T-4

TRIP REPORT NO. 1

Report by: S. T. Jutila February 14, 1955

Contact Made: Lancaster Lens Company
Lancaster, Ohio

Persons Contacted: W. Greenlee, Manager
E. A. Work, Chief Engineer
R. D. Oldham, Production Engineer

G. E. Personnel: S. T. Jutila
L. E. Swedlund

Date of Contact: February 7, 1955

Purpose of Visit and Results

The purpose of the writer's contact was to determine whether a cylindrical glass plan for color PA cathode-ray tube could be made as indicated in Drawing W-69982-16A-185. Two methods were considered.

1) Pressing the pan and grinding edges.

2) Sagging the cylindrical surface and then forming the edges afterwards, then grinding the edges.

No defined conclusions were drawn, and the drawing was left to Mr. Greenlee for further study. Mr. Greenlee suggested a possibility whereby some plate glass company, such as Deerborn, could sag the cylindrical surface after which one could try to form the edges. Pressing a relatively thin glass pan may present serious problems.

The Lancaster Lens Company produces a wide variety of products, even in relatively small quantities. The choice of glass is not extremely limited. For these reasons one could have some possibilities of obtaining a fairly limited number of samples. Mr. Greenlee will inform us of any possibilities or impossibilities in regard to making samples and possible production of glass pans.

S. T. Jutila
Tricolor Design Engineering
CATHODE-RAY TUBE SUB-DEPT.

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TRIP REPORT NO. 2

Report by: S. T. Jutila February 14, 1955

Contact Made: Anchor Hocking Company
Lancaster, Ohio

Persons Contacted: Messrs. Wright, Vice President and General Manager
Charlton, Sales Manager
Miller, Plant Manager
Olgalvie, Plant Manager
Brenner, Glass Specialist

G. E. Personnel: S. T. Jutila
L. E. Swedlund

Date of Contact: February 7, 1955

Purpose of Visit and Results:

The purpose of contact was the same as in Trip Report No. 1. The glass pan may possibly be produced by pressing. However, the present design needed extra studying for possible changes in facilitating the manufacture. A flat glass pan would be easier to tool and produce than the cylindrical one, and thus may be more economical as such. The company would in interested in receiving a flat pan drawing for further study.

The Anchor Hocking Company is seemingly interested in a large-quantity production, and the choice of special glasses may well be limited to lime glass. This company specializes in fast, automatic quantity production.

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TRIP REPORT NO. 3

Report by: S. T. Jutila February 14, 1955

Contact Made: Lamp Division - General Electric
Nela Park - Cleveland, Ohio

Persons Contacted: Mr. Carlson, Production Manager
Mr. Ickes, Fluorescent Lamps
Mr. Schroeder, Fluorescent Lamps

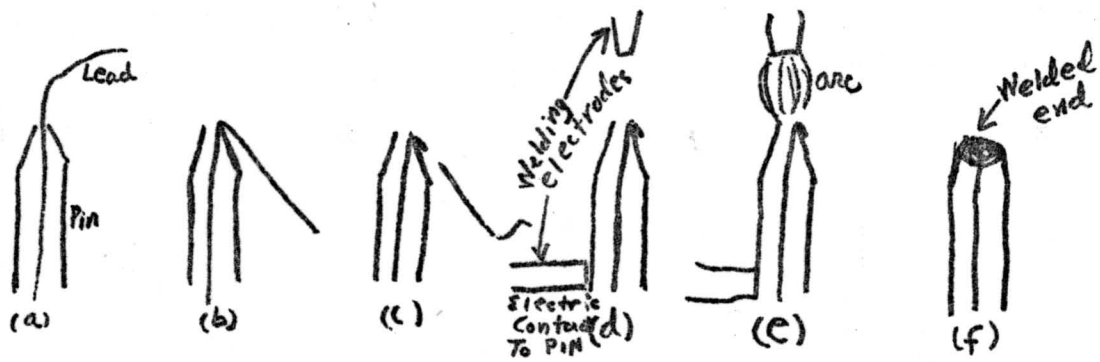
Syracuse G. E.: S. T. Jutila Date of Contact: February 7, 1955
L. E. Swedlund

Purpose of Contact and Results

The purpose of seeing receiver tubes and incandescent bulb envelopes in production was an educational one. Mr. Carlson explained how a high-speed ribbon machine operates. Here, a high production speed is combined with extremely stringent tolerance requirements on the products.

Mr. Schroeder took us on an educational and instructive tour around the fluorescent lamp plant. Among the many interesting items noted were frits that are color sensitive to temperature. Such frits are used to study temperature gradients on different surfaces subjected to relatively high temperatures: say, 300°C and up to 600°C - 700°C. A simple method is using sugar with some phosphor or other medium. The degree of carbonization will then be the index of temperature degree at a locality.

At present, the base pins are not soldered to the base leads, but are welded to these using a capacitor discharge welder. The stem wires are cut and torm at the edge of a tapered pin of the base. The wire is stuck to the edges, thus developing a good electrical contact with the tapered end edge of the pin, while excess wire extending outside the pin is cut off. Then an arc is produced by contacting pin and an electrode to the capacitor. The discharge depends upon the capacitance and voltage across it. Thus, the discharge is very uniform from pin to pin. The resulting weld is very smooth and finish the ends of pins very nicely.



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