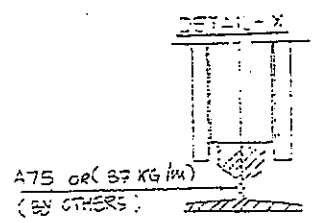


POWER SUPPLY SIDE

TECHNICAL SPEC:

- CAPACITY : 30 TON FEM 2M
- HOIST TYPE : XL612 N5
- HOISTING SPEED : 4/0.6 M/MIN
- CREED SPEED : SEE ABOVE
- CROSS TRAVEL SPEED : 20/5 M/MIN
- LONG TRAVEL SPEED : 32/8 M/MIN
- CURRENT SUPPLY : 415V, 3 PHASE, 50 CYCLES
- CONTROL VOLTAGE : 48 VOLTS
- CRANE CLASS : GROUP A3, B5 465
- PENDANT CONTROL : VIA CLOSED CABIN C/W JOYSTICK CONTROL IN THE CRANE



R_{MAX} = 25.6 TON
(STATIC)

NO 2569
#2 AUG. 1994

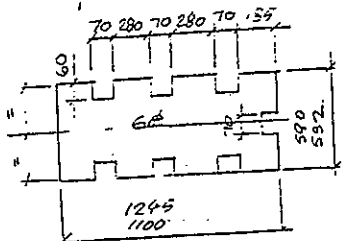
APPROVED: _____
CHOP & SIGN. (2 UNITS)

PLEASE FILL IN & CONFIRM DIMENSIONS PROVIDED.

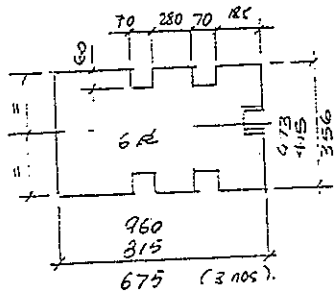
Drawings are to be installed and aligned to within the tolerances specified by BS 466: 1984 or FEM Standards.
KONE will not be responsible for any adverse effect on crane performance or failure arising

KONE		KONE PRODUCTS & ENGINEERING (K) SDN. BHD.	
CRAWN	_____	CHECKED	_____

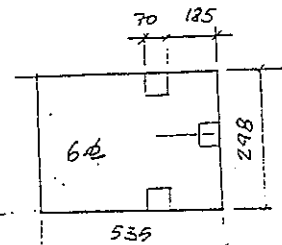
CUSTOMER :	SMP SDN. BHD. (OUTDOOR)
PROJECT/LOC :	WEST PORT PHASE 2 - FULLY LOADED PORT AREA
TITLE :	DOUBLE GIDDER PORTAL CRANE
SCALE :	1:100
DATE :	1994
DRW. NO. :	DE 8103



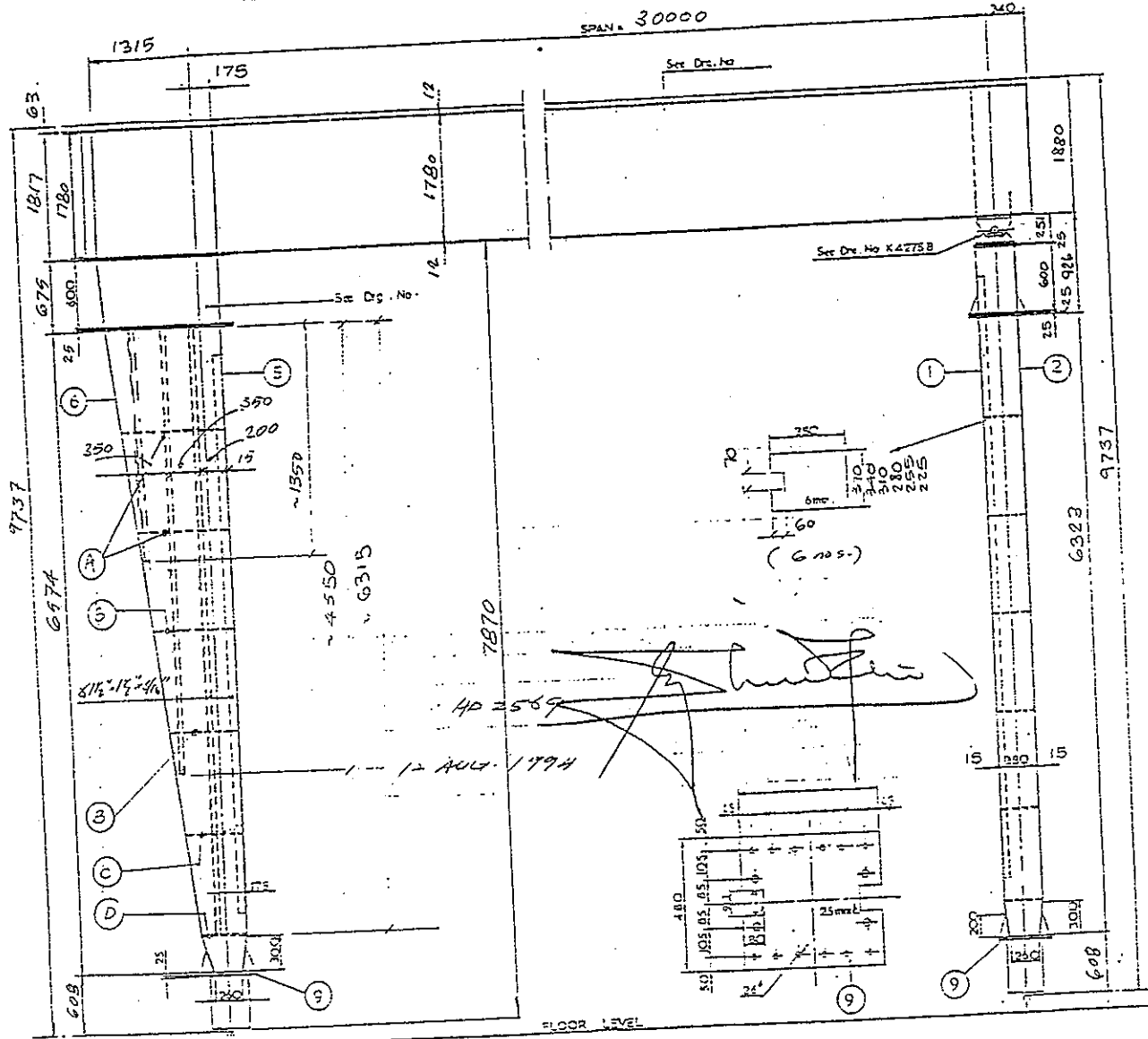
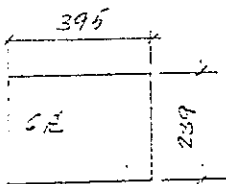
(2 nos.)
TYPE A



