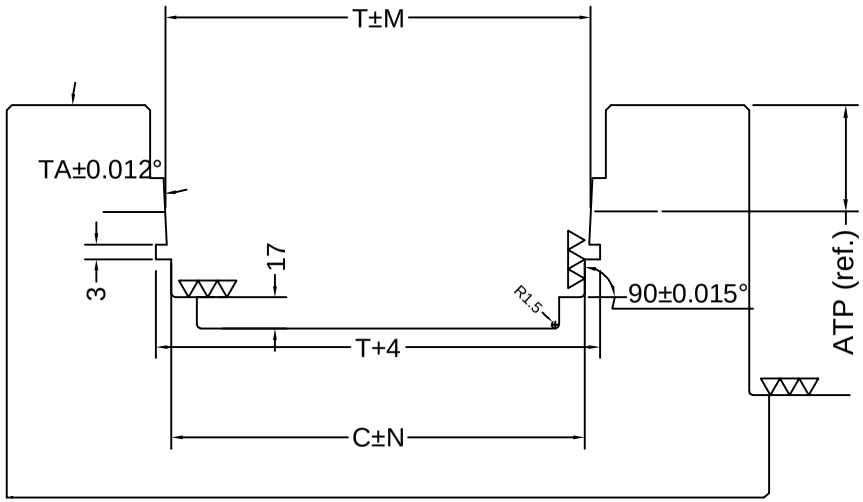

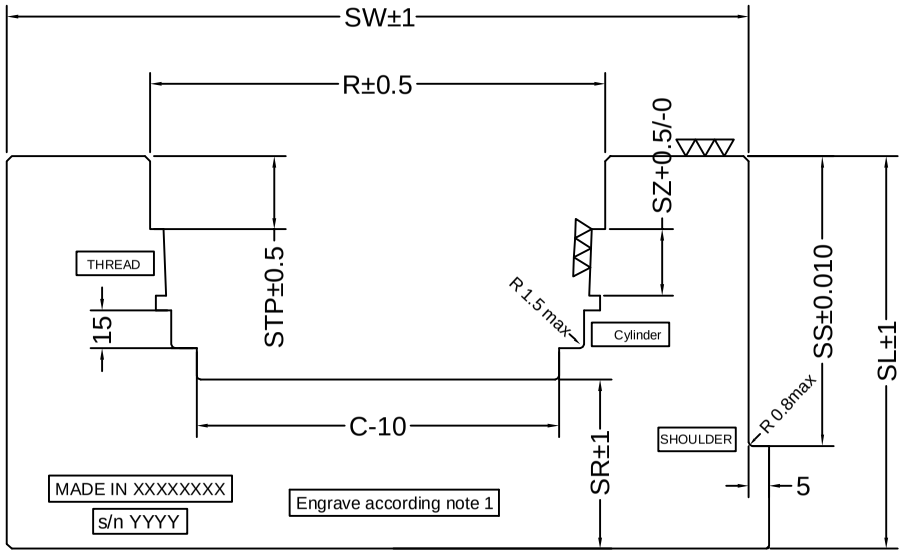

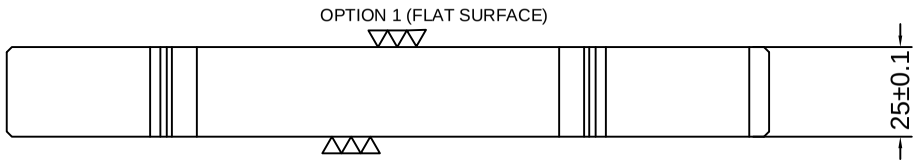

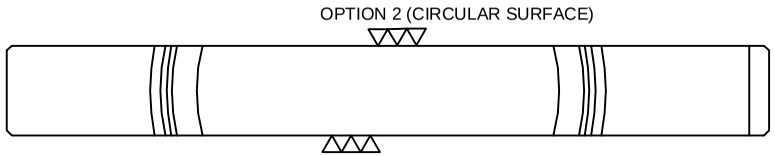

9otes:

