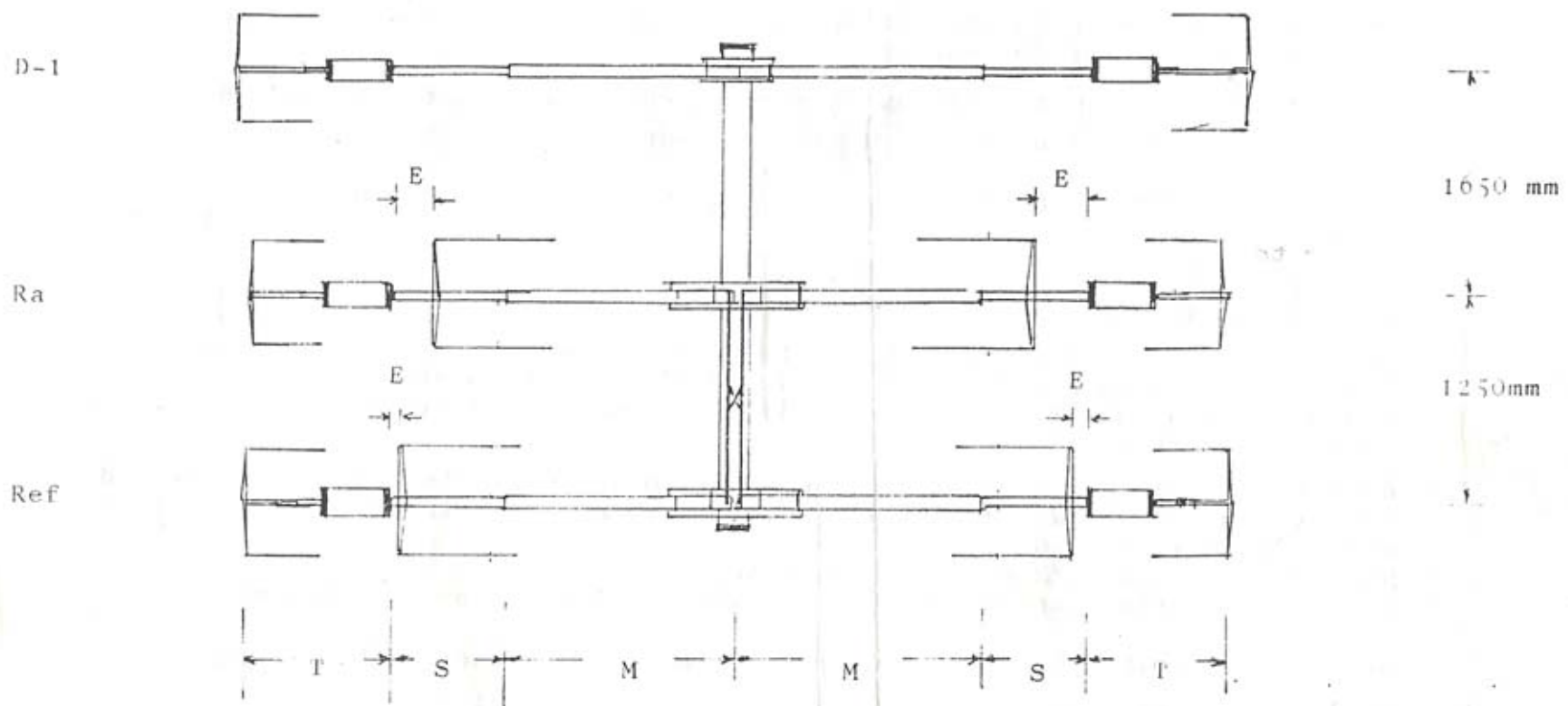


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**TET ANTENNA
SYSTEMS**

TET ANTENNA SYSTEMS
TANIGUCHI ENGINEERING TRADERS
2569-1, SHIMONAGAYA-CHO, KOHNAN-KU, YOKOHAMA 233

Fig.1

