

#### INTRODUCTION

# READY TO WORK YOUR LAND? COUNT ON A TRACTOR FOR A HELPING HAND

You're considering buying land. Maybe it's five to 10 acres. Maybe it's 15 to 20 acres. For some of you, it's a lot more. Or, you've already achieved your dream of owning property in the country. Congratulations, and welcome to rural living.

You might be planning to grow fruits and vegetables or raise animals for your family's use and enjoyment. Maybe you're thinking about how to grow your land into a business, selling to customers who shop for healthy, locally sourced products at nearby markets, grocery stores and restaurants. And like your neighbors, you also share this ideal: It's important to maintain the land for your family today and to conserve it for future generations.

Regardless of how many acres you own or plan to purchase, there's a lot of work needed to make your rural lifestyle a reality. To get started and successfully manage your property, you'll need the right tools to help you mow, plow, harvest, dig, build, and haul equipment and supplies.

INTRODUCTION

Selecting the right tractor and attachments can be daunting, but it doesn't have to be a chore. This buyer's guide will prepare you to talk with a nearby tractor dealer. After reading this, you'll be ready to comfortably make the best purchase decisions based on the types of jobs you plan to do, the size of your property and the conditions in which you'll be working.

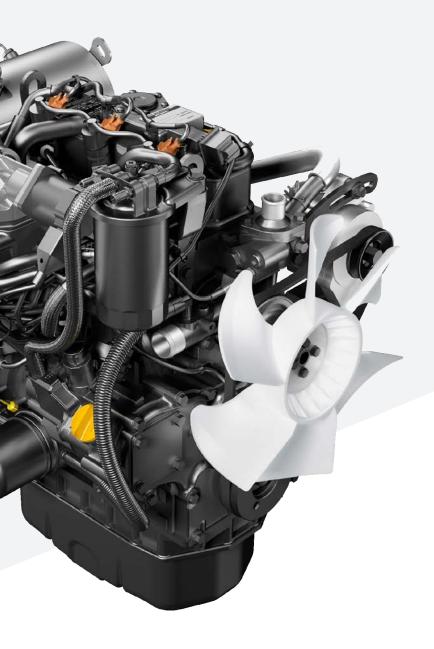
**▶ LET'S GET STARTED.** 

# Before you visit a tractor dealer, read this:

Unless you grew up on a farm, deciding which tractor and attachments to buy can be confusing. That's why we've prepared this buyer's guide. You'll learn how:

- Compact tractors, fueled by efficient and environmentally friendly diesel engines, provide the horsepower and versatility to handle almost any tractor job on your property.
- Attachments engineered to match your tractor's size and capabilities can help you do more work faster so you have more time to enjoy your property.
- Utility task vehicles (UTVs) enable you to move more people, tools and materials to wherever work or play needs to be done on your property.





# How much horsepower will you need?

Tractors come equipped with a wide variety of engine types (gasoline and diesel) and sizes (rated in horsepower). Garden tractors and older, used tractors typically have gasoline engines. New subcompact, compact and large farming tractors are equipped with more powerful diesel engines.

Consider liquid-cooled diesel engines with advanced fuel-injection systems that deliver added power to take on the heaviest loads, and greater efficiency to get every job done on less fuel.

Yanmar engines have three or four cylinders, depending on size, which is measured in horsepower. The amount of horsepower you should buy depends on the type of work you need to do, as well as the terrain, acreage and other land conditions.

Here's our best advice: It's better to buy a tractor with more horsepower than to try to get by with the minimum engine size. Jobs take longer with a smaller engine.

# What engine size should you buy?

Talk with your Yanmar dealer about how many acres you plan to actively manage, and how you expect to use your tractor.

The knowledgeable dealer will help you determine the exact engine size you need.



	Recommended	
Number of Acres	Diesel Engine Size	Possible Uses for Your Tractor
2-25	20 to 25 horsepower	Mowing, gardening, landscaping, snow removal
10-50	30 to 40 horsepower	For-profit farming: All of the above plus tilling, subcompact hay harvesting
25 or more	40 to 60 horsepower	Farming large plots for profit: All of the above plus digging for construction, handling hilly terrain

