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Rejuvenating Flooded or Submerged Elec-Trak Tractors

Due to the recent flooding and high water conditions prevalent in eastern states and parts of central U.S.A., many Elec-Trak tractors have been submerged in water. "Hot Line" calls indicate the need for information regarding the service required to restore these tractors to operation. Areas that may require service are power pack, drive motor, mower motors, charger, speed control, gages, and transaxle.

After a flood, tractors like everything else are a sorry sight -- mud smeared over everything, debris, and sand everywhere. The first step is a thorough cleaning of the equipment; this should be started at once, and arrangements should be made to provide heat in the building while a general plan of drying is laid out.

After removal of the batteries, clean water under moderate pressure can be used to wash out sand and silt. Most important - No operation or charging should be attempted before thorough drying out of all components.

Power Pack

Normally, the small vent holes in the battery caps will not allow flood water to enter cells since air pockets are present and block the openings. However, very small amounts of water may enter the cells before the air pressure seals the hole. Excess electrolyte (above the normal level) should be taken out of each cell and the power pack should then be fully charged. If the battery admitted a lot of water, then after charging, the electrolyte should be removed, cells flushed with clear water, and fresh electrolyte of 1.250 to 1.260 spg should be added immediately. Since special equipment and extreme care are required for this operation, a battery service shop is recommended to perform this service.

If little evidence of seepage into the cells is present, all battery surfaces should be cleaned before reinstallation and should then be put through a full charge cycle.

Drive Motor

Since it is <u>not</u> recommended that Elec-Trak tractor dealers attempt repairs of drive motors, all drive motors that were under water for any length of time should be removed and taken to a reputable motor repair shop for drying, cleaning and lubrication. If attempts are made to operate the motor before this service, permanent failures may occur. If service shop repair cannot be obtained and the tractor must be returned to service, carefully disassemble the motor, being sure to matchmark mating parts, and dry out by baking 2 hours at 200° F and then 4 hours at 230° F. Reassemble carefully and install on tractor.

Mower Motors

The mower motors are sealed on their lower ends so any water entering the unsealed top end is trapped while the motor is in an upright position. The motors should be removed and handled as described for the drive motor.



Speed Control

The switches used in the speed control are not sealed so must be dried thoroughly before use. If the speed control does not function properly after drying, individual switches that have failed may be replaced. Open type relay should not be adversely affected but closed plastic switches could contain water and dirt and might need replacement.

Charger/Timer

The charger transformer and timer should be dried thoroughly <u>before</u> operation is attempted. In normal room temperatures (78°F), this may take several days or longer depending on the humidity. Preferably, dry as outlined above for drive motor, being careful not to exceed 230°F.

After drying, the charger should be turned on and its output measured to be 40 to 42 volts DC with the power disconnect disengaged. If the output is correct, the batteries should be placed on charge and the charger operation checked occasionally.

Gages

Gages should be cleaned, dried and inspected. If there is no damage or corrosion, they may be reinstalled. If damage has occurred, replace the gage.

Transaxle

The transaxle is well sealed, but should be checked for possible water penetration. This is done by removing the drain plug momentarily and checking the oil for evidence of water. Since water is heavier than oil, it will drain out of the transaxle first. If water is present, completely drain the transaxle and fill with SAE 90 EP oil. Fill until the level is up to the lower edge of the filler hole.

Lubrication

The tractor and mower should be thoroughly lubricated at all friction points with a good grade of grease and 30 weight oil as required. Points include lift assemblies, steering, front wheels, spindles, front axle, brake assembly, mower wheels, rollers, and rotating shafts or other points of bearing or movement, etc.

Since damage resulting from flooding is not covered by warranty, customers should be advised that their homeowner's insurance policy may cover this equipment repair.

If any particular problems occur in servicing of these units, call Product Service on the "Hot Line."