

Handling Air Cargoes

Saving Time on the Ground is the Basic Requirement : Some of the Problems Involved : Special Equipment

By N. D. RYDER

A VERY important phase of the business of transporting goods by air is the actual handling of air cargoes—the job of getting them into and out of the aircraft, the stowage, and the anchorage during flight.

The cargo-handling problem, like many others, is necessarily approached with the fact in mind that speed is the first consideration. This was stressed in an article by M. B. Crawford, chief equipment engineer for United Airlines, in the April issue of our associate journal, *Mechanical Handling*: "Time is what we are selling," is how he put it, and this saving of time *on the ground* is the controlling factor in designing containers which can be moved easily and quickly, and such equipment as belt loaders, cranes, chutes, and other impedimenta with which to move them.

Variety in the design and dimensions of aircraft add to the complexity, and the problems are apt to be further complicated from the time-saving angle in the case of aircraft which carry both freight and passengers because there is generally less elbow room in which to handle the cargo than in an out-and-out freighter, while at the same time the passenger (who is also paying for speed) resents being

Obviously, then, aircraft designed from the start primarily for cargo work present fewer handling problems than such otherwise excellent types as the DC-3 which was evolved with passenger-carrying foremost in view. It is now generally agreed that the maximum ease of handling goods is provided by a high-wing type permitting a low loading platform with front or rear doors such as the Miles Aerovan, Bristol Freighter or Fairchild Packet. A tricycle undercarriage is an added advantage in that it results in a level floor when at rest, though the Freighter's floor, with conventional undercarriage, has a slope of only a few degrees, which should offer no handicap in practice.

Such types are always fitted with entrances of maximum size, and often have some kind of built-in ramp which can be



delayed on the ground while items of freight are being handled.

Imagine, for example, the business man who has booked a passage from A to B. The aircraft puts down at an intermediate point, and passengers joining or leaving her here will keep her on the ground for, perhaps, five minutes. If, however, this period is increased to, say, 20 minutes in order to unload one or more bulky and heavy items of cargo and take on, stow, and secure other freight, then the passenger will probably feel that he is not getting the full benefit of the extra speed for which he has paid. This, of course, is not only an argument in favour of special equipment for quick cargo handling; it is an even stronger argument in favour of all-passenger and all-freight aircraft, especially over comparatively short distances.

