



HDD FIXED-CUTTER REAMING TOOLING

PDC Reamer Inspection Checklist

Printable identification, receiving, pre-use, post-run and disposition record for ten drawing-controlled models.

Document scope Inspection checklist. Use approved acceptance limits from the controlled drawing, customer specification or engineering disposition.

Model	Drawing	OD	Overall length	Connection	Nozzles
PDC Reamer 7-5-13D	D260318B-1	177.8 mm	389 mm	2-7/8 API REG BOX, both ends	7 x 8 mm (5 front + 2 back)
PDC Reamer 8-5-13	D260314B	203.2 mm	427.9 mm	2-7/8 API REG BOX, both ends	8 x 8 mm (5 front + 3 back)
PDC Reamer 9-5-13D	D260318B-2	228.6 mm	434.5 mm	2-7/8 API REG BOX, both ends	8 x 8 mm (5 front + 3 back)
PDC Reamer 10-5-13	D260314B-2	254 mm	455 mm	2-7/8 API REG BOX, both ends	8 x 8 mm (5 front + 3 back)
PDC Reamer 12-5-13D	D260314B-3	304.8 mm	495 mm	2-7/8 API REG BOX, both ends	8 x 8 mm (5 front + 3 back)
PDC Reamer 14-6-16D	D260314B-4	355.6 mm	914.9 mm	2-7/8 API REG BOX, both ends	12 x 8 mm (9 front + 3 back)
PDC Reamer 16-6-16D	D260314B-5	408 mm	940.9 mm	2-7/8 API REG BOX, both ends	12 x 8 mm (9 front + 3 back)
PDC Reamer 18-6-16D	D260318B-3	457.2 mm	964.9 mm	2-7/8 API REG BOX, both ends	12 x 8 mm (6 front + 6 back)
PDC Reamer 24-6-16D	D260819B-2	609.6 mm	1210 +/- 10 mm	4-1/2 IF BOX, both ends	15 x 10 mm (12 front + 3 back)
PDC Reamer 30-6-16D	D260820B-7	762 mm	1340 +/- 10 mm	4-1/2 IF BOX, both ends	24 x 14 mm (18 front + 6 back)

What the drawings verify

OD, overall length, connections, cutter references, nozzle arrangement and identified body features.

What the project must approve

Formation suitability, staging, rig compatibility, makeup procedure, operating limits and hydraulic plan.

Four-step document use

1 Identify	2 Match	3 Verify	4 Approve
Confirm model and drawing.	Compare the bore, rig and connection.	Inspect the delivered configuration.	Release only under the project plan.

Controlled-use notice: Verify the current drawing, delivered configuration and project approval before use. The supplied drawings do not state weight or universal torque, rotary speed, thrust, pullback, flow or pressure limits.



A. Identification and traceability

Customer / project	_____
Date / location	_____
Inspector	_____
Model / nominal size	_____
Drawing / revision	_____
Serial / batch reference	_____
Rig / reaming stage	_____
Bore interval / hours	_____

Select the configuration

☐ PDC Reamer 7-5-13D D260318B-1	☐ PDC Reamer 8-5-13 D260314B
☐ PDC Reamer 9-5-13D D260318B-2	☐ PDC Reamer 10-5-13 D260314B-2
☐ PDC Reamer 12-5-13D D260314B-3	☐ PDC Reamer 14-6-16D D260314B-4
☐ PDC Reamer 16-6-16D D260314B-5	☐ PDC Reamer 18-6-16D D260318B-3
☐ PDC Reamer 24-6-16D D260819B-2	☐ PDC Reamer 30-6-16D D260820B-7

Status key

PASS | REVIEW / REPAIR | REJECT | N/A | NOT VERIFIED. Record measurements, photographs and references for every non-pass item.

Drawing data to verify

Model	Drawing	OD	Overall length	Connection	Nozzles
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B. Receiving and pre-use inspection

Identification and delivery

- ☐ Product and drawing identification match the purchase order. Status: _____ Notes: _____
- ☐ Current revision and traceability are legible. Status: _____ Notes: _____
- ☐ Shipping condition and packaging are documented with photographs. Status: _____ Notes: _____



Body and cutting structure

[] No visible crack, deformation, washout or unauthorized repair. Status: _____ Notes: _____

[] All specified cutter positions are occupied; no loose, rotated, cracked or severely chipped cutter. Status: _____ Notes: _____

[] Gauge protection, round cutters and hardfacing are present where shown. Status: _____ Notes: _____

[] Blade surfaces and fluid passages are clean and visibly serviceable. Status: _____ Notes: _____

Nozzles and hydraulics

[] Nozzle count and size match the approved drawing/hydraulic plan. Status: _____ Notes: _____

[] Nozzles are secure, unobstructed and undamaged. Status: _____ Notes: _____

[] Internal passages show no visible blockage or erosion. Status: _____ Notes: _____

Connections

[] Both connection types match the approved assembly. Status: _____ Notes: _____

[] Threads show no galling, corrosion, cross-threading, contamination or impact. Status: _____ Notes: _____

[] Shoulders/contact surfaces are clean and undamaged. Status: _____ Notes: _____

[] Connection protection is ready for storage and transport. Status: _____ Notes: _____

Pre-use release

Do not install when identification is uncertain or when a cutter, body, nozzle, fluid passage, thread or shoulder requires engineering disposition.

C. Post-run inspection and measurements

[] Operating record and abnormal events attached or referenced. Status: _____

[] Reamer cleaned sufficiently for inspection without cutter or thread damage. Status: _____

[] All blades and cutter rows inspected around the full circumference. Status: _____

[] Cutter wear pattern photographed; uneven wear locations identified. Status: _____

[] No missing, loose, rotated, cracked or severely chipped cutter observed. Status: _____

[] Gauge/OD condition compared with approved acceptance criteria. Status: _____

[] Body, blade and hardfacing inspected for erosion, washout, cracking and impact. Status: _____

[] Nozzles and passages inspected for blockage, erosion, retention and damage. Status: _____

[] Both connections inspected after disassembly. Status: _____

[] Cleaning, preservation and connection protection completed. Status: _____

Inspection point	Drawing / criterion	Measured / observed	Status
Outside diameter / gauge			
Overall length if required			
Nozzle count and diameter			
Cutter count / condition			
Body, blade and hardfacing			
Front connection			
Rear connection			
Other			



D. Disposition, evidence and release

Disposition

- ☐ ACCEPTED FOR SERVICE - applicable criteria met.
- ☐ CONDITIONAL RELEASE - restrictions and engineering approval attached.
- ☐ REVIEW / REPAIR REQUIRED - quarantined pending approved instruction.
- ☐ REJECTED - not approved for service; disposition record required.

Evidence package

- ☐ Overall identification photographs
- ☐ Front and rear cutting-structure photographs
- ☐ Close-ups of non-pass cutter/body/nozzle conditions
- ☐ Both connection photographs
- ☐ Measurement record
- ☐ Operating/event record
- ☐ Engineering or repair authorization, when applicable

Sign-off

Inspector / signature / date	
Reviewer / signature / date	
Disposition reference	
Restrictions / comments	

Nonconformance / repair review record

Item / location	Observed condition	Required action / authority	Close-out

Acceptance control

This checklist records visible and measured condition. Final acceptance limits must come from the controlled drawing, approved inspection procedure, customer requirement or written engineering disposition.