

Pallet Crate Floor Fastener Query Sparks Expert Guidance

Engineering Hardware · engineeringhardware.com/news/pallet-crate-floor-fastener-query-sparks-expert-guidance

[Home](#) / [News](#) / Pallet Crate Floor Fastener Query Sparks Expert Guidance

July 31, 2026 · Nigen

Link copied



Selecting the wrong fastener can lead to a floor that fails under load in crates built from reclaimed pallet wood. That operational reality became the focus of a recent query on [Reddit](#) when a beginner woodworker asked what type and size of screw or nail should be used to attach a bottom runner to plank flooring for a crate project. The post, submitted to [r/BeginnerWoodWorking](#), quickly drew advice from the woodworking community, highlighting the practical choices facing anyone working with salvaged pallet timber.

Query Highlights Common Pallet Fastening Dilemma

093 - Phillips Pan Head Self-Tapping Screw — GB/T 845 □ ISO 7049 (Series 032) — GB/T 845 □ ISO 7049

093 - Phillips Pan Head Self-Tapping Screw — GB/T 845 □ ISO 7049 (Series 032) — GB/T 845 □ ISO 7049

The question cut to the heart of a frequent challenge in DIY pallet builds. Reclaimed pallet wood is often inconsistent in density, moisture content, and structural integrity, making fastener selection more nuanced than with new lumber. A bottom runner — the support strip to which floor planks are affixed — must withstand significant shear and withdrawal forces, especially if the crate will be moved or loaded. Community responses underscored that relying solely on wood glue is insufficient for such joints; mechanical fasteners are essential to prevent separation over time.



► Watch video: <https://www.youtube.com/watch?v=DFq0LzoTSjg>

NAILS vs. SCREWS...Which Should You Choose?! (Pros + Cons of Nails And Screws For Your Projects!)— by The Honest Carpenter on YouTubeCheck Out Our FREE GUIDE: *25 Must-Have Carpentry Tools...Under \$25 Each!* <https://www.thehonestcarpenter.com/> AFFILIATEu00a00...

The thread revealed a split between proponents of screws and nails. Some users argued that screws provide superior withdrawal resistance, critical for preventing the floor from pulling away when the crate is lifted. Others favoured nails for their shear strength, which better resists lateral movement typical in a crate that may be slid or rocked. The discussion reflected broader industry understanding: screws excel in pull-out scenarios, while nails are often preferred for their ductility and resistance to snapping under

sudden impacts.

Screws vs. Nails: Woodworking Community Weighs In

Lag Screws (Hex Wood Screws) — DIN 571

Lag Screws (Hex Wood Screws) — DIN 571

A consensus emerged that for this particular application — attaching a runner to plank flooring — construction screws or general-purpose wood screws are a safe and practical choice. Their threads create a mechanical lock within the wood fibres, resisting vibration and loosening. Many responders advised predrilling pilot holes to avoid splitting the often-brittle pallet wood, a step especially important near board ends. This precaution ties directly to proper [Clearance Hole Sizes — ISO 273](#) guidance, which ensures the fastener shank passes through the top piece without biting while the threads anchor securely in the base material.

Nails, though less commonly recommended for the floor joint, were still noted as a viable option when speed of assembly matters. Wire nails, standardised under [Wire Nails — DIN 1151](#), offer consistent dimensions and a smooth shank suitable for non-critical pallet crate applications. However, given the crates likely experience movement and varying humidity, many contributors preferred the reversible, stronger hold of screws.

Size and Type Recommendations

For a typical pallet runner around $\frac{3}{4}$ inch (19 mm) thick, experienced hobbyists suggested #8 or #10 wood screws, with a length of $1\frac{1}{4}$ to $1\frac{1}{2}$ inches (32–38 mm) to ensure enough thread engagement in the flooring planks without protruding through the bottom. Countersunk bugle-head designs sink flush or slightly below the surface, preventing snagging. Where a greater load is anticipated, heavier-duty hex-head wood screws — sometimes referred to as [Lag Screws \(Hex Wood Screws\) — DIN 571](#) — provide higher torque capability and deeper bite, though they demand larger pilot holes.

