

TECHNICAL REFERENCE · PRINT & KEEP

Replacement Casters: Bolt Patterns & Retrofit

One-page quick reference · Full engineering guide + live tools at the QR codes below

Quick answer. Match a replacement caster in this order: bolt hole pattern measured center to center, overall mounting height, plate or stem dimensions, then wheel diameter and width. Most industrial top plates use slotted holes, so a 4 x 4-1/2 inch plate with slots spanning 2-5/8 x 3-5/8 to 3 x 3 inches bolts onto most medium-duty equipment. Hold mounting height within 1/16 inch across all positions, then fix whatever killed the original by upgrading capacity, wheel compound, or bearings.

What Are the Standard Caster Bolt Hole Patterns?

Top Plate Size	Bolt Hole Pattern (center to center)	Bolt Size	Typical Capacity Range per Caster
2-3/8 x 3-5/8 in	1-3/4 x 2-7/8 in	1/4 or 5/16 in	100 to 350 lb
3-1/8 x 4-1/8 in	2-1/4 x 3 in, slotted to 2-3/8 x 3-3/8 in	5/16 or 3/8 in	250 to 700 lb
4 x 4-1/2 in	2-5/8 x 3-5/8 in, slotted to 3 x 3 in	3/8 in	300 to 1,250 lb
4-1/2 x 6-1/4 in	2-7/16 x 4-15/16 in, slotted to 3-3/8 x 5-1/4 in	1/2 in	1,000 to 2,500 lb
5-1/4 x 7-1/4 in	3-3/4 x 5-1/4 in	1/2 or 5/8 in	2,000 to 5,000+ lb

When Should You Upgrade Capacity Instead of Matching the Original?

Failure Symptom	Likely Root Cause	Retrofit Fix
Bent yoke or deformed plate	Shock overload: dock transitions, dropped loads	Upsize capacity 50 to 100%; move to a kingpinless raceway
Flat-spotted wheel	Static overload on parked equipment	Harder compound (95A polyurethane, phenolic) or higher rating
Loose, wobbling swivel	Kingpin fatigue from towing or turning under load	Kingpinless swivel section at the same plate size
Tread worn to the core in months	Abrasive debris, overload, or dragging a seized wheel	Larger diameter, tougher tread, verify the wheel spins free
Seized or gritty bearing	Washdown, fines, or debris in an open bearing	Sealed precision ball bearings; stainless rig in wet service



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