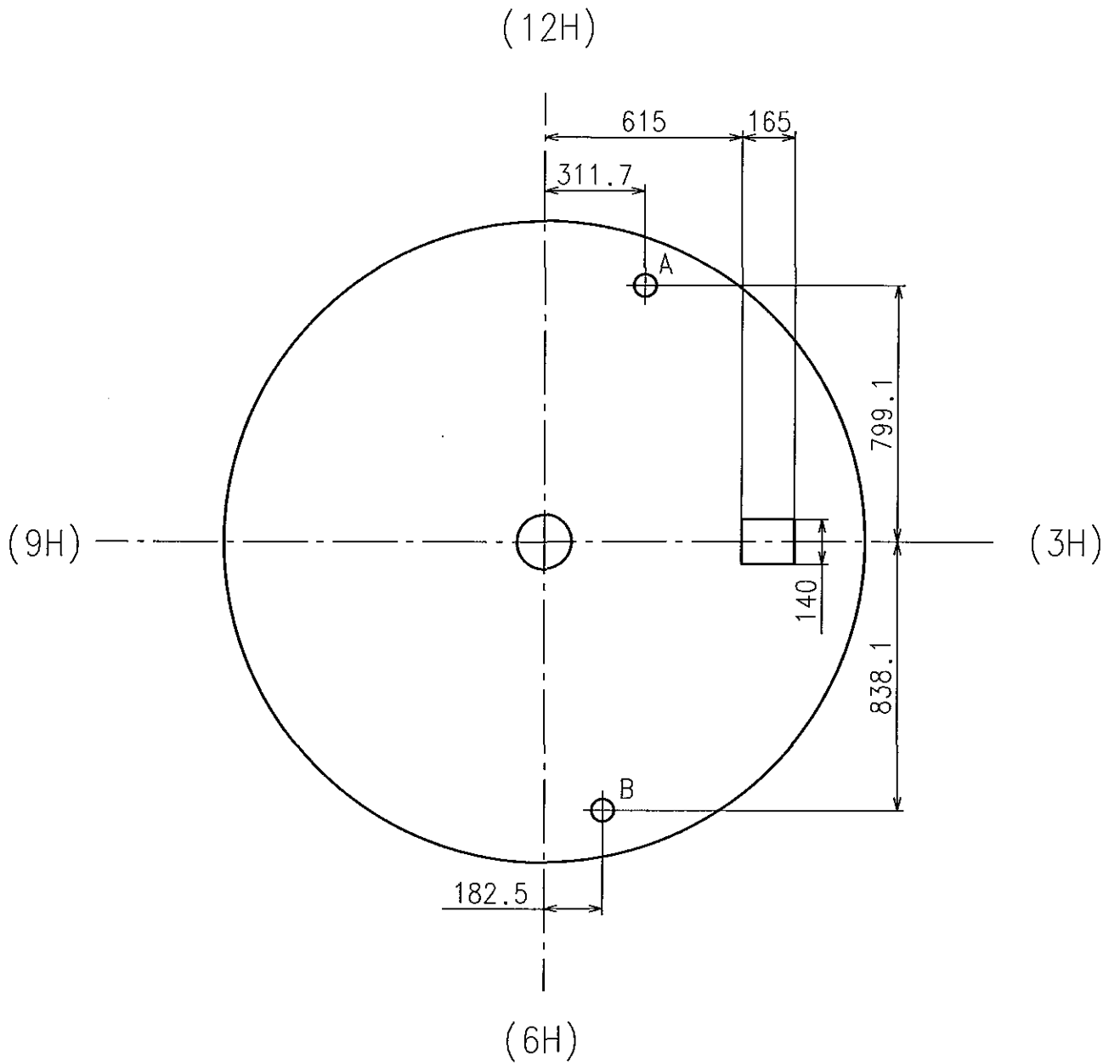


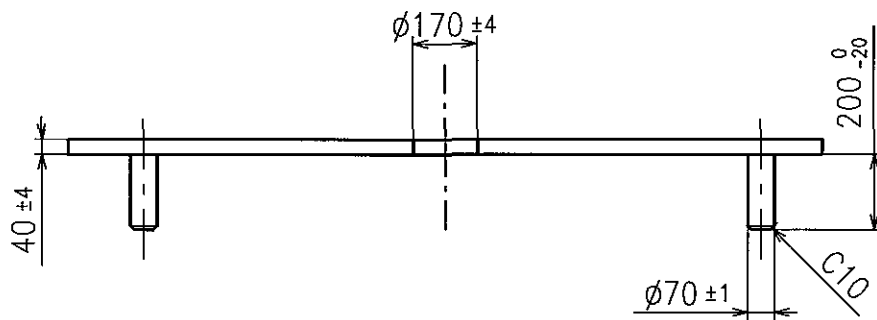
