

Chapter 11

Organisation and Tactics

Tank Casualties during the Exploitation Phase
after Crossing the Seine
(Report No.18)

Armoured Pursuit after Crossing the Rhine
(Report No.32)

Tank Casualties During the Exploitation Phase After Crossing the Seine

INTRODUCTION

1. The armoured drive from the SEINE northwards into HOLLAND presented a different form of warfare from that experienced in NORMANDY. Generally speaking it presented a phase of exploitation as opposed to a phase of "break in" against enemy lines. Data was needed as to how these new conditions affected tank casualties and requirements and whether these in turn demanded modifications in tank design.

2. To this end, the writer of this report lived, during the period up to the occupation of NIJMEGEN by Guards Armoured Div on Wednesday 20th September, 1944, with several of the tank units concerned and obtained at first hand as much information as was available.

3. The conditions were such that detailed examinations of individual causes of casualties were out of the question and this paper therefore only comprises a general analysis. In the circumstances the question of tank repairs was inseparable from that of tank casualties and some details of the operational aspect of this subject are included. The work has been much assisted by the cooperation of all concerned, in particular the officers of REME.

RESULTS

Tank Casualties

4. The following tables give a brief analysis for six tank brigades of the numbers of casualties that could not be repaired in 1st Line Workshops during the exploitation phase (roughly 28th August - 7th September 44).

Table I				
Unit	Majority of Tanks in Unit	Number of Casualties Due To:		
		Mechanical Causes	Enemy Action	Total
Gds Armd Div	Shermans	59	5	64
8 Armd Bde	Shermans	57	20	77
11 Armd Div	Shermans	44	6	50
7 Armd Div	Cromwells	38	12	50
1 Polish Armd Div	Shermans	50	30	80
4 Cdn Armd Div	Shermans	57	5	62
Total		305	78	383
Ave.per Armd Bde		51	13	64

Table II					
Unit	Days in Pursuit	Average Casualties per Day Due To:		Average Total	
		Mech. Causes	Enemy Action		
Gds Armd Div	9	6.5	0.6	7.1	
8 Armd Bde	12	4.8	1.6	6.4	
11 Armd Div	9	4.9	0.7	5.6	
7 Armd Div	7	5.4	1.7	7.1	
1 Polish Armd Div	10	5.0	3.0	8.0	
4 Cdn Armd Div	9	6.3	0.6	7.0	
Average		9.3	5.4	1.4	6.8

Table III: Casualties per 100 miles of travel					
Unit	Mileage	Average Casualties per 100 Miles Due To:		Average Total	
		Mech. Causes	Enemy Action		
Gds Armd Div	450	13.1	1.1	14.2	
8 Armd Bde	350	16.2	5.7	21.9	
11 Armd Div	270	16.3	2.2	18.5	
7 Armd Div	250	15.2	4.8	20.0	
1 Polish Armd Div	280	17.8	10.7	28.5	
4 Canadian Armd Div	300	19.0	1.7	20.7	
Average		317	16	4.1	20.1

5. The average number of casualties due to mechanical causes both per day and per 100 miles is surprisingly constant in view of the large differences between total mileage.

No evidence, except for Guards and 11 Armoured Divisions, was found that the number of mechanical failures per 100 miles was increasing towards the end of the pursuit phase. In 11 Armoured Division 50% of the failures occurred in the last 50 miles. In the next phase of Guards Armoured Division, between the ALBERT and ESCAULT canals, where an average mileage of not more than 200 miles was travelled, 51 failures occurred; i.e., 46% of the combined totals of both periods.

6. For most units the maximum distance travelled on one day was about 80 miles and was done in long bursts at high speed. For instance, after crossing the SEINE Sherman tanks were driven more or less as fast as they could go - say 28 mph - for lengthy periods over rough sets. Cromwell tanks were not driven for so long or so frequently at their top speed, perhaps because of their higher maximum speed. Very little maintenance was, nor could have been, done in view of the distances and times travelled and of the necessity to be ready for instant action.

Tank Repairs

7. The following difficulties were experienced in tank repairs:

(a) Locating casualties

Owing to the speed of the advance many tank commanders found it difficult to pinpoint themselves accurately, particularly if they were far off the axis. In consequence, if their tanks became casualties, the map references they gave to the Recovery Sections were often so inaccurate that long and tedious search was necessary before their tanks were discovered. From conversations with tank commanders afterwards, it is thought that many of them did not realise the extreme importance of accurate pinpoints during such pursuit phases and that an improvement might be obtained by greater emphasis on this point during training.

