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APPENDIX 'D' TO
MGC/P(48)16

MILITARY GOVERNORS' CONFERENCE

REPORT OF WORKING PARTY ON

MACHINE TOOL HOLDINGS

Terms of Reference

Review of Machine Tool Holdings.

i. FRENCH PAPER

The French delegation estimated that the level fixed for the German economy allowed a surplus for the Western Zones of between 300,000 and 400,000 machine tools. It considered that this surplus of machine tools would find more useful employment in those countries entitled to reparations or participating in the Marshall Plan, than in Germany where it was likely to remain unused for a long time.

The technical considerations on which the French thesis was based were submitted to the U.S. and British delegations. The essential points are set out in Appendix A attached.

ii. BRITISH COMMENT

1. The British representatives are unable to accept the French paper's calculations relating to the British Zone. Even approximate accuracy in such calculations is impossible and reconciliation and comparisons of various estimates is difficult since all calculations are based on hypothesis and even statistical records vary as to the definition of Machine Tools on which they are based.

2. So far as the British Zone is concerned the following summarizes the position:-

Present Holdings - based on census (usable metal working M/T)	668,000	
Removals effected or planned for Reparations and Restitutions	117,000	
Balance	551,000	
Holdings 1936	527,000	(Compared with French estimate 385,000)
Apparent surplus over 1936	24,000	

3. It should, however, be pointed out that some 150,000 of the present Holdings (668,000) are usable only after repair - for which the French calculations make no allowance.

4. It is noted that the French paper takes as one of the bases of calculation that production should be 116% of 1936. If this be applied to the British estimates, it would justify the retention in the British Zone of 611,000 Machine Tools (116% of 527,000) instead of 551,000.

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5. It is observed that the French estimate of Holdings necessary for the planned level of industry in the Western Zones is 700,000. The British estimate would put this at 800,000 of which something more than half would be in the British Zone. This difference is in part accounted for by the fact that the French paper assumes a "post-war" working factor of 75% as compared with a working factor of 65% in 1936 and thus comes to the conclusion that the same machine tool population as in 1936 can produce at 116% of the 1936 production level.

6. On the publication of the British Zone Reparations List in October 1947, the British Military Governor declared that apart from the prohibited industries, the list was final and that no individual machine tools other than those already requisitioned would be taken for reparations from plants not on the Reparations List.

iii. AMERICAN COMMENT

We have reviewed the "note on machine tools" and the additional statistical analysis submitted by the French representatives. We find that the statistical treatment is not adequate to support the conclusion that there is a surplus of machine tools in the U.S. Zone. The statistical treatment in the French paper is essentially a deductive and hypothetical adjustment of census data of earlier years based on assumptions with regard to the efficiency of utilization. The factors that have reduced the number of operative machine tools have not been given sufficient weight. These factors include the geographical movement of machine tools, bomb damage, removals as reparations and restitution.

A determination justifying the removal of additional equipment beyond the Bizonal Level of Industry of August 1947 would require a machine tool census including an evaluation of damaged and inoperative tools. The cost of such a survey is quite definitely beyond our means in time and personnel. On the basis of our experience, we are of the opinion that, taking into account damage and efficiency of utilization, such a survey would show that the existing park of machine tools in the U.S. Zone is no larger than required to support the agreed level of industry. The statistics presented by the French representatives are regarded as too hypothetical to warrant revision of present reparations list.

In order to encourage the Germans to increase production under the Bizonal Level of Industry and to make a real contribution to European recovery, it has been announced that the published list of plants to be removed as reparations would not be further increased.

iv. FRENCH REJOINDER

The French delegation considers that the figures produced by the British delegation do not invalidate the estimates of the French paper taking into account the different definitions used and that further study would enable the various estimates to be modified to accord with a uniform definition and that this would largely eliminate the differences between the British and French figures. It considers that study should be continued with a view to establishing present holdings in Western Germany for the purpose of control of industrial production as well as possible redistribution of the holdings.

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M I L I T A R Y G O V E R N O R S' C O N F E R E N C E

WORKING PARTY ON MACHINE TOOL HOLDINGS

French Memorandum on Machine Tools

ECONOMIC POTENTIAL

The study of production capacities in the engineering industry was made on the basis of the turnover figures of the plants. This method presents serious disadvantages, especially as regards the following points:

1) The turnover figure is not a perfect indication of actual capacity; the same equipment in the same plant can give varying figures of turnover depending on the nature of the products and the productive yield of the material.

2) No allowance is made for sub-contracting; two plants, one merely assembling parts delivered by sub-contractors and the other doing its own machining produce the same turnover with quite different equipment.

Moreover, no account has been taken in the studies of a large number of plants, and entire branches in the unrestricted industries. These installations possess important machine equipment having considerable influence on the economic and military potential.

Though the study of the turnover may furnish useful information in regard to the standard of living the industrial revenue and the balance of economy it is also true that it does not give a precise idea of the industrial and military potential.

On the contrary a far more accurate estimate of this potential is given by the amount of the stock of machine-tools. In the preparation of their armaments programme a summary inventory was made by the Germans in March 1935 and a complete one in May 1938. The U.S. work on Japanese post-war requirements was based on the same factors.

