

Drill Collar Failure Map and How to Control It

This failure map links common drill collar field risks with practical control points and the evidence that can close the risk before shipment release. It is designed for product-page use, technical PDF sharing and receiving-inspection communication.

Field Risk	Possible Cause	Control Point	Evidence to Request
Thread makeup problem	Incorrect thread form, shoulder damage, poor surface condition	Thread gauge inspection, shoulder face review, protector before shipment	Thread inspection record, photos
Collar body cracking	Improper hardness, surface defect, stress concentration	Heat treatment control, hardness test, MPI / UT if required	MTC, hardness report, NDT report
Wrong BHA compatibility	Wrong OD, ID, length or connection	PO review before production and final dimensional inspection	Approved drawing, dimensional report
Magnetic interference	Magnetic collar used near survey tools	Non-magnetic material selection and magnetic property review	Material certificate, inspection record
Receiving mismatch	Mixed heat number, wrong marking, incomplete documents	Marking and packing list matched to heat / lot	Marking photos, packing list, MTC
Transport damage	Exposed threads, poor bundle support	Thread protector, rust prevention, proper packing	Packing photos, shipment release record

Traceability logic: Marking - Heat number - MTC - Heat treatment / hardness record - Thread inspection - NDT report - Dimensional report - Packing list - Shipment release.