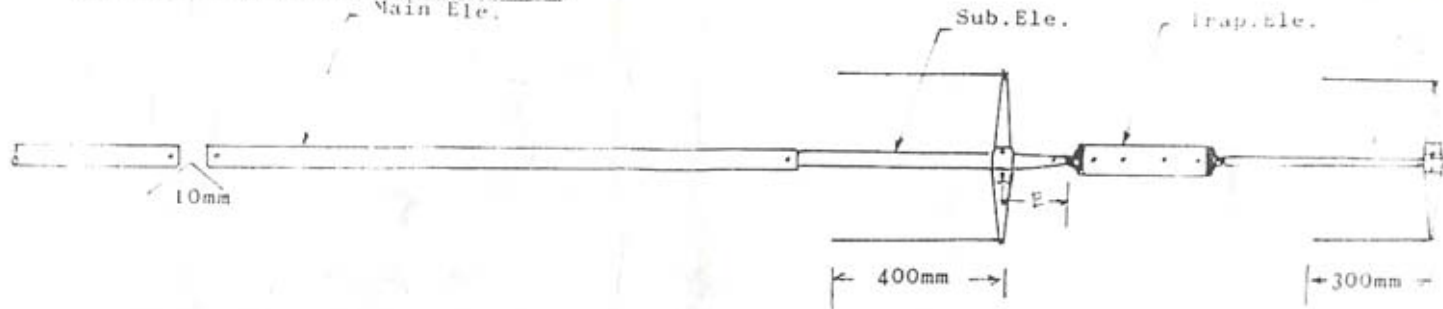


Unit:mm

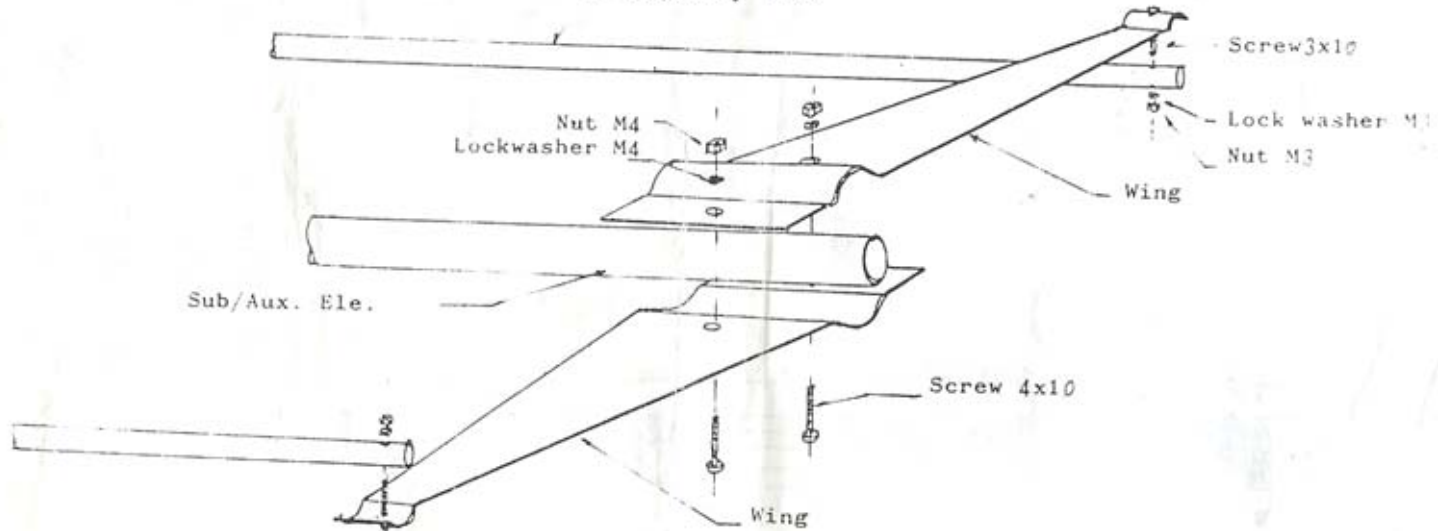
	M	S	T	E	E
D-1	1500	500	610	-	-
Ra	1500	500	535	285	285
Ref	1500	500	570	25	25

Fig. 1 Element Assembly

Radiator & Reflector Element Ass'y
Main Ele.