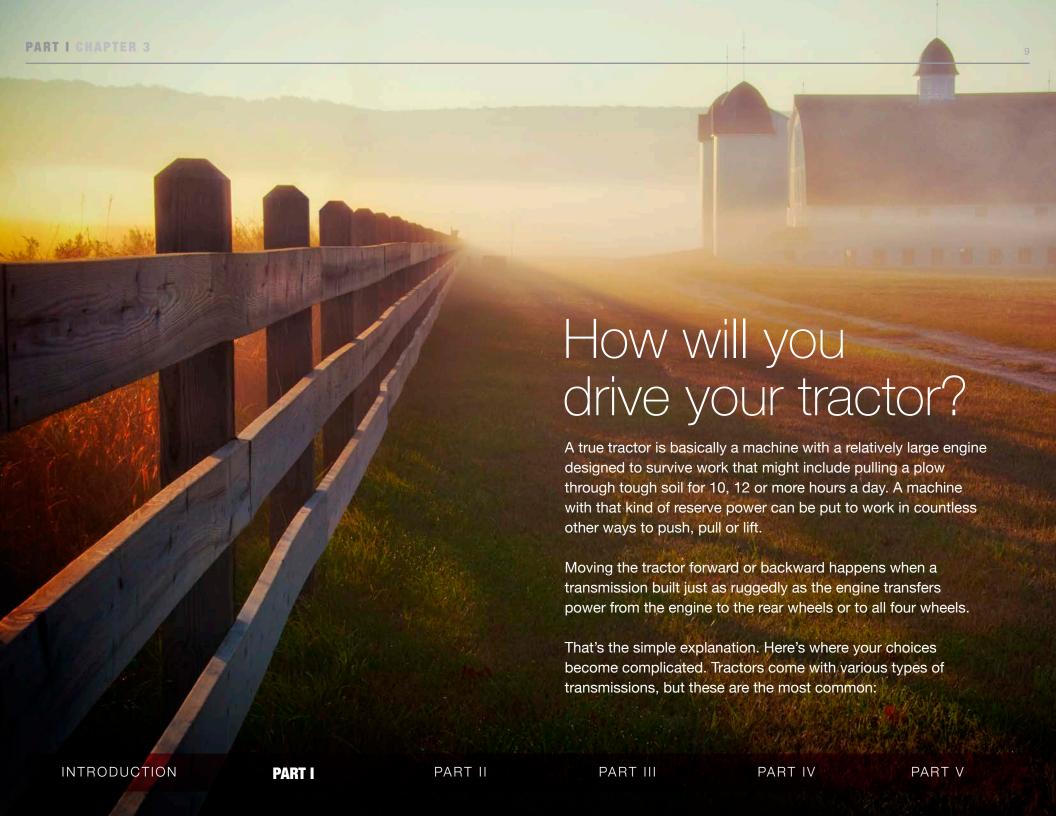


# How can a tractor help you protect the environment?

Many rural property owners believe it's important to farm and maintain their land in environmentally responsible ways. High-performance diesel engines in modern compact tractors burn less fuel than older diesel- or gasoline-engine designs found on used tractors. Today's compact tractors and their diesel engines provide the power needed to sustainably work your land.

We encourage you to look for a tractor that meets or exceeds standards for emissions while also delivering fuel efficiency. Yanmar was the first manufacturer to have a diesel engine certified as meeting U.S. Environmental Protection Agency (EPA) standards. That was 1996. Emissions requirements are much more rigorous now, and the engines in our YT2 and YT3 Series tractors far surpass Tier 4 EPA mandates.

Our founder, Magokichi Yamaoka, believed that "to conserve fuel is to serve mankind." That's why we offer only diesel engines with innovative fuel-injection systems and combustion chambers. They efficiently create more power to take on the heaviest loads.





Manual transmissions require stopping and clutching to change mechanical gears using a system of levers and pedals. This is a standard tractor design typically found in older, used tractors that transfers the most engine power; but manual transmissions require an experienced operator to run smoothly and can be tiring to control.



Hydrostatic transmissions use simple pedals to control the hydraulic pressure that propels the tractor. This transmission design makes operating a tractor more like driving a car and therefore easier for users of any skill level. Yanmar SA Series and YT2 Series tractors have hydrostatic transmissions.



There's a third transmission option. Yanmar YT3 Series tractors have an integrated hydraulic mechanical transmission (i-HMT) that combines the efficiency of a standard mechanical gear transmission with the high usability of a hydrostatic transmission. If you plan to be behind the wheel of your tractor for several hours at a time, especially to use a front loader, an i-HMT transmission is not only easier to operate but also more comfortable.

In addition, Yanmar SA Series and YT2 Series tractors deliver low fuel consumption by increasing the efficiency of the transmissions, which feature:

- Twin, side-by-side control pedals for a more precise and intuitive operation
- Clutch-less shifting
- The ability to change speed and direction of travel with a touch of the operator's toe to a floor pedal
- Pedals positioned to reduce operator strain so you can stay comfortable for long work periods



### Two-wheel drive?

If you are going to use your tractor primarily for mowing, two-wheel drive will likely meet your needs. Two-wheel drive is typically found on small garden tractors and many older, used farm tractors.

