Four-Wheel Drive Tractors

305 to 535 hp

bühler

PROVEN PERFORMERS

The 305, 340, 375 and 400 horsepower models are all-new for 2008 and include many of the same features as the successful High Horsepower Tractor (HHT) Series.

The Buhler Versatile line of four-wheel drives has been developed to enhance the profitability of large-scale agricultural operations. Using only proven components, Buhler tractors focus on power, durability and reliability – because downtime is not an option! Buhler Versatile four-wheel drive tractors include the features most requested by farmers with additional

options available to customize the tractor for the needs of any farm. Engineered from the ground up using heavy-duty components, the full line of Buhler Versatile four-wheel drive tractors, from 305 to 535 horsepower, feature proven Cummins engines, durable transmissions, spacious cab environments and are ready to serve your farm for years to come.

Buhler Versatile four-wheel drive tractors have a new decal scheme that features the model number designation on the rear of the cab. For many years, the model designation on Versatile tractors appeared on the cab and the new decal scheme recognizes that tradition.

A HISTORY OF SUCCESS

Versatile was the first company to mass-produce articulated four-wheel drive tractors, starting in 1966 with the D100 and G100 four-wheel drives. Those ground-breaking tractors were primitive by modern standards, with a 6-cylinder diesel or 8-cylinder gas engine producing 100 horsepower. 1966 models sold for less than CA$10,000.

Four-wheel drive demand increased significantly, with Versatile becoming one of the leaders in four-wheel drive development and production. By the late 1970's the Versatile lineup included tractors ranging from 220 to 330 horsepower. With the 1980's came an expanded line of four-wheel drive tractors that stretched to 470 horsepower in the Versatile 1150.

In 1987, Versatile was acquired by Ford New Holland and by 1989 the four-wheel drive tractors assembled at the Winnipeg factory were painted in the Ford colors, blue, black and white, and carried the Ford Versatile name. Production of blue four-wheel drive tractors under the New Holland name continued until 2000.

Buhler Industries, a Canadian-owned farm equipment manufacturer, purchased the Winnipeg four-wheel drive plant from New Holland and in 2001 the Versatile name returned. Buhler Versatile continued to build the 2000 Series four-wheel drive (240 to 425 horsepower) and launched the High Horsepower Tractor Series in 2004. With 435, 485 and 535 horsepower it was the highest-horsepower four-wheel drive available in North America.

Buhler celebrated 40 Years of Versatile tractor production in 2006 and commemorated 50,000 Versatile-Built four-wheel drives in late 2007. At the same time, Combine Factory Rostselmash Ltd., a Russian combine manufacturer, purchased Buhler Industries with plans of increasing the global presence of Buhler Versatile four-wheel drive tractors. The Versatile name continues, known worldwide for reliability, durability and ease of service and maintenance.

Versatile

ENGINES :: THE POWER TO PERFORM

Proven Power

Versatile tractors have been powered by Cummins engines for nearly 40 years. Cummins engines employ the latest advancements in diesel engine design and technology to provide long-term reliability. These engines are turbocharged and aftercooled for clean-burning fuel efficiency. The high-pressure injection system with electronic engine control quickly responds to load conditions or throttle adjustments, with a 35% torque rise at 1400 RPM and a 7% power bulge at 1800 RPM to meet the rigorous demands of modern agricultural operations.

Biodiesel approved

The Cummins QSM and QSX engines are Tier 3 compliant and meet the stringent Tier 3 NOx emissions requirements by optimizing the in-cylinder combustion system and without the need for any additional emissions subsystems. These engines have proven track records of excellent fuel economy and are approved for B20 biodiesel in a continuing effort to support new fuel initiatives.

Bigger radiator, better cooling

The cooling system on Buhler four-wheel drive tractors uses a large grille and radiator to provide better air flow. The larger surface area reduces the air velocity required for engine cooling, which results in more efficient fan horsepower consumption. Some four-wheel drive tractors have smaller hoods, compromising cooling surface areas, meaning more air needs to be pumped through the radiator, drawing valuable engine horsepower to run the fan.

