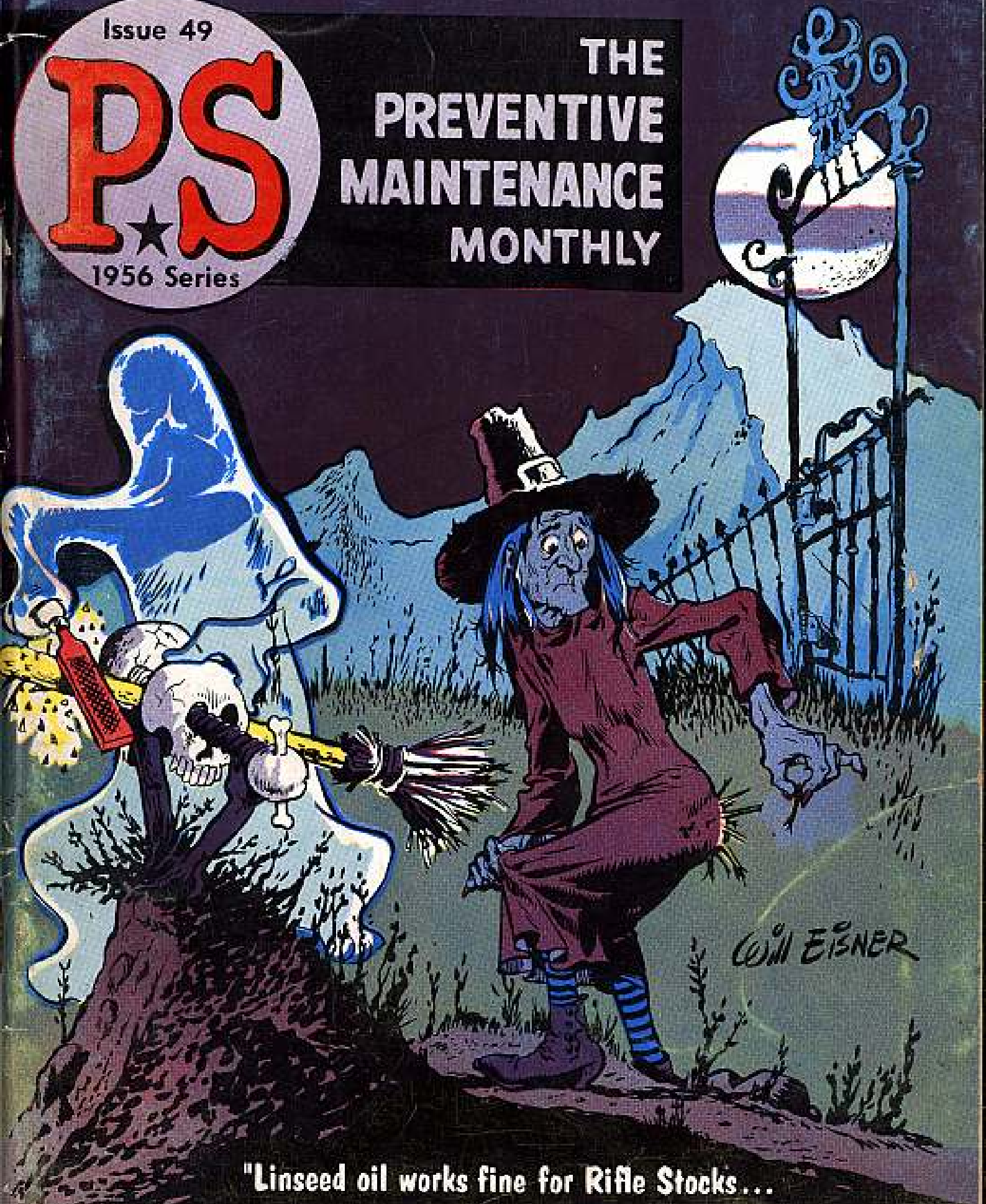


Issue 49

PS

1956 Series

**THE
PREVENTIVE
MAINTENANCE
MONTHLY**



**"Linseed oil works fine for Rifle Stocks...
See what your broom's TM allows"**

No Sweat Getting 'Em Now...

"How in the %&^* do I get that TM I need?"

That's one of the big questions always asked by operators and mechanics who want to do their maintenance jobs but don't know how to get the publications they need. But now your troubles are over. The Army has come up with a new method for getting those much-needed publications to you—the man who really needs 'em and uses 'em. In addition to TMs, this new method'll get you Supply Manuals, Lubrication Orders, Technical Bulletins, Supply Bulletins and Modification Work Orders.

How does it work? Draw yourself a frosty one, have a pretzel, and lend an ear. You now get your publications just like you get your parts. Yep, that's right—same channels as you do your parts. This means if you're hurtin' for an Ordnance publication, you order it thru your Ordnance Property Officer. If it's for Engineer equipment that you're missing a publication, order thru your Engineer Property Officer. And right on down the line with the other technical services.

Technical service installation property officers (let's call 'em TSIPOs) are responsible for:

1. Automatic distribution of TMs, SM's, LO's, TB's, SB's, and MWO's to the using unit (that's you.)
2. Automatic distribution of any new or revised publications.
3. Replacing all maintenance publications you've worn out or lost.
4. Making sure you have the right kind and right amount of publications on hand to take care of your equipment like you should.

If you're overseas you get your publications the same way.

Your TSIPO is really an important guy. He not only can tell you what publications are available in your area, but he also knows just what publications you can put your hands on... and what new publications have rolled off the press and what old publications have been revised.

Of course, you still requisition publications on DA Form 17.

Here's what you can quote in case you run across one of those "Who-Says-So" guys: Letter from Department of the Army, Office of the Adjutant General, Washington 25, D. C., dated 2 Dec 55, file AGAM-P (M) 461 (25 Nov 55) LOG, SUBJECT: Distribution of Supply and Maintenance Publications.



PS
THE
PREVENTIVE MAINTENANCE
MONTHLY

Issue No. 49 1956 Series

Published by the Department of the Army for the information of organizational maintenance and supply personnel. Distribution is made through normal publication channels. Within limitations of availability, older issues may be obtained direct from Preventive Maintenance Agency, Raritan Arsenal, Metuchen, New Jersey

IN THIS ISSUE

- FEATURE ARTICLES**
- Keeping those Vehicles in Tune 2
 - Maintenance of Fan Belts 16
 - Battery Care (Cartoon Section) 21
 - Testing Your .30-cal M37 Machine Gun 35
 - Clark Model 45 Plemaloder 36
 - Cure for Sticky Gas Pedals 45

- DEPARTMENTS**
- Connie Rodd 13
 - Half-Mast 29
 - Armament 32
 - Quartermaster 36
 - Chemical 38
 - Engineers 40
 - Contributions 44
 - Connie Rodd's Briefs 47
 - Perpetual Index 48

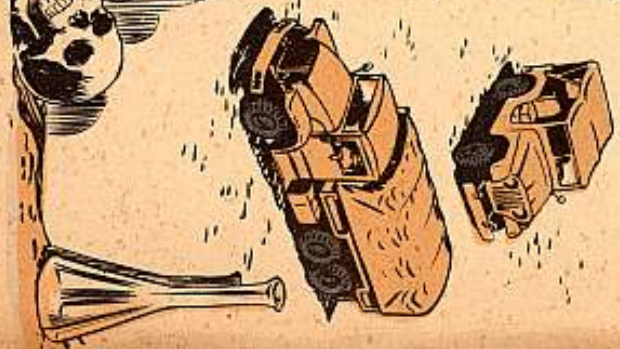
PS wants your ideas and contributions, and is glad to answer your questions. Just write to: Sgt Half-Mast, PS, Raritan Arsenal, Metuchen, N. J. Names and addresses are kept in confidence.

The printing of this publication has been approved by the Director of the Bureau of the Budget, 127 Ave. J, New York, N.Y. 10019, except contracts 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710, 2711, 2712, 2713, 2714, 2715, 2716, 2717, 2718, 2719, 2720, 2721, 2722, 2723, 2724, 2725, 2726, 2727, 2728, 2729, 2730, 2731, 2732, 2733, 2734, 2735, 2736, 2737, 2738, 2739, 2740, 2741, 2742, 2743, 2744, 2745, 2746, 2747, 2748, 2749, 2750, 2751, 2752, 2753, 2754, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2768, 2769, 2770, 2771, 2772, 2773, 2774, 2775, 2776, 2777, 2778, 2779, 2780, 2781, 2782, 2783, 2784, 2785, 2786, 2787, 2788, 2789, 2790, 2791, 2792, 2793, 2794, 2795, 2796, 2797, 2798, 2799, 2800, 2801, 2802, 2803, 2804, 2805, 2806, 2807, 2808, 2809, 2810, 2811, 2812, 2813, 2814, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 2823, 2824, 2825, 2826, 2827, 2828, 2829, 2830, 2831, 2832, 2833, 2834, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 2842, 2843, 2844, 2845, 2846, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2854, 2855, 2856, 2857, 2858, 2859, 2860, 2861, 2862, 2863, 2864, 2865, 2866, 2867, 2868, 2869, 2870, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878, 2879, 2880, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2894, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 2909, 2910, 2911, 2912, 2913, 2914, 2915, 2916, 2917, 2918, 2919, 2920, 2921, 2922, 2923, 2924, 2925, 2926, 2927, 2928, 2929, 2930, 2931, 2932, 2933, 2934, 2935, 2936, 2937, 2938, 2939, 2940, 2941, 2942, 2943, 2944, 2945, 2946, 2947, 2948, 2949, 2950, 2951, 2952, 2953, 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961, 2962, 2963, 2964, 2965, 2966, 2967, 2968, 2969, 2970, 2971, 2972, 2973, 2974, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2986, 2987, 2988, 2989, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3002, 3003, 3004, 3005, 3006, 3007, 3008, 3009, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023, 3024, 3025, 3026, 3027, 3028, 3029, 3030, 3031, 3032, 3033, 3034, 3035, 3036, 3037, 3038, 3039, 3040, 3041, 3042, 3043, 3044, 3045, 3046, 3047, 3048, 3049, 3050, 3051, 3052, 3053, 3054, 3055, 3056, 3057, 3058, 3059, 3060, 3061, 3062, 3063, 3064, 3065, 3066, 3067, 3068, 3069, 3070, 3071, 3072, 3073, 3074, 3075, 3076, 3077, 3078, 3079, 3080, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3090, 3091, 3092, 3093, 3094, 3095, 3096, 3097, 3098, 3099, 3100, 3101, 3102, 3103, 3104, 3105, 3106, 3107, 3108, 3109, 3110, 3111, 3112, 3113, 3114, 3115, 3116, 3117, 3118, 3119, 3120, 3121, 3122, 3123, 3124, 3125, 3126, 3127, 3128, 3129, 3130, 3131, 3132, 3133, 3134, 3135, 3136, 3137, 3138, 3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3151, 3152, 3153, 3154, 3155, 3156, 3157, 3158, 3159, 3160, 3161, 3162, 3163, 3164, 3165, 3166, 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3189, 3190, 3191, 3192, 3193, 3194, 3195, 3196, 3197, 3198, 3199, 3200, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, 3242, 3243, 3244, 3245, 3246, 3247, 3248, 3249, 3250, 3251, 3252, 3253, 3254, 3255, 3256, 3257, 3258, 3259, 3260, 3261, 3262, 3263, 3264, 3265, 3266, 3267, 3268, 3269, 3270, 3271, 3272, 3273, 3274, 3275, 3276, 3277, 3278, 3279, 3280, 3281, 3282, 3283, 3284, 3285, 3286, 3287, 3288, 3289, 3290, 3291, 3292, 3293, 3294, 3295, 3296, 3297, 3298, 3299, 3300, 3301, 3302, 3303, 3304, 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318, 3319, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3334, 3335, 3336, 3337, 3338, 3339, 3340, 3341, 3342, 3343, 3344, 3345, 3346, 3347, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3383, 3384, 3385, 3386, 3387, 3388, 3389, 3390, 3391, 3392, 3393, 3394, 3395, 3396, 3397, 3398, 3399, 3400, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3418, 3419, 3420, 3421, 3422, 3423, 3424, 3425, 3426, 3427, 3428, 3429, 3430, 3431, 3432, 3433, 3434, 3435, 3436, 3437, 3438, 3439, 3440, 3441, 3442, 3443, 3444, 3445, 3446, 3447, 3448, 3449, 3450, 3451, 3452, 3453, 3454, 3455, 3456, 3457, 3458, 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3474, 3475, 3476, 3477, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3485, 3486, 3487, 3488, 3489, 3490, 3491, 3492, 3493, 3494, 3495, 3496, 3497, 3498, 3499, 3500, 3501, 3502, 3503, 3504, 3505, 3506, 3507, 3508, 3509, 3510, 3511, 3512, 3513, 3514, 3515, 3516, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3525, 3526, 3527, 3528, 3529, 3530, 3531, 3532, 3533, 3534, 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 3598, 3599, 3600, 3601, 3602, 3603, 3604, 3605, 3606, 3607, 3608, 3609, 3610, 3611, 3612, 3613, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3622, 3623, 3624, 3625, 3626, 3627, 3628, 3629, 3630, 3631, 3632, 3633, 3634, 3635, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3643, 3644, 3645, 3646, 3647, 3648, 3649, 3650, 3651, 3652, 3653, 3654, 3655, 3656, 3657, 3658, 3659, 3660, 3661, 3662, 3663, 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671, 3672, 3673, 3674, 3675, 3676, 3677, 3678, 3679, 3680, 3681, 3682, 3683, 3684, 3685, 3686, 3

KEEPING THOSE VEHICLES IN TUNE



The M-Series
Patented Wheel-Sealed Vehicles
 Presented **Formulae**
 for the
 Preventive Maintenance
 of ailments that
 burden said
 Motor Driven Devices

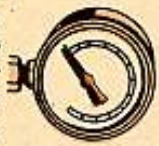


The Formula on Compression

First off, after lifting the hood, take out the spark plugs and lay them aside on a clean surface.



Then take compression gage (Ord Stock No. 41-G-124) from your second echelon tool kit and go from cylinder to cylinder checking compression. Meanwhile your buddy's cranking the engine (at least four complete revolutions) until you get a reading on the gage meter.



During test, throttle and choke should be opened all the way (choke knob on dash pushed all the way in) and the engine should be at normal operating temperature.



Reture: Good batteries are needed since a true test depends on engine cranking speed. To make sure of an accurate reading recheck first cylinder after checking the others.



If this cylinder checks lower than the first time, the batteries have weakened. The readings then for the other cylinders were probably lower than what they really are because of low cranking speed. If that's the way she shows up, check her again, this time with fully charged batteries.

The Mystic Readings on Compression Chart

VEHICLE SERIES	6740	6758	6741	6742	6749	6744
MINIMUM ALLOWABLE COMPRESSION (PSI)	70	100	90	85	98	98
MAXIMUM PRESSURE VARIATION FROM HIGH TO LOW CYLINDER (PSI)	10	10	10	10	30 - 40	10

ONE MUST BE CAREFUL WITH THESE INTRICATE MECHANISMS, FAULTY EQUIPMENT WILL CAUSE HEARTACHE AND HEADACHE TO BE PREPARED AT ALL TIMES TO PERFORM THOSE REPAIRS THAT WILL AID THE SMOOTH OPERATION OF YOUR VEHICLE!

HMM...? WOTTA OPPORTUNITY!



If the difference between the high and low cylinders is within the maximum pressure variation spec, you're OK. But if reading is outside the limits, your truck's due for some engine work.

To find out whether it's your rings or valves that are floozing, make the "wet" test. Drop a teaspoon of engine oil into the cylinder. Oil seals off any leak around the rings.

If compression comes up, you know the trouble's with your rings.

If the compression doesn't come up, it's your valves.



Valve Checking

Check your valves and make sure they're adjusted just right. Valves set with not enough clearance have a good chance of burning, while valves set with too much clearance raise a racket and take away from the power of the vehicle.

Be Aptic Numbers for Valve Checking

VEHICLE SERIES	6740	6758	6741	6742	6749	6744
INTAKE	.016	.018	.010	.014 - .016	.012	.020
EXHAUST	.016	.016	.014	.014 - .016	.020	.024

AHEM... YES I SEE... KINDLY OLD WITCH... HASTA CURE FOR A PERSONAL... HEART AILMENT?

Timing Spark Plugs

It is time to return now to the spark plugs you laid aside. First look down the top of the plug to be sure the porcelain isn't cracked. If it is, get a new plug.



Normal Heat Range Signs

too gold.

Turn the plug to the electrode side. The insulator there will tell you whether your plugs are operating within the normal heat range, running too hot or



TAN OR BROWN—OK



HEAVY GRAYISH-TAN—USED LONGER TIME—OK



GRAYISH-TAN—USED FOR SHORT TIME—OK



DULL RUST-BROWN—READY FOR CHANGE



Chalky? Too Hot — Caused by:

1. Plugs not tight enough in cylinder head, or a distorted gasket in valve
2. Valves not seated properly
3. Air-fuel mixture too lean
4. Ignition timing out of commission
5. Wrong heat range plugs (check SNL)
6. Water leaking into combustion chamber



Replace... if deposits or spots have formed.

Plugs that have started to blister or discolor will fire too much and give pre-ignition. Try to isolate the cause of the trouble and correct it.

