ENGINES

The Massey Ferguson GC1700 Series tractors use an Iseki 3-cylinder, liquid cooled, indirect injected, naturally aspirated diesel engine. These engines are designed to provide optimum performance while maintaining high levels of efficiency and meeting all Tier 4 emission standards. Now with added features to reduce noise levels and improve starting, these engines will provide years of dependable service. A cast iron parent bore block, cast iron heads, and overhead valves also contributes to the life of the GC series tractor engine. A glow plug starting aid is used to improve starting in cold weather conditions. The air intake system consists of a single pleated paper type filter located under the hood above the engine on the left side to provide plenty of clean air to the engine. There is a removable screen in front of the radiator that filters out large debris before it goes through the radiator fins to keep the cooling system operating at peak performance. The cooling system is equipped with a radiator overflow tank making it easy to check the fluid level and add fluid as required. Unique to the GC series is the reverse mounted engine that pulls clean cool air from the near the operator and then sends hot air out through the front grill of the tractor.

Reverse Mounted Engine

The reverse mounted engine means the radiator and engine fan are located just behind the steering wheel console. The fan pulls air from around the front console and sends it forward through the radiator and engine compartment. Hot air then escapes through the front of the tractor. This prevents hot air from blowing on the operator for a more comfortable driving experience.

Removable Radiator Screen

A removable screen is positioned in front of the radiator to filter large debris before it passes through the radiator fins, keeping the heat exchanger clean. This allows the cooling system to work efficiently. This screen is easily removed without tools for quick cleaning, and can be accessed by raising the engine hood.

TRANSMISSION

The GC1700 Series incorporates a 2-speed hydrostatic drive transmission in all models. The combination of 2 non-synchronized range selections with the infinitely variable foot-pedal-controlled hydrostat provides an unlimited speed range with excellent control and maneuverability. Range changes are made by bringing the tractor to a complete stop and using the in-line shift lever, located on the right console, to choose the appropriate range (Turtle or Hare). The re-designed hydrostat pedals feature a side by side, forward and reverse set up, and the GC1715 and GC1720 feature molded rubber pedal covers that provide foot comfort and traction at any angle. This new configuration allows for easier, more comfortable operation. Pushing down on the forward or reverse pedal will initiate travel in that direction. The further the pedal is depressed, the faster the tractor goes. Letting off the pedal will slow the tractor down and eventually bring it to a stop. Cruise control is standard on all GC models, including the TLB tractors. Cruise control allows the operator to maintain a consistent ground speed for transport, or any job where there is a need to maintain a constant ground speed for an extended period of time. Cruise control is now engaged with the simple push of a button located on the front dash panel. Pressing the forward pedal or brake pedal automatically disengages the system.

Hydrostat Pedals

The re-designed side by side hydrostat pedals allow for easy operation. Molded foot pedals on the GC1715 and GC1720 offer comfort and better grip from any angle for better performance.

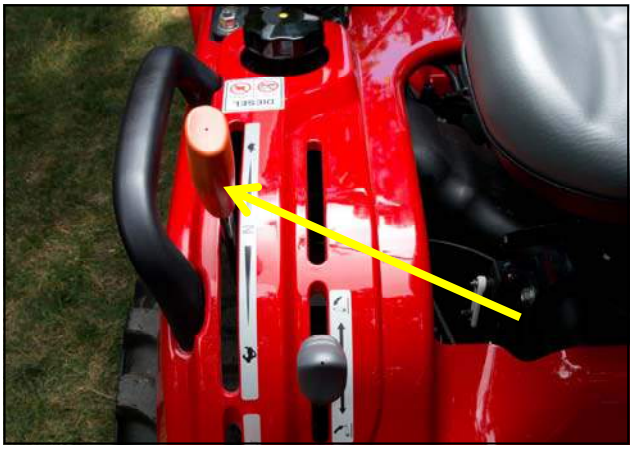
Cruise Control System

The newly designed push-button cruise control system has an orange engagement lever located on the right side of the front dash panel. Once the desired speed is reached using the foot pedals, simply pressing down on the orange lever engages the system and maintains the speed. Pulling up on the lever or pressing the forward pedal or brake pedal will disengage the system..