TYPE B

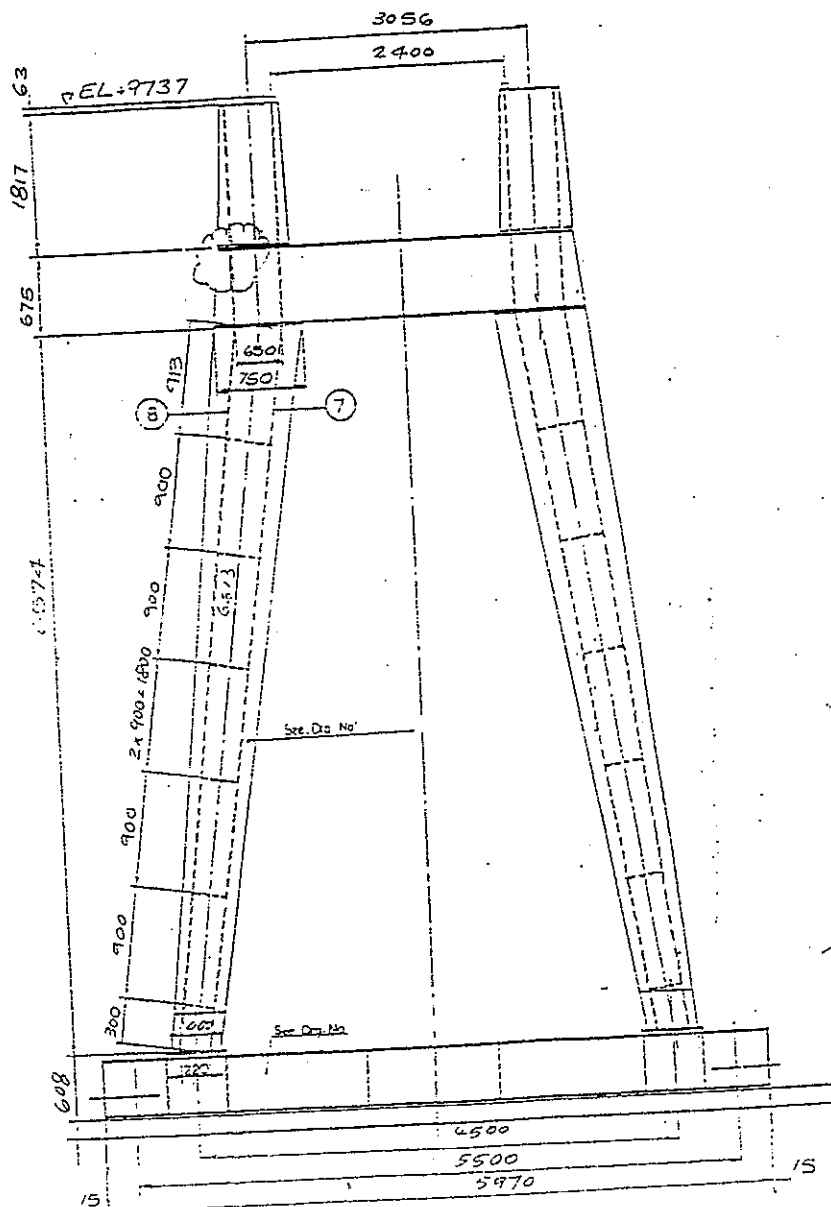


TYPE C

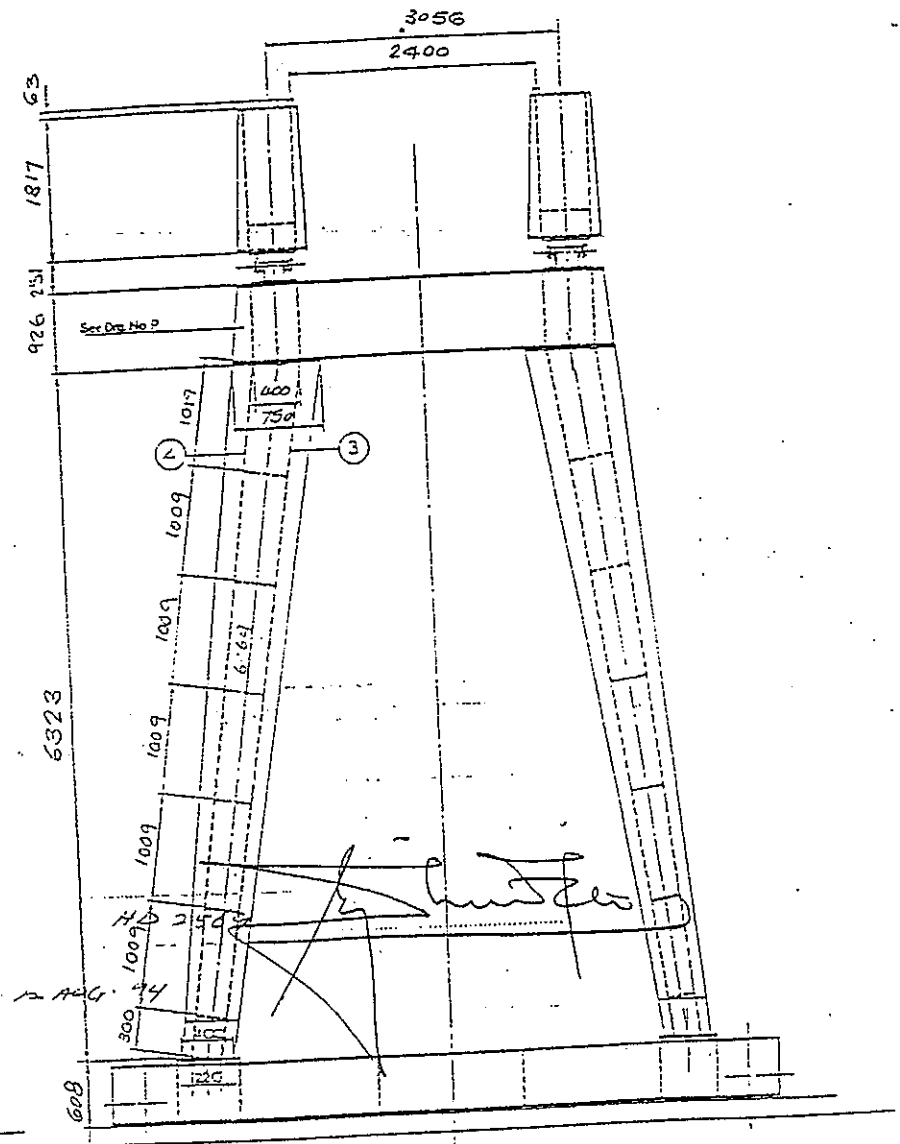


KONE PRODUCTS & ENGINEERING (M) SDN. BHD.	CUSTOMER	CNP SDN. BHD.	
	DRAWN: <input checked="" type="checkbox"/> / NOT CHECKED: <input type="checkbox"/> DATE: _____	SCALE: _____ N.T.S.	DRAWING NO. P18103A


