

 **TOYOTA**

INDUSTRIAL EQUIPMENT

REACH NEW HEIGHTS

IS IT TIME TO **UPGRADE** **YOUR FORKLIFT?**

A Comprehensive Guide to Optimizing Your Uptime



TABLE OF CONTENTS

Signs Your Forklift Needs to Retire	2
The Economic Life of a Forklift	5
Planned Replacement and Utilization Rates	7
More Reasons to Upgrade	11
Applying Toyota Production Systems to Your Fleet	14





FOREWORD

The maintenance and operation of your forklift fleet directly impacts your operating costs and your profitability. This e-book, created by the material handling experts at Toyota, will help you identify the optimal time to replace older forklifts. Use it to keep your people and your product moving and to increase your bottom line.

We've covered the entire process, from troublesome warning signs that your equipment needs to be replaced, to the pros and cons of buying new or used. Follow along with this guide to keep your fleet up and running and keep your business productive and profitable.



Note: This is an interactive PDF. Simply click any web address or underlined link to access expanded content online.



01



SIGNS YOUR FORKLIFT NEEDS TO RETIRE



WEAR AND TEAR

Breaking Down Your Breakdowns

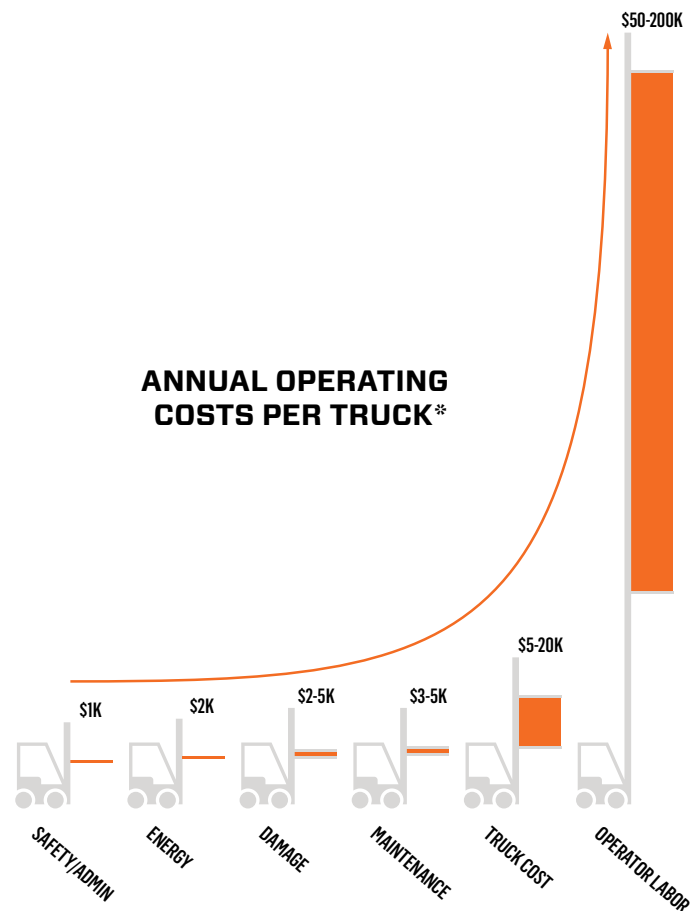
Hydraulic leaks. Clogged fluid lines. Worn chains. A mast that won't lift. Battery problems. An unbalanced suspension. Steering difficulties. Has maintenance become a case of continual troubleshooting and increasing costs just to keep your forklift running?

If prolonged heavy use of your forklift fleet is causing sustained maintenance issues, it may be time to consider replacing the underperforming equipment. When you pay for ongoing maintenance fees, the effect on the bottom line goes far beyond the cost of replacing worn bushings or chasing an electrical issue in an outdated drive motor.

LOSING TIME, LOSING MONEY

The True Costs of Damaged Equipment

When you experience downtime for any unit in your forklift fleet, the cost is much more than parts and labor. You also need to factor in lost productivity, as well as the costs of idle time for operators when their equipment is stuck in maintenance. When lost profits due to delays in product movement are taken into account, the total financial impact of an old forklift's problems can easily extend into the thousands of dollars... per hour! Keeping spare lifts on hand is not an optimal solution due to the overall increase in operating costs. Neither are quick replacements and rentals. While lower in initial costs, they can create an endless cycle of unplanned maintenance that compounds the negative impact on your business.



