

Cal. PC33A

ϕ 23.70 mm

H 4.15 mm

Item	Version No.
Specification	Version 3
Appearance	Version 7
Casing	Version 7
Hand Fitting	Version 5
Hand Setting Stem	Version 8
Dial - 1	Version 5
Dial - 2	Version 5
Dial - 3	Version 3
Dial - 4	Version 3
Dial - 5	Version 3
Dial - 6	Version 2
Dial - 7	Version 1
Dial - 8	Version 1
Dial - 9	Version 1
Dial - 10	Version 1
Dial - 12	Version 1
Casing Ring - 1	Version 5
Casing Ring - 2	Version 5
Assembly Plan	Version 5
Hands	Version 5



MOVEMENT SPECIFICATIONS

CAL.PC33A 10 1/2 Ligne Quartz Movement Three Hands with Day & Date

1. MOVEMENT DIMENSIONS

- Outside diameter ϕ 22.60mm (12H~6H) x 22.00mm (3H~9H), ϕ 23.70mm
- Casing diameter ϕ 17.80mm (12H~6H) x 15.30mm (3H~9H), ϕ 18.10mm
- Height 4.15 mm (including the battery)

2. TIME STANDARD

- Type of quartz oscillator Tuning fork
- Frequency of quartz oscillator 32,768 H Z
- Accuracy Monthly rate: Less than 30 seconds per month at normal temperature range
- Regulation device Nil
- Regulation hands unbalance Second : Less than 0.07 μ N·m (7mg·mm)
Minute : Less than 0.30 μ N·m (30mg·mm)
Hour : Less than 0.30 μ N·m (30mg·mm)

3. BATTERY

- Type Silver oxide battery
- Size ϕ 6.8 x t 2.6 (mm)
- Battery life Approx. 3 years
- Recommended battery SR626SW (SEIZAIKEN)

4. STEPPING MOTOR

- Type Two pole stepping motor
- Step 180° every second

5. JEWEL

0 jewel

6. ANTIMAGNETISM

(direct current magnetic field)

\geq 1600 A / m

7. SHOCK RESISTANCE

On equal level with general quartz movement

8. OPERATING TEMPERATURE RANGE

From - 5°C to + 50°C

9. SETTING MECHANISM

- Crown at normal position Free
- Crown pulled out to 1st click Clockwise : Instant date change
Counterclockwise : Free
- Crown pulled out to 2nd click Time setting, second setting and reset switch

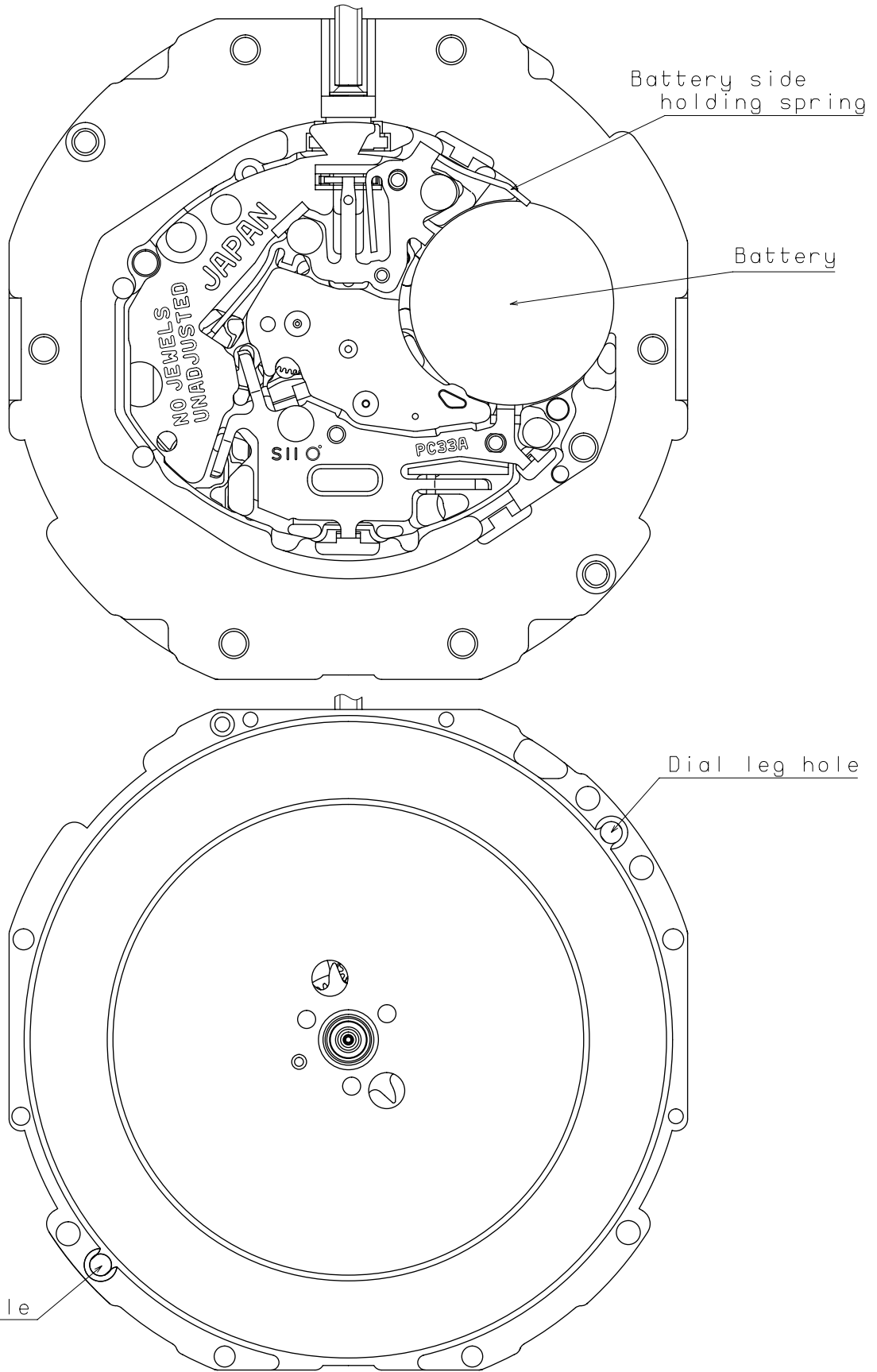
10. TEST OF ACCURACY

- Equipment to be used Quartz Tester QT - 99
Greiner Quartz Timer - C
Witschi Q-Tester 4000
- Duration of measurement 10 seconds
- Microphone to be used Electromagnetic detection type (DM-1)

11. ATTACHED PARTS

Parts Name	Parts Code
Silver oxide battery	3016 - 18G0
Hand setting stem	0354 - 3000

*** All specifications are subject to change without notice.**



Scale : 5/1

Unit : 1=1/100mm

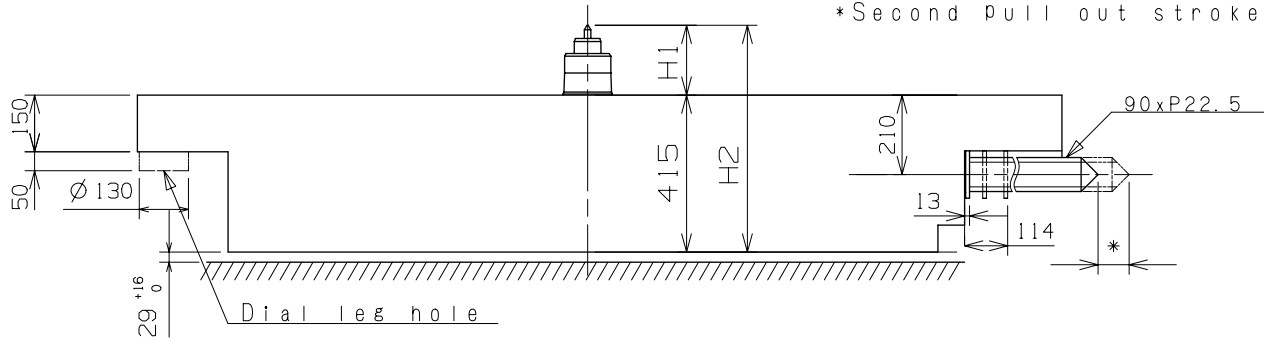
Version:7

Casing

Cal. PC33A

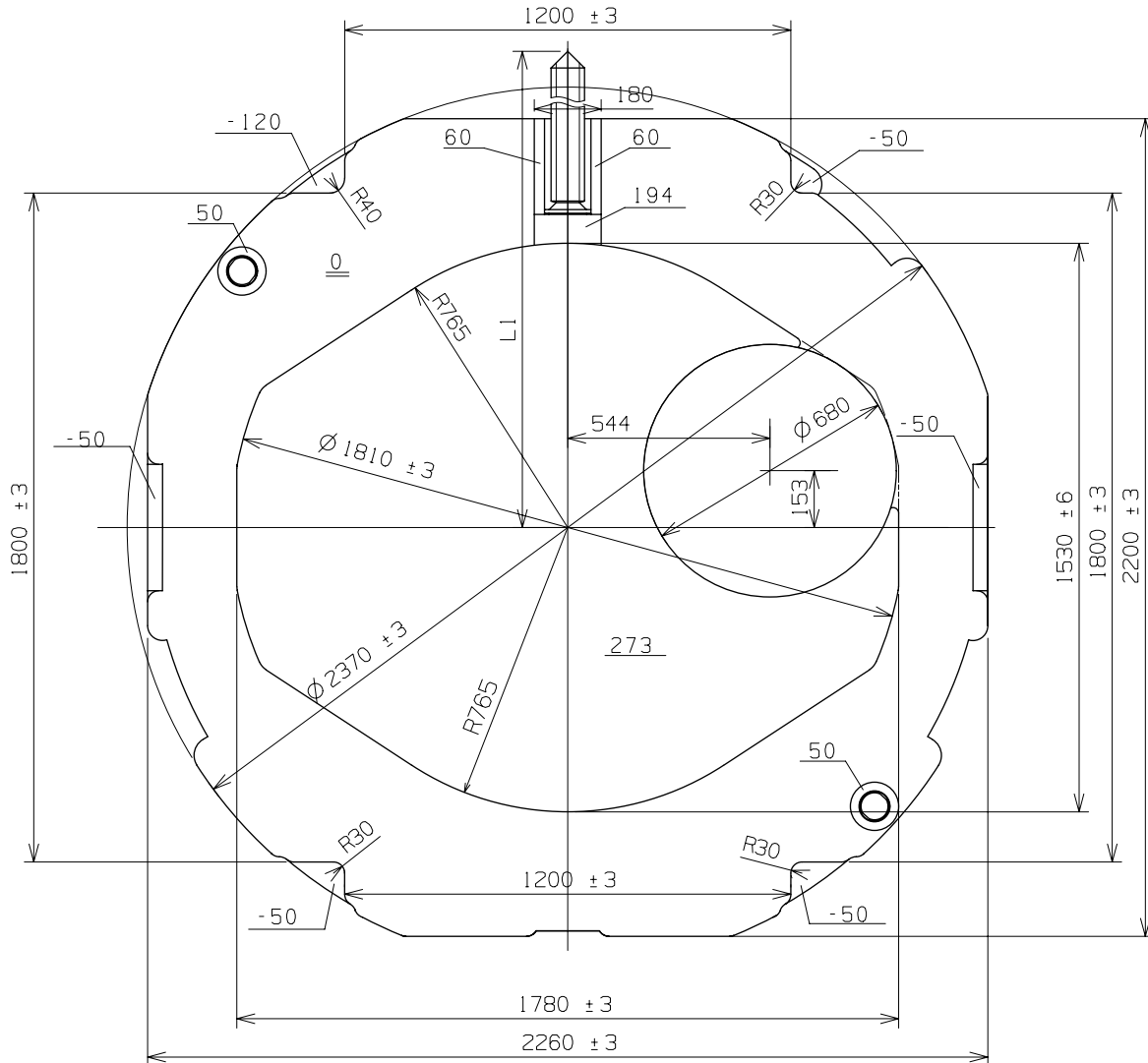
Battery Side Holding Spring Type

*First pull out stroke 45
*Second pull out stroke 101



Center Post		TYPE M
Maximum height from Dial support surface	H1	185
Total height incl. movement	H2	600

