

Scaling Up For Regional Markets

Used Tractor Assessment, Checklist and Resources

General Considerations

What are the needs for a tractor?

What is the scale of production for which a tractor is needed?

How much power is needed based on scale and implements?

What is your budget?

What is the operator's experience and skill level?

What features are you looking for in a used tractor (examples: hydrostatic vs. gear-shift transmission, front-end loader, hitch category, 2- or 4- wheel drive)?

Used Tractor Assessment

Make/Model/Year:

Manufacturer's Tag and Serial Number:

Hours:

Operator and Parts Manual:

Availability of Parts:

Seller's/Previous Owner's Background Information:

- What is the reputation of the seller and/or owner's reason for selling?

Maintenance Records:

Warranty Protection:

Safety Features (examples: seat belt, certified Roll-Over Protective Structure (ROPS), Power-Take-Off (PTO) master shield, lights, reflectors, slow-moving vehicle(SMV) emblem, warning decals).

General Appearance:

Engine and PTO Horsepower and Speed:

Checklist for Assessing a Used Tractor

The following is a list of items to inspect when considering the purchase or use of a used farm tractor:

- Safety Features
- Body Condition and Paint
- Hour Meter and Other Gauges
- Oil Level and Condition. (A milky color is a sign of water getting in to the oil)
- Age and Condition of Oil Filter
- Fuel for Signs of Moisture
- Condition of Fuel Lines and Connections
- Condition of Fuel Filter or Sediment Bowl
- Condition and Level of Coolant. Is it clear or rusty?
- Condition and Pressure of Hydraulic System
- Level of Hydraulic or Gear Oil
- Condition and Level of Transmission Oil
- Condition of Cooling System
- Condition and Tightness of Fan Belt
- Exhaust System
- Air Filter, Elements, Seals, and Hoses (including oil bath air filters on older tractors)
- Electrical System and Battery. Is there excessive corrosion or worn wires?
- Type and Condition of Tires
- Grease Fittings. Are there signs of grease?
- Condition of Lower Links on Three-Point Hitch
- Brakes, Clutch, and Steering
- Did you test drive the tractor?
 - Does it start easily on a cold engine?
 - Does it run well when hot? Check the oil and look for signs of foam or water.
 - Are any fluids seeping out of the head casket?
 - While under load, check for noises, fluid leaks, and exhaust smoke.

Resources

Used Farm Equipment – Assessing Quality, Safety, and Economics. NRAES Publication #25. 1987. By James, W. Garthe, Dennis J. Murphy, and William K. Waters. Plant and Life Sciences Publishing, Ithaca, NY.

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Leasing vs. Buying Farm Machinery. Kansas State University Agricultural Experiment Station and Cooperative Extension Service Publication MF-2953. 2010. By Troy J. Dumler, Jeff Williams, and Kevin C. Dhuyvetter. Kansas State University, Manhattan, KS.
<http://agmanager.info/farmmgmt/machinery/MF2953.pdf>.

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<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1677/AGEC-240web2013.pdf>.

TractorData is an online resource that contains news and information on over 8,000 tractor models.
<http://tractordata.com/>.