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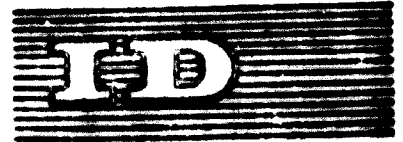
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**Regional Seminar on Machine Tools
for Countries in Latin America**

**Buenos Aires, Argentina
16 to 25 October 1972**

**Sao Paulo, Brazil
26 to 27 October 1972**

**REPORT ON THE MACHINE TOOL INDUSTRY
IN COLOMBIA**

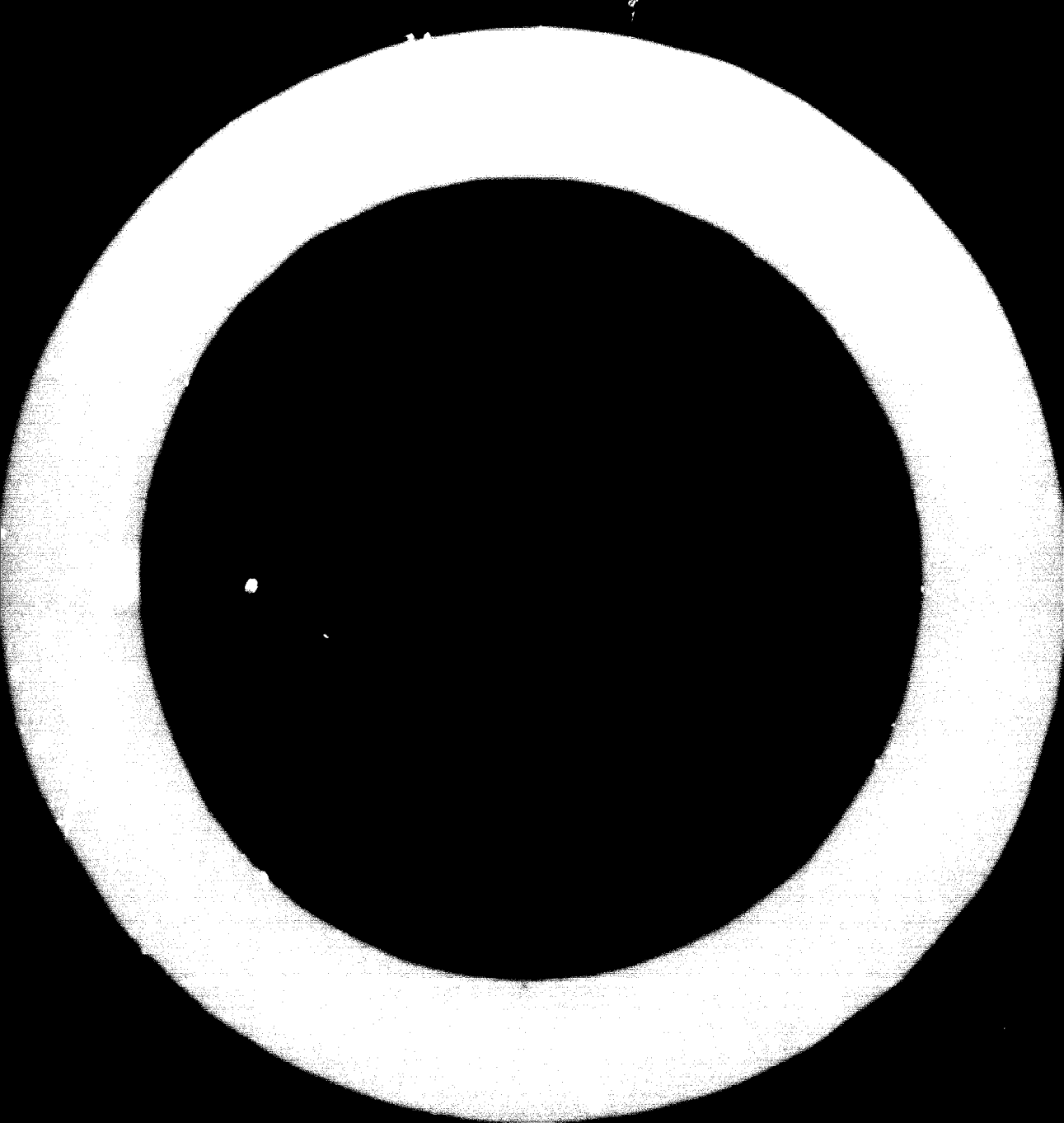
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Having had occasion at international exhibitions in the region to see a very wide range of machinery and components manufactured in particular in Argentina, Brazil and Chile, I am of the opinion that the Colombian machine tool manufacturing industry is one of the most limited in Latin America.

The urgent necessity, especially recently, for our country to obtain foreign exchange to offset the low price of and limited demand for coffee has led industrialists, with the encouragement of government regulations, to produce items aimed at replacing imports and boosting exports, in almost every instance using imported industrial machinery and machine tools. There are very few machine tools manufacturers in Colombia itself; broadly speaking, the only enterprises of any importance engaged in this type of production are the following:

<u>Name of enterprise</u>	<u>Machines produced</u>
<u>Fransco Hoos. A. Cia.</u> <u>Bogotá</u>	Electric shearing machines for sheet metal, 96" x 1/8"; Foot shears for sheet metal, capacity: 96" x 1/8"; Foot shears for sheet metal, capacity: 4" x 1/16"; Arbor and bench drills up to 1 1/2".