TRANSMISSION

Range Select Lever

The hydrostatic transmission offers a choice of two ranges to select from, depending on the operation. Low (Turtle) and High (Hare) range each have infinite speeds from 0 mph to maximum speed, and are design for different applications. Low range is meant to be used for tough pulling conditions, where High range is designed for transport or speed applications. The operator selects the appropriate range with a single in-line selector lever in the right hand console.



Speed Chart—MF GC1700
2-Speed HST Transmission

Tire			Forward	Reverse
R1 26x12.00-12	Low	mph	4.29	3.22
		kph	6.9	5.18
	High	mph	9.13	6.58
		kph	14.7	11.03
R3 26x12.00-12	Low	mph	4.18	3.13
		kph	6.72	5.04
	High	mph	8.9	6.68
		kph	14.33	10.75

DIFFERENTIAL, BRAKES, FINAL DRIVES, FRONT AXLE

Each GC1700 model has a transaxle type final drive with flanged rear axle hubs. An oscillating 4WD front axle with hydrostatic power steering is standard on all GC1700 models. An internal wet disc brake mechanism, controlled by a single brake pedal, provides awesome stopping capabilities as well as long life and low maintenance. The brake pedal is positioned to the left side of the platform, opposite of the transmission pedals. The rear differential mechanically locks using an aptly placed small foot pedal on the left side of the platform near the brake pedal. With the differential lock engaged, both rear wheels will turn as one, increasing tractor performance by offering better traction in rough, slippery conditions.

Brakes

The single brake pedal is located on the left side of the platform for simple operation. This pedal engages the wet disc brake mechanism for excellent stopping power. Positioning the brake pedal on the left side allows the operator to use both feet to control the tractor, instead of having to move one foot around to different pedals.

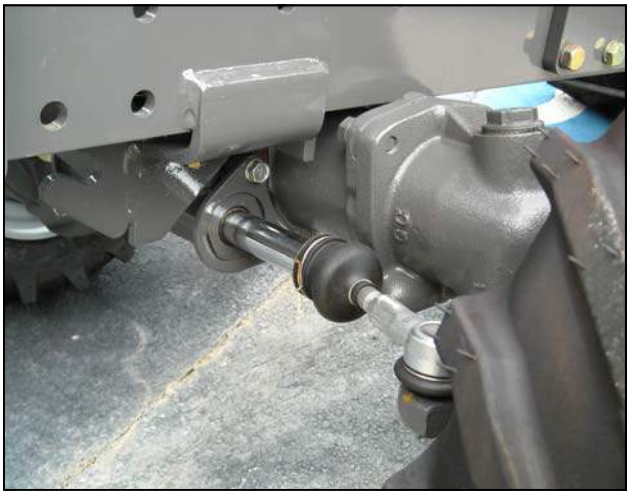
Differential Lock

The rear differential lock is located just below the brake pedal on the left side of the operator platform. The mechanism locks both rear wheels to the same speed by simply pressing and holding the foot pedal. Locking the differential provides extra traction in slippery conditions. Releasing the pedal disengages the rear lock.

DIFFERENTIAL, BRAKES, FINAL DRIVES, FRONT AXLE, continued

4wd Front Axle with Power Steering

All GC1700 models feature a heavy duty 4wd front axle with bull-gear final drives. The solid cast steel design is rugged enough for the toughest working conditions, and the 4wd feature offers superior traction for pulling. The front axle can withstand the heavy forces associated with constant use of a front end loader on the job site. Steering the GC1700 Series is a breeze with the powerful hydrostatic steering.



Front Axle Oscillation

Not every job site is on flat, level ground. The front axle on GC1700 series tractor oscillates up and down on a center pivot to ensure that all four tires are on the ground providing traction and stability. The front axle can oscillate through its full range, even when using a loader.