30T x 30m SPAN

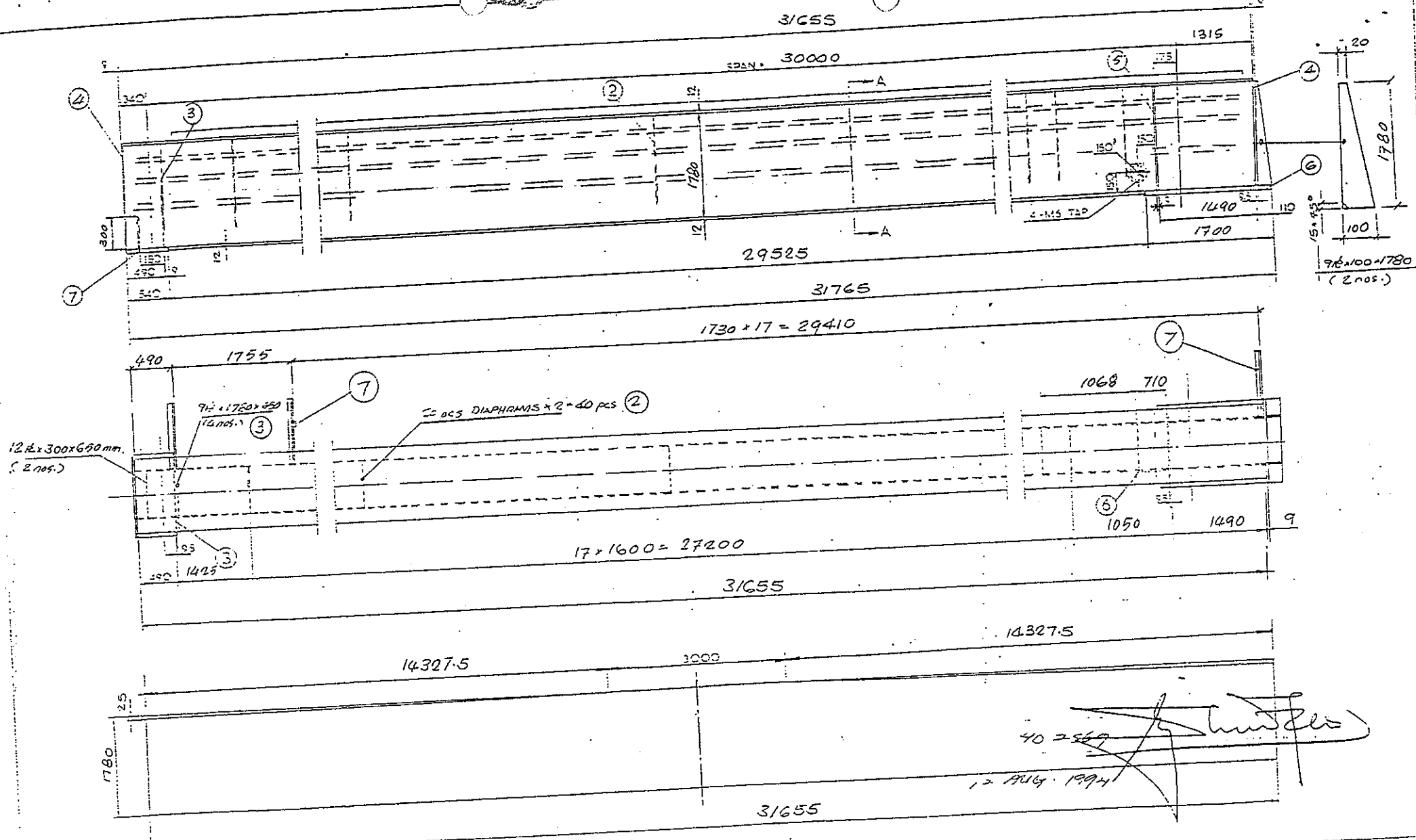


DETAIL "Y"



DETAIL "X"

 KONE PRODUCTS & ENGINEERING (M) SDN BHD	CUSTOMER	CNP SDN BHD
	50 TON PORTAL CRANE	
DRAWN: MHR	CHECKED:	SCALE:
		REF: B-2103-1

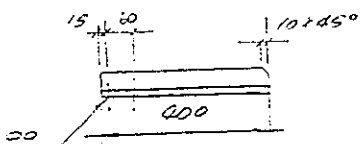


12 # 300x690 mm.
(2 nos.)

12 # 20x450
(12 nos.)

20 PCS DIAPHRAGMS x 2 = 40 PCS

40 = 28/4/1994
[Signature]

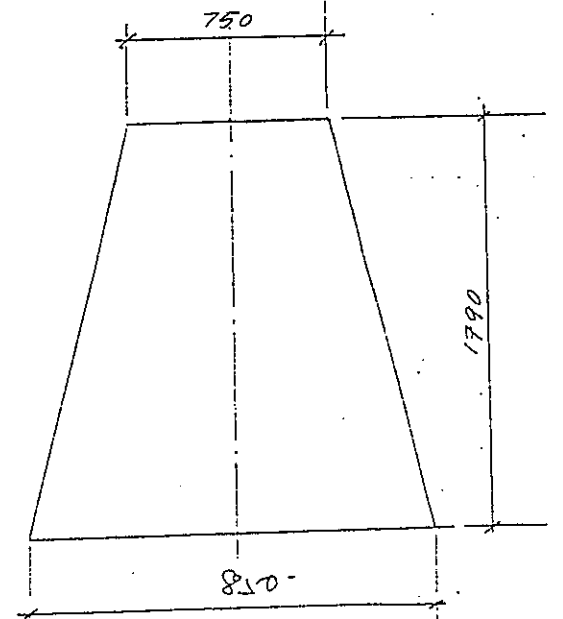
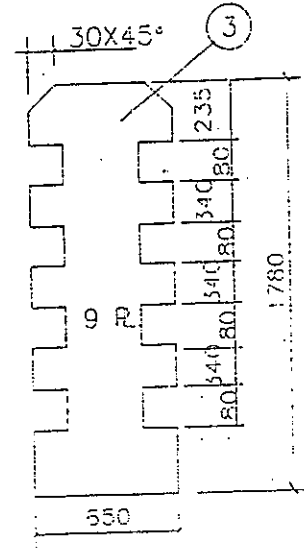
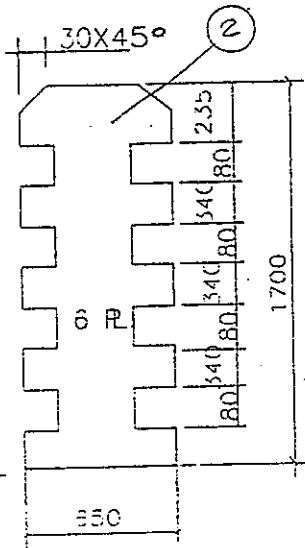
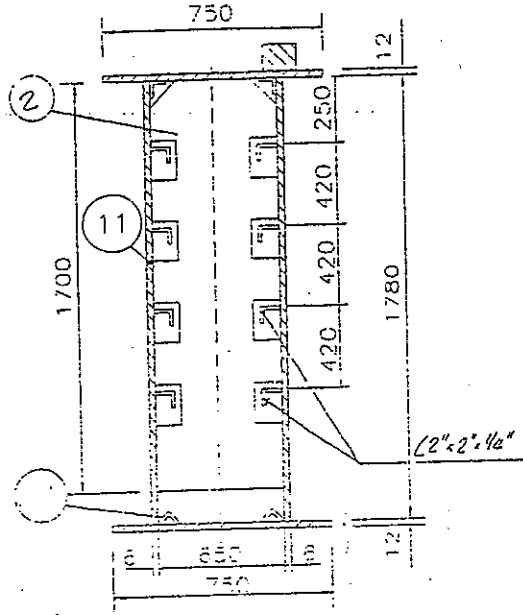