Hand Setting Stem	TYPE A
L1	2210.5



Scale : 5/1

Unit : 1=1/100mm

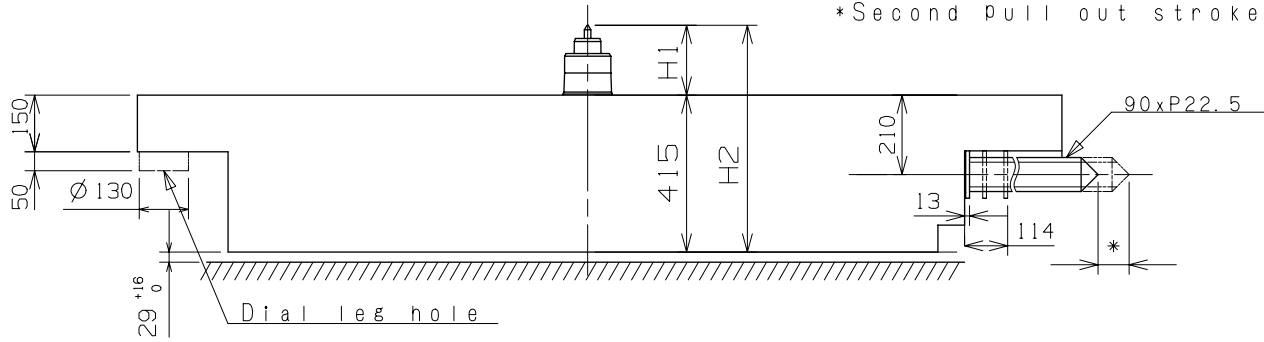
Version:7

Casing

Cal. PC33A

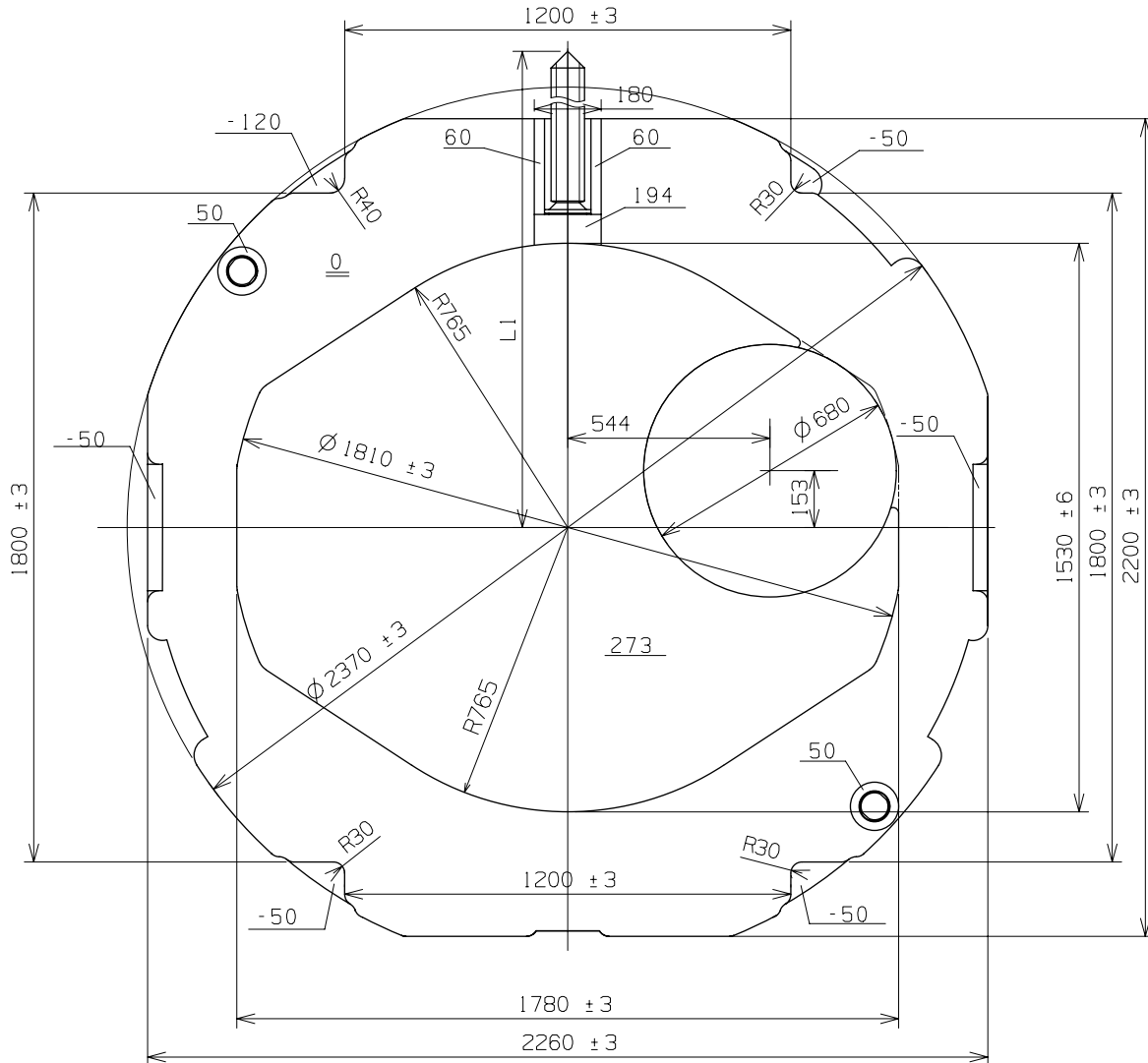
Battery Side Holding Spring Type

*First pull out stroke 45
*Second pull out stroke 101



Center post 中心柱位		TYPE M 一般針高
Maximum height from main plate surface. 與機芯平面之最大高度	H1	185
Total height incl. movement. 機芯總高度	H2	600

Hand Setting Stem	TYPE A
L1	2210.5



Scale : 5/1

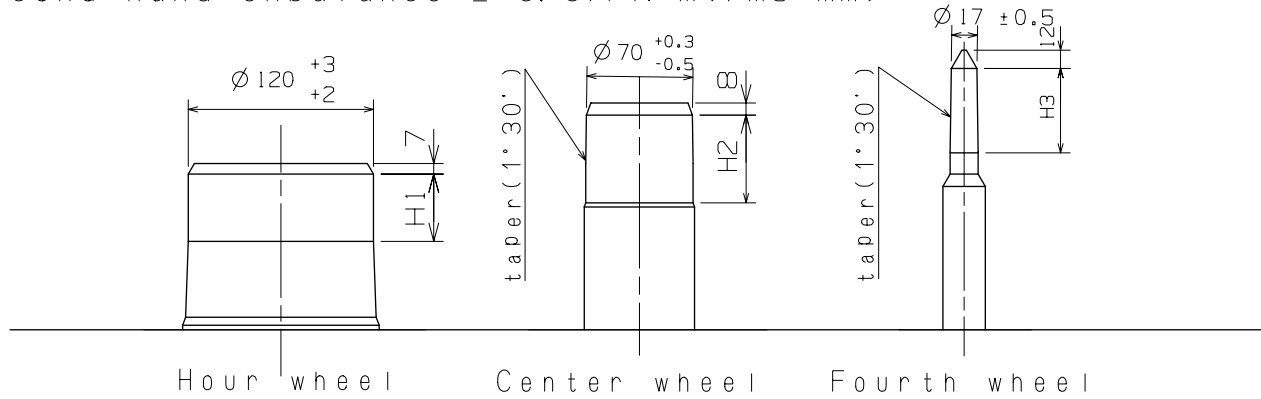
Unit : 1=1/100mm

Version:7

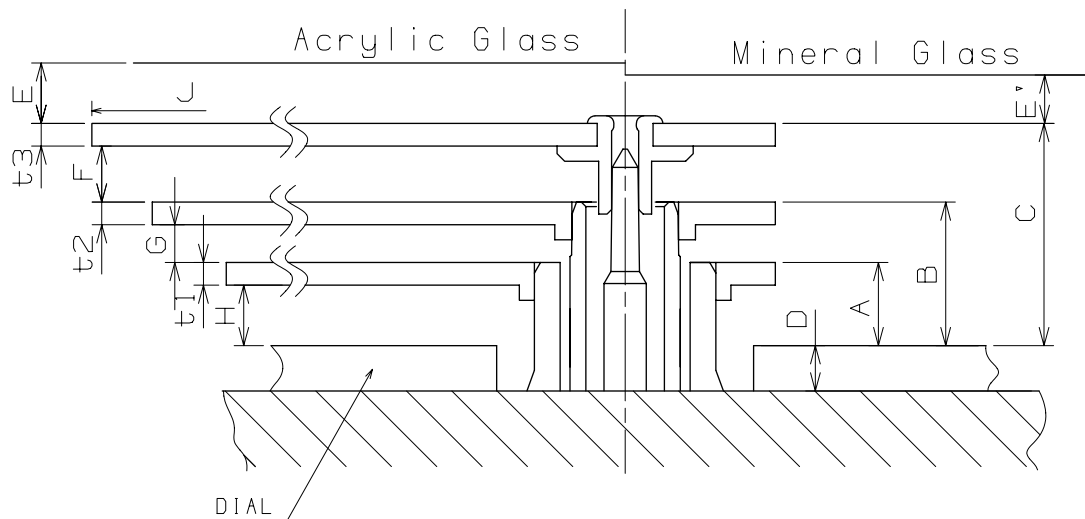
Hand Fitting

Cal. PC33A

Hour hand unbalance $\leq 0.3\mu\text{N}\cdot\text{m}$ (30mg·mm)
 Minute hand unbalance $\leq 0.3\mu\text{N}\cdot\text{m}$ (30mg·mm)
 Second hand unbalance $\leq 0.07\mu\text{N}\cdot\text{m}$ (7mg·mm)



	Part. No.			Dimension		
	Hour wheel	Center wheel	Fourth wheel	H1	H2	H3
TYPE M	0271 3220	0221 3220	0241 3100	43	61	55