(b) Guarding Casualties

In consequence of the above difficulties, the driver who was left to guard the tank was sometimes lost to his unit for a matter of four or five days. The cumulative effect of the loss of skilled workers, who might otherwise have been helping in first-line repair workshops, was unfortunate. In addition, drivers left to guard vehicles were given only two or three days rations; when those were exhausted they had to leave their tanks to find food. During their absence their tanks were usually looted. It was suggested that each tank might have a small spot-welding plant so that where practical the hatches could be welded up, making the tank safe from looting.

(c) Returning Repaired Tanks to Units

Where tanks have been backloaded for repair great difficulty was found in getting them up again (e.g. 8 Armoured Brigade had 13 tanks at VERNON but were unable to move them). This was partly due to shortage of transporters and partly due to their slowness.

(d) Workshop Organisation

When 2nd Line Workshops moved every day or two they could not undertake their normal repairs since there was insufficient time to finish the work. (e.g. 8 Armoured Brigade Workshops moved to DOULENS for two days, but were unable to undertake any repairs: 1st

Polish Armoured Division Workshops between 1st - 8th September, 1944, were only able to undertake normal repairs on the 4th and 5th owing to the number of moves they made: so also with other brigades).

(e) Separation From Workshops

At the beginning of the pursuit most Brigades kept their workshops static. In consequence they were left the following distances behind their main HQs:

Unit	Miles Behind	Number of Days ahead which Div or Bde HQ had preceded 2nd Line Workshops
Guards Armoured Div	164	2
8 Armoured Brigade	110	3
11 Armoured Brigade	145	2
7 Armoured Division	160	3
1 Polish Division	60	2
4 Canadian Division	75	2

This led to many difficulties. In particular:

- (i) Communication between Division and 2nd Line Workshops could only be obtained by leaving a relay van at a point half way between.
- (ii) Personal visits by CREME or his staff to workshops were almost impossible.
- (iii) Between Division and workshops many tanks were left unrecovered with only slight troubles which could quickly have been put right. These tanks, in consequence, were lost to the Division for many more days than was necessary.

8. The following changes in organisation of workshops in 4 Canadian Armoured Division illustrate the attempts made to overcome these difficulties:

Early August

(a) At CAEN ("Break in" period). 2nd Line Workshops kept in Administration Area (about 5 miles behind main forces); from this position they were able to recover tanks quickly and easily. Almost all were successfully repaired, few being backloaded.

12-27 August

(b) FALAISE Area. Movement forward was about 6 - 8 miles per day.

Because Administration Area was found not to be moving up and because Workshops were found to be involved in the troubles of Administration Group moves, 2 Composite AWDs, covering A and B vehicles and wireless, were created, each of about 45 mechanics, moving forward in leapfrog bounds and keeping well forward. With moves of about 6 - 8 miles this was found to be satisfactory.

28th August

(c) SEINE Area

By this time, Administration Area was 70 miles behind and AWDs were carrying all the load and finding it beyond their capacity, largely owing to difficulties in liaison, in particular wireless communication and obtaining spares. The speed of advance was so great that recovery was to three widely separated points on the axis for each day's advance. AWDs found themselves unable to cope with the repairs partly because of the time involved in making frequent moves and partly because of lack of personnel. A skeleton force had still to be left with 2nd Line Workshops though these were only dealing with minor repairs occurring in the Administration Area, and were therefore only partially employed. The stop in the SEINE area was too short to allow of any change in organisation.

29th August

(d) Across the SEINE

AWDs were done away with. 2nd Line Workshops were moved up to Rear Division HQ, moving with A Echelons. This system of movement worked satisfactorily for one day while Division was moving up on two axes, one armoured, the other infantry, but when owing to a broken bridge the advance was forced onto one axis, then the increase in the length of the Rear Division A echelons was considered too great.

It was planned that 1st line workshops should only do repairs normally done by the crews (i.e. undertake the tasks of a repair crew in the German army) while 2nd line workshops should undertake work normally done by 1st line workshops; 3rd line taking work done normally by 2nd line workshops, and so on.

30th August - 15th Sept

(e) Northern France

2nd line workshops were kept with Rear Division HQ but moved 24 hrs later subject to road clearance. This worked smoothly, the advantages being that this did not increase the length of the A echelons yet the workshops were kept well up, the moves could usually be made quicker than when moving with Rear HQ since the move was made alone, workshops were not bled by AWDs, good wireless communication and centralised control were kept.

