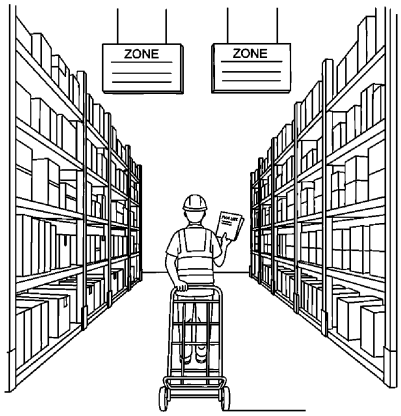
SPECIFIC-CASE

WORKSHEET 9 OF 9

Receiving Dock Bottleneck Worksheet

Scenario: receiving volume has increased to the point where deliveries queue at the dock, goods wait unverified, and the stock card is being updated hours or days after physical receipt. Meanwhile, pickers are being directed to stock they cannot find because location codes have not been assigned yet. The bottleneck at receiving is propagating errors through picking and fulfilment.



Complementary worksheet for
Warehouse Management Essentials
by Ibrahim Anwar

SECTION 1

What This Is For

The receiving dock is where every warehouse problem either starts or gets prevented. When a delivery arrives, verified, recorded, and placed in the right location within 60 minutes, the rest of the warehouse runs on accurate data. When the dock backs up, the damage propagates in four directions simultaneously: pickers are sent to find goods that are physically present but not yet in the system; unlabelled goods wait in temporary staging areas that become permanent; damaged goods get signed in clean because the receiver was overwhelmed; and shrinkage occurs between arrival and recording because goods that are not yet in the system are not yet accountable.

This worksheet maps every step in the receiving process for one week of deliveries — arrival time, verification start, verification end, stock card update, location code assignment. It identifies which step is consuming the most time, whether the delay is a procedure problem or a capacity problem, and what the specific fix is. The distinction between procedure and capacity matters: a procedure fix costs nothing; a capacity fix costs a hire or a reorganisation. This worksheet prevents the wrong diagnosis.

SECTION 2

Benefits

What you get when you actually run this worksheet on a real situation:

- Identifies the single step causing the longest receiving delay — Count, Inspect, Record, or Place — so the fix is targeted rather than general.
- Measures the Arrival-to-Stock-Card gap in minutes, making the recording lag visible as a number rather than a feeling.
- Distinguishes between a procedure problem (fixable without new staff) and a capacity problem (requires a staffing model change) before either diagnosis is assumed.
- Documents the downstream cost of dock delays: pick failures, unlabelled staging stock, and same-day shrinkage that is impossible to trace after the fact.
- Provides the before-and-after measurement needed to confirm that the fix worked — the post-fix worksheet result versus the baseline recorded here.

SECTION 3

Framework To Use

Arrival-to-Placement Time Audit

Five timestamps, one bottleneck. The step with the largest time gap is the target. Everything else is noise until that step is fixed.

1	T1 — Arrival: delivery truck reaches the dock. Clock starts.
▼	
2	T2 — Verification Start: receiver begins counting and inspecting. Gap from T1: waiting time (queue delay).
▼	
3	T3 — Verification End: count and inspection complete. Gap from T2: verification time per delivery.
▼	
4	T4 — Stock Card Updated: entry made in system or paper record. Gap from T3: recording lag.
▼	
5	T5 — Location Code Assigned and goods placed: physical placement at designated code. Gap from T4: placement lag. Total gap T1 to T5: total receiving cycle time. Target: under 90 minutes.

SECTION 4

How To Use

Follow these steps in order. Each one builds on the previous.

1. Run this worksheet for five consecutive receiving days. One row per delivery arrival — not per SKU.
2. Record Delivery Arrival Time the moment the truck reaches the dock, not when the receiver starts work.
3. Record Verification Start Time when the receiver physically begins counting the first item. The gap between Arrival and Verification Start is the queue delay: how long the delivery waited before anyone touched it.
4. Record Verification End Time when counting and inspection are complete and the receiver is ready to sign.
5. Record Stock Card Updated time when the entry is complete in the stock card or ERP — not when the receiver plans to update it.
6. Record Location Code Assigned time when the goods are physically placed at the designated code, not at the nearest available space.
7. Record Deliveries Queued: how many other deliveries were waiting at the dock when this one arrived.
8. For each row, identify the Step Causing Longest Delay from the four candidates: Count (T2 to T3), Inspect (subset of T2–T3), Record (T3 to T4), Place (T4 to T5). Write the specific delay cause in the last column.
9. After five days: average the total T1-to-T5 cycle time per delivery. Identify the step that appears most frequently as the longest delay. That step is the bottleneck. Apply the step-specific fix.

