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CC17 Revised 1979 Emergency Flood Information... Tractor and Implement Cleaning

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Emergency Flood Information

TRACTOR AND IMPLEMENT CLEANING

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Silt and clay particles carried in flood water are small enough to get between surfaces of close-fitting machinery parts. These small particles settle in the engine, drive-train and gears of tractors and machines that have been under flood water.

Special care is required in cleaning and conditioning flooded equipment. The cleaning operation should be done without delay. Delay will make dirt harder to remove, and may cause considerable rusting and corrosion.

Tractor

Don't tow a tractor very far that has been submerged, and don't attempt to turn the engine with the starter. Dirt will damage the bearings, gears and other close-fitting parts during towing or engine rotation.

A tractor that has had the engine submerged should have the engine removed and completely disassembled for cleaning. Each part must be well cleaned. The job should be handled by a competent mechanic in a well equipped shop. For a tractor that was not submerged deeper than the platform and has no water in the engine, you'll need to service only wheel bearings and other submerged parts.

If you have urgent need for a tractor or engine or don't feel it is worth the cost of having it reconditioned by a mechanic, you can use the following procedure. (This procedure isn't thorough enough to prevent eventual damage.)

1. Remove spark plugs, air cleaner, intake manifold and carburetor. Clean and wash these parts thoroughly in kerosene or cleaning solvent.
2. Drain the oil in the crankcase and disconnect fuel lines. Fill the crankcase with new oil.
3. Crank the engine slowly with the spark plugs removed to force the water out of the cylinders.
4. Squirt light lubricating oil in each cylinder and let stand for about 5 minutes. Then crank the engine slowly to permit oil to lubricate cylinder walls and rings.
5. Completely flush the fuel system (tank, pump, lines, etc.).
6. Replace magneto (if engine has this type of electrical system), starter and generator; or if time permits, clean and dry them as indicated in the emergency flood leaflet on electrical equipment. A specialist should service this equipment.
7. Drain and flush the transmission and final drive with kerosene. Refill them with new, clean, oil.
8. Remove all wheel and track bearings that do not have positive seals and clean them with kerosene or solvent. Replace them and lubricate with new clean lubricant. Factory-sealed bearings should not require cleaning if the seal isn't broken.
9. If there was a substantial amount of dirt in the crankcase, transmission, or gear train, the oil should be changed again after a few hours of operation.

Farm Implements

Before trying to operate any machine, inspect it carefully and remove all dirt and debris. If the implement has an engine that has been submerged, do not attempt to start or even rotate the crankshaft. Follow the reconditioning procedure outlined for tractor engines.

Carefully clean all exposed gears and sprockets with kerosene or solvent. Then coat with light oil. Clean all chains by soaking and dipping them repeatedly in a bath of kerosene or solvent. Then soak for several hours in a bath of light oil and drain off the excess oil.

Inspect enclosed gear cases for water or grit. If water or grit are present, or if you are in doubt, drain case, flush with kerosene, and refill with new oil. Clean and oil or grease all bearings that do not have protective seals. Non-sealed bearings with pressure grease fittings can sometimes be cleaned by merely forcing grease into them until a considerable amount has oozed out from the sides of the bearings. Then remove the excess grease. **Caution:** Some sealed, factory-lubricated bearings are equipped with grease fittings. The seals of these bearings may be damaged if excess grease is forced out.

Examine all belts and repair or replace them if necessary. Remove the knife assembly from mowers and combines. Clean and dry the knives and cutterbar, coat them with light oil, and reassemble. Inspect the insides of combines and remove accumulations of dirt, straw and chaff, debris, or water.

Remove all hay from balers, automatic bale wagons, loose haystack wagons and round balers. Carefully clean and oil all working parts. It is particularly important to clean and oil automatic tying mechanisms. If disassembly is needed for thorough cleaning, consider using an experienced serviceman.

Clean all dirt and rust from the surfaces of soil-working tools (mold-boards, disks, cultivator shovels, etc.). Coat them with rust-preventive compound, grease, or used crankcase oil.

Precision planters must be thoroughly cleaned. Remove all surface debris and clean out the seed hoppers, fertilizer, herbicide and insecticide boxes. Remove and clean all seed and pesticide delivery tubes. Clean and oil the furrow openers, knife or disc coverers, all gears and sprockets and any other polished or working surfaces. Special care should be given to the metering device. A qualified serviceman should disassemble, clean and repair the metering mechanisms. Remember to recalibrate before planting to insure that the planter is metering the seeds properly.

After cleaning all moving parts of a machine and replacing any parts that have been removed for cleaning, carefully rotate the moving parts by hand to be sure they operate freely. Then slowly engage the clutch of the power source and operate at reduced speed until you are certain everything is operating properly.

Contact your county extension agent for further information.

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