The next fortnight showed that this system avoided the danger of tanks with only small defects not being repaired for several days, and CREME of the division and his staff considered it the most satisfactory yet evolved.

Provision of Spare Parts

9. Towards the end of the pursuit phase, and perhaps one of the causes of its end, the problem of spare parts became acute and many repairs could not be undertaken except by cannibalisation. This was particularly so with regard to bogie wheels and suspension parts. It is possible that more flexible priorities for tank spares would have avoided some of these difficulties. Table IV gives examples of these difficulties.

Table IV	
Stores Asked For On or Before 7 Sept 44	
5 Guards Armoured Division	
250 Bogies	for Shermans
20 Idlers	"
30 prs of tracks	"
20 Top Rollers	"
10 Sprockets	"
10 Sprocket Hubs	"
500 Sprocket Bolts	"
25 Engines	"

At this period all spare bogies had been used and though some of these requests were for replacements which were not at once needed, many of them were for immediate repairs. Most of these had not arrived by 14th September though opportunities for repairs had occurred.

11 Armoured Division	
200 Bogies (78 Received by 12 Sept)	for Shermans
100 Idlers	"
36 prs tracks	"
50 top rollers	"

Other requirements were asked for but the above were considered essential to carry out repairs for which 13th and 14th September had been set aside. By the morning of the 13th these spares had not arrived.

10. In the event 30 Corps used air transport but tank spares did not arrive till a reserve of petrol had been landed.

Report on the Armoured Pursuit After the Crossing of the Rhine

Introduction

1. The present paper is an appreciation of some of the experiences of our Armour in its break out after crossing the Rhine. It attempts to draw attention to the principal factors governing the speed of advance in these operations.

2. From previous personal experience and from conversations with other soldiers it was accepted that three main causes are responsible for slowing down an Armoured break-out and pursuit; namely:

- (a) Enemy resistance
- (b) Difficulty of supply and repair
- (c) The desire of soldiers to enjoy the "fruits of victory."

3. The previous main armoured break-out of the campaign had been in September 1944 after the FALAISE pocket. On this occasion enemy resistance had been a minor factor and the pursuit had been ended by difficulties of supply and repair (No. 2 ORS Report No. 18), and perhaps to a limited extent by the enjoyment of the fruits of victory. On the present occasion since the advance might be slowed down by hostile country it was expected that supply and repair would not be major difficulties and that the fruits of victory, in a land of non-fraternisation, would not prove a temptation. It is considered that the drive did, in fact, supply a test for overcoming enemy resistance freed from the complexities of supply breakdowns and of soldiers fraternising.

4. The present writer studied in the field the successes of the 7th and 11th Armoured Divisions during the pursuit up to the end of hostilities. The 7th Armoured Division was equipped with Cromwell and the 11th Armoured Division with Comet tanks.

Results

5. Difficulty was experienced in the investigation owing to the variety of opinions expressed as to the causes of any hold up and, above all, of their relative importance. The following causes were generally agreed to have been operative:

- (a) German A/Tk and SP guns.
- (b) Hostile Infantry, particularly in woods, armed with hollow charge weapons for use against tanks.

- (c) Pockets of hostile Infantry, particularly in woods, armed with MGs etc., able to attack soft-skinned vehicles.
- (d) Mined belts of ground.
- (e) Areas in which our tanks bogged.
- (f) River crossings and bridging problems.
- (g) Poor roads placing a strain on echelon personnel.
- (h) Difficulty in keeping wireless communication between different units.

6. Since the relative frequency of occurrence and importance of these causes varied greatly, the facts concerning each will be given separately before any general discussion is attempted.

German A/Tk and SP guns

7. Only limited numbers of these were met. The difference, however, between the value of the towed or railway A/Tk gun and the SP gun was marked. Generally speaking towed or railway A/Tk guns were either by-passed, out-flanked or taken without much difficulty. For instance, towed A/Tk guns were for long by-passed in the Forests of MUNSTER (MR.rX 6098) and LINTZEL (MR.xR 6790)¹; the 7th Armoured Division axis being the SOLTAU - HAMBURG road on the west and that of the 11th Armoured Division to the east of the CELLE - LUNEBERG road. The guns in the forests were unable to be of nuisance except to those vehicles moving from one axis to the other. Similarly, at RETHEM (MR.xR 1267), a train with dual purpose 88 mm guns was destroyed when it was pinned down, the railway line in either direction being held by tanks.