Parking Brake

For safety, each GC1700 model is equipped with a parking brake feature to make sure the tractor does not roll unintentionally when not in operation. The operator engages the parking brake by pressing down on the brake pedal, and then turning the park lock lever on the left side of the front dash panel. Release the parking brake by simply pressing firmly on the brake pedal until the spring-loaded lock disengages

WHEELS AND TIRES

The GC1700 Series tractors are available with three tire options: R1 Agricultural tread design, R3 Turf tread design, and R4 Industrial tread design.

R1 Agricultural Tires

Available on all GC1700 models, the R1 Agricultural tread pattern is designed around general farming use. The large, angled lugs dig into the dirt as they turn, providing traction for pulling. The tire carcass and side walls are flexible to allow the tire to contour to the terrain and put as much rubber in contact with the ground as possible for grip.

R3 Turf Tires

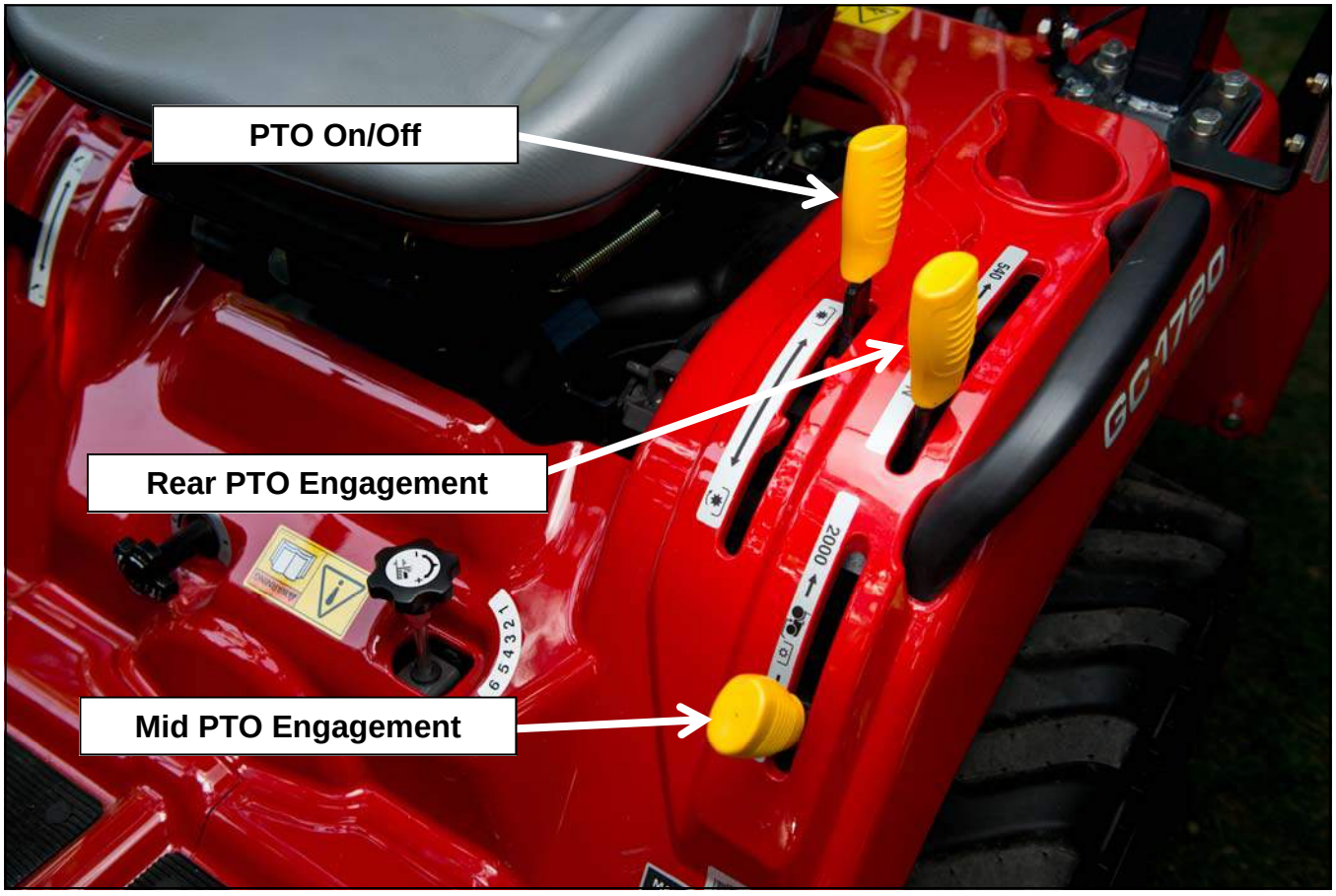
Available on all GC1700 models, the R3 Turf tread pattern is designed around grass and landscape maintenance. The flat, non-aggressive tread pattern rolls over the turf with minimal damage and disturbance to the plant. The large surface area of the tire lowers the ground pressure, and the soft carcass and sidewalls flex to preserve the landscape.

