

CROWN



INTEGRITY  
**Parts**  
SYSTEM®



# Wheels and tires

**Crown's expertise  
drives savings,  
safety and  
performance.**

# With Crown, the wheels are turning.

You can count on superior performance at the lowest cost of ownership with Crown lift trucks.

We determine the performance and safety parameters of a lift truck system and bring them together to fulfill your real-world applications.

It's why we offer wheel and tire solutions as part of the Crown Integrity Parts and Service System®

Our expertise helps you select the right wheels and tires for your application. And that keeps your lift trucks running longer and safer at maximum performance levels. When the wheels are turning,

**you're saving with Crown's proven performance advantage.**





# Minimize maintenance and downtime costs.

**Did you know that wheels and tires represent the most frequent maintenance on lift trucks? The frequency also makes this one of the most costly service categories, as much as 50 percent of total equipment maintenance costs on pallet trucks.**

**People often assume that cheaper wheels and tires will solve the problem.** However, a load wheel represents only about half of the true direct costs. Bearings, other associated parts and labor make up the remainder.

Indirect costs also come into play. Operators account for over three-quarters of all lift truck expenses. When the truck is down, they're down, too. The cost of the labor is lost, as well as the value of the work not completed.

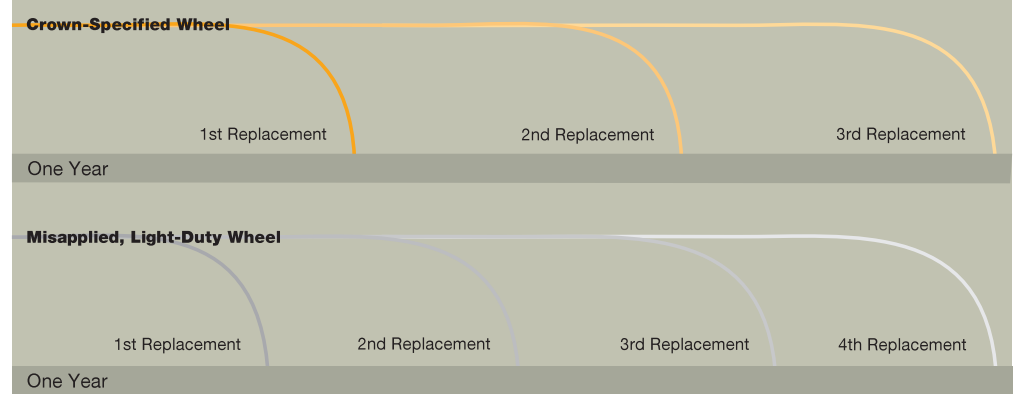
**High frequency of repairs – and associated costs – stems from the fact that wheels and tires are often misapplied for the application, which causes them to wear out and fail too soon.** The key is to match the compound to the application. For example, some compounds perform best on docks and rough floor surfaces. Some are designed to handle longer runs and high speed travel, while others require frequent replacement under these conditions.

Crown's wheel and tire solutions have been carefully selected to match specific application needs and the performance parameters of Crown lift trucks. We eliminate the confusion and mystery and help you determine the best value.

## Frequency of Consumption Comparison

Replacement cost of one wheel and four bearings on a typical pallet truck.

Part	Price (list price of 100462)	Repair Labor and Associated Parts (15 min at \$75/hr plus four bearings)	Operator (Downtime 15 min at \$25/hr)	Cost	x Life Cycle (Sets Replaced Per Year)	Total Cost
<b>Crown-Specified Wheel</b>	\$24.08	\$25.27	\$6.25	\$55.60	x 3	<b>\$166.80</b>
<b>Misapplied, Light-Duty Wheel</b>	\$16.63	\$25.27	\$6.25	\$48.15	x 4	<b>\$192.60</b>



**A less expensive wheel or tire that is incorrectly applied may cost you 15 percent more than the Crown-specified selection when it fails or wears out sooner. Crown selects the best solutions available and matches them to each application to maximize savings, safety and performance.**

# Maximize safety and performance

Repairs are not the only problem caused by misapplying wheels and tires. There's also the risk of selecting wheels and tires that may degrade the safety and performance of your lift trucks. How can you make the choices that will reduce your costs, while improving safety and performance?