12 # 20x450 = 450 mm. (12 nos.)

KONE
 KONE PRODUCTS & ENGINEERING
 (M) SDN. BHD

CUSTOMER	CNP SDN. BHD.		
DESCRIPTION	30 TON = 30000 MM	ITEM NO.	GIPDR
SCALE	N.T.S.	REVISION	28103-2

SECTION A-A



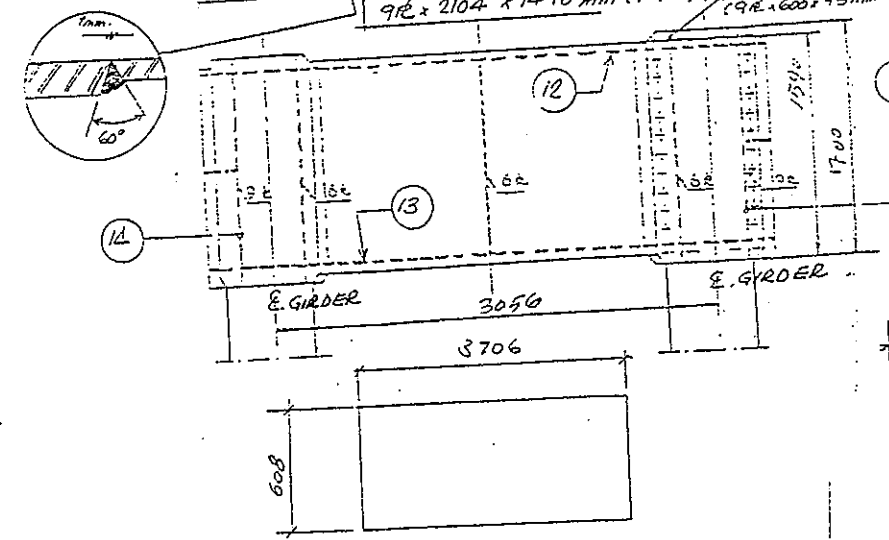
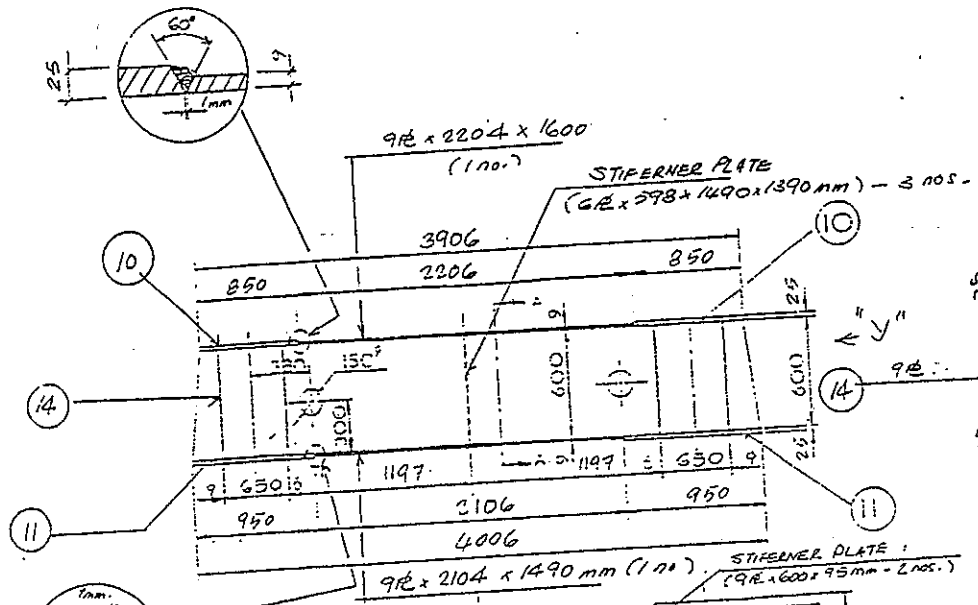
HD 2569

12 JUL 1994

[Handwritten signature]

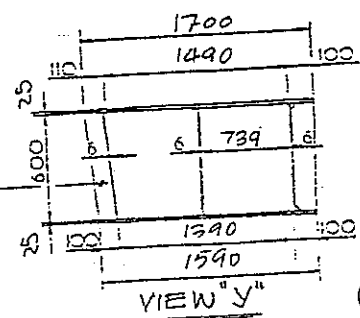
Scale: 30000 mm GP20

		KONE PRODUCTS & ENGINEERING (M) SDN. BHD.		CUSTOMER: CNP SDN. BHD.	
PROJECT/LOC:		TITLE: Box SECTION GAISE		SCALE: 1:1	
DRAWN:	CHECKED:	DATE:	DATE:	DATE:	DATE:

