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OFFICE, CHIEF OF ARMY FIELD FORCES  
Fort Monroe, Virginia

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4. Combat information EXTRACTS herein which are applicable to training at the company-battery level also appear in Army Field Forces TRAINING BULLETINS.

FOR THE CHIEF OF ARMY FIELD FORCES:

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*T. J. Smith*

1 Incl  
Extracts from sources  
385 thru 408

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OFFICE, CHIEF OF ARMY FIELD FORCES  
Fort Monroe, Virginia

EXTRACTS OF COMBAT INFORMATION

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SOURCE: Command Report - 279th Infantry

DATE: January 1952

Source No 385

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ARMOR AND MAINTENANCE FOR QUADRUPLE .50 CAL MG.

(CONFIDENTIAL) The quadruple .50 cal machine gun was effective in keeping enemy positions buttoned up; however, its vulnerability to mortar and artillery fire precludes its widespread use. The four such units under control of this Regiment are presently stationed at Service Company where the Regimental Motor Section can provide the extensive maintenance required. It is felt that if the weapon could be provided with more armor protection, and supported by trained maintenance personnel who could operate in battalion motor pools, it would be a valuable addition to the supporting arms available to infantry elements.

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SPECIAL TEAMS FOR ATTACKS ON BUNKERS.

(RESTRICTED) An attacking force can move to a position within twenty yards of a bunker without much difficulty, but from that point an attack is usually stopped by hand grenades. To remedy this the use of covering fire and flame throwers should be emphasized. Special teams should be formed to destroy bunkers.

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SOURCE: Command Report - 89th Medium Tank Bn

DATE: January 1952

Source No 386

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TANK TRAINING.

(RESTRICTED) Tank units that have been committed for long periods, fundamentally as supporting elements or in static

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defensive positions, tend to lose the aggressive offensive spirit so necessary in a tank unit. Immediately upon return to a reserve position all training should be pointed toward the attack with full use of the basic concept of Fire and Maneuver.

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SOURCE: Command Report - 3d AAA AW Bn (SP)

DATE: January 1952

Source No 387

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NEED FOR FIRE CONTROL ELECTRICIAN AT BATTERY LEVEL.

(RESTRICTED) Recommend that the lettered batteries' T/O&E be changed to include one Fire Control Electrician per battery. All electrical repairs of a minor nature must now be made by Battalion personnel. At times, elements of this organization are as far distant as 20 miles from the Battalion area. If each lettered battery were authorized a Fire Control Electrician, minor repairs could be made in a short time and the weapon put back in action.

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SOURCE: Command Report - 15th AAA AW Bn (SP) - 7th Inf Div

DATE: January 1952

Source No 388

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IMPROVISED 90-MM GUN BATTERY.

(RESTRICTED) Construction of bunker type shelter for guns and personnel was completed and Battery Y (90-mm gun) commenced its mission of direct fire on enemy bunkers and targets of opportunity. Fire direction was carried out from the field artillery forward observer bunker. On the first day of firing, 78 rds of 90-mm ammunition were expended, destroying twelve enemy communication trenches and bunkers. Approximately sixty rds of incoming artillery and mortar fire were received on the gun positions. No casualties or damage was reported. After five days of firing, Battery Y had expended a total of 366 rds of 90-mm ammunition (303 rds of HE, 52 rds of APC, and 11 rds of WP). Approximately forty-five enemy communication trenches and bunkers were destroyed. The 90-mm gun positions received a total of 207 rds of incoming enemy artillery and mortar fire with no reported damage to positions. At the close of this period, Battery Y continued in its direct fire mission.

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SOURCE: Command Report - 64th Tank Bn (Medium)

DATE: February 1952

Source No 389

TRACK-THROWING ON M46 TANKS.

(RESTRICTED) Operations in Korea with M46 tanks have been hampered by frequency of track-throwing, occasioned primarily by the necessity for climbing side-hills and extremely steep grades, as well as for crossing the all present 2'-3'-4' rice paddy dykes or terraces. When the tank turns or slides on such hills or mounds, too frequently a track is thrown. Driver training helps considerably in preventing thrown tracks, but is not the final solution. Experienced drivers encountered thrown tracks. This battalion is attempting field expedient solutions as follows: (1) addition of a support roller slightly forward of the final drive sprocket; (2) removal of one track block in tracks of one platoon, thereby operating with an 85 block system; and (3) improvisation of an idling sprocket in lieu of the adjusting idler. It is hoped that the above field expedients may lead to a solution to the track-throwing problem.