R4 Industrial Tires

Available on all GC1700 models, the R4 Industrial tread pattern is designed around rugged use in tough conditions. The thick, flat, aggressive lugs and wide footprint offer the best blend of traction, flotation, and durability. The tough carcass and thick sidewalls can handle abusive conditions, such as on concrete, gravel, and dirt.

Power Take Off (PTO)

An independent Power Take Off (PTO) system is used on the GC1700 Series, which provides user friendly operation for a variety of applications. Two PTO's are included as standard equipment on all models: Rear PTO, and Mid PTO. A common hydraulic wet clutch is used to activate both of the PTO's making it possible to turn the PTO system on and off independently of the transmission operation. Two mechanical levers located on the left side console are used to engage and disengage the mid and rear PTO's separately. Once a PTO is engaged, the operator then turns it on by moving the PTO On/Off lever forward. To turn off the PTO, the lever should be moved in the rearward direction. Depending on which PTO is engaged, the operator can start just the rear PTO, just the mid PTO, or both PTO's at the same time using the On/Off lever This system is simple to operate and is great for mowing, and a number of other operations.



Power Take Off (PTO), continued

Rear PTO

The rear PTO is a standard 540 RPM configuration with a single 1 3/8” 6-spline shaft at the rear of the tractor. The wet clutch smoothly engages the PTO shaft with the throw of a lever to power rear implements, such as a finish mower or rotary cutter.

Mid PTO

The mid PTO is a standard 1-inch, 2000 RPM configuration with a single splined shaft on the front side of the rear axle housing. The wet clutch smoothly engages the PTO shaft with the throw of a lever to drive mid or front mounted attachments, such as a mid mower or front snow blower.

HYDRAULIC SYSTEM

The GC1700 series sub-compact tractors use an open center hydraulic system powered by a single gear-driven pump. This type of system provides the performance required in the industry today while maintaining the compact design, reliability and economical price. New for the GC1700 Series is the integrated design of the factory installed joystick. The factory installed joystick is optional on the GC1705, but is standard equipment on all other GC1700 models. The factory joystick is now integrated into the front dash panel and steering column area with the valves hidden from view. This new design gives a cleaner look and does not obstruct the operator's forward view. The joystick lever is positioned for a comfortable, easy reach by the operator. Four quick-connect couplers are accessible at the front right side of the platform and allow the operator to easily disconnect the loader hydraulics when removing the loader. The joystick can be used for other front mounted implements requiring hydraulics.

Integrated Factory Joystick

The new loader joystick design integrates the valve body into the front dash panel for a cleaner look and better forward visibility. The joystick lever extends to a comfortable position for easy reach and operation. The factory installed joystick is optional for the GC1705, and is standard equipment for the GC1710, GC1715, and GC1720 models.

