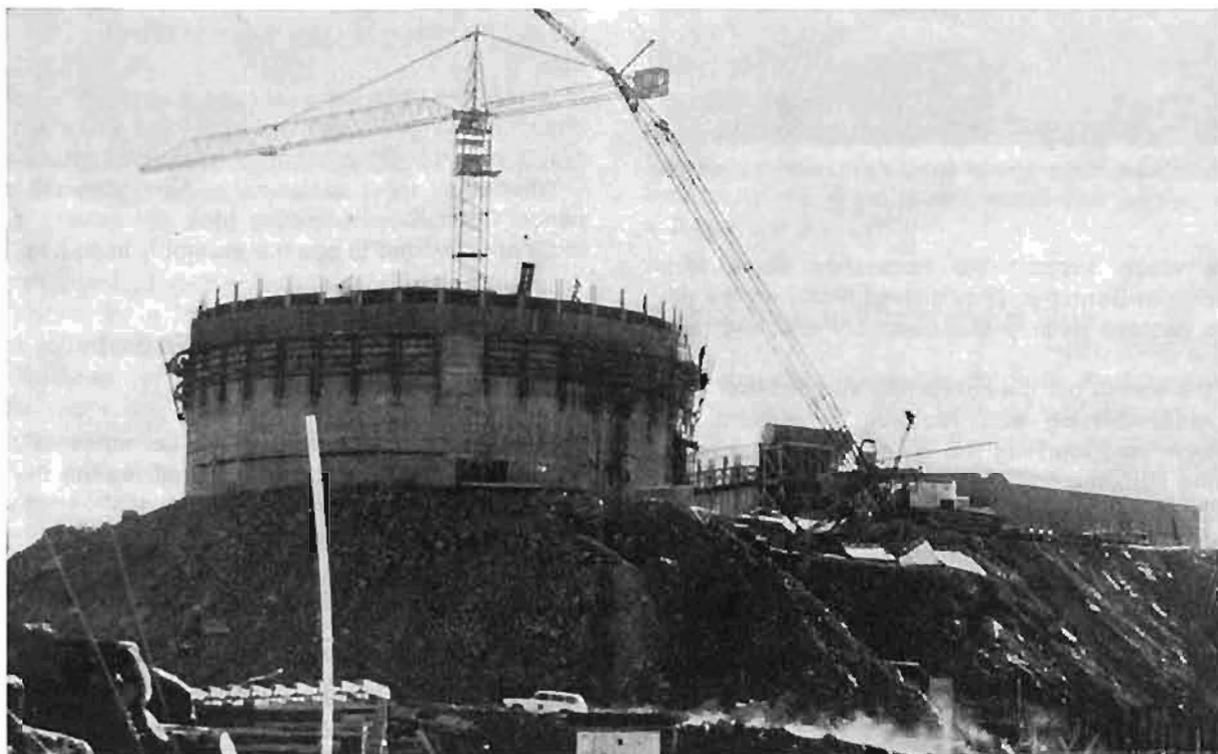


## Second Users Meeting

The ESO Second Users Meeting was held on August 30, 1974, at CERN, Geneva, where visiting astronomers from all ESO member states were invited to provide the Directorate of ESO and the Observing Programmes Committee with suggestions for astronomical and administrative improvements. Thirteen astronomers together with eight ESO officials from Hamburg and

Santiago, five from the ESO TP Division and five members of the Observing Programmes Committee attended the meeting. After the introduction by the Director-General, Prof. A. Blaauw, who acted as Chairman, Prof. Westerlund gave a brief review of the status of the ESO telescope park and auxiliary instrumentation. The Chairman of the Observing Programmes Committee, Prof. Ledoux, reported on the activities of the Committee and the Leader of the TP Division, Dr. S. Laustsen, on the status of the 3.6 m telescope project.



## Avanti for the Telescope Building

Started in June 1973, the construction programme of the ESO TP Division is running smoothly and almost on time.

The concrete work on the 3.6 m telescope building was finished at the end of January this year. The Dutch firm, Interbeton, has poured in 3000 m<sup>3</sup> of concrete and placed in position 350 tons reinforcing material in 18 months. The biggest job was pouring the big concrete slab which will support the telescope itself and the two large coudé laboratories: the 250 m<sup>3</sup> of concrete poured in two days (September 5 and 6) exceeded the normal European production. From January, 1975, further contractors will be arriving on La Silla: Krupp, in charge of the dome construction and erection (350 tons of steel), and Sulzer Bros. in charge of the air conditioning system. At the end of 1975, the building should be ready for the installation of the telescope.

At the same time, the Danish 1.5 m telescope building is rising close to the GPO (Grand Prisme Objectif). Its concrete structure was finished at the end of 1974 and the plastic dome erection started early this year. The control system is currently being constructed and assembled in Geneva.

At present, six people from ESO/TP (La Silla) are supervising 160 workers on the mountain. The difficulties of the first months have been forgotten and everybody is working ahead towards the inauguration of ESO's giant telescope.

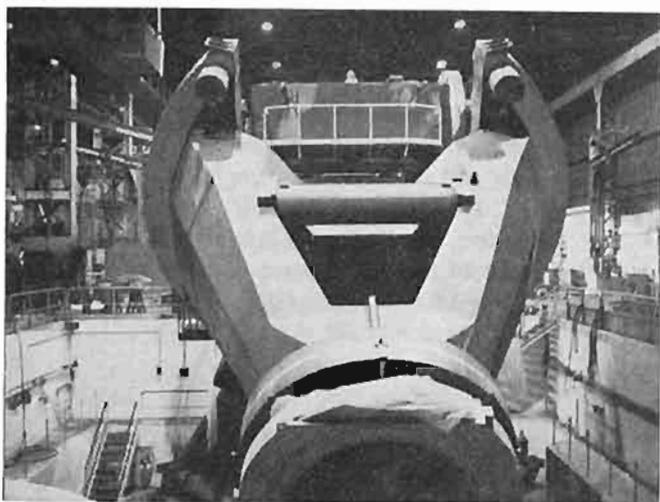
E. L.