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RADIO EQUIPMENT - M46 TANKS.

(RESTRICTED) Recommend that research and development agencies in the Continental US conduct tests with a view to obtaining the following radio equipment improvements: (1) a microphone with one button for talking and second button for radio transmission (as opposed to inter-com use when second button not depressed); and (2) a transmitter control box, to be mounted directly under tank commander's cupola and to left of turret traverse grip, bearing a toggle switch which when flipped would change the radio transmitter from one pre-set channel to a second pre-set channel. This battalion has improvised one such microphone, using a toggle switch in lieu of non-available second button. The microphone has proven completely successful and frees the commander's second hand from groping unnecessarily to the inter-com box. The advantage of the transmitter control box would be to greatly assist the tank platoon leader, company commander, and others who must operate in two radio nets. The expense seems completely justified by the resulting increase in the efficiency of operations.

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SOURCE: Command Report - 296th Trans Trk Bn  
DATE: January 1952 Source No 390

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RECOMMENDED CHANGES IN T/O&E 55-18.

(RESTRICTED) 1. Reduce the number of semitrailers from 96 to 72. It is believed that a ratio of 1-1/2 semi-trailers per tractor is adequate for operation in this theater; further, the turn in of trailers in excess of 75 per unit would result in a saving to the government.

2. Increase the number of portable typewriters from one to three. Sections requiring the use of a typewriter are usually so widely separated, and the required reports so numerous that joint use of typewriters is impracticable.

3. Authorize watches, wrist, 14 per company. Basis; 1 per platoon sergeant (3); 1 per cargo NCO (3); 1 per section sergeant (6); 1 per dispatcher (2). This would assure punctual meeting of commitments and also provide accurate time data for operational records.

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SOURCE: Command Report - 167th Transportation Truck Bn  
DATE: January 1952 Source No 391

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LIGHTING REQUIREMENT FOR NIGHT MAINTENANCE.

(RESTRICTED) The difficulty being encountered during round the clock operations is the lack of proper maintenance for vehicles. Proper lighting facilities for night maintenance are not available. This results in a greater number of vehicles being deadlined in organization shops during the daylight hours which could have received proper maintenance and mechanical corrections during the night tour of duty. It is recommended that one 5 KW Generator be made a part of the authorized T/O&E for all Transportation Truck Companies.

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SOURCE: Command Report - 7th Inf Regt

DATE: January 1952

Source No 392

LACK OF UNIFORMITY IN COMMUNICATIONS TRAINING.

(CONFIDENTIAL) Radio operator replacements, both voice and CW, are not uniformly trained upon arrival. The greatest divergence is in radio procedure. It has been found that the most economical method of training replacement radio operators is to start at the beginning of radio procedure and retrain. It has been found that there are sharp differences in the training of radio operators, especially in procedure, and that uniformity of procedure, JANAP's notwithstanding, is the exception rather than the rule. The wiremen received need more training in the construction of short pole line systems

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TELEPHONE COMMUNICATIONS.

(RESTRICTED) Telephone communication in Korea is the most reliable and extensive means available. However, distances are great and coordination between units necessitates that calls be placed through several switchboards. Conversations thus often become unintelligible and result in misunderstandings.

It is strongly recommended that the amplifier telephone (TP-9) be issued to the Regimental Communication Platoon. A total of three telephones TP-9, is considered adequate.

SOURCE: Command Report - 176th Armored FA Bn

DATE: January 1952

Source No 393

MOBILE FIRE DIRECTION CENTER.

(RESTRICTED) Recommend that a mobile fire direction center be developed and made a part of the T/O&E's of all field artillery battalions.

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Because of inadequate and unsuitable T/O&E provisions for fire direction installations, this Battalion has acquired an abandoned four-wheel radar type trailer for use as a Battalion FDC. This trailer has been permanently wired for all necessary telephone communications and the three required radios have been permanently mounted. The trailer houses both Battalion FDC and the S2 Section with adequate and comfortable working space for all. The time required for moving into position and setting up Battalion FDC is less than five minutes. The time for tearing down and moving out of position is likewise less than five minutes.