Cummins QSM11

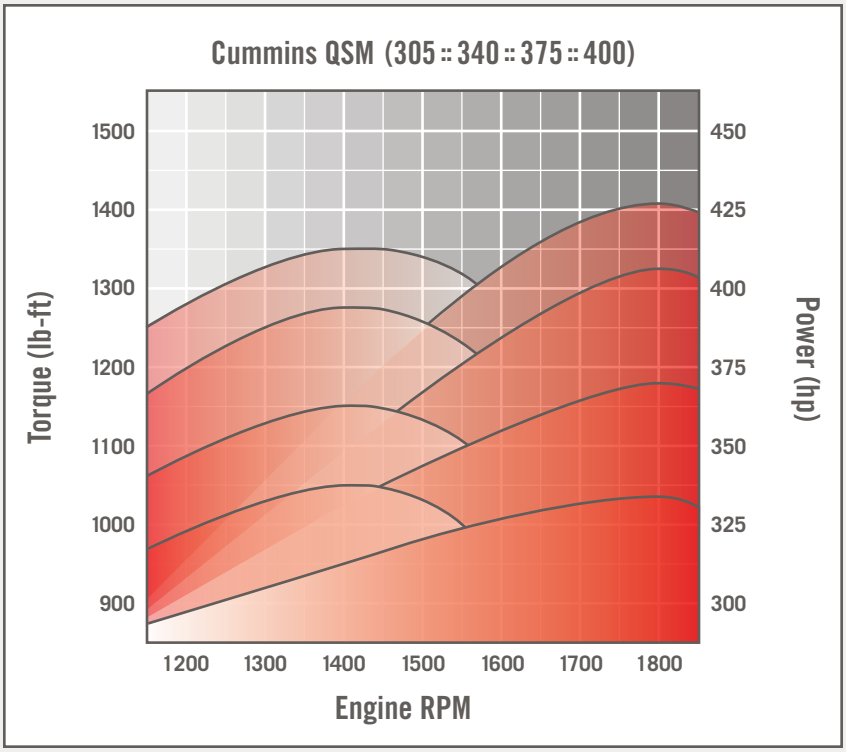
The Cummins QSM11 powers the 305, 340, 375 and 400 models. The 11-liter in-line six-cylinder turbocharged engine delivers superior performance using advanced combustion technology. The turbocharger is designed for optimum boost to improve throttle response across the operating range. Electronically controlled unit injectors with cam-driven rate shaping optimize both emissions and efficiency. The

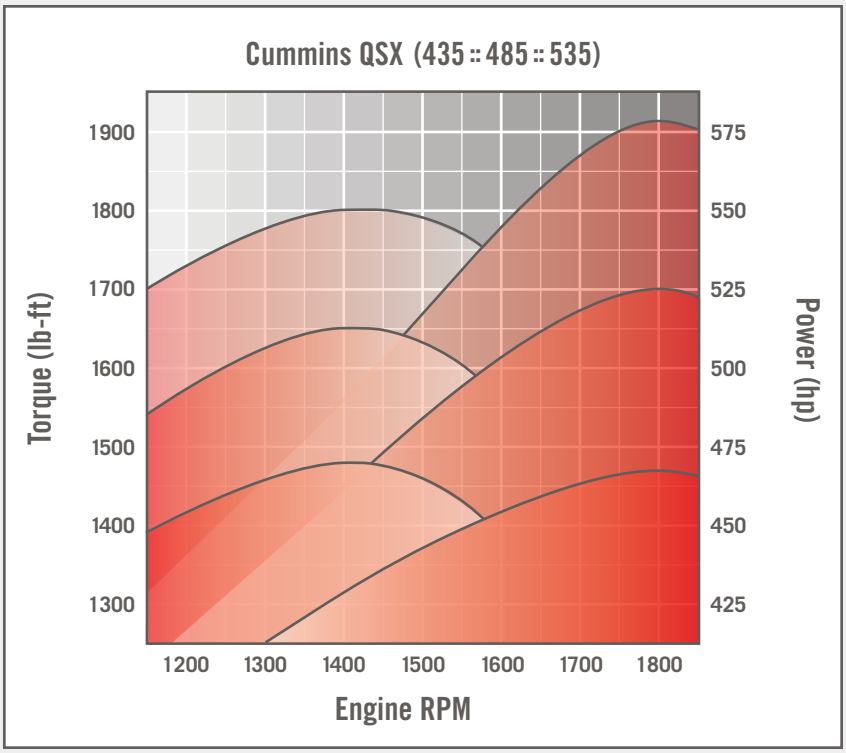
mix of proven field performance and advanced technology is designed to be powerful, durable and reliable.

Cummins QSX15

The HHT Series (435, 585 and 535 hp) is powered by the dependable Cummins QSX 15-liter six-cylinder turbocharged engine. Buhler selected the Cummins QSX15 during the development of the HHT Series to optimize the performance of the tractor, shaping power curves and ratings to align with work environment, load factors and operating modes. The result is an efficient and reliable high horsepower tractor that will work hard for years to come.

Built-in Cummins® reliability





35% torque rise at 1400 RPM
7% power bulge at 1800 RPM

TRANSMISSIONS :: GET IN GEAR

Transmission choices

Each farm has specific operating conditions and implement demands and Buhler Versatile four-wheel drive tractors offer the choice of manual or powershift transmissions, each developed to efficiently manage field demands and engine horsepower. Choose the best transmission for convenience, performance and operating conditions.

Manual transmission

The mechanical 12 x 4 transmission features four synchronized sequential smooth-shifting gears in each of its three ranges. These gears have closely matched speed increments in the critical band from 3 to 8 mph to provide flexibility for every farming application.

Powershift transmission

Available in the 305, 340, 375 and 400 models is the 12 x 2 Powershift transmission while the 435, 485 and 535 feature a CAT® TA22 Powershift transmission with 16 forward speeds and 4 reverse speeds, with eight gears in the heart of the critical field working range. Single lever control provides clutchless shifting from forward to neutral to reverse for all speeds. Powershift gear selection features are designed for simple gear selection, smooth operation and in-field convenience.

