GETRAG Production Part Approval

313060

DIMENSIONAL TEST RESULTS

Organization:	GETRAG	Part Number:	250.1.3648.05
Supplier/Vendor Code:	GETRAG Modugno	Part Name:	SRrw
INSPECTION FACILITY:		Design Record Change Level:	35834 04 April 2014
NA		Engineering Change Documents:	
			Organization Measurement Results (Data)

Item	Dimension/Specification	Specification / Limits		Test Date	Qty. Tested	1	2	3	4	5	controllo distruttivo	Ok	Not Ok
1	Bore diameter 55	0,029	0,010		5	55,019	55,017	55,018	55,018	55,017		ok	
2	Bore parallelism	0,006	--		5	0,002	0,001	0,002	0,001	0,001		ok	
3	Bore roundness	0,007	--		5	0,002	0,003	0,003	0,003	0,003		ok	
4	Bore straitghness	0,004	--		5	0,001	0,001	0,001	0,001	0,001		ok	
5	Tickness 2,17	0,10	-0,10		5	2,17	2,17	2,18	2,19	2,17		ok	
6	Height 17,3	0,18	-0,08		5	17,403	17,401	17,350	17,363	17,365		ok	
7	Height 19,6	0,04	-0,04		5	19,618	19,609	19,606	19,629	19,609		ok	
8	Roughness bottom surface	0,0063	--		5	0,002	0,002	0,002	0,002	0,002		ok	
9	Axial runout bottom surface	0,030	--		5	0,008	0,003	0,006	0,007	0,011		ok	
10	Total height 27,3	0,030	-0,030		5	27,306	27,298	27,303	27,307	27,307		ok	
11	Axial runout top surface	0,030	--		5	0,008	0,003	0,008	0,007	0,006		ok	
12	Roughness Top surface	0,0063	--		5	0,002	0,002	0,002	0,002	0,002		ok	
13	Axial runout on kk	0,100	--		5	0,046	0,039	0,047	0,036	0,053		ok	
14	Radial runout kk	0,100	--		5	0,032	0,042	0,032	0,046	0,032		ok	
15	Cone waviness	0,9	--		5	0,55	0,52	0,59	0,43	0,64		ok	
16	Cone roughness	0,0025	0,0010		5	0,0017	0,0015	0,0016	0,0016	0,0017		ok	
17	Cone diameter 70,600	0,100	-0,100		5	70,605	70,602	70,602	70,608	70,602		ok	
18	Cone angle 7,5°	0,03°	-0,03°		5	7,52	7,52	7,52	7,52	7,52		ok	
19	Cone roundness	0,004	--		5	0,002	0,002	0,002	0,002	0,003		ok	
20	Cone straitghness	0,003	--		5	0,001	0,002	0,001	0,001	0,001		ok	
21	Cone radial runout	0,020	--		5	0,004	0,004	0,004	0,003	0,006		ok	
22	Teeth radial runout	0,056	--		5	0,027	0,020	0,033	0,015	0,029		ok	
23	Teeth roughness	0,0063	--		5	0,002	0,002	0,002	0,002	0,002		ok	
24	Bore roughness	0,003	--		5	0,002	0,002	0,002	0,002	0,002		ok	
25	Welding deep	2,5 min	--		1						2,9	ok	
26	Weld bead stand off	0,5 max	--		1						0,25	ok	
27	M1 case hardness HRA	83,0	80,5		1						81,5	ok	
28	M2 tooth flank (Eht) 550	0,9	0,5		1						0,78	ok	
29	M3 (bore) CHD (Eht) 550	0,3 min	--		1						0,61	ok	
30	M4(cone) CHD (Eht) 550	0,8	0,4		1						0,64	ok	
31	M5 (inside base of tooth) HV 10	300 min	--		1						438	ok	
32	Bore short waviness	0,001	--		5	0,0002	0,0005	0,0004	0,0006	0,0004		ok	
33	Microgeometry	--	--		5	ok	ok	ok	ok	ok		ok	

March 2006 CFG-1003

SIGNATURE	TITLE	DATE
G. Russo	QPE	10/09/2014

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INSPECTION FACILITY:		Design Record Change Level:	35834 04 April 2014
NA		Engineering Change Documents:	
		Organization Measurement Results (Data)	