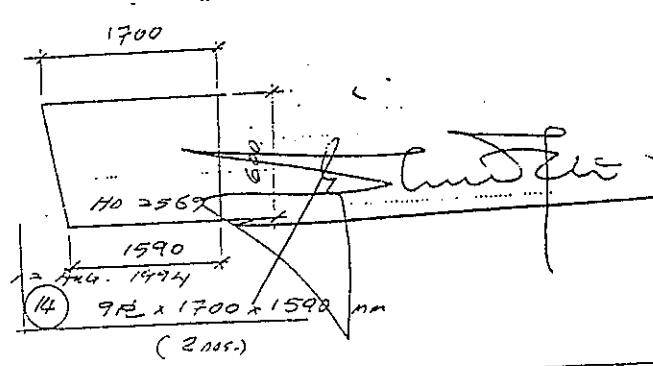
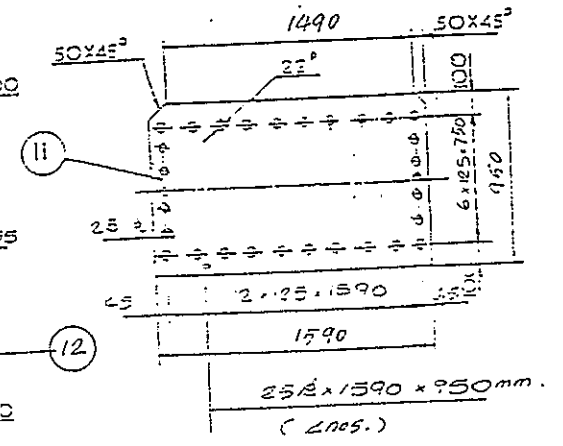
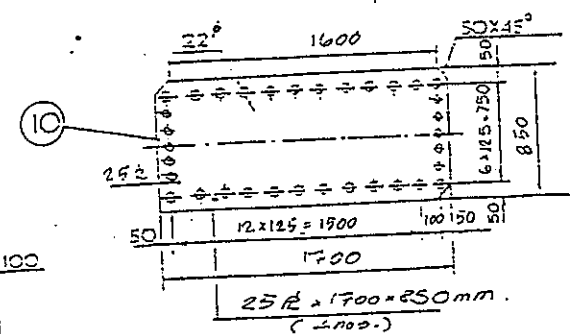
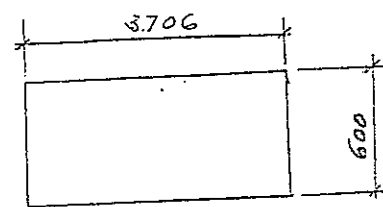


13 9R x 3706 x 608 mm
(1 no.)

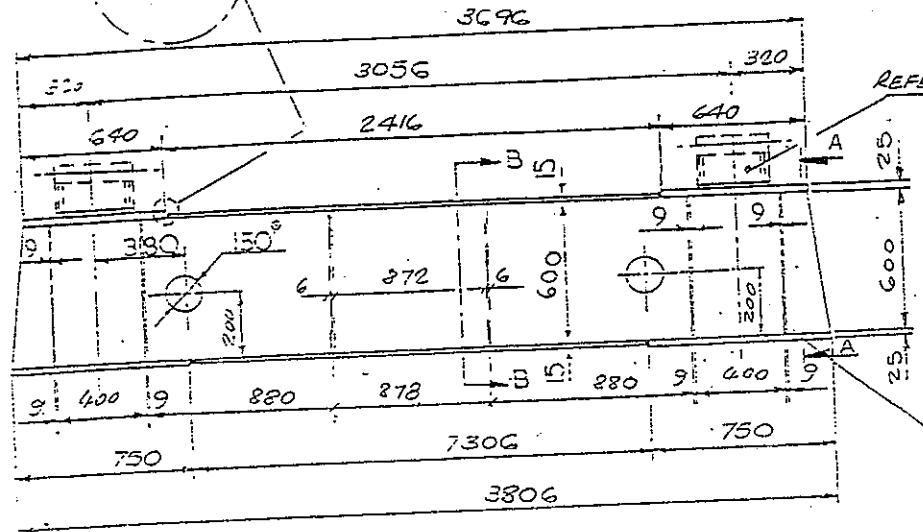
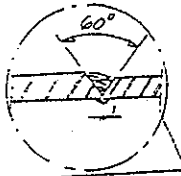
12 9R x 3706 x 600 mm -
(1 no.)



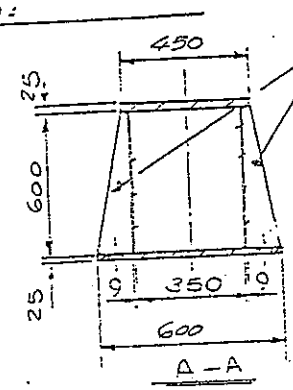
SECTION AA



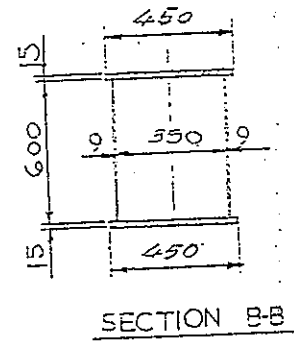
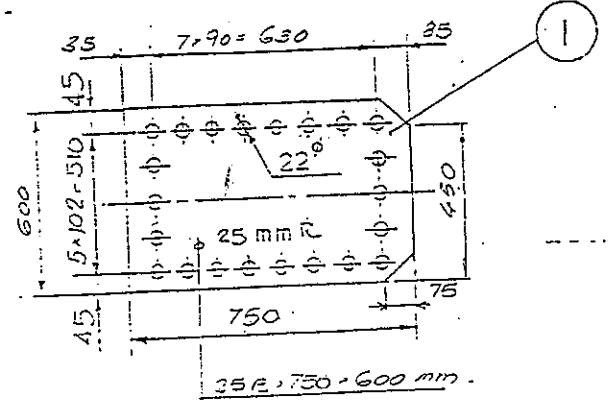
		CUSTOMER: CNP SDN. BHD.	
DRAWN: KHDP		CHECKED: ...	
DATE: ...		SCALE: ...	
PROJECT: 20T-200M PORTAL CRANE SUPPORT STRUCTURE		DRAWING NO: ...	



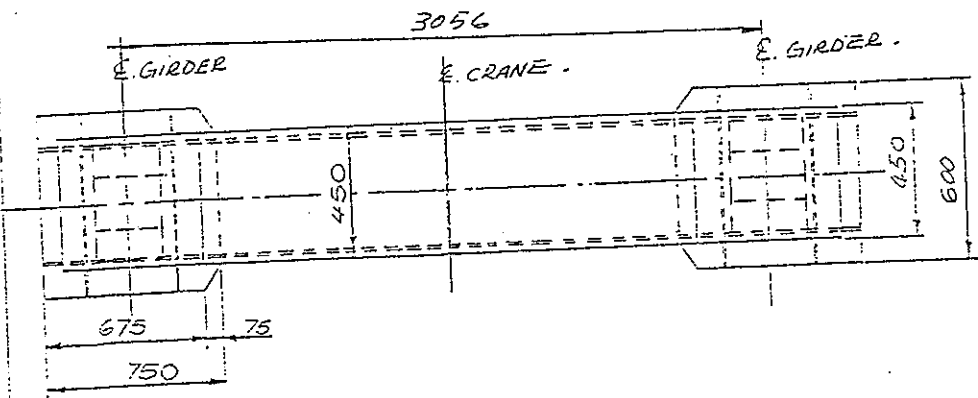
REFER DRG. NO.:



