

(ii)

SUMMARY

It was found that at present grinding rate of 350 tch, juico heater, mud filter, evaporator, boiling pan and "A" and "B" centrifugal capacities are insufficient, while clarifier capacity is sufficient depending on the quality of screened juice.

Two ways of increasing factory sucrose extraction from the cane stalk were discussed. One depends on controlling mill speed to match grinding rate for optimum sucrose extraction. In the other case there is a change from milling tandem to the Hi-Extractor Process. In the first case it is believed that sucrose extraction could be increased to 96-97%, while in the second case an increase of 96-98+% is already realised. It was also shown that electric motors are better suited than steam turbines for mill drives.

Improvements in the cane preparation system were suggested to prevent cane knife choking, down-time and to improve cane feeding to mills. The intermediate carrier was controlled by cane knife torque and intermediate and main carriers were synchronised in both tandems. It was also suggested that the autoclave MK111 unit be replaced by an electric motor with dynaspede coupling in tandem No.1

Preservation of sucrose during cane juice processing was discussed with respect to liming and clarification. A juice flow control method was suggested to lighten the load on the automatic equipment and produce a more continuous process.

Automatic control of boiler air/fuel ratio and steam pressure,

(iii)

ABBREVIATIONS

were discussed. It was also shown that by proper combustion of bagasse in boilers quite a handsome revenue can be made, in the near future, with the introduction of the Particle Board Industry. It was shown that revenue can be increased by reducing moisture in bagasse from mills and by power factor correction of factory's electrical load.

It was shown that with the use of a digital computer factory profits can be optimised, and that the best use of a computer in the factory is direct-on-line control.

)) ((

id	induced draught
ihp	indicated horse power
I.S.J.	International Sugar Journal
p	proportional
PD	proportional-derivative
PI	proportional-integral
PID	proportional-integral-derivative
p.s.i.g.	pounds per square inch gauge pressure
P.S.T.	Philippines Sugar Technologists
Q.S.S.C.T.	Queensland Society of Sugar Cane Technologists
S.A.S.T.A.	South African Sugar Technologists Association
shp	specific horse power
ton	tons cane per day
th	tons cane per hour (sometimes used with reference to grinding rate)