Black-Too Cold

If insulator's black your plugs are running too cold (unless you have a new truck). This means too much oil is reaching the combustion chamber. Best find the reason for it and fix it up, else you'll be cleaning those plugs pretty often.



I SEE... IF INSULATOR IS PULL WITH BLACK FILM OF CARBON... LOOKS LIKE SOOT... AND YOU HAVE A NEW TRUCK... YOU'RE LIKELY TO GET THIS DURING THE BREAKING-IN PERIOD. ONCE YOUR TRUCK HITS NORMAL OPERATION, IT SHOULD CLEAR UP. BUT IF IT DOESN'T, SWITCH TO HOTTER RANGE PLUGS!

After looking over insulator, give the plugs a good cleaning, gap and test them... good idea to check contact surfaces of high tension cables for corrosion.

Gap T-tustip

G758	G741	G742	G749	G744
.030 IN	.028-.030 IN	.030 IN	.028-.032 IN	.030 IN

When you put the plugs back in, try and get new gaskets (Ord Stock No. H102-0150189). If not, use your old ones but make sure they're clean and aren't crushed. All M-Series tactical wheeled vehicles take a 14-mm plug. See your Ord 7 SNL for the right stock number.

Torquing Foot Pounds - Final Steps In Spark Plug Cure

G740	G758	G741	G742	G749	G744
25-30	25-30	25-28	25	25	25

The Presentation of Distributor Cures



WHEN YOU GET DOWN TO THE DISTRIBUTOR, FIRST THING YOU DO IS TAKE IT'S CAP OFF AND CLEAN THE CAP AND THE DISTRIBUTOR INSIDE AND OUT!

Look for cracks in rotor and cap. Look for grit and burns.

Check breaker points (replace if burned or pitted).

Leave them in and all you'll get is trouble.

The Chart for Points Setting

G740	G758	G741	G742	G749	G744
.020 IN	.020 IN	.020 IN	.022 IN	.020 IN	.018-.024 IN

Specifications for Adjustment of Breaker Springs (in ounces)

G740	G758	G471	G742	G749	G744
17-20	17-20	17-20	17-21	17-21	17-21



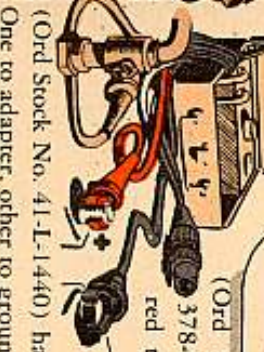
Before putting your distributor cap on, take a little GAA and wipe it lightly over the breaker cam. Then, lube the breaker arm pivot and wick under the rotor with 1 or 2 drops of preservative oil. Put your distributor cap on—make sure the rotor is seated properly—and you're all set.



Dr Ignition Timing

NOW... WHEN YOU START PREVENTIVE MAINTENANCE OF IGNITION TIMING... GET YOURSELF A TIMING LIGHT ADAPTER (ORD STOCK NO. 17-A-2967-50) AND ONE OF TWO TIMING LIGHTS AS ILLUSTRATED HERE!

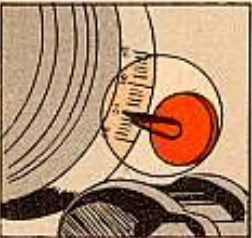
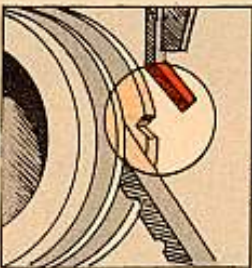
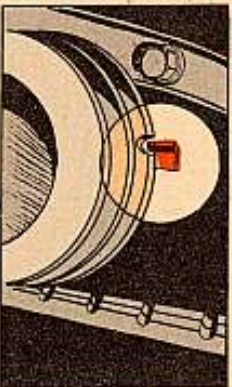
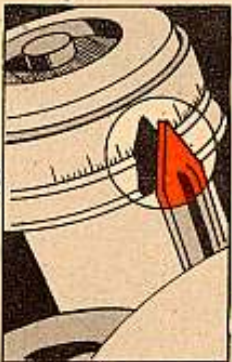
(Ord Stock No. 17-L-12936-300; ESN 6625-378-2073) has three leads. Blue to adapter, red to positive battery terminal and black to ground on negative battery terminal.



(Ord Stock No. 41-L-1440) has two leads. One to adapter, other to ground.

Remove spark plug cable from No. 1 plug and install adapter on threaded end of plug. Connect plug cable to adapter. Time with engine at idle.

Timing Marks and Pointers



*When timing this truck, the engine should be set to idle at 400 rpm or less. If it's set higher, the advance mechanism will get into the act and give you a faulty reading.)



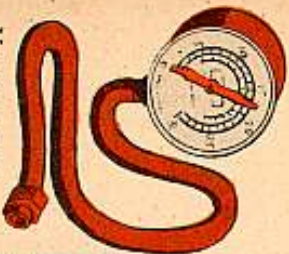
Timing Specifications Before Top Dead Center in Degrees

VEHICLE SERIES	G740	G758	G741	G742	G749	G744
TIMING	SET TO MARK	5 BTDC	* 4 BTDC	SET TO MARK	5 BTDC	5 BTDC

*Y'KNOW THERE'S A TIP YOUR BOOK DOESN'T SHOW HERE ON G741 TIMING. IDEAL CONDITIONS, (1000 TO 2500 FT ALTITUDE) TIMING'S GOTTA BE SET AT TWO DEGREES AFTER TOP DEAD CENTER, IN VERY HIGH ALTITUDES IT CAN BE SET UP TO SIX DEGREES AFTER TOP DEAD CENTER, AND AT VERY LOW ALTITUDES TO TWO DEGREES BEFORE TOP DEAD CENTER... CAN'T GO BEYOND THESE!

Dr Fuel Pump

Checking Output Pressure



Vacuum gage
Ord Stock
No. 41-G-500)



Disconnect gas
line (outputside
of pump.)

Install pressure
gage

Crank engine
(ignition off)

Remember Don't Forget Get These Readings

VEHICLE SERIES	G740	G758	G741	G742	G744
4 PSI	4 PSI	4 PSI	4 PSI	4 PSI	4 PSI

Note: G749 2½-Ton has electrical fuel pump. Disconnect fuel line from outlet fitting (ignition off). Connect gage to fitting. Turn ignition switch on and read gage. Should be at 2½ to 3 PSI.

Be Manifold Vacuum Test



Take out pipe plug at top of intake manifold



Connect hose of gage into opening



Make sure connections are tight



Run engine at idle



Normal reading at sea level 17-21".
Higher altitudes give lower readings



1. Has the shakes or drifts slowly, your gas-air carburetor mixture adjustment is not right.



2. Gradually drops to zero, you have a clogged up exhaust system.



4. Drops at intervals of from 3 to 5 inches below the normal, you have a sticking valve.



3. Waves steadily back and forth, you have a compression leak between one or more cylinders—usually means a leaky valve, a blown head gasket, a clogged intake manifold or faulty ignition.



6. Stays steady at a low reading. Check for manifold leaks.



Concluding Items

Before you slam your hood down, there are a few other things to check out. First, make sure that all air cleaners are free of grit, slime and dirt. A free air cleaner leaves your crankcase breather lines open so the crankcase can get the air it needs to breathe. If you're operating in sandy country, your air cleaner will need a heckuva lot more service than in normal areas.



The G741 ¾-ton truck and both 2½-ton trucks—the G742 and the G749—have seasonally-adjusted heat control valves that have to be checked. Make sure this valve is working free—just give her a lit' jiggle and set it for the proper season.

Other Things To Check



BATTERIES, CABLES, COOLING SYSTEM, CYLINDER HEAD GASKET, EXHAUST MANIFOLD AND GASKETS, EXTERNAL FITTINGS AND LINES, GENERATOR, REGULATOR,



OIL FILTER ASSEMBLY AND ELEMENT, ROCKER ARM COVER ASSEMBLY AND GASKET, STARTER AND SWITCH ASSEMBLIES, VALVE COMPARTMENT COVER AND GASKET

Check carburetor throttle adjustment to make sure truck isn't running too slow or too fast. Use engine tachometer (Ord Stock No. 18-T-231). Adjust while operating at the following RPM's.

JEEP—600 RPM
G742 2½-TON—450 RPM
G749 2½-TON—375 RPM
G744 5-TON—400 RPM
G741 ¾-TON—USE VACUUM GAGE
MAXIMUM READING 21"



YOUR BOOK SURE DID IT, AND NOW ABOUT MY PERSONAL AILING!

"Y'SEE I HAVE WHAT IS KNOWN AS LONLUNUS HEARTUS... WHAT CURE DO YOU HAVE FOR THAT?"

THAT'S NOT MY DEPARTMENT... BUT TILL TERN YOU OVER TO MY VERY CAPABLE ASSISTANT WHO SPECIALIZES IN SUCH IN CASES!



CARBURETOR HIJINKS

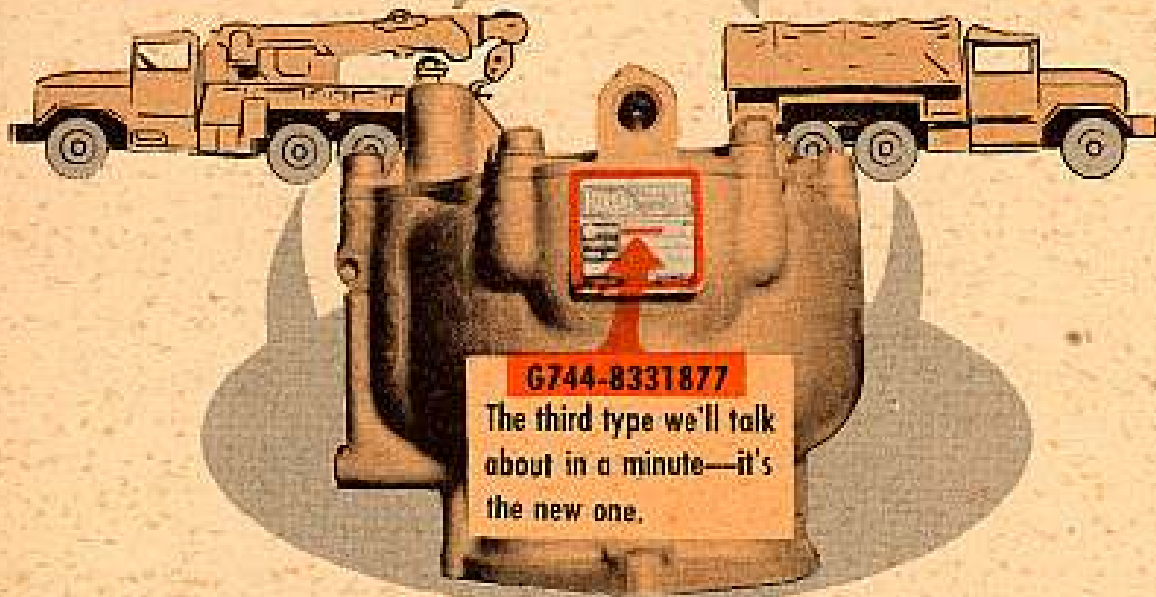
You may find yourself thinking that the three carburetors for the G744-series 5-ton are interchangeable for all the vehicles in this series, because they look alike. But, they aren't—so caution, friend, caution.



Carburetor **G744-8327282**
is the one aimed for the
M62 and M246 wreckers.



Carburetor **G744-7375469**
is the carburetor made for
all the other trucks in the
G744 5-ton class.



G744-8331877
The third type we'll talk
about in a minute—it's
the new one.

Now, these two carburetors—**G744-8327282** and **G744-7375469**—have different governor calibrations and can't be interchanged, so don't try it or else you'll find yourself chugging along at six miles per hour.

On this third carburetor—**G744-8331877**—you can put this one on any of the 5-ton trucks with a little fixing up. If you're using this carburetor on any 5-ton truck except the M62 and M246, you can use her just as she is. When it comes to the M62 and M246 you have to use Governor Spring **G744-8327323** with this carburetor.

By the way, this **G744-8331877** carburetor is the one that'll be in use on all 5-ton trucks before long. It's replacing the other two.



Hot or cold?

With winter coming on again, you guys driving the G758, G741, and G749 trucks will want to check out your power plant heaters to make sure they're hooked up right.

Vehicles with the converted World War II power plant heaters in them should be looked at for proper hook-up. If it's wrong, your truck will start feeling like a frozen turnip.

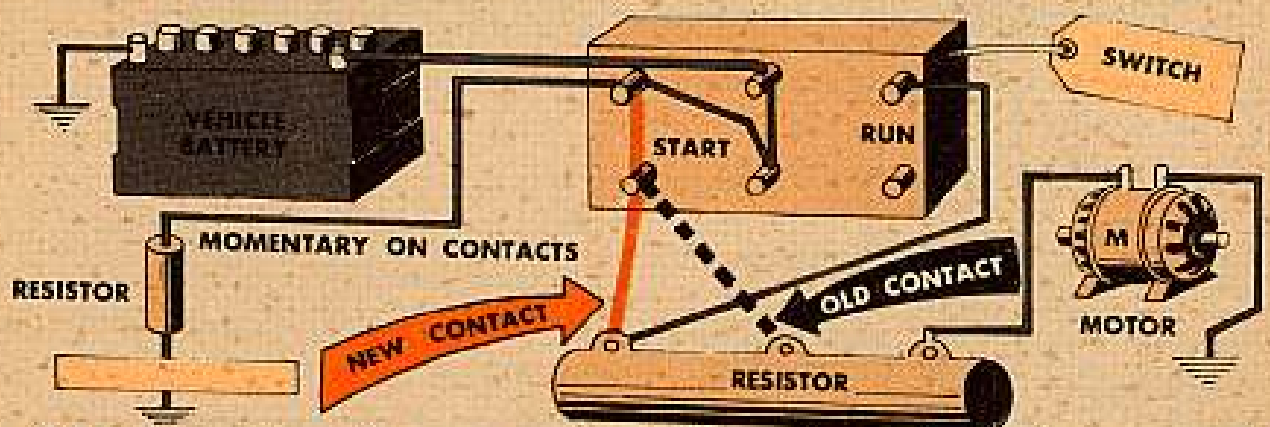
Here's the way these particular kits have been set up:

G249-5701173 converted to G249-5701730 for the M38A1.

G249-5701093 (12V), and G249-5701176 (6V), converted to G249-5701370 for the M37.

The G249-5701099 converted to G249-5701465 for the M135.

What you do is follow the lead which runs from the starting side of your switch. If this lead goes to the center terminal of your resistor (Mfrs Part No A15898-G1), you have to make this switch.



Take the lead from the center terminal of the resistor and transfer it over to the end terminal. This is the same end terminal that your **RUN** wire is hooked up to.

With the starting lead hooked up wrong, you'll be getting too much voltage through the motor. This churns up more air than the combustion chamber can handle, flubbing the fuel-air ratio and cooling the igniter. Makes for a cold, cold engine.

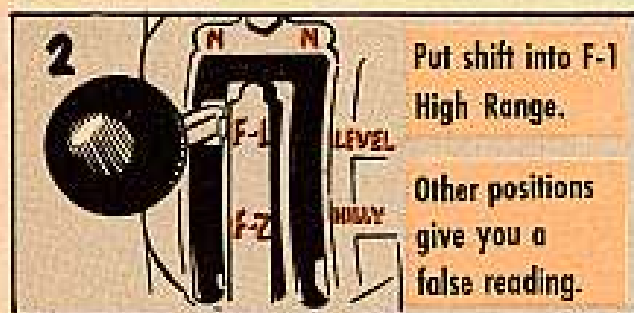
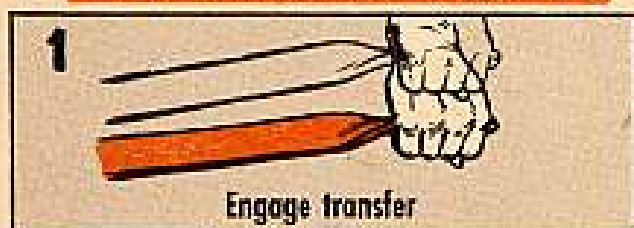
Read the problem

Questions have been pouring in about para 2a of TB 9-8024-1 (19 Jan 56), which says, "The transfer as well as the transmission control should always be placed in the neutral position when the engine must be left running while the vehicle is not in operation."

Guys are throwing TM 9-8024 (Oct 55) into the picture, because this TM says that when you go to check your transmission fluid level, the transmission must be placed in F-1 High Range. So, they ask, which is right—the TB or the TM?

Well, they're both right—the TB and the TM.

To Check Transmission Oil Level :



The TB applies to all those other times you have to keep your truck idling when she's not in operation.

Seat session

A lot of guys driving those G742 series 2½-ton trucks have been letting their rear spring seat bearings go kaputsky just because they aren't lubing them like LO 9-8022 (4 Nov 55) says.

When these babies go bad, they can eventually affect the operation of your rear bogies. So, why not play it safe and lube 'em once every 1,000 miles like the LO tells you.

All you have to do is loosen the screws on the seat cover just a bit before lubing. Then, when you start lubing, you can see that grease come out all around the loose cover. That's when you know to stop shooting grease up there. The lube that shows has to be clean or else the old lube will be left up there. After lubing, just tighten the seat-bearing-cap bolts. Every once in a while, in between lubings, check these bolts and make sure they're tight.

