

Chapter 9

Farm Equipment Auctions

Farm Equipment auctions are without a doubt the best place to look to acquire bargain equipment. It takes an experienced eye to keep from getting stuck with a bad buy and lots of patience to wait for the deals but they are out there. Buying at auction obviously carries certain risks and 99% of equipment is sold “as is”, however auction prices are typically 20% to 30% below dealer prices. In addition many dealers do not carry much older or small equipment and the equipment they take on trade is often quickly shipped out to consignment sales or out of the country.

If you are into farm equipment then there is no doubt about it, farm auctions are just plain fun! When it comes to finding deals at auctions it pays to go to a lot of them. I have seen two comparable tractors where one sell at an auction one weekend for a bargain price of \$7,000 and another very comparable one sells at an auction 100 miles away and one week later at a salty \$14,000.

You will find that most auctioneers are honest helpful people, unfortunately like any business there are some that are less than scrupulous. I have heard horror stories of auctioneers running up bids by calling on “ghost bidders”. If possible watch the auctioneer and learn his style before bidding on large items. The main lesson is just keep your head and pay close attention to what is going on and try to find out as much as you can about the items before bidding on them.

When you get serious about buying used equipment you should at purchase a used tractor price guide book. There are a couple good ones on the market and they list thousands of tractors

by brand, year, features, etc. The guides will give a price for below average, average, and above average condition. Appendix F gives some approximate values so you can get a rough idea of how auction and dealer prices compare. The used equipment discussion forums on the internet such as those found at agriculture.com or ytmag.com (Yesterdays Tractors) can be a good source for what specific equipment is worth and problem areas to watch for on specific older models. MachineryPete.com is probably the best auction price website as it lists thousands of actual auction results for almost every brand and average auction price for almost any model of equipment sold at an auction in the last few years.

There are several types of auctions and each has its potential bargains and bad buys. Dealer consignment auctions and farmer consignment auctions are held in various locations throughout the country-usually on a seasonal monthly or bi-annual basis. Consignment auctions are where multiple dealers and/or many farmers will all bring their equipment to a central location for a large consolidated sale.

The consignment auctions are great to attend because you can see a lot of equipment sell in one place. You should use caution at the large auctions sometimes dealers will use the large consignment auctions to unload problematic equipment that they don't want to repair before selling. Consignment auctions are a good place to go to see a lot of equipment sell in one place and to get a handle on prices prior to purchasing your equipment.

If you are willing to travel for auctions you will also see that different brands and different sizes of equipment sell better in some regions of the country or within a state than in others. If you can determine where the equipment you want is selling the best you may want to target other auctions in that area. For example I have noticed that a typical 100 hp tractor sells for about \$1,000 more in Southeast Missouri than they bring in Northern Illinois.

One thing to be aware of at some consignment auctions is an absolute auction vs. a reserve auction-sometimes it can be hard to tell the difference. An absolute auction sells to the highest bidder regardless of price. A reserve auction will set a minimum price that must be reached prior to the start of the auction-but unbeknownst to the bidder. You may end up being

the highest bidder on an item and still not get the piece if the reserve is not met.

Retirement or farm closeout auctions can provide some additional information that can help in evaluation of the equipment. At an on farm auction can more easily tell if most of the equipment is well maintained or neglected when you can see a lot full from a single farm. Looking at a lot full of equipment used by a single farmer can help you determine if a specific tractor was his main tillage machine or more likely used for lighter work-something that can go a long way in determining how much life is left in a tractor. You can see what kind of machine storage was on the farm and more easily tell what has been shedded and what has not. This can be especially important for evaluating something like a combine, which cannot easily be evaluated in a few quick minutes at an auction. In addition, you may have the opportunity to talk to the previous owner (this can also be true at some consignment auctions)-most will be honest and tell you any recent repairs they have completed and any issues they know of that still need work.

The risk at any auction of course is that is can be hard to evaluate the value of a piece of equipment prior to bidding. If you know in advance a piece you are interested in buying you should do research to evaluate a fair price for the item. Web sites such as EquipmentBarn.com can help you locate auctions in your area and know what items are selling that day so you don't have to waste your time attending auctions where there is nothing of interest. Finally, many dealers have websites and will often list their prices for used equipment. Machinefinder.com provides a searchable list all of the equipment for sale at all of the John Deere dealerships all across the country.

