

vides a given piece of work among more people. Its primary purpose, however, was to enable an unskilled worker, man or woman, to learn one job quickly. Foreseeing a shortage of skilled labor, Martin prepared for the emergency. Today about 25 percent of the workers in the B-26 plant are women, most of whom never worked in a factory before.

Also looking ahead, Martin has made more and more contracts with other companies for parts for the B-26, until now more than 30 percent of all the parts are subcontracted. Among these are two Martin innovations which have become standard equipment on all our bombers—the Mareng Cell self-sealing gas tank and the all-plastic transparent nose, such as every American bomber now has but which was considered radical three years ago. Certain other parts Martin manufactures in smaller factories of its own which it has been acquiring. In one of these plants it is producing powered gun turrets, another of Martin's babies, not only for its own Army and Navy bombers but for a large proportion of all American bombers.

TYPICAL OF MARTIN'S MACHINERY TIME-SAVERS is the stretch machine, an instrument which cuts down the time required for bending and forming certain parts of an airplane from four hours to only a few seconds. Other developments which have speeded up work on the *Marauder* are the use of spot welding and the use of the magnaflux and x-ray testing systems to detect imperfections in materials before any more manhours of work are wasted on an imperfect part. In addition, Martin has persuaded the metal companies to make them larger forgings. For instance, the *Marauder's* center wing spar chief member is forged all in one piece—the largest forging that the Aluminum Company had ever made until the *Marauder* came along.

If Martin is not turning out as many *Marauders* as it could, this is not because it is not geared to greater production but because, under the present setup, materials must be rationed.

Once a B-26 has made its way down the assembly line, it loses no time on its way to the front. The first stop is Hangar No. 1 at the Martin airport about a mile away. There it receives its two Curtiss four-bladed propellers and a number of other installations, after which a Martin test pilot gives it its first test on the ground. More tests follow in the air,

and more installations are made in Martin's two other hangars.

The plane then goes to the other side of the airport building where the Army takes over, putting it through a series of stiff acceptance flights and equipping it with its armament in the Army's own three hangars. When the last test has been passed, a ferry pilot of the ATC appears to fly it away, perhaps first to the Martin modification center at Omaha. Finally, equipped for the fogs of the Aleutians, the sands of North Africa or whatever climate it is destined for, it is off for action with the AAF.

"MARAUDERS" HAVE PROBABLY SEEN most service in the Southwest Pacific, both with our Air Forces and with the Australians.

So far the men who have flown the *Marauders*—all better-than-average pilots—have corroborated the Martin belief that a pilot would rather have a bomber that can fight than one that's easy to handle. Actually, the B-26 flies almost at pursuit speed—"about 350 mph." Its 180-degree turning circle is less than 550 yards. And its tricycle landing gear often allows it to operate from bases staked out for fighters. Since Henderson Field has been enlarged, B-26's have performed many missions from there and have been particularly active in hammering at Munda on New Georgia Island.

Other advantages of the *Marauder* are a range of more than 2,000 miles and a ceiling of more than 30,000 feet. One of its unique characteristics is that, because of its low power loading, it is little affected by increased loads. Moreover, since the *Marauder* was first designed, its armament has been greatly improved so that it is quite able to take care of itself in a fight. According to reports from MacArthur's headquarters, the firepower of the *Marauder* is more feared than that of many pursuits because, although the *Zeros* "can outrun the heavier Martin, they can't outgun it; and at lower altitudes they can't even outrun it." From nose to tail the current version bristles with firepower, which can be used with telling effect either offensively or defensively against enemy aircraft or for strafing of ground troops.

A good many B-26's have been equipped as torpedo-bombers to take the Japs by surprise. Their long range is particularly valuable for torpedo patrol in the Aleutians, where last fall they sank two destroyers in one patrol. One of the

most significant stories is that of how, single-handed, four torpedo-equipped *Marauders* attacked a Jap fleet in the battle of Midway, sinking two carriers with a loss of only two of the planes.

Even more spectacular is the story of how the planes got their torpedo racks. Before Midway the *Marauders* had been having trouble with their racks. Then word came that the Jap fleet was on its way east. Quickly it was decided to redesign the racks, using a new metal. Machinery, materials and designs were rushed to Detroit where completely new dies were prepared. The parts were made and assembled, and the racks flown out to the Pacific Coast and thence to Midway. Four days after the initial decision they were participating in the battle of Midway, their 18-inch torpedoes wreaking havoc among the Japs.

Since the opening of the African campaign *Marauders* have carried out a number of raids over Tunisia, dropping bombs on important airfields, docks, warehouses, railroad yards and oil storage tanks, and following up with effective strafing. After one such raid Major David M. Jones, the flight leader, reported:

"We sure plastered them, but never saw an enemy plane. We got some flak from the ground. We hit dock installations and started some good oil fires.

"We got good hits on the railroad tracks. Two or three of us went down as low as 25 to 50 feet machine gunning the yards, and saw a lot of damage. After we dropped all of our bombs there was nothing left to do but go down and shoot them up a bit."

The reports of the service men whom Martin sends to the fronts with its planes—tantalizingly short though they may be—testify to the *Marauder's* durability. Of the two bombers which returned from the attack at Midway, one had 500 bullet holes in it and the other had 300—but still they got back to their base. After another raid a B-26 flew 450 miles home on only one engine.

Although for some reason the dispatches often fail to mention our medium bombers by name, the *Marauders* are writing an extraordinary record for themselves. With their powerful engines, their streamlined design, their heavy bomb loads and killing firepower, they are performing the difficult tactics for which they were built with outstanding success. In the hands of veteran American and Australian pilots, they are doing the "impossible."