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EFFECT OF MODIFICATIONS TO PERMIT HIGH ANGLE FIRE.

(CONFIDENTIAL) During January this Battalion received five 105-mm howitzers on Motor Carriage, Hi-Angle, M7-J1, all as replacements for howitzers declared unfit for firing or becoming disabled. Although the new carriages were modified for high angle fire, only forty mils traverse is possible on each side of the drive shaft in the high angle firing position. Thus, with such small latitude of traverse, all high angle missions must be accomplished by motor shifts for each deflection change during adjustment. When the mission is completed, a motor shift must be made to center of traverse for center of sector, and consequently voids the adjusted high angle data for subsequent use for fire-for-effect fire on the high angle target. Thus, the use of the M7-J1 for high angle fire is good for emergency targets only, and adjustment is time consuming due to many motor shifts required.

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SOURCE: Command Report - 7th Infantry

DATE: February 1952

Source No 394

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OBSERVER INCREASE, HEAVY MORTAR CO.

(RESTRICTED) Experience gained in 15 months of actual combat with the 4.2 mortar indicates a need of two forward observers for each mortar platoon. Experience has proved that a system which will permit the company commander to request,

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and control the fires of supporting weapons directly through a FO who has direct communication with the FDC, is the best assurance the rifle company has of the close and continuous support of these weapons. For such a system to work, a minimum of two FO parties per battalion is required. This will make one FO available for each of the two forward rifle companies of the battalion. This company is now employing such a system, but it necessitates improvising three additional FO parties.

RECOMMENDATION: Increase the T/O&E of the Heavy Mortar Company of the Infantry Regiment to include six FO's instead of the present three.

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COMMUNICATION WITH TANKS.

(RESTRICTED) Static defensive positions have created problems in communication between tank crews, infantry, and artillery. This was demonstrated many times when an observer would have a target of opportunity ideal for the tanks but not have communication to relay it. By using borrowed EE-8 telephones land lines were established to provide communication to the nearest battalion switchboard and make any tank section or platoon available to local observers and personnel in any of the OP's. The radio is still the only communication between tanks and creates further problems during periods of radio silence.

RECOMMENDATION: Increase T/O&E 17-37N to authorize an additional 30 sound power telephones and 5 EE-8 telephones to tank companies of infantry regiments.

SOURCE: Command Report - I US Corps Arty

DATE: January 1952

Source No 395

SUITABILITY OF RADAR SET SCR-784.

(CONFIDENTIAL) DISCUSSION: The 1st Observation Battalion has experienced continual poor results from the Radar Set SCR-784. The efforts expended in moving, installing and operating this set in the rough terrain of Korea have been so meagerly rewarded with satisfactory results that a review of the suitability of this set is advised.

**RECOMMENDATION:** That a thorough reappraisal of the suitability of this equipment be undertaken and that the advisability of factory experts field testing this equipment in the Korean field be given strong consideration.

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"METAL FATIGUE" IN 155-MM HOWITZERS.

(CONFIDENTIAL) **DISCUSSION:** In January, two 155-mm howitzers malfunctioned during fire missions. The tubes separated from the breech resulting in injury to cannoneers and a loss of confidence by gun crews in the weapon. Since the Korean action commenced, there have been at least twenty (20) such malfunctionings with the 155-mm howitzer in the 8th Army.

Excessive rates of fire, faulty ammunition, general metal fatigue from constant firing of maximum charge may be the main causes. However, in most cases, the weapons that did blow up had been given periodic checks by Ordnance and declared serviceable.

**RECOMMENDATION:** That a study be undertaken to determine the possibility of detecting "metal fatigue" in weapons, so that symptoms of a general weakening of the materiel may be determined before a "blow-up" renders the symptoms an actuality.

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BULLDOZER AND DUMP TRUCK FOR EACH ARTILLERY BATTALION.

(RESTRICTED) **DISCUSSION:** The Korean war has been characterized by extremely poor roads, or the absolute absence of same. The limited availability of suitable battery positions has constantly necessitated the pioneering of roads into areas, and the levelling off or excavation of gun pits, switchboard, FDC and other installations. The wide fronts, necessitating scattering of batteries to give sector coverage, and the extreme frozen condition of the terrain render RSOP's and displacements and shifting of center lines extremely difficult. The demands on Engineer units are so great in performing their normal missions, that assistance to artillery units is rarely available.