**With Crown's selection process, you can determine the appropriate wheel and tire series for your application and use Crown's expertise to choose the optimum compound.** Crown offers

the best solutions from top manufacturers in each series, based on key performance factors. These include evaluation of hubs, bonding, compounds, tread/hub ratio and manufacturing processes.

Crown knows how wheels and tires affect the safety and performance of your Crown lift truck. Through extensive analysis and testing of lateral stability, braking distance, acceleration, loading and other performance criteria, each compound is evaluated to determine how it affects the entire lift truck system.

The results tell us, for example, that when compounds are too hard or too soft they may adversely affect one or more

## Crown Brand

All genuine Crown wheels have an identifier code stamped into the hub and Crown Integrity Parts System® with compound number printed on the wheel.

**Bonding** Consistent, quality processes ensure durability of polyurethane and bonding agent.

## Manufacturing process

Heavy-duty wheels must have tight bearing bores and good overall concentricity for optimum performance. Light-duty wheels require less hub thickness and tolerances.

safety and performance criteria. We use this information to help wheel and tire manufacturers formulate compounds that meet Crown's performance standards.

Crown and its dealer network are committed to helping you improve the overall performance of your Crown lift trucks and ensure the lowest cost of ownership. You can expect responsive, comprehensive service and



**Hub** Because the hub is a heat sink, hub thickness, material, bearing quantity and size all affect performance.

**Compound** Correct polyurethane formulation determines capacity and durability.

**Tread/hub ratio** Proper ratio of tread to hub thickness maximizes wheel/tire life.

solutions, including our helpful three-step evaluation system:

### • Usage Analysis

What is the right amount of wheel and tire usage for your application as it relates to your industry?

### • Failure Analysis

What is the cause of your wheel and tire failures (e.g., overloading, heat failure, bond failure, floor debris damage)?

### • Best Value Benchmarking

Have you established a best value solution for your application through benchmarking and tracking?

These are the answers you need to make the most informed decisions on wheels and tires that ensure the best value. Only Crown has the resources and dealer network to simplify the selection and give you solutions specifically designed for your applications.

# mance.



The selection of high-performance, cost-saving wheels and tires has never been easier. Crown wheel and tire solutions include a variety of compounds and treads, categorized by four performance levels to meet your needs. More important, Crown dealers will help you optimize wheel and tire performance for your specific application needs.

## Crown's Performance Advantage Applications

**100**  
SERIES

**Light Duty** These economical wheels and tires are best suited for light loads and intermittent use. If used in more demanding applications, frequency of replacement costs will adversely impact savings.

**200**  
SERIES

**\* Midrange** The compounds in the 200 Series Midrange wheels and tires are designed to provide higher performance than the 100 Series. They are best suited for light to medium loads and short to medium runs.

**300**  
SERIES

**\* High Capacity** For the typical demands of most applications, 300 Series High Capacity wheels and tires feature compounds designed for high capacities and long runs.

**400**  
SERIES

**Heavy Duty** The most demanding applications will benefit from the compounds formulated for 400 Series Heavy Duty wheels and tires, with maximum performance for maximum capacities and extreme runs.



\* Typically shipped with new Crown lift trucks.

Count on **Crown expertise** to offer superior performance that drives the **lowest cost of ownership.**

# Performance and for your application.

For safety, performance and savings, select wheels that match the specific demands of the application.

Your Crown dealer can help you determine the right solution through Crown's three-step evaluation process.



