

HARVEST-007 / REV A

WSEG-36 agricultural gantry concept

STATUS: CONCEPT / UNQUALIFIED. Cost unknown. Patent review not performed. EU conformity not determined.

Source and requirements

Original extraction paragraph references: 257, 3858, 9744

Source proposed span 36 m. Axle loads, terrain, throughput and tool functions unspecified.

Candidate manufacturing route

Fab 3: drive, joint and tooling components

Fab 4: structural frame fabrication

Fab 5: controls, perception and system qualification

Governing models

M20, E51, E52, E53, E54, E55, S10 — see the English formula register; use only within each stated domain.

Critical missing evidence

Structural dynamics, fatigue and soil bearing capacity

Operator/bystander protection and validated control functions

Navigation, sensing, stopping and traction performance

Cost model and missing quotations

$C_{unit} = (\text{materials} + \text{machine/setup} + \text{energy} + \text{labour} + \text{QA} + \text{overhead}) / \text{accepted units}$. Record currency, price date, batch quantity, yield, rework, contingencies and uncertainty. Avoid double-counting costs included in machine rates. No supplier quotes have been obtained.

Frame and drive train

Sensors, compute, tools and energy storage

System integration, testing and maintenance

Patent-review record

Search seed (not executed): autonomous agricultural gantry controlled traffic harvesting mobile portal robot

Required records: jurisdictions, search dates, CPC/IPC classifications, patent families, publication PDFs, independent claims chart, legal status and expiry/lapse review. Product geometry and intended use must be frozen sufficiently for a meaningful review.

Patent publication PDFs are not attached because no product-specific patent search or claims assessment has been performed. This dossier is not a patent, clearance opinion or claim of novelty.

EU and other regulatory applicability

Machinery framework and placing-on-market date

Electrical/EMC and any radio-equipment requirements

Autonomous operation and site procedures require an actual risk assessment

Starting sources: EUR-Lex Regulation (EU) 2023/1230 and Directive 2014/68/EU where relevant; EPO Espacenet and official registers for patent research. Full applicable standards, legal classification and jurisdiction-specific approvals must be verified.

Acceptance and reproducibility

Define the product measurands, test environment, tolerances, calibrated instrumentation, lot traceability and a statistically justified sampling plan. Numerical convergence, manufacturing yield and service reliability are separate criteria. No 99% feasibility or 98% product-equivalence claim is established.

Release gate

Do not treat a proposed route as a toolpath. Complete geometry, material allowables, process qualification, simulation verification, prototype tests, inspection, conformity review and responsible engineering approval before release.