

EXAMPLE WORKSHOP PROBLEM-SOLVING GUIDE

Claas Dominator VX: grain loss behind the combine

Dominator 88 VX / 98 VX / 108 VX | Example diagnosis | September 2026

Reported: In a cereal crop, the operator is finding noticeably more grain on the ground behind the combine. The grain tank sample is reasonably clean. The loss appears to increase as forward speed rises. The actual model, crop, settings, header and fitted equipment would be recorded before a personal diagnosis.

What matters first

- Grain behind the machine is a location, not a diagnosis. It may have fallen before harvest, escaped at the header, remained in unthreshed heads, travelled over the walkers, or left with the chaff from the cleaning shoe.
- A clean tank sample does not prove the cleaning system is correctly set: a shoe can reject good grain while still filling the tank with clean grain.
- Do not turn up the fan, tighten the concave or change drum speed until the form and source of the loss have been established.

First-pass sequence

Order	Observe or measure	What the result changes
1	Identify the exact 88/98/108 VX, crop, header and recent setting changes.	Keeps model and crop differences in view.
2	Compare grain in standing crop, just behind the header and behind the machine.	Separates pre-harvest/header loss from internal loss.
3	Sort the lost material: whole heads, loose kernels with straw, or loose kernels with chaff.	Directs attention to threshing, separation or cleaning.
4	Check engine/drum/fan speeds, drives, blockages and returns.	Rules out a slipping drive or overloaded path.
5	Make one measured change, then repeat counts under similar conditions.	Shows whether the change improved the real loss.

Safety: Stop the engine, remove the key, wait for every rotating component to stop and follow the combine support and isolation instructions before opening guards, reaching into the shoe or inspecting belts. Never sample near a moving header or under a raised header without its approved support.

1. How the Dominator VX fits this complaint

The 88 VX, 98 VX and 108 VX are conventional straw-walker combines, with threshing, separation and cleaning paths that can lose grain for different reasons. The workshop manual covers the drum/concave, preparation floor, straw walkers, fan, sieves, returns and their drives; arrangements and settings can vary by model and equipment.

Path	What it does	Fault clue
Header and feeder	Bring crop into the threshing system.	Loose grain or whole heads left at the cut line point upstream.
Drum and concave	Release grain from the heads.	Whole or partly threshed heads in discharged material point here first.
Straw walkers	Separate loose grain from the straw.	Loose kernels carried with the straw suggest overloaded or impaired separation.
Preparation floor / 3-D system if fitted	Feed an even crop mat into the cleaning shoe; side-slope compensation varies with equipment.	A blocked or uneven floor, especially with a slope-related pattern, can overload one side.
Fan and sieves	Lift chaff and allow grain to pass into the clean-grain path.	Loose kernels with chaff, or excessive returns, suggest cleaning/throughput trouble.
Elevators and returns	Move clean grain and recycle incompletely cleaned material.	Overloaded or faulty returns can feed the problem back into the process.

A useful distinction

On a straw-walker combine, unthreshed heads leaving the rear are different evidence from free kernels falling with chaff. The first pushes threshing high on the list; the second pushes the cleaning path high. Free kernels with straw can indicate a separation limit or overload. These are working branches, not final diagnoses.

Model-specific checks

Record whether the machine is an 88 VX, 98 VX or 108 VX, the cutterbar width, whether 3-D cleaning is fitted, and any altered pulleys, fan controls, sieve components or straw chopper. Match the fitted layout before using workshop dimensions or drive settings.

Working inference: A loss that rises sharply with forward speed can be caused by overloading even if all components work. A loss that remains severe at a moderate feed rate suggests settings, wear, blockage or a mechanical drive problem deserves closer inspection.

2. Prove where the grain is being lost

Choose a representative run at steady speed and crop conditions. Note the crop, estimated yield, moisture/condition, ground speed, header width, terrain, drum speed, fan speed and sieve/concave positions. Repeat at several locations; a single patch can mislead.

