

Database Figures and Tables

Tables

Wear depths tables

Table 1: Wear severities dimensions from image processing for tooth 1.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	285	W18	442	W27	686
W1	38	W10	300	W19	465	W28	721
W2	77	W11	314	W20	488	W29	757
W3	115	W12	330	W21	512	W30	795
W4	152	W13	347	W22	538	W31	834
W5	166	W14	364	W23	565	W32	876
W6	185	W15	382	W24	593	W33	920
W7	259	W16	401	W25	623	W34	966
W8	272	W17	421	W26	654	W35	1000

Table 2: Wear severities dimensions from image processing for tooth 2.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	306	W18	448	W27	718
W1	41	W10	306	W19	465	W28	736
W2	74	W11	329	W20	465	W29	736
W3	121	W12	340	W21	543	W30	802
W4	152	W13	354	W22	543	W31	847
W5	166	W14	394	W23	575	W32	847
W6	176	W15	405	W24	644	W33	907
W7	253	W16	405	W25	644	W34	949
W8	306	W17	441	W26	644	W35	1002

Table 3: Wear severities dimensions from image processing for tooth 3.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	300	W18	455	W27	729
W1	36	W10	300	W19	459	W28	729
W2	76	W11	320	W20	459	W29	752
W3	110	W12	335	W21	493	W30	845
W4	155	W13	346	W22	552	W31	910
W5	166	W14	377	W23	552	W32	910
W6	206	W15	399	W24	645	W33	956
W7	253	W16	399	W25	656	W34	956
W8	265	W17	455	W26	656	W35	999

Table 4: Wear severities dimensions from image processing for tooth 4.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	292	W18	419	W27	725
W1	37	W10	308	W19	481	W28	772
W2	76	W11	308	W20	520	W29	772
W3	122	W12	338	W21	530	W30	772
W4	143	W13	343	W22	543	W31	802
W5	161	W14	380	W23	572	W32	851
W6	177	W15	380	W24	642	W33	916
W7	262	W16	405	W25	642	W34	959
W8	262	W17	419	W26	725	W35	978

Table 5: Wear severities dimensions from image processing for tooth 5.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	288	W18	435	W27	697
W1	38	W10	291	W19	439	W28	705
W2	77	W11	291	W20	500	W29	713
W3	116	W12	318	W21	502	W30	768
W4	144	W13	322	W22	502	W31	861
W5	162	W14	331	W23	540	W32	861
W6	185	W15	356	W24	557	W33	943
W7	269	W16	407	W25	665	W34	956
W8	273	W17	415	W26	690	W35	1040

Table 6: Wear severities dimensions from image processing for tooth 6.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	305	W18	439	W27	659
W1	42	W10	305	W19	491	W28	735
W2	75	W11	360	W20	491	W29	830
W3	114	W12	360	W21	549	W30	830
W4	153	W13	360	W22	590	W31	830
W5	162	W14	361	W23	590	W32	917
W6	192	W15	364	W24	590	W33	955
W7	228	W16	400	W25	659	W34	955
W8	279	W17	439	W26	659	W35	974

Table 7: Wear severities dimensions from image processing for tooth 7.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	283	W18	424	W27	729
W1	39	W10	321	W19	495	W28	846
W2	68	W11	332	W20	495	W29	846
W3	110	W12	341	W21	536	W30	849
W4	152	W13	348	W22	543	W31	899
W5	162	W14	416	W23	549	W32	927
W6	183	W15	416	W24	592	W33	1031
W7	253	W16	416	W25	592	W34	1031
W8	268	W17	424	W26	696	W35	729

Table 8: Wear severities dimensions from image processing for tooth 8.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	299	W18	452	W27	724
W1	36	W10	309	W19	489	W28	724
W2	77	W11	320	W20	489	W29	810
W3	119	W12	344	W21	558	W30	810
W4	162	W13	356	W22	593	W31	817
W5	172	W14	372	W23	593	W32	871
W6	176	W15	372	W24	593	W33	871
W7	253	W16	422	W25	634	W34	998
W8	273	W17	422	W26	665	W35	998

Table 9: Wear severities dimensions from image processing for tooth 9.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	274	W18	449	W27	731
W1	38	W10	283	W19	450	W28	731
W2	75	W11	301	W20	498	W29	745
W3	118	W12	336	W21	529	W30	751
W4	154	W13	340	W22	529	W31	830
W5	159	W14	340	W23	558	W32	876
W6	181	W15	380	W24	571	W33	939
W7	262	W16	414	W25	633	W34	1046
W8	272	W17	414	W26	731	W35	1046

Table 10: Wear severities dimensions from image processing for tooth 10.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	298	W18	421	W27	713
W1	39	W10	298	W19	452	W28	713
W2	76	W11	316	W20	485	W29	732
W3	118	W12	348	W21	559	W30	781
W4	154	W13	356	W22	559	W31	892
W5	160	W14	383	W23	559	W32	892
W6	179	W15	383	W24	588	W33	892
W7	265	W16	416	W25	588	W34	910
W8	273	W17	416	W26	632	W35	991

Table 11: Wear severities dimensions from image processing for tooth 11.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	284	W18	496	W27	677
W1	36	W10	284	W19	496	W28	744
W2	80	W11	294	W20	496	W29	744
W3	102	W12	350	W21	518	W30	821
W4	155	W13	350	W22	556	W31	830
W5	173	W14	354	W23	590	W32	830
W6	179	W15	354	W24	590	W33	889
W7	284	W16	377	W25	617	W34	951
W8	284	W17	448	W26	677	W35	1044

Table 12: Wear severities dimensions from image processing for tooth 12.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	305	W18	435	W27	693
W1	41	W10	311	W19	530	W28	707
W2	78	W11	328	W20	530	W29	801
W3	113	W12	342	W21	565	W30	801
W4	153	W13	361	W22	565	W31	853
W5	164	W14	370	W23	594	W32	937
W6	185	W15	398	W24	597	W33	1034
W7	249	W16	403	W25	616	W34	1034
W8	305	W17	425	W26	652	W35	1034

Table 13: Wear severities dimensions from image processing for tooth 13.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	295	W18	437	W27	689
W1	38	W10	295	W19	437	W28	728
W2	78	W11	299	W20	495	W29	752
W3	116	W12	339	W21	495	W30	752
W4	143	W13	347	W22	529	W31	809
W5	160	W14	347	W23	608	W32	837
W6	190	W15	380	W24	627	W33	949
W7	281	W16	408	W25	627	W34	958
W8	295	W17	408	W26	689	W35	1054

Table 14: Wear severities dimensions from image processing for tooth 14.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	300	W18	472	W27	677
W1	38	W10	311	W19	472	W28	677
W2	77	W11	311	W20	474	W29	744
W3	116	W12	311	W21	510	W30	761
W4	153	W13	361	W22	559	W31	845
W5	171	W14	361	W23	569	W32	873
W6	188	W15	382	W24	586	W33	893
W7	231	W16	409	W25	586	W34	932
W8	279	W17	427	W26	591	W35	1007

Table 15: Wear severities dimensions from image processing for tooth 15.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	294	W18	435	W27	652
W1	39	W10	294	W19	435	W28	681
W2	77	W11	341	W20	491	W29	771
W3	107	W12	341	W21	548	W30	804
W4	149	W13	354	W22	566	W31	832
W5	192	W14	356	W23	566	W32	832
W6	192	W15	383	W24	577	W33	927
W7	238	W16	383	W25	632	W34	1064
W8	277	W17	435	W26	652	W35	1064