As you look at more and more equipment you will begin to get an idea of what equipment is worth. There are a few things such as front wheel assist or a loader that can add a lot to the value of a tractor. One thing you should watch out for is a narrow front-end tractor. You can save a lot of money by getting a tractor with a narrow front end but if you have any hills on you land they can be dangerous. There are a lot of farmers killed every year in tractor rollover accidents and the main cause is older narrow front tractors without rollover protection systems and because of this, narrow front tractors sell for a lower price. If you are certain you

are only going to use a tractor on level ground or for utility around the farm work such as running an auger then you may wish to buy a narrow front tractor to save some money.

Like miles on a car, the number of hours is the main indicator of the age of a tractor. However the hour meter is often not a reliable measure, especially on older tractors. Although there are a few dishonest people who would turn back a meter the more likely scenario is that the hour meter is simply broken. So instead of relying solely on the hour meter you should examine the wear of the clutch pedal, the steering wheel, and the drawbar. Each one will provide some clues as to how the tractor was used but should not be taken as absolute. Drawbars can be replaced, a drawbar will not show wear from 3pt implements or hours put on from stationary PTO use so you need to look at the tractor overall to make a good assessment. As you look go to auctions look at a lot of tractors even if you are not interested in buying them and get an idea for the typical wear for the hours on the machine. Knowing what the wear looks like will help you more accurately make a call when it comes time to determine if an hour meter is accurate.

One thing is for sure, for each problem you find on a tractor you will find at least one more when you get home and really start going through it. The goal should be to identify those tractors that have budget buster problems and skip them to find the reliable bargains.

With tractors there are three main things that can cause expensive repairs.

- **Engine** – On an older tractor you want to be sure you are not looking at one that is going to require an overhaul in the near future. If you do find one that is in otherwise good condition be sure you know the approximate cost of an overhaul and subtract it from the price you are willing to pay.

Though there is no ironclad way to determine if an overhaul is in order there are a few tricks you can use to determine if there may be problems. First, put some oil from the dipstick on your finger and walk out into the sun and look for small flakes of metal. If possible start the tractor and let it idle for a few minutes to warm up and stir any sediment into the oil and repeat the same test. Second, look for excessive blowby out of the crankcase exhaust port. A little is normal, if it is excessive or if you see any oil

running out or traces of oil in the past it may be a sign that you may want to pass of that specific tractor. When tractor is idling slowly you can also open the oil gauge and look for blowby.

Another good thing to do is to take a flashlight to look for oil or transmission fluid leaks behind shields, under cabs, etc. The flashlight can also be used to examine the inside of a fuel tank to look for rust that can cause a lot of fuel filter and injector problems.

- **Transmissions** – Transmissions may be hard to test at an auction. If at all possible you should at least try to start the tractor and run through all the gears and pull forward and backwards a few feet in each gear to make sure the gears all work. If you can have more time to drive the tractor try putting it in gear and while moving slowly press firmly on the brakes. This will test not only the brakes but the transmission. If the tractor pops out of gear when the brakes are applied it can be a good indication that the transmission has excessive wear and may be in need of some work. Smell the transmission fluid (often the same as the hydraulic fluid) and see if you can detect a burning odor, this can also indicate transmission or hydraulic problems.
- **Hydraulic Systems** - Examine the hydraulic fluid to see if it appears relatively clean. Unlike engine oil which will turn dark with normal use, the hydraulic fluid should remain relatively clean if proper maintenance of filters is completed. If the tractor you are buying has a 3-point hitch one of the best tests you can do is to turn the tractor off and lower the 3-point hitch all the way down. Then push the lever to raise the hitch to the top and start the tractor. If the hitch rises smoothly and quickly it indicates a strong hydraulic pump. If the hitch rises slowly or “chatters” and rises with a jerky motion that is a good indication of hydraulic problems in the tractor.

Even if you do know the fair price it can be tough to evaluate the condition of a piece of equipment. For most field implements, planters excluded, the condition can be pretty obvious.