*Source: ID Systems

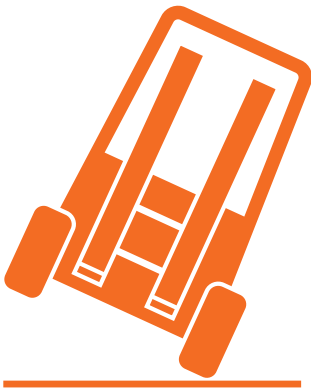
CATASTROPHES, CALAMITIES AND OTHER ASSORTED DISASTERS

Worst-Case Scenarios

An accident or injury on the job due to outdated or poorly maintained equipment is almost always preventable by conducting regular inspections and staying up to date on scheduled maintenance.



EVENTUAL OUTCOMES OF AGING ASSETS



► Accidents

Loose steering, an unbalanced suspension, and compromised stability systems can lead to forklift tip overs, impacts, and other accidents. In addition to injuring operators, this can cause permanent damage to your forklift and create ongoing maintenance issues and downtime that impacts your productivity and profitability.



► Injuries

Injured employees are the absolute worst-case scenario. Loss of limb, mobility, or life are all tremendous burdens for a family to bear. Along with the emotional weight, a business is also impacted by its financial responsibilities to the injured worker and their family.



► Warehouse Damage

In addition to skyrocketing costs due to maintenance, injuries, and lost productivity, a forklift accident can also result in repair costs for racking, loading dock doors, and facilities operations. Furthermore, damage to your customer's goods could cost you their business moving forward.

02



THE ECONOMIC LIFE OF A FORKLIFT



THE TWO LIVES OF A FORKLIFT

Economic Life, Useful Life, and What They Mean to You

There are two different ways to track your forklift's lifespan – **Useful Life** and **Economic Life**.

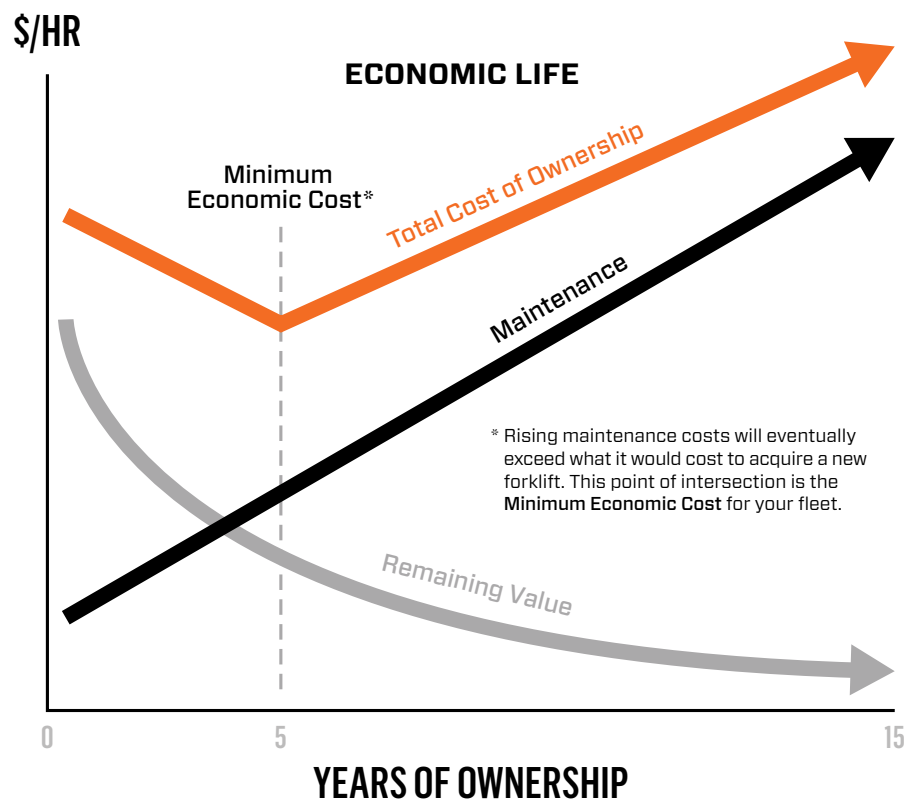
1 USEFUL LIFE

The maximum time your forklift can be used productively. The Useful Life of a forklift ends when no repairs can be done to keep it running.

