

The Ford Motor Co. was relatively very much slower than had been expected in getting into production on the Consolidated B-24. On numerous occasions the committee checked the progress being made by the Ford Motor Co., not only with company officials but with Army and War Production Board officials, and insisted that additional action be taken to expedite production. The building of as huge and complicated a device as a B-24 airplane in large numbers presented many problems, and some delay had to be expected. The production line was set up similar to an automobile assembly line, despite the warnings of many experienced aircraftmen. From the standpoint of the time factor to reach reasonable production goals, this was probably a mistake, because the Ford Motor Co. had not had extensive prior experience in the airplane field and because, even in the automobile field, the assembly line technique was developed and applied over the years without an attempt to improvise it overnight in one single step.

This resulted in slower progress at the beginning, but should result in increased production at a later date, providing there are not too many modifications and changes. It is probable also that the Ford Motor Co. did not take full advantage of the opportunities to send production engineers, layout men and production supervisors, as distinct from designing engineers, to the Consolidated plant at San Diego to find out how the specific work to be done by them was being accomplished at San Diego.

The production problems of the Ford Motor Co. were further complicated by the changes in its contracts and schedules. Originally, it was expected only to produce knock-down subassemblies for final assembly by Consolidated and Douglas at Fort Worth, Tex., and Tulsa, Okla., respectively. This was changed, at the suggestion of the Ford Motor Co., to provide for final assembly of part of the planes by the Ford Motor Co. Still later the entire program was substantially increased.

The Ford Motor Co. was also hampered by the fact that several hundred modifications were ordered to be installed in the plane and that there necessarily was a time lag between the time when such modifications were being discussed and developed by the Army and Consolidated Co. and the time when the actual detailed blueprint specifications reached the Ford Motor Co.

Additional difficulty was encountered because the plant was located before the scarcity of gasoline and tires made it difficult to obtain workmen in competition with other more centrally located plants.

These difficulties made it impossible for the Ford Motor Co. to program its work so as to obtain maximum efficiency from the workers employed, and necessarily resulted in a considerable amount of waste and confusion.

The Ford Motor Co. was not able to furnish parts which it had contracted to furnish for assembly by the Douglas Aircraft and Consolidated Aircraft Companies at plants specially built in Tulsa, Okla., and Fort Worth, Tex., respectively. As a result, the Army was compelled to switch the Tulsa plant to other work, and the Consolidated plant at Fort Worth has proceeded far behind schedule.

Until recent months, the Ford Motor Co. had not produced at Willow Run a plane which was capable of use at the front. The planes produced were used for training. The reason for this was

that in order to get the plant into production and to permit the company to obtain the experience therefrom that would enable the plant to operate efficiently, the Army Air Forces temporarily "froze" the model and permitted production without the incorporation of modifications considered essential for use at the fighting fronts.

The committee has been informed, however, that recently great progress has been made by the Ford Motor Co. at the Willow Run plant, and that it is now producing in substantial numbers planes which, with the average amount of modification, can be used effectively at the fighting fronts. This has been achieved, in part at least, by the subcontracting to other plants of the Ford Motor Co. of portions of the work which originally had been expected to be done at the Willow Run plant. A few parts are also being made or assembled by other firms in the Detroit area. The committee hopes that progress will continue to be made.

Two-engine Army bombers.

The B-25, produced by the North American Co., popularly known as the Mitchell, has proved to be a valuable plane, and the rate of production is very substantial.

The B-26, produced by the Glenn L. Martin Co., popularly known as the Marauder, has had many difficulties. It has high performance both in speed and in load-carrying capacity, and, according to most reports, is an exceptionally fine plane in the air. However, the plane is unsafe when operated by any pilots except those specially trained for its operation, because of unusual difficulties in landing and take-off. It has had a higher accident rate than the B-25, produced by the North American Co., the Army's other plane of comparable size and performance. As a fighting airplane, most pilots who know it like it, and improvements have been made on it. It has accomplished many important missions. However, the difficulties with the plane and the high cost of production and maintenance are such that the Army plans to taper off its production and to use the Martin facilities in Baltimore, Md., and Omaha, Nebr., to produce other types of planes.

In the two-engine light bomber class, the Army has the Douglas A-20, popularly known as the Havoc, the Douglas A-26, and the Martin A-30.

The Douglas Havoc is one of the best-liked planes that has been built in this country. It has performed a large number of tasks, including night fighting, low-level bombing, and strafing. Production has been very substantial. The Douglas A-26 is an improved version of the Havoc.

The Martin A-30 is a less satisfactory but usable plane which has been in production since early in the program. It was originally built for the British and French.

One-engine dive and attack bombers.

The Army has the Douglas A-24, popularly known as the Dauntless, the Curtiss A-25, the Army's version of the Helldiver, the Vultee A-35, popularly known as the Vengeance, and the North American A-36.

The Army has concluded that it will have little need for additional dive bombers for the reason that dive bombers cannot be operated unless there is a clear air superiority and then, only when the ground forces are not adequately equipped with antiaircraft equipment.