

**TEL ANTENNA
SYSTEMS[®]**

TANIGUCHI ENGINEERING TRADERS
289-1, SHIMONAGAYA-CHO, KOHJAN-KU, YOKOHAMA 233
TELEX: 09822807 TELANT J. CABLE ADDRESS: TAIANT

1. BOOM ASSEMBLY
1.1 The boom is

1500mm long tubing

2. ASSEMBLY OF ELEMENTS

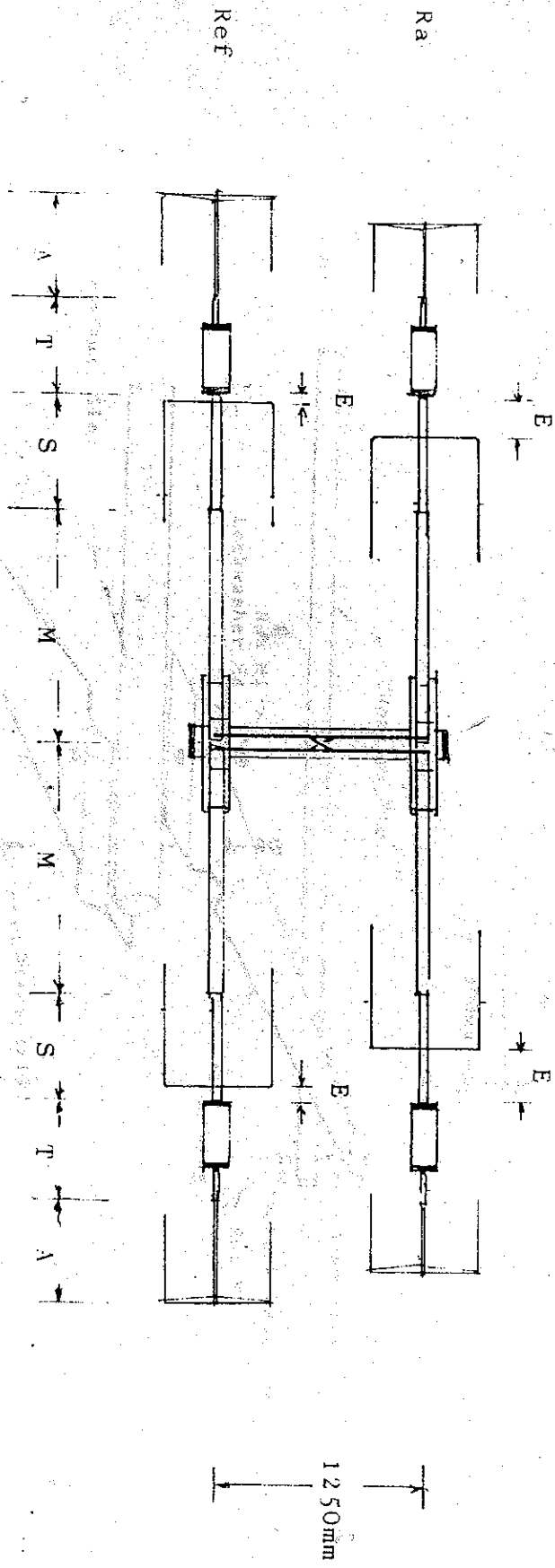
- 2.1 Identify parts for three elements. All are identified as , Ra or Ref. Refer to Figure 1 for element length. (All sub element are same size)
- 2.2 Refer to Figure 2 for radiator and reflector element assembly detail. Refer to figure 2 for director element assembly.
- 2.3 Two sections of 15mm aluminium 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.
- 2.4 Insert main element Ra sections through 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 Aux. element into the end of trapped coil element and secure with tapping screw and lockwasher. Now 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 Slide the small boom to element bracket over the main element and position the bracket in the center of sleeve section.

- 2.9 Position all elements on their brackets so that the drain holes on the trap assemblies are facing downward.
- 2.10 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)
- 2.11 Assemble the 300mm long capacity element to the wing and attach them to the aux. element

3. ELEMENT INSTALLATION

- 3.1 Attach elements 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.