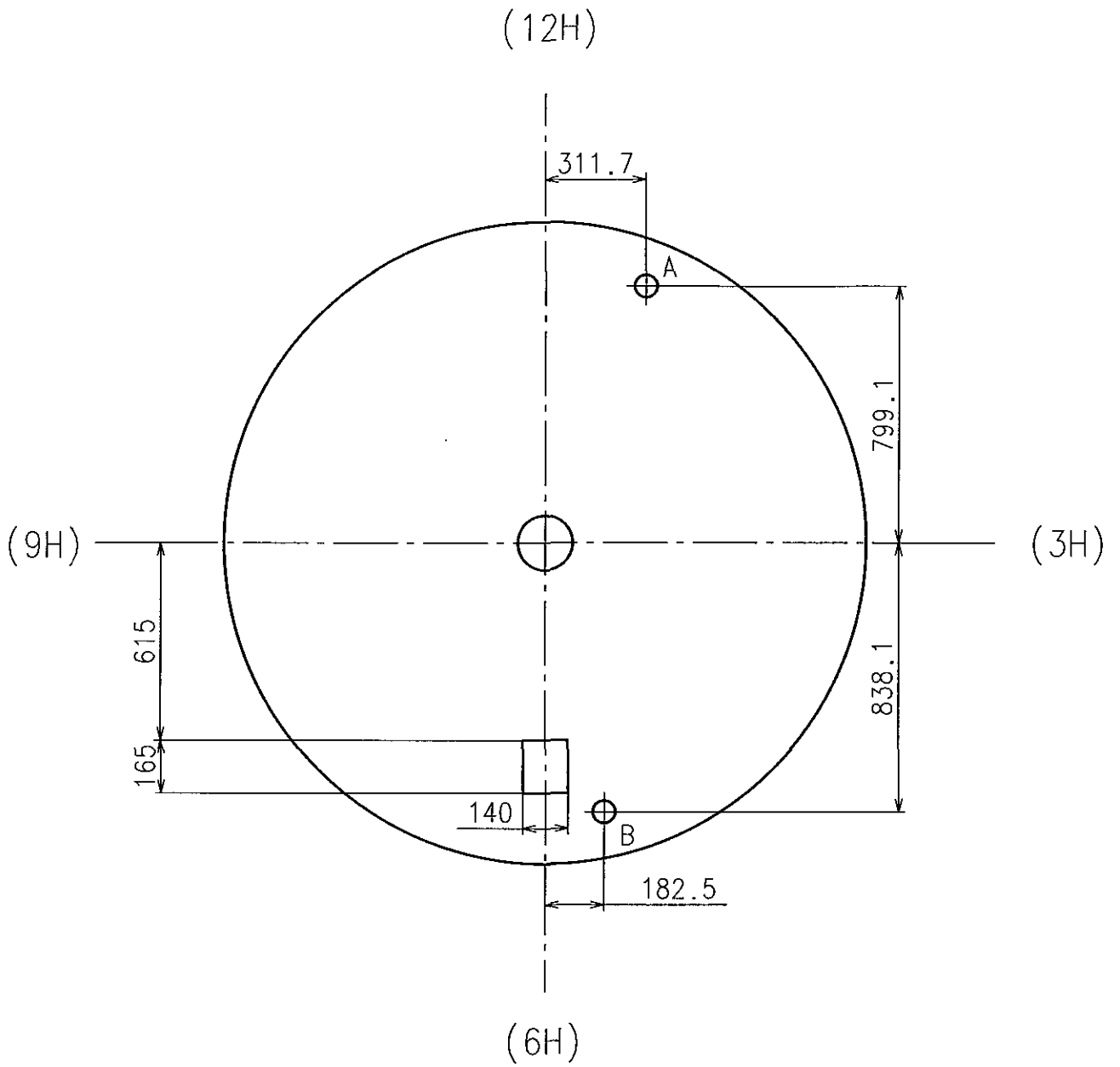
\* Not threaded

