

## 2. MACHINE SPECIFICATIO

M-5APC

### 2.1. Standard Specifications

#### (1) TABLE

TABLE WORK AREA(WIDTH × LENGTH)	500 × 1,200 mm (19.7" × 47.2")
T SLOT(WIDTH × Q'TY)	18 mm × 3 (0.7086" × 3)
LOAD CAPACITY	600 kg(1320 pounds)

#### (2) TRAVEL

LONGITUDINAL TRAVEL(X AXIS)	1,125 mm(44.3")
CROSS TRAVEL(Y AXIS)	565 mm(22.2")
VERTICAL TRAVEL(Z AXIS)	571 mm(22.4")
DISTANCE FROM TABLE SURFACE TO SPINDLE NOSE	165 - 736 mm (6.4" - 28.9")
DISTANCE FROM COLUMN SLIDE WAY TO TABLE CENTER LINE	305 - 870mm (12.0" - 34.3")

#### (3) SPINDLE

SPINDLE TAPER	N. S. T. NO. 50
SPINDLE REVOLUTION	35 - 3500 R. P. M.
Directly specified by a 4 digit S code	

#### (4) FEED

RAPID FEED (X, Y)	15,000 mm/min. (590.6 inch/min)
(Z)	10,000 mm/min. (393.7 inch/min)
CUTTING FEED	0 - 5000 mm/min. (0 - 196.8 inch/min)

#### (5) ATC(with Tool orientation)

TOOL STORAGE CAPACITY	30(40)
TOOL SELECTION	RANDOM

TOOL HOLDER	MAS. BT 50 CATERPILLAR No. 50
MAX. TOOL SIZE	$\phi$ 110 mm $\times$ 350 mm (4.3" $\times$ 13.8")
MAX. TOOL WEIGHT (WITH TOOL HOLDER)	15 Kg( pounds)
TOOL CHANGING TIME	8 sec.
CHIP-TO-CHIP(WITH TOOL ORIENTATION)	Minimum 13 sec. (60Hz)
(6) MOTOR	
SPINDLE MOTOR (30 min. RATING)	AC 15 KW(20 HP)
(CONTINUOUS OPERATING)	AC 11 KW(AC 10 HP)
HYDRAULIC PUMP MOTER	AC 2.2 KW(AC 15 HP)
COOLANT MOTOR	AC 400 W(AC 1/2 HP)
LUBRICATION PUMP	AC 5W(AC 1/150 HP)
(7) MACHINE WEIGHT	9,400 Kg (20,680 lbs)

## 2.2. Standard Accessories

- |                             |       |
|-----------------------------|-------|
| (1) Spanner wrench          | 1 set |
| (2) Jack bolt and plate     | 1 set |
| (3) Steel bellows (for bed) | 1 set |

## 2.3. Optional Accessories

- |  |                                    |
|--|------------------------------------|
| 1. Foundation bolt                             | 15. NC rotary table RNCV-200       |
| 2. 3-step automatic changeover coolant         | 16. MDI memory input device        |
| 3. Illumination unit                           | 17. Automatic tool breakage sensor |
| 4. Spindle oil cooler                          |                                    |
| 5. Warming-up timer                            |                                    |
| 6. Machining finish indicator lamp             |                                    |
| 7. Weekly timer                                |                                    |
| 8. Run hour display                            |                                    |
| 9. Oil mist coolant device                     |                                    |
| 10. Additional M-function 4 sets               |                                    |
| 11. Automatic power stop                       |                                    |
| 12. Special color                              |                                    |
| 13. Closed loop scale (linear feedback scale)  |                                    |
| 14. Tool holders with pull studs (N. S. T. 40) |                                    |