Sample	What to look for	What it tells you
Standing crop ahead	Loose kernels and fallen heads already present.	Baseline loss that the combine did not cause.
Cut strip before residue discharge	Heads or kernels dropped by header and feeder, compared with the baseline.	A header problem can masquerade as rear-machine loss.
Discharged straw	Whole heads; free kernels tangled in straw.	Threshing or separation branch.
Discharged chaff / behind shoe	Free kernels with light chaff; their distribution.	Cleaning shoe and airflow branch.
Grain tank and returns	Cracked kernels, unthreshed pieces, chaff, unusually heavy returns.	Checks whether adjustments or blocked handling paths are creating recirculation.

Make the comparison fairly

- Use the same measured area and several counts for standing crop, header area and behind the separator. Keep the residue spread pattern in mind: a narrow sample directly behind one wheel does not represent the full cut width.
- If a loss monitor is fitted, use it to observe changes only after comparing with actual field samples. Monitor readings can change with calibration, crop and sensor conditions.
- Take a photograph of each sample and sort the material before changing a setting. Note whether the loss occurs on level ground only, on a side slope, or after prolonged running.

Do not reach under the combine or near straw/chaff discharge while it runs. Where sampling needs access to a guarded area, shut down and isolate the machine according to its instructions. A competent operator can use safe field-loss measurement methods at a fully stopped machine.

Decision after sampling: Mostly heads → page 4. Mostly free kernels with straw → page 4. Mostly free kernels with chaff → page 5. Grain already at the header → correct that loss first.

3. Threshing and straw-walker branch

Unthreshed heads or partly filled heads

Confirm that the crop is entering evenly and that the threshing drive is maintaining the intended speed under load. Check the fitted drum/concave arrangement and their crop settings against the correct operating data. A worn or damaged threshing component, poor feeding or a slipping drive may leave heads only partly threshed.

- If the sample contains mostly unthreshed heads, test a modest crop-appropriate drum/concave adjustment, then compare the result. Do not tighten aggressively: broken grain and excessive straw break-up can shift the loss to the shoe.
- If the tank contains cracked grain or the straw is excessively chopped, do not simply increase threshing intensity. Check for over-threshing and return overload.

Loose kernels carried in discharged straw

If grain has already been released from the head but leaves in straw, consider walker loading or impaired separation. A very heavy feed, damaged or blocked walker sections, obstructed under-walker return path, or a malfunctioning drive can reduce recovery.

- Repeat the field sample at a lower steady ground speed. A substantial improvement suggests throughput is part of the fault, but still inspect for blockage or worn parts if the machine used to handle the same crop at that rate.
- With the combine safely stopped and isolated, inspect walker sections, under-walker return floor and the relevant belt/chain drives using the matching manual procedure.

Observed result	Next check	Do not conclude
Whole heads increase as speed rises	Drum speed under load, concave setting, crop feed and condition.	That the fan needs more speed.
Free kernels in straw even at lower feed	Walkers, under-walker floor, drive, obstruction, damage.	That the concave alone is at fault.
Cracked kernels and fine straw	Excessive threshing, worn or incorrect setup, returns volume.	That tighter concave will cure loss.

Repair threshold: If a drive slips, a walker is damaged, or a shaft/bearing is overheating, stop harvesting and repair it before more trial adjustments.

4. Cleaning shoe, fan and returns branch

If the measured loss is mainly free grain mixed with chaff, the fan/sieve path is the priority. Both insufficient and excessive airflow can produce grain behind a combine. First inspect whether the shoe receives material evenly and whether the fan actually reaches its selected speed.

Evidence	Possible mechanism	Targeted check
Chaff mat covers the upper sieve	Airflow too low, fan drive slipping, sieve too narrow, or heavy over-threshed straw load.	Inspect fan drive and ducts, measure speed, inspect sieve and preparation floor; compare crop settings.
Clean kernels leave with light chaff	Airflow may be excessive or sieve presentation may be wrong.	Compare fan speed and sieve opening with the crop setting; change one item and resample.
Returns are unusually heavy	Upper/lower sieve setup or recirculation bottleneck can overload threshing and shoe.	Inspect returns path, elevator/chain and crop sample; do not close sieves blindly.
Loss concentrates on one side or on slopes	Uneven feed or cleaning distribution; 3-D mechanism if fitted.	Check preparation floor, side seals, sieve condition and fitted 3-D linkage per manual.
Fan setting changes but actual speed does not	Variable-drive, belt, adjustment motor or control issue.	Inspect mechanical drive and relevant electrical actuation before further settings.