## Assembly of 3.6 m Telescope Nears Completion

The assembly for the large telescope was started in the autumn of 1974 at the factory of Creusot-Loire in Saint-Chamond, near Lyons, France. Before that time the firm had increased the depth of the big assembly hole in order to house the full size of the telescope under the roof. The crane there is powerful enough to handle the big pieces, but does not reach high enough for the final erection of the tube.

After the test of the individual pieces of the structure, the assembly phase was started by putting the pedestal into the assembly hole. This hole is so deep that the whole pedestal disappeared beneath floor level.

From Allerups in Denmark come the handling devices for the erection of the telescope. These pieces have been used to place the polar axis in position. The



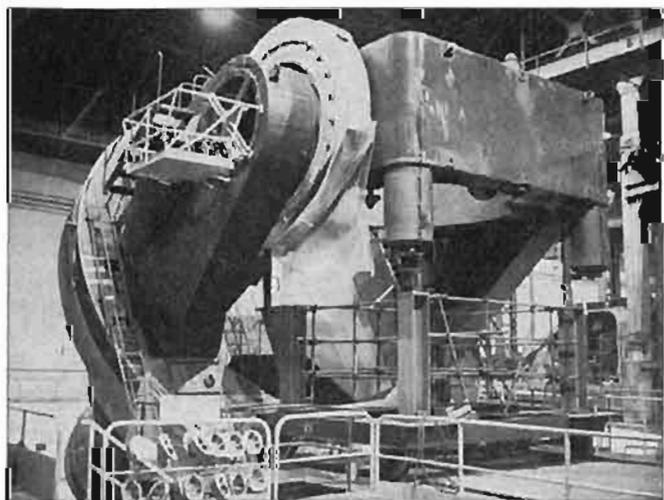
The polar axls (northern end in foreground) mounted on the pedestal.

oil pads which support the horseshoe come from Kugelfischer in Germany. They arrived finally on the day when we decided to stop the assembly until the pads arrived.

A big job was to put the horseshoe into position. Very careful manoeuvring was required to prevent this heavy piece from touching the oil pads and damaging the bearing surfaces.

Rexroth in Germany delivered and connected the oil-pumping station for the supply of the pads. This system went into operation in the middle of December, 1974. It was the first time that the horseshoe with its 9 m diameter was turned on an oil film of about 0.1 mm thickness. The precision of the horseshoe surface is so good that there was no metal contact.

MAAG in Switzerland produced the two main gears for this telescope. The big gear wheels of 3.5 m diameter have 720 teeth which differ not more than 0.005 mm from each other. Both gears came up to the required performance of the MAAG factory and were then shipped to the assembly place at Creusot. The gear wheels were mounted in the beginning of January 1975 onto the telescope, and the polar drive will be completely assembled at the end of the month.



The horseshoe with the fork prongs and the lower part of the telescope.

The two forks and the centre-piece went into position in the beginning of January. Next step is to get the hydrostatic declination bearings into operation. There is a good chance that the main assembly will be finished by the end of February, 1975.

In this phase, there are still a number of subassemblies at the Creusot-Loire and the Bouvier plants in France. These will be mounted as complete units onto the telescope. For one month the Cassegrain cage was in Geneva for testing and it has now been shipped to Creusot-Loire. The cabling of the telescope is still a big job that remains. A start has been made by installing the cables into the cable twist at the end of the polar axis.

Good progress was made during this assembly phase and we have been lucky so far to encounter only a very few small design and machining errors.

When they meet at Lyons in April, Council and Finance Committee members plan to make a side-trip to Saint-Chamond to see the assembly in its final stages.

## Flash: La Silla Celebrates End of Concreting!

With all this work, there have to be moments of celebration too. Our local correspondent reports the festivities held on February 14 to mark the completion of concrete work on the telescope building:

The first stage in the construction of the imposing and majestic building to be erected at a cost of Sw. fr. 13 million for the giant telescope on La Silla was inaugurated by the executive of ESO. Arriving for the ceremony were the Director-General of ESO, Prof. L. Woltjer, also two ministers of state (Foreign Minister Patricio Carvajal and Finance Minister Jorge Cauas), diplomatic representatives of most of the ESO member states and various local notabilities. Many had made the Santiago-La Serena trip by chartered plane.

On the evening of their arrival, February 13, a dinner was held at the Hotel de Turismo, La Serena, followed by a folklore performance.

Next morning, the group went by bus to La Silla and, after lunch, was given a tour of the installations. The contract documents were formally signed by Dr. S. Laustsen, Leader of the ESO Telescope Project Division, and Mr. J. Schoenmaeckers, on behalf of Interbeton/Chile, the contractors.

The return flight La Serena-Santiago was made the same evening.

## Cassegrain Cage Goes Off on Two Trucks

In the second week of January, the Cassegrain cage for the 3.6 m telescope was taken on two trucks from the TP Division to the Creusot-Loire plant at Saint-Chamond to be included in the forthcoming assembly of the big telescope there.

An astronomer will sit in this cage with a battery of instruments which are used mainly for photography, photometry and spectroscopy. The Cassegrain cage is a lightweight steel structure. Its outside dimensions are prescribed by the horseshoe, which has to be passed freely when the tube rotates about the declination axis.

A chair can be placed in a great number of locations on the floor. Positioning of the chair from one place to the other can also be effected easily in the dark.