Bluebook for Bulldozers — End-to-End Regression Report (RMSLE)

Problem: Predict auction SalePrice (regression).
Data: Kaggle Bluebook for Bulldozers (TrainAndValid.csv, Test.csv).
Metric: RMSLE (primary), plus RMSE/MAE/R².
Split: time-based cutoff 2012-01-01 (no leakage).
Preprocessing: date parsing + time features; drop raw datetime; impute; encode categoricals.
Model: RandomForest baseline + RandomizedSearchCV tuning.
Artifacts: models/model.joblib, models/metrics.json, reports/feature_importance.csv (+ plot).