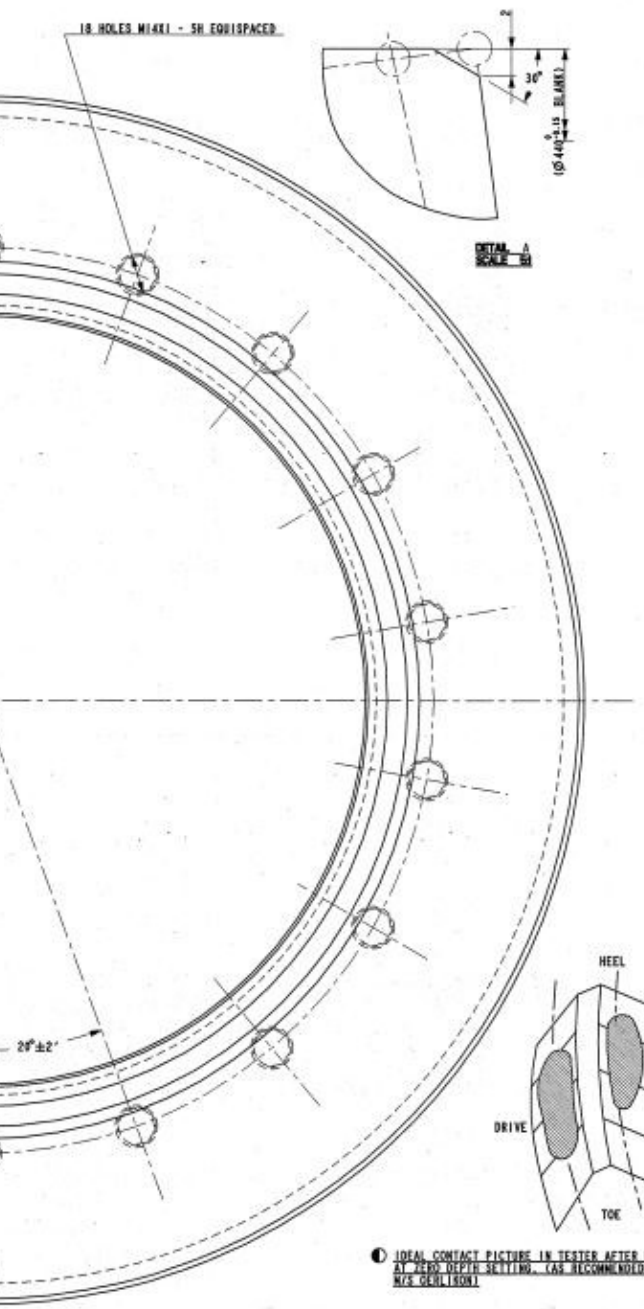
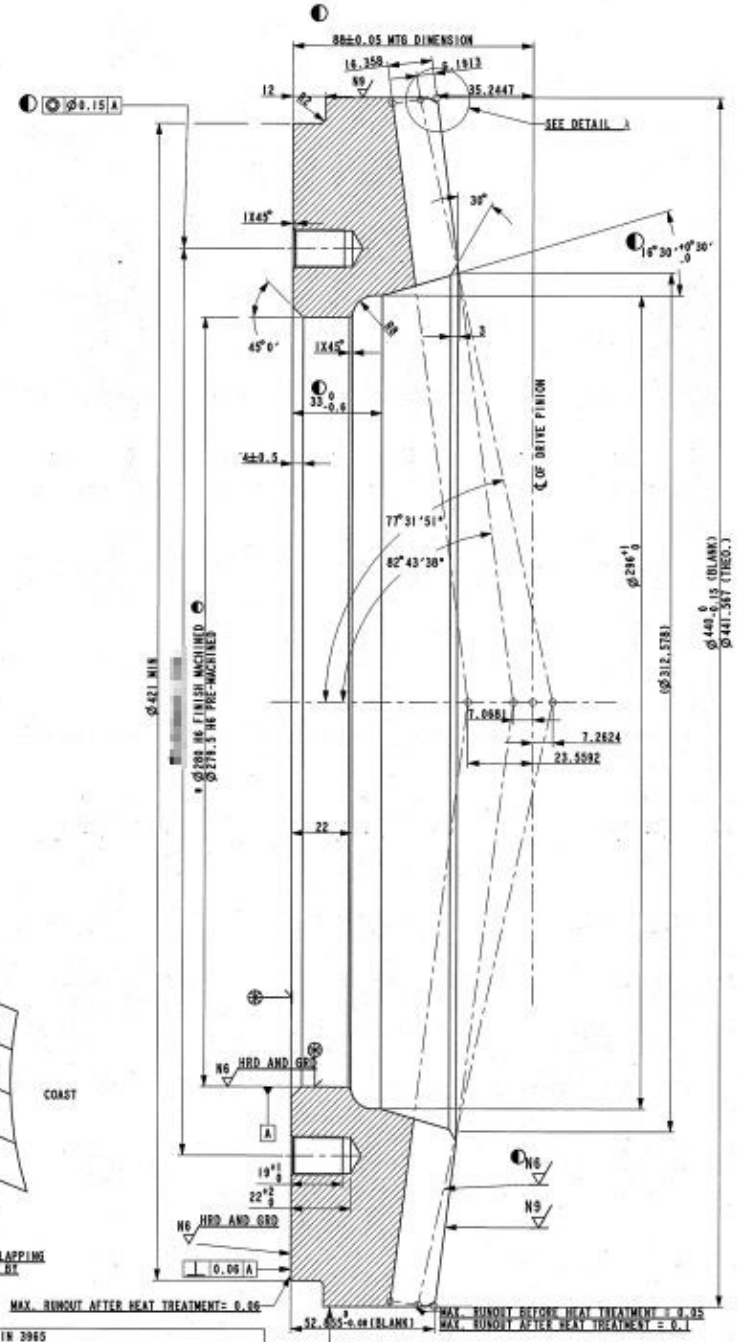
Do not scale the drg.	Unless otherwise stated, 1 All dim in mm.
If in doubt, ask	2 Drg. drawn to first angle projection