Table 16: Wear severities dimensions from image processing for tooth 16.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	293	W18	431	W27	751
W1	35	W10	307	W19	455	W28	751
W2	73	W11	308	W20	495	W29	808
W3	118	W12	356	W21	495	W30	808
W4	142	W13	356	W22	501	W31	830
W5	171	W14	363	W23	566	W32	887
W6	187	W15	399	W24	596	W33	887
W7	242	W16	399	W25	682	W34	887
W8	261	W17	426	W26	682	W35	1052

Table 17: Wear severities dimensions from image processing for tooth 17.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	285	W18	452	W27	663
W1	35	W10	331	W19	455	W28	711
W2	78	W11	331	W20	463	W29	756
W3	121	W12	333	W21	500	W30	847
W4	153	W13	335	W22	572	W31	949
W5	164	W14	365	W23	572	W32	949
W6	177	W15	385	W24	572	W33	949
W7	275	W16	444	W25	659	W34	949
W8	275	W17	444	W26	659	W35	1070

Table 18: Wear severities dimensions from image processing for tooth 18.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	290	W18	458	W27	746
W1	38	W10	298	W19	458	W28	746
W2	74	W11	304	W20	481	W29	762
W3	105	W12	347	W21	540	W30	767
W4	144	W13	349	W22	547	W31	874
W5	173	W14	371	W23	589	W32	874
W6	195	W15	389	W24	631	W33	880
W7	264	W16	389	W25	631	W34	953
W8	279	W17	415	W26	631	W35	1010

Table 19: Wear severities dimensions from image processing for tooth 19.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	281	W18	452	W27	728
W1	38	W10	288	W19	477	W28	738
W2	75	W11	311	W20	483	W29	750
W3	116	W12	360	W21	517	W30	896
W4	159	W13	360	W22	537	W31	896
W5	179	W14	360	W23	563	W32	896
W6	190	W15	389	W24	623	W33	897
W7	275	W16	389	W25	652	W34	919
W8	281	W17	452	W26	652	W35	963

Table 20: Wear severities dimensions from image processing for tooth 20.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	294	W18	446	W27	708
W1	38	W10	294	W19	446	W28	708
W2	72	W11	299	W20	446	W29	754
W3	109	W12	330	W21	484	W30	793
W4	148	W13	354	W22	495	W31	824
W5	154	W14	359	W23	562	W32	852
W6	189	W15	401	W24	607	W33	871
W7	280	W16	428	W25	656	W34	1006
W8	280	W17	446	W26	708	W35	1006

Table 21: Wear severities dimensions from image processing for tooth 21.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	287	W18	462	W27	692
W1	38	W10	310	W19	483	W28	693
W2	79	W11	354	W20	524	W29	770
W3	116	W12	354	W21	539	W30	773
W4	160	W13	354	W22	539	W31	807
W5	171	W14	354	W23	610	W32	837
W6	176	W15	354	W24	610	W33	937
W7	257	W16	407	W25	610	W34	962
W8	257	W17	431	W26	637	W35	962

Table 22: Wear severities dimensions from image processing for tooth 22.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	266	W18	438	W27	676
W1	39	W10	284	W19	453	W28	687
W2	85	W11	298	W20	488	W29	739
W3	109	W12	327	W21	488	W30	799
W4	147	W13	356	W22	513	W31	915
W5	169	W14	391	W23	555	W32	935
W6	193	W15	391	W24	565	W33	935
W7	259	W16	391	W25	648	W34	962
W8	263	W17	438	W26	676	W35	995

Table 23: Wear severities dimensions from image processing for tooth 23.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	273	W18	424	W27	688
W1	36	W10	303	W19	424	W28	724
W2	79	W11	322	W20	505	W29	796
W3	115	W12	322	W21	530	W30	796
W4	154	W13	336	W22	577	W31	799
W5	174	W14	358	W23	577	W32	895
W6	194	W15	407	W24	596	W33	1039
W7	258	W16	407	W25	601	W34	1039
W8	273	W17	407	W26	656	W35	1039

Table 24: Wear severities dimensions from image processing for tooth 24.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	313	W18	465	W27	660
W1	39	W10	331	W19	494	W28	715
W2	67	W11	331	W20	529	W29	803
W3	115	W12	342	W21	529	W30	803
W4	151	W13	342	W22	529	W31	845
W5	154	W14	361	W23	613	W32	845
W6	180	W15	379	W24	613	W33	944
W7	263	W16	379	W25	613	W34	984
W8	263	W17	410	W26	640	W35	1019

Table 25: Wear severities dimensions from image processing for tooth 25.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	296	W18	438	W27	670
W1	37	W10	324	W19	484	W28	697
W2	78	W11	324	W20	486	W29	763
W3	126	W12	353	W21	524	W30	765
W4	146	W13	353	W22	524	W31	830
W5	161	W14	353	W23	547	W32	881
W6	178	W15	391	W24	605	W33	941
W7	272	W16	411	W25	623	W34	941
W8	284	W17	411	W26	656	W35	1017

Table 26: Wear severities dimensions from image processing for tooth 26.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	292	W18	433	W27	738
W1	37	W10	315	W19	449	W28	738
W2	76	W11	315	W20	477	W29	799
W3	122	W12	356	W21	547	W30	799
W4	150	W13	356	W22	565	W31	839
W5	166	W14	366	W23	586	W32	892
W6	185	W15	378	W24	601	W33	922
W7	257	W16	408	W25	601	W34	983
W8	272	W17	433	W26	634	W35	1014

Table 27: Wear severities dimensions from image processing for tooth 27.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	271	W18	432	W27	673
W1	37	W10	303	W19	514	W28	741
W2	78	W11	316	W20	514	W29	770
W3	125	W12	335	W21	514	W30	794
W4	152	W13	380	W22	554	W31	876
W5	170	W14	380	W23	554	W32	876
W6	181	W15	406	W24	624	W33	912
W7	270	W16	418	W25	624	W34	972
W8	270	W17	418	W26	634	W35	980

Table 28: Wear severities dimensions from image processing for tooth 28.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	309	W18	434	W27	667
W1	37	W10	309	W19	449	W28	680
W2	82	W11	326	W20	460	W29	731
W3	110	W12	326	W21	480	W30	777
W4	154	W13	350	W22	538	W31	789
W5	158	W14	350	W23	538	W32	892
W6	186	W15	381	W24	538	W33	938
W7	263	W16	410	W25	660	W34	938
W8	263	W17	410	W26	660	W35	938

Table 29: Wear severities dimensions from image processing for tooth 29.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	277	W18	470	W27	688
W1	35	W10	298	W19	470	W28	688
W2	78	W11	298	W20	478	W29	785
W3	104	W12	316	W21	480	W30	806
W4	141	W13	345	W22	558	W31	806
W5	171	W14	356	W23	558	W32	898
W6	181	W15	374	W24	587	W33	898
W7	277	W16	402	W25	591	W34	1000
W8	277	W17	407	W26	688	W35	1000

Table 30: Wear severities dimensions from image processing for tooth 30.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	286	W18	452	W27	695
W1	37	W10	286	W19	452	W28	725
W2	80	W11	291	W20	522	W29	776
W3	107	W12	317	W21	527	W30	789
W4	156	W13	334	W22	527	W31	843
W5	164	W14	347	W23	571	W32	879
W6	185	W15	404	W24	572	W33	953
W7	245	W16	404	W25	679	W34	953
W8	278	W17	452	W26	679	W35	1076