STIFFENER PL.
(9R x 116 x 600 x 1 mm)
- 8 nos -



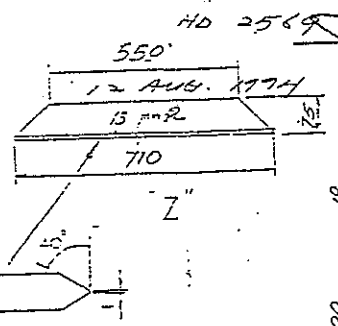
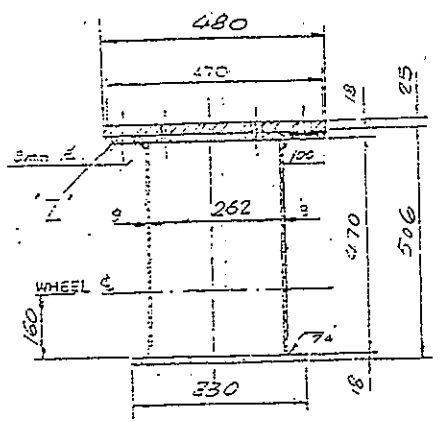
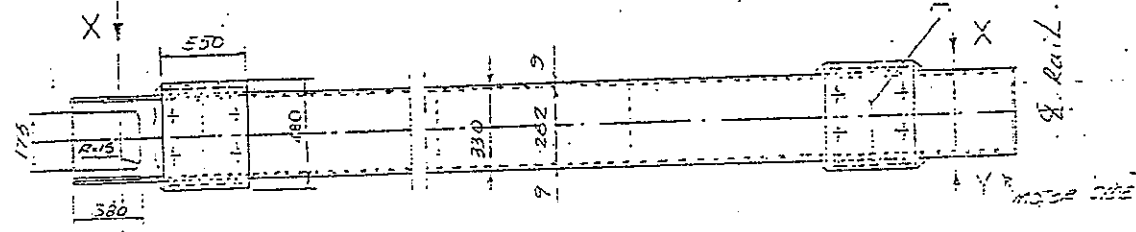
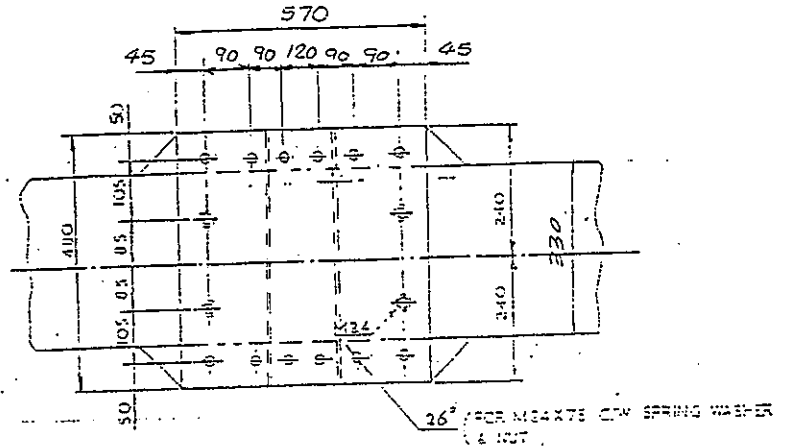
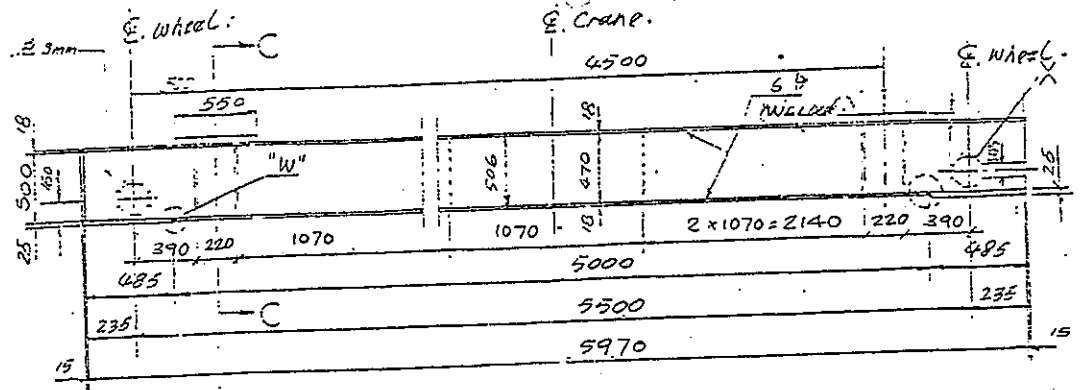
SECTION B-B



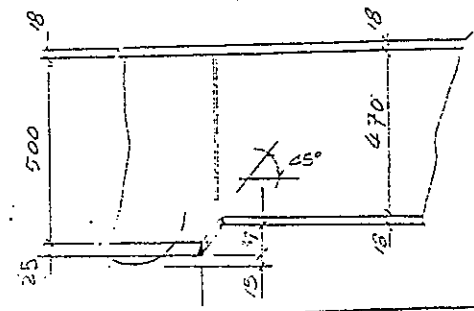
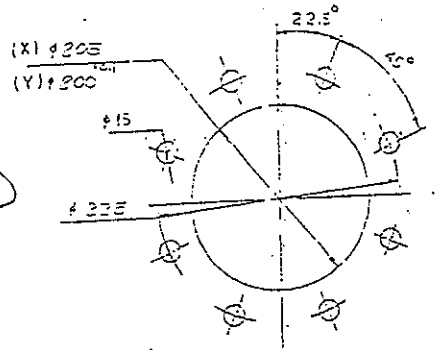
HD 2567
12 AUG 1994
[Signature]

	IRONWIG RONE PRODUCTS & ENGINEERING (M) Sdn. Bhd	CUSTOMER CNP SDN. BHD.
	DRAWN <i>[Signature]</i> CHECKED DATE	DESIGNED DATE N.T.S

