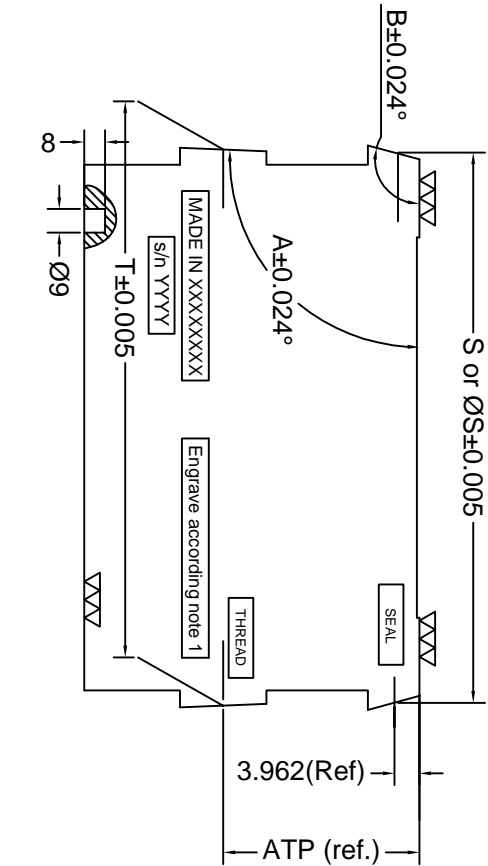
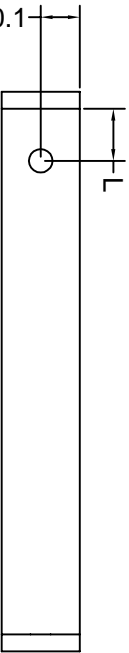
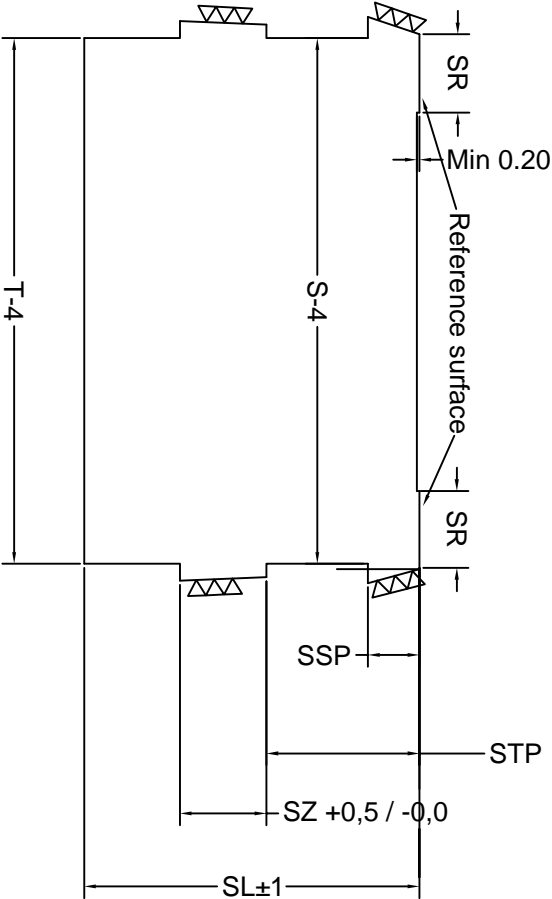
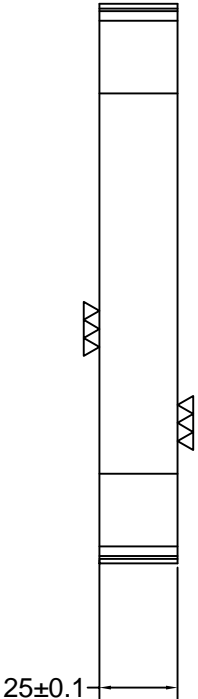


REVISIONS			
Rev	DESCRIPTION	DATE	APPROVED
08	Format change. Added Pos. 24. Added note 9.	15/Nov/13	NCRDWELEY



Option (Flat or circular surface)



ENGINEERING CHANGE

PARTS DISPOSITION		DWG NO.		REV	
USE	REWORK	TSH-GD-01.0001		08	
1	5	9	13	15/Nov/13	
2	6	10	14	15/Nov/13	
3	7	11	15	15/Nov/13	
4	8	ECR NO.		UPON RELEASE	
ASSEMBLED		EFF			
REASON FOR CHANGE / AND/OR DISPOSITION NOTED					