Cruise control

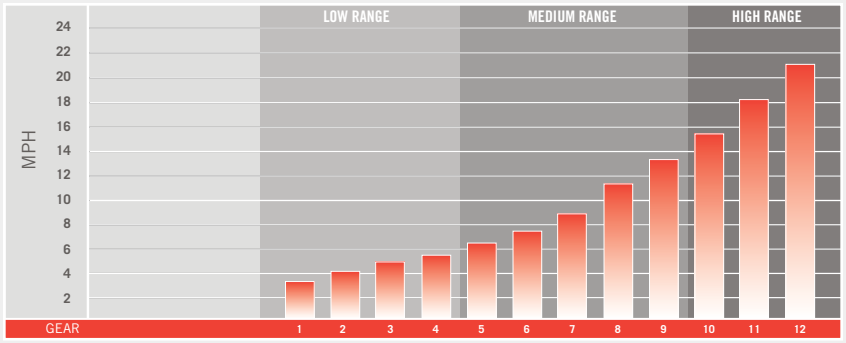
Engine and ground speed consistency is very important for maximizing the efficiency of modern implements such as air seeders. Cruise control is included on all Buhler four-wheel drive tractors to maintain ground velocity or maintain

POWERSHIFT FEATURE	DESCRIPTION
Automatic speed matching	Provides automatic gear selection to match engine and ground speed.
Sequential shift	Provides smooth continuous upshifts or downshifts by holding the lever left or right.
Pulse shift	Allows upshifting or downshifting one gear at a time, by tapping the lever left or right.
Pre-select (305, 340, 375, 400)	Pre-select any gear up to 7th while in neutral. The tractor will start in 3rd and automatically upshift to the pre-selected gear.
Pre-select (435, 485, 535)	Pre-select any gear up to 10th while in neutral. The tractor will start in the pre-selected gear.
Straight line shuttle shift	Shift from forward to reverse without clutching.

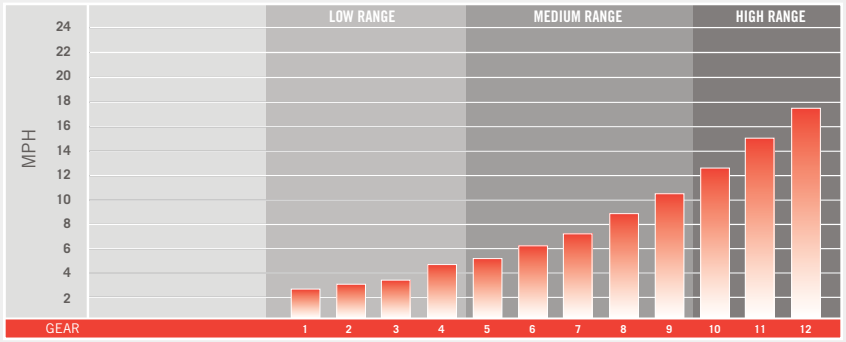
engine speed for peak horsepower and torque, or for constant PTO operation.

The next field

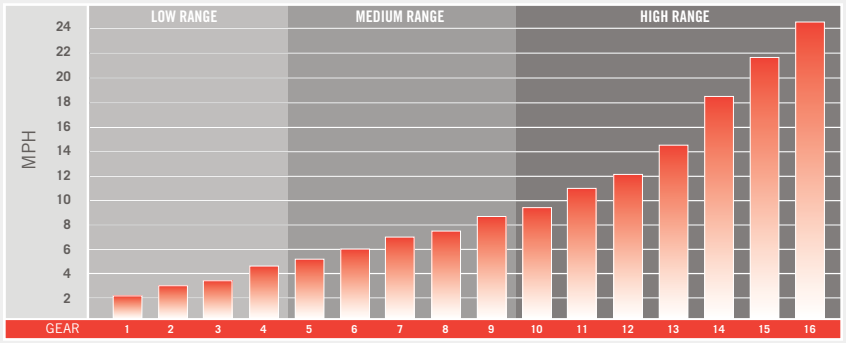
Farms have expanded and moving to the next field is no longer as simple as crossing the road. With that in mind, Buhler Versatile four-wheel drive tractors now have road speeds of up to 22 MPH so moving equipment to the next field takes less time.



Quadshift gear ranges - All Models



Powershift gear ranges - Models 305, 340, 375, 400



Powershift gear ranges - Models 435, 485, 535

Helical cut gears generate more tooth contact for more reliable power transfer, smoother shifts, and reduced transmission noise.

BUILT TO PULL :: FRAME, AXLE, DRAWBAR

Frame construction

The frame is manufactured from thick high-grade steel plate to ensure structural integrity even under extreme conditions. The main bearing at the articulation point is larger than prior models to enhance reliability. The drawbar pull point on Buhler Versatile four-wheel drives is immediately behind the articulation point for maximum pulling power and weight distribution.

