



Buying used machinery safely and securely

It is an important for contractors and traders of used machinery to ask themselves: How can I purchase second hand equipment without being conned and/or losing money? Buying heavy machinery from unknown suppliers can sometimes pay off, but it is often more likely that unforeseen circumstances cause the buyer to lose money.

Shopping for used excavators or loaders

The safest way to buy a used machine would be through an established supplier that is both nearby and well-respected. However, it is not always possible to purchase the particular used machinery that you're looking for locally. This is because: 1) local suppliers may have not the desired equipment in stock, and 2) if local suppliers do offer the equipment, it usually must travel through multiple independent, and potentially untrustworthy, middle men.

Plenty of websites offer used construction machinery. The recommended path would be to find a website focused on your regional market, depending on where you would prefer to source used machinery. In North-America, Rock & Dirt or Machinerytrader are strong and have a large selection. In Europe, Mascus and Machineryzone are well-respected. In Australia, Constructionsales is probably the No.1 website.

The disadvantage of most machinery websites

Most websites offer a selection for each specific type of machine. It is often possible to configure search parameters such as year manufactured, hours used or price. But what is if someone is looking for a 25 ton excavator on tracks with a long stick? What is if a contractor is looking for a wheel loader with 3.5m³ bucket volume or at least 180 HP? On most known machinery websites today, it is unfortunately impossible to search for technical criteria.

How trustworthy are machinery sales websites?

It is just the nature of things that not all relevant information is shown online. Information on machinery websites is only as good as the people responsible for the input. Sometimes the desk clerk just doesn't know which information is correct or important. But other times details about features, equipment condition, and maintenance is not shown because it might discourage a potential customer from purchasing the item. Used machine dealers are always using creative ways to sell their wares.

Condition of used machinery

The worst traders in machinery use a lot of paint and a few spare parts to improve (only) the exteriors of the equipment. Many dealers are short on staff and small workshops are crowded with sold machines. If a larger trader has several branches, it often happens that the Used Equipment Manager doesn't sign off on each machine as it leaves the yard. That person would then have no idea about the real condition of the machinery.

Transporting heavy machinery

Globalization has made it easy to purchase equipment from almost anywhere. But is it reasonable to pay \$15,000 shipping for a \$50,000 machine? Probably not. It would make sense instead to investigate from which areas you can easily and most inexpensively import an excavator or crane.

Evaluating the options

Buying an excavator or a wheel loader above 15 tons and with an age of less than 10-12 years is an expensive investment; therefore, I recommend having a clear strategy for the purchase process. First, you need to determine the target machine size or weight. The next important decision would be the brand. Which producer is able to supply spare parts and has service staff available in the vicinity? Then you'd need to study spec-sheets to select the specific

type of machinery you need. Would a Komatsu PC360-LC be suitable or is a PC360 NLC the better choice? Is a Caterpillar 336D a good selection or would it be better to search for a CAT 333E?

Once these judgements are made, the database search can start. In most online databases, it is possible to search for particular types of machinery. A good tool to use to compare products is a simple table. It can help to sort the offers by providing a clear overview.

Machine	Supplier	Price	Year	Hours	Location	Attachments
Komatsu PC240 LC	Omeco	34.000	2009	8900	Italy	Bucket 1.50m, hammerlines, A/C
Caterpillar 323DLN	J&T	37.000	2009	11200	Nederlands	bucket 1.30, full hydraulics, A/C
Hitachi ZX250	Kiesel	32.000	2008	12500	Germany	Bucket 1.00m, no lines, A/C

Receiving accurate information from seller

Most dealers offer a set of pictures for every used machine. If photos or details are missing, it is a good idea to ensure you see these before purchasing. The missing pictures might be of parts in worse condition. The supplier should also provide the machine's serial number – otherwise it is likely that the trader is selling a machine he doesn't actually own, or he may have another reason for hiding the number.