Tractors and Combines are another story. Some auctions are very open to your checking out the equipment prior to the sale and may allow you to drive equipment prior to bidding. Some other auctions will not provide that opportunity. If it is possible I have developed a couple checklists to evaluate as much as reasonable:

Used Tractor Checklist:

- Determine tractor hours and find out if hour meter is properly working
- Check the oil for foaming and presence of any antifreeze or any other contaminants in the oil
- Look for head gasket leaks
- Are there any other engine leaks, transmission or hydraulic leaks (flashlight)
- Wiggle the fan to check for tight water pump bearings (if applicable)
- Perform a hydraulic pressure check if possible (carry a portable gauge and know appropriate range for tractor being evaluated if possible)
- Check electrical system, do lights and turn signals work, wipers
- If applicable, check the heater and air conditioner. Thermometers to measure heater and air conditioner cooling differences over ambient temperature can be found at Radio Shack for a reasonable price. This can be important because air conditioning can be an expensive system to repair on older equipment.
- Look for excessive blow by from the crankcase exhaust port
- Does the tractor start easily
- If possible drive the tractor and check for all engagement of all possible gears-including reverse
- How much tread is remaining on the tires-on the duals
- What is the condition of the air filters
- Start the tractor and walk around it while it is at high idle-listen for any unusual ticks or grinding sounds coming from the engine or transmission area
- Use a flashlight to examine inside of the fuel tank
- Do the tires have fluid in them

Just as with a car, tractor life will vary greatly depending upon the care given by the previous owner. Though there are extreme exceptions on both sides, the maximum life for most tractors is about 12,000 hours. And just as in an older car after 7,000 or 8,000 hours you should plan for the inevitable repairs or an engine overhaul. You should also be aware that some older tractors are actually increasing in value. A brand new John Deere 4020 sold new for \$9,800 in 1970, in 1980 they were selling for about \$7,500 by 1990 approximately \$8,500 and today that same 1970 4020 Diesel in good condition will sell for \$10,000 or more. This is not true with all

models and the 4020 was a very popular tractor in a size that is used on both large and small farms, the point is that once a popular tractor has reached fifteen or twenty years in age they will depreciate very little from year to year and can actually appreciate.

Tractor prices will vary dramatically for what appears to be two very similar tractors. The primary factors appear to be age, brand, condition, and horsepower. Examine the table in Appendix F. You will notice that you can get a 1960s era fifty horsepower tractor for as little as \$2,300. A 1990s era tractor with the same power capabilities can cost as much as \$25,000 and a new one can have a price tag of \$35,000 or more. Each tractor has roughly the same pulling capabilities, the difference is availability of parts, maintenance required, and comfort and features. Tractors really don't "wear out" to the point beyond repair. However, an engine or transmission rebuild can quickly eclipse the price of an older tractor but given the time and money there are very few that can not be made to run like new again.

If you can determine how the tractor was used can be a good indicator of the life of the tractor. If it is fully decked out with front and rear weights and the tires are filled with fluid then that is a good indication that the tractor was used for heavy tillage. On the other hand if you can see brackets for a planter monitor then there is a good chance that the previous owner had a heavier tractor that was used for main tillage and this one may have been used for lighter planting or cultivation work.

Combines at auctions are even harder to price than tractors, unlike tractors, combines do wear out to a point beyond which it can economically unfeasible to continue use. To make it even more difficult to evaluate a combine, for safety reasons you will seldom have the opportunity to engage the thresher of a combine at an auction. There are also many more systems to evaluate. In addition to the checklist below you should read the section on combine maintenance in Chapter 10 so you will be familiar with the types of things that can go wrong with a combine and the effort required in repairing them.

Used Combine Checklist:

- First determine engine hours and find out if hour meter is properly working

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- If there is an hour meter for the separator find out if it is working properly
- Check the oil for foaming and presence of any antifreeze or any other contaminants in the oil
- Look for head gasket leaks
- Are there any other engine leaks, transmission or hydraulic leaks-you may have to crawl around and take a flashlight to look at all possible nooks and crannies
- Check electrical system, do lights and turn signals work, wipers-monitors and sensors appear to light up and be working
- Heater and air conditioner-see note about tractor heat and air
- What is the condition of the air filters
- What is the condition of the belts
- How worn are the cylinder bars and concave (look for exposed rods or rounded bars)
- What condition is the chaffer and sieve-if possible lift or remove the sieve to check for wear in the return augers.
- Are there any major cracks or tears in the tin or plastic covers
- Start the engine and let it run-listen for any unusual ticks or grinding noises
- If possible run the thresher and listen for any unusual squeaks or grinding noises, use your nose to smell for any burning odors or “hot” smells. This can indicate a burnt bearing or an electrical problem.
- Examine the condition of the unloading augers
- Are there any cracks in the separator frame or between the separator frame and the main combine frame

If you haven't been to an auction in several years you may be pleasantly surprised at the low price of older combines. It is not unusual to see a ten or twelve year old combine that sold for \$120,000 new selling for \$30,000-35,000 at an auction. Working twenty or twenty five year old combines will often sell for under \$5,000.

