Melroe Improves Bobcat Line

FARGO, N.D.— With the introduction of its first model in a new generation of skid-steer loaders, the Melroe Company has reaffirmed its leadership role in the compact equipment industry.

Melroe pioneered the skid-steer loader concept 32 years ago, and continues to lead the industry worldwide. Its new Bobcat 753 loader -- the first of the new 50 Series which Melroe introduced to its Bobcat dealers in September 1990 -- sets new standards for performance, serviceability, low noise operation, and operator comfort. "As the market leader, we set the standards, then surpass them with advancements that give even greater performance, dependability, and service," said Doug Freitag, North American sales manager for Melroe. "We've taken our 743, the world's most popular skid-steer loader, and refined the machine to a high degree of engineering excellence."

The 753 was designed from the ground up over the past five years, with prototypes and production models in customer field test for nearly three years.

The Drive Train

The machine features a fourcylinder, 134 cubic inch, liquidcooled Kubota 2203NTVCS (which stands for "new triple vortex combustion system") diesel engine rated at 40 HP. The engine is transversely mounted, resulting in quieter operation and greater serviceability.

The 753's hydraulic system features higher pump output for increased breakout force (8 percent greater) and quicker load cycle times.

Two concepts have also been designed into the hydraulic sys-

tem: The first is electric-overhydraulic auxiliary controls for fingertip pushbutton control of front and rear-mounted auxiliary attachments. The second is automatic hydraulic pressure draindown, a patented design that relieves pressure on the auxiliary hydraulic lines, allowing the operator to easily connect and disconnect the couplers.

Service Made Simple

Watching over the 753 is a state-of-the-art electronic monitoring and diagnostic system, known as BOSSTM (Bobcat Operation Sensing System). This pacesetting technology constantly monitors machine performance, alerting the operator to possible loader system problems or malfunctions. If necessary, it will even shut down the engine to prevent costly mechanical repairs.

Here is how the BOSS system works. Electronic sensors keep tabs on engine speed, oil pressure, voltage, coolant level and temperature, hydrostatic/hydraulic-fluid pressure, and temperature. They also check the condition of air and hydraulic filters and keep track of fuel level.

The heart of the BOSS system is a microprocessor-based electronics package -- mounted behind the wall of the cab -- which processes and relays information to a liquidcrystal-display panel located in the upper right-hand corner of the cab. The BOSS system even regulates the amount of glow plug time needed to start the engine, and a countdown timer displays on the screen.

Other Service Features

In addition, the 753 has several new features designed to reduce service time and effort. Swing open the heavy-duty tailgate to easily reach most routine service components as the battery, starter, fuel-injection system, fuel, oil and air filter, oil filter and drain, fuel shut-off and coolant-recovery bottle. Access to the radiator and oil cooler is easy through the flipup rear grille. The oil cooler lifts

out of the way to allow for easy cleaning and servicing of the radiator.

New axle hubs prevent debris from damaging the axle seals. The hubs also are removable, cutting the time required to replace worn seals. Even the Bob-TachTM attachment mounting system has been improved. The elimination of gearboxes in the final drive means fewer parts to wear out. The chaincase has removable covers and a drain plug for faster servicing.

Noise Engineered Out

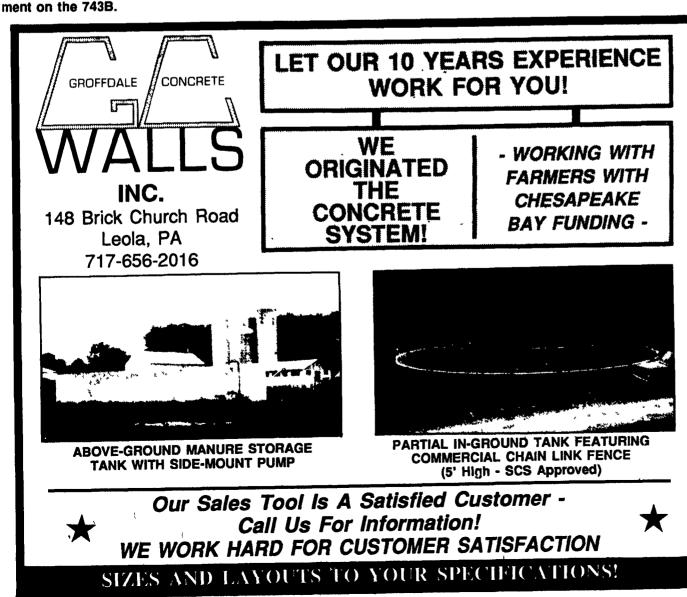
The 753 achieves its new noise level standard -- below 90 decibels (dB-A) through the combined use of a low-noise engine, new hydrostatic-drive motors and pumps, semi-focalized engine mounts, cooling fans, and hydraulic-system sound dampeners.

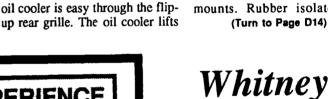
The larger displacement 134 cubic inch (2.2 L) engine in the 753 allows it to be run efficiently at a slower (2400 rpm) and quieter speed. The transverse mounting of the engine allows the hydraulic pump to be belt driven rather than direct-connection via the engine driveshaft.

Hydrostatic noise has been reduced through the matching of tandem hydrostatic piston pumps and high-torque, low-speed hydrostatic-drive motors. The new hydrostatic components use a fluid-reduction and chainreduction system, aliminating the need for gearboxes in the final drive.

The machine's patented dualpath cooling design uses a centrifugal fan system, which draws cooling air from above, through the radiator and hydraulic oil cooler. At the same time it draws air from below, out of the engine compartment. The air is mixed and exhausted out the sides, efficiently and quietly.

Further contributing to the new loader's quiet operation are the new semi-focalized rubber engine mounts. Rubber isolators are (Turn to Page D14)





NEWARK, Del. — Dr. Susan P. Whitney, Cooperative Extension pesticide specialist at the University of Delaware, was recently elected to a national post. Beginning January 1, 1991, Whitney will assume responsibilities as secretary for the Extension and regulatory section of the Entomology Society of America (ESA).

Elected

"I'm delighted to be representing extension and regulatory entomologists," Whitney said. "It's heartening to know that an entomologist from a small state can have an impact nationwide." Founded in 1889, the society boasts 10,000 members, including entomologists from business, industry, and academic circles. ESA is the only national professional society for entomologists. It publishes several professional journals that keep entomologists abreast of new information in the field. As secretary for ESA, Whitney will keep minutes and correspondence. She also will automatically assume responsibilities as assistant chair for the extension and regulatory section in 1992 and will act as chair of that section in 1993.



inch (1.73 L), liquid-cooled Kubota diesel engine rated at 36 h.p. With a rated operat-

ing capacity of 1,300 pounds (590 kg) and tipping load of 2,600 pounds (1,179 kg), the

743B is ideal for construction, rental, industrial, agriculture and agribusiness uses.

Measuring 54 inches (1,372 mm) wide with standard tires and 76 inches (1,930 mm)

tall, the 743B is compact enough to work in many close quarter applications, yet built

for tough digging, moving and lifting jobs. Optional accessories for the 743B include

front and rear working lights, hydraulic bucket positioning, front auxiliary hydraul-

ics, and cab interior foam padding. Full instrumentation comes as standard equip-