

REVOLUTIONARY "PYROLATOR" EXTRACTS OIL FROM THROWAWAY TIRES

They're Making Oil From Old Rubber Tires!

You've never seen a machine like the new "Pyrolator", developed by the Kutrieb Corporation in Wisconsin, that turns old rubber tires into oil and other basic elements.

"There are millions of used tires piled up in dumps across the country that are nearly impossible to dispose of. Even if you bury them, they tend to rise to the surface if they haven't been chipped up," says Harold Fredrickson of Kutrieb. "Our machine breaks tires down into basic elements that can be used to remanufacture other products. We've found that a typical bias ply tire contains 35% oil, 20% methane gas, 38% carbon black, 5% steel and about 2% moisture."

The Kutrieb Corporation is well-known as one of the leading manufacturers in the world of waste oil burners that turn used crankcase oil into "free" fuel for heating farm shops, garages and livestock buildings.

The first prototype Pyrolator holds up to nine tires in its inner air-tight chamber. The tires are loaded without being processed in any way, and

heated to the point where they break down into gases, steel and carbon black. The gases are funneled into a condenser where most of them condense into an oil that flows into a reservoir. The extra gases go into a storage tank. Some of the oils and gases are used to refuel the burner's tire-burning chamber. About 1 gal. of oil is used per hour to fire up the burner. The net gain in oil per tire ranges from $\frac{3}{4}$ to 1 gal. So, from a nine tire load, the operator nets up to 8 gals. of oil, plus the carbon black, steel and methane gas, all of which can also be sold.

Wisconsin's pollution control agency investigated the Pyrolator and found no evidence of air pollution, such as the thick black smoke commonly associated with the burning of old tires. The tires are contained in the inner airtight chamber and are never actually touched by the flames. The unit's waste oil burner is also pollution free.

"We are currently developing our first commercial installation for a tire reclaimer in Pennsylvania. That unit



Photo courtesy the Chetek Alert

Pyrolator breaks tires down into 35% oil, 20% methane gas, 38% carbon black, 5% steel and 2% moisture.

will require one full time man to operate it. Our figures show that the unit will have a payback of one year, says Fredrickson. "Waste heat" from the Pyrolator process is clean and can be used for general heating and air conditioning, and to produce steam, hot water and electricity.

Not much experimenting has so far been done with the oil extracted from old tires. Company officials note that it "burns great" in their waste oil burners. Farmers and manufacturers, with more than one building to heat, have shown interest in installing waste oil burners in their buildings,

then producing "tire oil" fuel for them with a Pyrolator. Fredrickson believes the oil can eventually be refined for motor vehicle use.

The company has plans to build units in the future that could hold as many as forty tires at once and operate automatically. Initially, each Pyrolator will be custom-built. Prices start at about \$20,000.

For more information, contact: FARM SHOW Followup, Kutrieb Corporation, 430 Phillip Street, Chetek, Wisc. 54728 (ph 715 924-4871).

HANDLES SILAGE, BALED HAY, GRAIN

"Mod-Box" Features Three Wagons In One

"Just one wagon does it all — lets you handle silage, grain or baled hay by buying just one standard box and three interchangeable head modules," explains Jack Miklasz, area sales manager for Forage King Industries, Ridgeland, Wis., about the company's new Mod-Box.

The new-style wagon is called the Mod-Box because of the modular, interchangeable heads that let one standard box and running gear handle several products. "It takes two men just 10 minutes to change heads," Miklasz points out. "You just loosen 3 turnbuckles on each side and lift off the head with a tractor-mounted loader, then reverse the process to put the new head on the wagon."

Here are key features of the three module configurations:

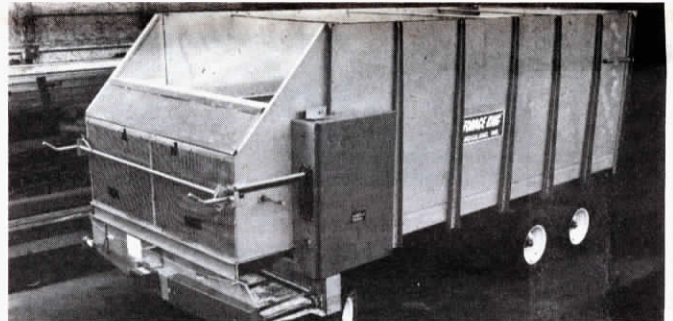
Silage head module — Three balanced beaters, with spiral pattern teeth, feed material smoothly to the cross apron. The top beater can be removed in minutes for two-beater operation, if desired. High see-through steel mesh in front lets you see what and how much you've chopped without guessing. A corrugated galvanized steel roof helps in-

crease capacity and prevents blowing forage out the sides or back. Air release screens at the rear prevent pressure build-up and blow-back of light, dry materials.

Grain head module — A sliding door meters the flow of grain to the cross apron. The door control wheel can be used on either side of the wagon. A rear door inside the sealer panel prevents grain leakage around the rear idler sprockets. Strain rods are supplied for mounting in roof bolt holes, after the roof is removed from the forage unit, to help hold the sides together.

Baled hay module — A see-through, fold-down door lets you stand on the ground and drop bales onto an elevator as the apron brings them to you. Or, you can drop them on the elevator from the wagon by standing on the door. The hay head module can also be used as a power unloading carrier for chopped wood or other bulk materials.

Standard features on all modules include: Emergency shutoff device to instantly stop all movement when needed, a full-opening rear door for easy servicing access and for rear loading as a general utility carrier, a



New "Mod-Box" has three configurations: Above, the grain-head module; Below, the wagon outfitted for forage handling; and Lower Right, the wagon set up for hauling bales.

50:1 worm gear reduction drive with #80 roller chain to drive the main apron shaft, and on-the-go shifting from neutral to two forward speeds.

The Mod-Box is being built in 14, 16 and 18 ft. lengths. Tandem rear axles are available. Miklasz estimates the baled hay module will hold about 50 to 75 bales. The 16 ft. grain module is rated at 600 bu.

Price for the new Mod-Box with standard forage module is \$5,022. The grain and baled hay modules are available for about \$300 apiece. "For about \$5,700, you can buy three Mod-Box variations that would cost at least \$8,000 if you were to buy individual wagons for the same jobs," Miklasz notes.

For more details, contact: FARM SHOW Followup, Forage King Industries, Box 203, Ridgeland, Wis. 54763 (ph 715 949-1020).