Outboard Planetary Axles

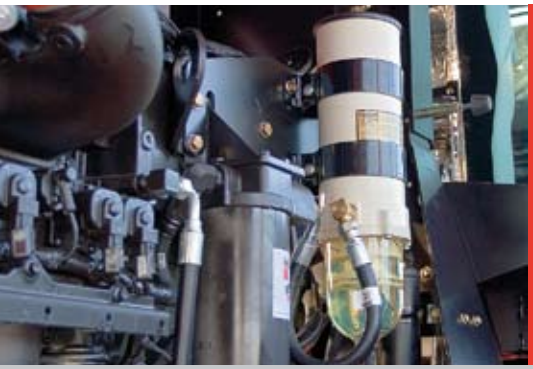
In the 1970's Versatile engineers developed the outboard single reduction planetary axle, known in the industry for its strength, simplicity, ease of service and wheel mounting. The tradition of building the most reliable planetary combination in the industry starts with placing the planetary and sun gears towards the outside of the axle. Outboard planetary axles deliver all available horsepower through a large, precision machined floating sun gear. The planetary hubs are suspended on large diameter bearings mounted directly to the axle tubes. The load is supported by the axle assembly and not by the drive train components. All Buhler Versatile four-wheel drive tractors feature reliable heavy-duty final drives that deliver horsepower where it counts: at the drawbar.

The drawbar pull point on Buhler Versatile four-wheel drives is immediately behind the articulation point, which now features a large-diameter pivot pin for maximum strength and durability. Models 305, 340, 375 and 400 feature a 2.36" (60 mm) pivot pin while the High Horsepower Tractor Series have a 3.15" (80 mm) pivot pin.

The planetary axles remain on the tractor during routine maintenance, limiting downtime. Daily inspections are easy with a quick visual check of the axle oil level indicators. The gears can also be reversed to extend the wear life.

Fuel capacity and weight distribution

Two fuel tanks provide a total capacity of 250 U.S. gallons in the 305, 340, 375 and 400, while models 435, 485 and 535 have a capacity of 350 U.S. gallons. The two fuel tanks are connected with a crossover tube for convenient refueling on either side of the tractor. The tanks are located at the optimum position near the center of the tractor to maintain the front-to-rear weight distribution. As the fuel level drops, the front-to-rear weight ratio remains the same so balance and ballast levels are not affected, regardless of fuel level.



A large auxiliary fuel filter is standard equipment. With a larger capacity, the fuel filter ensures that fuel is thoroughly filtered to ensure harmful debris is removed before entering the engine, which is particularly important when using biofuels. This filter is visible from the ground or from the entry platform for easy inspection.

HYDRAULICS :: MEETING THE DEMANDS OF MODERN EQUIPM

Modern implements require more hydraulic capacity to operate efficiently and the hydraulic system on Buhler four-wheel drive tractors has been developed to meet those demands. The closed center load sensing hydraulic system provides ample capacity for implements that demand high hydraulic flow by providing pressure and flow on demand. When no hydraulic power is required, the system goes into low-pressure standby to conserve energy, providing more power at the drawbar.

Mechanical hydraulic levers, positioned for easy reach, manage a variety of applications and have the flexibility to do multiple functions simultaneously. Using lever locks, the mechanical hydraulic levers can be locked in neutral, kept out of the float position, or held between float and retract for hydraulic motor operation. Easily adjustable flow control knobs for four hydraulic circuits are conveniently located on the side console. Rotate the knobs to increase or decrease flow to each of the hydraulic circuits. These rotary controls make it easy to adjust flow from the comfort of your seat.

Electro-hydraulics are available and feature fingertip controls to manage the raise, lower, float and neutral functions. Each remote has a convenient thumb wheel for precise flow settings and programmable timed self-centering detents.

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Optional electro-hydraulics are ergonomically designed for both comfort and convenience. Finger-tip controls manage the hydraulic functions and hydraulic flow is increased or decreased by rotary thumb wheels.

The total hydraulic flow in the models 305, 340, 375 and 400 is 50 GPM (190 L/min) and an optional high flow hydraulic system increases that to 75 GPM (290 L/min). Models 435, 485 and 535 have a total hydraulic flow of 55 GPM (208 L/min), or 80 GPM (303 L/min) with the optional high flow hydraulic system. Four remote valves are standard and the optional high flow hydraulic system is available with six remote valves, and eight remote valves are available on the HHT Series.

[2]

[3]

[1]

[1] The hydraulic remote couplers at the rear of the tractor are mounted on the left side for better drawbar visibility and unobstructed access to attach implement lines. The outlets are color-coded to match the hydraulic controls inside the cab.

[2] Located in a comfortable ergonomic position on the right side console, the four hydraulic control levers are color-coded with the couplers. Below each control lever is a 3-position lever lock that allows for easy setting.

[3] Continuously variable rotary control knobs allow smooth and precise setting of the hydraulic flow.

CAB INTERIOR :: COMFORT, CONVENIENCE, CUSTOMIZATION

A mounting bracket and power center is available near the B-pillar for implement monitors, cell phones or GPS equipment.

The cab has been designed to meet the demands of evolving farming trends. The access steps are recessed in the fuel tank and handrails and door handle are functional and easy to reach. The wider cab offers excellent 360° visibility for fieldwork and maneuvering large modern implements, and there is a clear sightline to the drawbar when attaching equipment. The high-resolution electronic display is easy to read and provides operating data at a glance, and the side console features a convenient fingertip-control throttle.

An AM/FM/WB/CD stereo with two speakers is optional. The upgraded package adds two speakers and XM™ or Sirius™ Satellite Radio.*

The standard cab can be customized with many comfort and convenience options while the Deluxe Cab creates the ultimate in-cab environment. The Deluxe Cab features a heated, semi-active air-ride suspension seat as well as a secondary training seat. Front and rear sun visors are included and electronic automatic climate control will maintain the desired cab temperature.