	A	B	C	D	E	E'	F	G	H	t1	t2	t3
TYPE M	70	110	162	40	*	*	37	25	55	15	15	15

*	J		
	Max 800	800~850	850~
E'	Min 40	Min 45	Min 65
E	Min 48	Min 53	Min 73

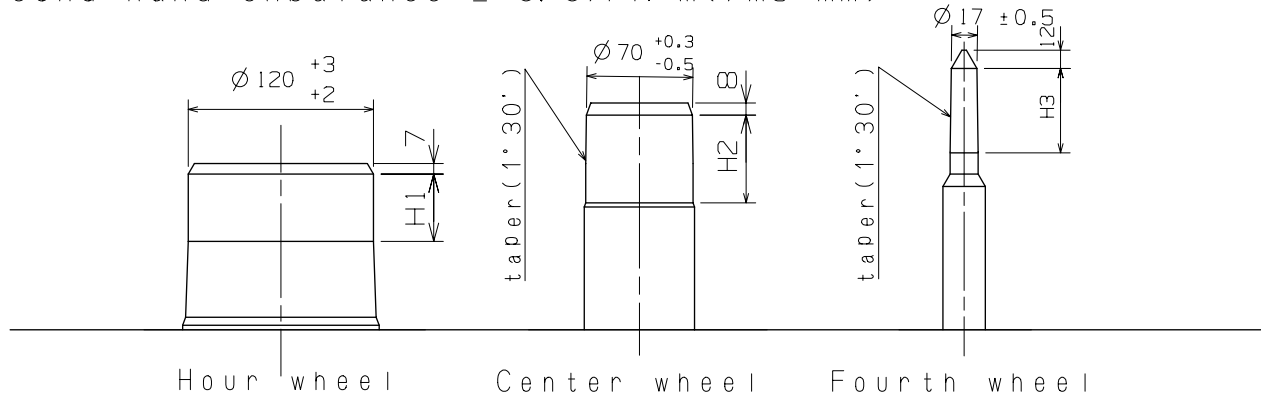
Scale : 25/1
 Unit : 1=1/100mm

Version:5

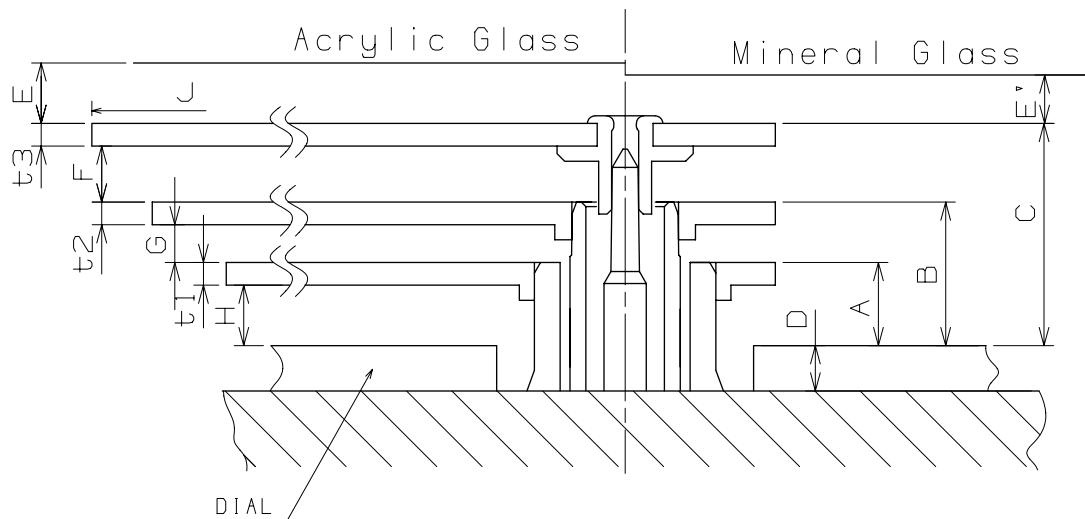
Hand Fitting

Cal. PC33A

Hour hand unbalance $\leq 0.3\mu\text{N}\cdot\text{m}$ (30mg·mm)
 Minute hand unbalance $\leq 0.3\mu\text{N}\cdot\text{m}$ (30mg·mm)
 Second hand unbalance $\leq 0.07\mu\text{N}\cdot\text{m}$ (7mg·mm)



	Part. No.			Dimension		
	Hour wheel 時針輪	Center wheel 分針輪	Fourth wheel 秒針輪	H1	H2	H3
TYPE M 一般針高	0271 3220	0221 3220	0241 3100	43	61	55

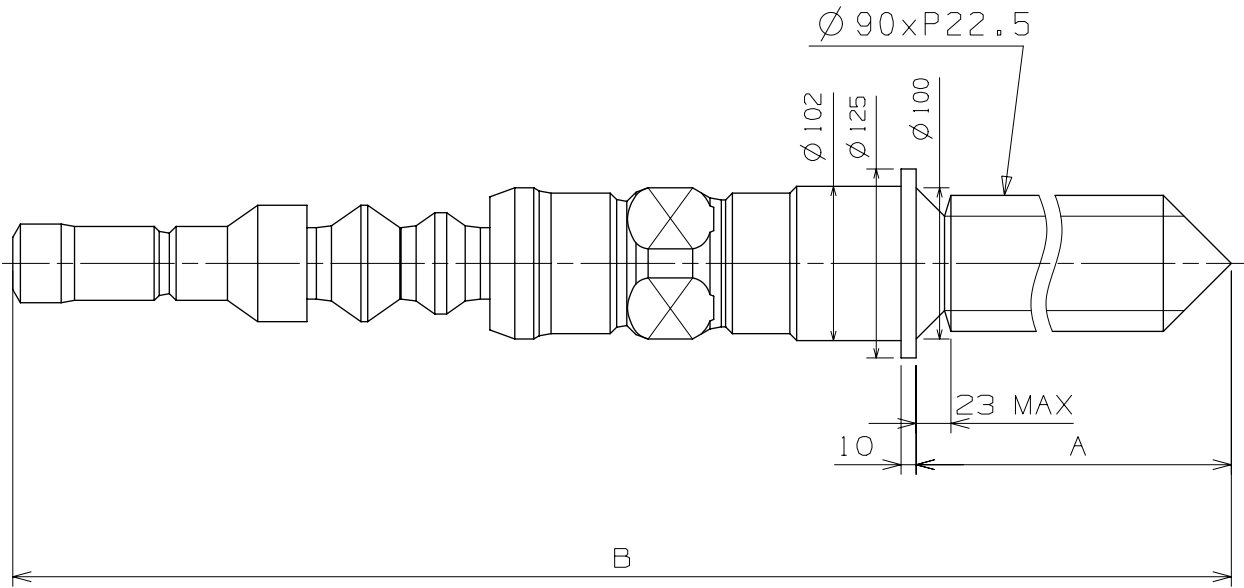


	A	B	C	D	E	E'	F	G	H	t1	t2	t3
TYPE M 一般針高	70	110	162	40	*	*	37	25	55	15	15	15

*	J		
	Max 800	800~850	850~
E'	Min 40	Min 45	Min 65
E	Min 48	Min 53	Min 73

Scale : 25/1
 Unit : 1=1/100mm

Version:5



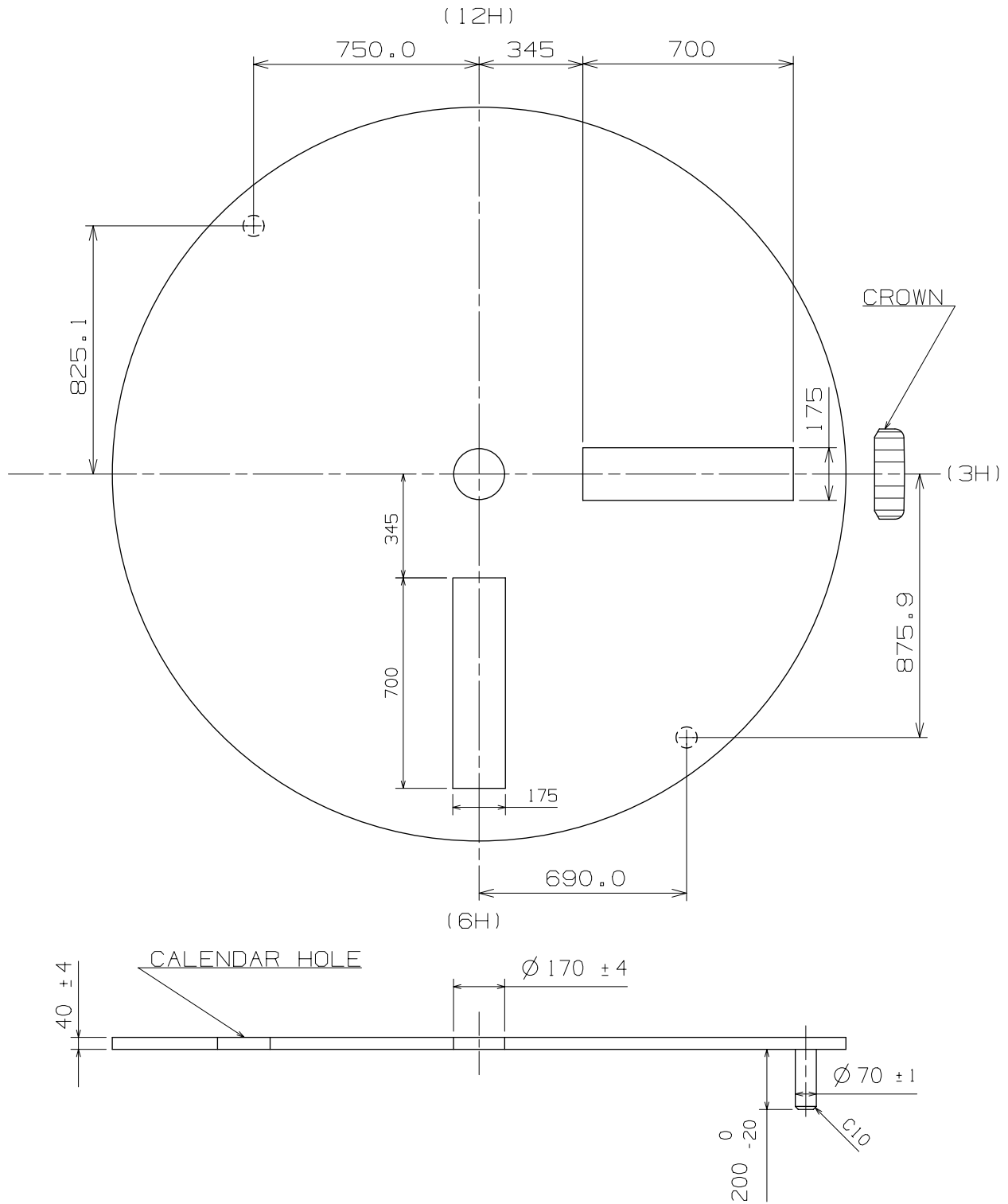
	Part. No.	A	B
TYPE A	0354 3000	1355	1952.5

Do not lubricate the hand setting stem.