Wood turning machines, a complete range of woodworking machines, including planers, finishers, tonguing and grooving machines, wood moulding machines, saws, etc., all of which are motorized, of medium capacity and good quality, and are ideal for carpentry shops, the manufacture of furniture, doors, etc., where the scale of production is small, since the machines are individually operated and intended for general work.

<u>Zuñiga,</u> <u>Sucremanga</u>	Engine lathes, up to 1,500 mm between centres and total swing over bed of 370 mm.
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These machines operate with oil bath and have rapid-change gear boxes and feed and screw-cutting boxes, also with oil bath, for a large number of different screws.

Universal milling machines of simple manufacture with feed regulated by pulleys of various diameters;

Column and bench drills with a capacity of from 1/4" to 1 1/2", well manufactured, with gears and power feed;

Compass saws, mechanized, with a capacity of up to 1 1/2" diameter and power feed;

Horizontal shapers, with 16" stroke, graduated revolving press and four horizontal and vertical power feeds.

This firm also manufactures some agricultural machinery and cement mixers. Recently, it has been orienting its production towards automobile parts.

Proinsa,
Medellin

This firm is the best Colombian manufacturer of machine tools, especially lathes and milling machines. Owing to the precision of the machinery it produces, it shows very successfully at Latin American exhibitions.

However, its sales are very limited owing to its high prices, which in turn are the result of the extremely high cost of raw material and highly specialized labour.

Zuval,
Pereira

This is an enterprise with mixed Spanish/Colombian capital specializing in the manufacture of machine tools, in particular lathes, which it is for the time being assembling, since most of the parts are manufactured in Spain, with a very small proportion of Colombian input. As it has not long been established, its production is very small.

In Colombia, there is no manufacturer producing automatic production machine tools with operating cycles programmed by hydraulic circuits, etc. The very few manufacturers devote themselves entirely to basic machinery for general work.

The large factories producing finished products have fairly complete repair and maintenance workshops using imported machine tools.

It should be pointed out that our government regulations do not give any special incentive to manufacturers of machine tools, and these manufacturers must pay the same customs duties, etc. on the raw materials and mechanical appliances which they are obliged to import as the importers of complete machine tools.

Returning to Proinsa, the machinery produced has good precision and sturdiness. Owing to the low degree of mechanization in the shops in which it is manufactured, production is very limited, with resulting high costs, and users therefore prefer to import their machinery.

It should further be pointed out that, since the machine tool industry is in its initial stages, industrialists do not have the necessary confidence and prefer to import, although the Government is taking measures to limit the import of machine tools which are also produced locally.

Present machine tool inventory

The Colombian Metallurgical Federation (Fedemetal) is submitting a request to the United Nations for an inventory of existing machine tools in Colombia and their present condition. This inventory will require approximately three months, once United Nations approval for providing the indispensable technical assistance has been obtained. At present, there are no statistics giving an idea of the inventory of machine tools.

In general, all the machine tools used in particular for maintenance and small-scale production of individual parts are imported. Colombian production is so very small that it deserves no special mention.

In the context of Andean group planning, the Board of the Cartagena Agreement, in proposal No. 26 of 18 May 1972, submitted proposals for the country-by-country assignment of the production of specified machine tools for the consideration of the member countries of the sub-regional agreement. The machine tool categories proposed for Colombia are:

Forging machines, and
Surface finishing machines.

Within these two groups, to which - apart from the necessary auxiliary machinery of a general character - Colombian machine tool production will be limited, it will be necessary to specialize, orienting manufacture towards these two lines of production, since all the other various machine tools have been assigned to other countries of the sub-region.

However, since the range of forging machines, and also of surface finishing machines, comprising all sorts of machinery and equipment for grinding with abrasives, which necessarily require a high degree of precision, is so broad, our country will have great scope for manufacturing an almost unlimited variety of machinery of this type and supplying to the other countries of the group on an exclusive basis.

Under the terms of proposal No. 26, the manufacture of other types of machine tools in Colombia will be granted no incentive by the Government, nor will these products be exported to the countries of the group, since they will be included in the common list. Consequently, all the experience of industrialists manufacturing machine tools will have to be channelled into the manufacture of those proposed for Colombia.

Technical Assistance

Since the categories of machine tools proposed for Colombia include high-precision machinery requiring specialized manufacturing processes, substantial technical assistance from abroad will be necessary, as will the establishment, if possible, of enterprises with mixed domestic and foreign capital, making possible the local utilization of patented systems, and thereby taking advantage of the experience of foreign manufacturers.

Depending on the volume of the machine tool market of the Latin American group countries which Colombia is to supply, it might be necessary to import digital control machinery for the automated manufacture of some of the parts used in producing the machine tools proposed for Colombia by the Board of the Cartagena Agreement.



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