FIXABLE LEG IMPACT MEMBER

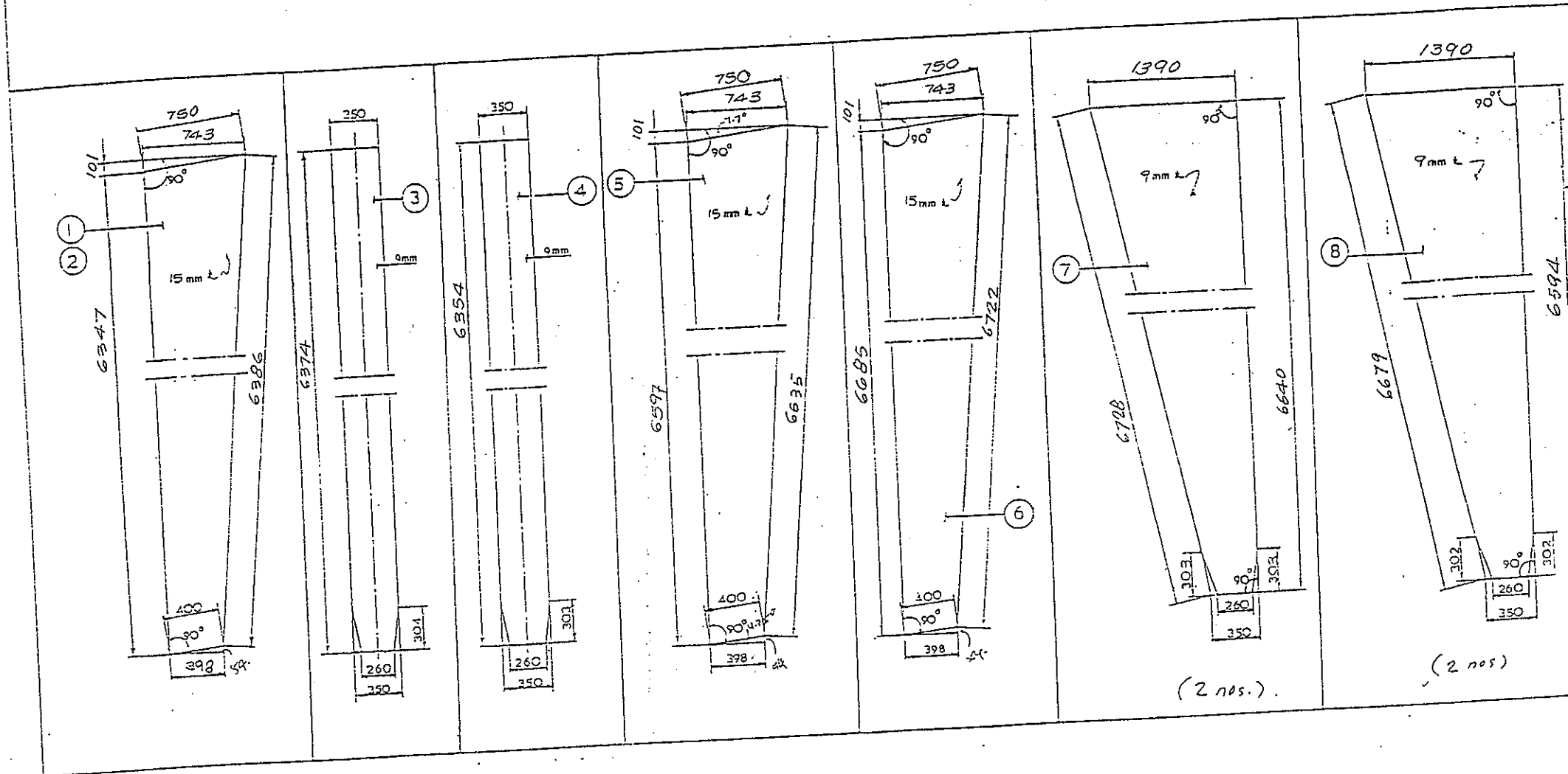


[Handwritten signature]
 DETAIL 'W'



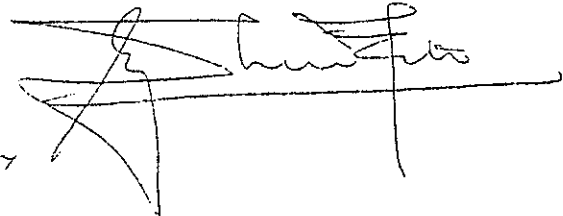
Remark: LONG TRAVEL MOTORS must
 BE AT SAME DIRECTION


KONE PRODUCTS & ENGINEERING (M) SDN. BHD.		CUSTOMER: SINO CON BHD.
PROJECT/LOC.		
TITLE: FWD CHANGE		
SCALE: N.T.S.		
DRAWN: [Signature]		CHECKED: [Signature]
REV. NO.	BY	DATE
CHECKED	DATE	APP. DATE

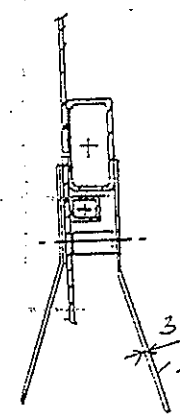
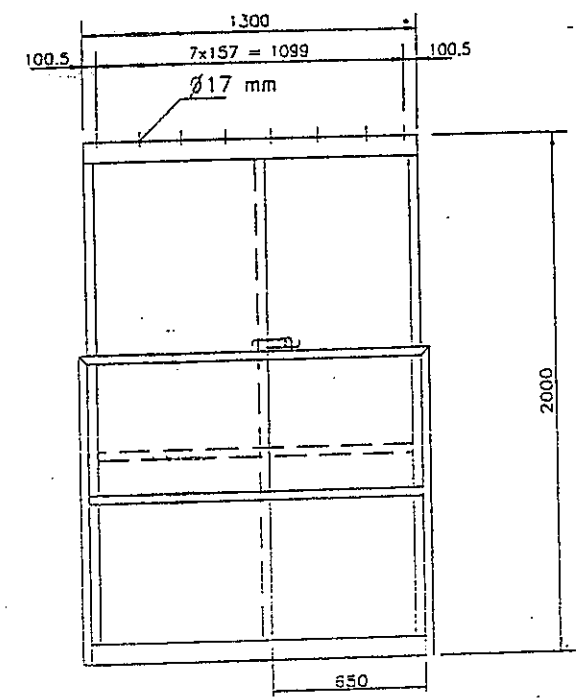
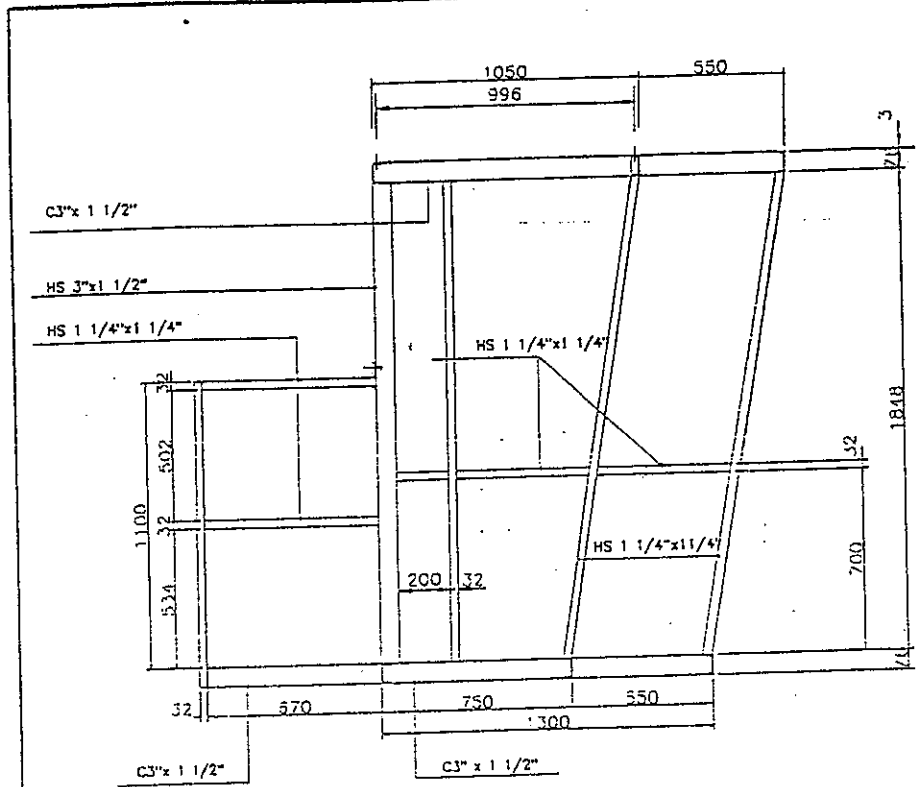


