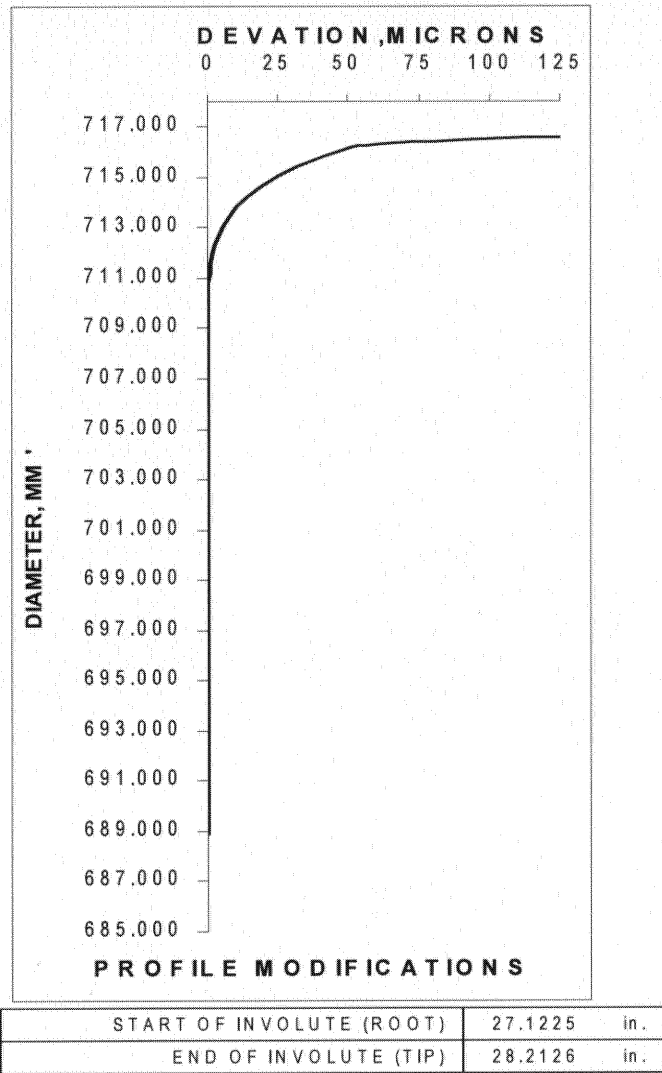


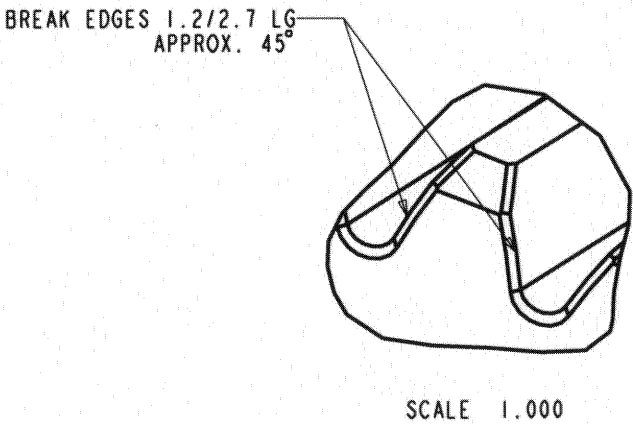


REV	CHANGED FROM	BY	DATE	APVD	Powertrain Engineers Inc W293 N3819 Round Hill Circle Pewaukee Wi, 53072				
A	RELEASED	PEI	9/26/07		REPORT ERRORS & CHANGES REMOVE ALL SHARP EDGES DIMENSIONS ARE IN MM UNSPECIFIED TOLERANCES: DECIMALS: FINISH: ANGLES: X. ± 1.0 Ra 3.2 μ m $\angle \pm 0.5$.X ± 0.5 .XX ± 0.25	TITLE			
B	RELEASED FOR DESIGN REVIEW	PEI	11/29/07			GEAR, FIRST INTERMEDIATE			
C	REVISED PER DRAWING REVIEW	PEI	12/26/07						
D	ADDED OPTIONAL RELIEF FOR MANUFACTURING OF KEYWAYS	PEI	1/18/08						
					COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY.	SIZE B	FIRST USED ON	DWG NO. 251341	REV D
					DRAWN CHECKED	PEI DATE 9/26/07	SCALE: 0.200	WEIGHT: 401.082 Kgs	SHEET 1 OF 2