The important part of the operation is loosening that cover. Some guys have been sticking a grease gun up those seats and have been shooting without that cover being unscrewed. So, before you know it, there's enough pressure in that seat to pop the seals.

Some of these seats have been hitting the field with plugs in them. Reason for this is that sometimes the factory runs out of grease fittings and has to put plugs in with the idea being that the plug will be replaced by a fitting when the vehicle gets into the field. The way you know this is by looking at your LO—if the part calls for grease, you're to have a grease fitting in there.



Got something for you, which will help stop rust from fouling up the outside of your Jeep's fuel tank.

Lots of sand and grit form on top of your fuel tank compartment and fill the space between the top of the tank and the bottom of the Jeep's floor. This stuff holds moisture like a sponge. You can see what happens—when the vehicle moves, a lot of vibration is set up and the sandy grit acts like an abrasive against the fuel tank. The tank's protective coating is worn away and the

thing's left wide open for a case of rust.

The way to do away with this is to remove the fuel tank from the Jeep annually or every 12,000 miles. Wipe all the dirt and grit from the tank and spot-finish the surface where the paint's worn off—use rust inhibiting OD enamel (Eng Stock No. 52-3465-300.010).

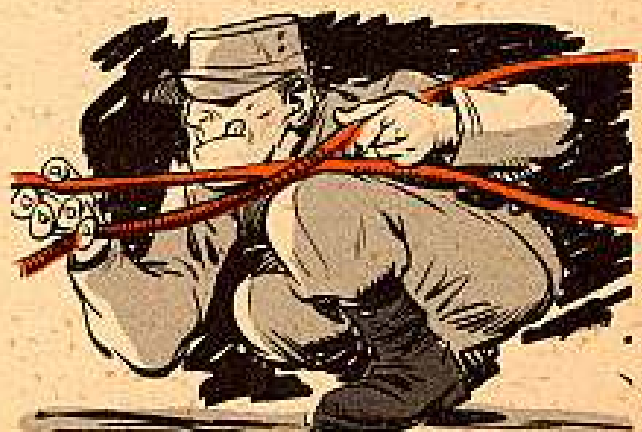
This dope's in TB Ord 635 (4 Apr 56). It'd be a good idea to jot it down somewhere where it'll be picked up at every D² service.



Some guys have been mucho miffed when that red warning light on the left front fender of their M62 5-ton wreckers suddenly decides to go on the blink. After checking to make sure the bulb's OK, they're stuck because that circuit has been a little hard to follow.

That warning light is connected through a flasher unit to the warning light switch on the instrument panel. The switch is connected to a circuit breaker on the engine side of the fire-wall. If you ever have to trace that cir-

cuit, just follow the wire tagged with the number 325.





A belt is part of every man's daily appearance. Not only does it make for a sharp-looking character—it also serves a most useful and worthwhile purpose.

But, just like most other things, it's got to be used right. If it's too loose, it gives a drape shape; too tight and that seat looks like it's part of a guy's anatomy.

Same with your vehicles—if that fan belt isn't adjusted just right, it'll cause trouble. Too loose and your generator and water pump won't put out that oomph the way they should; too tight and a strain will be put on these parts' bearings. Your water pump may sprout a couple or three leaks and before you know it, you may have to ship it back for a rebuild job. And, of course, those belts may also get ruined—frayed and glazed, that is.

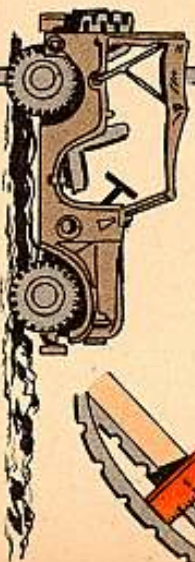
One thing that may tip you off to a badly adjusted fan belt is any mousey squeaks you hear coming from under the hood. This may mean that your belt's too loose and has to be adjusted. The best way to know what's what tho, is to check the belt's deflection once in a while.

What say we go over these adjustments for your M-series vehicles and show you how to make 'em?

BELTIN' IT AROUND

The G740 and G758
JEEPS

The right deflection for your Jeeps is $\frac{3}{4}$ inch.



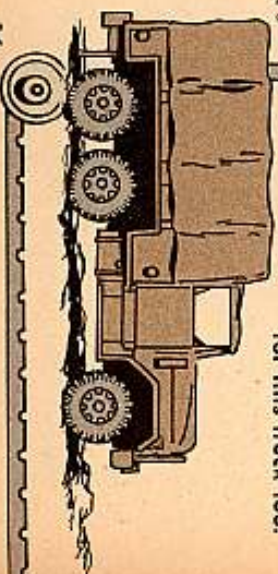
THE G741 $\frac{3}{4}$ -TON TRUCK

This one takes a $\frac{1}{2}$ -in deflection.

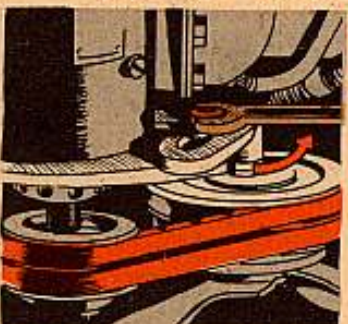


THE G742 $2\frac{1}{2}$ -TON TRUCKS

A $\frac{1}{2}$ -in deflection is the ticket for this truck too.



To check, put a ruler over the fan and generator drive belts from the water pump pulley to the generator drive pulley. Give a firm push in on the belt and see if she measures a $\frac{3}{4}$ -in deflection.



If not, loosen the bolt holding the generator belt tension brace in place.



Then move the generator until you get this deflection. Then, tighten up on the belt adjusting screw.



You'll get it just like you got your deflection on the Jeeps—loosen the generator adjusting-arm-bolt and pull the generator toward you. If the tension is too loose, you'll push it away from you. If the tension is too tight.



You can also use a ruler here. Then, tighten up on the adjusting-arm-bolt.



To check, put your ruler in place like it shows and press in firmly at a point midway between the generator and crankshaft pulleys to get your deflection.



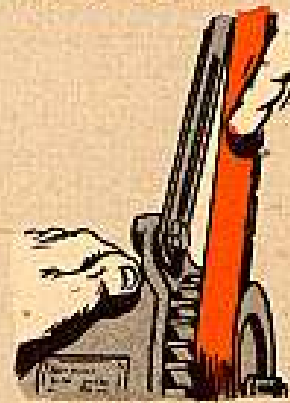
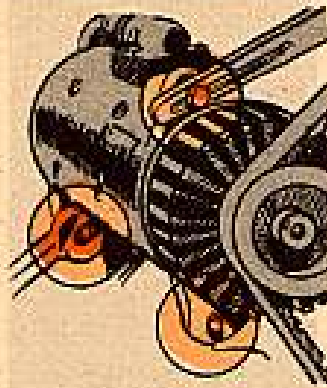
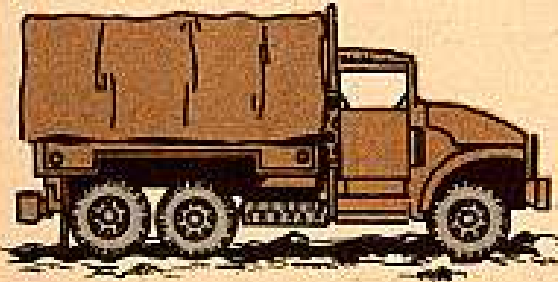
To set it, loosen the two safety nuts holding the generator to the mounting bracket. Loosen the screw holding the generator to the adjusting arm, so you can move the generator toward or away from you.



After you have the right deflection tighten up on the screw holding the generator to the adjusting arm and on those two safety nuts.

THE G749 2½-TON TRUCKS

The adjustment for this truck gives you a little leeway—between ½ and ¾ of an inch.



To get it, loosen the adjusting-arm-to-generator cap-screw and the nuts on the two generator mounting bolts.

Put a light pressure on the belt midway between the generator and water pump pulleys, and push or pull the generator until you get the right deflection. Then, tighten up on the screw and bolts.

THE G744 5-TON TRUCKS

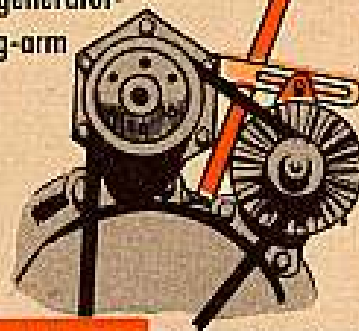
The adjustment for this buggy also gives you a little leeway—⅛ to ¼ of an inch.

Get a 30-in bar or, use a rim-tool-and-wheel-nut-wrench handle (Ord Stock No. 41-H-1541-10).



Put bar between crankcase and generator so its lower end will push against the crankcase at a point directly below the front cap-screw on the valve-tappet-chamber front cover.

Loosen the generator-to-adjusting-arm cap-screw.



Pull the upper end of the bar toward you with a pull of about 50 pounds.

Keeping the bar in place, tighten up on the generator-to-adjusting-arm cap-screw.

MATCHED BELTS

The Jeeps, the G742 2½-ton trucks and the G744 5-tons all have matched pairs of fan belts. If one belt goes bad, change both of them.


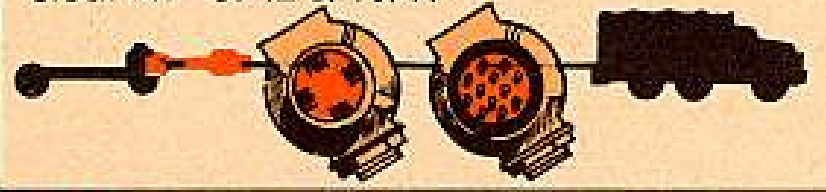
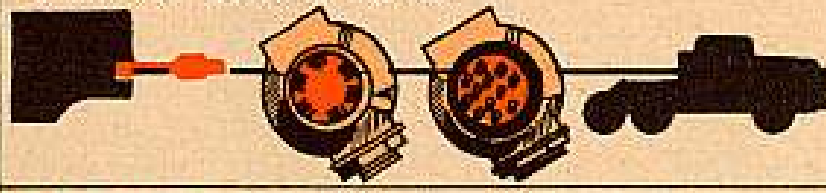
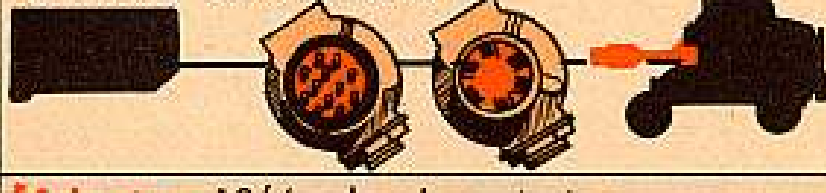

Here's why—these belts stretch. If you put on one new belt without changing the other, the two belts won't work right because the older one will be looser than the new one. So, it's a good idea to change both belts at the same time.

Hook Up

Been having trouble hooking up your trailers to your prime movers, because they have different kinds of receptacles?

If so, you'll be glad to hear that you can now get adapter assemblies for towing any trailer with any prime mover (and vicer verser) now in the field. And the only thing you'll have to change is the light bulbs on the towed vehicle to make it jibe with the voltage of the prime mover.

TB Ord 616 (21 Sept 55) put this into being. There are five adapters you can get. Here's how they shape up—

<p>Adapter, 4/12-pole socket contacts Stock No G742-8713796</p> 	<p>WHERE USED At receptacle of prime mover having 4 poles when prime mover is towing trailer with 12-pole receptacle.</p>
<p>Adapter, 4/12-pole pin contacts Stock No G742-8713797</p> 	<p>At receptacle of trailer having 4-poles when prime mover has 12-pole receptacle.</p>
<p>Adapter, 6/12-pole pin contacts Stock No G744-8713798</p> 	<p>At receptacle of trailer having 6-poles when prime mover has 12-pole receptacle.</p>
<p>Adapter, 6/12-pole socket contacts Stock No G744-8713799</p> 	<p>At receptacle of prime mover having 6-poles when towing trailer with 12-pole receptacle.</p>
<p>*Adapter, 12/4-pole pin contacts Stock No G744-8689342</p> 	<p>At receptacle of prime mover having 12-poles when towing trailer with permanently-attached 4-pole cable.</p>

*This'll be shown in a change to TB Ord 616.

NO! NO! NO!

Nein

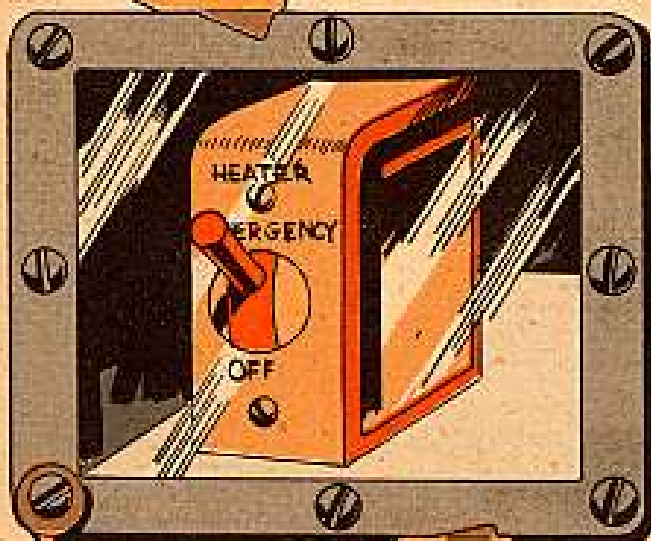
TIDAK NAY

NON

NEM

NO

NOPE



Nadu

What can y'do to wise up those hard-headed schmoes who somehow refuse to learn about that **EMERGENCY** switch in the circuit of their M48 Tank personnel heaters?

This switch is not—repeat, **NOT**—to be used to merely turn off those heaters when you're through with 'em. It's there for **emergency** use only—like for a fast fording or when an enemy gas attack demands that **all** power be cut off from the heater.

These heaters are self-purging. When you use the heater control box **ON-OFF** switch—like you should—there's a delayed-action set-up in the heater that lets the blowers run an extra couple of minutes... to cool the heater and kick out any balky, unburned gas that's still around. Just give it a little time, friend—it'll shut itself off.

NEE

But if you get impatient—or are just plain ignorant—and flip off that **EMERGENCY** switch, then you've immediately shut off all power to the heater—it goes un-purged—which carbons up the igniter—soon it won't fire when you turn it on—gas starts to spill around—people get afraid to mess with it (and for good reason)—you've got a mess on your hands, and your heater needing an overhaul. So **watch** it, hey? **EMERGENCY** switch for emergencies only...OK?

NYET

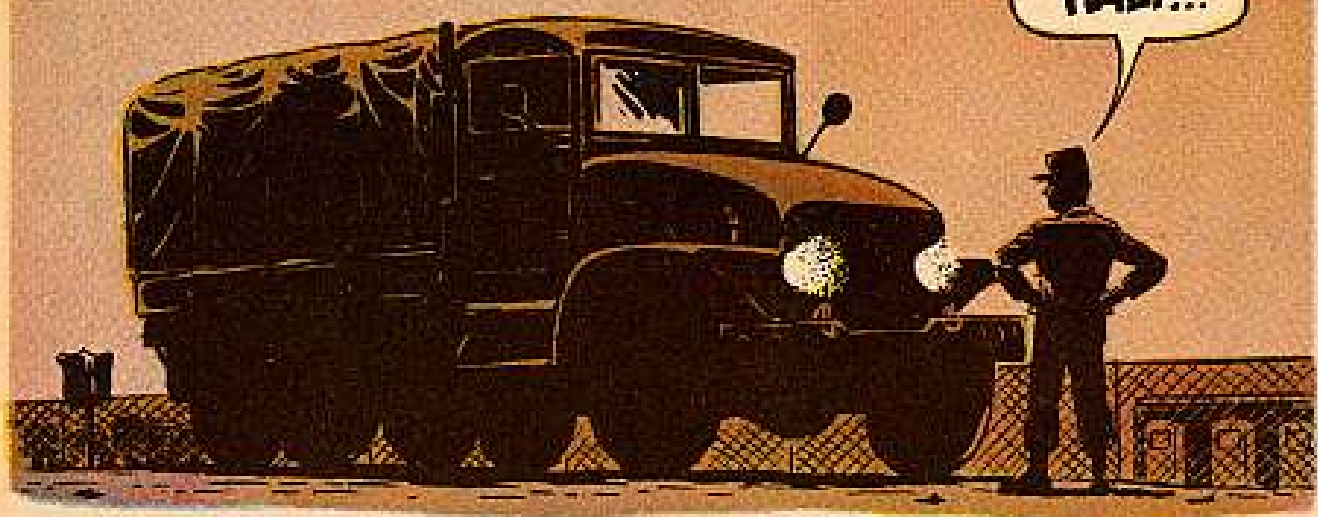
NAWWW



**JOE'S
DOPE**

SOME
SPARKIN'
ADVICE

Get the hell outta here!!!
I CALLED THEM JOKERS FOR NEW BATTERIES TWO HOURS AGO... AND IT'S DARKER OUT HEREIN FOUR INCHES UP A BULL'S NOSTRIL! HALP...



...EASY GREASY... WHERE DO YOU STASH YOUR FLASH?

HUH?... OH HERE...WHO ARE YOU... I CAN'T SEE A THING!!