If you plan to use your tractor with a front loader to dig, to pull heavy loads or to plow large fields, four-wheel drive will provide the extra traction needed for bigger jobs. New compact tractors usually are equipped with four-wheel drive and a selector to switch between two-wheel drive with power going to the rear wheels or with all four wheels engaged.

If you're wondering whether you should save money by purchasing a tractor with two-wheel drive, consider this: Four-wheel drive increases the capability of a tractor without having to buy a larger engine in a larger tractor. The extra traction of four-wheel drive improves the tractor's capability to work in slippery or muddy conditions and to safely and efficiently move heavier loads.

In addition, while four-wheel drive indeed is a more expensive option, the resale value of a tractor equipped with it is typically higher than that of a comparable two-wheel-drive tractor.



# What other tractor features do you need?

#### Modern controls

- Consider a tractor with an operator station that makes the machine and attachments easy to operate for firsttime owners and more comfortable for drivers who plan to spend long hours behind the wheel.
- Look for whether the loader control is at your fingertips, integrated into the side console.
  - This design is comfortable because you can sit with your arms on the armrests and easily reach the loader control.
  - You can exit either side of the tractor without interference from the loader control.
- Tractors can have numerous controls.
   Choose designs that color-code levers for fast and easy recognition.
- Assess your skill level. Tractors with fewer controls are simpler to operate.

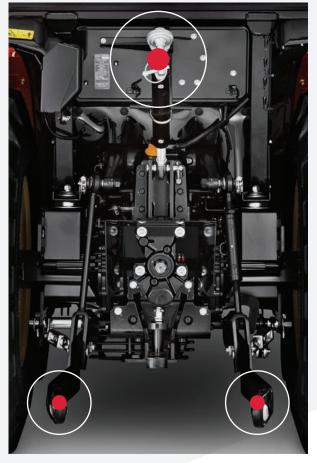
#### Auto throttle

 On the Yanmar YT3 Series tractors, you can turn on the Auto Throttle switch and drive the tractor using the right-hand foot pedal just like driving a car or truck equipped with an automatic transmission.

#### A/B Mode

- Control engine speed and ground speed of Yanmar YT3 Series tractors with A/B Mode, which lets you preset two combinations of maximum engine RPM and ground speeds.
- The conveniently located switch on the same right-hand lever that controls the loader enables you to quickly change between how you're using your tractor.
   For example, you can quickly switch between high RPM/low ground speed for scooping from a pile with the front-end loader and medium RPM/higher ground speed to transport the material in the loader bucket to the place where you want to dump it.





# How do attachments connect to your tractor?

The three-point hitch at the rear of the tractor connects and adjusts attachments such as rotary cutters, finish mowers, rear blades, rotary tillers and sprayers.

- Two lower arms lift the attachment.
- An upper arm stabilizes the attachment and adjusts the angle at which it's used.

Look for a quick-hitch system that lets you connect an attachment without having to adjust the three-point hitch.

- The Quick Hitch option from Yanmar enables you to spend less time changing from one three-point hitch attachment to another attachment.
- True Position Control is a feature on Yanmar YT3 Series tractors that ensures your rear attachments operate in a position that's always repeatable, so you can finish your tasks quickly and more accurately. Without this feature, it takes more frequent operator attention and adjustment to keep three-point attachments working the way that is needed to accomplish the task efficiently.









#### PTO power needed to run popular attachments

Yanmar attachment	PTO horsepower required	
Talillai attacillicit	r 10 norsepower required	
Rotary cutters	5 to 90	
Finish mowers	15 to 40	
Snowblowers	15 to 50	
Post hole diggers	15 to 65	

# How does your tractor provide power to attachments?

Mowers, rotary cutters, snowblowers, hay tools and other attachments connect to your tractor's power takeoff (PTO), which transfers horsepower.

- The PTO is a rotating shaft at the rear of the tractor that connects to the engine.
- Some tractor models also have a mid-mount PTO on the bottom of the tractor. The mid-mount PTO can power belly mowers and some front-mounted attachments, like a snowblower.
- A PTO has its own horsepower rating, which indicates how much power is available for attachments such as mowers or snowblowers.
   Specifications for each attachment indicate how much PTO power is needed to operate them.

# What gives your tractor the power to lift and dig?

A hydraulic system powers everything from a compact tractor's steering and brakes to the front loader and other attachments.

