PRINTABLE REFERENCE CHART

BOM accuracy: measurement, errors and checks

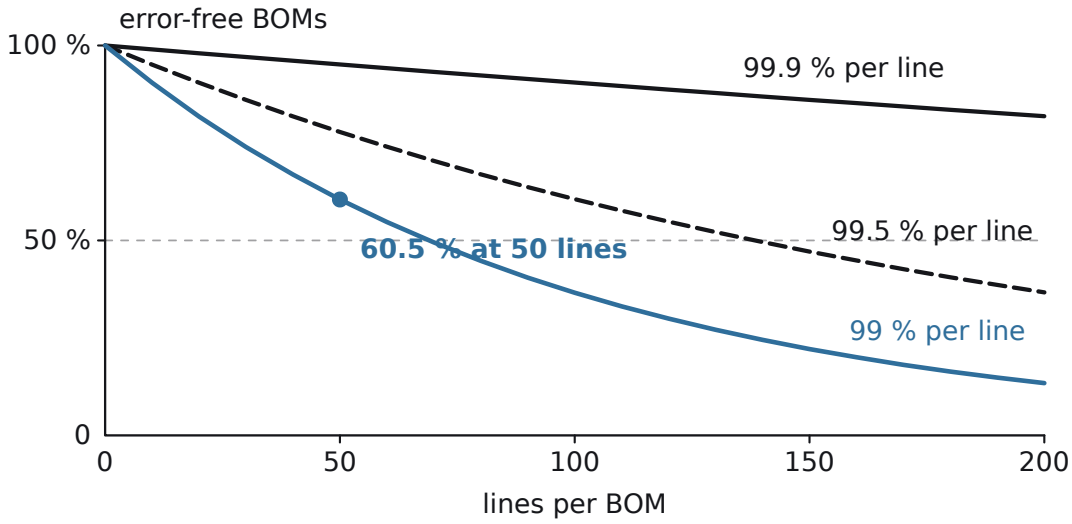
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1. Measuring BOM accuracy: two rates not to be confused

A BOM is accurate when it describes exactly what gets built: the right items, in the right quantity, in the right unit, at the current revision, under the right parent. It is checked on a sample, against reality: the assembled product, the kit picked by the warehouse, a torn-down part. Two ways of counting the result coexist, and an accuracy figure means nothing until you know which of the two it is.

Rate	Formula	Example: 40 BOMs, 1,200 lines
Per BOM	BOMs with no error / BOMs checked	31 / 40 = **77.5 %**
Per line	correct lines / lines checked	1,186 / 1,200 = **98.8 %**
Expected if errors were independent	(per-line accuracy)$^{\text{lines per BOM}}$	0.9883^{30} = 70.3 %

The per-BOM rate is the right management indicator; the per-line rate helps locate errors. In the example, the measured per-BOM rate (77.5 %) is better than expected (70.3 %): errors cluster on a few BOMs, often the most recently changed ones, and that is where to look.



3. The 7 most common BOM errors

BOM (system)	At assembly
1002 M8 screw × 26	✓ correct
1003 Ø 100 wheel × 4	wrong item (Ø 125)
1004 Plate × 2	wrong quantity (4)
— (no line)	missing item (rivets × 2)
1009 Spacer × 1	extra item (removed)
1005 Ø 25 tube × 1 m	wrong unit (1 piece)
1008 Handwheel rev. B	outdated revision (rev. C)

Error	Where it shows	Frequent cause
1. Wrong item	Kit, assembly	Re-keying, similar parts poorly numbered

Error	Where it shows	Frequent cause
2. Wrong quantity	Assembly, shortages, overstock	Quantity per parent confused with total quantity
3. Missing item	Assembly stopped	Part not modelled (fasteners, rivets, labels)
4. Extra item	Dead stock, wrong cost	Change not carried over
5. Wrong unit	Stocktaking, purchasing	Pieces and metres, kg and g mixed between CAD and ERP
6. Outdated revision	Quality, recall	Change without a change order or effective date
7. Wrong parent	Assembly station, routing	Structure edited by hand, sub-assembly moved

Reference values taken from the article https://www.baouch.fr/en/blog/fiabilite-nomenclature-bom-accuracy/, which explains the assumptions, formulas and edge cases. For critical use, check the current standard or the manufacturer's documentation. Free to print and share with credit to the source.