Table 31: Wear severities dimensions from image processing for tooth 31.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	287	W18	430	W27	661
W1	39	W10	287	W19	512	W28	767
W2	79	W11	305	W20	525	W29	767
W3	110	W12	337	W21	525	W30	814
W4	152	W13	346	W22	525	W31	849
W5	157	W14	352	W23	579	W32	879
W6	172	W15	408	W24	609	W33	885
W7	266	W16	408	W25	609	W34	907
W8	266	W17	408	W26	648	W35	1015

Table 32: Wear severities dimensions from image processing for tooth 32.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	266	W18	441	W27	696
W1	37	W10	324	W19	441	W28	707
W2	73	W11	324	W20	511	W29	707
W3	116	W12	382	W21	511	W30	741
W4	153	W13	382	W22	511	W31	842
W5	179	W14	382	W23	517	W32	898
W6	183	W15	382	W24	565	W33	1013
W7	234	W16	422	W25	640	W34	1013
W8	266	W17	422	W26	644	W35	1013

Table 33: Wear severities dimensions from image processing for tooth 33.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	280	W18	442	W27	714
W1	36	W10	339	W19	462	W28	728
W2	80	W11	339	W20	497	W29	820
W3	125	W12	340	W21	514	W30	820
W4	146	W13	368	W22	525	W31	860
W5	168	W14	368	W23	592	W32	947
W6	180	W15	375	W24	592	W33	947
W7	247	W16	442	W25	638	W34	947
W8	277	W17	442	W26	668	W35	1036

Table 34: Wear severities dimensions from image processing for tooth 34.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	296	W18	451	W27	671
W1	38	W10	297	W19	451	W28	671
W2	80	W11	314	W20	487	W29	825
W3	115	W12	338	W21	499	W30	825
W4	142	W13	362	W22	621	W31	825
W5	171	W14	362	W23	621	W32	881
W6	182	W15	376	W24	621	W33	901
W7	250	W16	376	W25	621	W34	917
W8	255	W17	429	W26	671	W35	1081

Table 35: Wear severities dimensions from image processing for tooth 35.

Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]	Case	Wear depth [µm]
Healthy	0	W9	294	W18	427	W27	682
W1	36	W10	294	W19	427	W28	747
W2	77	W11	310	W20	496	W29	754
W3	118	W12	342	W21	522	W30	754
W4	145	W13	342	W22	524	W31	797
W5	177	W14	350	W23	524	W32	958
W6	189	W15	355	W24	610	W33	958
W7	258	W16	364	W25	645	W34	958
W8	284	W17	427	W26	671	W35	994

Records tables

Table 36: Vibration signals recording - Format YYYYMMDDHHMM.

Record number	Record at 45 [RPS]	Record at 15 [RPS]	Status
1	202302131332	202302131613	Healthy
2	202302131333	202302131614	Healthy
3	202302131334	202302131616	Healthy
4	202302131335	202302131617	Healthy
5	202302131337	202302131619	Healthy
6	202302131338	202302131620	Healthy
7	202302131339	202302131621	Healthy
8	202302131340	202302131629	Healthy
9	202302131349	202302131630	Healthy
10	202302131350	202302131631	Healthy
11	202302131353	202302131632	Healthy
12	202302131354	202302131633	Healthy
13	202302131355	202302131634	Healthy
14	202302131356	202302131636	Healthy
15	202302131357	202302131637	Healthy
16	202302131406	202302131638	Healthy
17	202302131407	202302131653	Healthy
18	202302131408	202302131654	Healthy
19	202302131410	202302131655	Healthy
20	202302131412	202302131656	Healthy
21	202302131413	202302131657	Healthy
22	202302131414	202302131658	Healthy
23	202302131415	202302131700	Healthy
24	202302131416	202302131701	Healthy
25	202302131442	202302131707	Healthy
26	202302131444	202302131708	Healthy
27	202302131445	202302131709	Healthy
28	202302131446	202302131710	Healthy
29	202302131447	202302131711	Healthy
30	202302131448	202302131712	Healthy
31	202302131449	202302131713	Healthy
32	202302131450	202302131715	Healthy
33	202302131502	202302131722	Healthy
34	202302131504	202302131724	Healthy
35	202302131505	202302131725	Healthy
36	202302131506	202302131726	Healthy

37	202302131507	202302131728	Healthy
38	202302131508	202302131729	Healthy
39	202302131509	202302131730	Healthy
40	202302131510	202302131737	Healthy
41	202302131520	202302131738	Healthy
42	202302131521	202302131739	Healthy
43	202302131522	202302131740	Healthy
44	202302131523	202302131741	Healthy
45	202302131525	202302131743	Healthy
46	202302131527	202302131744	Healthy
47	202302131528	202302131745	Healthy
48	202302131537	202302131746	Healthy
49	202302131538	202302131754	Healthy
50	202302131539	202302131755	Healthy
51	202302131540	202302131756	Healthy
52	202302131541	202302131757	Healthy
53	202302131542	202302131758	Healthy
54	202302131544	202302131759	Healthy
55	202302131545	202302131801	Healthy
56	202302131546	202302131802	Healthy
57	202302151433	202302151547	Healthy
58	202302151434	202302151549	Healthy
59	202302151435	202302151550	Healthy
60	202302151436	202302151551	Healthy
61	202302151437	202302151552	Healthy
62	202302151438	202302151553	Healthy
63	202302151439	202302151554	Healthy
64	202302151441	202302151613	Healthy
65	202302151501	202302151614	Healthy
66	202302151502	202302151615	Healthy
67	202302151503	202302151616	Healthy
68	202302151504	202302151618	Healthy
69	202302151505	202302151619	Healthy
70	202302151506	202302151620	Healthy
71	202302151508	202302151621	Healthy
72	202302151509	202302151622	Healthy
73	202302151516	202302151630	Healthy
74	202302151517	202302151631	Healthy
75	202302151518	202302151632	Healthy
76	202302151519	202302151633	Healthy

77	202302151520	202302151635	Healthy
78	202302151522	202302151636	Healthy
79	202302151523	202302151637	Healthy
80	202302151524	202302151638	Healthy
81	202302160928	202302161045	Healthy
82	202302160929	202302161046	Healthy
83	202302160930	202302161047	Healthy
84	202302160931	202302161048	Healthy
85	202302160932	202302161049	Healthy
86	202302160933	202302161051	Healthy
87	202302160934	202302161052	Healthy
88	202302160935	202302161053	Healthy
89	202302160952	202302161117	Healthy
90	202302160953	202302161120	Healthy
91	202302160954	202302161121	Healthy
92	202302160955	202302161122	Healthy
93	202302160956	202302161123	Healthy
94	202302160957	202302161124	Healthy
95	202302160958	202302161125	Healthy
96	202302161000	202302161133	Healthy
97	202302161007	202302161134	Healthy
98	202302161008	202302161136	Healthy
99	202302161010	202302161137	Healthy
100	202302161012	202302161138	Healthy
101	202302161013	202302161139	Healthy
102	202302161014	202302161140	Healthy
103	202302161015	202302161141	Healthy
104	202302161022	202302161143	Healthy
105	202302161023	202302161149	Healthy
106	202302161025	202302161150	Healthy
107	202302161026	202302161151	Healthy
108	202302161027	202302161154	Healthy
109	202302161028	202302161155	Healthy
110	202302161029	202302161156	Healthy
111	202302161030	202302161157	Healthy
112	202302161031	202302161158	Healthy
113	202302231422	202302231540	Healthy
114	202302231424	202302231542	Healthy
115	202302231425	202302231543	Healthy