REVISIONS				
Rev	DESCRIPTION	DATE	APPROVED	
08	Format change. Added Pos. 24. Added note 9.	15/Nov/13	NCROWLEY	

- Notes:
- 1.- Engrave "TSH-GD-01.0001 Rev ...Pos ...."
  - 2.- Engrave Thread and Seal. 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 from an austenitising temperature of 1070° - 1080°C to room temperature.
  - c) Cooling: Subzero up to -80°C and then tempered twice at 520°C. Hardness required 58-60 HRC.
- 4- Serial Number - (according to vendor's identification).
  - 5.- Taper surfaces for thread and seal axis shall be perpendicular to the reference surface.
  - 6.- Dimensions S, T, ATP; Angle A and Angle B shall be certified.
  - 7.- Corrosion protection and packaging shall be according to TenarisConnections specification.
  - 8- Certificate shall be according TenarisConnections specification.
  - 9.- Mark seal setting point on both seal pads.

Position	Diameter	A	ATP (ref.)	T	B	SSP	S or ØS	STP	SZ	SL	SR	L
1	2 3/8"	91.790	21.593	60.270	92.546	12.0	56.630	15.2±0.2	13.00	52	20	14
2	2 7/8"	91.790	21.493	72.220	92.546	12.0	68.590	15.2±0.2	16.00	52	25	14
3	3 1/2"	91.790	26.882	87.950	92.546	15.0	83.980	18.9±0.5	16.00	52	30	17
4	4"	91.790	28.082	100.550	92.546	15.0	96.510	20.1±0.5	16.00	52	30	19
5	4 1/2"	91.790	26.952	112.950	92.546	15.0	108.980	19.0±0.5	16.00	52	30	22
6	5"	91.790	27.422	124.980	92.546	15.0	120.980	19.5±0.5	16.00	52	30	24
7	5 1/2"	91.790	28.312	137.880	92.546	15.0	133.620	20.4±0.5	16.00	52	30	27
8	6 5/8"	92.434	30.656	166.700	93.959	15.0	160.850	22.7±0.5	16.00	52	30	33
9	7"	92.434	30.536	175.700	93.959	15.0	169.860	22.6±0.5	16.00	52	40	35
23	7 1/4"	92.434	30.526	181.790	93.959	15.0	175.950	22.6±0.5	16.00	52	40	36
10	7 5/8"	92.434	30.906	191.220	93.959	15.0	185.350	23.0±0.5	16.00	52	40	37
11	7 3/4"	92.434	30.736	193.920	93.959	15.0	188.060	22.8±0.5	16.00	52	40	37
12	8 5/8"	92.434	31.236	216.450	93.959	15.0	210.550	23.3±0.5	16.00	52	40	43
13	9 5/8"	92.434	31.796	241.900	93.959	15.0	235.960	23.9±0.5	16.00	52	40	48
14	9 7/8"	92.434	30.886	247.500	93.959	15.0	241.630	22.9±0.5	16.00	52	40	48
24	10 1/4"	92.434	32.263	258.140	93.959	15.0	252.160	24.2±0.5	16.00	52	40	53
15	10 3/4"	92.434	32.176	270.930	93.959	15.0	264.950	24.2±0.5	16.00	52	40	53
16	11 3/4"	92.434	32.126	296.470	93.959	15.0	290.500	24.2±0.5	16.00	70	50	58
17	11 7/8"	92.434	32.606	299.170	93.959	15.0	293.160	24.7±0.5	16.00	70	50	58
18	13 3/8"	92.434	33.866	336.880	93.959	15.0	330.750	25.9±0.5	16.00	70	50	66
19	13 5/8"	92.434	33.706	342.680	93.959	15.0	336.570	25.8±0.5	16.00	70	50	66
20	13 1/2"	92.434	33.706	340.370	93.959	15.0	334.270	25.8±0.5	16.00	70	50	66
21	14"	92.434	33.846	351.570	93.959	15.0	345.450	25.8±0.5	16.00	70	50	66
22	8 5/8" LW	92.434	31.236	218.360	93.959	15.0	212.450	23.3±0.5	16.00	52	40	43

NOTICE									
PROPRIETARY RIGHTS INVOLVED					PREPARED	S.NEVLUD	15/Nov/13		
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					ENGINEER				
					MFG				
					QA				
					APPROVED	NCROWLEY	15/Nov/13		
					APPROVED				
					RELEASED				
								SCALE	WT.
									SHEET 2 OF 2



TenarisHydril Blue

Pin Seal and Thread Standard

SIZE	CODE	IDENT	ND.	DRAWING	ND.	REVISION
A4				TSH-GD-01.0001		08