Hydraulic Lockout Lever

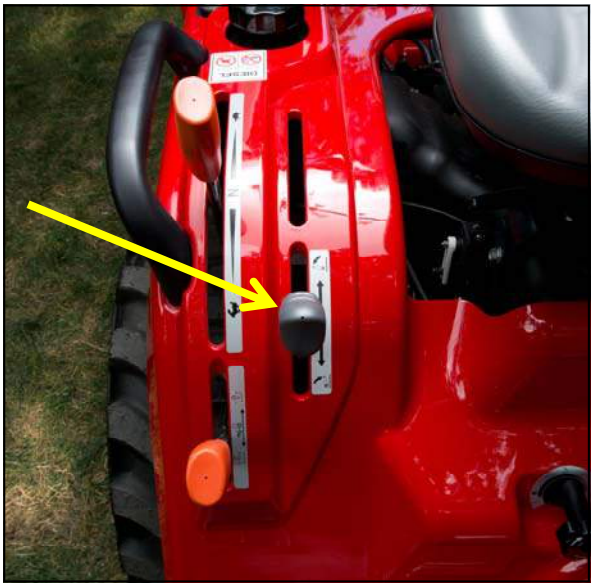
To improve safety, all GC1700 models include a hydraulic lockout lever located in the front dash panel below the steering wheel. Turning the lever engages the lockout feature, which locks the loader joystick into the neutral position. Locking the joystick prevents the operator, or someone else, from inadvertently bumping or operating the hydraulics.

3-POINT HITCH

The GC1700 series tractors have an ASAE Category I rear 3-point hitch which permits the use of a wide variety of mounted implements. 3-point hitch position is controlled by the auto return control lever located on the right console. As the position lever is moved forward, the rear hitch will drop. When the lever is pulled rearward, the hitch raises. At any time, if the lever is released, it will return to the centered neutral position, and the rear hitch will stop moving. The GC1700 series features a rate of drop control which makes it possible to adjust the speed at which the three point hitch lowers. The rate of drop is adjustable via the twist-knob located below the seat.

Hitch Control Lever

The three point hitch control lever is conveniently located on the right hand console close to the operator for ease of use. The spring-return-to-center lever controls the hitch much the same way a standard hydraulic remote valve works.



Rate of Drop Control Knob

The rate of drop control knob is located below the seat on the operator's platform. By turning the knob one way or the other, the operator can adjust the oil flow to the 3-point hitch, therefore adjusting the speed at which the hitch moves. The knob is clearly labeled for accuracy.

Rear 3-point Hitch Linkage

The lower 3-point draft arms are constructed of contoured steel beams with fixed Category I ball ends. Each model uses a turnbuckle stabilizer and sway chains to allow for adjustments in the side-to-side sway of the 3-point arms and make it easier to hook up implements. Leveling the hitch is accomplished through the use of a turnbuckle style adjustment as well.

Top Link Stow Position

When not in use, the top link mounting point incorporates a handy support mechanism for stowing the top link. Built into the mounting point, the sliding collar drops out of the way to allow the top link to move freely and be used with an implement. When desired, the collar then locks into place to hold the top link in the stow position when not in use.

OPERATOR ENVIRONMENT

When designing the operator station for the GC1700 Series, Massey Ferguson kept comfort and convenience in mind. The platform has been designed to offer more space between the operator and control levers. More room can be felt on the floorboard, as well more room in the seat to enhance comfort. Foot pedals are intuitively placed for comfort and operational convenience. There is plenty of space between each individual control lever for easier use and less interference. A standard spring cushioned vinyl seat mounted on sliding rails is used on the GC1705 and GC1710 models. A premium vinyl seat with additional contours and padding adorns the GC1715 and GC1720 models. TLB model tractors have a tall, folding ROPS while the non-TLB models have a lower fixed ROPS. Safety marker lights hang from each side of the ROPS on all models. The GC1715 and GC1720 tractors have a steel strap protecting the marker lights, and a single rear work light to help in low-light working conditions.

-Wide Platform

-More Comfortable Seat

-More Space Between Control Levers

-Intuitive Layout of Controls

Front Dash Panel

A simple, colorful front dash display with large analog gauges provides excellent tractor information at a glance. Large controls are easy to reach and make operation simple, even while wearing gloves. The new push button cruise control is located on the front dash panel to the right of the steering wheel.

Flat Platform with Rubber Mat

The large platform is almost completely flat, allowing the operator to comfortably place his feet anywhere. Entry and exit is a breeze without the need to step over a center hump. The deck is covered by a thick rubber mat to improve traction when standing, but also to keep the noise level down.