Item	Dimension/Specification	Specification / Limits		Test Date	Qty. Tested	1	2	3	4	5	controllo distruttivo	Ok	Not Ok
34	Particular Z				5	ok	ok	ok	ok	ok		ok	
35	Particular Y				5	ok	ok	ok	ok	ok		ok	
36	MDK	125,549	125,449		5	125,501	125,508	125,498	125,511	125,516		ok	
37	Root diameter 115,45	0,00	-0,45		5	115,099	115,199	115,189	115,185	115,115		ok	
38	Tip diameter 128,70	0,00	-0,30		5	128,432	128,532	128,512	128,518	128,528		ok	
39	Cleanliness	ok	nok		5	ok	ok	ok	ok	ok		ok	
40	Welding angle 360°+2°	ok	nok		5	ok	ok	ok	ok	ok		ok	
41	Machining parameter of hard turning op.	ok	nok		5	ok	ok	ok	ok	ok		ok	
42	Longitudinal microcracks	0,02	0,00		5	ok	ok	ok	ok	ok		ok	
43	Particular X	ok	nok		5	ok	ok	ok	ok	ok		ok	
44	Particular W	ok	nok		5	ok	ok	ok	ok	ok		ok	
45	Particular V	ok	nok		5	ok	ok	ok	ok	ok		ok	
46	Particular Z	ok	nok		5	ok	ok	ok	ok	ok		ok	
47	Rz 25	0,025	0,000		5	0,013	0,012	0,008	0,015	0,012		ok	
48	Axial runout	0,020	0,000		5	0,018	0,018	0,011	0,019	0,009		ok	
49	Radial runout	0,030	0,000		5	0,009	0,009	0,005	0,010	0,012		ok	
50	Radial runout	0,05	0,00		5	0,007	0,003	0,011	0,004	0,017		ok	
51	Roughness Rz 16	0,016	0,000		5	0,012	0,011	0,007	0,011	0,011		ok	
52	Chamfer	0,300	-0,500		5	ok	ok	ok	ok	ok		ok	
53	Chamfer	0,300	-0,500		5	ok	ok	ok	ok	ok		ok	
54	Chamfer	0,300	-0,500		5	ok	ok	ok	ok	ok		ok	
55	Chamfer	0,300	-0,500		5	ok	ok	ok	ok	ok		ok	
56	Chamfer 0,7	1,100	0,300		5	0,501	0,566	0,517	0,502	0,537		ok	
57	Tickness 9,45	*9,55*	*9,35*		5	9,499	9,506	9,446	9,504	9,536		ok	
58	Chamfer 0,7	1,100	0,300		5	0,520	0,585	0,577	0,576	0,514		ok	
59	Angle 20°	ok	nok		5	ok	ok	ok	ok	ok		ok	
60	Tickness 1,5	1,800	1,200		5	1,214	1,202	1,208	1,221	1,209		ok	
61	Chamfer 1	1,500	0,500		5	0,516	0,597	0,556	0,544	0,538		ok	
62	Chamfer 1	1,500	0,500		5	0,554	0,622	0,538	0,529	0,519		ok	
63	Chamfer 0,5x45°	0,600	0,400		5	0,513	0,506	0,507	0,508	0,512		ok	

SIGNATURE	TITLE	DATE
G.Russo	QPE	10/09/2014

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64	Tickness 12,9	12,94	12,86		5	12,916	12,918	12,901	12,932	12,905		ok	
65	Tickness 1,5	1,8	1,2		5	1,215	1,250	1,261	1,286	1,277		ok	
66	Ray 0,8	1,000	0,700		5	0,846	0,811	0,816	0,897	0,816		ok	
67	Diameter 56	56,20	55,80		5	55,877	55,965	55,922	55,974	55,915		ok	
68	Diameter 104,8 left	105,30	104,30		5	104,87	104,86	104,86	104,88	104,82		ok	
69	Diameter 104,8 right	105,30	104,30		5	104,86	104,86	104,87	104,89	104,84		ok	

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G.Russo	QPE	10/09/2014