116	202302231427	202302231544	Healthy
117	202302231428	202302231545	Healthy
118	202302231429	202302231547	Healthy
119	202302231430	202302231548	Healthy
120	202302231431	202302231554	Healthy
121	202302231451	202302231555	Healthy
122	202302231452	202302231556	Healthy
123	202302231453	202302231559	Healthy
124	202302231454	202302231600	Healthy
125	202302231455	202302231601	Healthy
126	202302231456	202302231602	Healthy
127	202302231458	202302231603	Healthy
128	202302231459	202302231609	Healthy
129	202302231514	202302231611	Healthy
130	202302231515	202302231612	Healthy
131	202302231516	202302231613	Healthy
132	202302231518	202302231614	Healthy
133	202302231519	202302231615	Healthy
134	202302231520	202302231617	Healthy
135	202302231521	202302231618	Healthy
136	202302231522	202302231619	Healthy
137	202302271553	202302271829	Healthy
138	202302271554	202302271830	Healthy
139	202302271556	202302271832	Healthy
140	202302271557	202302271833	Healthy
141	202302271559	202302271834	Healthy
142	202302271600	202302271835	Healthy
143	202302271601	202302271836	Healthy
144	202302271609	202302271837	Healthy
145	202302271610	202302271842	Healthy
146	202302271611	202302271843	Healthy
147	202302271613	202302271844	Healthy
148	202302271614	202302271845	Healthy
149	202302271615	202302271846	Healthy
150	202302271616	202302271847	Healthy
151	202302271617	202302271849	Healthy
152	202302271618	202302271850	Healthy
153	202302271624	202302271855	Healthy
154	202302271625	202302271856	Healthy

155	202302271627	202302271857	Healthy
156	202302271631	202302271859	Healthy
157	202302271632	202302271900	Healthy
158	202302271633	202302271901	Healthy
159	202302271634	202302271902	Healthy
160	202302271636	202302281543	Healthy
161	202302281222	202302281544	Healthy
162	202302281224	202302281546	Healthy
163	202302281225	202302281547	Healthy
164	202302281226	202302281548	Healthy
165	202302281227	202302281549	Healthy
166	202302281228	202302281550	Healthy
167	202302281229	202302281551	Healthy
168	202302281230	202302281552	Healthy
169	202302281231	202302281554	Healthy
170	202302281234	202302281555	Healthy
171	202302281235	202302281601	Healthy
172	202302281236	202302281602	Healthy
173	202302281237	202302281603	Healthy
174	202302281238	202302281604	Healthy
175	202302281239	202302281605	Healthy
176	202302281240	202302281607	Healthy
177	202302281241	202302281608	Healthy
178	202302281242	202302281609	Healthy
179	202302281244	202302281610	Healthy
180	202302281245	202302281611	Healthy
181	202302281247	202302281620	Healthy
182	202302281248	202302281621	Healthy
183	202302281250	202302281622	Healthy
184	202302281251	202302281623	Healthy
185	202302281252	202302281624	Healthy
186	202302281253	202302281625	Healthy
187	202302281254	202302281626	Healthy
188	202302281255	202302281627	Healthy
189	202302281257	202302281628	Healthy
190	202302281258	202302281630	Healthy
191	202302281300	202302281635	Healthy
192	202302281301	202302281636	Healthy
193	202302281302	202302281637	Healthy

194	202302281303	202302281638	Healthy
195	202302281304	202302281640	Healthy
196	202302281306	202302281641	Healthy
197	202302281307	202302281642	Healthy
198	202302281308	202302281643	Healthy
199	202302281309	202302281644	Healthy
200	202302281310	202302281645	Healthy
201	202302281330	202302281654	Healthy
202	202302281331	202302281655	Healthy
203	202302281332	202302281656	Healthy
204	202302281333	202302281657	Healthy
205	202302281334	202302281658	Healthy
206	202302281335	202302281659	Healthy
207	202302281336	202302281700	Healthy
208	202302281338	202302281702	Healthy
209	202302281339	202302281703	Healthy
210	202302281340	202302281704	Healthy
211	202302281344	202302281709	Healthy
212	202302281345	202302281710	Healthy
213	202302281346	202302281711	Healthy
214	202302281347	202302281712	Healthy
215	202302281348	202302281713	Healthy
216	202302281349	202302281714	Healthy
217	202302281350	202302281716	Healthy
218	202302281352	202302281717	Healthy
219	202302281353	202302281718	Healthy
220	202302281354	202302281719	Healthy
221	202302281358	202302281723	Healthy
222	202302281359	202302281725	Healthy
223	202302281400	202302281726	Healthy
224	202302281401	202302281727	Healthy
225	202302281402	202302281728	Healthy
226	202302281403	202302281729	Healthy
227	202302281405	202302281730	Healthy
228	202302281406	202302281731	Healthy
229	202302281407	202302281732	Healthy
230	202302281408	202302281733	Healthy
231	202302281412	202302281739	Healthy
232	202302281413	202302281741	Healthy

233	202302281414	202302281742	Healthy
234	202302281415	202302281743	Healthy
235	202302281416	202302281744	Healthy
236	202302281418	202302281745	Healthy
237	202302281419	202302281746	Healthy
238	202302281420	202302281747	Healthy
239	202302281421	202302281748	Healthy
240	202302281427	202302281749	Healthy
241	202302281428	202302281754	Healthy
242	202302281429	202302281755	Healthy
243	202302281431	202302281756	Healthy
244	202302281432	202302281757	Healthy
245	202302281433	202302281758	Healthy
246	202302281434	202302281759	Healthy
247	202302281436	202302281800	Healthy
248	202302281437	202302281801	Healthy
249	202302281438	202302281803	Healthy
250	202302281451	202302281804	Healthy
251	202304091222	202304091345	W1
252	202304091252	202304091346	W1
253	202304091253	202304091355	W1
254	202304091254	202304091356	W1
255	202304091301	202304091408	W1
256	202304091307	202304091409	W1
257	202304091308	202304091415	W1
258	202304091309	202304091416	W1
259	202304091747	202304091851	W2
260	202304091748	202304091853	W2
261	202304091757	202304091900	W2
262	202304091805	202304091902	W2
263	202304091806	202304091907	W2
264	202304091807	202304091909	W2
265	202304091814	202304091914	W2
266	202304091820	202304091915	W2
267	202304101054	202304101231	W3
268	202304101055	202304101232	W3
269	202304101107	202304101239	W3
270	202304101109	202304101241	W3
271	202304101117	202304101246	W3