Scale : 20/1

Unit : 1=1/100mm

Version:8



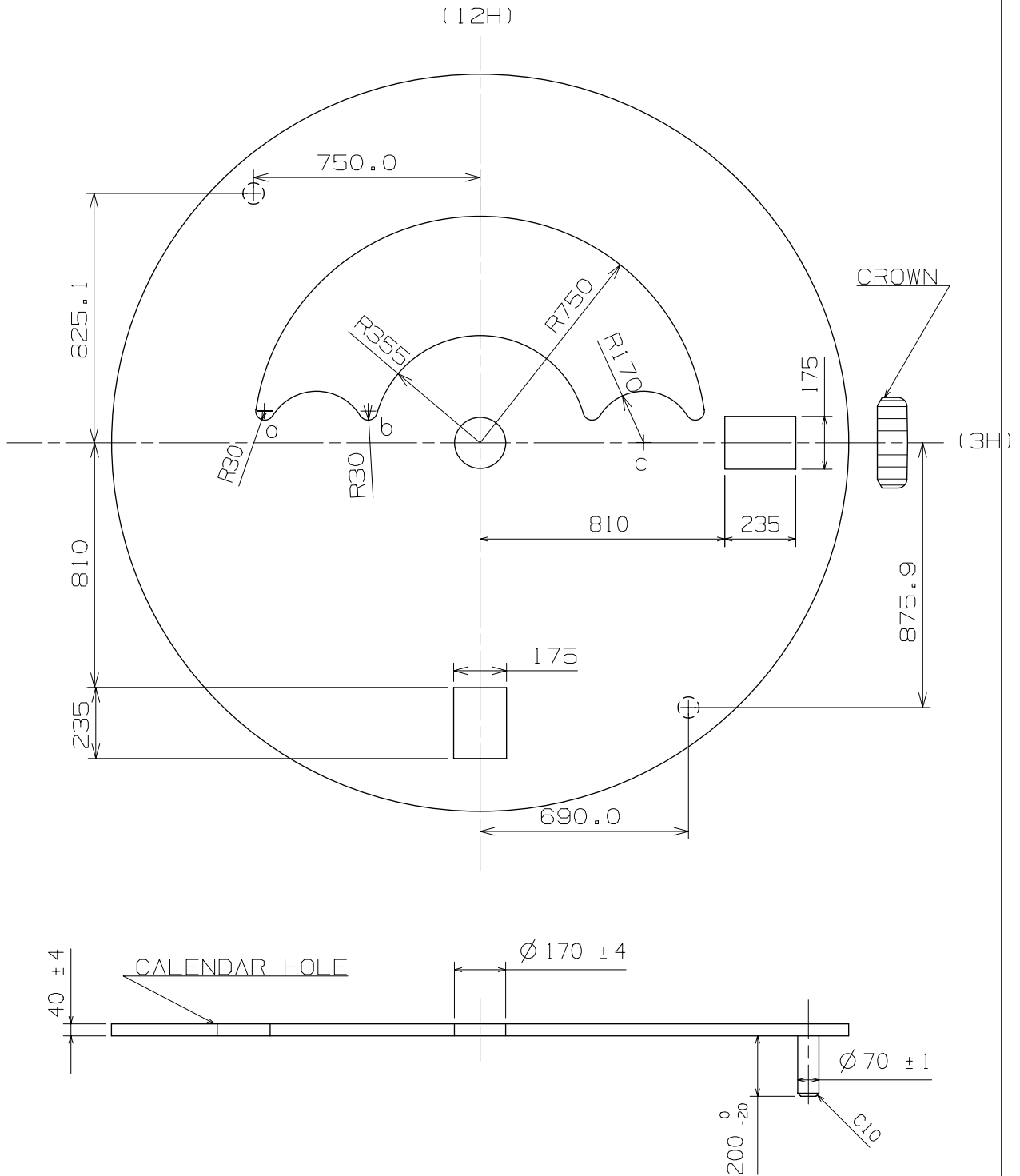
Scale : 5/1
Unit : 1=1/100mm

Version:5

Dial-2

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	X	Y
c	541.35	1.19
b	-370.41	105.00
a	-712.30	105.00

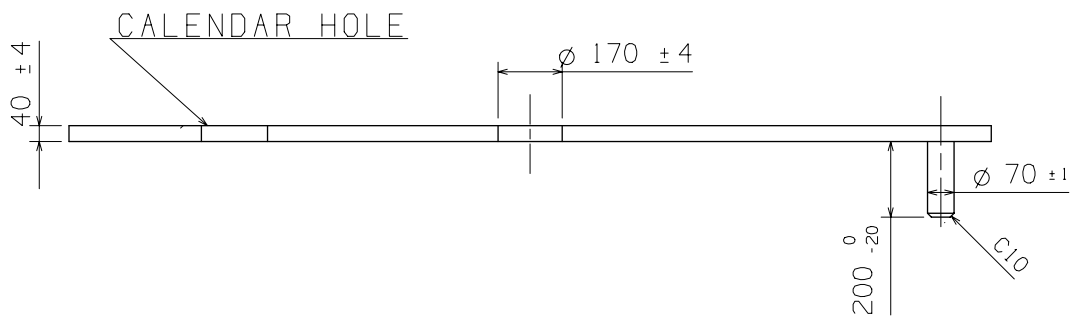
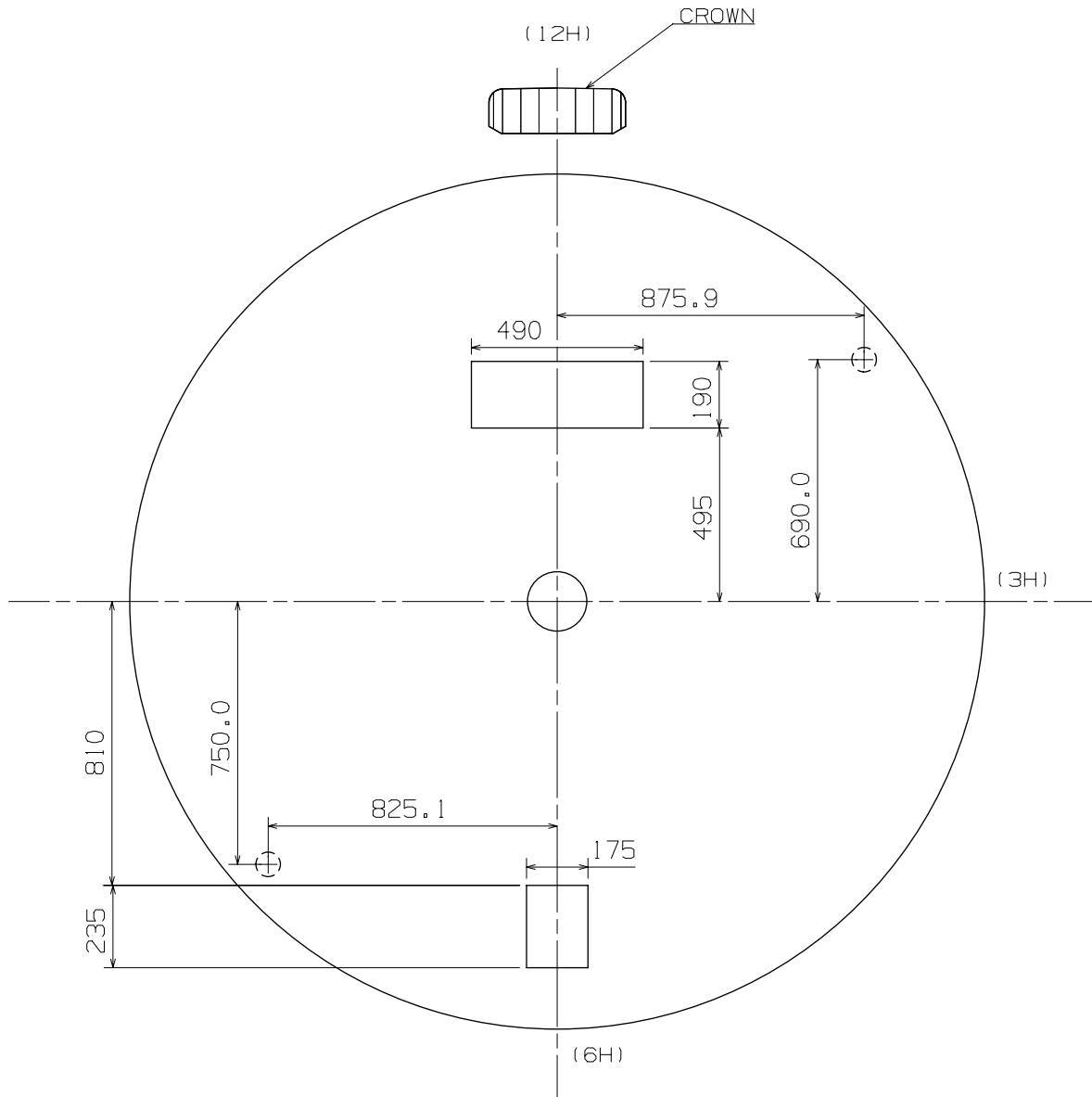


Scale : 5/1
Unit : 1=1/100mm

Version:5

Dial - 3

Cal. PC33A



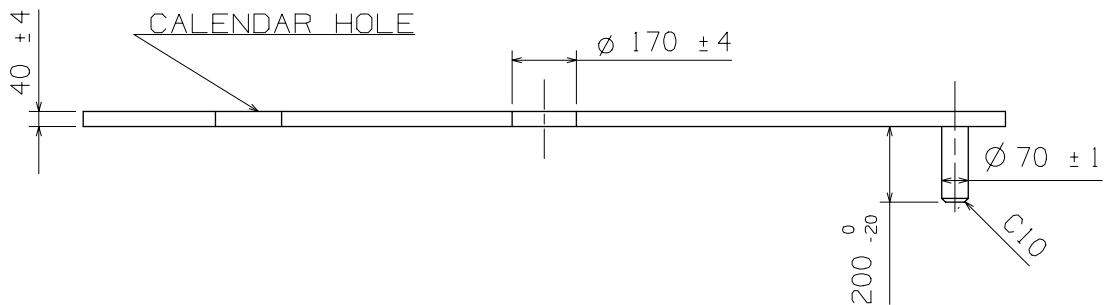
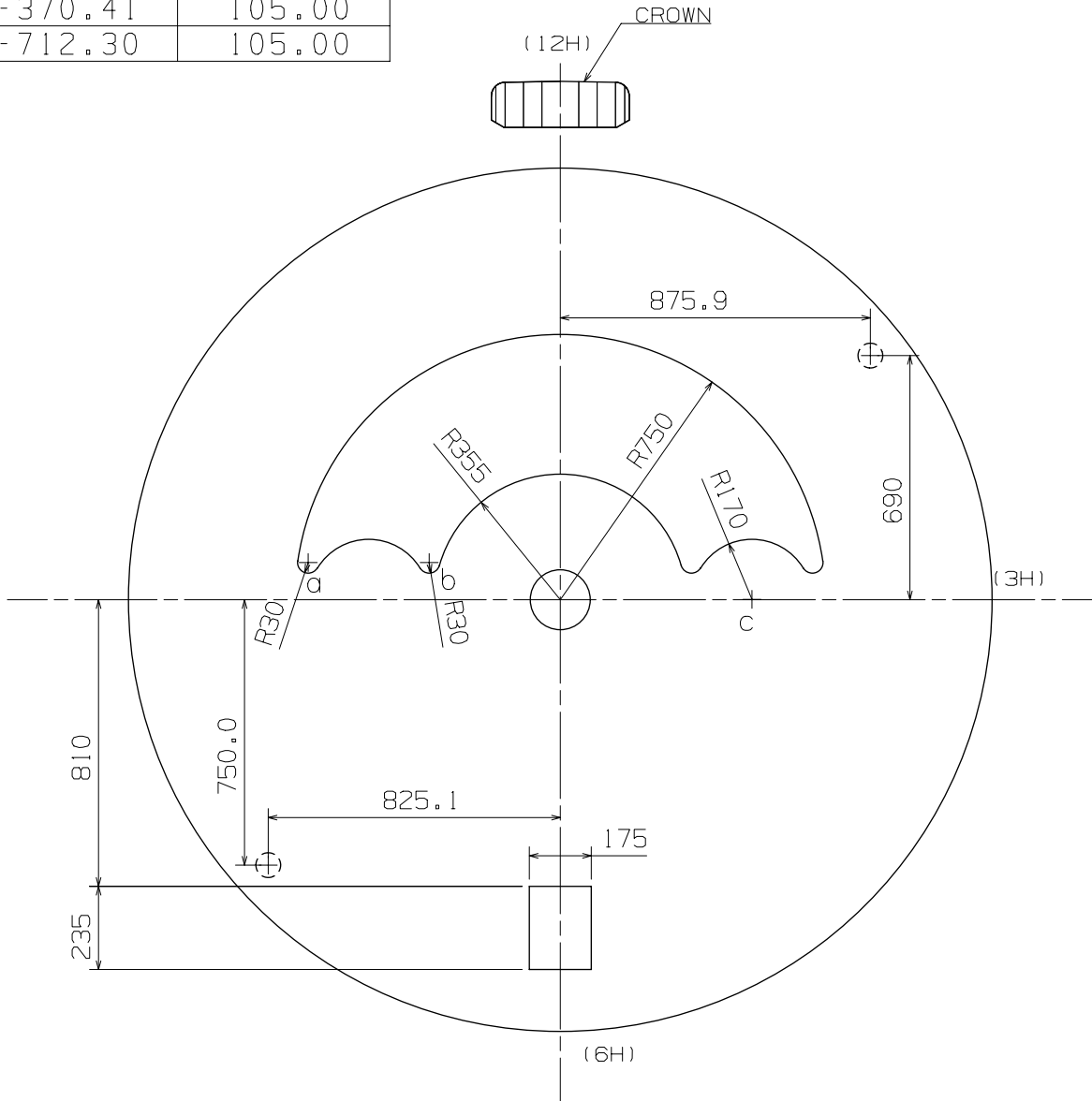
Scale : 5/1
Unit : 1=1/100mm

