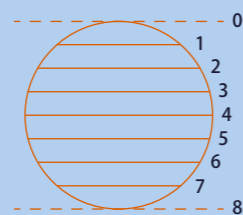


IADC Dull Grading

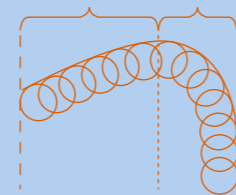
Cutting Structures				B	G	Remarks	
Outer Rows	Outer Rows	Dull Characteristics	Location	Bearings/ Seal	Under Gauge (1/16)	Other Dull Characteristics	Reason Pulled
1	2	3	4	"X" for fixed cutter bits	6	7	8

- INNER ROWS:** For fixed cutter bits, use the inner 2/3 of the bit radius as inner rows.
- OUTER ROWS:** For fixed cutter bits, use the outer 1/3 of the bit radius as outer rows.

DEGREES OF CUTTER WEAR



Inner 2/3 Radius Outer 1/3 Radius



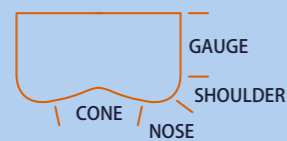
- DULL CHARACTERISTICS/**
 - OTHER DULL CHARACTERISTICS**
- BF - Bond Failure
BT - Broken Teeth/Cutters
BU - Balled Up
CR - Cored

- CT - Chipped Teeth/Cutters
DL - Cutter Delamination
ER - Erosion
FC - Flat Crested Wear
HC - Heat Checking
JD - Junk Damage
LM - Lost Matrix
LN - Lost Nozzle
LT - Lost Teeth/Cutters

- NO - No Dull Characteristic
NR - Not Rerunable
PN - Plugged Nozzle
RO - Ring Out
RR - Re-runnable
SP - Spalled cutters
WO - Washed Out Bit
WT - Worn Teeth/Cutters

- LOCATION:**

- C = Cone
N = Nose
S = Shoulder
G = Gage
A = All Areas



- GAGE:**

In	In gage	In	In gage
1	1/16" under gage	5	5/16" under gage
2	2/16" under gage	6	6/16" under gage
3	3/16" under gage	7	7/16" under gage
4	4/16" under gage

- REASON PULLED**

- BHA - Change Bottom Hole Assembly
CM - Condition Mud
CP - Core Point
DMF - Downhole Motor Failure
DP - Drill Plug

- DSF - Drill String Failure
DST - Drill Stem Test
DTF - Downhole Tool Failure
FM - Formation Change
HP - Hole Problems
HR - Hours on Bit
LIH - Left in Hole
LOG - Run Logs

- PP - Pump Pressure
PR - Penetration Rate
RIG - Rig Repair
TD - Total Depth / Casing Depth
TQ - Torque
TW - Twist Off
WC - Weather Conditions
WO - Washout in Drill String

HSE Statement

Site safety starts here



Site speed limit



No admittance for unauthorised personnel



All staff must report to site office



Heavy machinery operating onsite



Full body, high visibility clothing must be worn



Protective boots must be worn



Safety glasses must be worn



Protective gloves must be worn

As a world class bit company providing service in approximately 14 countries, DEEPBIT number one priority is to offer safe and superior products and services. We promote safety and environmental principles by working together to protect our employees, customers, communities, and the environment from harm.

Chengdu Deep believes safety is everyone's business. That is why every person at every worldwide DEEPBIT location makes safety awareness the number one priority. Every member of every team is tasked with taking personal ownership of his or her own safety and the safety of others.

Our goal is to keep our people (and the environments in which they work) safe and healthy. For this reason, we put policies and procedures in place to make sure that adherence to proper safety practices is a 24/7 commitment on everyone's part.