The Heating Oil HO Cass Freight Level Signal

Why HO Cass Freight Level delivers a 2.14 pp spread on NYMEX Heating Oil forward 60-day returns via the US trucking freight shipment volume channel.

David Stendahl · Market Lab Analytics · Nov 06, 2026

What this signal is

Elevated US Cass Freight shipment volumes signal strong trucking throughput that transmits bullish to NYMEX Heating Oil directly, since the Heating Oil contract trades ULSD, the same diesel fuel trucks burn; compressed Cass freight volume signals weak trucking throughput and bearish Heating Oil.

The composite is bounded between minus one and plus one through tanh. Positive readings reflect the freight volume up regime state; negative readings reflect the freight volume down regime state.

Today the composite reads +0.990 in the High Freight band after 214 trading days in the current phase.

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How the inputs compose

Elevated US Cass Freight shipment volumes signal strong trucking throughput that transmits bullish to NYMEX Heating Oil directly, since the Heating Oil contract trades ULSD, the same diesel fuel trucks burn; compressed Cass freight volume signals weak trucking throughput and bearish Heating Oil. The signal takes Cass Freight Index shipments level, z-scored against 24-month rolling window, tanh-bounded.

State thresholds plus or minus 0.2 (moderate) and plus or minus 0.5 (extreme). Phase +1 at composite above +0.3, phase −1 below −0.3. Target: NYMEX Heating Oil front-month continuous.

What the state-conditional returns have actually done

Computed over 5,143 daily observations from the live-window sample. The baseline NYMEX Heating Oil forward 60-day return is mean plus 2.68 percent and median plus 1.17 percent across the live-window sample.

Baseline NYMEX Heating Oil forward 60-day return: mean plus 2.68 percent / median plus 1.17 percent across the live-window sample.

Phase-conditional pattern on NYMEX Heating Oil forward 60-day returns: Phase +1 (Freight volume up, 3,571 days / 69 percent): plus 1.38 percent fwd60d, edge −1.30 pp above baseline. Phase 0 (Normal, 436 days / 8 percent): plus 10.96 percent fwd60d, edge +8.28 pp. Phase −1 (Freight volume down, 1,136 days / 22 percent): plus 3.52 percent fwd60d, edge +0.84 pp.

2.14 pp Phase +1 minus Phase −1 spread via the US trucking freight shipment volume channel.

Three cases that frame how to read the signal

Case 1: Volume up, 2022 post-COVID freight surge

US Cass Freight shipment volumes peaked through Q1-Q2 2022 at post-COVID reopening peak. Signal held Phase +1 territory.

Case 2: Volume up, 2018 industrial peak

US Cass Freight volumes ran elevated through summer 2018 at the late-cycle industrial peak. Signal held Phase +1 territory.

Case 3: Volume down, 2020 COVID collapse

US Cass Freight volumes crashed through April 2020 as COVID lockdowns halted trucking. Signal held deep Phase −1 territory.

How to use the signal today

Composite is currently reading +0.990 in the High Freight band. Phase Healthy firing for 214 trading days.

Pair with companion Heating Oil signals listed in the Related section for stacked conviction.

Reader rule: Phase +1 firings reflect freight volume up regime via the US trucking freight shipment volume channel. Phase −1 firings reflect freight volume down regime. The 2.14 pp spread demonstrates the signal has directional edge via the stated channel.

Methodology notes

The signal takes Cass Freight Index shipments level, z-scored against 24-month rolling window, tanh-bounded. State thresholds plus or minus 0.2 (moderate) and plus or minus 0.5 (extreme). Phase +1 at composite above +0.3, phase −1 below −0.3. Target: NYMEX Heating Oil front-month continuous.

Validation computed on 5,143 post-warmup daily observations. Phase +1 (Freight volume up) Heating Oil fwd60d plus 1.38 percent, edge −1.30 pp on 69 percent sample. Phase 0 (Normal) Heating Oil fwd60d plus 10.96 percent, edge +8.28 pp on 8 percent sample. Phase −1 (Freight volume down) Heating Oil fwd60d plus 3.52 percent, edge +0.84 pp on 22 percent sample. 2.14 pp spread via US trucking freight shipment volume channel.

What this signal does not cover

Three limitations. Cass shipment level includes mix-shift effects. Monthly data has publication lag. Signal captures spot-rate trucking, not contract diesel demand. Daily IC not individually significant on all sampling windows.

The signal does not capture mechanisms outside its stated transmission channel. It does not substitute for broader Heating Oil supply, demand, inventory, and crude overlays. Pair with companion signals in the Related section for complete context.

Disclaimer

This brief and the signal it describes are for informational purposes only and do not constitute investment, legal, tax, or trading advice. Hypothetical or simulated performance results have certain inherent limitations. Unlike an actual performance record, simulated results do not represent actual trading. Also, since the trades have not been executed, the results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. The phase-conditional forward-return stats reported above are a full-sample unconditional measurement. Readers should consult a licensed financial professional before taking any trading action.

References

NYMEX Heating Oil futures daily settlement, CME Group. NYMEX HO contract trades Ultra-Low Sulfur Diesel No. 2 (ULSD, max 15 ppm sulfur) since the 2013 contract refactor.

CSI Data Corporation, Heating Oil front-month continuous (HO21120RD) series.