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**RECOMMENDATION:** In view of these conditions, it is recommended that each artillery battalion be authorized as part of its T/O&E a bulldozer and dump truck in order to perform the engineering jobs that are constantly arising.

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**SOURCE:** Command Report - X Corps Artillery

**DATE:** March 1952

Source No 396

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**PROVISIONAL ARTILLERY GROUP HEADQUARTERS.**

(RESTRICTED) The X Corps sector is extremely rugged and the compartmented nature of the terrain requires that the artillery be positioned in distinctly separate areas of operation and control. Further, neither the 7th nor 8th ROK Divisions has Division Artillery Headquarters to coordinate the fires of artillery units supporting each of the two divisions. For these reasons Headquarters X Corps Artillery was subdivided to provide for two provisional artillery group headquarters in addition to Headquarters X Corps Artillery which incorporates the X Corps Fire Support Coordination Center.

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**SOURCE:** Command Report - 179th Infantry

**DATE:** January 1952

Source No 397

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**ATTACK ON FORTIFIED POSITIONS.**

(RESTRICTED) Once our attack becomes apparent to the enemy, it must be pushed to completion rapidly and fortified areas entered as soon as possible. It is safer to fight the enemy in his trenches and bunkers than outside in enemy mortar fire which they will bring down on their own positions.

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**SOURCE:** Command Report - 70th Tank Bn

**DATE:** January 1952

Source No 398

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**T/O&E CHANGE, TANK BATTALION.**

(RESTRICTED) The current T/O&E does not provide sufficient clerk typists for the headquarters; specifically the

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Adjutant and S1 Section. It is recommended that the T/O&E be changed to provide four additional clerk typists and four additional typewriters for the headquarters.

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SOURCE: Command Report - 52 FA Bn  
DATE: December 1951 Source No 399

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CHANGE IN ARTILLERY BATTALION GENERATOR.

(RESTRICTED) The authorized allowance of two each electric lighting equipment set #3, 3 KVA, is not adequate for a field artillery battalion. The tactical functioning of a field artillery battalion requires twenty-four-hour operation in the headquarters installations, and the small generator unit is not mechanically sufficient to meet this continued operation requirement. This unit possesses two 5 KVA units as substitute items for the 3 KVA sets. Experience indicates that even the 5 KVA units are not adequate for the lighting required. Also the present allowance of lanterns, gasoline, leaded fuel, is not sufficient to provide the necessary auxiliary lighting for installations throughout the battalion.

Recommend that a 10 KVA lighting unit be provided each field artillery battalion for lighting headquarters installations or that a portable generator unit with fluorescent lighting equipment be provided for use in the fire direction center. As an auxiliary means of lighting, it is recommended that the allowance of lanterns, gasoline, leaded fuel, be increased to thirty-five per battalion.

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SOURCE: Command Report - I US Corps, Part 1,  
DATE: January 1952 Source No 400

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KOREA REPLACEMENT SYSTEM

(RESTRICTED) It is recommended that all replacements for Korea be shipped direct from the Continental US to a



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In one firing battery in the division the average AGC score dropped from 104 to 77. The performance of this battery will be considerably lower due to the quality of replacements it received.

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SOURCE: Command Report - 10 Engineer Combat Bn

DATE: February 1952

Source No 402

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LACK OF SUPERVISORY EXPERIENCE.

(CONFIDENTIAL) Many of the replacement officers, although possessing a better educational background, are as lacking in supervisory experience as the enlisted replacements.

It is recommended that approximately 25% of the enlisted replacements coming through the pipe line be given additional training in Japan prior to being shipped to Korea. These trainees should be those with engineer basic in the Continental US and should be given about a 6-week "Engineer Leaders Course" at the Eta Jima Specialist School. These men, although still in rank of Private or Private First Class, would be potential squad and platoon leaders upon joining an organization in Korea.

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ENGINEER MISSION FOR KOREAN SERVICE CORPS.

(RESTRICTED) To increase the productivity of road effort, Battalion Opn Order 23 assigned a specific road responsibility to the KSC Co attached to A Co 10th Engrs. Korean officers were briefed on the road job and the KSC Co Commander was charged with the responsibility for the sector assigned. Pride in work accomplishment soon became evident among the Korean troops and an appreciable contribution to the Battalion effort was noted.