272	202304101119	202304101247	W3
273	202304101126	202304101253	W3
274	202304101127	202304101254	W3
275	202304101549	202304101700	W4
276	202304101550	202304101701	W4
277	202304101610	202304101705	W4
278	202304101611	202304101707	W4
279	202304101618	202304101712	W4
280	202304101619	202304101713	W4
281	202304101625	202304101718	W4
282	202304101626	202304101719	W4
283	202304101913	202304102044	W5
284	202304101915	202304102045	W5
285	202304101924	202304102050	W5
286	202304101925	202304102051	W5
287	202304101931	202304102056	W5
288	202304101933	202304102057	W5
289	202304101939	202304102102	W5
290	202304101940	202304102103	W5
291	202304131741	202304131934	W6
292	202304131742	202304131942	W6
293	202304131755	202304131943	W6
294	202304131756	202304131945	W6
295	202304131802	202304131951	W6
296	202304131803	202304131952	W6
297	202304131810	202304131958	W6
298	202304131812	202304131959	W6
299	202304161132	202304161240	W7
300	202304161133	202304161241	W7
301	202304161147	202304161251	W7
302	202304161148	202304161252	W7
303	202304161155	202304161258	W7
304	202304161156	202304161259	W7
305	202304161203	202304161304	W7
306	202304161204	202304161305	W7
307	202304161701	202304161810	W8
308	202304161702	202304161811	W8
309	202304161714	202304161816	W8
310	202304161715	202304161818	W8

311	202304161721	202304161823	W8
312	202304161722	202304161824	W8
313	202304161728	202304161829	W8
314	202304161729	202304161830	W8
315	202304181308	202304181405	W9
316	202304181319	202304181417	W9
317	202304181320	202304181418	W9
318	202304181321	202304181419	W9
319	202304181327	202304181425	W9
320	202304181328	202304181426	W9
321	202304181334	202304181431	W9
322	202304181335	202304181432	W9
323	202304191311	202304191411	W10
324	202304191312	202304191412	W10
325	202304191323	202304191421	W10
326	202304191324	202304191422	W10
327	202304191331	202304191427	W10
328	202304191337	202304191428	W10
329	202304191338	202304191434	W10
330	202304191339	202304191435	W10
331	202304191913	202304192014	W11
332	202304191914	202304192015	W11
333	202304191925	202304192023	W11
334	202304191926	202304192024	W11
335	202304191932	202304192029	W11
336	202304191933	202304192030	W11
337	202304191941	202304192034	W11
338	202304191942	202304192035	W11
339	202304201209	202304201316	W12
340	202304201220	202304201318	W12
341	202304201221	202304201324	W12
342	202304201222	202304201325	W12
343	202304201229	202304201330	W12
344	202304201230	202304201331	W12
345	202304201236	202304201336	W12
346	202304201237	202304201337	W12
347	202304231225	202304231320	W13
348	202304231226	202304231321	W13
349	202304231236	202304231328	W13

350	202304231237	202304231330	W13
351	202304231243	202304231336	W13
352	202304231244	202304231337	W13
353	202304231249	202304231342	W13
354	202304231250	202304231343	W13
355	202304231715	202304231807	W14
356	202304231716	202304231808	W14
357	202304231724	202304231815	W14
358	202304231725	202304231816	W14
359	202304231730	202304231821	W14
360	202304231731	202304231822	W14
361	202304231737	202304231827	W14
362	202304231738	202304231828	W14
363	202304232100	202304232150	W15
364	202304232101	202304232151	W15
365	202304232108	202304232156	W15
366	202304232109	202304232158	W15
367	202304232115	202304232203	W15
368	202304232116	202304232204	W15
369	202304232121	202304232208	W15
370	202304232122	202304232209	W15
371	202305011224	202305011320	W16
372	202305011225	202305011321	W16
373	202305011234	202305011328	W16
374	202305011235	202305011329	W16
375	202305011241	202305011335	W16
376	202305011242	202305011336	W16
377	202305011248	202305011341	W16
378	202305011249	202305011342	W16
379	202305012001	202305012051	W17
380	202305012002	202305012052	W17
381	202305012009	202305012058	W17
382	202305012010	202305012059	W17
383	202305012015	202305012104	W17
384	202305012016	202305012105	W17
385	202305012022	202305012111	W17
386	202305012023	202305012112	W17
387	202305021319	202305021420	W18
388	202305021320	202305021421	W18

389	202305021328	202305021428	W18
390	202305021329	202305021429	W18
391	202305021335	202305021434	W18
392	202305021336	202305021435	W18
393	202305021342	202305021441	W18
394	202305021343	202305021442	W18
395	202305031351	202305031456	W19
396	202305031352	202305031504	W19
397	202305031401	202305031505	W19
398	202305031402	202305031506	W19
399	202305031409	202305031511	W19
400	202305031410	202305031512	W19
401	202305031416	202305031517	W19
402	202305031417	202305031518	W19
403	202305071129	202305071230	W20
404	202305071130	202305071231	W20
405	202305071142	202305071238	W20
406	202305071143	202305071239	W20
407	202305071152	202305071245	W20
408	202305071153	202305071246	W20
409	202305071158	202305071304	W20
410	202305071159	202305071305	W20
411	202305071650	202305071748	W21
412	202305071651	202305071749	W21
413	202305071658	202305071756	W21
414	202305071700	202305071757	W21
415	202305071707	202305071803	W21
416	202305071708	202305071804	W21
417	202305071714	202305071809	W21
418	202305071715	202305071810	W21
419	202305101851	202305140943	W22
420	202305101852	202305140953	W22
421	202305101902	202305140955	W22
422	202305101904	202305140956	W22
423	202305101910	202305141002	W22
424	202305101911	202305141004	W22
425	202305101917	202305141009	W22
426	202305101918	202305141010	W22
427	202305141639	202305141754	W23

428	202305141640	202305141755	W23
429	202305141649	202305141800	W23
430	202305141650	202305141801	W23
431	202305141731	202305141808	W23
432	202305141732	202305141809	W23
433	202305141738	202305141815	W23
434	202305141739	202305141816	W23
435	202305231736	202305231831	W24
436	202305231737	202305231833	W24
437	202305231744	202305231837	W24
438	202305231745	202305231839	W24
439	202305231751	202305231845	W24
440	202305231752	202305231846	W24
441	202305231758	202305231851	W24
442	202305231759	202305231852	W24
443	202305241852	202305241945	W25
444	202305241853	202305241946	W25
445	202305241900	202305241952	W25
446	202305241907	202305241953	W25
447	202305241908	202305241958	W25
448	202305241909	202305241959	W25
449	202305241915	202305242004	W25
450	202305241916	202305242006	W25
451	202305301727	202305301825	W26
452	202305301728	202305301826	W26
453	202305301737	202305301832	W26
454	202305301742	202305301833	W26
455	202305301743	202305301838	W26
456	202305301745	202305301839	W26
457	202305301753	202305301846	W26
458	202305301754	202305301847	W26
459	202305311922	202305312017	W27
460	202305311923	202305312019	W27
461	202305311931	202305312024	W27
462	202305311932	202305312025	W27
463	202305311939	202305312030	W27
464	202305311940	202305312032	W27
465	202305311946	202305312038	W27
466	202305311947	202305312039	W27