## Wheels

Wheel Series	Compound Number	Shore A Hardness	Composition	Application Types			
				Wet/Freezer Resistant to Poor Traction	Dock Boards Rough Floors Floor Debris Resistant to Chunking	Heavy Loads Long Runs Resistant to Extreme Heat	Floor Debris Resistant to Flat Spotting
<b>100</b> SERIES Light Duty	These economical 100 Series Light Duty wheel compounds are best suited for light loads and intermittent use.						
	101	93	polyether				
	102	95	polyether				
<b>200</b> SERIES Midrange	The 200 Series Midrange wheel compounds are designed for light to medium loads and short to medium runs.						
	201*	83	polyester	●	●		
	202	83	polyester	●	●		
	203	83	polyester	●	●		
	204	85	polyester	●	●		
	205	87	polyether	●	●		●
<b>300</b> SERIES High Capacity	For the typical demands of most applications, 300 Series High Capacity wheel compounds are designed for high capacities and long runs.						
	301	95	polyether	●	●	●	●
	302*	95	polyester	●	●	●	●
	303	95	polyester	●	●	●	●
	304	95	polyester	●	●	●	●
	305	95	polyether	●	●	●	●
	306	97	polyether	●	●	●	●
<b>400</b> SERIES Heavy Duty	The 400 Series Heavy Duty wheel compounds are designed for maximum capacities and extreme runs.						
	401	93	Vulkollan™	When your application consists of heavy loads, long runs and extreme heat beyond the capabilities of the 300 Series High Capacity wheels, the premium 400 Series Heavy Duty compounds are designed for maximum performance.			
	402	99	polyether				

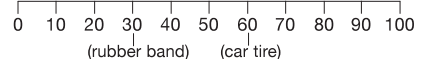
\*Typically shipped with all new Crown lift trucks depending on model.

### Crown Brand

All genuine Crown wheels have an identifier code stamped into the hub and Crown Integrity Parts System® with compound number printed on the wheel.



### Shore A Hardness Scale



Softer compounds are typically more cut and tear resistant and provide a smoother ride. Harder compounds typically provide improved travel speeds, due to less rolling resistance, and generate less heat.

### Polyester vs. Polyether:

These elements of polyurethane chemical composition can be found in each compound series.

**Polyester** – provides greater cut and tear resistance and overall durability.

**Polyether** – provides greater load bearing capacity and heat resistance.

# savings



Application demands also must be considered to achieve the highest levels of safety, performance and savings on lift truck tires. Crown's selection of compounds and treads – chosen from top manufacturers based on Crown's performance standards – are matched to the application.

## Tires

Tire Series	Compound Number	Non-Marking Compound Number	Shore A Hardness	Composition	Application Types				
					Wet/Freezer Resistant to Poor Traction	Dock Boards Rough Floors Floor Debris Resistant to Chunking	Heavy Loads Long Runs Resistant to Extreme Heat	Floor Debris Resistant to Flat Spotting	
<b>100</b> SERIES Light Duty	These economical 100 Series Light Duty tires are best suited for light loads and intermittent use.								
	141	151	91	polyether					
	142	152	93	polyether					
<b>200</b> SERIES Midrange	The 200 Series Midrange tires are designed for light to medium loads and short to medium runs.								
	241	251	87	polyether	●	●			
	242	252	85	polyester	●	●			
	243*	253	83	polyester	●	●		●	
	244	254	83	polyester	●	●		●	
<b>300</b> SERIES High Capacity	For the typical demands of most applications, 300 Series High Capacity tires feature compounds designed for high capacities and long runs.								
	341	351	95	polyester	●	●	●	●	
	342*	352	90	polyester	●	●	●	●	
	343	353	85	polyether	●	●	●		
	344	354	95	polyester	●	●	●	●	
	345	355	90	polyester	●	●	●	●	
	346	356	95	polyester	●	●	●	●	
	347	357	90	polyether	●	●	●	●	
	348	358	95	polyether	●	●	●	●	
	349	359	93	polyester			●	●	
<b>400</b> SERIES Heavy Duty	The 400 Series Heavy Duty tires are designed for maximum capacities and extreme runs.								
	441	451	99	polyether	When your application consists of heavy loads, long runs and extreme heat beyond the capabilities of the 300 Series High Capacity tires, the premium 400 Series Heavy Duty compounds are designed for maximum performance.				
	442		93	Vulkollan™					

\*Typically shipped with all new Crown lift trucks depending on model.

## Treads



**Contour/  
Smooth -01**  
All purpose.



**Center  
Groove -02**  
Dissipates heat  
and provides  
better traction.  
Heavy loads,  
long runs,  
extreme heat.



**22° Router  
Sipe -03**  
Increased  
traction.  
Designed for  
wet/freezer  
application.



**22° Thin  
Sipe -04**  
Increased  
traction.  
Designed for  
wet/freezer  
application.



**Diamond  
Sipe -05**  
Increased  
traction.  
Designed for  
wet/freezer  
application.



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