OKAY...NOW GIVE IT TO ME... DON'T WASTE THE BATTERY IN THE FLASH TO SATISFY YOUR CURIOSITY!

NOW LET'S SEE WHAT IS WHAT WITH YOUR BATTERY...

BOY AM I IN LUCK... WHAT A PAIR OF LEGS...

WHAT'D YOU SAY??

ER...AHEM...I SAID... YUP!!!

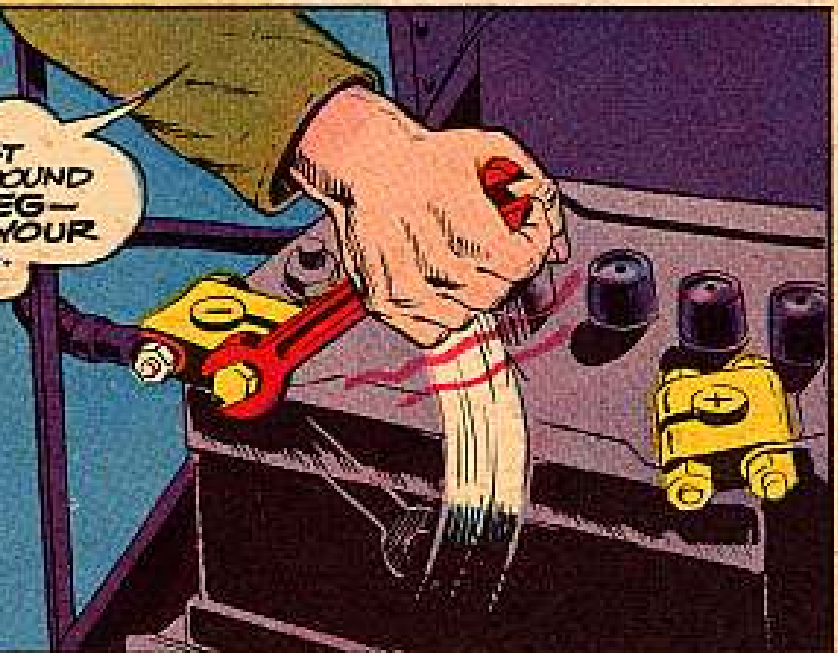
FIRST, LET ME POINT OUT THAT ARMY BATTERIES ARE GREAT STOREHOUSES OF POWER.... THE TRICK IS TO KEEP THAT POWER ...HERE'RE TWO MATCHED BATTERIES, SO TAKE CARE OF 'EM!

HUH ???

HERE, NOW PUT YOUR HOT LITTLE HAND IN MINE AND WE'LL GO OVER THE SIMPLE LITTLE KNACKS FOR BATTERY CARE... E-A-S-Y BOY...YR BREATHING DOWN MY NECK!!

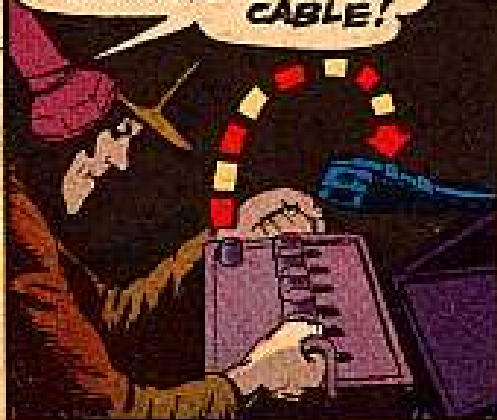
REMOVING ...

TO TAKE OUT YOUR OLD BATTERIES, FIRST DISCONNECT THE GROUND CABLE... THAT'S THE NEGATIVE POST ON ALL YOUR TACTICAL VEHICLES. THAT WAY, IF YOU HAPPEN TO TOUCH THE VEHICLE WITH YOUR WRENCH WHEN YOU UNHOOK THE POSITIVE CABLE, YOU GET NO SHORT CIRCUIT AND A BOOT THAT'LL REAR YOU.



INSTALLING

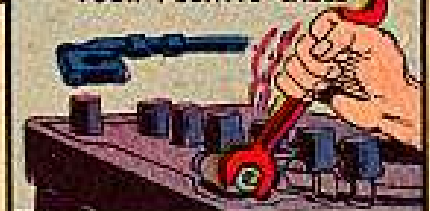
SET 'ER INTO THE VEHICLE LIKE SO... THE BATTERY NEGATIVE POST LINES UP WITH NEGATIVE (GROUND) CABLE!



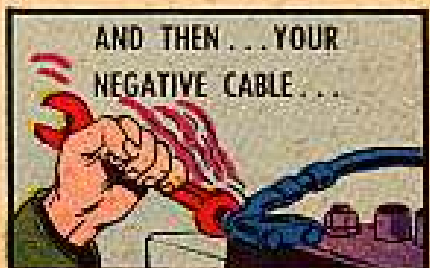
CLEAN THE TERMINALS BEFORE HOOKING UP. CURRENT FLOWS BEST THROUGH CLEAN POSTS AND CABLES.

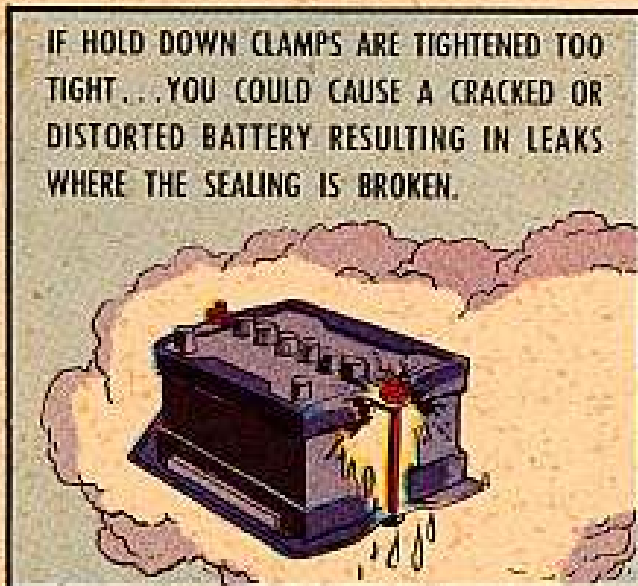
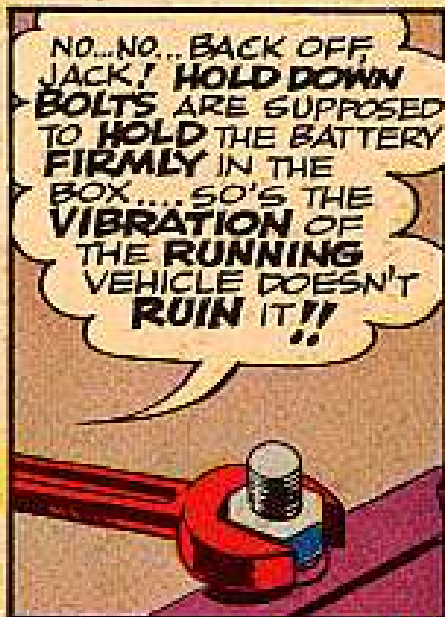


THEN... THE FIRST CABLE TO HOOK-UP IS YOUR POSITIVE CABLE



AND THEN... YOUR NEGATIVE CABLE...





HERE'S WHAT HAPPENS WHEN YOU OVER-FILL

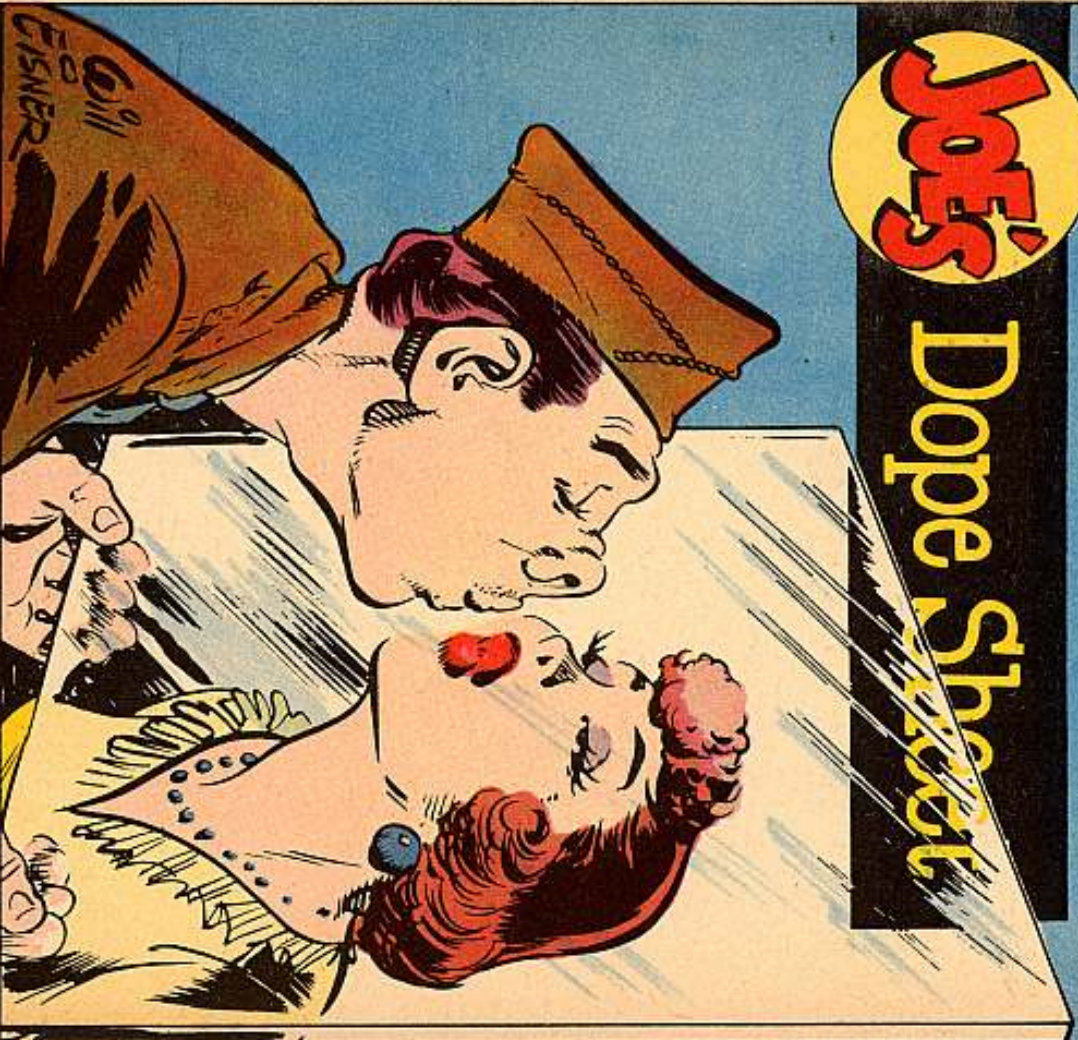
- 1** ELECTROLYTE EXPANDS
- 2** FORCING EXCESS ELECTROLYTE OUT THROUGH VENTS
- 3** MOTOR FAN BLOWS ELECTROLYTE ALL OVER

RESULT? MESS AND CORROSION

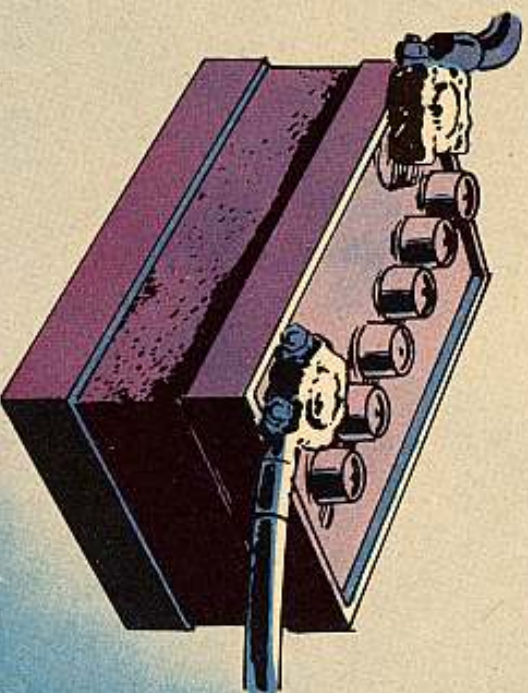
HANG THIS PIN-UP WHERE IT'LL BE SEEN

JOE'S

Dope Sheet



HAVING DIRTY TERMINALS
IS LIKE KISSIN' Y'R GAL
THRU A PLATE O' GLASS



KEEP BATTERY TERMINALS **CLEAN**

WE HAVE THE WORLD'S BEST EQUIPMENT... *Take care of it*



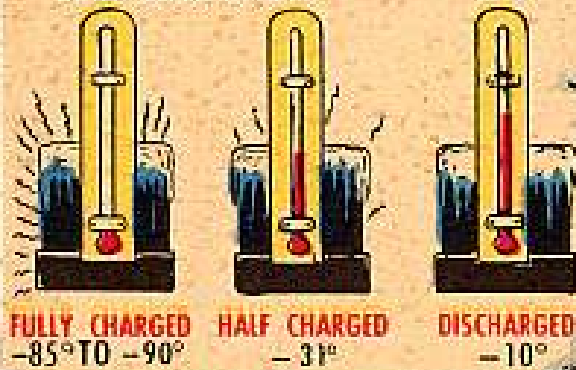
COLD WEATHER??

DON'T ADD WATER UNLESS YOU'RE ABOUT TO DRIVE OFF... WATER WON'T HAVE A CHANCE TO MIX PROPERLY WITH THE ACID... IT'LL FREEZE AND YOU KNOW WHAT HAPPENS INSIDE A CLOSED BOX WHEN THINGS START EXPANDING.



AND

... A FULLY CHARGED BATTERY FREEZES AT A VERY LOW TEMPERATURE... BETWEEN 85 AND 95 DEGREES BELOW ZERO. A HALF CHARGED BATTERY FREEZES AT 31 DEGREES BELOW ZERO. A DISCHARGED BATTERY FREEZES AT 10 DEGREES BELOW ZERO.



HOW TO HANDLE SPILLED ACID

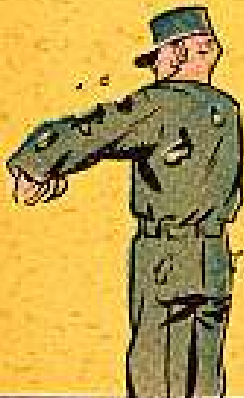
- 1 WASH THE STUFF RIGHT OFF... USE PLENTY OF WATER... WEAR RUBBER GLOVES.



- 2 THEN NEUTRALIZE THE ACID WITH SOME BAKING SODA DISSOLVED WITH WATER.



ACID ON CLOTHES?
T. S. ...
CHANGE 'EM



ACID ON BODY OR IN EYES?
WASH OFF WITH PLENTY OF WATER
AND LET A DOCTOR LOOK YOU OVER



LEAKING BATTERIES?

GET A NEW ONE



LEAKS
ARE
CAUSED
BY A
POROUS
OR
CRACKED
CASE

DON'T...



DON'T
USE THIS



USING TOO MUCH WATER?

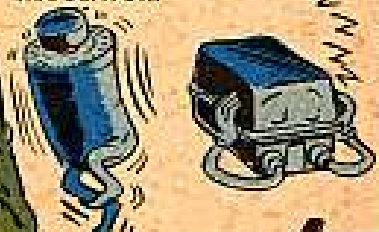
HOW
MUCH
IS
TOO
MUCH??

IF THE
BATTERY
NEEDS
WATER
OFTEN...
MORE THAN
NORMAL!

LOOK FOR
CRACKS IN
THE CASE



OR...MAYBE YOU'RE GET-
TING TOO MUCH CHARGE
FROM THE GENERATOR...THE
TROUBLE'S PROBABLY IN THE
REGULATOR.



OVER-CHARGING IS AS BAD AS UNDER-
CHARGING...MAYBE WORSE—FOR
IT CORRODES PLATE GRIDS...

CORROSION AND HOW TO STOP IT... (THIS COULD BE SERIOUS)

ACID EATS THRU
THE CABLE AND
STARTS ETCHING
AWAY THE COPPER
... RESULT ... DOGGONE
LITTLE ENERGY GETS
THRU THE CABLES



ON METAL PARTS OF YOUR BATTERIES... Y'PREVENT ANY
CORROSION BY COATING PARTS WITH GREASE



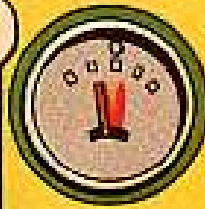
NOW, LET'S TRY 'ER...
I'M MAKE SURE THE NEW
BATTERIES ARE SET
IN RIGHT!

...ER... JUST
A SECOND...
YOU'VE BEEN
SO HELPFUL...
HOW ABOUT A
DATE... SAY
DINNER AT
THE COLONY...
AND A SHOW
AFTER...
AND... ♡ ♡ ♡

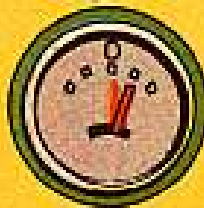
WHY
SURE
... MIGHTY
NICE
OF
YOU...

... NOW IF YOU'LL TURN ON YOUR LIGHTS AND
CHECK THE AMMETER.

IF YOU GET
DISCHARGE
... OK.