Many tractor attachments connect to the hydraulic system using selective control valves (SCV), also known as spool valves or remotes. For example, the Yanmar flexwing rotary cutters and similar implements typically require two SCVs: one to lift the cutter and one to fold the wings. On Yanmar YT3 tractors the necessary two SCVs are standard equipment.

Be sure to determine the hydraulic pump capacity of the tractor you want to purchase. The capacity is measured in gallons per minute (GPM). Compare the tractor's hydraulic pump capacity with the GPM required by the attachments you're also considering, to determine whether the tractor has enough power to run the attachments.



### What kind of tires do you need?

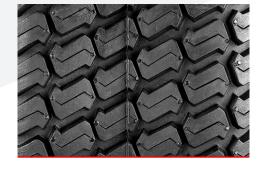
Tractors come with tires in a variety of sizes. Larger tires provide more ground clearance. Talk with your Yanmar dealer about how you plan to use your tractor and the type of terrain on your property. Your dealer will recommend the appropriate tire size and tread style.

You also will choose from among the three commonly available selections for tire tread for subcompact and compact tractors:



#### R-1 ag tread

Ag tread tires may be the best choice for tractors frequently used for tillage, cultivation, carrying feed to animals, and cleaning livestock barns and pens.



#### R-3 turf tread

R-3 turf tread has the least traction but protects the ground and is ideally suited for lawn mowing and other turf care tractor applications.



16

#### R-4 industrial tread

Industrial tread provides excellent traction in many tractor operating conditions and is gentler on turf than R-1 tread tires. R-4 is a popular compromise between the aggressiveness of ag tires and the lower traction of turf tires.

# How much comfort and convenience do you want?

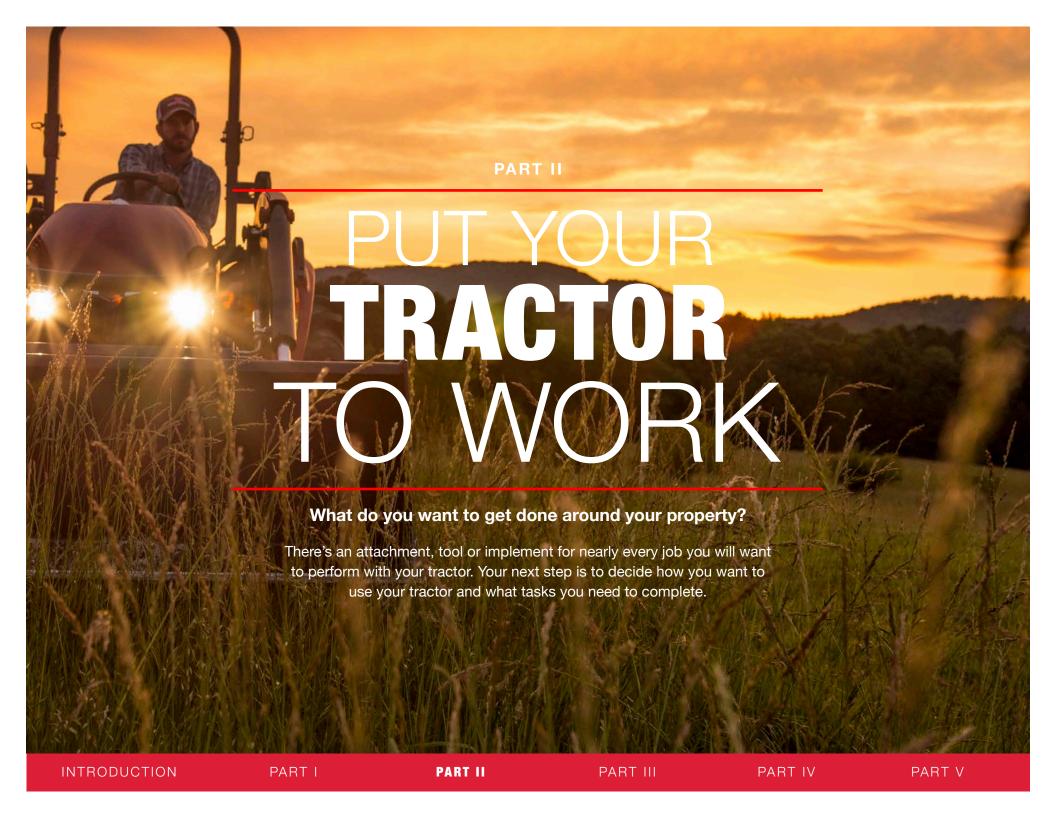
You'll be alert and comfortable when riding and working in a spacious, climate-controlled tractor cab. Optional, enclosed operator stations provide additional protection from the weather, noise, dust and stinging insects.