CAB FEATURES	Standard	Deluxe
Next generation cab with new right swing door and 8" wider interior	•	•
Air-ride suspension swivel seat with full control	•	N/A
Heated, semi-active suspension seat	N/A	•
Training seat	Opt	•
Manual climate control	•	N/A
Electronic automatic climate control	N/A	•
Monitor mounting bracket with power	Opt	•
Cruise control	•	•
Front windshield wiper and washer	•	•
Rear windshield wiper and washer	•	•
Storage compartment	•	•
Tilt and telescoping steering wheel	•	•
AM/FM/CD stereo w/ 2 speakers	Opt	Opt
AM/FM/CD/Satellite-ready* stereo w/ 4 speakers	Opt	Opt
12V power outlets (2 one pin and 2 multi-pin)	•	•
Cigarette lighter	•	•
Dual dome lights	•	•
Vents (6 driver-facing roof mounted, 1 floor mounted, 1 windshield)	•	•
Foot rest	N/A	•
Built-in trouble light with retractable cord	N/A	•
Cargo net	N/A	•
External mirrors	•	N/A
Power / heated external mirrors	N/A	•
Front / rear sun visor	N/A	•

Note: the Deluxe Cab is a bundled package. Some Deluxe Cab features can be ordered as options in the Standard Cab.
**XM™ or Sirius™ Satellite Radio. Monthly subscription fees may apply.*

Power-adjustable heated external mirrors, front and rear wipers and washers and a monitor-mounting bracket with available power complete the Deluxe Cab package.

Large controls for the heat and air conditioning are conveniently located to easily manage the cab environment. Plenty of storage space is provided behind and beside the seat for lunch coolers and toolboxes. The result is enhanced comfort to make the long day seem short.

SERVICE AND MAINTENANCE :: YOUR PARTNERS

There are never enough hours in the day and every minute counts. That's why all Buhler Versatile tractors are designed with easy serviceability in mind. Routine service can extend the life of your tractor, minimize downtime and lower your operating costs.

Daily maintenance is made effortless with side shields that open up and out of the way to allow access to fill points and dipsticks. Fluid checks are easy with conveniently located sight gauges. A swing-out assembly on the front grille and radiator expose the hydraulic and transmission oil coolers, air conditioning condenser, fuel cooler and charge air cooler for fast cleaning.

The Versatile outboard planetary axle system is known for its ease of service. Planetary axle covers can be removed from the tractor without removing the axles and tires, limiting the amount of time needed for routine maintenance. Daily inspections are easy with a quick visual check of the axle oil level sight gauges.

Major components such as the engine, transmission and axles can be removed and repaired without splitting the tractor, reducing downtime and expense.


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[1] A side-rail mounted toolbox is available on all models.

[2] The fuse panel, with clearly labeled protected circuits, is located at eye level inside the cab on the C-pillar.

[3] The heavy-duty pivot-joint is accessible for easy inspection and service.

[4] The front grille swings out to provide easy access to hydraulic and transmission oil coolers, air conditioning condenser, fuel cooler and charge air cooler.

[5] The gull wing side engine shields swing up and out of the way.

[6] The batteries on the 305, 340, 375 and 400 are conveniently located on the lower front area of the tractor, while batteries on the 435, 485 and 535 models are located on the right side of the tractor. The batteries are protected from the elements by an enclosure equipped with a gas-assisted strut that lifts and holds the shield out of the way for inspection or servicing.

[7] Sight gauges are conveniently located for quick checks of hydraulic, differential, and transmission fluid levels.

[8] Diagnostic connectors and power points are conveniently located behind the seat. The diagnostic connectors allow for fast system checks by trained technicians.


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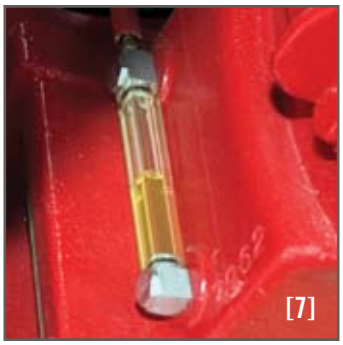
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OPTIONS :: EVEN MORE FOR YOUR MACHINE

Buhler Versatile tractors are well-equipped with the standard features most-requested by farmers. Additional options are available to customize the tractor for the requirements of your farm.

3-Point Hitch

Models 305, 340, 375 and 400 are available with a Category III/IVN 3-point hitch. The hitch, capable of lifting 13,000 lbs (5,897 kgs), is also available with an optional quick hitch.

High-intensity discharge (HID) lighting

HID lights have proven themselves to be very useful in agriculture operations. There's never enough hours of daylight and HID lighting provides up to ten times more light than conventional headlights. Known for a blue hue, two HID light kits are available – front-only and front-and rear.

Auto-Steer Ready

GPS technology saves time, fuel and money when partnered with an auto-steer system that prevents overlap and maintains the field heading. Buhler is pleased to offer an optional factory-installed auto-steer-ready kit that is compatible with most auto-steer packages on the market. Buhler has also partnered with Outback Guidance and Accutrak Systems Ltd. to offer factory-installed kits to match their specific hardware. You can incorporate the auto-steer kit that is best suited to your agriculture operation, installed at the factory or at your local dealership.