IF YOU GET
CHARGE...
YOU'RE IN
BACKWARDS



IF YOU HAVE
A VOLTMETER
... IT SHOULD BE
IN RED WITH
IGNITION ON



BETTER SWITCH IT AROUND AFORE
YOU GET A CASE OF REVERSE POLARITY

THERE,
NOW YOU'RE
ALL SET!

TAKE
CARE
OF YOUR
BATTERY

HEY @*#&!!
YOU'RE NOT
CONNIE AT
ALL... YOU'RE
JES' PLAIN
JOE!! I'VE
BEEN HAD!

NOW, JOEY,
BE
REASONABLE...
I THOT YOU
WUZ CONNIE
RODD... HOW
WUZ I TO
KNOW IT
WUZ JES' A
POSTER
I PICKED
UP WID ME
FLASH...

YOU NEVER
ASKED ME...
SLURP... I THINK
I'LL ORDER ME
SOME FILET
SLURP MIGNON...
OR... GUAIL
UNDER
GLASS...

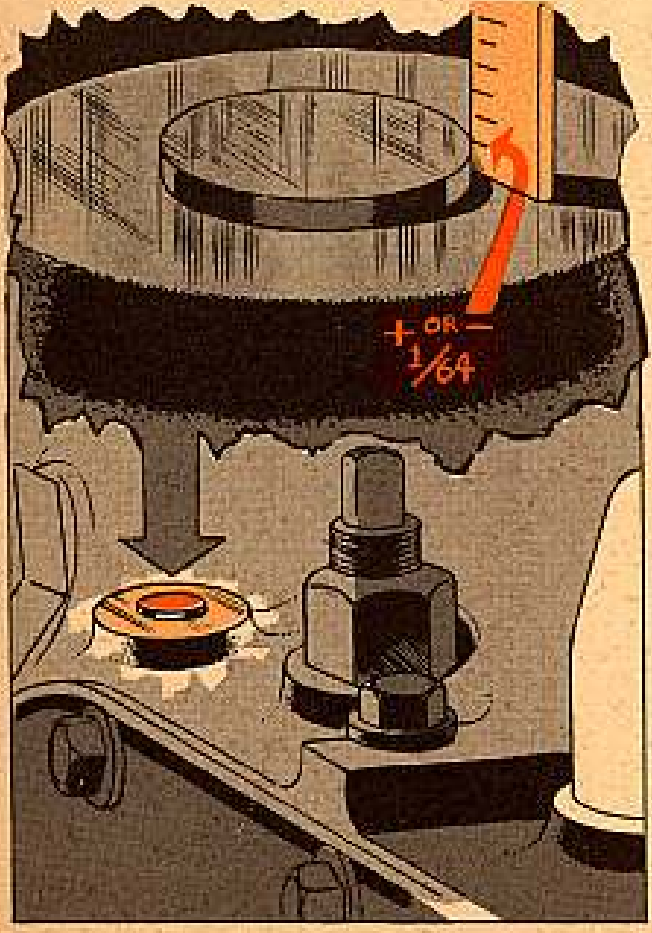


FRONT BAND ADJUSTMENT PIN

Dear Half-Mast,

I would like to know if it is possible to make the adjustment of the front band on the Hydra-Matic trucks and always get the indicator pin exactly flush with the machined surface like it says in TM 9-8024, page 352, para 201. Or if not, what tolerance can I have and know the transmission will work OK?

SFC R. H. R.



Dear Sgt R. H. R.,

I'm afraid you'll have to check with Ordnance any time you can't get that pin flush with the machined surface. The + or - 1/64-in is all the tolerance you can have.

It seems that it is sometimes possible for the pin to stick up quite a ways and the transmission will still work. But, you're exceeding the wear limits, and the cost of eventual repairs is likely to be far higher than if you send her to the shop the first time you find you can't get the pin down flush. Some few pins got cut too long, but Ordnance is the only place it can be checked.

Half-Mast

SET BACK

Dear Half-Mast,

Got a problem with radio equipment on our M48 tanks. As the set (AN/GRC-3) is now installed on the mount, the radio guard interferes with the channel selector knobs. What're the possibilities of mounting the set a little farther to the rear to give more clearance?

SFC T. A.

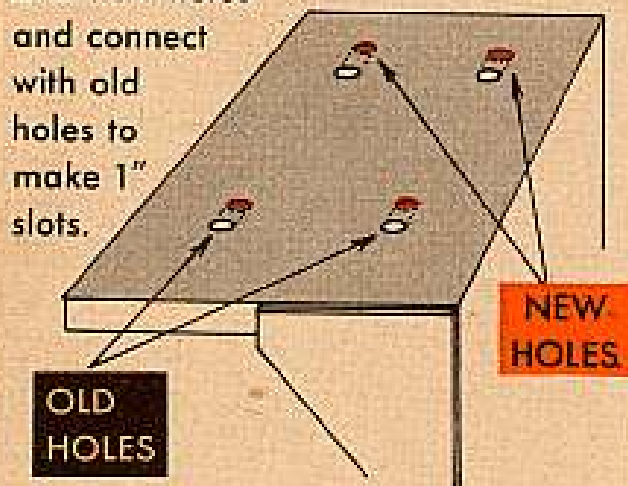
Dear SFC T. A.,

Pretty good, I'd say.

On later M48's this was done at the factory. The mounting holes were changed to $\frac{7}{16}$ x 1-in slots.

You can get the same result on your early 48's by merely drilling a new set of holes behind the original holes. Then interconnect 'em to form 1-in slots.

Drill new holes and connect with old holes to make 1" slots.



That's about as far as you can move the set back without bumping against the turret casting, or interfering with other radio equipment.

But that much extra clearance will let even a pudgy paw get at those knobs.

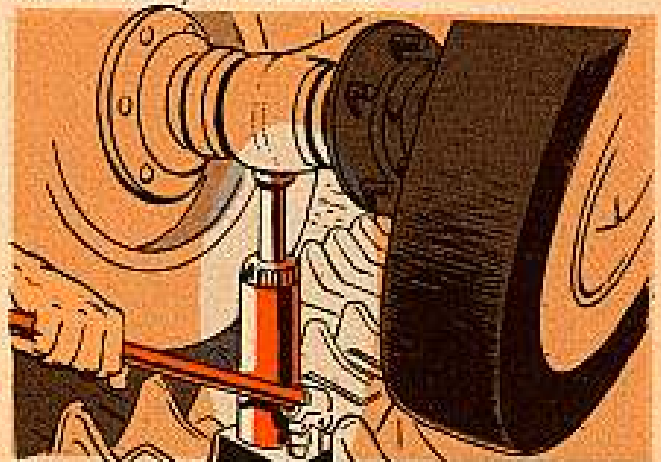
Half-Mast

OTTER TAKE CARE



Dear Half-Mast,

The manual procedure (TM 9-772A) for removing road wheels on the M76 amphibious cargo carrier works fine for the outside wheels. But did you ever try taking an inside wheel off the Otter, using nothing but a lifting block? Man, that's one for Houdini.



We've found that the job can be done by using a hydraulic jack—one like you find on the 2½-ton trucks in any motor pool. Just jack up the arm and remove the wheels—lowering the arm (with the jack) enough to let you pull the inside wheel out over it.

There's just one drawback to this method. The way the jack rides the track and holds the arm, it's not too stable—and takes a lot of care and steady hands to do it safely.

Is there any tool available that'll do a better, safer job?

CWO A. W.



Dear Mister A. W.,

No. Not yet, anyway. But there is a wheel arm lifter for the Otter being worked up. You'll be getting the word when it's ready.

Meantime, the jack'll have to do the job. And, like you say, ya otter take a heap of care to handle 'em safe as possible.

Half-Mast

SHAKERS

Dear Half-Mast,

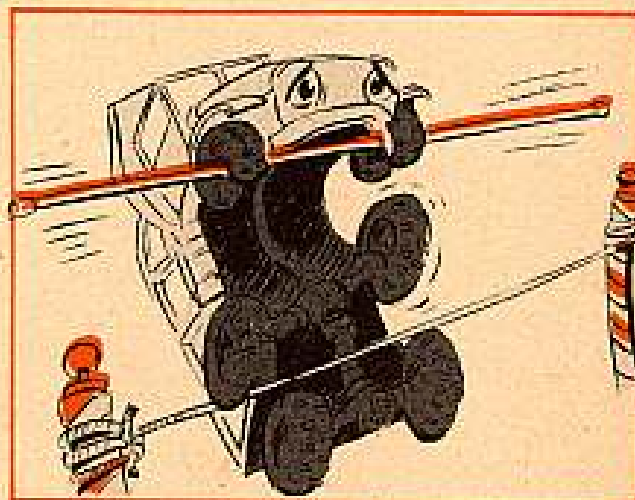
Can you tell us National Guard maintenance center guys what we can do about our M215 GMC dump trucks?? They are shimmying like blazes. The shimmy comes in at about 40-MPH when we're running empty, and at much lower speeds when we're loaded.

Naturally, we've checked for tie-rod and drag-link wear, knuckle-bearing and steering-sector adjustment, etc. But since the truck mileage runs less than 4000, we didn't find much.

CWO E. J. H.

Dear Mister E. J. H.,

How about the new MWO's for that front end? Have you applied MWO Ord G-749-W22 (8 Apr 55), marked Urgent, and MWO Ord G749-W32 (12 Dec 55)?



The first one puts a stabilizer bar on the truck.



The second calls for intensive reinforcement of the whole frame, and the part that concerns your steering is the beefing up of the front cross members and spring hangers. I think you'll find that these two modifications will lick your problem.

Half-Mast

ARMAMENT



Bore Cleaning Clues—

BROTHER, IT'S FREEZING OUTSIDE



Wearing winter underwear means more to artillery and AAA men than itching in a hot room. Freezing temperatures call for greater care and speed in cleaning gun bores.

Good old bore cleaner will do the job—until the mercury hits -20° F. It sludges under that temperature, and it's nix on adding antifreeze because you can't dilute bore cleaner. So below -20° F you gotta use a water cleaning solution.

Here's a chart on how much alcohol or antifreeze compound to use in your water cleaning solution at sub-freezing temperatures. Put in this many quarts of antifreeze agents for every gallon of solution used at the Fahrenheit temperatures shown at left. The range includes temps up to $+20^{\circ}$ F in case there's no bore cleaner at hand and it's necessary to use a water cleaning solution.

TEMPERATURE	QTS PER GAL OF WATER	
	ALCOHOL	ANTIFREEZE
20°	1	1
10°	2	$1\frac{1}{2}$
0°	$2\frac{1}{2}$	2
-15°	4	3
-30°	6	4
-40°	11	5

The big deal on cleaning a bore in sub-freezing weather is speed. Once you've swabbed until all the residue and crud are cleaned out, hurry to wipe it dry and get some PL Special on to prevent rust and corrosion.

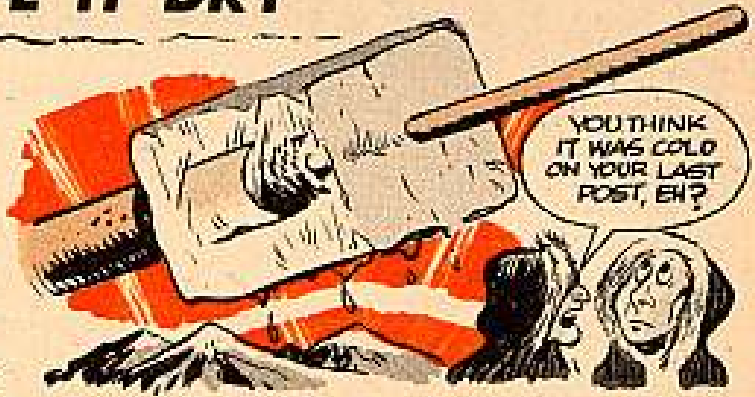
If you're in a spot where you can't measure antifreeze agents too accurately, make this a general rule: It's better to use too much than too little.



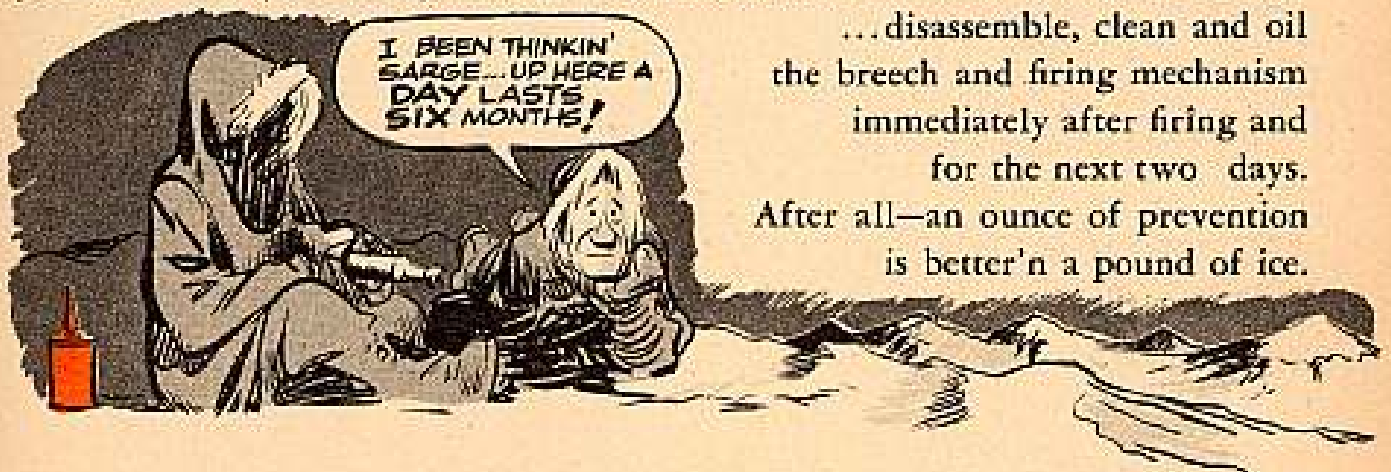
WIPE IT DRY

Have you been frosted because the breech mechanism on your artillery piece freezes after swabbing during frigid weather? There's no trouble stopping the freeze-up, or at least cutting down the chances of its happening.

All you gotta do is wipe the chamber and breech mechanism dry as soon as you've finished your firing mission. You also wanna remember what your LO says



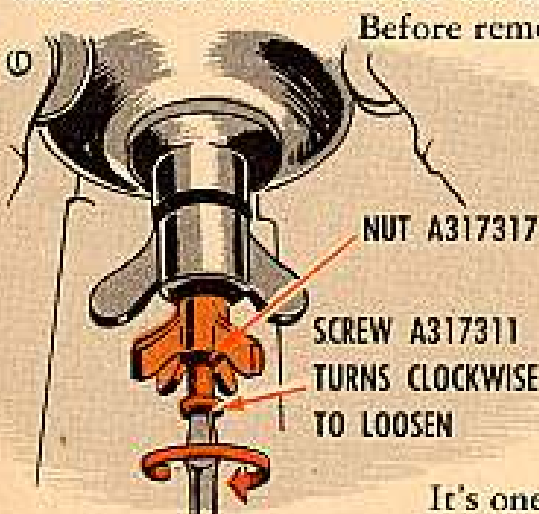
...disassemble, clean and oil the breech and firing mechanism immediately after firing and for the next two days. After all—an ounce of prevention is better'n a pound of ice.



UNSCREW IT RIGHT

Tankers and field artillery guys who remove the M48 telescope mount from tripod M10 or M17 know that screw A317311 makes it a bassackwards deal.

When the mount is taken off a tripod, you've got to remove spindle B181029, which holds the mount on the tripod head.



Before removing the spindle, nut A317317 comes off, and

before that, screw A317311, which holds

on the nut. And there's where the rub

comes in. Some guys turn that

little screw counter-clockwise

with their fingers to get it out—

and it won't give. So they

get a wrench to put on the pressure—

and the screw head shears off because

screw A317311 has a left-hand thread.

It's one of the few left-hand threads you'll run across, so watch out for it. It's bassackwards from an ordinary screw. Turn a screw with a left-hand thread counter-clockwise to tighten and clockwise to loosen.

T46E1 Range Finder

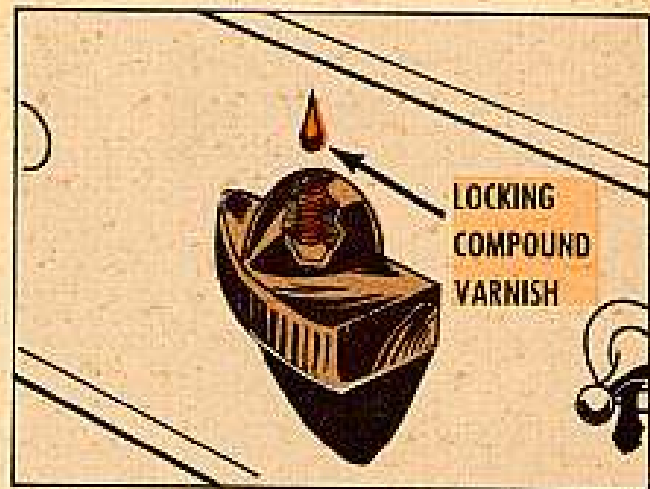
CASE OF THE MISSING KNOB

Soon as you hand this copy of PS over to the next guy, take a look at the stereo control knob, T46E1 range finder, 90-mm gun on the M48 tank.