SERVICEABILITY

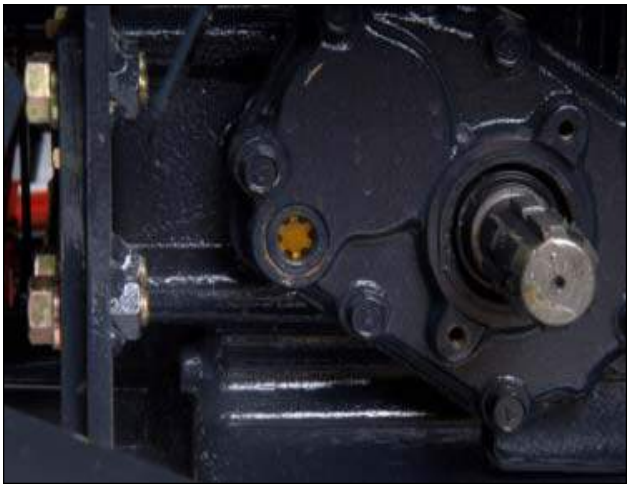
All of the routine maintenance service points are easy to access so that maintenance time is reduced to a minimum.

Engine Check and Service

Engine checks are made easy with the flip up hood design used on the GC series. To check the engine oil, simply raise the hood and pull the oil dipstick. Adding engine oil is done through the fill port located on top of the valve cover. The engine oil filter is a spin on type filter located on the left side of the engine. The drain plug is located on the bottom of the oil pan. The air cleaner is located under the hood above the engine which is easy to access and replace.

Hydraulic Check and service

The hydraulic oil can be checked by looking at the sight glass located on the rear transaxle housing to the left of the PTO shaft. The hydraulic oil fill port is located on the rockshaft housing. A spin on type hydraulic filter is located on the front side of the rear transaxle. The drain plug and suction screen are located in the rear transaxle housing.



Radiator

The radiator is located between the engine fan and steering wheel and is accessible by raising the hood. The white overflow reservoir is easily visible for a quick visual check of the engine coolant level. The removable screen in front of the radiator keeps larger debris from getting into the radiator fins, keeping the engine running at optimum temperature.

Fuel System

The fuel filter is located on the left side of the frame. It has a glass bowl with a paper element filter inside. A shutoff valve on the filter housing allows the fuel to be shut off so that the bowl and the filter can be removed without draining the fuel. The fill cap is located on the right fender.

LOADER

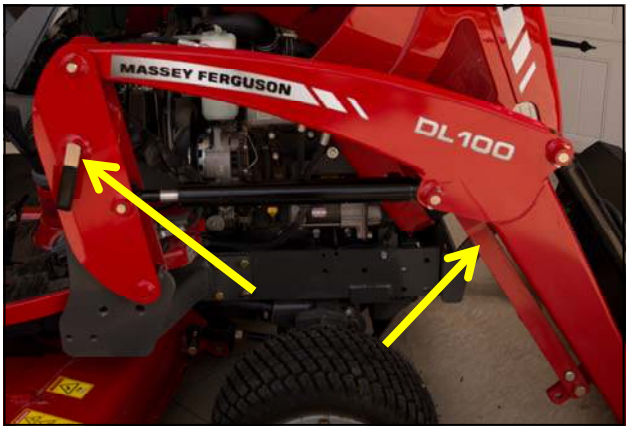
When it comes to increasing the versatility of your GC1700 Series tractor, nothing gets the job done like a loader. All GC1700 model tractors use the venerable DL100 curved boom front loader. The DL100 offers great lift capacity, high lift height, and solid construction. The curved boom main frame compliments the shape of the tractor's hood design for a "family" feel. The DL100 incorporates a pedestal mount design, making the installation and removal process very quick and easy. A 48" pin-type heavy duty material bucket is standard equipment to make quick work of any job at hand. The loader sub frame design grants easy access to the engine compartment, making daily maintenance checks easy to perform. Depending on the model ordered, the GC Series tractor can be ordered from the factory with the loader already installed.