IDEAL CONTACT PICTURE IN TESTER AFTER LAPPING AT ZERO DEPTH SETTING. (AS RECOMMENDED BY M/S GEARLISON)



HYPOID GEAR DATA SPIRAC KIMOS SUMMARY NO. 45T440- DT.10.08.2008

NO. OF TEETH	Z2	45	
DIRECTION OF SPIRAL		RH	
SHAFT ANGLE	SIGMA	90°	
OFFSET OF PINION	e2	40	
MOUNTING DISTANCE	kb2	88	
NORMAL PRESSURE ANGLE	CONCAVE / CONVEX	22°30'	
MEAN SPIRAL ANGLE	BETA M2	38° 43' 54"	
MEAN NORMAL MODULE	mn	7.1434	
OUTER ADDENDUM	hae2	6.1913	
INNER CROWN TO CROSSING POINT	RINB2	26.7524	
OUTER CROWN TO CROSSING POINT	RAUB2	35.2447	
OUTER PITCH DIAMETER	de2	440.00	
FACE ANGLE	DELTA a2	82°43'38"	
PITCH ANGLE	DELTA	77°31'51"	
ROOT ANGLE	DELTA f2	82°43'38"	
FACE APEX BEYOND CROSSING POINT	GZa2	-7.0681	
PITCH APEX BEYOND CROSSING POINT	GZ12	7.2624	
ROOT APEX BEYOND CROSSING POINT	GZf2	-23.5592	
FACE WIDTH	b2	67.36	
WHOLE DEPTH	he2	16.3584	
CUTTER HEAD		FS 11-140 R2	
LENGTHWISE CROWNING	LB2	DRIVE	COAST
		0	0
BACKLASH AT VARIOUS STAGES	LAPPING	0.20-0.24	
	TESTING	0.28-0.32	
	FINAL ASSY	0.28-0.32	

FOR DESIGNER REFERENCE ONLY		ORIGINAL V=0 H=0	VARIANT V=-0.25 H=0.25
TRANSMISSION ERRORS	DRIVE	20.7 rad	20.4 rad
	COAST	29.9 rad	27.7 rad
BACKLASH	REQUIRED/THEORITICAL	0.28 mm	0.28 mm
	AFTER OPTIMIZATION	0.274 mm	0.293 mm