HELICAL GEAR DATA GEAR	
Number of Teeth	82
Normal Module	8.2500
Normal Pressure Angle	20.0000
Whole depth Constant (REF)	2.400
Oper pitch diameter (mm)	702.8571
Gen Pitch diameter (mm)	697.2101
Profile shift coefficient X2	0.331
Base diameter (mm)	652.7940
Major Diameter max (mm)	716.600
Form Diameter (mm)	688.904
Root Diameter (REF) (mm)	677.973
Tool Tip Radius min (mm)	3.341
Generating Helix Angle	14.0000
Hand of helix	Right
Lead	8785.0148
Number of teeth in Mate	23
Center Distance (mm)	450.000
Norl cir backlash w/ Mate (min/max) (mm)	0.4 / 0.3
Quality per AGMA 2015-1, Datum Surface	B
Grade, active flank	5
Grade, inactive flank (Coast)	6
Trans Cir TT on Gen Dia, Min (mm)	14.859
Trans Cir TT on Gen Dia, Max (mm)	14.913
Size over 16 balls (max/min) (mm)	727.557 / 727.428
Span over 11 teeth (max/min) (mm)	267.474 / 267.425



Diameter mm.	Diameter in.	Relief, 1/10,000 inches	Relief, microns
688.912	27.1225	0.0	0.00
708.584	27.8970	0.0	0.00
708.954	27.9116	0.0	0.00
709.326	27.9262	0.0	0.00
709.698	27.9409	0.0	0.01
710.071	27.9555	0.0	0.04
710.445	27.9703	0.0	0.10
710.821	27.9851	0.1	0.23
711.197	27.9999	0.2	0.46
711.575	28.0148	0.3	0.84
711.953	28.0297	0.6	1.42
712.333	28.0446	0.9	2.28
712.714	28.0596	1.4	3.50
713.096	28.0746	2.0	5.18
713.478	28.0897	2.9	7.43
713.862	28.1048	4.1	10.37
714.247	28.1200	5.6	14.14
714.633	28.1352	7.4	18.90
715.020	28.1504	9.8	24.83
715.409	28.1657	12.6	32.12
715.798	28.1810	16.1	40.97
716.188	28.1964	20.3	51.60
716.229	28.1980	21.0	53.45
716.270	28.1996	22.3	56.55
716.312	28.2012	24.0	60.92
716.353	28.2029	26.2	66.55
716.394	28.2045	28.9	73.46
716.435	28.2061	32.2	81.67
716.476	28.2077	35.9	91.18
716.518	28.2094	40.2	102.03
716.559	28.2110	45.0	114.22
716.600	28.2126	50.3	127.79



REPORT ERRORS & CHANGES REMOVE ALL SHARP EDGES DIMENSIONS ARE IN MM. UNSPECIFIED TOLERANCES: DECIMALS: FINISH: ANGLES:		Powertrain Engineers Inc W293 N3819 Round Hill Circle Pewaukee Wi, 53072			
X. ±1.0 Ra 6.3 µm < ±0.5 .X ±0.5 .XX ±0.25		TITLE <div>GEAR, FIRST INTERMEDIATE</div>			
NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY.		SIZE <div>B</div>	FIRST USED ON	DWG NO. <div>251341</div>	REV <div>C</div>
DRAWN <div>PEI</div>	CHECKED	DATE 9/26/07	SCALE: 0.200	WEIGHT: 401.082 kgs	SHEET 2 OF 2