SECTION 5

Example Use

A general merchandise distributor has doubled its vendor count over 18 months. Receiving volume went from 4 deliveries per day to 11. The dock has one receiver. Pickers are routinely sent to retrieve goods that are not in the system yet. Three unfound picks per day on average.

The owner runs the worksheet for one week (Monday–Friday, 5 days, 52 deliveries total).

Average Arrival-to-Stock-Card gap: 137 minutes. Well above the 90-minute threshold. Three days have deliveries where the gap exceeded 180 minutes.

Step Causing Longest Delay distribution:
Count : 6 rows (mostly large multi-SKU deliveries)
Record : 31 rows — consistent, all days
Place : 15 rows

Record step is the bottleneck. Gap from Verification End to Stock Card Updated averages 58 minutes. Investigation: the receiver completes the count and inspection, then sets the delivery aside and enters all transactions in a batch when there is a quiet moment. On high-volume days, that quiet moment does not come until 4 PM, four hours after the first morning deliveries arrived.

This is a procedure problem, not a capacity problem. The receiver has time to enter transactions; they are choosing to batch them for efficiency. The procedure fix: require stock card entry for each delivery immediately after inspection, before the next delivery's count begins. No batching.

Fix implemented May 9. Owner re-runs the worksheet May 12–16.

Post-fix average Arrival-to-Stock-Card gap: 61 minutes. Below the 90-minute threshold. Record step now averages 12 minutes (one delivery at a time, entered immediately). Queue Deliveries column shows one or two per peak periods — manageable.

Unfound picks per day: dropped from 3 to 0.4. The 0.4 are deliveries that arrived in the last 30 minutes of the day and were entered the following morning. Owner decides that is acceptable for non-urgent stock; Fast SKU deliveries are flagged for same-day entry regardless of arrival time.

Estimate of downstream saving: 3 unfound picks per day × $2.80 picker cost per pick × 250 working days = $2,100 per year recovered from a procedure change that cost nothing.

SECTION 6

The Worksheet

Tear this out, copy it onto a fresh sheet, or fill it in directly.

Receiving Dock Bottleneck Worksheet

Scenario: receiving volume has increased to the point where deliveries queue at the dock, goods wait unverified, and the stock card is being updated hours or days after physical receipt. Meanwhile, pickers are being directed to stock they cannot find because location codes have not been assigned yet. The bottleneck at receiving is propagating errors through picking and fulfilment.

DATE	DELIVERY ARRIVAL TIME	VERIFICATION START TIME	VERIFICATION END TIME	STOCK CARD UPDATED BY (TIME)	LOCATION CODE ASSIGNED BY (TIME)	DELIVERIES QUEUED BEFORE THIS ONE	STEP CAUSING LONGEST DELAY (COUNT / INSPECT / RECORD / PLACE)	DELAY CAUSE

SECTION 6 (CONTINUED)

Reflection Prompts

After filling in the worksheet on the previous page, work through these.

1. Total the time gaps between Arrival Time and Stock Card Updated. If the average gap exceeds 90 minutes, the recording lag is large enough to cause pickers to look for goods that are physically present but not yet in the system. Every pick attempted during that gap either fails or results in an ad hoc placement that later becomes an unlabelled stock location — which compounds the problem.

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2. Identify the Step Causing Longest Delay for each row. If it is consistently Count: the verification procedure has too many steps for the available staff — simplify to count-only for low-value SKUs, full inspection for high-value. If it is Record: the recording tool requires too many inputs under load — simplify to the five minimum fields and complete the rest at period end. If it is Place: goods are being set down before location codes are assigned and staff are returning later to place them — change the procedure so location code must be stated before goods are put down.

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3. After fixing the step with the highest delay: re-run this worksheet for the next five receiving days. If the average Arrival-to-Stock-Card gap has dropped below 60 minutes and the queue column is consistently zero, the bottleneck is resolved. If the queue persists, the issue is receiving volume versus staff capacity, not procedure — that is a staffing model question, not a worksheet question.

SECTION 7

Tips and Traps

TIPS

- Record Arrival Time at the dock, not when you notice the truck. The time on the delivery note is often the driver's arrival time; have the receiver mark the actual dock arrival on this sheet separately.
- The Queue column is as important as the gap columns. A short queue and a long gap indicates a procedure problem. A long queue and a short gap per delivery indicates a capacity problem. The combination tells you which fix is appropriate.
- For the Record step bottleneck: simplify the stock card entry to five minimum fields — date, SKU code, location code, quantity in, recorder name — and complete the remaining fields (PO number, condition notes) at period end. The five fields are what matter for stock accuracy; the rest are audit support that can follow.
- Flag Fast SKU deliveries for priority processing. A Fast SKU sitting unrecorded for 90 minutes creates the highest pick-failure risk because Fast SKUs have the highest daily pick frequency. A procedure that prioritises Fast SKU entries reduces unfound picks faster than reducing average cycle time across all deliveries.