Capacity Ele.



Director Element Ass'y

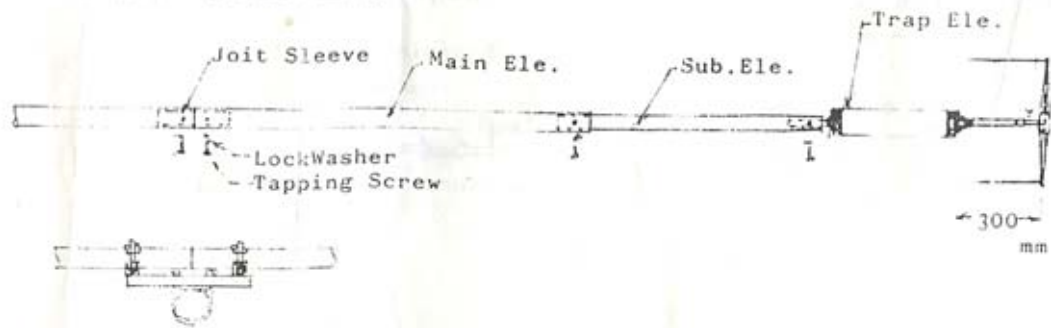


Fig.3 Feeding System & Element Clamp

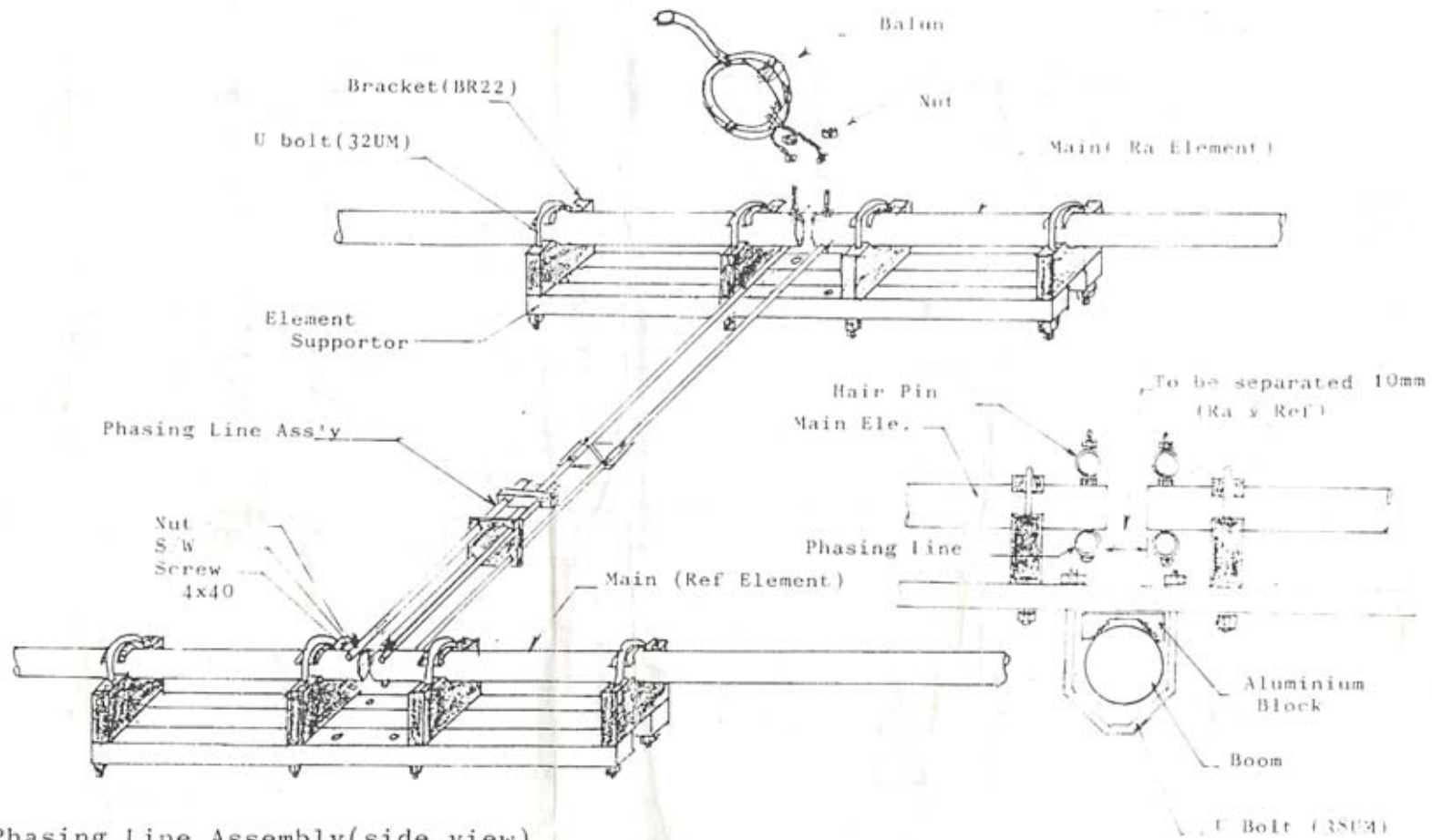