If your property is in a cold, snowy region, or in an area with a long, hot growing season, a cab makes it possible for you to keep working no matter the conditions. Optional, factory-installed cabs from Yanmar enclose the operator station and deliver comfort with heating and air conditioning to keep you productive regardless of the weather.



#### Other features to consider:

- A cab equipped with an air filtration system will keep the dust out.
- Look for a cab with large glass windows.
   Excellent visibility is critical. Optional cabs on the Yanmar YT3 Series tractors are designed with an innovative, curved-glass windshield.
- An isolated operator platform reduces vibrations from the engine and rough terrain.
   That means the vibrations are decreased even to the operator's seat.



Jobs you want to do with your tractor	Attachments to consider	Learn more
Move dirt, gravel, hay bales, silage, muck, snow, logs, other material or supplies	Front-end loader with:  • Bucket  • Pallet forks  • Log or pole grapple  • Bale spear  • Plow blade	Page 20
Mow brush, lawns, orchards, pastures, around ponds and along roads	<ul><li>Rotary cutters</li><li>Finish mowers</li></ul>	Page 21, 22
Grade and level driveways, pastures, fields, animal pens, animal exercise areas, prepare landscaping	<ul><li>Box scrapers</li><li>Grading scrapers</li><li>Landscape rakes</li><li>Rear blades</li></ul>	Page 23
Remove snow from driveways, parking areas and roads on your property	<ul> <li>Snowblowers</li> <li>Front-end loader with bucket or plow blade</li> <li>Rear blade</li> <li>Rotary broom</li> </ul>	Page 24, 25
Prepare soil for gardening, farming, landscaping	<ul><li>Rotary tillers</li><li>Disc harrows</li><li>Raised-bed shaper</li></ul>	Page 26
Dig holes for planting trees or building fences	Post hole digger     Backhoe	Page 27
Seed gardens and crop fields	<ul><li>Food-plot seeders</li><li>Precision seeders</li></ul>	Page 28
Harvest hay for animal feed	<ul><li>Drum disc mower</li><li>Tedder/rake</li><li>Round baler</li></ul>	Page 29, 30
Dig and excavate for drainage, pipelines, electrical lines or building construction	• Backhoe	Page 31



### Dig, lift and move

A front-end loader is one of the most versatile and popular attachments. It enables your tractor to dig, scoop, scrape and lift dirt, animal waste, logs, silage, gravel, snow, hay bales, supplies and building materials. A hydraulic system powers the front loader to make easy work of heavy loads.

Yanmar's quick attachment system enables you to easily remove and connect a wide array of front-loader attachments:

- Bucket
- Pallet forks
- Log or pole grapples (requires optional hydraulics)
- Bale spears
- Plow blade

Yanmar designs and manufactures its front loaders to fit each of its tractor models and to smoothly integrate with the tractor controls. When needed for maintenance, or to switch between different tractor applications, the entire front loader from Yanmar is easy for one adult to remove and reattach.

Ask whether the tractor you're considering can be purchased with a factory-installed front loader. Third-party front loaders may have to be modified to work with another manufacturer's tractors.



## Mow grass and control weeds and brush

21



### Finish mowers

Mowers can turn acres of grass into a well-groomed lawn. Belly mowers attach under your tractor between the front and rear wheels, and tend to be easier for many first-time tractor owners to maneuver. Other finish mowers connect to the three-point hitch at the rear of the tractor. Both types of finish mowers are powered by the PTO. For the largest lawn tasks, there are pull-type finish mowers that mow up to 12 feet wide and fold hydraulically for easy transport and storage.

Yanmar's rounded-front, tapered-side, reardischarge deck enables you to mow with better maneuverability and thus reduce trimming. Heattreated alloy steel blades deliver a beautiful, high-precision cut on any type of grass.

### Rotary cutters

Single-spindle rotary cutters sized for compact tractors help you make short work of anything that's growing where you don't want it. They're not designed to give your front lawn that well-manicured look. Instead, you'll be able to quickly cut down brush along miles of fence line, or keep weeds under control in an orchard or pasture.

Mounted rotary cutters connect to the three-point hitch at the rear of the tractor and are powered by the PTO. They typically are available in widths from 42 to 180 inches. Cutters from Yanmar are designed with a rugged frame, a smooth, slope-top deck and quick-change blades built to easily handle the toughest conditions.

For even larger jobs, there are multiplespindle, pull-type rotary cutters designed to be pulled by larger tractors like the Yanmar YT3 Series. These rotary cutters fold and unfold hydraulically to change from their wide working width to a narrower transport width.