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SOURCE: Command Report - 45th Division Artillery

DATE: January 1952

Source No 403

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INADEQUATE SUPPLY OF WHITE PHOSPHORUS SHELLS.

(CONFIDENTIAL) The supply of white phosphorus shells for 105-mm howitzers is considered inadequate. The present allocation of this shell is 0.5 rounds per 105-mm howitzer per day. Aerial observers find it difficult to pick up the burst of HE shells when beginning an adjustment on a target. This is particularly true during early and late daylight hours when the steep, high hills cast shadows over most of the valleys and on days when visibility is poor. Since it has not been possible to fire many WP shells for the start of an adjustment, many HE shells are reported as lost by the Air OP's. The time required to adjust fire on targets is increased in many cases as well as the waste of HE shells which are sensed as LOST by aerial observers. It is recommended that the allocation of WP shells be increased as soon as possible.

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SOURCE: Command Report - 13th Engr (C) Bn

DATE: February 1952

Source No 404

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CLEARING MINE FIELDS.

(CONFIDENTIAL) Some research should be undertaken to determine the most effective method of clearing mine fields laid in snow, and clearing mine fields covered by deep snow and/or frozen earth.

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SOURCE: Command Report - 38th Inf Regt

DATE: January 1952

Source No 405

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EMPHASIS ON SMALL UNITS.

(RESTRICTED) Small unit training should be emphasized. Terrain in Korea is such that the success or failure of a squad or a platoon may be the success or failure of a regiment.

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Emphasis must be placed on the command responsibility and prestige of squad leaders. The squad leader must be both physically and professionally capable.

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FOUGASSES ON MLR.

(RESTRICTED) Fougasse charges consisting of propelling charge of C2, Napalm and a WP grenade, all placed in 155-mm shell case were found to be an excellent means of halting attacks which approached tactical wire on the MLR. The charges were set off by means of an electric detonator and the effect consists of a sheet of flame being thrown some fifty feet forward. One disadvantage was discovered: the charge deteriorated in about three weeks.

SOURCE: Command Report - 73d Tk Bn  
DATE: January 1952 Source No 406

TANK MECHANICAL FAILURES.

(CONFIDENTIAL) We then began to consider separately the items which gave the most difficulty, namely, the exhaust manifold clamp which simply won't hold up. Second, the auxiliary electrical system, especially the generator engine which was flying apart. Exhaustive study indicated that the engine would operate under normal conditions of 15 minutes operation per hour for six or eight hours operation, but we were not operating under normal conditions and at times the engines ran 15 minutes per hour for 30 to 40 continuous hours. That is pushing them a little and naturally they began to fail. These engines would not have failed had their RPM been decreased and the generator geared to a higher ratio. As it is now, the generator, when dropped to a RPM to save the engine, will not put out enough current to operate the relays in the junction boxes. This lead to the burning out of certain re-relays in the master junction box, further leading to failure of the tanks to run as a draining of the batteries occurs. Finally, we come to the big bugaboo of the thrown tracks. Let us consider the particular tanks in operation and M46's in general. The tanks with which this battalion is equipped are all converted M26 tanks. Consider that the M26 was designed for about 40 tons with an engine of 500 horsepower



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and a shaft output of about 350 horsepower; you then add 8 tons, a longer and heavier track and an 810 horsepower engine with a shaft output of 500 horsepower. Also to be considered is a suspension system designed to take the shock of 40 tons at a certain horsepower. Subject that to a shock of 48 tons as well as about a 150 horsepower increase to the track and suspension and consider what is sure to happen to your torsion bars. These torsion bars naturally begin to lose their resiliency and ability to recover from continued road shock. Your tracks develop a tendency to whip and with torsion bars and road wheels slow to recover this whip you very soon find a decided tendency of the road wheels to override your track guides. Consequently, even on fairly normal ground you will find your tanks driving right out of their tracks.

These items naturally do not apply to all tanks of the M46 type but only to the tanks with which we are equipped and most familiar, the converted M26. We do not deny that a certain amount of these failures are due to driver failure for in very limited instances such is the case. In these cases we have taken immediate steps such as removing the worst drivers, and given special retraining to the balance. These efforts show decided improvement in tank operation but have not prevented the failures of the critical items mentioned.