Fig.4 Phasing Line Assembly (side view)

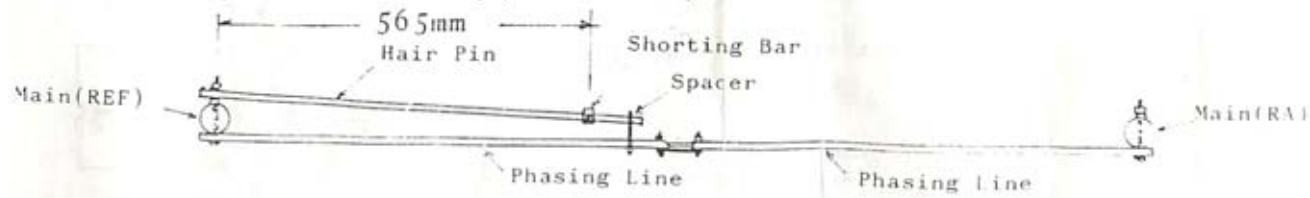
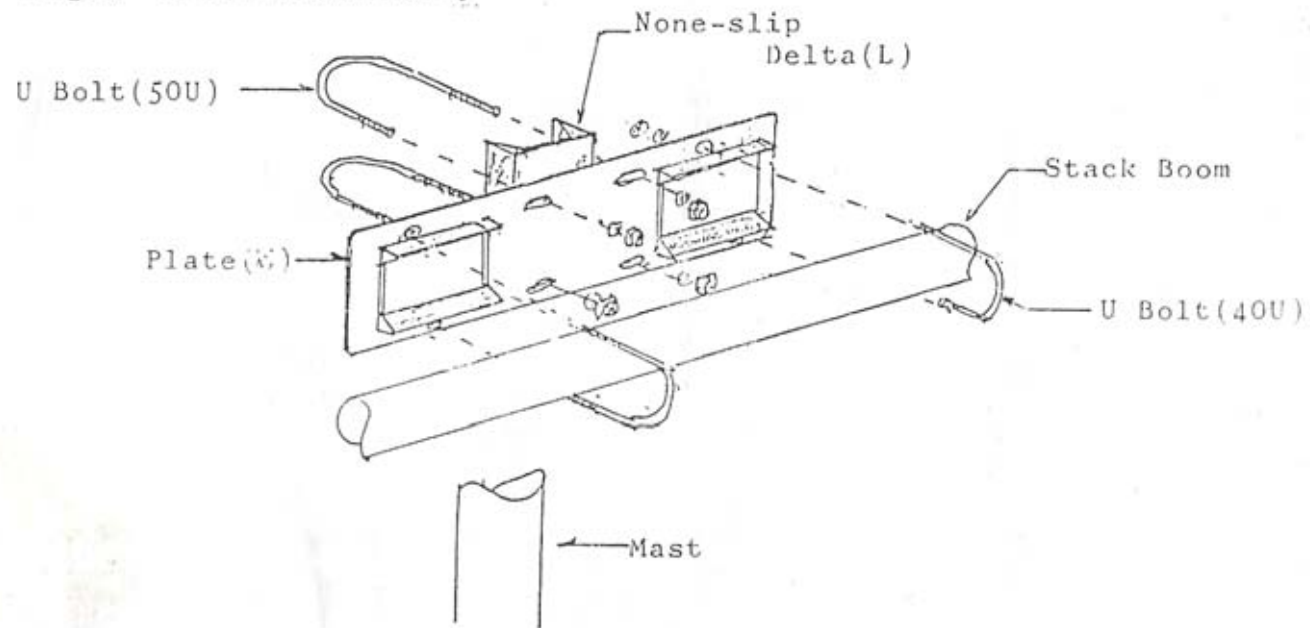


