roller assembly and stands)

d) Alignment of the machine with the pipeline and string

e) Ability of the clamp to hold pipe square to each other

f) Alignment of the trimmer to be square to the pipe

g) Ability of the pipes to be squared for welding

h) Heating cycle times, temperature profiles, cooling times, clamping pressures, bead sizes, shapes and dimensions, docking times

i) Tolerances for dimensional matching of cut, trimmed and prepared ends of pipes before fusion

j) Heating plate cleaning schedules and check list

k) Pre and post welding task list to include at least the following geometric alignment, surface cleanliness, limits of atmospheric conditions, temperature settings, testing of welds

4. Provide schedules with frequency for disposable dummy welds at start-up and during butt welding.

5. Maintain records of rejected materials, failures in welded joints and of breakdowns and defects. Record action taken.

6. Provide plan for welding inside trenches and where make-up pieces are required in the vicinity of valve chambers manholes, thrust blocks and joining of placed stringers to ends of other pipelines.

7. Machines, roller, feed assembly and other associated equipment shall be securely fixed. There shall be no movement, slippage or settlement of the machinery during the fusion process.

8. Provide details for enlarging trenches and positioning machinery where applicable.

9. Machine must be equipped with automatic controls, fully or partially computer controlled and fitted with data printout facility and have a facility for storing data for retrieval at a future date.

10. Ensure that trimmed and cleaned ends are free of dust, ridges swarf and misalignment. Provide details of cleaning fluid to be used for cleaning surface of showed ends.

11. When pressed into contact, fusion planes shall not exceed the following