TRAPS

- Assuming the bottleneck is capacity before running this worksheet. Most receiving backlogs are procedure problems — batch recording, deferred placement, or a verification step that is too complex for the actual workload. A staffing fix applied to a procedure problem adds a salary without resolving the delay.
- Measuring only the T1-to-T4 gap and ignoring T4 to T5 (location code assignment). Goods that are recorded to the stock card but not yet placed at the correct code are still findable in the system but physically unfindable in the warehouse. Both gaps matter.
- Running the worksheet for only one or two days. One high-volume day may produce a gap that is not representative. Five days includes at least one peak and one quiet day, giving a range that is meaningful for diagnosis.
- Fixing the Step Causing Longest Delay without re-running the worksheet. After the primary bottleneck is fixed, the next step becomes the new bottleneck. The re-run confirms the fix and surfaces the next constraint — if there is one.

SECTION 8

Appendixes

Appendix A — Step-Specific Fix Reference

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Count step is the bottleneck (T2 to T3 largest):
  If due to large multi-SKU deliveries:
    Simplify to count-only for low-value SKUs (< $5 unit cost).
    Full count + inspection for high-value and perishable SKUs only.
    Assign a second staff member to count large deliveries during
    peak periods. This is the only fix that is capacity-based.

Inspect step is the bottleneck (subset of T2–T3):
  If inspection is being done on all items including undamaged cartons:
    Limit inspection to outer carton condition. Open only cartons with
    visible damage indicators. Inner-unit inspection reserved for
    high-value and fragile goods only.

Record step is the bottleneck (T3 to T4 largest):
  Cause is almost always batch recording — entries deferred to later.
    Fix: require stock card entry immediately after each delivery's
    verification, before the next delivery's count begins.
    Minimum 5-field entry: date / SKU / location code / qty / recorder.
    Remaining fields (PO ref, condition notes) within 2 hours.

Place step is the bottleneck (T4 to T5 largest):
  Cause: location code not assigned before goods are put down.
    Fix: receiver states the location code aloud before any goods
    leave the verification area. Goods do not move until a code is
    confirmed. Enforce with a physical "code first" label on the
    dock exit point.
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Appendix B — Downstream Cost of Receiving Delay

Use to quantify the cost of the current average Arrival-to-Stock-Card gap
before presenting the fix to management or a business partner.

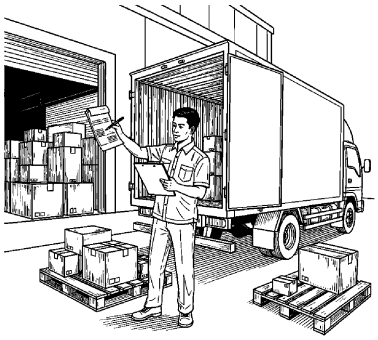
Formula:
  Daily pick failures from receiving lag =
    (number of Fast SKU deliveries per day) ×
    (average lag in hours / warehouse operating hours) ×
    (average daily picks per Fast SKU)

Cost per pick failure:
  = picker travel time to location × picker cost per minute
    + supervisor time to investigate unfound pick
    + time to locate goods in staging area if not yet placed
  Estimate: $2.50–$4.00 per pick failure in an SME warehouse

Example:
  5 Fast SKU deliveries per day
  Average lag: 2.3 hours
  Operating hours: 8
  Average daily picks per Fast SKU: 12

  Daily pick failures = 5 × (2.3/8) × 12 = 17.25 per day
  Monthly = 17.25 × 26 = 448.5 pick failures
  At $3.00 each = $1,345.50 per month

  A procedure fix that costs nothing and reduces the lag from
  2.3 hours to 0.5 hours drops pick failures by 78%:
    Monthly saving: $1,345.50 × 0.78 = $1,049.49 per month



WHERE THIS WORKSHEET COMES FROM

Warehouse Management Essentials

Control What Enters, What Is Stored, and What Leaves Your Warehouse

by Ibrahim Anwar

This worksheet is one of nine in the *Warehouse Management Essentials* companion worksheet pack. The full pack is grouped into three categories: high-volume worksheets you can run weekly, niche-search worksheets for rare but high-value situations, and specific-case worksheets that walk you through a single concrete scenario.

Every framework, decision filter, and figure used in these worksheets is drawn from the chapters of the source book. The book sets the diagnosis, the worksheets give you the form to act on it.

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