2 ECONOMIC LIFE

The time span it makes financial sense to maintain your forklift rather than replace it. The Economic Life of a forklift ends when repairs are more expensive than the cost to replace it with a new one.

Approaching your fleet management from the standpoint of maximizing the economic lifespan of your forklifts will maximize your return and minimize your operating costs. You'll avoid the excessive maintenance costs that come with chasing useful life of a forklift.



* Rising maintenance costs will eventually exceed what it would cost to acquire a new forklift. This point of intersection is the Minimum Economic Cost for your fleet.

03



PLANNED REPLACEMENT AND UTILIZATION RATES





BENEFITS OF PLANNED REPLACEMENT

Maximizing the Impact of Your Fleet Budget

Replacing forklifts does not always have to be a stressful experience. In fact, with a little research and foresight, you can look ahead and proactively plan when you will need to replace each vehicle in your fleet.

Under average use, most forklifts will need to be replaced around 10,000 hours of active use. In heavy duty and high-use applications, you should consider replacing your forklifts after 8,000 hours of use.

	HOURS		
	6,000	8,000	10,000
AVERAGE USE			May Need Replacement
HIGH/HEAVY DUTY USE		May Need Replacement	Likely Needs Replacement

EXPERT ASSISTANCE

By budgeting a percentage of the replacement cost over time, the planned replacement of a forklift becomes something to prepare for (and even to look forward to) rather than a stressful surprise. **This tool** can help you determine when your current internal combustion forklifts will need to be replaced.



IS YOUR FLEET WORKING TOO HARD?

Optimizing Fleet Size per Utilization

Does it seem like your forklifts are constantly in need of additional maintenance? Is downtime a continual issue for your fleet? Have you had to replace models much more frequently than you originally projected? Your fleet may be overutilized in your current business approach.

Utilization rate of a forklift fleet can be a major contributor to additional maintenance. As the utilization rate approaches and exceeds 90%, it may indicate that your forklifts are overworked and in need of replacement, or that your fleet requires an additional forklift.

90%

The utilization rate at which your forklifts may be overworked

EXPERT ASSISTANCE

This tool can help you determine when your current forklifts will need to be replaced.

BUYING NEW OR USED?

Different Advantages for Different Needs

If it is time to replace a forklift in your fleet, you may consider buying a used forklift. Buying new and buying used each have their own advantages and disadvantages:



- ▶ You can get the newest model with the newest features
- ▶ You know how well the forklift has been maintained
- ▶ Longer economic lifespan of the forklift
- ▶ You get exactly what you want
- ▶ Comes direct from the factory
- ▶ Genuine parts installed

- ▶ Higher initial cost of acquisition
- ▶ May have to train operators on new features



- ▶ Lower initial cost of acquisition
- ▶ You can negotiate the seller's asking price

- ▶ You will likely not get the newest model
- ▶ Likely a lower economic life due to prior use
- ▶ May have to compromise on desired features
- ▶ May have been leased, then rented, then sold used, depending on residuals
- ▶ Unknown parts and past maintenance

Like purchasing a vehicle, both new and used forklifts have their advantages. But remember, it's much easier to call a cab when your car breaks down than it is to lift 5,000 lbs. up to 20 feet in the air when your forklift breaks down. Consider your needs and decide whether a new or used forklift is right for you.

EXPERT ASSISTANCE

To help make your decision, [this finance calculator](#) will help you estimate monthly payments for financing a new forklift.

