

DIRECTORATE GENERAL BORDER ROADS

GENERAL MAINTENANCE INSTRUCTION NO. 16

WADING INSTRUCTION FOR 'B' AND 'C' VEHICLES (1½ TO 3 FEET IN DEPTH)

GENERAL

1. This instruction lays down the method and procedure for wading of 'B' and 'C' vehicles up to 1½ to 3 feet in depth.

2. Normally, the vehicles and tractors should not be allowed to cross any water of more than the following limits unless the vehicles are fully water proofed:-

Light vehicles - Up to 1½ feet in depth

3 Ton and heavy vehicles - Up to 2½ feet in depth

'C' Vehicles - Up to 3 feet in depth

3. Since the necessary for crossing any such water for prolonged periods by any of the units in DGBR is not anticipated, the need for issuing any comprehensive instruction on water proofing of vehicles for the purpose of wading is not considered necessary.

4. As and when it is unavoidable to operate the vehicles/tractors in water for short distances the maintenance as indicated below should be followed.

5. **PREPARATORY MAINTENANCE** (Before Wading)

(a) The vehicle must be in good condition.

(b) The engine must develop full power. Check that the carburetor is operating satisfactory and all joints and gaskets must be tight and in good condition.

(c) Petrol and fuel tanks must be thoroughly cleaned and free from sludge. A new vehicle is subject to petrol or fuel stoppage in its early days. In addition, oil filter will collect swarf during the running –in period, so clean it up.

(d) All gaskets and oil seal of engine, transmission, steering and axles must be in good condition. In case any one is defective, it should be replaced,

(e) All bolts and nuts and brackets must be checked and tightened.

(f) Plug gaps must be set to makers recommendations and tightness should be thoroughly checked.

(g) All electrical connections must be cleaned and tightened.

(h) All controls, linkages of accelerator and brakes, starter and choke, locks and door hinges, wind screens hinges, road springs vehicle tools and petrol change-over taps etc should be greased and properly lubricated.

- (j) The tyre pressure should always be checked.

ADJUSTMENT – FAN BELT

Slacken the fan belt to give one inch movement each way when tested midway between driving and fan pulley, when thus adjusted it will run normally in air, but will slip under water.

DURING WADING

- 7. The following points must be strictly adhered to :-
 - (a) Under all conditions, drivers must remain calm and keep their wits about.
 - (b) Dozer's blade must be raised as high as possible to avoid digging in when coming off the bottom of the ramp.
 - (c) Vehicles/tractors should be in low gear and four wheels drive will be engaged.
 - (d) The clutch will on no account be used except in emergency.
 - (e) Engine speed should not be below fast idling speed and it should be ensured that the choke is not at all used.
 - (f) When in water, the vehicles will be driven as quickly as possible by the shortest route or the one directed by the guide and on no account it should be stopped.
 - (g) Disabled vehicles or other obstructions will be avoided.

AFTER WADING

- 8. The following points will be observed after wading:-
 - (a) Engine, transmission, steering, clutches and final drives will be examined to see if water has entered. Drain the steering clutches and if necessary change the oil in engine, transmission and final drive.
 - (b) Re-adjust the fan belt to correct deflection.
 - (c) After landing the brakes will be ineffective and must be dried out by applying the brakes at frequent intervals whilst moving. The brake should become fairly effective after two miles and fully so after 5 to 6 miles. When the vehicles are parked the wheels should be scotched and the hand brake left in the off position, for the first 24 hours after landing.
- 9. In the event of the vehicle being parked immediately on landing, the following precautions should be taken :-
 - (a) Start the engine and run for five minutes, operating the clutch pedal smartly while the engine is running.
 - (b) Apply and release brakes smartly several times.
 - (c) Operate all controls.
 - (d) Check all the electrical equipment for signs of corrosion and thoroughly clean any component affected.