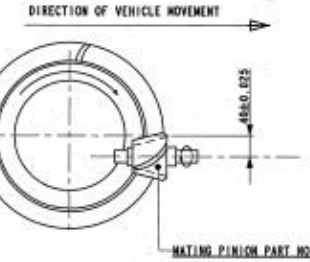
BACKLASH AND FILLET RADII SPECIFIED FROM SUMMARY ARE TO BE CONFIRMED AND FINALISED DURING INITIAL DEVELOPMENT

[redacted]

NOTES :-

1) DEBURRED, FREE OF OIL AND SCALES.
2) TOOTH TIP TO BE CHAMFERED WITH 0.3 TO 0.6 MAX.
3) GRINDING SURFACES ARE TO BE GROUND BEFORE TEETH CUTTING AND A HEAT TREATMENT.
4) BLANK SURFACES TO BE SUITABLY PROTECTED AGAINST CORROSION D TRANSPORTATION AND STORAGE.
5) PHOSPATED ACCORDING TO SS:8402 EXCEPT THE SURFACES DENOTED
6) ALL DIMENSIONS REFER TO SHARP CORNERS.
7) TOOTH BEARING TO BE IDENTICAL ON ALL TOOTH.
8) SURFACE HARDNESS ON MATING PINION TO BE HIGHER BY 2 HRC
9) FORGING TO BE SUPPLIED AS PER SS:10.006

DIRECTION OF VEHICLE MOVEMENT

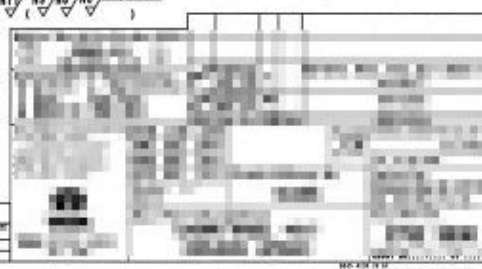


MATING PINION PART NO.2732 3530 54 51

GEAR TOOTH QUALITY BY DIN 3965			
PITCH ERRORS			
PARAMETER (KLINGELNBERG / DIN TERM)		VALUE (um)	QUALITY
Max. TOOTH SPACING INDEX ERROR / INDIVIDUAL PITCH ERROR	fpmax	22	7
Max. TOOTH SPACING ERROR / DIFFERENCE BETWEEN ADJACENT PITCHES	fumax	28	7
RANGE OF PITCH ERROR / PITCH FLUCTUATIONS	Rp	–	–
TOOTH SPACING TOTAL INDEX ERROR / CUMULATIVE PITCH ERROR	Fp	83	7
TOOTH SPACING TOTAL INDEX ERROR OVER CF	Fp z/8	–	–
CALCULATED RUNOUT / PITCH LINE RUNOUT	Fr	62	7
VARATION OF TOOTH THICKNESS	Rs	–	–
TOPOGRAPHY ERROR (AS PER INTERNATIONAL NORM.)			
PRESSURE ANGLE DEVIATION		5 to 8mins	
SPIRAL ANGLE DEVIATION		5 to 7mins	

SUITABLE IDENTIFICATION MARKS TO BE PROVIDED TO DIFFERENTIATE BETWEEN STD AND RR PAIR

Machining Deviation as per ..... class to ISO 2768

Machining Deviations as per ISO 2768 m								SURFACE ROUGHNESS SYMBOLS / VALUES IN um Ra								
Class	-	0	0.5	1.00	1.000	1.0000	1.00000	Symbol	▽	▽▽	▽▽▽	▽	▽▽	▽▽▽	▽	Lay in any direction
DIMENSIONS	0	0.5	3.00	6.00	30.00	120.00	400.00	Ra/Rz	50	25	6.3	1.6	0.8	0.4	0.2	0.8	0.4
Tolerance	±0.1	±0.2	±0.5	±0.8	±0.8	±1.2	±2	FOR OTHER ROUGHNESS SYMBOLS & VALUES, SEE SS 1870								

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