Scraper Hitch

Buhler engineers have worked with several scraper manufacturers to develop and test scraper hitches. Scraper hitches for most Buhler Versatile tractors are available for some of the best-selling commercial scrapers including Miskin, K-Tek and Reynolds.

Power take-off

Certain equipment requires the use of a power take-off, which is available on most Buhler Versatile tractors.

Six hydraulic remotes are optional on models 305, 340, 375 and 400. The HHT Series is available with six or eight hydraulic remotes. All four-wheel drives are available with a high-flow hydraulics for increased flow to meet the demands of modern implements.

OPTIONS	305, 340, 375, 400	435, 485, 535
PTO, 1000 RPM multi-disc wet clutch, electro-hydraulic	Opt	Opt
3-point hitch, 13,000 lbs (5,897 kg) SAE lift capacity	Opt	N/A
Quick hitch attachment	Opt	N/A
Implement status switch kit, (TPM only)*	Opt	N/A
Implement status switch harness extension kit (TPM only)	Opt	N/A
¾" coupler kit with ½" return line	Opt	Opt
Motorized flow control (1 section)	Opt	Opt
Performance monitor with radar	Opt	Opt
Front / rear differential lock	Opt	N/A
Front weight packages	Opt	Opt
Rear weight package (not compatible with PTO or 3-point hitch)	Opt	Opt
Rear mid-mounted weight package	Opt	Opt
Rotating magnetic roof mounted beacon	Opt	Opt
1 ½" hitch pin and bushing kit	Opt	Opt
French decal kit	Opt	Opt
Auxiliary 3-pin connector kit	N/A	Opt
Radio, CD with weatherband, XM, Sirius	Opt	Opt
Debris / mud kit	Opt	N/A
HID light package	Opt	Opt
Electro-hydraulics	Opt	Opt
Tow cable	Opt	Opt
Heavy-duty drawbar support kit	Opt	Opt
Canbus engine monitor	Opt	Opt
Rear toolbox†	Opt	Opt

**One switch kit included with each tractor equipped with a 3-point hitch at the factory.*
†Not available with rear weight package.