A study of the German machine tool stock constitutes, in our view, the essential factor for the examination of German economic possibilities and permits a check as to how far the level of industry laid down for Germany is correctly realised.

PRESENT STOCKS IN GERMANY

From the German statistics which have been used in our study, we have eliminated wood-working machines as being of secondary importance. Our study is concerned only with machines for removing or forming metal and excludes also certain accessory types which are not considered as machine tools within the definition current in other countries.

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According to our study the numerical results are as follows:-

	French Zone	US/UK Zone	Total for West Zone (excluding Berlin)	Total for Germany
End 1934/ beginning 1935)	58,000	562,000	620,000	1,010,000
End 1936	65,000	645,000	710,000	1,150,000
May 1938	75,000	750,000	825,000	1,337,000
End 1938	80,000	795,000	875,000	1,426,000
End of hostilities	130,000	1,170,000	1,300,000	2,150,000

These latter figures appear to tally reasonably well with the known results of the inventories made in the different zones, and even appear to be an under-estimate.

The following graphs are annexed:

Annex I (c) --- Breakdown of holdings

Annex I (d) --- Age of holdings

Annex II (b) --- Production per machine tool

Annex II (c) --- Turnover by industrial groups

(NOTE:- One copy of each of the graphs is available to each Military Governor).

According to German studies on the Machinenbau, the output of the stock was rather low in 1936 - round about 65%; it rose to 90% in 1938, which is confirmed by the fact that the turnover increased more rapidly than the stock.

The war effort led to a considerable increase in the stock and to a still more considerable increase in manpower employed. In 1936 and 1938 the average number of workers per machine shows that single shift working was the rule, whereas during hostilities double shift working was frequent.

STOCK NECESSARY FOR GERMANY

We will ignore the eastern zone, and assume for the western zones the production figures called for by the US/UK Zone plan for the level of industry, or the replies to the Marshall questionnaire.

In the restricted mechanical and Electro-technical industries this plan calls for a working capacity equivalent to 116% of that of 1936.

In many of the non-restricted industries of the same branch, as well as in the consumer goods industries which utilize a large proportion of machine-tools, the Allied papers call for a production lower than that of 1936, either on account of an adequate supply of steel, or through shortage of labour, or for other reasons. These figures correspond to the data which served as the basis for the working out of the Marshall Plan. Nevertheless, in order to leave a margin for development we will agree that these industries will have to be able to achieve a production comparable to that of the restricted industries, and we will assume as a basis a general production figure equivalent to 116% of that of 1936.

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On the other hand, the Working factor of 65% in 1936 is very low, and should be replaced by a more normal factor of 75%.

This shows that a stock of machine-tools appreciably equal to that of 1936, namely 700,000 machines for the western zones, will enable the estimated production to be achieved.

By comparison with the figure of 1,300,000 at the cessation of hostilities, this would make it possible to remove a total of 600,000 machines from Western Germany.

Allowing for the removals already made and those which remain to be made according to the bizonal and French lists, the number of machines to be made available for reparations would be as follows:-

War Plants according to list	60,000
Bizonal list (other plants)	60,000
French list (other plants)	15,000
Removal of isolated machines for IARA and declarations at Moscow	50,000
Total	185,000

Even allowing for possible errors, the number certainly remains below 200,000. There would therefore remain in Western Germany a surplus of 400,000 machines in excess of its requirements.

Even if a utilization co-efficient equal to that of 1936, i.e. 65% is accepted for the future, there would still remain a surplus of 300,000 machine tools.

Against this, if one accepts for the non-restricted industries the activity specified in the U.S. and British papers, one comes back to the figure of 400,000.

POSSIBILITY OF UTILIZATION

In the coming years, it will be impossible to make rational use of the German stock. Neither manpower nor transport can provide for the normal requirements of a stock of 700,000 to 800,000 machines.

The actual figures of the report for the plan of European co-operation show that from 1948 to 1958, the development of steel production will be gradual and that in the first years, its use will be very restricted. During the whole of this period, utilization of the above-mentioned stock will be very poor and even when normal activity is attained utilization will still be mediocre.

Hence, the 300,000 or 400,000 surplus machines will remain absolutely unused.

On the other hand, the countries invaded by Germany now have very inadequate equipment. Spoliations have deprived them of a large number of machines. For 8 years they have been unable to renew their stock and have not received any supplies of new machines, while Germany during hostilities increased her stock by her manufacture of machines and thus possesses an equipment the average age of which is low, in any case incomparably lower than that of the invaded countries.

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At a time when the USA is obliged to help Europe by large contributions of equipment and goods, it seems extraordinary to leave a large amount of equipment unused in Germany when the invaded and despoiled countries could make excellent use of it immediately and make a larger contribution to the recovery of Europe, as General Clay himself explained in recent statements. One must in fact remember that the transfer of isolated machines is a speedy operation which could easily be carried out. Machines of current series could be set up and re-employed in the places to which they were sent in an extremely short space of time. Moreover, while the removal of plants raises more or less difficult economic and social problems, the removal of machines raises no question of this kind. Furthermore, the current production of machine tools in Germany will put a certain number of machines on the market: a portion could remain in Germany, but a large portion could be put at the disposal of the invaded and despoiled countries either as reparations or as deliveries under the European Recovery Plan.

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