

The Total Cost of Equipment Ownership: Equipment Repair – When Enough is Enough

When looking at the true cost of equipment ownership there are many factors to take into consideration. Throughout this series of articles, we are taking a look at these factors and how they pertain to equipment such as scales and weighing systems. With over 75 years of experience in calibration and repair, at J.A. King, we've seen it all. In this article, we'll break down equipment repair, and talk about the point at which it's more cost effective to replace equipment.

Equipment Repair & Replacement

So, you've got the right equipment for your application, laid out an ideal preventative maintenance and calibration plan to improve the longevity of your equipment, and now you're ready to roll. However, there's still one more thing to think about and that's the inevitable equipment repair. Eventually, (even if it's 10 years down the road) some form of repair is unavoidable and that repair can be costly.

There are a few types of cost to consider when it comes to equipment repair. First and foremost is the hit to production if there isn't a backup. Not having a backup can be detrimental in fast-paced production environments so it's always a good idea to have multiple units in place or at least a backup ready to go. Some processes can lose out on thousands of dollars a day or even an hour when a line is down. And hastily purchasing a replacement is not always the best solution!

The availability of replacement parts is another big factor. Sometimes parts and components for equipment are unavailable or have a long lead time. This forces you to either play the waiting game, or in many cases make the move to quickly purchase new equipment. Don't get caught hastily purchasing a substandard replacement!

When initially purchasing equipment, it's a good idea to research what parts are available and even order replacement parts for any common malfunctions. For example, purchasing an extra load cell for a scale that may be subject to overload can reduce repair time significantly. This is something J.A. King will advise on if purchasing with our team.

The cost of those parts and the time involved with repair are also big considerations. You can easily spend more on a repair than just replacing equipment all together. If the cost of a replacement part is high enough, or the repair time involved drives up the expenses, there's going to be a threshold which is crossed. Another thing to consider is that multiple repairs (even if they are small and relatively inexpensive) can eat away and eventually become a factor in crossing that financial threshold.

To Repair or Replace? THAT is the Question.

Understanding the true cost of equipment ownership helps us with purchasing decisions, operation procedures, and preventative maintenance measures, but as mentioned above there will inevitably be a time when it is necessary to replace equipment all together. After all, you can only repair certain items so many times before they need to be replaced, and looking at the cost of all those repairs can help determine how close you are getting to that threshold.

J.A. King is here to help. Enter our risk reduction matrix. Developed by J.A. King, this matrix was created to determine at what point it becomes more beneficial to replace your equipment rather than make a repair. More importantly, this matrix will help determine at what point it becomes critical to replace equipment. Looking into replacement cost, the frequency of use or importance of the equipment, and the availability of replacement parts, our matrix can help determine that unique threshold.

Model	Gage ID	Mfg S/N	Condition(Good, Fair, Poor) 1, 3, 5	Parts Available(Yes, Some, None)?	How Critical To Operation(Critical, Important, Can work without) 1,3,5	Priority	Recommended Plan of Action	Recommended Parts to keep on hand	Comments
MT 8525	139 Main	43646864ZV	5	5	5	15	Replace scale with a Class 1 Div 2 Bench Scale	No parts available	Scale used by IE to weigh out flow meters
Flexweigh	240-5044	NA	5	5	5	15	Replace with IND560xx		Being Replaced per A. Fleming
MT 8525	242-5001	61165198RX	5	5	3	75	Replace with Class 1 Div 1 Bench Scale	No parts available	Class 1 Div 1
MT Jag Extreme	315-50131	52097105C	3	5	5	75	IND560x	No parts available	Currently working on an upgrade
MT Puma	200-5043	56534485CM	3	3	3	45	Replace with IND560xx	Main board, power supply	Class 1 Div 2
MT Lynx	200-5058	54391425GF	3	3	3	45	Replace with IND560xx or IND331	Main board, power supply	Class 1 Div 2
Doran 8000	236-50106	NA	3	5	3	45	Replace with Viper EX	No parts available	Class 1 Div 2
MT Panther	240-5045	5188425HB	3	3	3	45	Replace with IND560xx		Being Replaced per A. Fleming
MT Panther	240-5046	51588435HB	3	3	3	45	Replace with IND560xx		Being Replaced per A. Fleming
MT Puma	324-5071	56475355ML	3	3	3	45	Replace with IND560x	Main board, power supply	Class 1 Div 1
MT ID7SX	324-5065	2883511	3	3	3	45	IND560x or Viper EX	Main board, power supply	Class 1 Div 1
MT ID7SX	324-5070	2917758	3	3	3	45	IND560x or Viper EX	Main board, power supply	Class 1 Div 1
MT ID7SX	324-5064	2917758	3	3	3	45	IND560x or Viper EX	Main board, power supply	Class 1 Div 1
MT ID7SX	324-5066	2883512	3	3	3	45	IND560x or Viper EX	Main board, power supply	Class 1 Div 1
MT Puma	334-5015	51560085GB	3	3	3	45	IND560x or xx	Main board, power supply	Uncertain of area classification
MT Puma	334-5014	54558495LF	3	3	3	45	IND560x or xx	Main board, power supply	Spent \$ 5,000.00 in 2015
MT Puma	236-50103	52455985AD	3	3	3	27	Replace with IND560xx	Main board, power supply	Class 1 Div 2
MT Lynx	236-5085	50062855PZ	3	3	3	27	Replace with IND560xx or IND331	Main board, power supply	Class 1 Div 2
MT Lynx	236-50101	52212535HC	3	3	3	27	Replace with IND560xx or IND331	Main board, power supply	Class 1 Div 2

The Bottom Line

While upfront cost for better quality equipment may be higher, you'll likely pay more for cheaper equipment in the long run. Take note of your equipment and its usage throughout its life cycle, keep tabs on repair options, and make the most out of your equipment while avoiding unnecessary expenses.