SPECIFICATIONS :: 305, 340, 375, 400

MODEL	305	340	375	400
Engine				
Type of engine	Cummins QSM11	Cummins QSM11	Cummins QSM11	Cummins QSM11
Aspiration	Turbocharged & air-to-air aftercooled	Turbocharged & air-to-air aftercooled	Turbocharged & air-to-air aftercooled	Turbocharged & air-to-air aftercooled
Displacement	11-liter	11-liter	11-liter	11-liter
Horsepower	305 hp (224 kw)	340 hp (254 kw)	375 hp (280 kw)	400 hp (298 kw)
Power bulge	7% at 1800 RPM	7% at 1800 RPM	7% at 1800 RPM	7% at 1800 RPM
Peak horsepower	330 hp (246 kw)	370 hp (276 kw)	405 hp (302 kw)	430 hp (321 kw)
Torque rise	35% at 1400 RPM	35% at 1400 RPM	35% at 1400 RPM	35% at 1400 RPM
Peak torque	1050 lb-ft	1150 lb-ft	1275 lb-ft	1350 lb-ft
Fuel system				
Capacity	250 U.S. gal (946 L)	250 U.S. gal (946 L)	250 U.S. gal (946 L)	250 U.S. gal (946 L)
Filter	Engine mounted with water separator	Engine mounted with water separator	Engine mounted with water separator	Engine mounted with water separator
Filler neck	Rock screen	Rock screen	Rock screen	Rock screen
Transmission				
Quadshift transmission	Mechanical 12 x 4: 12 forward speeds, 4 reverse speeds, 4 synchronized gears in each of the 3 forward ranges			
Powershift transmission	Powershift 12 x 2: 12 forward speeds, 2 reverse speeds, electronic valve clutch pack actuation			
Maximum speed	Quadshift: 22 mph (35 kph) / Powershift: 17 mph (27 kph)			
Axles				
Versatile Outboard Planetary Axles	Standard	Standard or heavy-duty	Heavy-duty	Heavy-duty
Differential Lock	Optional	Optional	Optional	Optional
Brakes	Dry caliper	Dry caliper	Dry caliper	Dual dry caliper
Hydraulic Trailer Brakes	N/A	N/A	N/A	N/A
Hydraulics				
Type of system	Closed Center Load Sensing System	Closed Center Load Sensing System	Closed Center Load Sensing System	Closed Center Load Sensing System
Standard Flow	50 GPM (190 L/min)	50 GPM (190 L/min)	50 GPM (190 L/min)	50 GPM (190 L/min)
HydraFlow	75 GPM (290 L/min)	75 GPM (290 L/min)	75 GPM (290 L/min)	75 GPM (290 L/min)
Hydraulic remotes (mechanical or electro-hydraulic)	4 standard, 6 optional	4 standard, 6 optional	4 standard, 6 optional	4 standard, 6 optional
Maximum system pressure	2900 PSI (197 bar)	2900 PSI (197 bar)	2900 PSI (197 bar)	2900 PSI (197 bar)
Electrical System				
Alternator	12V - 160 amps	12V - 160 amps	12V - 160 amps	12V - 160 amps
Batteries	3-12V low maintenance, 950 CCA ea.	3-12V low maintenance, 950 CCA ea.	3-12V low maintenance, 950 CCA ea.	3-12V low maintenance, 950 CCA ea.
Lighting	2 headlights, 2 grille-mounted worklights, 2 front fender worklights, 4 rear fender worklights, 4 cab mounted worklights	2 headlights, 2 grille-mounted worklights, 2 front fender worklights, 4 rear fender worklights, 4 cab mounted worklights	2 headlights, 2 grille-mounted worklights, 2 front fender worklights, 4 rear fender worklights, 4 cab mounted worklights	2 headlights, 2 grille-mounted worklights, 2 front fender worklights, 4 rear fender worklights, 4 cab mounted worklights
Drawbar / 3-Point hitch / PTO				
Vertical load rating	6,000 lbs (2,722 kg)	6,000 lbs (2,722 kg)	6,000 lbs (2,722 kg)	6,000 lbs (2,722 kg)
- with heavy-duty drawbar support	9,000 lbs (4,082 kg)	9,000 lbs (4,082 kg)	9,000 lbs (4,082 kg)	9,000 lbs (4,082 kg)
Hitch pin diameter (with auto drop)	2" (51 mm)	2" (51 mm)	2" (51 mm)	2" (51 mm)
3-point hitch (Category III/IVN)	Optional	Optional	Optional	Optional
Quick Hitch	Optional	Optional	Optional	Optional
3-point hitch lift capactiy	13,000 lbs (5,897 kg)	13,000 lbs (5,897 kg)	13,000 lbs (5,897 kg)	13,000 lbs (5,897 kg)
PTO (1 ¾" dia., 20 spline, 1000 RPM)	Optional	Optional	Optional	Optional
Dimensions				
Wheelbase	142" (3597 mm)	142" (3597 mm)	142" (3597 mm)	142" (3597 mm)
Height to top of exhaust	146" (3720 mm)	146" (3720 mm)	146" (3720 mm)	146" (3720 mm)
Height to top of cab	143" (3627 mm)	143" (3627 mm)	143" (3627 mm)	143" (3627 mm)
Overall length, no ballast weights	265" (6750 mm)	265" (6750 mm)	265" (6750 mm)	265" (6750 mm)
Ground clearance, at drawbar	16.9" (430 mm)	16.9" (430 mm)	16.9" (430 mm)	16.9" (430 mm)
Turning radius (with base tires)	191.5" (4860 mm)	191.5" (4860 mm)	191.5" (4860 mm)	191.5" (4860 mm)
Base tractor weight*	25,000 lbs (11,690 kg)	25,000 lbs (11,690 kg)	25,000 lbs (11,690 kg)	25,000 lbs (11,690 kg)
Maximum operating weight	30,500 lbs (13,835 kg)	34,000 lbs (15,422 kg)	37,500 lbs (17,010 kg)	40,000 lbs (18,144 kg)
Capacities				
Fuel tank	250 U.S. gal (946 L)	250 U.S. gal (946 L)	250 U.S. gal (946 L)	250 U.S. gal (946 L)
Engine crankcase with filter	9.7 U.S. gal (36.7 L)	9.7 U.S. gal (36.7 L)	9.7 U.S. gal (36.7 L)	9.7 U.S. gal (36.7 L)
Cooling system	14.5 U.S. gal (55 L)	14.5 U.S. gal (55 L)	14.5 U.S. gal (55 L)	14.5 U.S. gal (55 L)
Hydraulic system	20 U.S. gal (75.7 L)	20 U.S. gal (75.7 L)	20 U.S. gal (75.7 L)	20 U.S. gal (75.7 L)
Planetary axle, each (standard)	11.1 U.S. gal (42 L)	11.1 U.S. gal (42 L)	N/A	N/A
Planetary axle, each (heavy duty)	N/A	13.5 U.S. gal (51 L)	13.5 U.S. gal (51 L)	13.5 U.S. gal (51 L)
Windshield washer reservoir	3.5 qt (3.3 L)	3.5 qt (3.3 L)	3.5 qt (3.3 L)	3.5 qt (3.3 L)

**A base tractor is considered to have a mechanical transmission, with 520/85R42 drum-style duals , a standard drawbar, no fuel, no operator, no special added equipment, and no ballast.*

