

Executive Note: Central Asian rail corridors utilize two distinct track gauges: the Russian Broad Gauge (1520 mm) across Uzbekistan, Turkmenistan, and Northern Afghanistan, and the Standard Gauge (1435 mm) utilized in Iran and connecting to Khaf-Herat. Navigating this interface efficiently is critical to preventing costly dwell times and cargo damage.

Key Rule: Intermodal rail shipments across these hubs must account for mandatory **24–48 hours handling buffers** and equipment transshipment fees in total landed cost calculations.

1. KEY TRANSSHIPMENT & BOGIE EXCHANGE TERMINALS

Sarakhs Terminal (Iran - Turkmenistan) 1435mm ↔ 1520mm Equipped with active bogie-exchange facilities and heavy-lift gantry cranes. Handles broad liquid bulk (tank cars) and containerized cargo between Iranian rail networks and Turkmenistan.	Incheh Borun Gateway (Iran - Turkmenistan) Cross-Dock Hub Primary east-Caspian corridor junction. Focuses heavily on dry bulk cargo and grain cross-docking operations utilizing automated hopper transfer mechanisms.
Hairatan Dry Port (Uzbekistan - Afghanistan) 1520mm Terminal Main northern commercial gateway for bulk commodities, flour, and construction materials into Mazar-i-Sharif. Features high-capacity terminal yards for wagon staging.	Torghundi Gateway (Turkmenistan - Afghanistan) 1520mm Liquid Hub Specialized dry port terminal handling high-volume liquid fuel, petroleum products, and heavy bulk originating from Caspian rail networks.

2. TERMINAL COST & DWELL TIME MATRIX

Terminal Location	Primary Method	Crane & THC (\$/Wagon)	Avg. Dwell Time	Risk Level
Sarakhs	Bogie Exchange / Crane Transshipment	\$120 – \$180	24 – 36 Hours	Low (High Infrastructure)
Incheh Borun	Direct Cross-Docking (Trans-loading)	\$90 – \$140	18 – 30 Hours	Low (Automated Bulk)
Hairatan	Wagon Storage & Truck Trans-loading	\$100 – \$150	36 – 48 Hours	Moderate (Peak Congestion)
Torghundi	Liquid Discharge & Bulk Staging	\$110 – \$160	24 – 40 Hours	Moderate (Pumping Queues)

3. LASHING & CARGO SECURING STANDARDS (OSJD / SMGS RULES)

To prevent structural damage, load shifts, or rejections during heavy gantry crane transfer between broad and standard wagons, cargo must comply with standard Soviet-era (OSJD) securing norms:

- Load Distribution:** Ensure total payload weight is evenly distributed within 60% of the wagon's center floor space to prevent axle tipping during bogie lifts.
- Dunnage & Wood Blocking:** Utilize minimum 50mm hardwood timber blocking nailed to wagon floorboards for heavy machinery, steel coils, and bagged pallets.
- High-Tensile Steel Strapping:** All palletized or bundled cargo must be secured using certified 32mm x 0.8mm steel strapping with double-crimped seals.
- Weatherproof Tarping (Bulk/Bags):** Cover dry bulk or grain loads with UV-resistant heavy-duty PVC tarps secured at 1-meter intervals along bottom tie-rings to withstand high-velocity desert transit.
- Container Twist-Lock Verification:** Inspect corner castings and ensure twist-lock engagement on flatcars prior to release from transshipment yards.