The thickness of the bottom runner itself dictates whether nails are feasible. If the runner is $\frac{3}{4}$ inch or less, 8d ($2\frac{1}{2}$ -inch) common nails, driven at an angle, may suffice. Regardless of the fastener chosen, end-grain insertion should be avoided; driving into face grain yields the most reliable hold.

The Role of Wood Glue and Fastener Compatibility

Although wood glue can add tremendous strength, it acts primarily as a shear-resisting adhesive between mating surfaces, not as a replacement for mechanical fasteners that resist uplift. In pallet wood, where uneven surfaces and residual moisture can weaken glue bonds, screws or nails are indispensable. The correct sequence — glue applied first, then fasteners driven before the glue sets — ensures a composite joint that outperforms either method alone. Contributors cautioned that visible squeeze-out should be wiped immediately to avoid staining and to preserve the reclaimed aesthetic.

Industry Standards for Fasteners in Wood Construction

While hobbyist builds may not require engineering-grade compliance, referencing established standards helps ensure reliability. Wood screws are commonly produced to ASME B18.6.1 (inch series) or to ISO 1478 which defines head shapes and thread forms. Nails follow standards such as ASTM F1667 for dimension and material. In Europe, wire nails conform to DIN 1151, and timber

screws often adhere to general construction-fastener codes. These specifications guarantee consistent diameter, tensile strength, and corrosion resistance — factors that matter even in low-stakes projects when durability is desired.

Pallet wood frequently contains knots, nail holes, and incipient splits. Industry guidance suggests spacing fasteners at least 50 mm (2 inches) from ends and edges to minimise the risk of breakout. Using fasteners with a protective coating — zinc-plated or stainless steel — prevents rust when crates are stored in damp environments.

Key Takeaways for the Beginner

The Reddit exchange condensed years of hands-on experience into a simple rule of thumb: choose #8 or #10 screws, predrill, and combine with glue for the best outcome. Nails remain a budget-friendly alternative but may loosen over time. By aligning with established fastener standards and best practices, even a first-time pallet crate builder can achieve a floor that holds up under daily use.

Fastener Comparison for Pallet Crate Floor Assembly

Fastener Type	Recommended Size	Key Advantage	Relevant Standard
Wood Screw (countersunk)	#8-#10 × 1¼-1½ in	High withdrawal resistance, reversible	ISO 1478 / ASME B18.6.1
Lag Screw (hex head)	¼-¾ in diameter	Heavy-duty clamping force	DIN 571
Wire Nail	8d (2½ in)	Shear strength, quick installation	DIN 1151 / ASTM F1667
Self-Tapping Screw (not wood-optimised)	Varies	Better suited for metal-to-wood joints	DIN 7976 / ISO 1481

Why This Matters

The discussion underscores how even small DIY projects intersect with broader fastener standards and material science. As reclaimed wood grows in popularity, understanding the right combination of mechanical fastener, sizing, and glue can prevent structural failures, guiding both hobbyists and professionals toward safer, more durable constructions.

Sources

- [Reddit](#) (reddit.com)

Source: [reddit.com: search results – fastener](#)

FAQ

Who and where is involved in this fastener story?

The article identifies the main organisations, people and locations tied to the development. Those named entities are the anchors for following how the story evolves across later coverage.

Is reddit.com: search results - fastener the only source for this fastener story?

reddit.com: search results - fastener is the outlet attached to this item, but it should not be the only reference for an important development. Comparing it with other independent reports gives a fuller and more reliable picture.

What is this fastener story about?

It summarises a recent development in fastener, drawing on the original reporting. The key facts — who is involved, what changed and any figures or dates attached — are highlighted so the story is quick to grasp.

Why does this fastener development matter?

The significance lies in what it signals: a notable figure, a decision, or a shift that affects the people, places or organisations named. Those are the points worth following as the story continues.

How current is this fastener information?

This article was published on July 31, 2026. News changes quickly, so use it as a starting point and check the named source for later corrections, revised figures or follow-up reporting.

Is this fastener report confirmed?

It reflects what the cited reporting stated at the time, which can be preliminary. For anything consequential, comparing two or more independent reports is the most reliable way to confirm the details.

Topics [DIY Fasteners](#) [Nails](#) [Pallet Wood](#) [r/BeginnerWoodWorking](#) [reddit](#) [Screws](#) [Woodworking](#)