467	202306011145	202306040953	W28
468	202306011146	202306040958	W28
469	202306011153	202306040959	W28
470	202306011154	202306041000	W28
471	202306011159	202306041006	W28
472	202306011209	202306041007	W28
473	202306040919	202306041011	W28
474	202306040920	202306041012	W28
475	202306041825	202306041916	W29
476	202306041832	202306041917	W29
477	202306041833	202306041922	W29
478	202306041834	202306041928	W29
479	202306041840	202306041929	W29
480	202306041846	202306041930	W29
481	202306041847	202306041935	W29
482	202306041848	202306041936	W29
483	202306071522	202306071615	W30
484	202306071523	202306071620	W30
485	202306071529	202306071621	W30
486	202306071530	202306071622	W30
487	202306071536	202306071627	W30
488	202306071537	202306071628	W30
489	202306071543	202306071633	W30
490	202306071544	202306071634	W30
491	202306081211	202306081301	W31
492	202306081212	202306081303	W31
493	202306081218	202306081308	W31
494	202306081224	202306081309	W31
495	202306081226	202306081314	W31
496	202306081231	202306081315	W31
497	202306081232	202306081320	W31
498	202306081233	202306081321	W31
499	202306091644	202306091741	W32
500	202306091645	202306091745	W32
501	202306091652	202306091746	W32
502	202306091657	202306091748	W32
503	202306091658	202306091752	W32
504	202306091704	202306091753	W32
505	202306091711	202306091758	W32

506	202306091715	202306091759	W32
507	202306111416	202306111505	W33
508	202306111417	202306111506	W33
509	202306111423	202306111511	W33
510	202306111424	202306111512	W33
511	202306111430	202306111517	W33
512	202306111431	202306111518	W33
513	202306111438	202306111523	W33
514	202306111441	202306111524	W33
515	202306131432	202306131525	W34
516	202306131437	202306131526	W34
517	202306131439	202306131533	W34
518	202306131445	202306131538	W34
519	202306131446	202306131539	W34
520	202306131447	202306131540	W34
521	202306131452	202306131545	W34
522	202306131453	202306131547	W34
523	202306151019	202306151112	W35
524	202306151020	202306151113	W35
525	202306151026	202306151120	W35
526	202306151034	202306151122	W35
527	202306151036	202306151127	W35
528	202306151037	202306151128	W35
529	202306151043	202306151133	W35
530	202306151044	202306151134	W35

Table 37: Recordings examples at Figure 39 and Figure 40 - Format YYYYMMDDHHMM.

Record number	45 [RPS]	15 [RPS]	Status
1	202302281451	202302281804	Healthy
2	202304091309	202304091416	W1
3	202304091820	202304091915	W2
4	202304101127	202304101254	W3
5	202304101626	202304101719	W4
6	202304101940	202304102103	W5
7	202304131812	202304131959	W6
8	202304161204	202304161305	W7
9	202304161729	202304161830	W8
10	202304181335	202304181419	W9
11	202304191339	202304191435	W10
12	202304191942	202304192035	W11
13	202304201237	202304201337	W12
14	202304231250	202304231343	W13
15	202304231738	202304231828	W14
16	202304232122	202304232209	W15
17	202305011249	202305011342	W16
18	202305012023	202305012112	W17
19	202305021343	202305021442	W18
20	202305031417	202305031518	W19
21	202305071159	202305071305	W20
22	202305071715	202305071810	W21
23	202305101918	202305141010	W22
24	202305141739	202305141816	W23
25	202305231759	202305231852	W24
26	202305241916	202305242006	W25
27	202305301754	202305301847	W26
28	202305311947	202305312039	W27
29	202306040920	202306041012	W28
30	202306041848	202306041936	W29
31	202306071544	202306071634	W30
32	202306081233	202306081321	W31
33	202306091715	202306091759	W32
34	202306111441	202306111524	W33
35	202306131453	202306131547	W34
36	202306151044	202306151134	W35

Values tables

Table 38: RMS values from the vibration signals.

Record number	RMS at high speed [g]	RMS at low speed [g]	Status
1	1.05	0.19	Healthy
2	1.04	0.19	Healthy
3	1.02	0.18	Healthy
4	1.06	0.18	Healthy
5	1.04	0.18	Healthy
6	1.02	0.18	Healthy
7	1.02	0.19	Healthy
8	1.04	0.28	Healthy
9	0.87	0.28	Healthy
10	0.87	0.28	Healthy
11	0.86	0.28	Healthy
12	0.85	0.28	Healthy
13	0.87	0.28	Healthy
14	0.85	0.28	Healthy
15	0.83	0.28	Healthy
16	0.81	0.28	Healthy
17	0.82	0.20	Healthy
18	0.84	0.20	Healthy
19	0.81	0.20	Healthy
20	0.78	0.20	Healthy
21	0.76	0.19	Healthy
22	0.75	0.19	Healthy
23	0.76	0.19	Healthy
24	0.73	0.19	Healthy
25	0.84	0.17	Healthy
26	0.87	0.18	Healthy
27	0.89	0.18	Healthy
28	0.92	0.18	Healthy
29	0.94	0.18	Healthy
30	0.96	0.18	Healthy
31	0.96	0.18	Healthy
32	0.96	0.18	Healthy
33	0.60	0.19	Healthy
34	0.61	0.19	Healthy
35	0.60	0.18	Healthy
36	0.59	0.18	Healthy

37	0.59	0.19	Healthy
38	0.58	0.19	Healthy
39	0.58	0.19	Healthy
40	0.58	0.18	Healthy
41	0.67	0.18	Healthy
42	0.65	0.18	Healthy
43	0.65	0.18	Healthy
44	0.65	0.18	Healthy
45	0.64	0.19	Healthy
46	0.65	0.19	Healthy
47	0.65	0.19	Healthy
48	0.61	0.19	Healthy
49	0.61	0.18	Healthy
50	0.62	0.18	Healthy
51	0.63	0.18	Healthy
52	0.63	0.18	Healthy
53	0.63	0.18	Healthy
54	0.63	0.18	Healthy
55	0.64	0.19	Healthy
56	0.66	0.19	Healthy
57	0.60	0.16	Healthy
58	0.59	0.16	Healthy
59	0.60	0.16	Healthy
60	0.60	0.16	Healthy
61	0.59	0.16	Healthy
62	0.60	0.16	Healthy
63	0.61	0.16	Healthy
64	0.62	0.16	Healthy
65	0.59	0.16	Healthy
66	0.59	0.15	Healthy
67	0.60	0.15	Healthy
68	0.59	0.15	Healthy
69	0.59	0.15	Healthy
70	0.59	0.15	Healthy
71	0.59	0.15	Healthy
72	0.59	0.15	Healthy
73	0.51	0.15	Healthy
74	0.54	0.15	Healthy
75	0.57	0.16	Healthy
76	0.56	0.16	Healthy

77	0.58	0.16	Healthy
78	0.58	0.16	Healthy
79	0.58	0.16	Healthy
80	0.60	0.16	Healthy
81	0.55	0.15	Healthy
82	0.55	0.15	Healthy
83	0.58	0.15	Healthy
84	0.56	0.15	Healthy
85	0.58	0.15	Healthy
86	0.58	0.15	Healthy
87	0.57	0.15	Healthy
88	0.59	0.15	Healthy
89	0.52	0.15	Healthy
90	0.51	0.15	Healthy
91	0.52	0.15	Healthy
92	0.55	0.15	Healthy
93	0.55	0.15	Healthy
94	0.54	0.15	Healthy
95	0.53	0.15	Healthy
96	0.54	0.14	Healthy
97	0.64	0.15	Healthy
98	0.61	0.15	Healthy
99	0.58	0.15	Healthy
100	0.57	0.15	Healthy
101	0.57	0.16	Healthy
102	0.57	0.16	Healthy
103	0.58	0.16	Healthy
104	0.61	0.16	Healthy
105	0.66	0.14	Healthy
106	0.65	0.15	Healthy
107	0.65	0.15	Healthy
108	0.64	0.16	Healthy
109	0.63	0.16	Healthy
110	0.64	0.16	Healthy
111	0.64	0.16	Healthy
112	0.62	0.16	Healthy
113	0.48	0.13	Healthy
114	0.48	0.13	Healthy
115	0.43	0.13	Healthy