8. By contrast, the SP guns met were more dangerous. For example, 2 SP guns destroyed 6 Comet tanks and assisted in holding up 29th Armoured Brigade's advance at ENGEHEN (MR.rX 3256) on 16th April, 1945. This difference in value between towed A/Tk and SP guns confirms American experience in the ARDENNES battle (December 1944 - January 1945). There it was found that the large area of fire of the American SP guns and their mobility under HE fire made them extremely effective against the German tanks that broke through.

In the present instance it was only where German morale had almost completely collapsed, as it did after our crossing of the Elbe, that their SP guns failed seriously to worry our forces.

Infantry armed with hollow charge weapons

9. Concentrations of hollow charge infantry weapons were the most novel feature in the German defence. It was estimated by 11th Armoured Division CREME that at least half the tanks knocked out by the enemy after the break-out were damaged by these weapons. They were used in every conceivable manner, a small proportion fired by men who had climbed trees and aimed down on the tanks hitting either the hull deck or turret top (eg. the defence of the area around and to the north of LOCCUM (MR.vW 0629). The tank crews found the greatest difficulty in spotting such hidden infantry and were rarely able to destroy them unless the tank was missed. Most areas where such forces abounded had to be cleared by infantry supported by tanks. Owing to the speed of the advance between the RHINE and ELBE the Armoured Divisions had often to rely on their own infantry who were sometimes too few for the task. In consequence hostile pockets were often left behind close to supply routes (eg. the hostile pocket in the forest of NEINBERG (MR.rX 0843), which was along one side of a main supply route of 11th Armoured Division).

¹ Fuller descriptions of cases quoted in the text are given in the Appendix.

10. No trace could be found that the Volksturm were willing to use hollow charge weapons, as if the courage needed were too great. Indeed, it is doubtful if any forces except the SS and Marines were at this period firing hollow charge projectiles on a large scale. The area was extremely wooded which helped give cover but many instances occurred of men firing from ditches or hedges in the open. After this experience it is felt that the concentrated use of hollow charge weapons in the hands of determined men must be accepted as a growing menace to the tank.

Pockets of hostile Infantry attacking soft-skinned vehicles

11. Pockets of hostile infantry capable of attacking soft-skinned vehicles were frequently left behind, particularly in the large wooded areas between OSNABRUCK, BREMEN, HAMBURG and LUNEBERG (MR.vS 7821). Many of the infantry in these pockets, even when the opportunity came, did not interfere with operations or transport, though troops of good morale did so. It was rarely anybody was attacked on main axis routes but one or two cases daily would happen off these routes. Exact figures for such losses could not be obtained but they were certainly not serious from a military point of view. Most people, however, remarked upon their inability to use certain roads, the extra lengths of journeys and the slightly disturbing effect on the morale of the already tired drivers. Noticeable as these things were, it is doubtful if much military importance was attached to them. Had the enemy troops been of better morale the matter would certainly have been otherwise.

12. The reason why such hostile pockets were left behind was undoubtedly the speed of advance of the Armoured Division in pursuit. By contrast, the first two days after 11 Armoured Division had crossed the ELBE they accepted a lower rate of advance in terms of the opposition met. In these circumstances far fewer pockets of resistance were left behind on the route which 29th Armoured Brigade followed. (The line SCHWARZENBEK MR.rS 8249 to BASTHORST MR.rS 8257 and northward).

Mined belts of ground

13. Except for a few cases of mined roads and verges (eg. RIESENBECK MR.rV 9307; HAHRENBERG MR.rW 9438; the verges between ELMENHORST and TALKAN MR.rS 8756) there were few German A/Tk mines. The view was generally expressed that this was because the Germans were in their own land and would not endanger their own civilians. This may have been a deterrent but it must be remembered that in the previous pursuit from the SEINE to BRUSSELS and ANTWERP equally few mines were met. The more likely explanation would seem to be that in a fast pursuit the enemy cannot lay mines because so many of their troops are up to the last minute trying to withdraw. In this view lack of mines is one of the advantages gained from speed in the pursuit.

Areas in which our tanks bogged

14. Considering that operations were taking place in April the number of tanks that bogged was large. In several areas the percentage was between 20% and 30% of tanks engaged and sometimes higher. (eg. area round MR.rW 7535). On occasions the recovery equipment was found not to be really satisfactory for the peaty soil encountered (eg. area round MR.rX 0547).