SPECIFICATIONS :: 435, 485, 535

MODEL	435	485	535
Engine			
Type of engine	Cummins QSX15	Cummins QSX15	Cummins QSX15
Aspiration	Turbocharged & air-to-air aftercooled	Turbocharged & air-to-air aftercooled	Turbocharged & air-to-air aftercooled
Displacement	15-liter	15-liter	15-liter
Horsepower	435 hp (324 kw)	485 hp (362 kw)	535 hp (399 kw)
Power bulge	7% at 1800 RPM	7% at 1800 RPM	7% at 1800 RPM
Peak horsepower	470 hp (345 kw)	525 hp (392 kw)	580 hp (427 kw)
Torque rise	35% at 1400 RPM	35% at 1400 RPM	35% at 1400 RPM
Peak torque	1475 lb-ft	1650 lb-ft	1800 lb-ft
Fuel system			
Capacity	350 U.S. gal (1325 L)	350 U.S. gal (1325 L)	350 U.S. gal (1325 L)
Filter	Engine mounted with water separator	Engine mounted with water separator	Engine mounted with water separator
Filler neck	Rock screen	Rock screen	Rock screen
Transmission			
Quadshift transmission	Mechanical 12 x 4: 12 forward speeds, 4 reverse speeds, 4 synchronized gears in each of the 3 forward ranges		
Powershift transmission	Caterpillar Powershift 16 x 4: 16 forward speeds, 4 reverse speeds, electro-hydraulic, fully modulated, oil-cooled, multidisc		
Maximum speed	Quadshift: 22 mph (35 kph) / Powershift: 22 mph (35 kph)		
Axles			
Versatile Outboard Planetary Axles	Standard or heavy-duty	Standard or heavy-duty	Standard or heavy-duty
Differential Lock	Optional	Optional	Optional
Brakes	Dual dry caliper	Dual dry caliper	Dual dry caliper
Hydraulic Trailer Brakes	Optional	Optional	Optional
Hydraulics			
Type of system	Closed Center Load Sensing System	Closed Center Load Sensing System	Closed Center Load Sensing System
Standard flow	55 GPM (208 L/min)	55 GPM (208 L/min)	55 GPM (208 L/min)
High flow hydraulic system	80 GPM (303 L/min)	80 GPM (303 L/min)	80 GPM (303 L/min)
Hydraulic remotes			
- mechanical	4 standard, 6 optional	4 standard, 6 optional	4 standard, 6 optional
- electro-hydraulic	4 standard, 6 or 8 optional	4 standard, 6 or 8 optional	4 standard, 6 or 8 optional
Maximum system pressure	2900 PSI (197 bar)	2900 PSI (197 bar)	2900 PSI (197 bar)
Electrical System			
Alternator	12V - 160 amps	12V - 160 amps	12V - 160 amps
Batteries	3-12V low maintenance, 950 CCA ea.	3-12V low maintenance, 950 CCA ea.	3-12V low maintenance, 950 CCA ea.
Lighting	2 headlights, 2 grille-mounted worklights, 2 front fender worklights, 4 rear fender worklights, 4 cab mounted worklights	2 headlights, 2 grille-mounted worklights, 2 front fender worklights, 4 rear fender worklights, 4 cab mounted worklights	2 headlights, 2 grille-mounted worklights, 2 front fender worklights, 4 rear fender worklights, 4 cab mounted worklights
Drawbar / 3-Point hitch / PTO			
Vertical load rating	9,000 lbs (4,082 kg)	9,000 lbs (4,082 kg)	9,000 lbs (4,082 kg)
- with heavy-duty drawbar support	12,000 lbs (5,443 kg)	12,000 lbs (5,443 kg)	12,000 lbs (5,443 kg)
Hitch pin diameter (with auto drop)	2" (51 mm)	2" (51 mm)	2" (51 mm)
3-point hitch (Category III/IVN)	N/A	N/A	N/A
3-point hitch lift capactiy	N/A	N/A	N/A
PTO (1 ¾" dia., 20 spline, 1000 RPM)	Optional	Optional	Optional
Dimensions			
Wheelbase	154" (3930 mm)	154" (3930 mm)	154" (3930 mm)
Height to top of exhaust	155" (3940 mm)	155" (3940 mm)	155" (3940 mm)
Height to top of cab	11.9' (3450 mm)	11.9' (3450 mm)	11.9' (3450 mm)
Overall length, no ballast weights	299" (7630 mm)	299" (7630 mm)	299" (7630 mm)
Ground clearance, at drawbar	21.9" (556 mm)	21.9" (556 mm)	21.9" (556 mm)
Turning radius (with base tires)	191.5" (4860 mm)	191.5" (4860 mm)	191.5" (4860 mm)
Base tractor weight*	42,000 lbs (19,050 kg)	42,000 lbs (19,050 kg)	42,000 lbs (19,050 kg)
Maximum operating weight	43,500 lbs (19,731 kg)	48,500 lbs (21,999 kg)	53,500 lbs (24,267 kg)
Capacities			
Fuel tank	350 U.S. gal (1325 L)	350 U.S. gal (1325 L)	350 U.S. gal (1325 L)
Engine crankcase with filter	11.6 U.S. gal (44 L)	11.6 U.S. gal (44 L)	11.6 U.S. gal (44 L)
Cooling system	22 U.S. gal (83 L)	22 U.S. gal (83 L)	22 U.S. gal (83 L)
Hydraulic system	30 U.S. gal (113.6 L)	30 U.S. gal (113.6 L)	30 U.S. gal (113.6 L)
Planetary axle, each	15.1 U.S. gal (57 L)	15.1 U.S. gal (57 L)	15.1 U.S. gal (57 L)
Windshield washer reservoir	4 qt (3.8 L)	4 qt (3.8 L)	4 qt (3.8 L)

**A base tractor is considered to have a mechanical transmission, with 710/70R42 drum-style duals , a standard drawbar, no fuel, no operator, no special added equipment, and no ballast.*

bühler

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Ref: 012008-5000-PG P/N: 89999945