We conclude, therefore, that tanks can be operated in this terrain, that they will fight in practically any type terrain, but the commander who commits them must be aware of, and prepared to take, a high mechanical loss. With a few relatively minor changes in parts design all this difficulty can be avoided.

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TANK PISTOL PORTS.

(CONFIDENTIAL) What is the reason for welding shut the pistol port on the last few tanks we received? Our tank crews are very much upset in this regard as they resent having to open their turret hatches under artillery and mortar fire in order to dispose of their 90-mm brass. In the last battle we received six direct hits on turrets and an open hatch in such instances can be disastrous. I can say from present experience and without equivocation that the present Chinese artillery and mortars are exceedingly accurate.

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SOURCE: Command Report - 120th Engr C Battalion

DATE: January 1952

Source No 407

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COMMENTS ON 20-TON BUCKEYE CRANE.

(CONFIDENTIAL) Difficulty was experienced in keeping lights on the two cranes due to two things: 1. The light plant on the M20A Buckeye Crane is not rugged enough for continuous operation. 2. The cranes did not come equipped with floodlights and substitutes have been improvised. We have been forced to change several things on the 20-ton Buckeye Crane, Model M20A, in order to keep them operating, namely, (1) Change the ignition systems from aircraft type to automotive type systems. The aircraft type shielding develops short circuits very quickly and the replacement of these parts is almost impossible. Aircraft type spark plugs can only be obtained through the Air Corps so the use of regular automotive type ignition systems is the only solution devised to date. (2) The crane engine generator is not large enough to run lights even of the automotive type with the large amount of wiring necessary to put a light on the boom. This has been overcome by devising a new bracket to mount over the engine head and mounting a 2-1/2-ton GMC, 40 amp generator there, replacing the fan belt with an automotive type fan belt. Have been unable to find the proper fan belt as to belt width since the belt in use rides the bottom of the fan pulley groove and the same is true of the water pump pulley, but this type installation is in use on two cranes which are in operation and has worked successfully for approximately two weeks. It is also necessary to replace the original voltage regulator with one from a 2-1/2-ton GMC truck. One-quarter-ton jeep headlights were substituted on this hook-up for the regular 110-volt floodlights supposed to be on the crane. (3) The operating lever linkage on this model crane is not strong enough to withstand the pull exerted through the operating levers. This is especially true when crowd clutch bands become worn or the seals in the swing clutch assembly leak and allow grease to get on the bands. It has been impossible to get parts to replace the bands or seals and became necessary to replace the ball and socket joints in the operating lever linkage with clevises and pins to withstand the additional pressure.

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It is believed that this is a change that should be incorporated in new models. (4) Many of the crane chassis parts are interchangeable with Ordnance vehicle parts and this source has been used for replacement parts. Since engineer supply channels do not seem to be able to support the equipment issued in the field, it is advisable that engineer equipment have chassis' of such design that ordnance spare parts can be used. Special reference is to lighting and ignition systems, transmission, transfer cases, drive shafts, axles, wheel bearings, seals and differentials. This procedure would obviate the difficulty in obtaining many parts, the bulk of which results in deadlined equipment.

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OPERATION TANK-DOZER IN MINED AREA.

(RESTRICTED) In spite of the precautions taken before using the tank-dozer on the road, the tank-dozer was lost to an enemy mine. It is evidently the policy of the CCF to bury their nuisance mines to such a depth that mine detectors cannot locate them. Then as the ground surface freezes to a depth of ten to fourteen inches, a tank will not explode them. These mines then cannot be detected by probing, with mine detectors, nor explored by demolitions on the ground surface. Only after the tank-dozer had removed about twelve inches of the frozen top-soil and passed over the mine seven times did the weight of the vehicle explode the mine.

SOURCE: Command Report - 57th FA Bn 7th Inf Div

DATE: January 1952

Source No 408

LIGHTING PROBLEMS, FA BN.

(RESTRICTED) It is strongly recommended that 5 KW generator be provided for each Field Artillery Battalion Headquarters Battery. This would enable the headquarters to have a reliable power plant with enough capacity to furnish adequate lighting. It is further recommended each firing battery be issued a 3 KVA generator, as there are now no provisions made to provide even a minimum of light, other than candles, which are fire hazards.

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