Fig. 1



Unit:mm

	M	S	T	A (PH	CW)	E
Ra	1500	500	430	65/90		285
Ref	1500	500	430	130/180		25

Fig. 2 Element Assembly

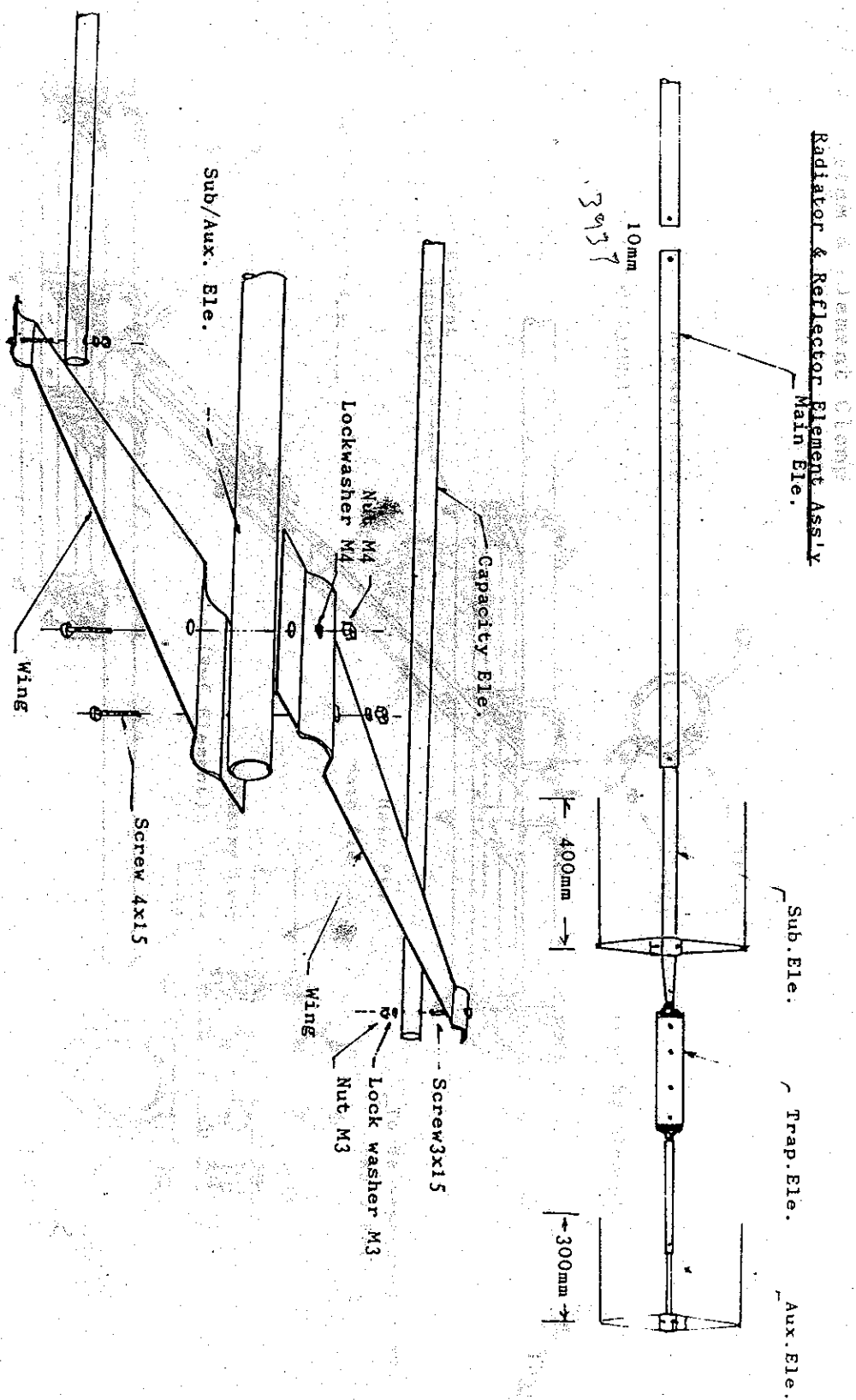