Version:3

Dial - 4

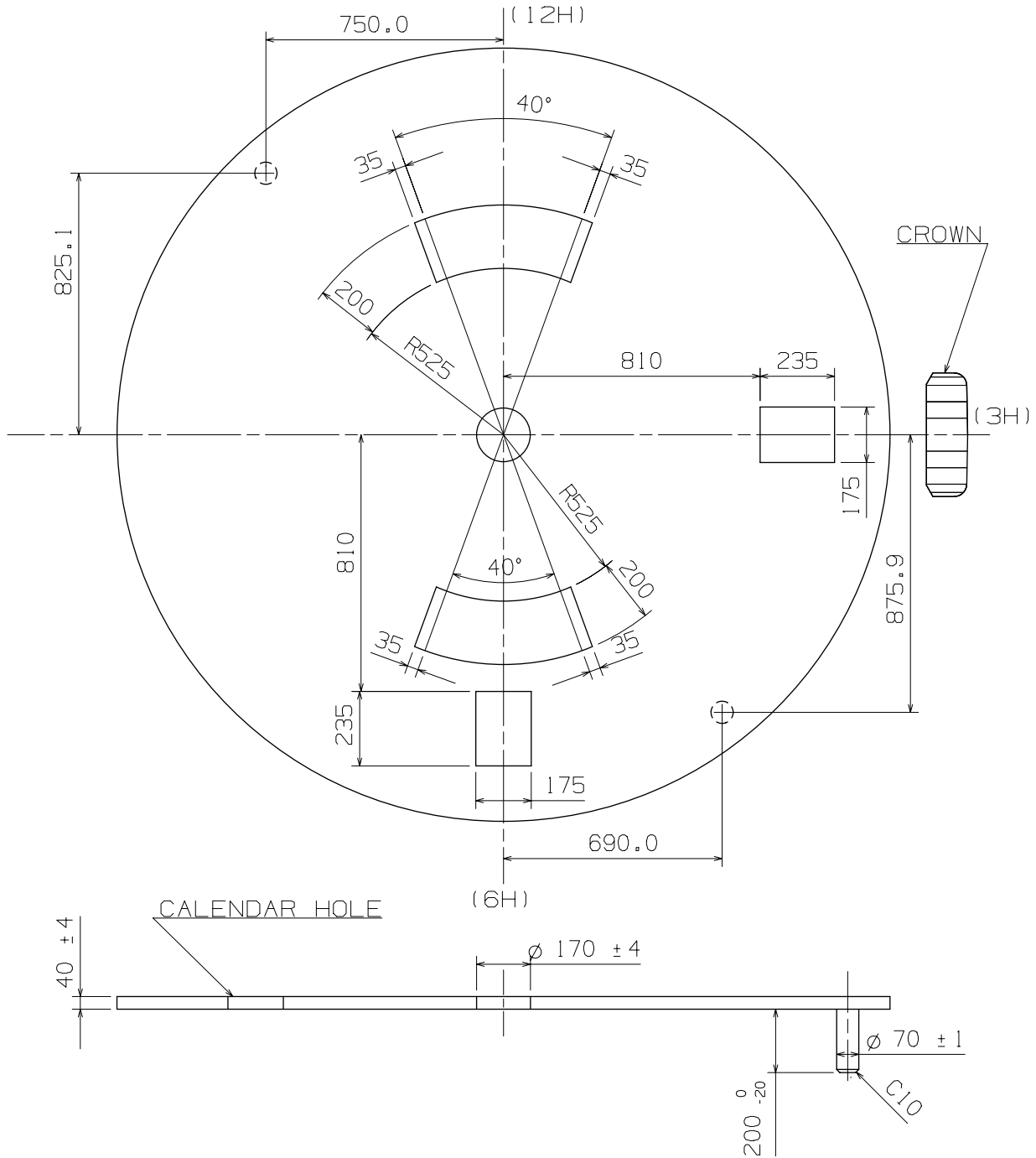
Cal. PC33A

	X	Y
c	541.35	1.19
b	-370.41	105.00
a	-712.30	105.00



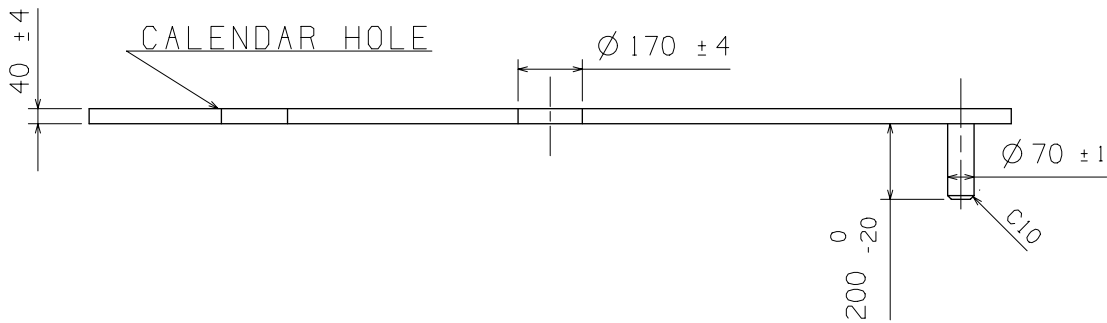
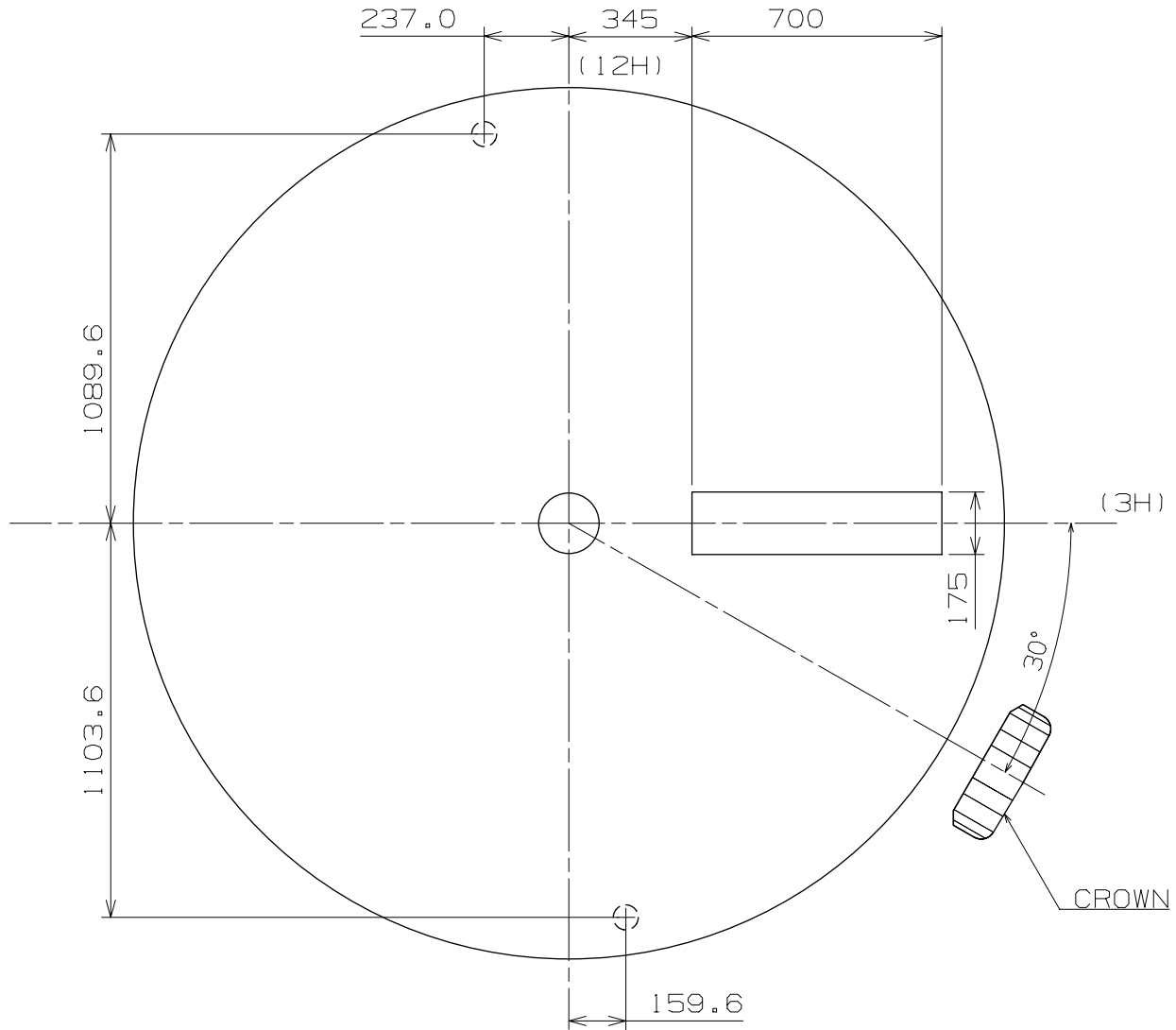
Scale : 5/1
Unit : 1=1/100mm