(2 nos.)

(2 nos.)

HD 2569
 12 APR 1994


 KONE PRODUCTS & ENGINEERING (M) . SDN . BHD		CUSTOMER CNP SDN . BHD .	
DRAWN KHOP		CHECKED N.T.B.	
SCALE 1:1		TON PORTAL LEGS 25 TON	
DATE		REF. 2508-6	



DETAIL "Y"

HD 2569
 3
 12 JUL 1994
[Signature]

		BONE		KONE PRODUCTS & ENGINEERING (M) SDN. BHD.		CUSTOMER :	
						PROJECT/LCC :	
						TITLE :	
						SCALE : N.T.S.	
						JOB NO. :	
						DRG. NO. :	
						PAGE :	
						REV	
REV NO.	BY	DATE	CHECKED	DATE	APPD.	DATE	DATE

Design calculation for cabin support bracket

Design of cabin and Digs
shown in attached.

Support bracket is

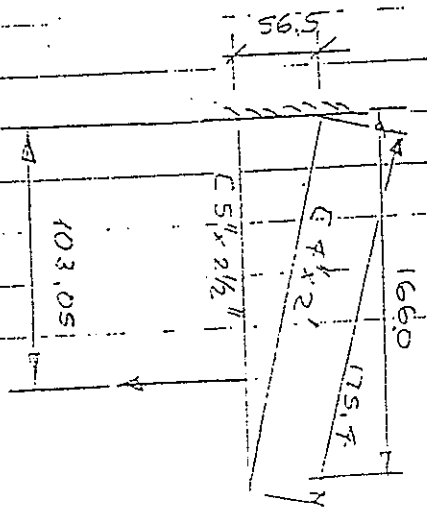
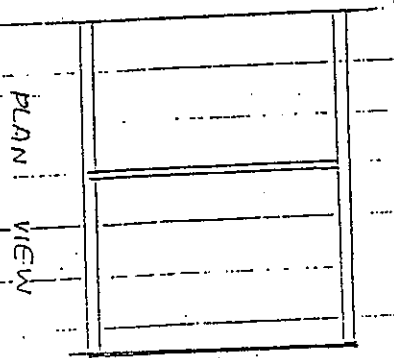
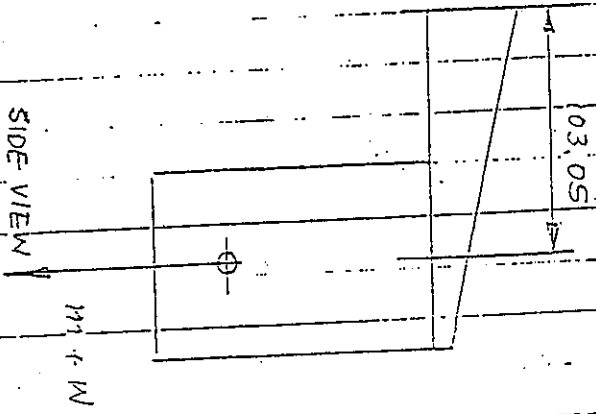


FIG 1.

Approximate Force diagram is shown in fig 2.

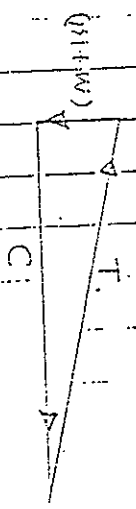


FIG 2.

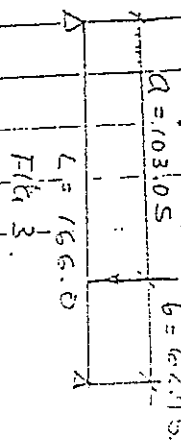


FIG 3.

m = wt of cabin = 600 kg
W = Life load assuming = 240 kg
m + W = 840 kg

(14 persons wt?)

$$T = \frac{175.4}{56.5} \times 840 = 2608 \text{ kg}$$

$$C = \frac{166}{56.5} \times 840 = 2468 \text{ kg}$$

Stress

in

$$C 4'' \times 2''$$

$$V_T = \frac{1.3 \cdot T}{2 A_c}$$

$$= \frac{1.3 \times 2608}{2 \times 13.28} \text{ kg/cm}^2$$

$$= 128 \text{ kg/cm}^2$$

where A_c is cross-sectional area

$$\text{of } C 4'' \times 2'' = 13.28 \text{ cm}^2$$

$$1.3 = \text{impact factor}$$

Stress in

$$C 5'' \times 2\frac{1}{2}''$$

$$V_{c1} = \frac{1.3 C}{2 A_{c2}}$$

where A_{c2} is cross sectional area of $C 5'' \times 2\frac{1}{2}'' = 18.78 \text{ cm}^2$

$$= \frac{1.3 \times 2468}{2 \times 18.78} \text{ kg/cm}^2$$

$$= 85 \text{ kg/cm}^2$$

V_{c1} = Bending Stress in Slab

$C 5'' \times 2\frac{1}{2}''$ due to force

$$\frac{(m \cdot w) \times d \times b}{Z L}$$

$$= \frac{1.3 \times 810 \times 10305 \times 62.95}{2 \times 75.9 \times 166}$$

$$= 281 \text{ kg/cm}^2$$

$$V_{c1} = V_{c1} + V_{c2} = 366 \text{ kg/cm}^2$$

$$\text{allowable stress} = 1400 \text{ kg/cm}^2$$