Still there? Good on you, 'cause a lot of them are missing.

To keep yours there, look at the screws which fasten the knob to the rheostat shaft. They should be screwed in tight and then secured with a drop of locking compound (Varnish, Eng Stock No. 52-8610.500.003).

Some of those knobs are being lost because of no locking compound. Check yours.



BY THE LIGHT...

You can take a spoon along with you when you go out in the moonlight... and leave the tools back in the supply room.

There's no need for the tools in the removal of stoplight and taillight assemblies on the bogies used with the 90-mm AA guns and M2 mounts.

Some guns have been toted along the road, minus the light assemblies, which disappeared overnight. You know the story. The bulbs burn out and so the assemblies are changed. Someone gets your assembly and you're left holding an empty bogie bar. That's all changed now. The next supply manual will authorize the drawing of the light units that make up the assembly. While waiting for the manual, you can get the light (bulb) units under these numbers:



Blackout taillight—
H004-0504423



Blackout taillight—
H004-0504420



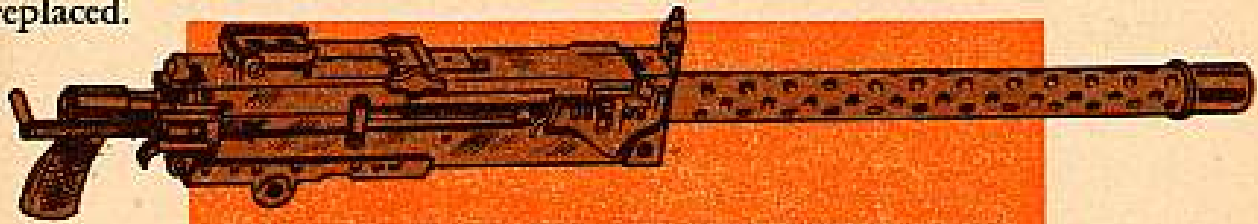
Tail light and stoplight
unit—H004-0504417

BETTER TO BE SAFE

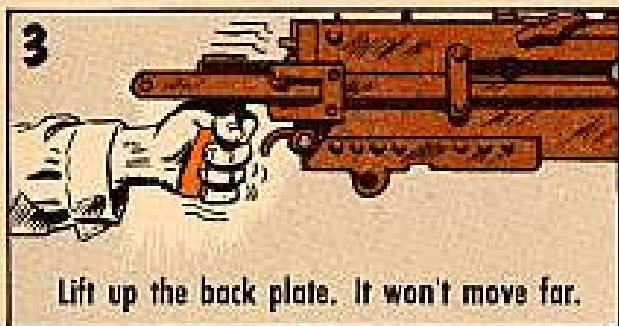
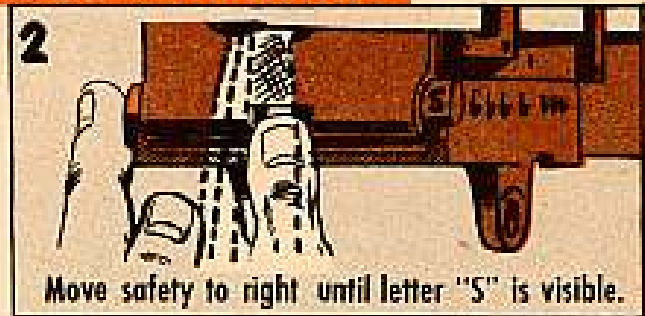
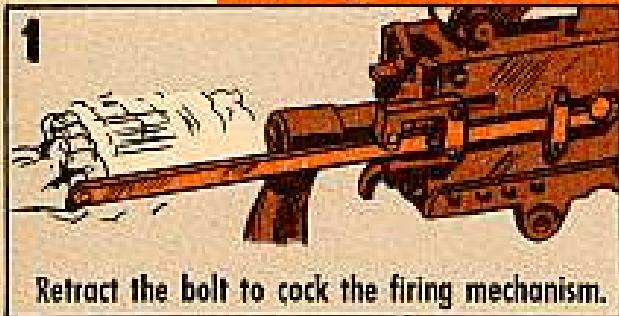
How's your tank's .30-cal M37 machine gun been acting lately? Have you been able to fire the gun even with the safety on?

Your trouble may be a tolerance stack-up on parts like the sear, trigger and back plate. You know, a little bit here, a little bit there—all add up to too much. If these works aren't matched just right, the top plate will be lifted enough to throw the safety out of whack.

It's easy enough, and a smart move, to run a test before loading the piece. You should also run the test whenever the back plate, back plate latch or trigger is replaced.



YOU DO IT BY THE NUMBERS THIS WAY:



You've done the first two things lotsa times, probably in your sleep. Next...

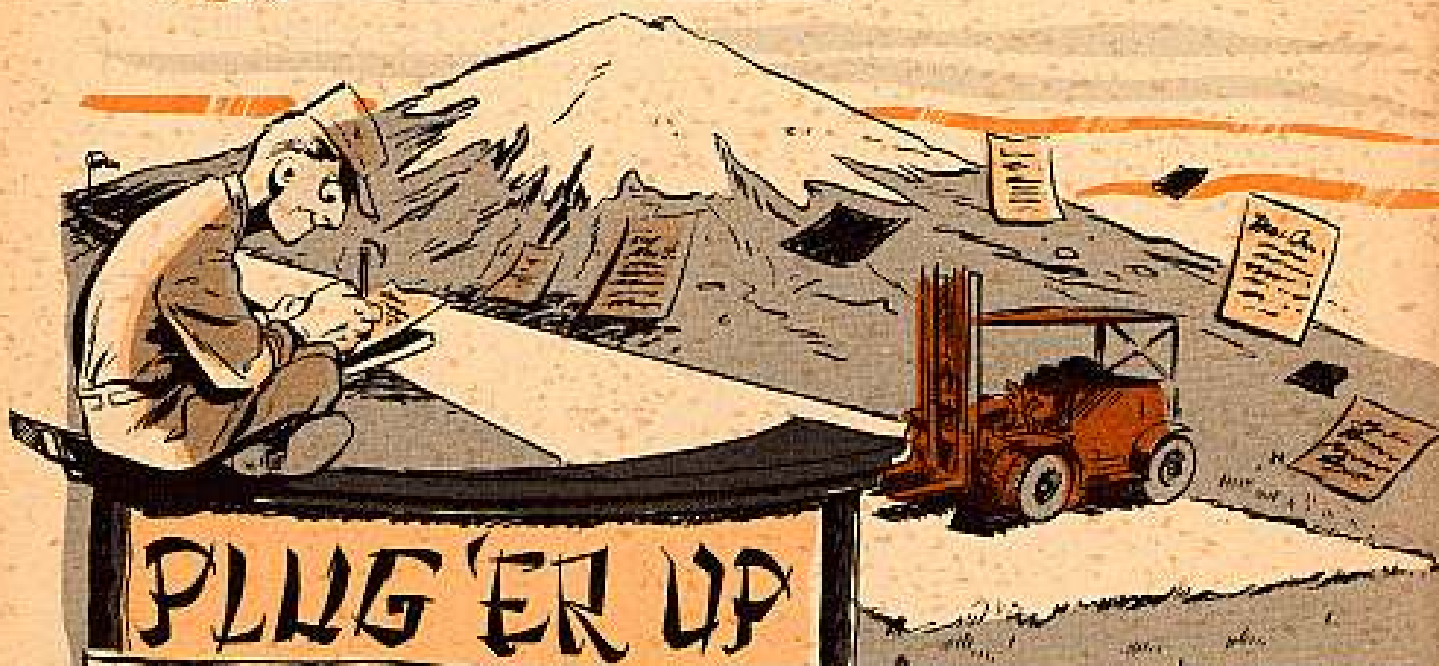
The trigger shouldn't have released the firing mechanism. If it did, replace the weapon with a gun that does pass the test, but fast.

Hang on to the gun that isn't working right. You'll soon get word on what to do with it.





QUARTERMASTER



PLUG 'ER UP

Dear Connie,

Here in Japan, we've been having a little trouble with oil leaking from the transmission case on the Clark Model 45 Pneloader. The leak seems to be where the transmission case and clutch housing join together. All you need to do to stop the leak is replace the transmission plug.

But you know how lazy some guys get. The plug is hard to get out—all because the snap ring (FSN 5340-164-2133) around the plug can't be removed without a lot of trouble. As a result, some men never replace the plugs. They try and keep it from leaking by coating the plug with permatex. That still doesn't stop the leak completely, and we've already had a couple of burned out transmissions.

If we could get the snap ring out, removing and replacing the plug would be easy. The outer part of the transmission case has only a $\frac{1}{16}$ -in cast iron thickness. When some men use a screw driver and hammer away at the snap ring, they sometimes break off the ring groove on the transmission case. Those cases cost too much to have to send to salvage.

What we need is a snap ring with holes in each end. Then, when we want to remove the ring, we could insert sturdy pieces of wire in the holes, give it a squeeze and pull the ring out with no trouble. After that, getting to the plug would only be a formality. What do you think?

PFC N. S.

Dear PFC N. S.,

There's nothing wrong with your thinking, lad. You've got a good idea and you'll probably be happy to know that there is such a snap ring—holes and all—in supply right now. Here's the correct nomenclature for it:

Ring, snap, retaining, internal, 2.440 housing diameter, 2.364 free diameter.

You'll find 'er listed under FSN 5340-281-6495. That's not all. This ring'll fit all these transmission cases listed below:

FSN 2520-164-2155, Case, used on MHE 59

FSN 2520-164-3477, Case, used on MHE 61

FSN 2520-358-8423, Case, used on MHE 116

FSN 2520-358-8446, Case, used on MHE 118
and MHE 142

FSN 2520-499-8825, Case, used on MHE 125
and MHE 150

FSN 2520-358-8495, Case, used on MHE 141,
MHE 143 and MHE 149

FSN 2520-375-0575, Case, used on MHE 146
and MHE 151

FSN 2520-375-0587, Case, used on MHE 147

FSN 2520-217-9253, Case, used on MHE 148

In all cases, you'll find that the snap ring can be inserted in the $\frac{3}{4}$ -in deep ring groove without any trouble and you can seat it right.

Looks like you can solve two problems at once by getting this new ring. First off, it'll make the plug easy to get to. That, of course, will allow you to keep a close tab on the leaking oil. Also, you won't have to be salvaging those transmission cases every time you turn around.

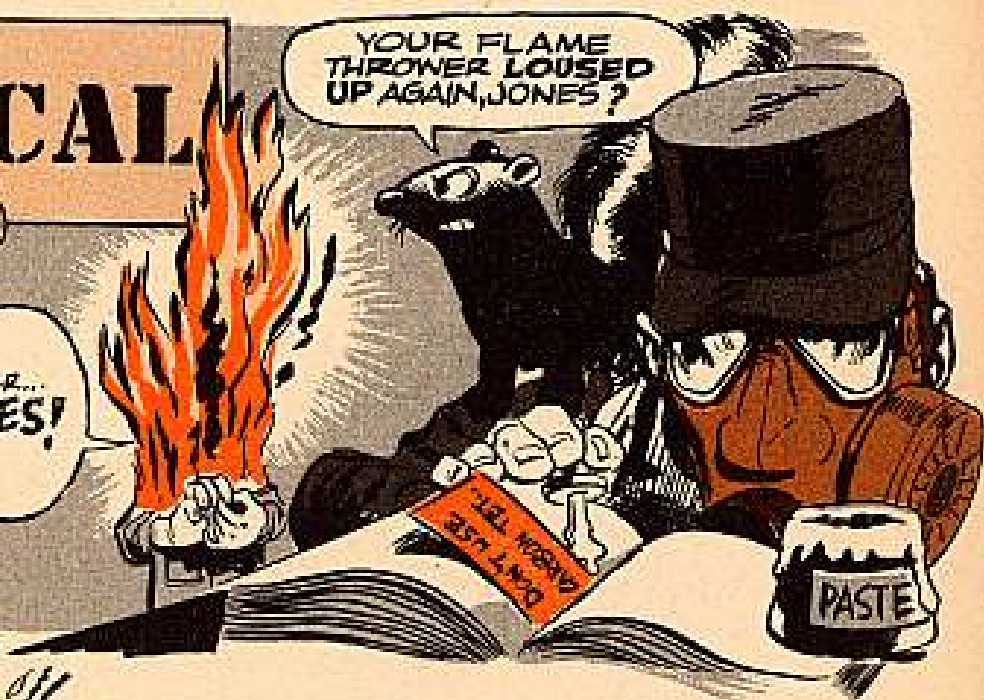


CHEMICAL



ER...
YES!

YOUR FLAME
THROWER LOUSED
UP AGAIN, JONES?



Here's A Flush For

FLAME THROWER FUEL TANKS

When you flush the fuel tanks of your M2A1 portable flame thrower make sure you've got the right kind of cleaner. If you don't, you might end up with an injured weapon.

The cleaner for gargling those tanks is dry cleaning solvent. You'll find it listed on page 8 of SM 10-1-6800, dated 29 Sept 55.



Carbon tetrachloride's **NG** for this job. The stuff'll rust your tanks but good. Take a look at the messed-up fuel-tank plug above. It'll show you what carbon tet can do to a tank's innards.



FUEL-
TANK
FILLER
PLUG

So's you won't forget this caution, make a note reading "Nix on Cleaning Tanks With Carbon Tet." Clip it to page 50 of TM 3-376, "M2A1 Portable Flame Thrower." The note'll remind you to reach for the right cleaner when you're getting ready to freshen up those tanks.

Carbon tet is really unfriendly stuff. Not even the Chemical Corps experts, with all their special know-how, tools and equipment, are authorized to use the stuff when cleaning or reconditioning the flame thrower tanks. So please keep the stuff away—far away from your fire-gun.



Decon Dividend

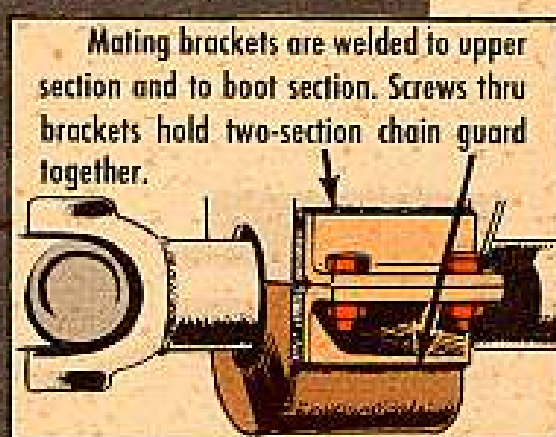
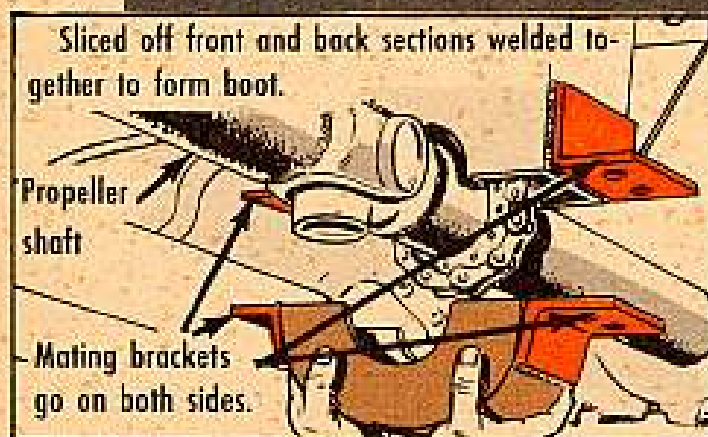
From now on you're going to rest easier when it comes to removing the chain guard from your truck mounted Decon (M3A1's and M3A2's).

A minor change has done away with all that wrestling with the propeller shaft when you have to get at the Decon's pump chain and sprocket. You'll now be able to remove the chain guard in a matter of minutes instead of hours . . . and without even nudging the prop shaft.

The time-and-labor-saving fix slices off the bottom end of the chain guard. The cut is made straight across at the center of the prop shaft hole.

New **M3A3 Decons** now come with the chain guard fix already applied. But a few early model M3A3's went to the field before the change was adopted. If you've got one of these M3A3's it's eligible for the fix, too.

Take a look at the drawing and see how the front and back pieces of the section that's cut off are welded face-to-face to form a one-piece boot.



Small brackets are welded to the outsides of both the upper and lower sections of the chain guard. Screws thru the mating brackets lock the two-piece chain guard in place.

It's a real improvement. The pay-off comes every time you go to inspect the chain and sprocket, grease, repair or replace the chain. You simply work-off the four screws and there you are.

All you have to do to get the fix is let your field maintenance support outfit know your Decon needs it.

Do Connie a Favor

On page 29, PS 45, change the address on the envelope made up for a UER on a Chemical item to read like this:

Commanding General
Army Chemical Center
and Chemical Corps Material Command
Army Chemical Center, Maryland
ATTN: CMLAM-M-SM





PLEASE HURRY WITH THAT LUNETTE, SGT DOZER, I'M HOLDIN' UP THE WHOLE SHOW!

UNSOID SEATING

Dear Sgt Dozer,

We've got a bit of a problem with one of the Clark Bros Model HO-6-4C air compressors we're using. The safety relief valve won't reset properly. And when it does reset, it leaks. Got any idea what the trouble is and how we can cure it?