### Scrape and grade

Whether it's landscape grading, construction cleanup or snow removal, your tractor can handle any of these jobs with the following grading and leveling attachments:

- Box scrapers easily carve into sod and dirt. Box scrapers are designed to level a surface by scraping material from high areas and filling in low spots.
- Grading scrapers make heavy-use surfaces look like new. Turn driveways, show arenas and the path around your lake or pond into smooth surfaces.
- Landscape rakes spread topsoil and gravel, remove stones and debris, prepare soil for planting or seeding, and grade livestock areas and gravel driveways.
- Rear blades scrape, grade and level a yard, driveway or field roads, plow snow or clean a livestock pen.

### Remove snow

If you own land in parts of the country with heavy snowfall, you understand how important it is to clear the snow so you can keep taking care of your animals, and so your family can come and go whenever needed. Your tractor will become your best friend during and after a winter storm.



### Snowblowers

You can move large amounts of powdery, crusted, icy or heavy, wet snow with snowblowers purpose-built for subcompact and compact tractors.

Two-stage designs deliver more throwing force with less horsepower. Some snowblowers connect to the three-point hitch and are powered by the PTO at the rear of the tractor. Other snowblowers connect to an optional front hitch and are powered either by connecting to the mid-PTO or the hydraulic system.

Snowblowers from Yanmar are available for the rear or the front of the tractor and come in widths from 56 to 76 inches.

Purchasing these other attachments enables your tractor to handle other jobs and can also help you with snow removal:

- Front loaders are versatile and can be used with a bucket or blade to remove snow from paths, driveways and parking areas.
- Rear blades attach to the three-point hitch and are designed to scrape snow and ice on driveways and parking areas.
- Rotary brooms attach to an optional front hitch and are powered by the mid-PTO.



### Prepare the soil

When you need to prepare soil for gardening, farming or landscaping, consider these attachments that break up the soil and open the ground for oxygen and nutrients to reach the roots of grass or plants:

**Rotary tillers** loosen the soil for landscaping and gardening. They attach to the three-point hitch and PTO at the rear of the tractor and are available in either forward or reverse rotation.

**Disc harrows** are used for primary tillage, secondary tillage, gardening, food plots, firebreaks and weed control. Rugged disc harrows open and break up the soil for planting, seeding or landscaping applications. Disc harrows for compact tractors typically attach to the three-point hitch at the rear of the tractor.

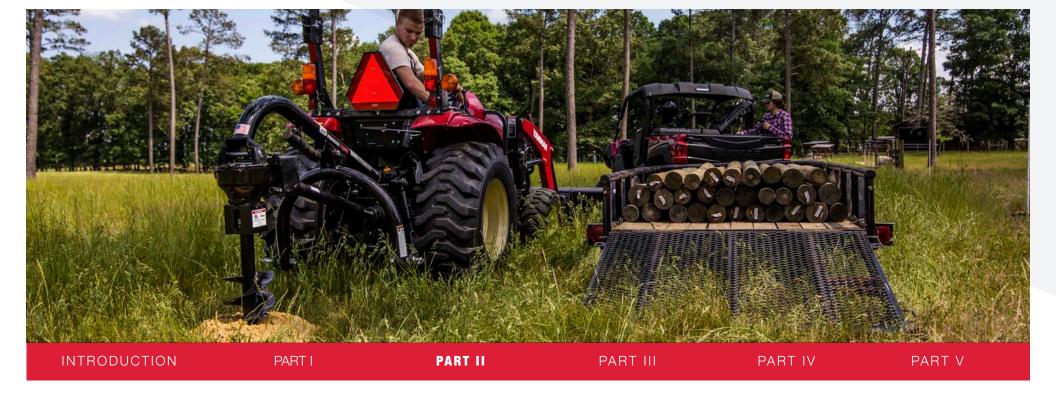
Bed shapers meet the needs of larger home gardening and produce farming operations by combining four actions in one pass. A rotary tiller breaks up the soil to the proper condition and depth. An integrated bed shaper forms the soil into a raised planting bed. Irrigation tape or tubing is then installed on top of the bed, and finally paper or plastic mulch is installed on the bed to control moisture and weeds. Bed shapers attach to the three-point hitch at the rear of the tractor.

# Build fences and plant trees

If you own rural property, there's a good chance you will need to build or repair fences to create pastures and pens. And you may also need to plant trees and shrubs for landscaping and to create food plots and shelter for animals. Those are back-breaking jobs if dug by hand. Instead, a tractor with an attached post hole digger will make quick work of digging holes for fencing, decks, animal pens and barns, as well as for planting trees and shrubs.