Fig. 3 Feeding System & Element Clamp

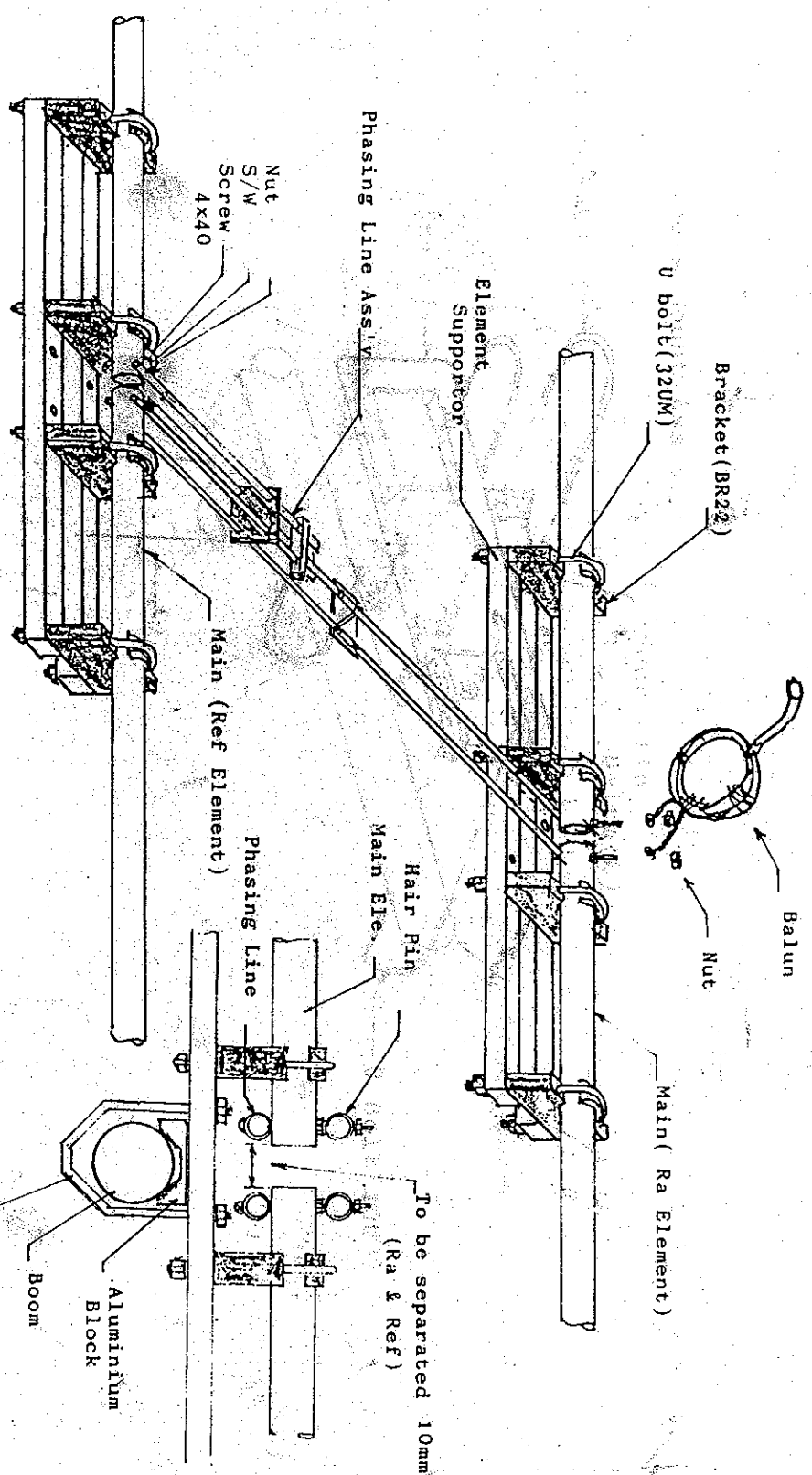


Fig. 4 Phasing Line Assembly (side view)

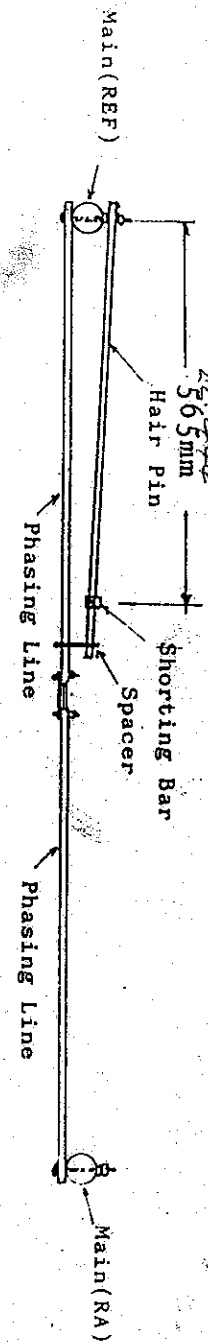


Fig. 5 Cross Mount Ass'y