Version:3



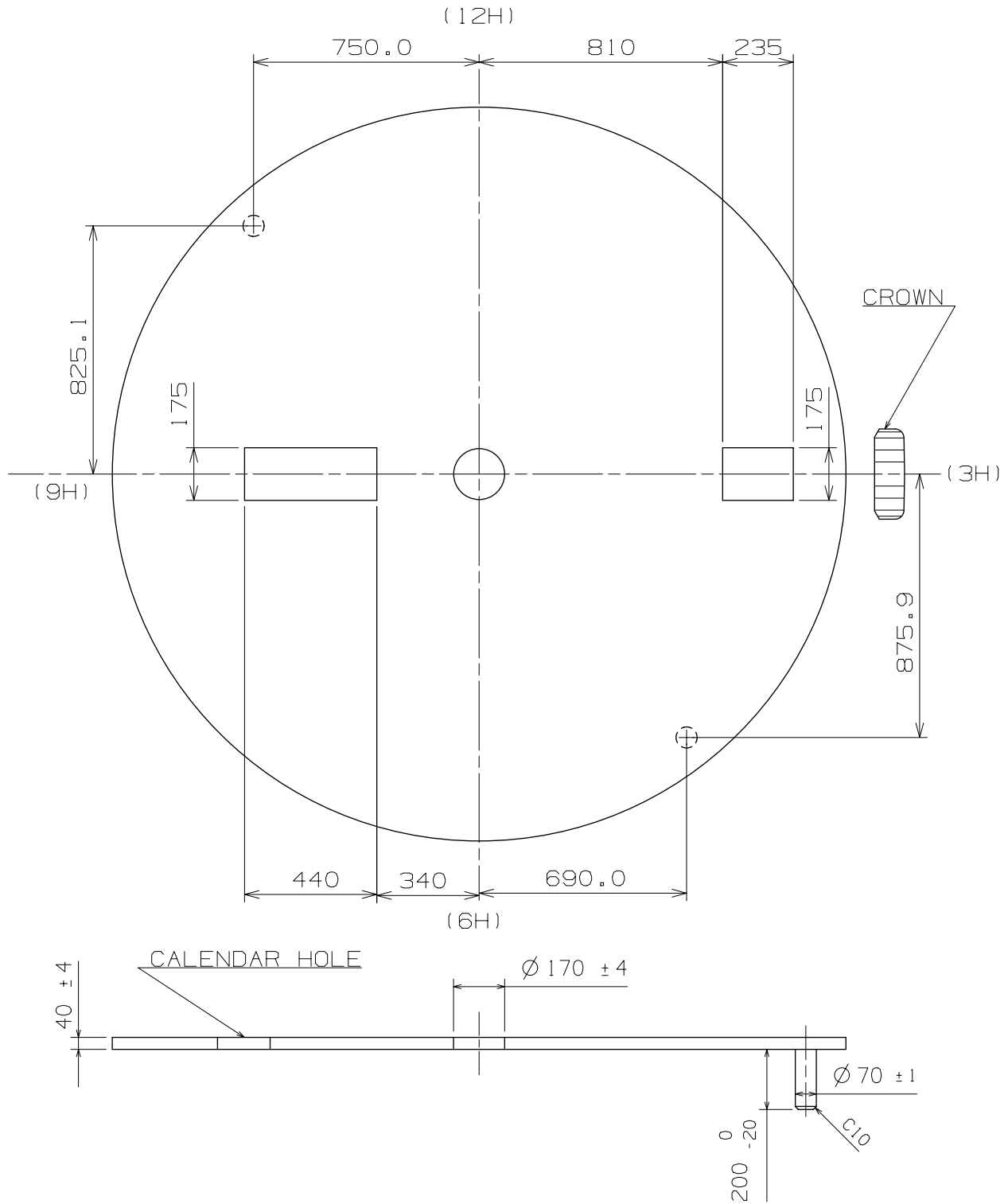
Scale : 5/1
Unit : 1=1/100mm

Version:3



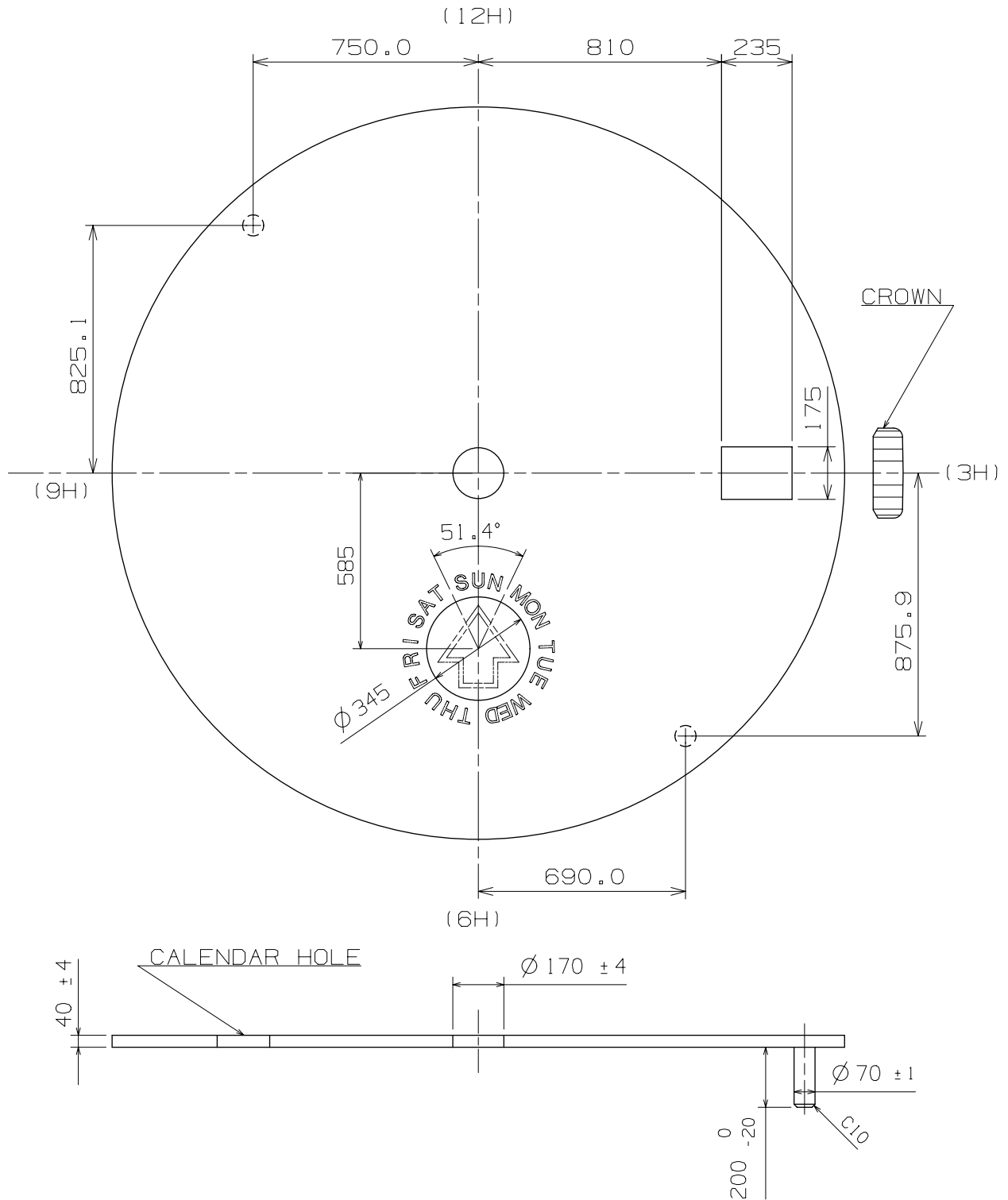
Scale : 5/1
Unit : 1=1/100mm

Version:2



Scale : 5/1
Unit : 1=1/100mm

Version:1



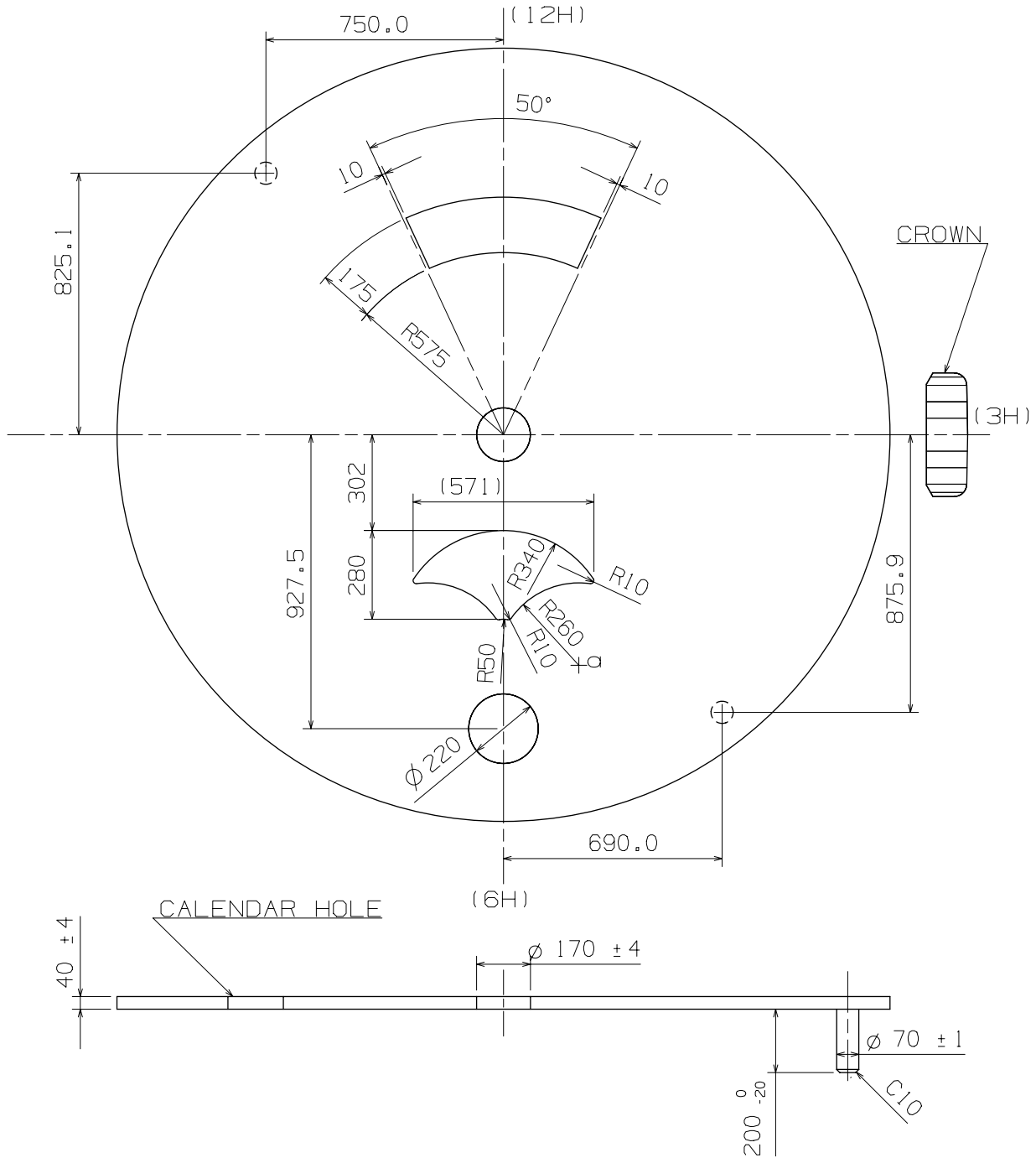
Scale : 5/1
Unit : 1=1/100mm

Version: 1

