

Hans Henrici, Generalmajor.

The use of Italian industry in the  
service of German munitions production.

The long supply routes for German troops in Africa and Italy soon made it appear desirable that German munitions should be produced in Italy.

The preliminary conditions for this appeared very favorable, because there was a sufficient number of highly modern factories in Italy. These factories were very largely equipped with the best and most modern machines of German, American and Swiss origin. Some of the factories were in Upper Italy, others scattered about further south. If the larger part of the munitions necessary for the troops in Italy or Africa could be produced in Italy, it was estimated that a transportation distance of 700 to 1200 kilometers could be saved.

Another circumstance appeared particularly favorable to this production and its start. Whereas Germany had a tremendous lack of workers and especially of skilled workers, these were available in Italy in satisfactory numbers during nearly the whole war. In Germany there was a serious lack particularly of instructions and tool production. The available conditions for the production of German munitions therefore appeared to be most favorable, if the necessary willingness was present on both sides. It must be observed that these psychological conditions were not lacking anywhere.

If then - as we shall see - no success was achieved in producing German munitions in appreciable quantities there, there must have been special reasons for this result.

The most important reason is that Italy was dependent on deliveries from Germany for nearly all raw materials. Above all, Italy had to be provided with the raw materials for her own munitions production. A primary consideration was dependence on coal, which, as giver of power and heat, is necessary to every industry, but particularly to munitions works. Basic chemicals for powder and explosives were produced in insufficient quantities in Italy and had to be delivered by Germany. As example of these basic chemical products I would quote toluol, which is converted into trinitrotoluol by triple nitration, and can be regarded as the most common, standard explosive. For powder also, Italy was dependent on delivery of chemical ingredients such as highly concentrated nitric acid, and others.

This shows, in the chemical section of the munitions industry, how dependent Italy was with respect to raw materials. However, the same picture appeared in the mechanical section, when it was question of copper, brass, lead, nickel, molybdenum, chromium, wolfram or other substances. As an increase in deliveries of raw materials could only be made at the expense of Germany's own munitions production, it soon reached a natural limit. The considerations with respect to saving of transportation space and distance were also reversed by the realisation that, for Italian production, nearly everything had to be delivered from Germany. It was rightly concluded that the weight of, and space required for, the raw materials and coal to be transported would be greater than that needed for munitions produced in Germany. So the supply of munitions for the troops fighting in the south had really to come from the German homeland.



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In spite of this Italy rendered service to Germany for her munitions production by taking over the special production of certain munitions parts, and thus relieving German industry.



this connection may be mentioned the preparation of cartridge or shell cases and fuses, which were at times dangerous bottle-necks in German munitions industry. The preparation of artillery cartridge or shell cases in Germany was insufficient during nearly the whole war, because, in expectation of the wholesale return of used cases, the production of new ones had been put down to about 50 0/0 of the projectiles. This later proved to be a dangerous error, especially in connection with the long supply routes. The development of anti-tank and anti-aircraft weapons demanded ever more and ever longer cases, to contain the ever increasing amount of powder. German capacity for the production of long cases was, however, altogether inadequate. The machines were partly too weak, and partly inadequate as to stroke. Italy, however, possessed ample modern machines, which were not fully exploited.

Italy also compensated for shortages in production of fuses.

In conclusion it must be stated that the production of German munitions in Italy in appreciable quantities was not achieved, but Italy did make an effort to relieve bottle-necks in the preparation of certain munition parts.

Signed: Hans Henrici.  
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