04



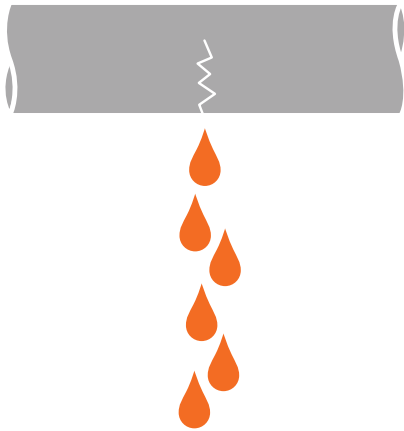
MORE REASONS TO UPGRADE



PUTTING OPERATORS FIRST

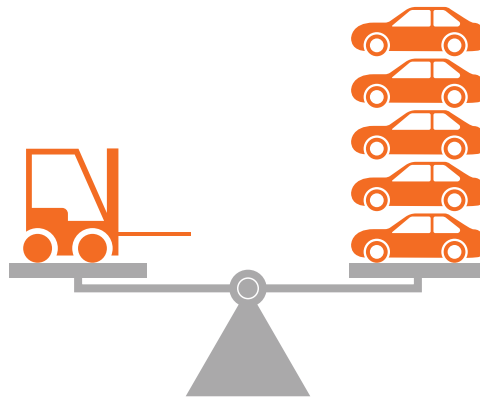
Aging Forklifts and Safety Concerns

Aging forklifts have increased maintenance needs that can quickly rise in cost. Failure to keep up with the necessary maintenance could lead to serious health and safety concerns for your operators. Ask yourself if any of these problems might be impacting your forklift. If the answer is “yes,” it’s probably time to trade for a new model:



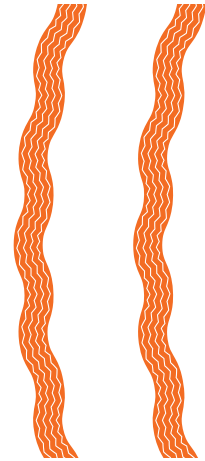
▶ Leaky Hydraulic Systems

Leaky hydraulic systems can lead to uncontrollable mast movement, a serious danger for operators handling heavy payloads.



▶ Malfunctioning Brakes

Did you know your forklift can weigh as much as five cars? Without the stopping power of a functioning brake system, your forklift can turn into a dangerous liability.



▶ Loss of Steering

Steering issues in aging forklifts can lead to increased danger of accidents that can harm both people and product.

IMPROVED TECH, HIGHER STANDARDS

Upgrades Available on Many Forklifts

When you decide to trade your aging forklift for a newer model, standard features and customizable upgrades on many models allow you to handle jobs more efficiently than ever.



► Stability Systems

Toyota forklifts come equipped with stability systems that help reduce instances of forward, backward, and lateral tip overs.



► Ergonomic Design

Operating a forklift can be hard work, especially when operators have to be in uncomfortable positions while using aging equipment. Ergonomic seats and backrests make lengthy material handling tasks physically manageable and come standard on many new Toyota models.



► Speed and Acceleration Control

Limiting the speed and acceleration capabilities of a forklift fleet ensures that operators have the time to make precise decisions that help them avoid accidents. Modern Toyota forklifts offer telematics upgrades that allow for speed and acceleration governing.



► Operator Code Access

Operator code access systems ensure that only qualified associates will be able to use your forklifts. Danger is greatly reduced when forklift tasks are completed by the experts.



T-matics MOBILE and T-Matics COMMAND gather data to help customers and dealers maximize their fleet utilization, control costs, and optimize their operations. The data provided helps manage fleet size, plan maintenance, and more. Learn more about T-Matics [here](#).

05

**APPLYING TOYOTA
PRODUCTION SYSTEMS
TO YOUR FLEET**

KAIZEN YOUR FLEET

Continual Improvement for your Business

The Toyota Production System (TPS) is a world-renowned approach to manufacturing and business that empowers associates to ensure top-quality production. The concept of “Kaizen” is at its center. Kaizen means “continuous improvement” and takes as a given that no process is ever perfect. We can always do better, and Kaizen leads us to do so. You can apply Kaizen to your own fleet by improving its quality when you trade your aging forklifts for new models.



JUST-IN-TIME

What you need, when you need it to increase your bottom line

If Kaizen means “continuous improvement,” how can you improve? The Just-In-Time philosophy means that you get what you need, when you need it to ensure continued top production from your forklifts. You’ll eliminate excess inventory, cost, and waste by owning the best forklifts available. This means avoiding breakdowns and the accompanying downtime. Even if your aging model hasn’t shown signs of mechanical problems, consider what a new forklift can offer your business. You may decide to upgrade Just-In-Time to maximize value.





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