Checking equipment history

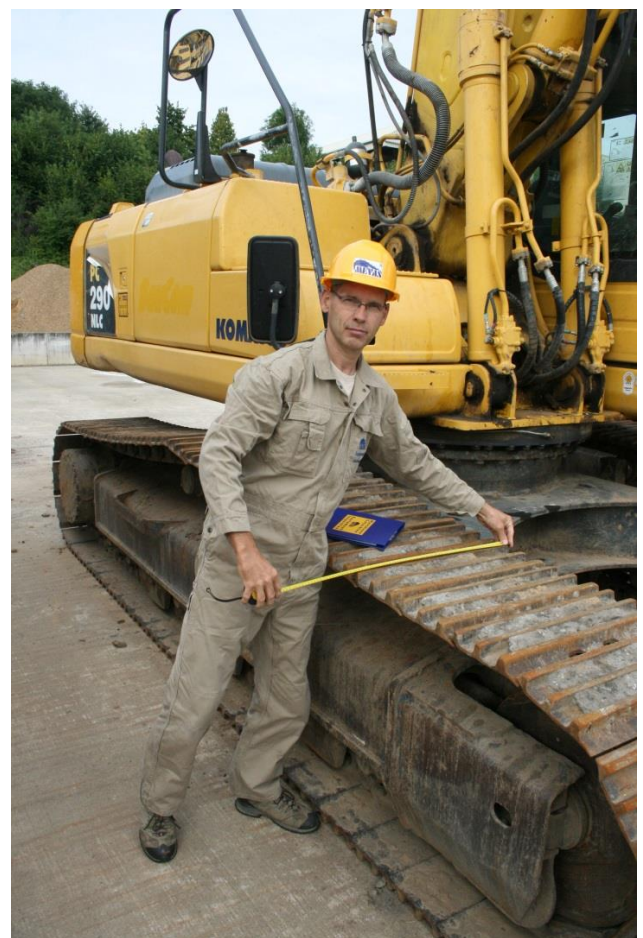
When reviewing a selection of possible machines, it would be wise to contact a dealer of this brand to check the service history of each machine. Major dealers typically have a database with service history and can check if the hour level on a used machine is reasonable. Some may also have a database with stolen equipment. These precautionary checks should be the first steps when evaluating used machinery for purchase.

Evaluating the supplier

The most difficult part of the purchase process is verifying the provider. Nowadays scams are well-executed and often extremely difficult to detect. Creating a professional company website that lists offers for heavy machinery would only cost a few hundred dollars. One popular method to dupe buyers is the "coat." Scammers use an existing company without an internet presence to make their deceit seem more legitimate. It is therefore highly recommended to send someone to physically check the equipment and the supplier.

Verifying the condition of a machine

Sending an equipment engineer for an inspection is not inexpensive. However, in most cases a well-trained machinery inspector would detect enough hidden problems to negotiate for a lower price with the machine seller. In these cases, a thorough inspection would almost pay for itself. If the machine is in irreparable condition, the purchase would fail and the inspection fee would be lost. But losing the fee is probably far cheaper than replacing a worn engine or hydraulic pump. In Europe, Mevas is a good service for inspections and in North America I recommend Honest Inspections.



Checking fuel emissions

Exhaust emissions and fuel quality should also be taken into consideration. In some areas, the fuel quality is not sufficient for modern engines. The sulfur content of the diesel is often too high and would degrade the filter in a short amount of time. In Europe and the United States, today engines come with TIER IV-engines with complicated exhaust after-treatment systems. In areas with lower emission standards, it would cause problems to run these engines. The reason is once again the low fuel quality and the required urea for exhaust after-treatment (Ad-Blue). In some cases, the machines can be de-TIERed, meaning they can be adapted to conform to lower emission standards.

Pay attention to the warning signs

It is often safer to step back from a seemingly good deal if any of these red flags pop up:

- Saying “hurry up, there are three other people interested in this machine”
- Claiming that the machine is far cheaper than normal
- Requesting a down payment prior to inspection
- Supplier only has a mobile phone number
- Supplier uses public e-mail such as GMail, Yahoo or AOL
- Supplier’s business is not visible on Google Maps
- Website is not registered in the same country as the supplier

In summary: how to make a safe deal when purchasing used machinery

- Select the appropriate machine size and brand
- Carefully decide upon the best region from which to purchase
- Require complete offers with all necessary information
- Compare machine and transport price
- Check emission standards and fuel quality
- Check service and machine history
- Verify the supplier
- Send an engineer to inspect the machinery and supplier