



CANRIG DRILLING TECHNOLOGY LTD

PRODUCT BULLETIN NUMBER: 45

DATE: April 22, 1998

SUBJECT: Correct Assembly of Top Drive Components

SERIAL NUMBERS: All

DISCUSSION: After repairs or inspections, all capscrews must be installed to original Canrig specifications. Failure to do so could result in capscrews or objects coming loose and falling free.

- RECOMMENDATION:**
1. All capscrews or fasteners permanently installed shall be coated with Loctite 242 or equivalent. The capscrew threads and mating thread shall be free of all dirt, oil, and grease. Prior to Loctite applications solvents may be used to clean threads.
 2. All capscrews or fasteners that require periodic loosening to facilitate adjustment of components (tool joint clamps, link tilt clamps, guide rails, etc) should be coated with Antiseize Thread Compound 767 or equivalent.
 3. All capscrews should be torqued to the proper specifications with a torque wrench. See attachment for torque values.
 4. Anti-vibration tooth lock washers shall be installed with all capscrews where ever possible.
Internal types are preferred.
 5. Any capscrew that is drilled for wire shall be wired to its partners. If these capscrews are replaced, they shall be replaced with capscrews drilled to accept wire. They should be wired with 12 Gauge Lockwire or 1/16" diameter 7x7 stainless steel wire rope and crimped.

Any safety cables removed to facilitate repairs must be installed prior to operation of the top drive.

INFORMATION:

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Capcrew Torque Values

(Apr 20, 1998)

All capscrows and bolts used on a Canrig Top Drive meet or exceed ASTM Gr. 8 specifications. These must be torqued to the values shown on the assembly drawings or to the following values:

- All capscrow or fasteners permanently installed must be coated with Loctite 242 Threadlocker or equivalent after insuring that the capscrow threads and mating threads are free of all dirt, oil, and grease. This is a medium strength threadlocker that prevents rusting of threads and helps prevent loosening due to vibration. This threadlock can be sheared by normal hand tools.
- All capscrow or fasteners that require to be loosened periodically to facilitate adjustment of components (tool joint clamps, link tilt clamps, guide rails, etc.) should be coated with anti-seize thread compound 767 or equivalent.
- When using capscrows with locknuts, use only Grade C Stover locknuts or equivalent. These can be identified visually by eight raised dots. These are re-usable, but after repeated removal and installation new nuts are recommended.

Size	Hex Head Capscrow Socket Head Capscrow		Plated Bolts or Machined		Flat Head Capscrows Button Head Capscrows	
	Torque ft/lb	Torque N/m	Torque ft/lb	Torque N/m	Torque ft/lb	Torque N/m
1/4	11	15	8	11	8	11
5/16	23	31	17	23	16	21
3/8	40	54	30	39	26	34
7/16	65	88	49	64	42	55
1/2	99	134	74	97	63	82
9/16	159	216	119	156	101	133
5/8	198	268	149	194	126	165
3/4	350	475	263	343	230	292
7/8	566	767	425	556	360	472
1	848	1150	636	833	540	707
1 1/8	1245	1688	934	1222	792	1037
1 1/4	1750	2373	1313	1718	1114	1458