116	0.46	0.13	Healthy
117	0.46	0.13	Healthy
118	0.45	0.13	Healthy
119	0.45	0.13	Healthy
120	0.45	0.11	Healthy
121	0.50	0.11	Healthy
122	0.49	0.12	Healthy
123	0.49	0.12	Healthy
124	0.49	0.12	Healthy
125	0.49	0.12	Healthy
126	0.49	0.12	Healthy
127	0.48	0.12	Healthy
128	0.50	0.11	Healthy
129	0.51	0.11	Healthy
130	0.51	0.11	Healthy
131	0.51	0.12	Healthy
132	0.52	0.12	Healthy
133	0.50	0.12	Healthy
134	0.51	0.12	Healthy
135	0.52	0.12	Healthy
136	0.52	0.12	Healthy
137	0.54	0.15	Healthy
138	0.55	0.14	Healthy
139	0.57	0.15	Healthy
140	0.57	0.15	Healthy
141	0.61	0.15	Healthy
142	0.59	0.15	Healthy
143	0.55	0.14	Healthy
144	0.52	0.14	Healthy
145	0.54	0.10	Healthy
146	0.54	0.12	Healthy
147	0.55	0.12	Healthy
148	0.53	0.12	Healthy
149	0.55	0.12	Healthy
150	0.56	0.12	Healthy
151	0.56	0.12	Healthy
152	0.55	0.12	Healthy
153	0.57	0.10	Healthy
154	0.58	0.11	Healthy

155	0.58	0.12	Healthy
156	0.59	0.12	Healthy
157	0.58	0.12	Healthy
158	0.59	0.12	Healthy
159	0.60	0.12	Healthy
160	0.60	0.11	Healthy
161	0.63	0.11	Healthy
162	0.64	0.12	Healthy
163	0.62	0.11	Healthy
164	0.64	0.11	Healthy
165	0.60	0.11	Healthy
166	0.61	0.11	Healthy
167	0.63	0.11	Healthy
168	0.64	0.10	Healthy
169	0.65	0.10	Healthy
170	0.65	0.11	Healthy
171	0.64	0.10	Healthy
172	0.64	0.10	Healthy
173	0.66	0.10	Healthy
174	0.64	0.10	Healthy
175	0.65	0.10	Healthy
176	0.65	0.11	Healthy
177	0.65	0.11	Healthy
178	0.66	0.11	Healthy
179	0.67	0.11	Healthy
180	0.66	0.11	Healthy
181	0.65	0.11	Healthy
182	0.67	0.11	Healthy
183	0.65	0.11	Healthy
184	0.64	0.11	Healthy
185	0.65	0.11	Healthy
186	0.64	0.11	Healthy
187	0.66	0.11	Healthy
188	0.66	0.11	Healthy
189	0.62	0.11	Healthy
190	0.65	0.11	Healthy
191	0.66	0.11	Healthy
192	0.65	0.11	Healthy
193	0.64	0.11	Healthy

194	0.65	0.11	Healthy
195	0.65	0.11	Healthy
196	0.64	0.11	Healthy
197	0.63	0.11	Healthy
198	0.63	0.11	Healthy
199	0.64	0.11	Healthy
200	0.63	0.11	Healthy
201	0.57	0.11	Healthy
202	0.58	0.12	Healthy
203	0.59	0.11	Healthy
204	0.61	0.11	Healthy
205	0.62	0.11	Healthy
206	0.57	0.11	Healthy
207	0.58	0.11	Healthy
208	0.59	0.11	Healthy
209	0.59	0.11	Healthy
210	0.59	0.11	Healthy
211	0.61	0.11	Healthy
212	0.62	0.11	Healthy
213	0.63	0.11	Healthy
214	0.64	0.11	Healthy
215	0.62	0.11	Healthy
216	0.64	0.10	Healthy
217	0.65	0.11	Healthy
218	0.64	0.11	Healthy
219	0.65	0.11	Healthy
220	0.65	0.11	Healthy
221	0.63	0.10	Healthy
222	0.60	0.09	Healthy
223	0.59	0.09	Healthy
224	0.61	0.10	Healthy
225	0.62	0.10	Healthy
226	0.62	0.10	Healthy
227	0.63	0.11	Healthy
228	0.63	0.11	Healthy
229	0.63	0.10	Healthy
230	0.61	0.11	Healthy
231	0.62	0.11	Healthy
232	0.60	0.11	Healthy

233	0.60	0.11	Healthy
234	0.58	0.11	Healthy
235	0.59	0.11	Healthy
236	0.59	0.11	Healthy
237	0.58	0.11	Healthy
238	0.58	0.11	Healthy
239	0.58	0.11	Healthy
240	0.61	0.11	Healthy
241	0.60	0.11	Healthy
242	0.58	0.11	Healthy
243	0.58	0.11	Healthy
244	0.59	0.11	Healthy
245	0.58	0.11	Healthy
246	0.58	0.11	Healthy
247	0.57	0.12	Healthy
248	0.55	0.11	Healthy
249	0.56	0.11	Healthy
250	0.55	0.11	Healthy
251	0.49	0.11	W1
252	0.51	0.11	W1
253	0.51	0.11	W1
254	0.50	0.11	W1
255	0.51	0.11	W1
256	0.53	0.11	W1
257	0.53	0.10	W1
258	0.52	0.10	W1
259	0.53	0.14	W2
260	0.53	0.14	W2
261	0.54	0.14	W2
262	0.53	0.14	W2
263	0.55	0.14	W2
264	0.53	0.14	W2
265	0.51	0.14	W2
266	0.51	0.14	W2
267	0.51	0.16	W3
268	0.50	0.16	W3
269	0.52	0.15	W3
270	0.51	0.15	W3
271	0.53	0.16	W3

272	0.53	0.16	W3
273	0.54	0.16	W3
274	0.53	0.16	W3
275	0.60	0.17	W4
276	0.61	0.17	W4
277	0.65	0.17	W4
278	0.65	0.17	W4
279	0.62	0.17	W4
280	0.61	0.17	W4
281	0.61	0.17	W4
282	0.60	0.17	W4
283	0.61	0.19	W5
284	0.62	0.19	W5
285	0.65	0.18	W5
286	0.65	0.18	W5
287	0.60	0.17	W5
288	0.60	0.17	W5
289	0.62	0.17	W5
290	0.62	0.17	W5
291	0.67	0.19	W6
292	0.65	0.19	W6
293	0.65	0.19	W6
294	0.65	0.19	W6
295	0.64	0.19	W6
296	0.64	0.19	W6
297	0.66	0.19	W6
298	0.67	0.19	W6
299	0.77	0.21	W7
300	0.78	0.21	W7
301	0.79	0.20	W7
302	0.79	0.20	W7
303	0.79	0.21	W7
304	0.77	0.21	W7
305	0.79	0.21	W7
306	0.80	0.21	W7
307	0.89	0.24	W8
308	0.91	0.24	W8
309	0.88	0.24	W8
310	0.90	0.24	W8