15. The opinion of the crews of the Comet tanks, as well as of Brigadier R. Harvey, DSO (29th Armoured Brigade) was that the Comet tank was extremely liable to bog and was less satisfactory than the Sherman in this respect though in no other. It would be unfair on the evidence of one series of attacks to condemn the going of this tank absolutely but there is no doubt that on this occasion its going was not up to operational requirements. In certain cases bad driving was responsible, particularly a lack of awareness of the power transmitted by the engine to the tracks so that these were spun and cut into the soil; but in far more instances, in spite of good driving, the tank bogged. Fortunately because the enemy

did not mount any counterattacks, all the bogged tanks were finally recovered. Out of a total of 66 tanks that were knocked out and studied the number that could be traced as actually damaged while bogged or in difficulties was 8 from the two armoured divisions, or about 12%. It is not certain, however, that 2, 3, or even 4 of these might not have been knocked out in any case and the fact that they were at rest only made their destruction more certain.

16. A study of the "tank going" maps for NW Europe issued by the Geological Section 21 A/Gp shows the difficulty of choosing ground free of bad areas and raises the query whether, in fact, better performance for "going" would not be worth while even at some cost of manoeuvrability on roads etc.

River Crossings and Bridges

17. At present the higher speeds of advance of an armoured division are largely governed by the division's ability to seize intact bridges; this in turn largely depends on surprise and speed in approaching the bridges. For instance, the success of 6th Airborne Division in capturing intact bridges with armed Jeeps was at least equal to that of 7th and 11th Armoured Divisions.

18. Though in a certain number of cases bridges were successfully taken intact (e.g. several of the bridges over the EMS - WESER canal) in other cases Bailey bridging had to be used (e.g. over the WESER, LEINE and ALLER rivers). This demand led to over-working of the REs of the division, including comparatively heavy losses, and to a shortage of bridging material. At MR.rX 3057 a Bailey bridge was set up across the ALLER river and the 11th Armoured Division crossed it holding the right bank in rather narrow depth against opposition. Owing to enemy SP guns and Marine forces preventing our forward movement the axis of advance had to be shifted to the east along the line WINSEN (MR.rX 4755) - BELSEN (MR.rX 4868). Due to shortage of bridging material the former bridge had to be taken down and put up on the new axis crossing at WINSEN. This was done successfully but it would clearly have been safer had there been sufficient material for two bridges. Against this would have been the still greater load on transport.

19. Most of the units visited considered that river-crossing had been one of the chief factors governing their rate and direction of advance.

Poor roads on the lines of communication

20. Several of the echelon personnel interviewed were of the opinion that some of the routing made their task difficult. They claimed that in many cases supply roads in backward areas were so rough that movement was slow and tortuous (eg. Star route up between NIENBURG MR.rW 9951 and RETHEN MR.rX 1166). Then when they came to forward areas, often not fully cleared of enemy, they were expected to travel with dash and daring. They insisted that hours of slow and tedious driving were not the best preparation for such a task and that American drivers were not handicapped in this way.

21. The present writer has insufficient evidence to judge the comparative traffic performance of British and American military traffic. From brief studies of American traffic after their break through on the right wing in Normandy and a quick survey in the Brunswick area of the American supply routes to Magdeburg it is his impression that American traffic in these cases did move more quickly but that as better roads were available it would be unsafe to generalise on this point.

22. It was also noticed in the British sector over the Rhine that traffic congestion was sufficiently frequent for most drivers to have become resigned to long waits and that they made few attempts to find a remedy. By contrast with American traffic, the two main causes of such congestions were double-banking by convoys and failure to halt with proper spacing so that if a muddle occurred it was not easy to

cure. Drivers insisted that if they kept proper spacing other convoys infiltrated, taking unfair advantage of good road discipline.

23. Until proper road discipline is enforced it is probably impossible to restore a sense of urgency amongst drivers. Even if supplies did not run short, it is felt this lack of urgency amongst echelon personnel makes the general quality of dash and enterprise harder to maintain in the armoured division as a whole.

Difficulty in wireless communication

24. Numerous moves had to be made by Divisional Headquarters to ensure good wireless communications. No instance is known of serious failures and though greater ease of communication is undoubtedly a worth while ideal, it is doubtful if this problem affected the pursuit after crossing the RHINE. This was in contrast to experience after the SEINE break-through.

