

PDC REAMER SAFETY & HANDLING GUIDE

Minimum precautions for lifting, assembly, operation, transport, inspection and storage.

WARNING

PDC reamers are heavy tools with sharp cutting elements, pinch points and stored-energy hazards. Only trained and authorized personnel may handle or operate them.

REQUIRED CONTROLS

PPE

Wear safety glasses or face protection, cut-resistant gloves, safety footwear and a hard hat. Add hearing, welding and respiratory protection when required by the task and site assessment.

EXCLUSION ZONE

Keep personnel clear of suspended loads, rotating components, pinch points and the line of fire. Never place hands between the tool and mating component.

PRESSURE

Depressurize and verify zero pressure before opening any fluid connection or removing a nozzle. Treat blocked passages as stored-energy hazards.

LIFTING

Determine actual tool weight and center of gravity before lifting. Use rated lifting equipment and approved attachment points. The supplied drawings do not state weight.

LOCKOUT

Isolate and verify all energy sources before inspection, nozzle work, cleaning, connection work or maintenance.

SHARP SURFACES

Do not grip or lift by PDC cutters, gauge elements or nozzles. Protect cutters from impact and protect personnel from edges and points.

SAFE HANDLING SEQUENCE

Step	Action	Comments
1	Plan	Confirm weight, route, destination, lifting method, personnel and exclusion zone.
2	Inspect	Inspect lifting gear, tool condition, securement points and the intended cradle or rack.
3	Lift	Lift smoothly, control swing with approved methods and keep all personnel out from under the load.
4	Position	Use a stable support. Prevent rolling, tipping and uncontrolled rotation.
5	Secure	Chock, restrain and fit thread/cutter protection before transport or storage.

SAFETY GUIDE | TASK CONTROLS

TASK-SPECIFIC SAFETY

Apply the site risk assessment and approved procedures in addition to these minimum controls.

Task	Minimum Controls
Assembly and connection	Support both components, align before engagement, keep hands clear and use approved tooling. Do not force damaged or incompatible threads.
Nozzle work	Lock out, depressurize, clean the work area and use correct tools. Confirm nozzle count, diameter and position against the approved drawing.
Rig operation	Maintain communication between operator and ground crew. Keep personnel outside the rotating and pullback hazard zone.
Hot work or repair	Use an approved repair procedure, hot-work permit and suitable fire controls. Protect cutters and seals from heat where applicable.
Cleaning	Secure the tool before cleaning. Control high-pressure wash, debris, chemicals and runoff. Never direct pressure toward personnel.
Inspection	Use adequate lighting and stable supports. Do not inspect rotating, suspended or pressurized equipment.

TRANSPORT AND STORAGE

Item	Minimum Control
1	Fit clean thread protectors to both 2-7/8 API REG BOX connections.
2	Use a cradle, rack or blocked pallet that prevents rolling, tipping and cutter impact.
3	Restrain the tool for transport in accordance with load-securement requirements.
4	Keep the tool clean and dry. Apply approved corrosion protection to exposed steel and threads.
5	Separate tools so cutters and gauge elements cannot strike adjacent equipment.
6	Label quarantined or damaged tools and prevent unintended use.

INCIDENT OR ABNORMAL CONDITION

Item	Minimum Control	Minimum Control
■	Stop work and isolate the hazard.	
■	Do not approach suspended, rotating, pressurized or unstable equipment.	
■	Follow the site emergency plan and notify the responsible supervisor.	
■	Quarantine the tool after impact, overload, abnormal vibration, connection damage or suspected structural failure.	
■	Document the event and obtain technical review before reuse.	

LIMITATION

This guide provides general minimum precautions. It does not replace local regulations, employer procedures, risk assessments, lifting plans, rig manuals, product drawings or competent-person approval.