Dial-9

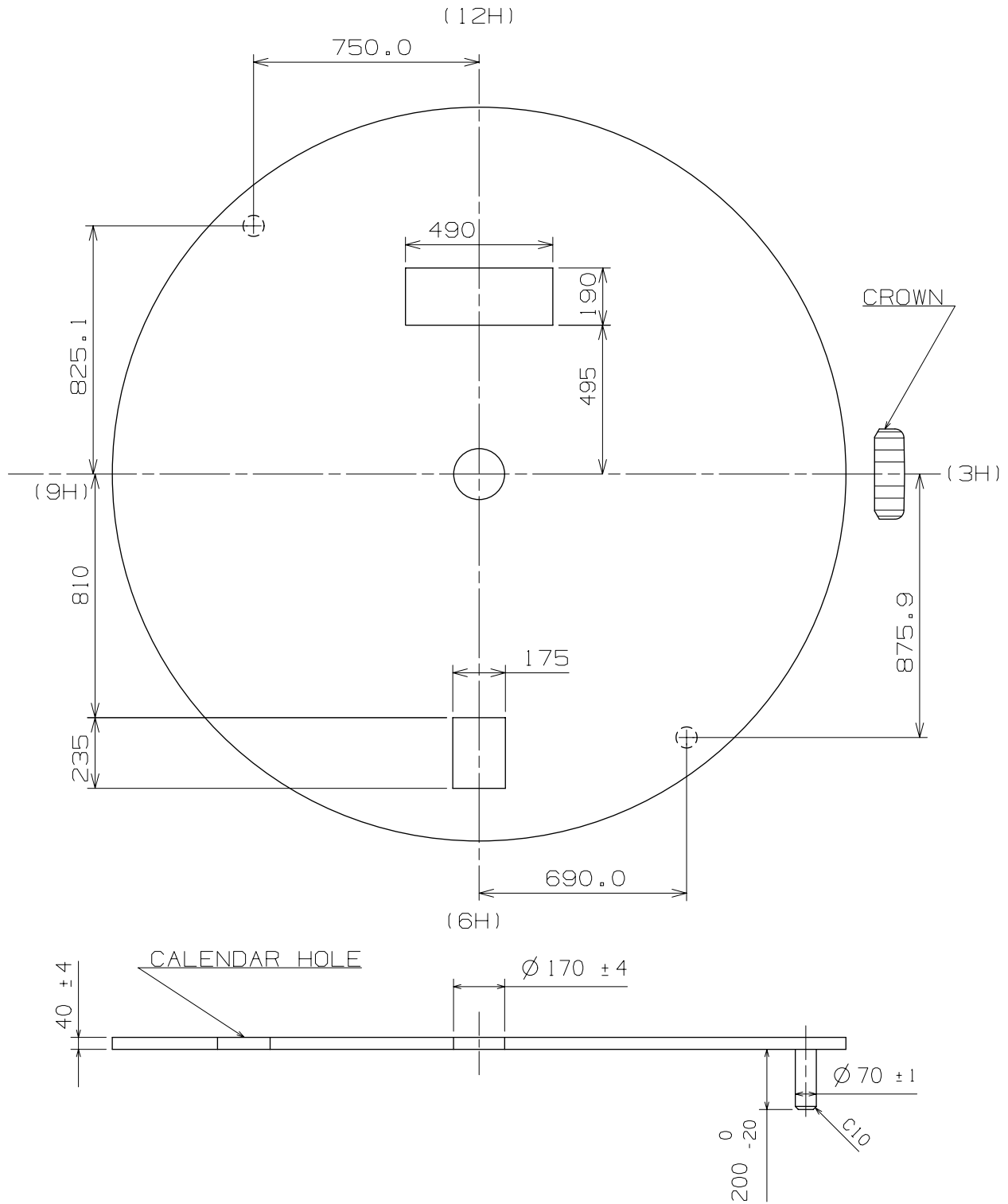
Cal. PC33A

	X	Y
a	237.92	-727.84



Scale : 5/1
Unit : 1=1/100mm

Version:1

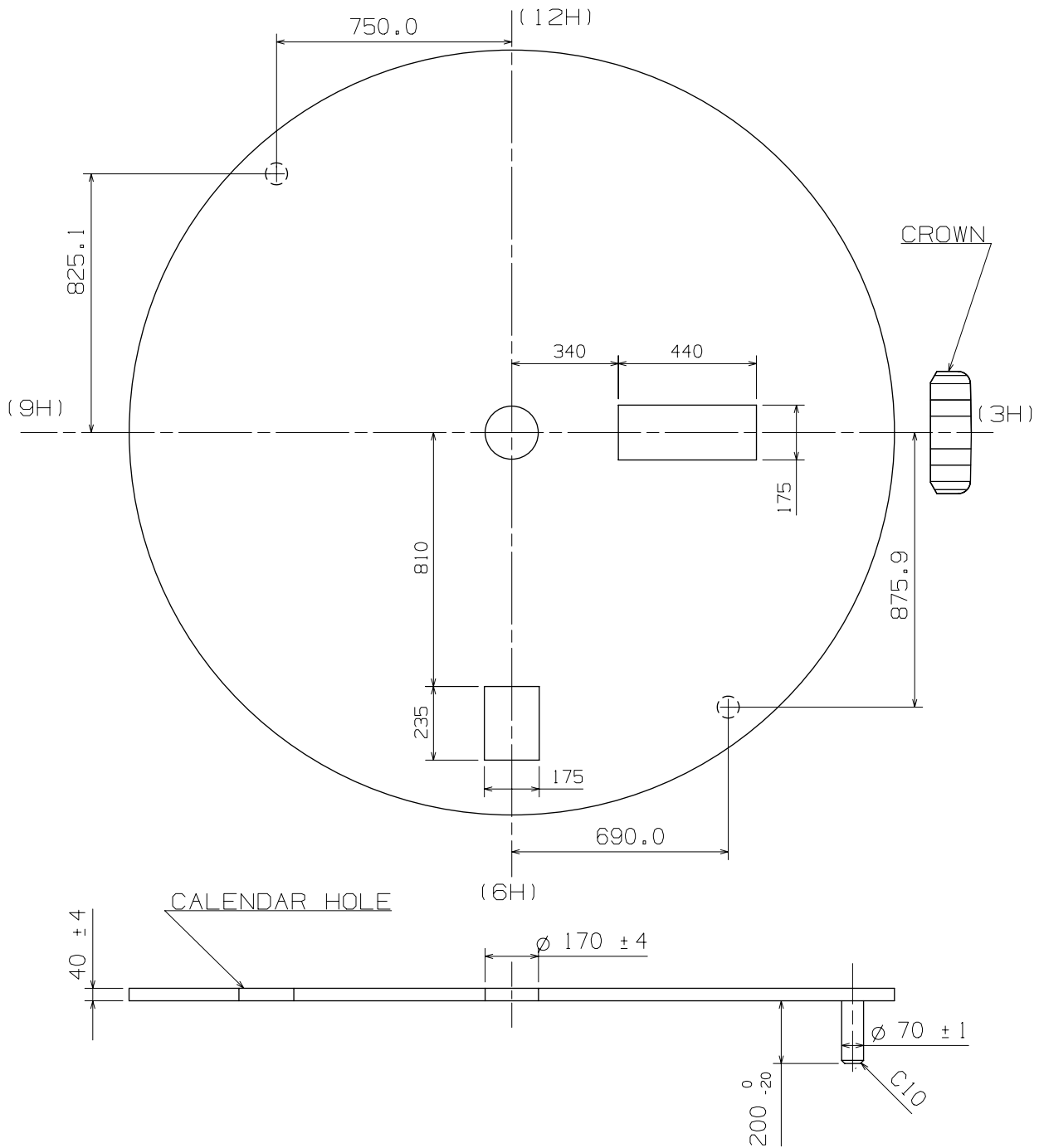


Scale : 5/1
Unit : 1=1/100mm

Version:1

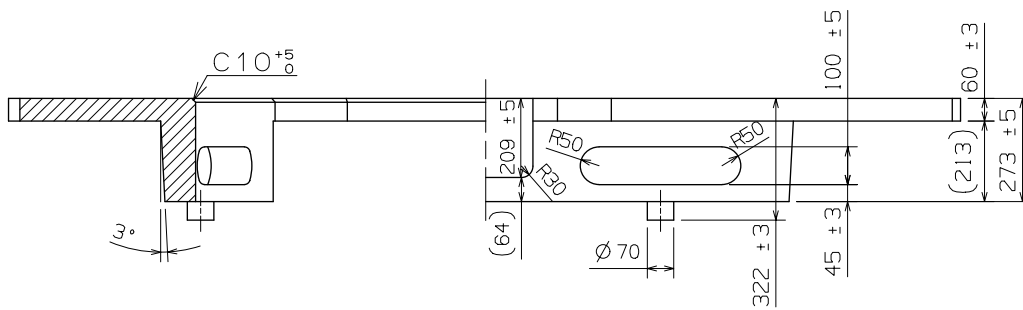
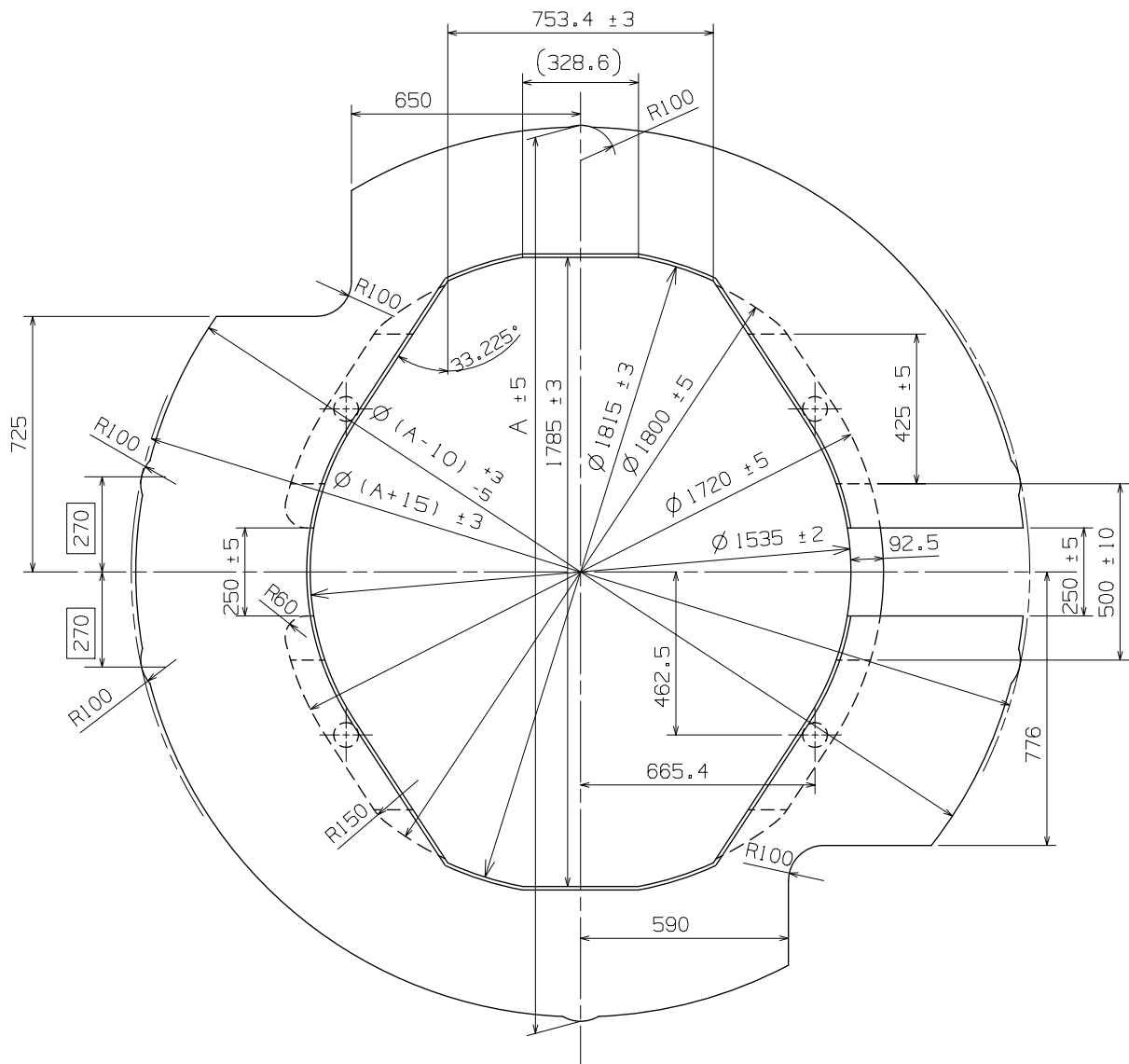
Dial-12