Examine the tables in Appendix G. Like the tractors I have grouped the combines based on age and capabilities. As you can see the prices range dramatically based on size and capabilities and prices rapidly decrease for the older machines. Unlike the listing of tractor prices above which is an average of auction and dealer prices, the combine prices in Appendix G are average auction prices for average to above average condition machines based on actual auction sale prices from 2001 through 2003. I did not include the ultra low end prices on the completely worn out machines because though you can buy them incredibly cheap but they are essentially unusable without a complete rebuild which will ultimately cost more than a machine

in better condition.

If you are only familiar with one brand of machinery the tables in Appendix G may help familiarize you with the various capacities between brands to allow you to evaluate similar machines based on capacity.

This excitement you feel over cheap combine prices will soon be tempered when you see the price of used corn heads. I have seen several auctions where the corn head sold for more than the price of the combine that went with it. Appendix G also provides a short table of combine head prices that have been sold at auction over the last couple years.

Combine age is also measured in hours but there may often be two components for measurement-engine hours and separator hours. Older combines do not have separate engine and separator hours meters so you can usually assume the separator hours will average about 75% of engine hours. It is not uncommon for engines to be rebuilt or separators reworked independently of each other and if possible you should try to find out approximately how many hours are on each. Life expectancy will obviously vary greatly depending upon owner care, quality of machine, etc. but a typical rule of thumb is anything over 3,000 hours on a separator is going to require a lot of maintenance.

If you can afford it or have the ability you to do the work yourself it is possible to “go through” a separator and replace all the bearings, belts, cylinder bars, concave, etc. and end up with a very reliable older combine at a fraction of the cost of a new machine. This is not a small undertaking and is something that some farmers will save for a long winter activity. Before spending the time and money to go through a machine you would want to make sure that all the outer tin is ok and that the main separator frame is still solid and has a stable connection to the main combine frame.

Given that older combines are so economical and that custom harvesting rates are usually \$25 an acre or more, if you are handy with a wrench it will not take too many acres to pay for an older used combine. I have seen many four row capable mid 1970s combines that run perfectly

fine with a bean head selling in the \$1,000 to \$2,000 price range. If you can get 80 acres through an old \$2,000 combine it will pay for itself in a year. Just be prepared to spend time making repairs and the money to keep the thing running. However you can do a lot of repairs on an old combine for the cost of a single small repair on one of the new \$200,000 machines.

Other than power and basic comfort features, tractors made relatively few advancements between the 1970s and the early 1990s. Combines however are an entirely different story. Though the basic separator functions are relatively similar the control and monitoring systems have changed dramatically. Between the last 60s and late 70s cabs became more comfortable and early loss monitors began to appear.

A loss monitor is something you may want to consider when evaluating different machines. When a combine is operating properly most of the grain should be separated at the concave and that which slips through separated at the walkers. When a combine is overloaded, less grain is separated at the cylinder and the walkers become overloaded. Overloaded straw walkers will carry grain out of a combine. An overloaded sieve cannot separate the grain from chaff. Grain loss monitors help the operator select the maximum ground speed that will maintain grain losses at or below an acceptable level.

Between the late 70s and the late 80s combines grew dramatically in size, power, and capacity and loss monitoring solutions continued to improve. The 80s also brought about the first hydrostatic drives and viable automatic header height controls. The hydrostatic drive gave the operator a much finer speed control and ease of use during unloading that was not possible on the older gear driven machines. Automatic header height features allowed for a more efficient harvest with less stress on the operator. As capacity still continued to build into the 1990s there were also huge improvements in loss monitoring systems and yield monitoring in the mid to late 90s. Electronic controls and digital displays allow for more accurate and easier machine setup. The machines of the 1990s are designed simpler with fewer belts and chains and have much reduced maintenance requirements.

Something to consider at an auction is also location. You probably do not want to drive

200 miles to an auction to save \$400 on an old combine. Unless you own a semi, the loaded cost to haul large equipment can be in the \$2 to \$3 per mile range and you definitely don't want to drive 200 miles home at 9 miles per hour on unfamiliar roads. It would be a shame to find a deal on an \$800 combine and end up spending another \$800 just to get it home.