Curved Boom Main Frame

The DL100 series loader features a curved boom main frame that compliments the hood design. The curved boom geometry offers an excellent blend of lift capacity and lift height. Twin bucket cylinders on the forward mast ensure performance across the entire width of the bucket, reducing fatigue and bending.

Quick Disconnect Loader Design

The pedestal mount design with a quick pin disconnect permits easy installation and removal of the loader. Simple pull pins on each side of the loader release the main frame from the sub frame, allowing the complete loader to unseat itself so the tractor can back away free and clear. Built-in loader stands under the forward mast keep the loader upright and in position for a quick re-connect.



BACKHOE

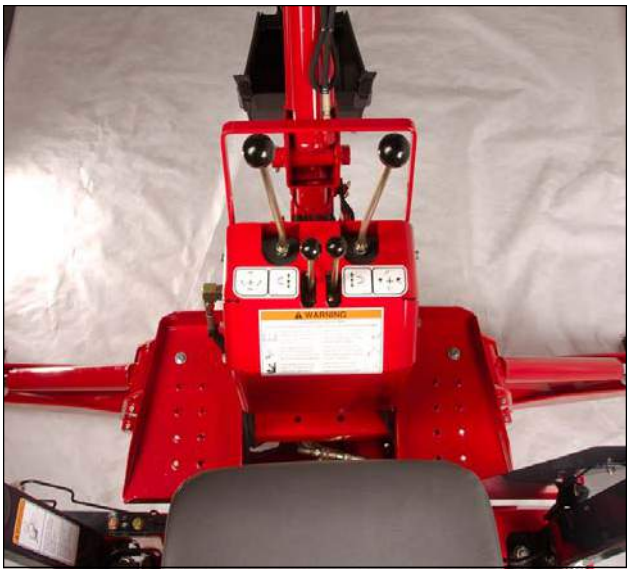
Following the same curve boom design as the front loader, the CB05 backhoe will top off the GC1700 Series with the TLB package. Not only does the CB05 sport a modern look and design similar to the front loader, but the platform space has been increased over previous models for added foot room. The operators box is rounded off and an extra footstep has been added for easier access. Like the DL100 front loader, the CB05 incorporates a quick-attach style mount that makes it easy to quickly remove and install the backhoe from the tractor. When the backhoe is removed, the tractor can then use its Cat I rear 3-point hitch and PTO as normal. The sub frame design allows for the use of a mid-mount mower without having to remove it. This design makes it easy to change implements so that the same tractor can be used for many jobs, increasing the overall versatility of the machine.

Curved Boom Design

The CB05 features a curve boom design that compliments the look and modern style of the front loader and tractor hood. This new shape also allows the bucket to curl tightly for improved operation and compact stowage.

Large Operator's Platform

The CB05 backhoe features an extended platform that allows for more foot room and comfort for the operator. The backhoe control levers are ideally placed for easy reach when operating the machine. Twin cross-gate 4-way control levels operate every aspect of the backhoe, and two additional levers operate the stabilizers. The entire backhoe operates from a single, comfortable seat located high up for excellent visibility of the working area.



Adjustable Swivel Seat

In order to operate the backhoe from the sitting position, the operator can easily rotate the swiveling seat towards the backhoe controls. This one-seat design keeps the TLB down to a compact size and minimizes additional components. Whether in the forward or rear-facing position, the seat can then slide forward and backward to accommodate operators of different height and leg length. A retractable safety belt is standard equipment, and can be used in all seat positions.

Stabilizers

The backhoe stabilizers are hydraulically actuated, and when deployed, provide a large, stabile footprint for operating the backhoe. When not in use, the stabilizers quickly raise up to the near vertical position for narrow transport. Depending on the type of working surface, the stabilizers can use dense rubber street pads for use on concrete or asphalt surfaces. Or, ground-grapping traction bars can be installed when working on turf or dirt.

Backhoe Quick Disconnect Design

Like the DL100 front loader, the CB05 backhoe has a quick disconnect design that allows the operator to quickly remove the backhoe from the tractor without the need for tools. After removing simple pull pins, the operator uses the backhoe hydraulics to unseat the machine. The backhoe is its own support stand, and can be quickly re-installed when needed.