Cal. PC33A



Scale : 5/1
Unit : 1=1/100mm

Version:1



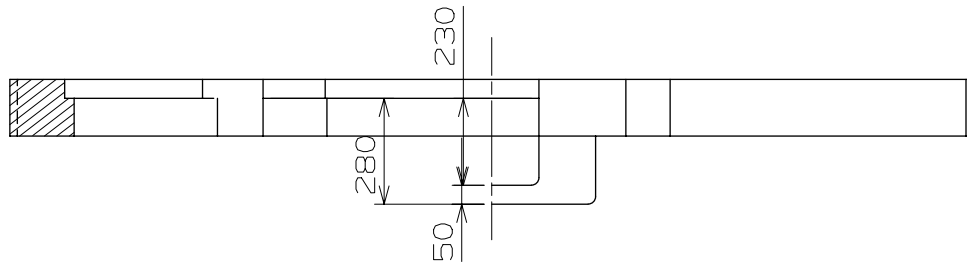
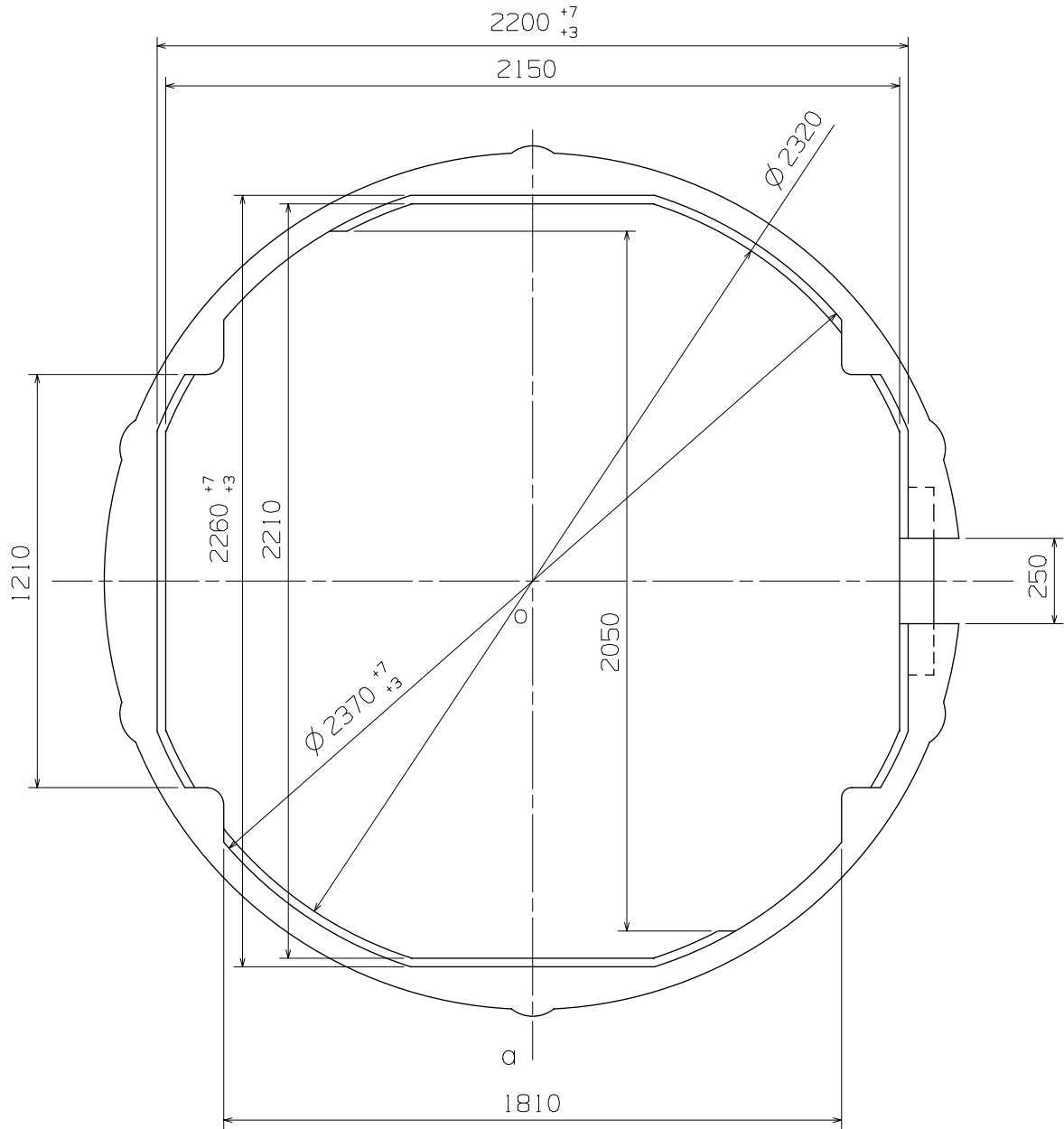
Scale : 5/1

Unit : 1=1/100mm

Version:5

Casing Ring-2

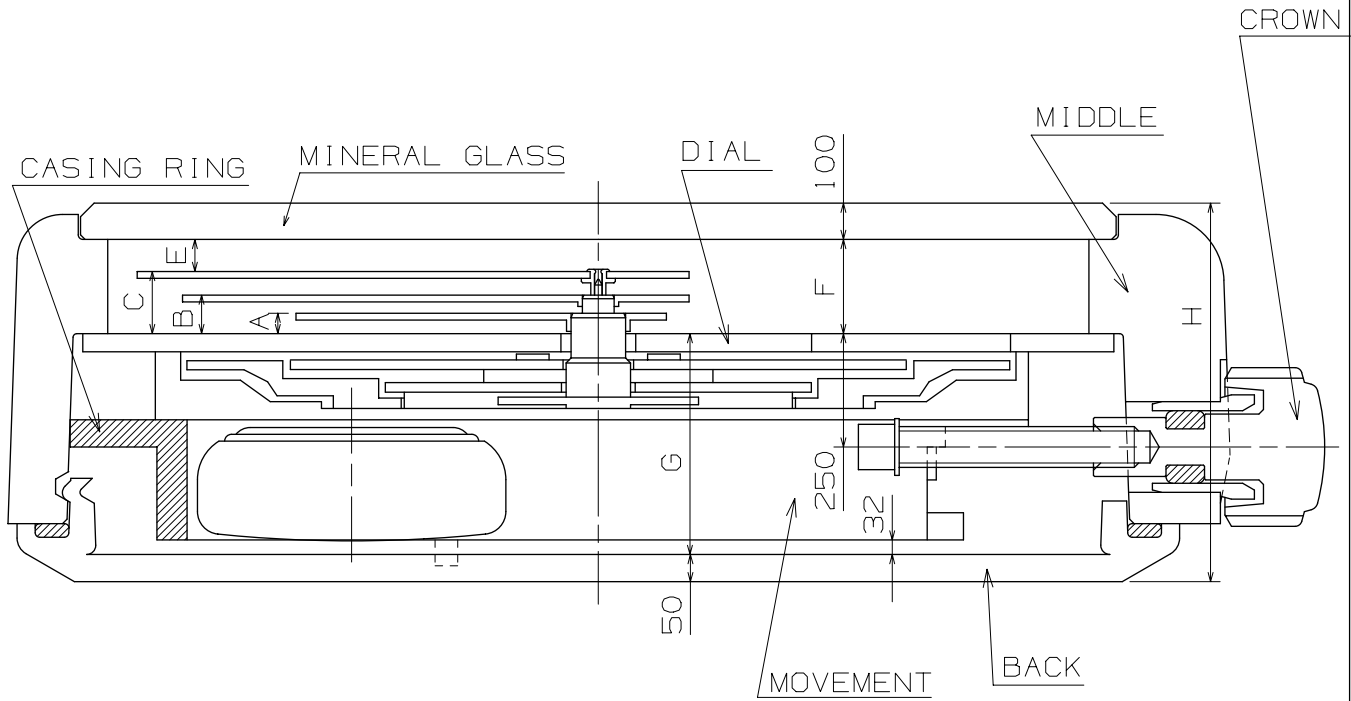
Cal. PC33A



a~o Section

Scale : 5/1
Unit : 1=1/100mm

Version:5

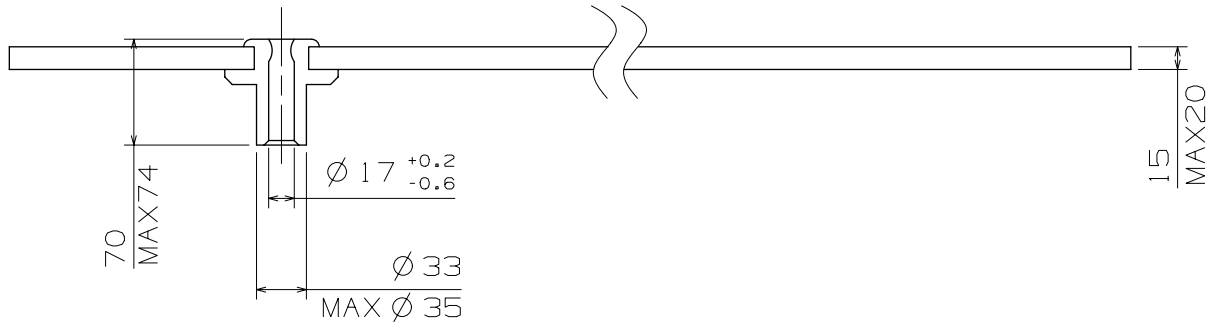


	A	B	C	D	E	F	G	H
TYPE M	70	110	162	40	65	227	487	864

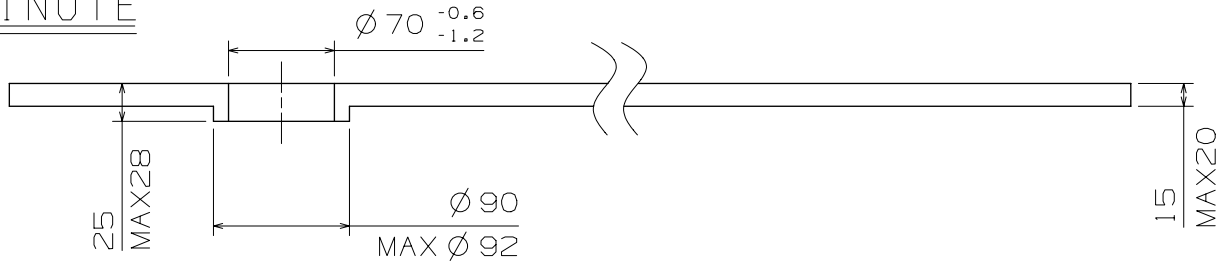
Scale : -
Unit : 1=1/100mm

Version:5

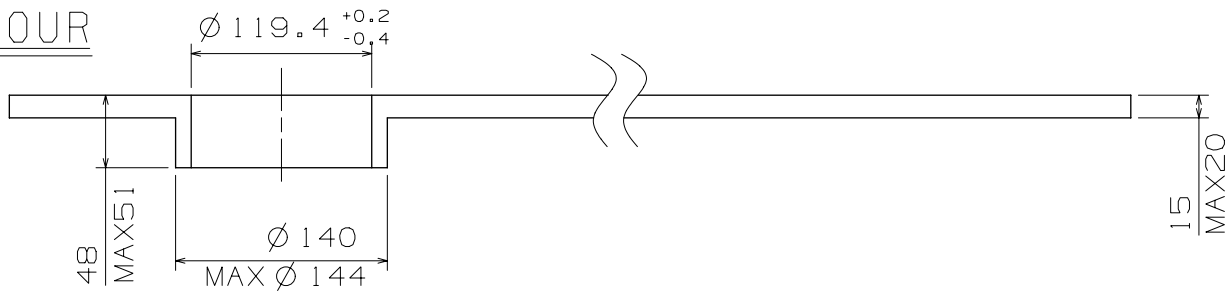
SECOND



MINUTE



HOUR



Scale : 20/1

Unit : 1=1/100mm

Version:5