Inspect before adjusting

- With all parts stopped and guards managed correctly, remove built-up crop material from the preparation floor, sieves and fan intake; inspect for bent slats, cracked frames, loose seals and obstruction.
- Check the fan drive belt and variable-speed mechanism. The 88/98 VX and 108 VX arrangements can differ, so use the correct model section when checking tension and setting dimensions.
- Check that returns and clean-grain elevators move freely and are not overloaded or obstructed. Heavy returns can create a feedback loop that makes an otherwise small setting fault look severe.

Use the operating information for starting crop settings and the workshop manual for drive repair, component adjustment and test procedures. No universal fan RPM or sieve opening is safe for every crop or fitted VX arrangement.

5. Controlled test and decision record

Work on the highest-evidence branch first. Recreate the run at the same crop and a similar ground speed. Alter one variable at a time, record the before/after result and reverse a change that increases loss or damages grain.

If the evidence shows	First controlled action	Escalation if unchanged
Header/standing-crop loss dominates	Address pre-harvest or cutterbar/reel/feed cause.	Recount before touching the rear of the machine.
Heads behind machine	Verify actual threshing speed, crop feed and fitted concave; adjust within the crop procedure.	Inspect drum, concave and drive condition.
Loose grain in straw	Reduce feed rate for a comparison run.	Inspect walkers, return floor and their drive.
Loose grain in chaff	Inspect shoe/fan/returns; compare actual fan speed and crop setting.	Repair drive or damaged sieve, then retest.
Loss appears mainly on side slope	Record direction, gradient, fitted 3-D equipment and side of loss.	Inspect distribution/3-D mechanism and seals per model manual.

Record the case before buying parts

Machine and crop	Field test	Internal observations
VX model, serial, cutterbar width, fitted 3-D system and chopper.	Crop, moisture/condition, terrain, estimated yield, speed and cut width.	Drum/fan speeds under load, sieve/concave settings, drive/belt condition.
Recent repairs, belt changes, sieve work or altered settings.	Counts at standing crop, header and discharge; photos of sorted samples.	Head/kernel/chaff balance, tank sample, returns load and any overheating.

Decision: If one measured change reduces the relevant loss without excessive cracked grain or dirty sample, document the setting and repeat in a second part of the field. If loss stays high at modest throughput, inspect and repair the demonstrated mechanical or drive fault before increasing crop feed.

6. Workshop information and next steps

The field observations tell you which system to investigate. Repair and setting work then needs the procedures for the actual machine and equipment fitted. That is where the Claas workshop manual is valuable.

Recommended Agrimanual manual

Claas Dominator 88VX 98VX 108VX Combine Service Repair Manual - 1,044 pages

This is the Agrimanual listing selected for this example. It covers the three VX models and includes workshop information for threshing, straw walkers, preparation floor, cleaning fan and sieves, drives, grain handling, testing and adjustment. Verify the machine identification and the relevant section before using any dimensions or procedures.

[View the Claas Dominator VX Service Repair Manual on Agrimanual](#)

If this were your machine

A personal Workshop Problem-Solving Guide would use your exact VX model, serial if known, crop, header and equipment, plus your measurements and previous checks. The report would rank likely causes from that evidence and give an ordered next-test plan. It would not declare a failed component from the rear-field symptom alone.

Send with a request	Why it helps
Model and serial; crop and header; whether 3-D cleaning and a straw chopper are fitted.	Matches the relevant machine and residue pattern.
When loss appears: crop condition, speed, level field or side slope.	Distinguishes throughput and distribution effects.
Photos of standing/header/rear samples, showing heads, straw and chaff separately.	Separates the loss branches.
Settings, monitor changes, tank sample, returns and what has already been checked.	Prevents repeated guesses and unnecessary replacements.

Need help with your exact machine and problem? Request a personal Workshop Problem-Solving Guide through Workshop Agrimanual. Tell us the machine, the symptom, when it happens and what you have already checked. This is an example of the diagnostic approach; it is not a confirmed diagnosis of any individual combine.

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