Spring collet

Face mill

Side lock

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Collet

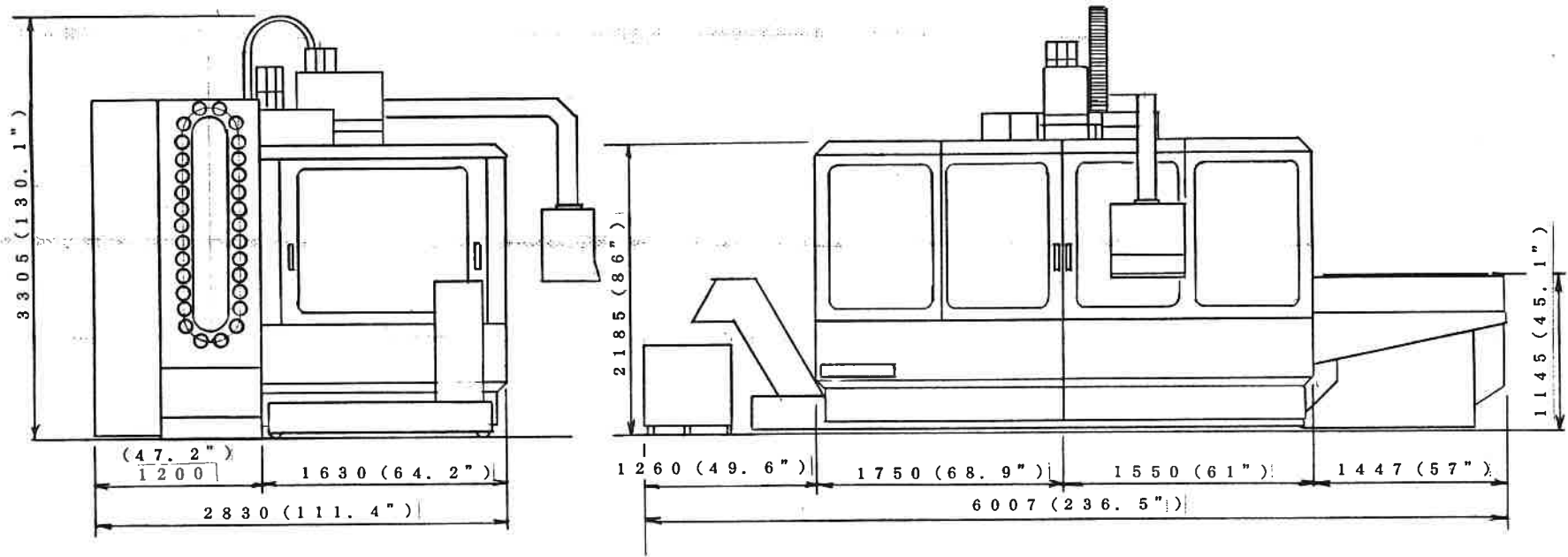
Pull stud

2.4. Standard specification of NC unit

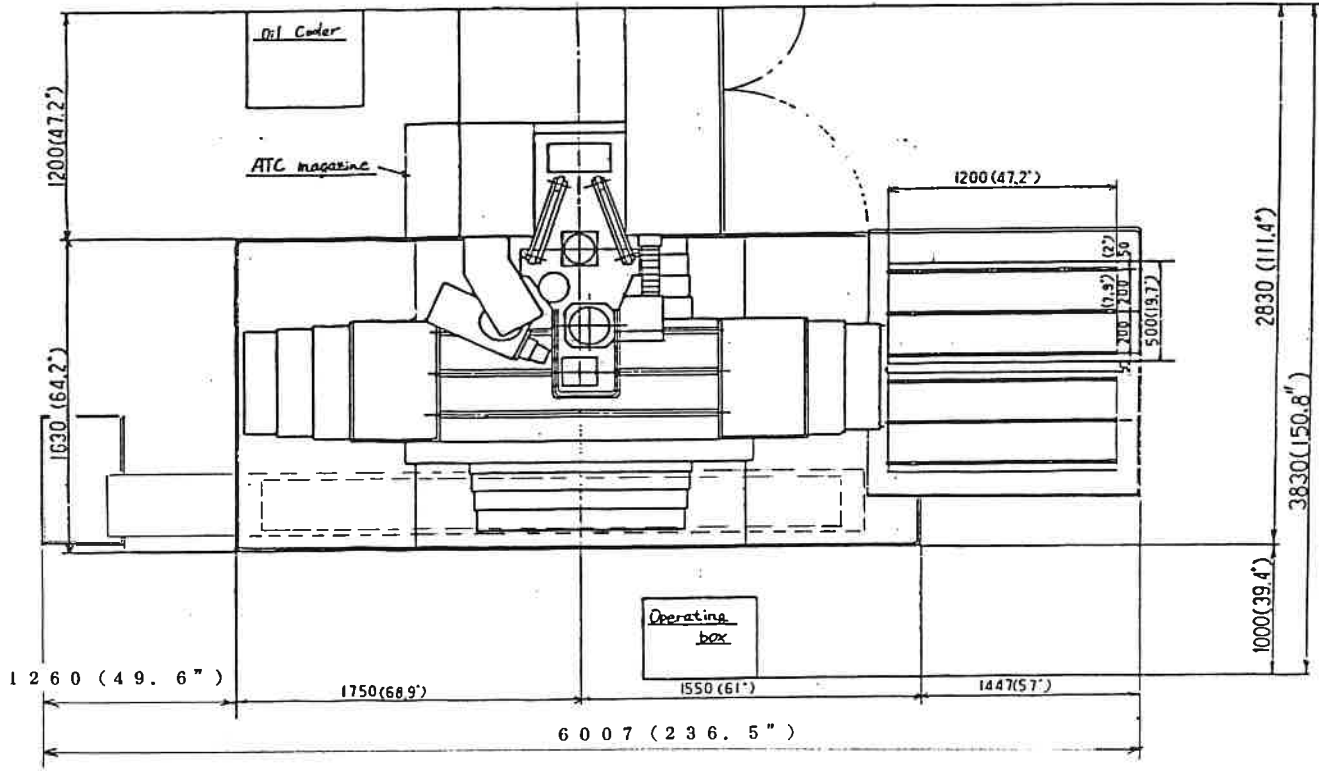
1 5 M

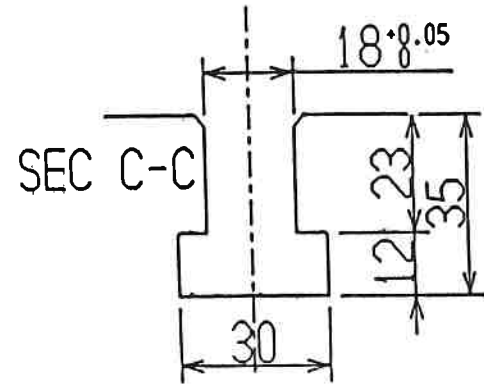
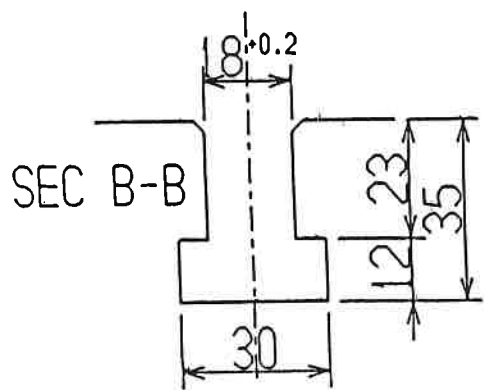
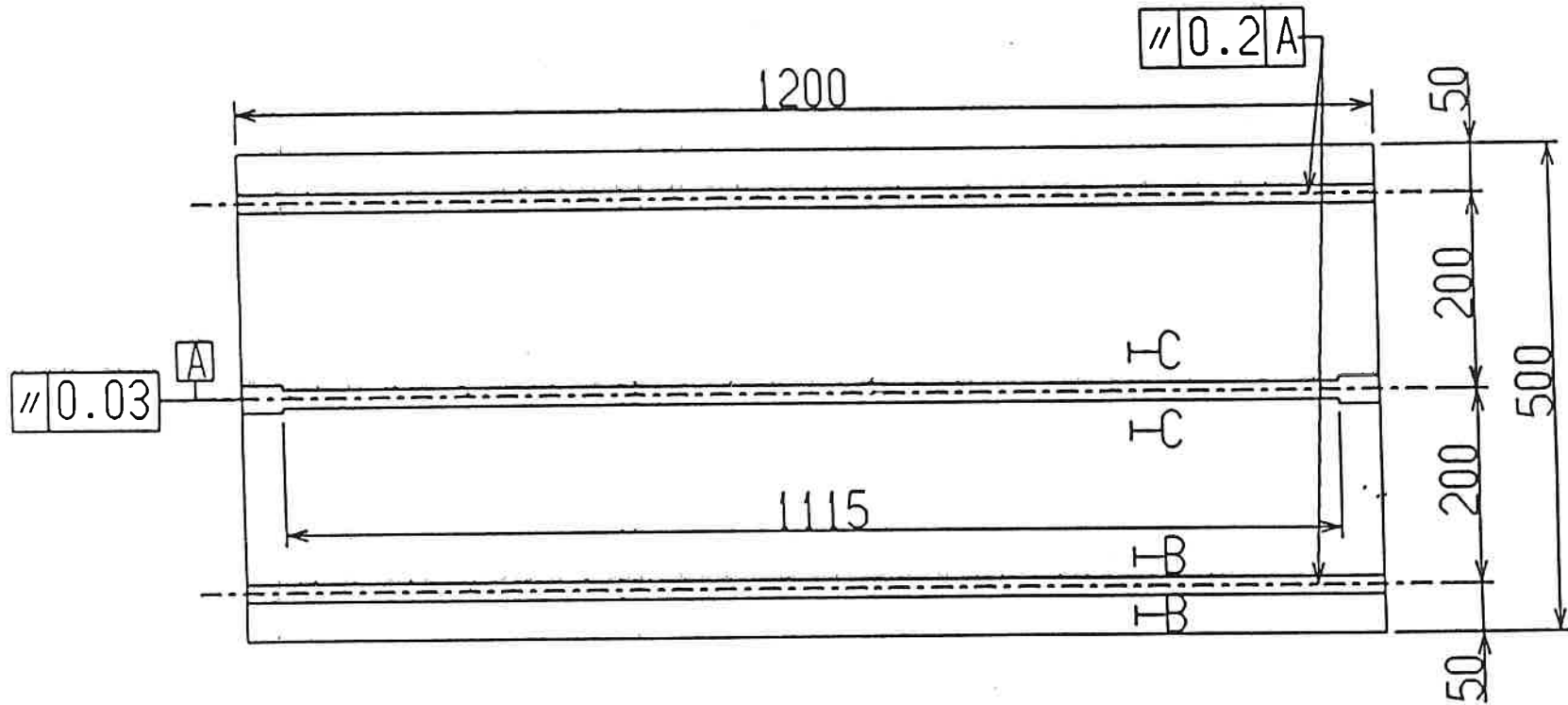
Item	Function
Controlled axes	2/3 axes
Simultaneous controllable axes	2 axes
Axis name	Optional from X, Y, Z, U, V, W, A, B, C
Increment system	0.01, 0.001mm 0.01/0.001deg 0.001, 0.0001inch
Maximum commandable value	±99999999
Positioning	Linear interpolation type posi- tioning is also possible
Linear interpolation	
Multi-quadrant circular interpola- tion	
Rapid traverse	
Tangential speed constant control	
Cutting feedrate clamp	
Feed per minute	
Feedrate override	0 - 240%, 10%step
Rapid traverse override	1%, 25%, 50%, 100%
Override cancel	
Automatic acceleration/decelera- tion	Rapid traverse: Linear or exponential acceleration/ deceleration Cutting feed: Exponential acceleration/dece- leration
Exact stop/cutting mode	
Tapping mode	
Dwell	

M-5 2APC OUTER VIEW OF MACHINE  
KITAMURA MACHINERY CO., LTD.