Fig.5 Cross Mount Ass'y



1. BOOM ASSEMBLY

- 1.1 The boom consists of two sections 1000mm long tubing and 2000mm long tubing.
- 1.2 Insert the sleeve into the end of one boom section. Align the drilled holes and secure with tapping screws and lockwashers.
- 1.3 The completed boom is 3000mm long with a cap on each end.

2. ASSEMBLY OF ELEMENTS

- 2.1 Identify parts for three elements. All are identified as D-1, Ra or Ref. Refer to figure 1 for element length. (All sub element are same size)
- 2.2 Refer to figure 2 for radiator and reflector element assembly detail. Refer to figure 2 for director element assembly.
- 2.3 Two sections of 15mm aluminium square stock 400mm long are used for each driven element clamp assembly (Ra and Ref). Four insulating bracket BR-22 are mounted to the square stock with U bolts 32UM Nuts and washers. Two U bolts 38UM are installed at the center of each bracket from the underside. The finished bracket will consist of two sections of square stock, 4 element support clamps and 2 element to boom U bolts.

In a similar manner assemble the D-1 element bracket using the 200mm long square stock and two BR-22 insulating brackets.

- 2.4 Insert main element Ra sections trough the bracket BR-22. Separate the main elements mutually 10mm distance at center as shown figure 3.
- 2.5 Join the main element and sub element by inserting the sub element into the main element. Refer to Fig.2
Secure with tapping screws and lockwashers.

2.6

Insert the trapped coil element into the sub element and secure with tapping screw and lockwasher.

- 2.7 Repeat steps 2.4 through 2.6 for element Ref.
- 2.8 Insert the sleeve (19x200mm) into the end to main element section D-1 and align the drilled holes and secure with tapping hard wares.
- 2.9 Slide the small boom to element bracket over the main element and position the bracket in the center of sleeve section.

- 2.10 Assemble the remaining D-1 element sections according to step 2.5 and 2.0.
- 2.11 Position all elements on their brackets so that the drain holes on the trap assemblies are facing downward.
- 2.12 Assemble the 400mm long capacity element to the wing and attach them to the sub element on the position shown fig.1-E- (refer to fig.2)
- 2.13 Assemble the 300mm long capacity element to the wing and attach them to the coil element

3. ELEMENT INSTALLATION

- 3.1 Attach elements D-1, Ra and Ref to the boom in the positions on shown figure 1. Each element is secured with two U bolts 38UM, nuts and washers. Before tightening the assembly to the boom, slide in small aluminium block between the boom and bracket.
- 3.2 Mount the phasing line assembly to the underside of main element Ra and Ref and after securing by screws and nut/lockwashers, mount the hair pin assembly to the upperside of main element.
Secure with nut and lock washer. (refer to Fig.3)
Position of shorting bar of hair pin assembly is 565mm from Ref main element.
- 3.3 Attach the terminals of Balun to element Ra screws together with phasing line.
- 3.4 Tighten all bracket hardwares being to observe element alignment.

4. BOOM TO MAST BRACKET INSTALLATION

- 4.1 Refer to figure 5. for assembly detail
- 4.2 Suitable mast is 50mm diameter.