1.- Engrave "TSH-GD-08.0002 Rev... Pos ...."
2.- Engrave Thread,Seal and shoulder.Words shall be 0.8mm deep.
3.- Material: Thyrodur 2990 Heat treatment:
a) Stress Relief at 650°CX 2 hours, as an intermediate step between machining and grinding.
b) Vacuum quenching since a temperature of austenitising 1070- 1080 °C at room temperature
c) Cooling: Subcero up to -80°C and then tempered twice at 520°C.Hardness requested 58-60 HRC
4.- Serial Number- (according to the supplier identification)
5.- Taper surfaces for thread and seal axes shall be perpendicular to the reference surface.
6.- Dimensions S, Ref 4.00, T, ATP, SS, Angle TA and TB shall be certified.
7.- The Corrosion Protection and Packaging shall be according to TenarisConnections specification.
8.- The Certificate shall be according TenarisConnections specification.

All the changes do not affect the functionality of the Standards made with previous revisions.

TenarisConnection

MODFICATIONS

Rev	Description	Draw.	Chk.	App.	Date
01	New issue	JPA	ELT	NCR	09/09
02	Changed T and ATP values	JPA	ELT	NCR	01/10

OBJECT: TenarisHydril ER

DETAIL: Box Cylinder & Thread Standard - 7" to 16"

Scale:	NOT	Date:	01/10/09
Drawn by: JPA	Checked by: ELT	Approved by: NCR	

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Pos	Diameter	TA	T or ØT	ATP (ref.)	M	R	STP	C or ØC	N	SS	SR	SW	SZ	SL
1	7"	92.434	174.800	44.500	0.008	179	36.5	170.200	0.030	111.950	60	279	16	147.0
2	8 5/8"	92.434	216.100	44.500	0.008	220	36.5	210.800	0.030	119.950	70	340	16	157.0
3	9 5/8"	92.434	241.500	44.500	0.008	246	36.5	236.200	0.030	119.950	70	366	16	157.0
4	9 7/8"	92.434	247.800	44.500	0.008	252	36.5	242.494	0.030	119.950	70	372	16	157.5
5	10 3/4"	92.434	270.101	44.500	0.008	274	36.5	264.795	0.030	119.950	70	394	16	157.5
6	11 7/8"	92.434	298.600	44.500	0.008	303	36.5	293.300	0.030	119.950	80	443	16	167.0
7	13 3/8"	92.434	336.700	44.500	0.008	341	36.5	331.394	0.030	119.950	80	481	16	169.3
8	13 1/2"	92.434	339.900	44.500	0.008	344	36.5	334.594	0.030	119.950	80	484	16	169.3
9	13 5/8"	92.434	343.100	44.500	0.008	347	36.5	337.800	0.030	119.950	80	487	16	169.3
10	14"	93.576	351.600	36.500	0.019	356	23.5	343.200	0.040	119.920	80	496	26	166.0
11	15"	93.576	378.000	36.500	0.019	382	23.5	367.100	0.040	139.920	80	522	26	164.0
12	16" (CT4-8553)	93.576	402.400	36.500	0.019	407	23.5	391.500	0.040	139.920	80	547	26	164.0
13	16" (CT4-8510)	93.576	402.400	36.500	0.019	407	23.5	395.600	0.040	107.420	80	547	26	164.0
14	16" (CT4-8511)	93.576	402.400	36.500	0.019	407	23.5	394.000	0.040	119.920	80	547	26	164.0

Notes: -Tolerances S and T according drawing is for the manufacturing supplier

Tolerances S and T will be increased +/- 0.005 mm to the hubs due to uncertainty and wear usage.

- Each standard will be measured by the manufacture supplier and each hub once they are received
- No compensation values will be allowed. If the hub find tolerances out has to contact Tenaris Connections

All the changes do not affect the functionality of the Standards made with previous revisions.

TenarisConnection

MODFICATIONS

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Drawn by: JPA | Checked by: ELT | Approved by: NCR

DRAWING N.: TSH-GD-08.0002 | REV.: 02 | N. page: 2/2