	Part No.	S1	S2
Standard	0351177	1366	1964

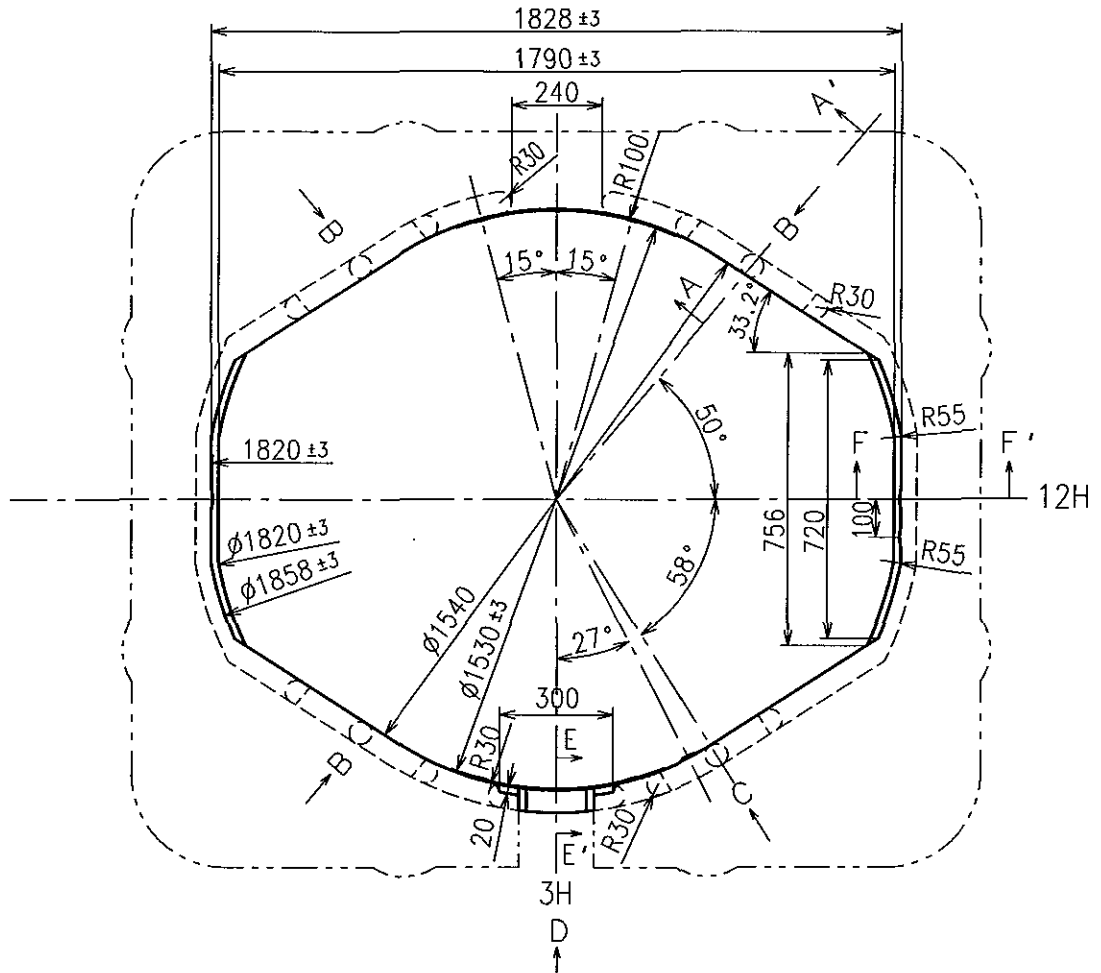
Material : Steel

Hardness : Vickers 600±50







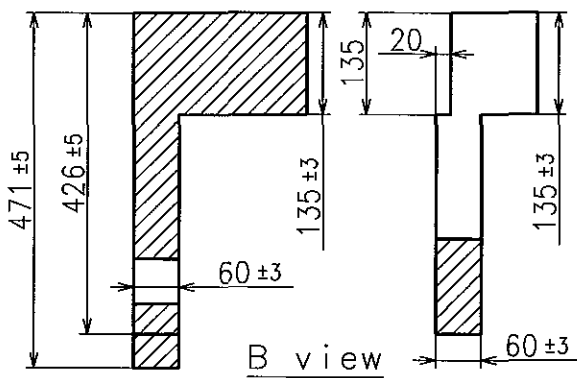


A-A' section

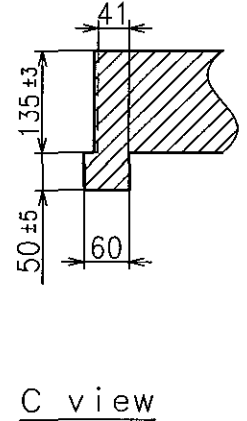
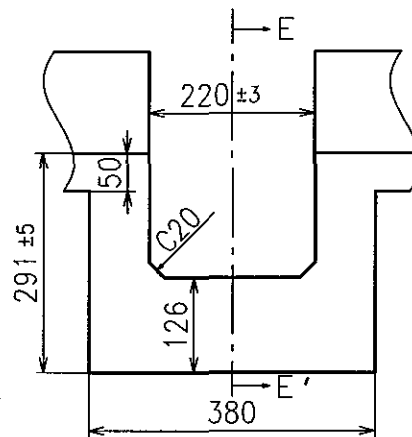
E-E' section

D view

F-F' section



B view



C view