Discussion

25. After studying the available facts and interviewing tank personnel it is considered that the key to success and safety in an armoured break-out against enemy resistance is an ability to move fast. The actual speeds required depend upon enemy resistance, but generally speaking, the faster the movement the better. Thus the problem becomes that of deciding what factors have been most responsible for checking movement in the face of limited opposition.

26. It must be realised that at no time were the enemy able to maintain a continuous line of resistance. This, however, is normal in a break-out and is part of the general problem. The question to be solved is how against pockets of resistance the greatest speed of advance can be maintained.

27. The fact, however, that the enemy forms a discontinuous defence against armour needs to be treated with caution. In many cases the discontinuities are filled up by country which is either too bad for our present tanks to pass or else certain lines of advance are not worth while because they lead to a river without bridging facilities. Indeed, if it is accepted that woods are unsuitable for tanks, then by combining this with bad going it can be shown that apart from roads the area to be defended against tanks was small in the pursuit over the Rhine.

28. If the areas to be defended are small, it is hard to see how really fast advances can be made against a determined enemy. For fast advances it is essential to by-pass and outflank the enemy. To attain this there would appear to be two alternatives: to design tanks either invulnerable to hollow charge weapons or else tanks that do not bog; (or both).

29. There is also a requirement for the tanks of an Armoured Division to be able to cross small rivers at any point so as to prevent the enemy being able to anticipate lines of advance. This could be done either by designing tanks to wade or by providing better bridging facilities.

30. As far as can be told an Armoured Division that had these qualities would be capable of maintaining a fast break-out and pursuit against all but the strongest defence of SP guns. Moreover, it is most unlikely the enemy will possess the necessary quantity of SP guns for this purpose since he will almost certainly have used them earlier to contain our forces. Such an Armoured Division could travel with safety over bad going and through woods and could maintain speed when rivers were to be crossed. It is considered that the enemy could be sufficiently spread-eagled by such methods to be incapable of serious resistance.

Appendix

DESCRIPTION OF EXAMPLES IN TEXT

Para in Text.

7. The forests of Munster and Lintzel covered about 200 sq. kilometres. The exact number of German troops in the area was estimated at the time as more than 1000 and it was known that they held at least four 88 mm A/Tk guns. These guns were responsible for knocking out several jeeps and two or three armoured cars but the main divisional axis supply routes were uninterrupted though the German force was not overcome for ten days. As far as is known these guns were never successfully moved so they could bring fire to bear on our supply routes and had they done so they could almost certainly have been neutralised by our 25 pdr artillery that was held in readiness for such a task.

The railway line at Rethem runs roughly E and W and is south of the town so that it covers the town against any force attacking northwards. The Germans placed at this point a train mounted with five 88 mm dual purpose guns so that it denied the crossing of the Aller. The ground to the south of the train was open and any tanks attacking across it were exposed. Because, however, the train could be pinned down on the flanks and made immobile so that effective covering fire could be put down against it, the train was captured by direct assault of a squadron of tanks without loss.

8. The tanks destroyed close to Engehen had just crossed the River Aller and were deploying on the right hand side of the divisional axis up to Ostenholtz (MR 3466). They were on flat ground facing a wood which lay on the north side of the Winsen-Hudersahlen road. The going was bad on the flat ground and two German SP guns were able to use their mobility to pick off our tanks, withdrawing safely into the wood as soon as they were observed. Under the same conditions a towed A/Tk gun would almost certainly have quickly been neutralised.

9. The forest of Nienburg is about 20 sq. kilometres and lies between the two axes up which 11th Armoured Division was moving: namely the Rehnburg-Scheeren-Eilvese road and the Rehnburg-Husum-Linsburg road. At the forest of Nienburg these two roads were separated by about 10 kilometres and, rather than clear this area immediately, the Division continued to advance for two days. Since the Rehnburg-Scheeren-Eilvese road ran along the side of this wood the soft skinned vehicles of the echelons ran a certain amount of risk when they were not accompanied by tanks.

14. The areas rW 7535 and vX 0547 consisted of a peat soil. Through-out the lines of advance of the 7th and 11th Armoured Divisions such peat areas were continually met. Since in several cases these were marked on maps as "Moors" it may be wondered why tanks attempted to cross them. In actual appearance however, much of the area consisted of pasture fields which gave the appearances of firm going. If a tank was resting on such pasture it would sometimes hold up for several minutes before suddenly sinking. When once tanks had started to sink they would sometimes go down 7 or 8 feet before they could be recovered.