CWO J. L. H.

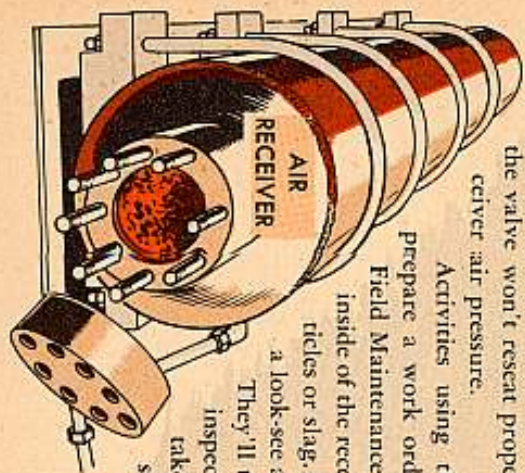
Dear Mr. J. L. H.,

There's no doubt that the valve assembly you're talking about needs to be repaired or replaced. Here's what happened:

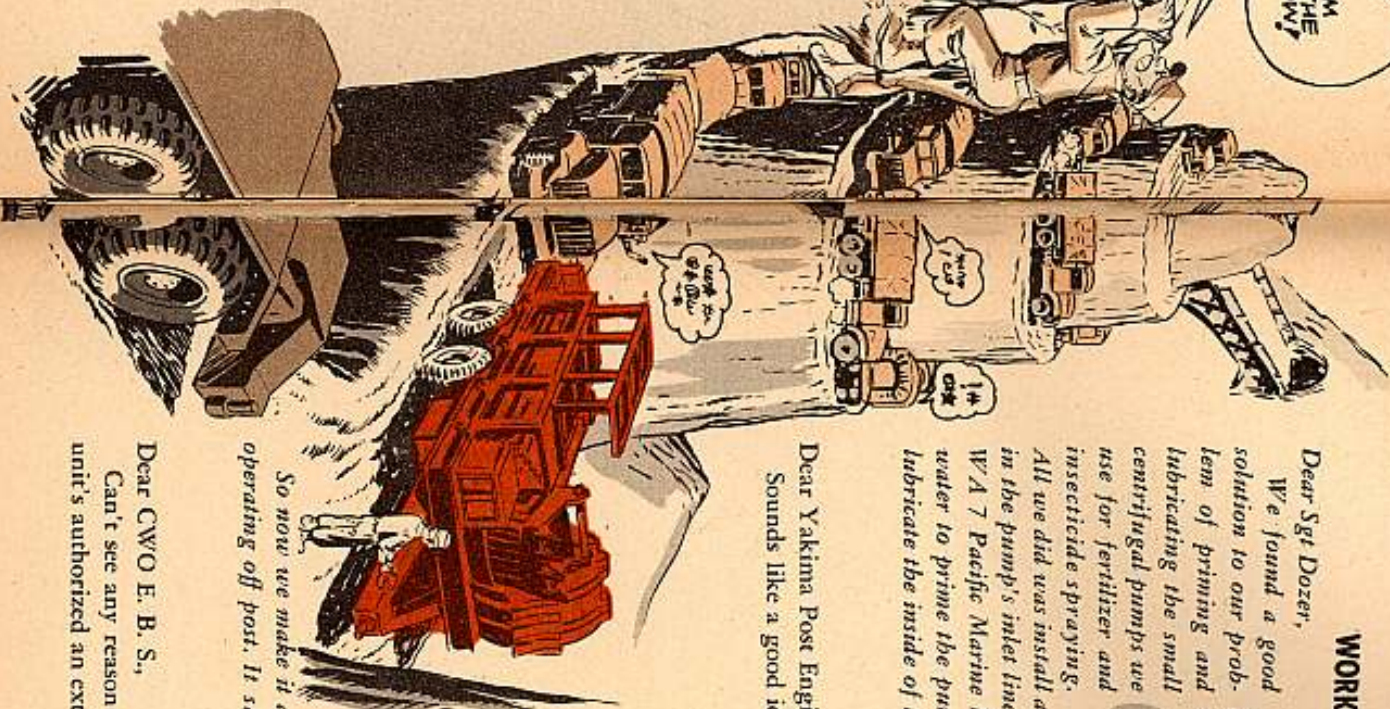
Some of the compressor units that had the air receiver fabricated never had the welding splatters or slag removed from their insides. As a result, when the safety relief valve was released, these same welding splatters and slag were carried by the air stream through the air outlet line.

This caused scoring and serious damage to the valve seat. Now the valve won't reset properly, and that causes a loss of receiver air pressure.

Activities using the Clark compressor ought to prepare a work order for the supporting Engineer Field Maintenance Shop, asking them to check the inside of the receiver for evidence of welding particles or slag. It's easy enough for them to take a look-see at the inside walls of the receiver. They'll take off the cover plate from the inspection port of the air receiver and take a look around. If they see any slag or metal particles, they'll get the receiver removed and cleaned out.



Sgt Dozer



WORKS TO A "T"

Dear Sgt Dozer,

We found a good solution to our problem of priming and lubricating the small centrifugal pumps we use for fertilizer and insecticide spraying.

All we did was install a pipe "T" with a pipe plug in the branch opening in the pump's inlet line. The sketch shows the "T" installed on a Model WA 7 Pacific Marine Pumper. We can remove the plug and pour in water to prime the pump. And every so often, we run in a little oil to lubricate the inside of the pump.



Post Engineers
Yakima Firing Center, Wash.

Dear Yakima Post Engineers,
Sounds like a good idea to me, and thanks for the picture.

SPARE LUNETTE

Sgt Dozer

Dear Sgt Dozer,

We found ourselves in embarrassing situations a couple of times when we broke the lunette on the 10-ton attachment trailer that goes with our crane. When the lunette broke, the air brake safety system kept us from having a runaway, but we did tie up a narrow mountain pass for several hours until we got a new lunette. Believe me, this didn't make the local people too happy.

So now we make it a point to carry a spare lunette whenever we're operating off post. It saves a lot of time and serves as good insurance.

CWO E. B. S.
Fl. Lewis, Wash.

Dear CWO E. B. S.,

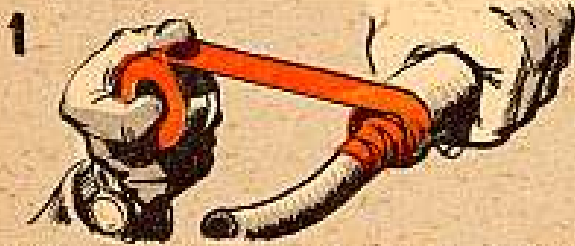
Can't see any reason why you shouldn't carry a spare lunette. Your unit's authorized an extra one, so you're just putting it to good use.

Sgt Dozer

A FIX FOR RIX

A little ingenuity and a housekeeper's suction will lead you to an easy way of removing the activated alumina from the drying towers on the 3500-PSI Rix capping compressor.

All you've gotta do is borrow the vacuum cleaner from the radar section (they've got one—a TOE item).



1 GET A PIECE OF $\frac{3}{4}$ -IN WATER OR AIR HOSE AND TAPE IT TO THE END OF THE VACUUM HOSE. THE VACUUM CLEANER HOSE ITSELF IS TOO BIG TO FIT THE FILLER OPENING.



2 USE A BLUNT ROD, WIRE OR EVEN A MODIFIED COAT HANGER BENT LIKE AN "L"



3 But treat 'er gently when you're poking and scraping. This'll keep the screen at the bottom of the tower from getting damaged.



4 Once you have the hose rigged, stick it in the opening and turn on the juice. Man, you'll really have drag!

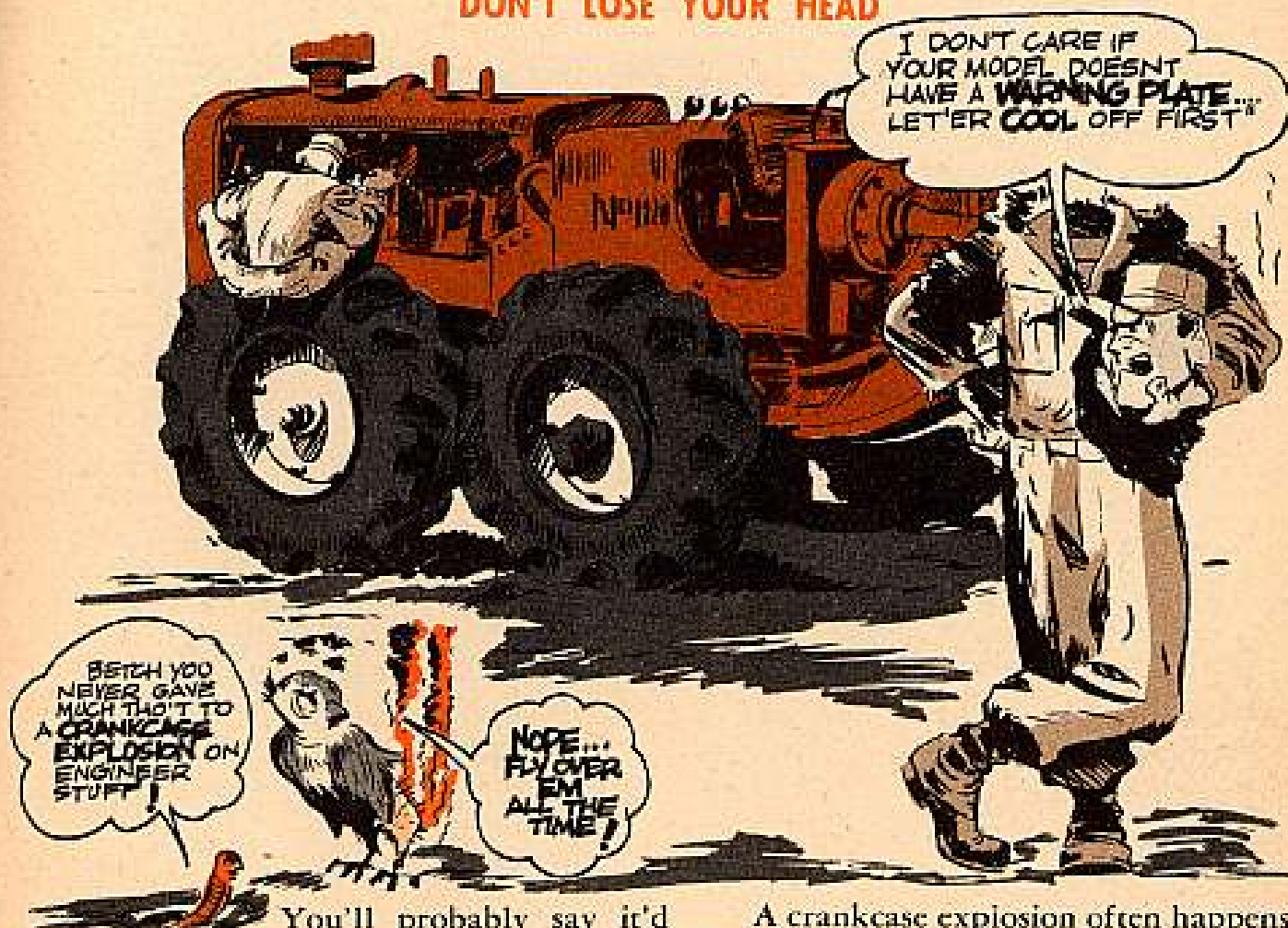
IT'S OIL RIGHT

If you've been stumped about what grades of oil to use in the force feed lubricator of the Rix capping compressor, you can rest easy from here on in. Here they are:

Where the temperature range is 90°F, or lower use Lubricating Oil, Grade 1065, (QM 140-0-02570-065) FSN 9150-255-3929. You'll find this 'un listed on page 6, Index No. 164 of SM-10-1-9100, Class 9150 (17 Nov 55).

Where the temperature is 90°F and above, your best bet is to use Lubricating Oil, Grade 1080, (QM 140-0-02582-008) FSN 9150-231-3929, listed in the same supply manual, only it's on page 6 of Index No. 67.

DON'T LOSE YOUR HEAD



You'll probably say it'd never happen—but it could. And you might not be kidding when you tell a guy not to lose his head.

It's true enough that crankcase explosions are rare. There's hardly one chance in a thousand that your crankcase'll blōw up in your face. Even so, it might not be a bad idea to pull up a foot locker and listen to a couple of safety hints.

Most crankcase explosions happen when the crankcase cover's opened too soon after the equipment's shut down. It's still too hot in there to play it safe. If you hafta get into the crankcase on your equipment to correct a mechanical failure—wait about 15 minutes and give it a chance to cool off. You'll be avoiding that one chance in a thousand.

A crankcase explosion often happens like this: A bearing, piston, bushing or some other part overheats due to some kind of seizure. And you want to locate the trouble in a hurry. That's where you should wait—if you're smart, that is. If you jerk that cover off too soon, the sudden rush of air'll mix with the crankcase vapors, combustion'll take place, and you'll have the crankcase blowing up right in your face. And it sure wouldn't be a joking matter to lose your head.

Some manufacturers now put warning plates on the larger engines to remind you to wait a few minutes before taking the cover off the crankcase after the engine's been shut down. On most models in use today, though, there isn't any warning plate. So remember, think before you act.

CONTRIBUTIONS

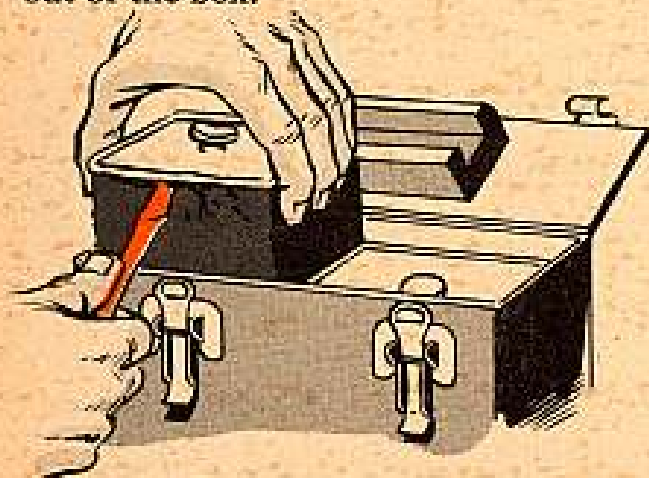


Dear Editor,

MWO Ord D38-W21 caused some headaches around here for awhile.

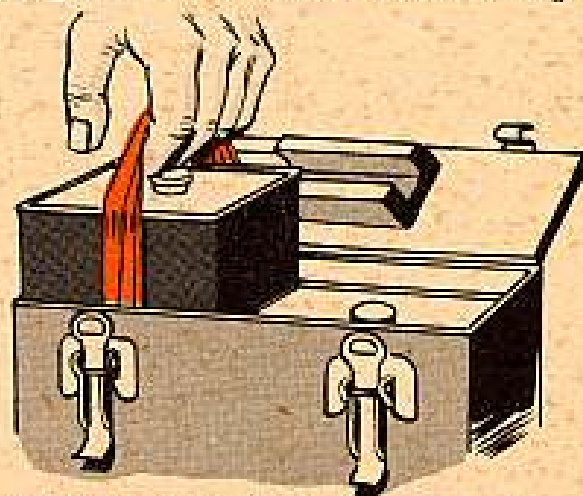
That's the one which put two small batteries in place of one big one in the container on the front bogie of the 90-mm antiaircraft gun.

The larger battery had a strap across the top which made it a snap to lift it out of the box.



The smaller ones have no handles. So we damaged more than one battery and container trying to remove the juice producers.

We did—until we came up with a fix. We got hold of some adhesive tape.



FSN-8135-269-8088 gets you a roll one inch wide by 60 yards long. Before putting in a new set of batteries, we wrapped the tape around 'em and formed a handle at the top. No more dirty looks when you tell someone to change the batteries.

**OCMT Joseph J. Bukowski
Fort Sheridan, Ill.**

(Ed Note—Looks like a good temporary fix.)

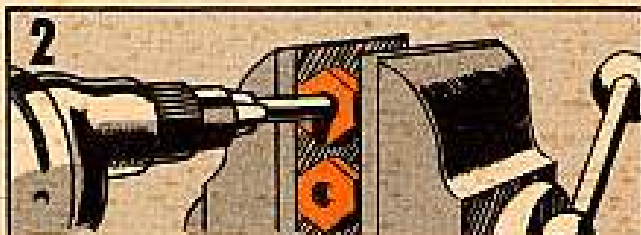
BRACKET FIX

Dear Editor,

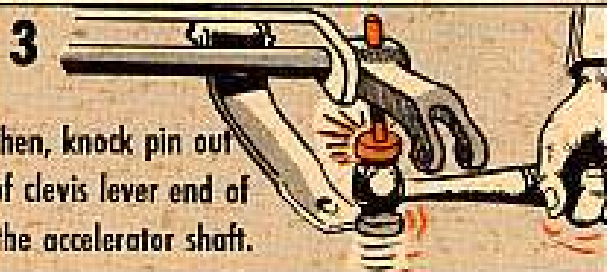
Here's a quick field fix for some of those Dodge trucks. It can be used when the accelerator bracket becomes worn out. You can't get a new bracket, because it's not in the Ord 7 or 8—only in the Ord 9. The fix cures sticky gas pedals and jerky acceleration by restoring the bearing surface between the throttle linkage and bracket.