### Post hole diggers

Power augers connect to the three-point hitch at the rear of the tractor and get their power to dig holes from the PTO. Post hole digger attachments from Yanmar are available in sizes from 6 to 48 inches in diameter and 36 and 48 inches in length.



### Seed and plant

Whether you're gardening for your family's use or you plan to grow fruits and vegetables to sell at local farmers' markets or to restaurants and grocers nearby, you'll count on a tractor to help you quickly seed gardens and crop fields.

- Food-plot seeders establish, maintain and replant food plots, plus tackle a range of other seeding and planting tasks.
- Precision seeders handle primary seeding, overseeding and special applications such as planting native grasses and establishing food plots.
- **Accessories** for seeders include front-spiked rollers, disc blades and cultipackers, which are heavy iron rollers that smooth the seedbed. All are available from Yanmar.
- 4-in-1 bed shaper provides four solutions in one tool: rotary tiller, bed shaper, irrigation installer, and application of paper or plastic mulch. All in one pass.

Seeders and bed shapers attach to the three-point hitch at the rear of the tractor and are pulled by the tractor.



INTRODUCTION PART



All three of these hay tools are commercial quality but are designed in smaller sizes to perfectly match and work with Yanmar compact tractors, including models under 30 horsepower.







#### 1 Disc mower:

Used to cut and lay down the hay crop in order for the hay to begin drying. The disc mower attaches to the rear PTO and the three-point hitch so that it can be raised hydraulically to turn or transport. Disc mowers can cut quickly to help you complete the harvest before weather has a chance to diminish the quality of your hay.

#### 2 Three-in-one tedder/spreader/rake:

Yanmar combined the common functions of hay tools that ted, spread and rake into one attachment that connects to your tractor's three-point hitch and rear PTO. As a tedder, the attachment spreads and fluffs cut hay to speed drying – again to help complete the hay harvest before it rains. The attachment can also spread the hay when needed to further speed and improve drying. As a rake, the attachment sweeps dried hay into windrows to prepare it for baling.

#### (3) Round baler:

The Yanmar subcompact round baler attaches to the three-point hitch and rear PTO of your tractor and produces round bales 28 inches long by approximately 20 inches in diameter. Depending on the type of hay crop and the bale density you select, the finished bales will weigh from less than 30 pounds to more than 60 pounds to make them easy to handle. Sisal, hemp or plastic twine ties and secures the bales.



### Dig and excavate

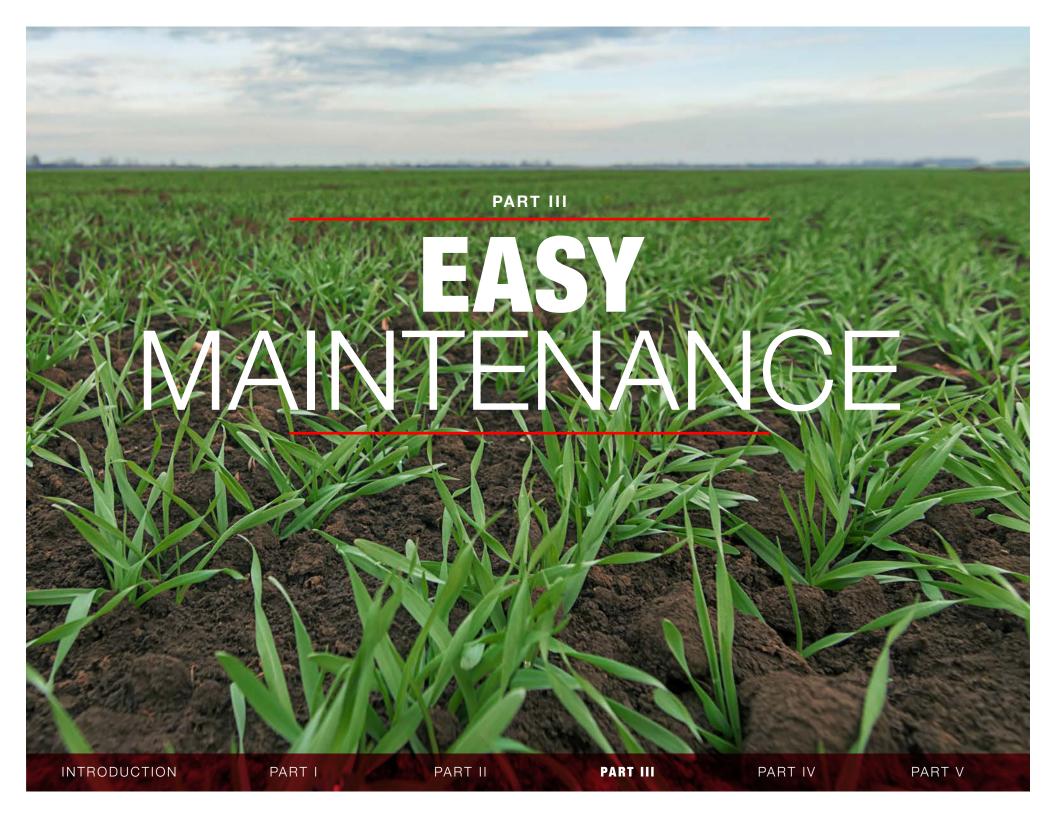
Property owners can always find another project to build or an extra job to do. When the work requires digging deep into the soil for trenches or excavating a site for a building, retaining wall or pond, you will want a backhoe attached to the rear of your tractor.