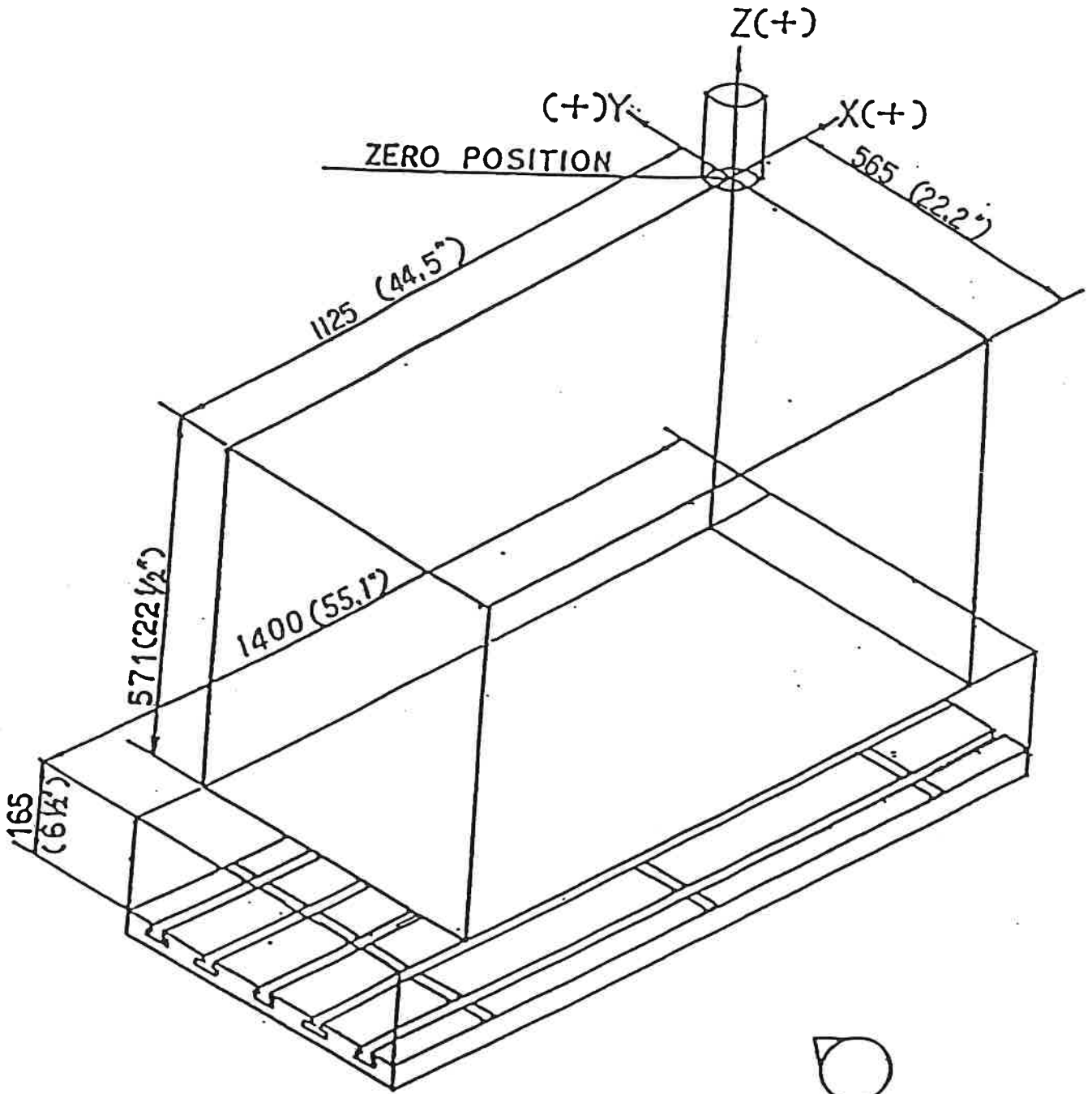
M-5 2APC LAYOUT DRAWING  
 KITAMURA MACHINERY CO., LTD.





