



Tech Update -- Wheel Loaders

John Deere

The John Deere 744K high lift wheel loader features a John Deere Tier III emission-certified, 274 horsepower diesel engine that packs impressive torque reserve for power without compromise in all conditions.

The enhanced multifunction monitor on K-Series wheel loaders provides easy pushbutton access to a wealth of machine information and control. From general operating info to customized machine settings, diagnostics to a camera-eye view of the activity in back, the operator sees it all on a color LCD screen.

Low centre of gravity and optimized fore-and-aft balance delivers exceptional stability and impressive full-turn tipping load capacity. Ride control makes transport even smoother, allowing this loader to navigate jobsites more quickly without losing its load.

The powershift torque-converter transmission uses smart-shift technology to continuously evaluate speed and load conditions, and adjusts clutch-pack engagement for extra productivity and smooth-as-silk gear changes without extra effort.

The 744K high lift wheel loader weighs in at 54,527 lbs.

www.deere.com

Doosan

The new Doosan DL400 has been equipped to give optimal value to the end user. Among the improvements made to the wheel loader is increased production due to the use of a new generation common rail engine resulting in excellent synchronization of the drive train with the hydraulics system. The Cummins QSL9 low emissions engine delivers 280 horsepower at 2000 rpm.

The ergonomics have also been improved with increased comfort and excellent all 'round visibility ensuring safe and pleasant working conditions. Reliability has been enhanced through the use of high performance new materials. The development of new computer-assisted structural design techniques and intensive and systematic test programs have lead to the increased life of vital components and reduced operating costs. Reduced maintenance increases the availability of the loader and reduces operating costs. The wheel loader has an operational weight of 49,603 lbs.

<http://usa.doosanintracore.co.kr/>

Liebherr

The main features of Liebherr's L 566 2plus2 wheel loader are cost effectiveness and environmental friendliness. In practice, Liebherr says this wheel loader consumes up to 25 per cent less fuel than comparable machines from other manufacturers under the same operating conditions. This success, it says, is the result mainly of the '2plus2' drive technology, a further optimization of the hydrostatic travel drive. The new drive technology is based on one gear with two different sized hydraulic motors directly mounted, each supplying a separate coupling. As at least one of the hydraulic motors is alternatively active when accelerating or decelerating, the wheel loader smoothly adapts itself to the required travel speed and drawbar pull independently to every operational situation. The L 566 2plus2 has an operating weight of 49,603 lbs, and an engine output of 259 horsepower.



www.liebherr.com

Komatsu

Komatsu America Corp. recently announced the addition of the WA470-6 wheel loader with a large capacity torque converter. With a net horsepower of 272 horsepower, the WA470-6 has an operating weight between 51,850 to 52,150 lbs and can be equipped with log or millyard type forks.

The WA470-6 has a newly designed large capacity torque converter that provides the machine with excellent tractive effort, improved acceleration and improved hill climbing ability. The improved hill climbing ability allows the machines to up-shift gears faster due to improved acceleration, achieve higher gear ranges and maintain higher ground speeds when working in load-and-carry applications. Because of this, production is increased and fuel consumption maximized resulting in improved fuel efficiency.

The WA470-6 features a closed-centre load sensing system (CLSS) hydraulic system that allows for precise work equipment control. There are two selectable operating modes that allow the machine to adapt to different working conditions. The 'E' mode provides maximum fuel efficiency and the 'P' mode provides maximum power output. For load-and-carry or hill-climb operations, the torque converter with optional lock-up transmission provides increased production efficiency, reduced cycle times and optimum fuel savings.

www.komatsuamerica.com

Caterpillar

The Cat 966H and 972H medium wheel loaders feature many innovations that boost productivity and reduce owning and operating costs. The Cat C11 and C13 engines feature ACERT technology and meet US EPA Tier III emissions requirements. The 966H produces gross power of 283 horsepower and the 972H produces gross power of 307 horsepower. The load sensing hydraulic implement system works more efficiently for improved fuel benefits of four to seven per cent and a 20 per cent increase in lift force over previous models.

Along with high productivity, enhanced operator comfort and serviceability have been built into the 966H and 972H. Each loader has electro-hydraulic implement controls with simultaneous lift and tilt capabilities, a five degree forward-inclined left access ladder, a new cooling system, and centralized hydraulic and electric service centres for easier maintenance.

The Cat Fusion wheel loader coupler system pulls the coupler and work tool closer to the wheel loader for machine performance comparable to pin-on, with all the versatility and flexibility of a coupler.

www.cat.com

Volvo

Volvo Construction Equipment provides the forest and bio-energy industries with a complete line-up of wheel loaders, each model ideally suitable for use in a wide variety of applications. Volvo compact wheel loader models, with operating weights from 10,031 to 20,745 lbs, are agile and extremely versatile. Each model combines high tech with proven technical components in a way that fully complies with the requirements of today's forest and bio-energy industries.



The full size Volvo wheel loader line-up, with operating weights from 24,250 to 119,050 lbs and net horsepower ranges from 154 horsepower to 528 horsepower, are said to be ideal for applications that require heavy lifting and fast cycle times. For example, the Volvo L180F High-lift (80,690 lbs/314 hp) is perfectly suited for unloading logs and pulp wood, stacking, as well as unloading sorting hoppers and feed tables. Its counterpart, the Volvo L180F, features Volvo's unique, patented, and highly reliable TP-linkage lift arm system providing outstanding parallel movement through the entire lifting range. Other features that make Volvo wheel loaders a good choice for forestry applications are their fuel efficient Volvo diesel engines with V-ACT, load sensing hydraulic systems, long wheel base, short articulated turning radius, optional boom suspension system and Volvo care cabs that provide one of the industries' best working environments.

www.volvoce.com

Kawasaki

Kawasaki has designed logging and woodchip handling application packages to handle the heavy load demands of logging and the dusty environment of woodchip applications. Special lift arms, counterweight, guarding and third spool hydraulics all contribute to the high performance level of a Kawasaki loader.

The Kawasaki logging package is available from the 65ZV-2 through to the 115ZV-2. The Kawasaki woodchip package is available from the 90ZV-2 through to the 115ZV-2.

www.kawasakiloaders.com

Hyundai

The model HL770-7A is part of the new generation of wheel loaders at Hyundai.

Weighing in at 50,930 lbs, the HL770-7A comes equipped with a Cummins QSL, 280 horsepower engine. Hyundai says this wheel loader model gives owners the satisfaction of higher power with lower fuel consumption, more comfort and lower emissions.

The Cummins QSL electronic control engine combines full-authority electronic controls with reliable performance. The combination of a high pressure, common rail system and advanced in-cylinder combustion technology results in increased power, improved transient response and reduced fuel consumption.

The newly developed transmission control represents the beating heart of the transmission. The hydraulic system for gearshifts works with proportional valves, which allows for very precise control of the clutches.

Improvements have also been made to the axle. Limited slip differential as standard equipment allows for easy driving on variable ground conditions.

The all-new, deluxe operating space was engineered with 3-D modeling. The wide, tinted and laminated front windshield has no framing to ensure excellent visibility.

www.woodlandequip.com