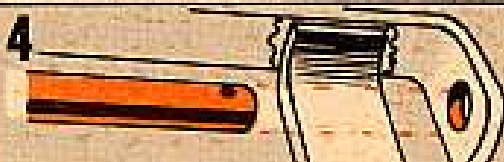
1 Remove accelerator bracket by taking off cotter pins and cap screws that attach it to the throttle linkage and to the bell housing.



2 Next, drill out the threads of two 3/8-in SAE nuts.



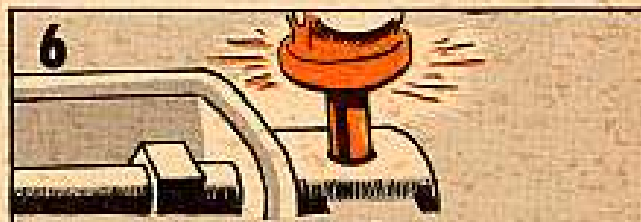
3 Then, knock pin out of clevis lever end of the accelerator shaft.



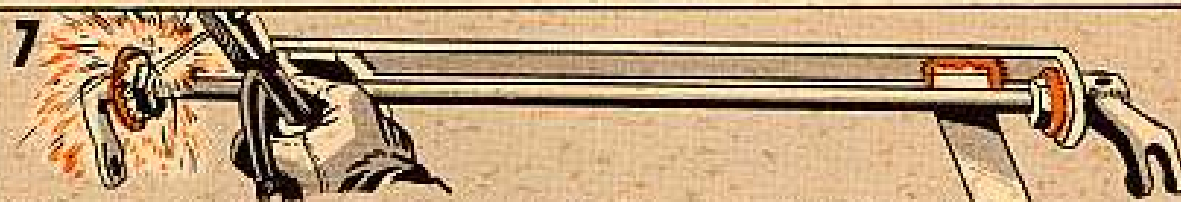
4 Pull shaft out of bracket until it slips out of clevis lever and that end of bracket.



5 Insert the two nuts on shaft and reinsert into bracket and lever.



6 Drive pin back into original position.



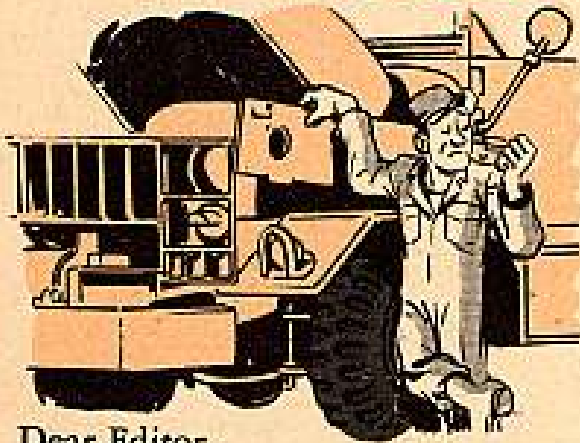
7 Slide each nut to the opposite ends of the shaft and brace or weld it right to the bracket.

By restoring the linkage bearing surface the bracket'll behave like a new one.

Mr. W. M. Fosbre
Mt. Rainier Ord. Depot, Wash.

(Ed Note—You're right about that bracket not being available to second echelon and to your Ordnance support outfits, but that's being changed. Next time a revision to Ord 8 SNL G741 hits the field, this bracket will be in it, which means it'll be available to your Ordnance support. As soon as you get a new one, get rid of your patched up bracket.)

WRESTLING HOODS



Dear Editor,

When you go to replace the hood-side-panels on the 2½-ton Reos and the 5-ton trucks you're in for one heck of a wrestling bout.

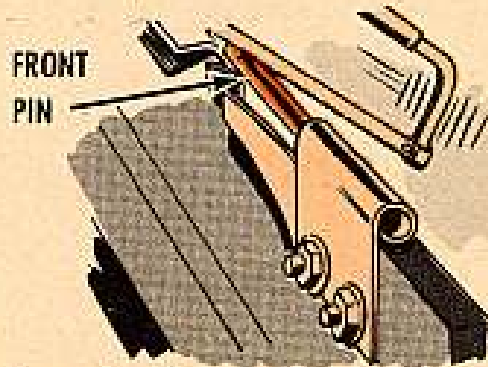
Getting the panel's locking-pins lined up and inserted into their respective holes just can't be done unless you've got two men on the job.

You can insert the first pin OK, but by the time you ease over to the one on the opposite end of the panel the first one's slipped out and you're back where you started.

Reason the job's tough, especially if the hood frame's been sprung, is the pins. They interfere with the space you

have for working the panel in place. You can't line up both ends of the panel in the hood's frame at the same time. One end of the heavy panel hangs unsupported and pulls out the end you've locked unless someone's around to hold it in place.

We've eliminated this worrisome interference by cutting off ⅛ inch from the



front pin. Now we can line up the panel on both holes, insert the back pin and know it'll stay put while we lock the front end of the panel. Cutting the pin doesn't weaken its locking power, and the fix makes replacing these panels a one-man job.

MSgt R. A. A.

(Ed Note—You pinned 'er down, Sarge. You win the bout.)



Dear Editor,

We've been having quite a bit of trouble with our trailer-light-cables dragging along the ground getting banged up when they become disconnected.

Our easy fix for this is to attach some safety wire or a light chain to both ends of the connections. And just tie the ends of the wire or chain to the truck and trailer. Now, when the connection wobbles loose, it won't drag.

PFC Bruce Kruger
Camp Irwin, Calif.

(Ed Note—Get a UER in if those cables keep coming loose. That way you'll soon get a permanent fix.)



Connie Rodd's BRIEFS

Wrong Number

This gal sure threw you a bum steer, back in PS 47 on Page 49. There is one and only one paint to use on acquisition antenna radomes. Because other paints cause radar reflection, the one used on radomes has to be non-metallic. Get it by ordering: Enamel, synthetic, semi-gloss, OD, (No. 2430, FS TT-C-595), FS TT-E-529 (Non-metallic), Eng Stock No. 52-3476.017.100.

On Page 49 in PS 47, just delete the reference to radomes. The paint you used to get under Ord Stock No. Y004-8017319 is being replaced by a paint under Eng Stock No. 52-3433.700.005; but it isn't used on the radomes—it's just used for ordinary OD painting around your systems, but not on your radomes.

Crystals

Use only IN23B crystals with Nike Vans and T/M33 FCS. IN23's aren't elec-

trically interchangeable, so they're obsolete. Turn the IN23's in—according to regulations.

FCS Lubing

The acquisition antenna control unit on the Nike and M33 FCS has been getting OHA (MIL-O-5606) for a lube. But that stuff doesn't contain a rust inhibitor. Switch over to OHC (MIL-O-6083A) Stock No. 14-O-2832-51, which has a built-in rust fighter.

Lights Out

Whenever y'go changing a light bulb in your M48 tank's range finder—first make sure all those range finder light switches are OFF. Pulling a lamp assembly with the switches on may cause a short and shoot the resistors in your range finder control panel. Wouldn't want that, now...would we? (You'll likely see a range finder decal on the subject soon.)

INDEX PS 37-48

Your monthly reference guide to all subjects covered in the last 12 issues of PS Magazine

PS ISSUE NUMBER		37	38	39	40	41	42	43	44	45	46	47	48	
DIV. MAJOR ITEM		PAGE NUMBER												
AUTOMOTIVE - SERVICE TERMS	BRANDS		48	14	18	11, 14	21, 20							
	COOLING SYSTEM				48			31	49					
	DOCTRINE	10	31	10, 41						10-1	71	10		
	ELECTRICAL	32, 47	4	17, 19	19, 32, 35, 49	9, 34, 35	2, 17, 31	1, 49	30, 33, 34, 37		70, 28, 30, 45		15, 29	
	FORMS		29	21	31, 48					2, 39	21		33, 46	
	LUBRICATION & OILS		16		34	48	19, 32		4					
	PUBLICATIONS		30, 45	42, 43	46	18, 49	42, 43	30, 45, 46, 49	45, 48	31, 45, 46	39, 40, 49	29, 49	11, 19	
	CHANGE-OVER MAINTENANCE	21				2, 4		21	21				2, 16, 21	
	SUPPLY		30	10	49						32, 35, 49			
	TIRES, WHEELS	17	16	37	43	14, 31, 49	21			6, 34, 49	36	47	17, 18, 34	11
	TOOLS & EQUIPMENT	18, 33, 30	48	15, 17, 19	2, 20, 35	15, 18, 49		29, 32, 48		10, 48, 49	31, 36	31		
WINCHES		49	20, 43		31						18			
ARMAMENT AND AMMUNITION	AMMO (GENERAL)											43	34	
	90MM AAA GUN	48	2		41		39	21, 40	43			37, 47	34	
	120MM AAA GUN	32, 46	2, 43		41		48	49	42, 43			47		
	75MM AAA GUN	32	2, 44		40, 41	29			42			47		
	HOWITZERS & GUNS	32	2	49	18, 39		49	38			38			
	76MM TANK GUNS	32	2			36			43					
	90MM TANK GUNS	32	2											
	43MM AAA GUNS	32, 39	2							2, 4, 49				
	50 CAL. MACHINE GUNS		2								33	49	35	
	30 CAL. MACHINE GUNS		2, 45			19		37	40				31	
	30 CAL. S.A.P.		2							38				
	30 CAL. RIFLES		2					39	42	49		34	36	
	30 CAL. CARBINE		2						43			36		
	45 CAL. PISTOL		2											
	45 CAL. SUBMACHINE GUN		2											
RECORDER RIFLES							37					36		
ROCKETS & LAUNCHERS	48						49						36	
FIRE CONTROL	BCD SYSTEM		42, 43		35, 43	32, 36	39, 48, 49	36, 48	49		32, 33	49	2, 5, 6, 7	
	SIGNS AND SCOPES	30	40, 45	2					49					
	PIPE				44	37		34, 35, 36		40, 41	34, 35	40, 43, 44, 45	42	
ENGINEERS	AIR CLEANERS										44			
	GENERATORS		34, 36										43	
	GRADERS						45		45					
	GASOLINE ENGINES			44		41, 42	42	47						
	DIESEL ENGINES					42				44			44, 45	
	TRACTORS, DOZERS	33		45, 46	42, 44	41, 42, 44	43, 44							
	SUPPLY AND SPARE PARTS							43		42			43	
	THE ROUNDUP, PUBLICATIONS, FORMS	36, 38		42	43, 45	44	40, 45	45	45	45	40, 41			
	CLUTCHES		37											
	DRUMS, SHOVELS			45	44	44			46	43		38	45	
	SEASONAL CHANGE-OVER MAINTENANCE	33	35											
TOOLS		14			40		45			42				
OIL (GENERAL)	PUMPS												38	
	FLAME THROWER												39	
	SMOKE GENERATOR												38	
	IMMERSION HEATER												40	
	FIELD RANGE												41	

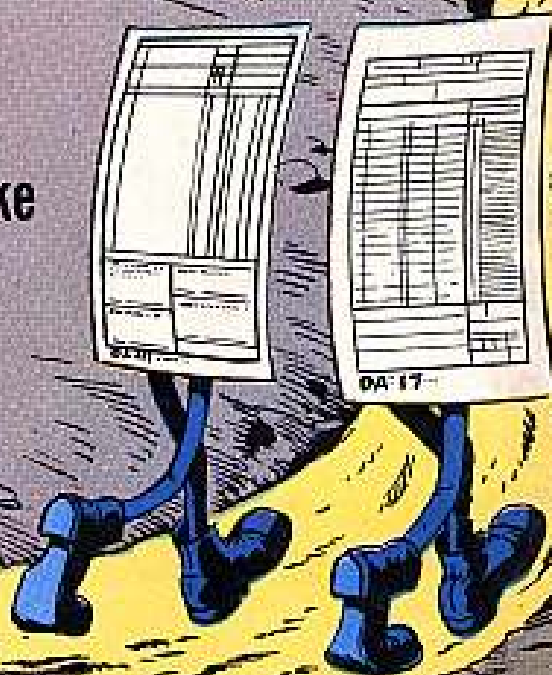
10-INSIDE FRONT COVER; 30-INSIDE BACK COVER; 40-OUTSIDE BACK COVER

THE FIRST NUMBER IS THE P5 ISSUE. THE SECOND NUMBER IS THE PAGE NUMBER.

DIV.	MAJOR ITEM	POWER UNIT	FUEL SYSTEM	EXHAUST SYSTEM	ELECTRICAL SYSTEM	TRANSMISSION	FINAL DRIVE	TRACKS AND SUSPENSION	OPERATION	LUBRICATION OILS	TIRE/TYRE	ACCESSORIES AND TOOLS	WARRANTY CONDITIONS
TRACK	CUM CARTRIDGES		43-31		38-26			39-18, 46-30	38-21		37-47, 46-39	45-49	
	PERSONNEL CARRIERS		43-31		38-26, 46-1 46-17			39-18	38-21, 41-30 43-43, 46-2 46-21		40-39	46-40, 48-33	
	TRAK-M44, M45A1	38-41, 38-49	46-31		38-26, 43-49	41-12		39-18, 42-48 45-8	38-21, 41-29 43-40, 46-21		37-47, 39-2 40-38, 43-39 43-38, 47-32	41-43, 46-48	
	TRAK-M47	38-41, 38-49	40-30		38-26, 39-49 43-49	41-12		39-18, 38-33 38-43, 42-49 45-8, 45-30	38-21, 41-29 43-43, 48-21		37-47, 39-2 40-38, 43-39 43-38, 47-32	37-38, 41-48 46-43	
	TRAK-M48	38-41, 38-49 47-16	40-30	41-48	38-26, 43-49 45-7	41-12, 47-12 46-29		37-18, 37-31 38-33, 38-39 39-38, 42-49 45-8	38-21, 41-19 41-20, 43-43 49-21	38-31, 41-20	37-47, 38-48 38-2, 46-30 43-38, 47-16 47-32	37-2, 46-47 41-43, 42-48 43-33, 45-31 46-43, 47-14 48-30	38-18
	TRAK-M41, M41A1	38-49	40-30		38-26, 43-48 43-43	41-12	37-37, 40-34	39-18, 42-48 45-8	38-21, 41-29 43-40, 46-21	41-20	37-47, 39-2 40-38, 43-39 47-16, 47-32	41-43, 46-48	38-18
	TRAK-M42 (SP)	38-49	40-31		38-26			39-18, 42-49 45-8	38-21, 41-29 43-43, 48-21	41-20	37-38, 37-47 39-2, 40-38 43-38, 47-32	41-48	38-18
	WRECKER-M74		43-31		38-26			39-18, 45-8	38-21, 43-43 49-21	46-45	37-47, 46-39 47-32		
DIV.	MAJOR ITEM	ACCESSORIES	BODY	CHASSIS	ENGINE	EXHAUST SYSTEM	PAVE SYSTEM	INSTRUMENTS AND GAUGES	LUBRICATION	POWER TRAIN	STEERING SYSTEM	OPERATION	TOOLS AND REPAIRS EQUIPMENT
WHEEL	TRUCKS-M38, M38A1 1/2-TON	40-33, 40-49 41-14, 43-38 41-48, 45-49 47-38, 47-19 48-48	42-43, 44-39	41-10, 41-33 42-20, 47-19	43-17, 40-32 43-37, 44-36 45-20	44-26	38-20, 40-47	44-37, 47-48	41-20, 45-34 47-48	37-19, 41-45 42-20, 43-48 44-37	45-25	39-29, 40-17 46-43, 41-23	
	TRUCKS-6743 SERIES 1/2-TON	40-35, 41-14 45-49, 48-45	38-19	38-34, 41-11 41-16	40-17		38-20, 40-47 44-38	47-49		37-19, 45-28		39-29, 40-17 41-21	
	TRUCKS-6749 SERIES 3/4-TON GMC'S	37-19, 40-18 40-35, 41-14 43-49, 42-29 44-38, 45-47 45-43, 46-19 46-48, 48-46	38-29	41-16, 41-49	40-17, 43-30		38-20, 40-47 41-12, 44-49 45-26	45-17	40-34	37-19, 43-19 40-21, 41-13 45-20, 45-37 47-17		39-29, 40-17 41-21	
	TRUCKS-6742 SERIES 3/4-TON REOS & STUDEBAKERS	40-35, 41-14 41-33, 41-48 42-29, 44-38 45-47, 45-49 48-19, 48-18 46-48, 47-46 48-48	38-19, 45-32 46-29	41-13	40-17, 43-30		38-20, 40-47 41-12, 46-38		37-29, 46-29	37-19, 37-19 38-47, 41-46 43-20, 47-37	37-19	39-28, 46-17 41-21	
	TRUCKS-6744 SERIES 1-TON M62	40-35, 41-14 41-33, 41-48 43-47, 45-18 45-19, 45-48 48-48	38-19, 39-48	41-16	38-45, 39-20 39-48, 40-17 44-25		38-20, 40-47 41-12		48-46	37-19, 38-48 40-33, 41-45 42-20, 45-14 45-20, 47-17 48-18		39-28, 46-17 41-21, 48-4	37-47, 38-47 39-18, 39-20 39-38
	TRAILERS, TRACTORS		38-43	44-34, 48-30					42-49	48-32	37-19, 43-45		41-21
COMMERCIAL		41-48, 46-48										39-29, 41-21	

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(see inside front cover)