M-5 PALLET TABLE DRAWING
KITAMURA MACHINERY CO., LTD

AXIS OF COORDINATES




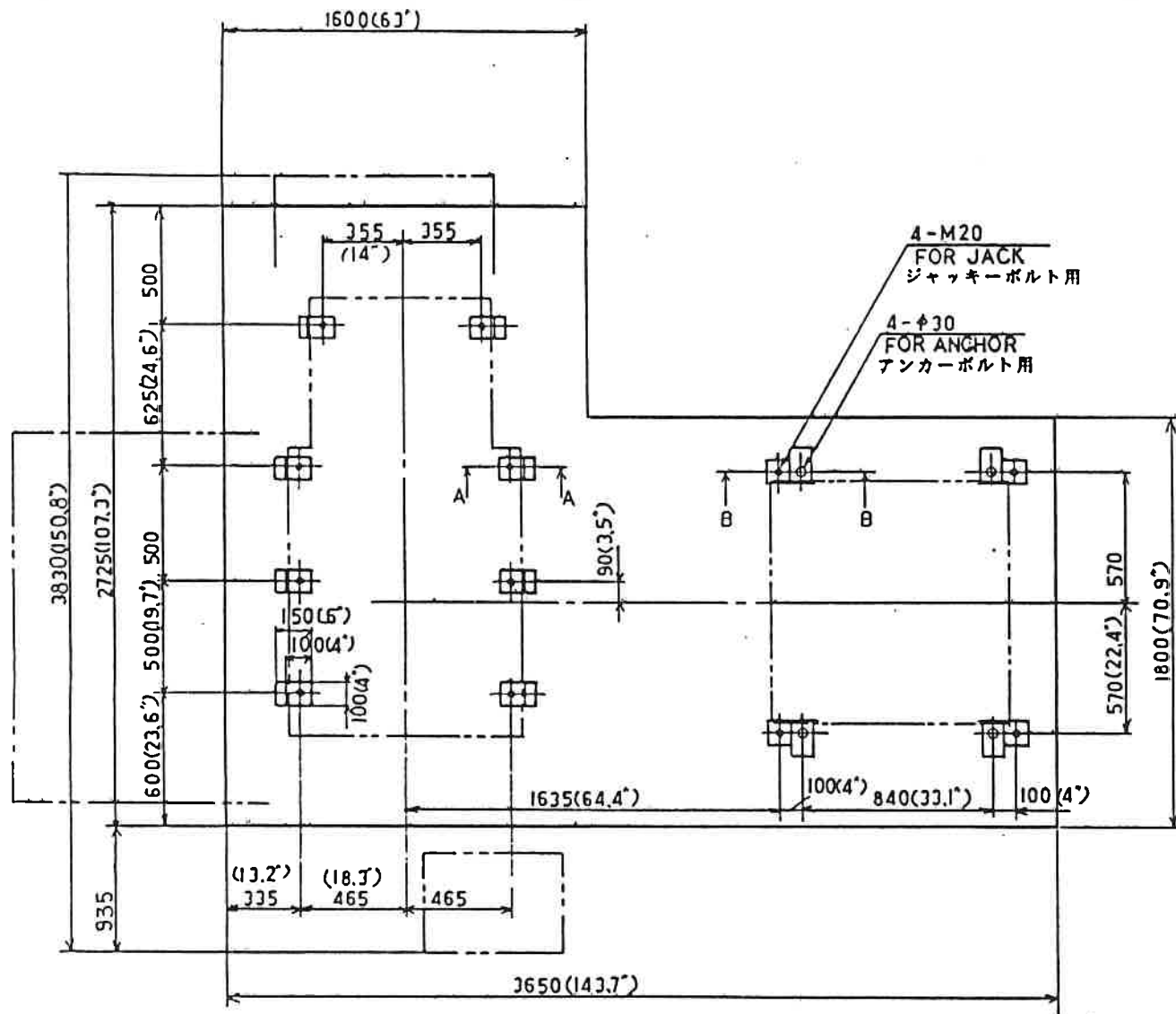
  
FRONT

Fig 2-5





M-5 FOUNDATION DIAGRAM  
 KITAMURA MACHINERY CO., LTD.