### Backhoes

Backhoes use hydraulic power to efficiently dig into the soil. The depth of excavation depends on the size of the backhoe. Yanmar offers backhoes that enable a subcompact SA Series tractor to dig down 6 feet, whereas a YT3 Series tractor with more than 40 horsepower can dig a trench 9 feet deep.

Be sure to think about whether you plan to use your tractor to dig now or whether you might want to add a backhoe later. Is the tractor you're considering capable of attaching to and powering a backhoe? They attach to the rear of the tractor frame and require power from either the PTO or the tractor's hydraulic system.

Backhoes from Yanmar can be installed at the factory or added later. That's not always an option for other manufacturers' compact tractors, so keep this in mind if there's a possibility that you will need a backhoe in the future.



# Your tractor should be simple to keep in good condition

Compact tractors are complex machines and a significant investment, but they provide years of service if you take care of the machinery with regular, basic maintenance.

Consider purchasing a tractor that's designed with easy access to monitor and replenish these inner workings:

- Engine coolant
- · Engine oil and oil filter changes
- Hydraulic oil
- Grease fittings (such as on front-axle, steering and front-end-loader joints)
- Air and fuel filter inspection and replacement

Yanmar tractors have a one-piece hood that lifts high and out of the way for quick access to key service locations. No tools are required, and no removal of bolts or screws are needed to open and close the hood. The compact tractors are also designed to be maintained by operators of all skill levels.

To make regular servicing that protects the value of the tractor even easier, Yanmar offers maintenance kits that include everything you need to keep your tractor operating at peak performance. Each item in the maintenance kit is an approved Yanmar product, ensuring the highest quality and guaranteed compatibility with your tractor.

For other maintenance and repair services, the last thing you want is to wait for parts or a service technician. To help you get your tractor repaired and back to work, Yanmar's worldwide support reaches across North America. A network of authorized Yanmar dealers ensures the proper service and support for your Yanmar tractor. Yanmar's parts operation is based in Adairsville, Georgia. A team of highly trained parts specialists facilitates rapid delivery of only genuine parts directly to your servicing dealer or distributor.



### WARRANTIES

What repairs and service are covered?







You've been considering purchasing a tractor, but many property owners like you also buy a UTV to provide additional transportation to other job sites while another person operates the tractor. With a UTV, you can carry people, tools and supplies wherever they're needed around your property.

Look for a rugged UTV designed with these features for use in all conditions:

- Electric power steering delivers precise handling and the right balance of comfort and assist over any terrain.
- Hydraulic disc brakes on all four wheels are designed for smooth, safe stopping.
- Four-wheel drive has the capability to quickly switch between two-wheel and four-wheel drive, and a fourwheel drive mode with a full-locked front differential.
- Fully independent, long-travel suspension on all four wheels enables each wheel to respond to ruts and bumps for great traction and rider comfort.
- A reinforced steel cargo bed is large enough to haul a full-sized pallet loaded with your supplies or gear.

Yanmar's new Bull Series of UTVs was born to work as hard as you do. The standard Bull model seats three people. The Longhorn edition comes with six individual seats. Both models can pull heavy loads up to 1,500 pounds.

And, when the work is done, UTVs can help you spend more time enjoying your land. Whether you hunt or fish, or just want to walk in the woods, a UTV can get you there and back faster.





### Why choose Yanmar?

Yanmar tractors are engineered based on the ways owners like you use them. That means attachments fit properly and controls are integrated into the tractor for easy use.

Yanmar designs, assembles and tests its North American products at our U.S. headquarters in Adairsville, Georgia. Yanmar fully tests your tractor at our factory before shipping it to an authorized Yanmar dealer. Yanmar tractors are sold and serviced by a network of dealers who are committed to serving the communities in which they live and work. They share your passion for not only the land but also unsurpassed service.

Locate a Yanmar dealer near you