311	0.89	0.23	W8
312	0.88	0.23	W8
313	0.88	0.24	W8
314	0.89	0.24	W8
315	0.88	0.25	W9
316	0.87	0.25	W9
317	0.88	0.25	W9
318	0.89	0.25	W9
319	0.87	0.26	W9
320	0.90	0.25	W9
321	0.86	0.26	W9
322	0.86	0.26	W9
323	0.86	0.25	W10
324	0.86	0.25	W10
325	0.84	0.25	W10
326	0.86	0.25	W10
327	0.82	0.25	W10
328	0.82	0.25	W10
329	0.81	0.25	W10
330	0.82	0.25	W10
331	0.98	0.30	W11
332	0.97	0.30	W11
333	0.94	0.30	W11
334	0.96	0.30	W11
335	0.93	0.30	W11
336	0.92	0.30	W11
337	1.24	0.30	W11
338	1.21	0.30	W11
339	1.01	0.27	W12
340	1.06	0.27	W12
341	1.07	0.28	W12
342	1.07	0.28	W12
343	1.04	0.27	W12
344	1.04	0.28	W12
345	1.09	0.27	W12
346	1.08	0.27	W12
347	1.11	0.37	W13
348	1.11	0.37	W13
349	1.17	0.36	W13

350	1.15	0.36	W13
351	1.13	0.37	W13
352	1.14	0.36	W13
353	1.13	0.36	W13
354	1.12	0.36	W13
355	1.29	0.41	W14
356	1.28	0.41	W14
357	1.24	0.40	W14
358	1.23	0.40	W14
359	1.21	0.41	W14
360	1.23	0.40	W14
361	1.22	0.40	W14
362	1.23	0.39	W14
363	1.33	0.46	W15
364	1.30	0.46	W15
365	1.30	0.45	W15
366	1.27	0.45	W15
367	1.24	0.44	W15
368	1.24	0.44	W15
369	1.20	0.42	W15
370	1.19	0.42	W15
371	1.33	0.44	W16
372	1.32	0.43	W16
373	1.29	0.43	W16
374	1.28	0.43	W16
375	1.27	0.43	W16
376	1.32	0.43	W16
377	1.27	0.42	W16
378	1.27	0.43	W16
379	1.39	0.47	W17
380	1.37	0.47	W17
381	1.36	0.49	W17
382	1.36	0.48	W17
383	1.28	0.48	W17
384	1.35	0.48	W17
385	1.34	0.47	W17
386	1.34	0.45	W17
387	1.55	0.47	W18
388	1.54	0.47	W18

389	1.53	0.46	W18
390	1.59	0.46	W18
391	1.52	0.46	W18
392	1.59	0.45	W18
393	1.55	0.45	W18
394	1.57	0.45	W18
395	1.64	0.49	W19
396	1.63	0.48	W19
397	1.57	0.48	W19
398	1.61	0.48	W19
399	1.58	0.48	W19
400	1.56	0.47	W19
401	1.59	0.48	W19
402	1.58	0.47	W19
403	1.72	0.56	W20
404	1.71	0.56	W20
405	1.65	0.55	W20
406	1.68	0.55	W20
407	1.72	0.55	W20
408	1.69	0.56	W20
409	1.63	0.56	W20
410	1.61	0.55	W20
411	1.76	0.58	W21
412	1.74	0.58	W21
413	1.68	0.56	W21
414	1.67	0.56	W21
415	1.67	0.56	W21
416	1.67	0.56	W21
417	1.61	0.56	W21
418	1.63	0.56	W21
419	1.52	0.55	W22
420	1.54	0.54	W22
421	1.51	0.54	W22
422	1.51	0.54	W22
423	1.50	0.53	W22
424	1.53	0.53	W22
425	1.54	0.53	W22
426	1.56	0.53	W22
427	1.54	0.57	W23

428	1.54	0.57	W23
429	1.50	0.55	W23
430	1.51	0.55	W23
431	1.48	0.54	W23
432	1.47	0.55	W23
433	1.47	0.54	W23
434	1.52	0.54	W23
435	1.45	0.60	W24
436	1.45	0.60	W24
437	1.41	0.60	W24
438	1.41	0.60	W24
439	1.42	0.59	W24
440	1.43	0.59	W24
441	1.43	0.59	W24
442	1.42	0.59	W24
443	1.63	0.57	W25
444	1.61	0.57	W25
445	1.59	0.59	W25
446	1.74	0.59	W25
447	1.71	0.59	W25
448	1.72	0.59	W25
449	1.75	0.59	W25
450	1.77	0.59	W25
451	2.24	0.59	W26
452	2.24	0.59	W26
453	2.26	0.63	W26
454	2.17	0.63	W26
455	2.20	0.62	W26
456	2.23	0.62	W26
457	2.14	0.61	W26
458	2.15	0.62	W26
459	1.88	0.64	W27
460	1.90	0.64	W27
461	1.91	0.65	W27
462	1.91	0.65	W27
463	1.84	0.62	W27
464	1.86	0.62	W27
465	1.85	0.63	W27
466	1.85	0.63	W27

467	2.41	0.62	W28
468	2.41	0.61	W28
469	2.47	0.61	W28
470	2.43	0.61	W28
471	2.34	0.64	W28
472	2.27	0.64	W28
473	2.10	0.63	W28
474	2.10	0.63	W28
475	2.61	0.56	W29
476	2.32	0.56	W29
477	2.35	0.60	W29
478	2.36	0.59	W29
479	2.07	0.59	W29
480	2.07	0.59	W29
481	2.07	0.59	W29
482	2.09	0.59	W29
483	1.96	0.53	W30
484	1.91	0.57	W30
485	1.80	0.57	W30
486	1.78	0.57	W30
487	1.82	0.56	W30
488	1.81	0.56	W30
489	1.77	0.55	W30
490	1.75	0.55	W30
491	2.16	0.54	W31
492	2.17	0.54	W31
493	2.02	0.58	W31
494	1.95	0.58	W31
495	1.98	0.56	W31
496	2.01	0.56	W31
497	2.01	0.55	W31
498	1.97	0.55	W31
499	2.18	0.62	W32
500	2.11	0.62	W32
501	1.95	0.61	W32
502	1.90	0.61	W32
503	1.95	0.60	W32
504	1.85	0.60	W32
505	1.92	0.59	W32

506	1.99	0.59	W32
507	2.04	0.72	W33
508	2.06	0.71	W33
509	1.95	0.74	W33
510	1.97	0.73	W33
511	1.86	0.73	W33
512	1.89	0.72	W33
513	1.78	0.71	W33
514	1.83	0.71	W33
515	1.88	0.86	W34
516	1.73	0.86	W34
517	1.74	0.89	W34
518	1.71	0.83	W34
519	1.72	0.83	W34
520	1.71	0.83	W34
521	1.79	0.86	W34
522	1.79	0.86	W34
523	1.55	0.77	W35
524	1.58	0.77	W35
525	1.48	0.75	W35
526	1.48	0.75	W35
527	1.49	0.74	W35
528	1.47	0.75	W35
529	1.45	0.74	W35
530	1.48	0.74	W35

Table 39: Normalized Frequency Modulation Energy (FME) from the vibration spectrum.

Record number	Normalized FME at high speed	Normalized FME at low speed	Status
1	33.2	62.0	Healthy
2	33.8	64.6	Healthy
3	33.0	61.1	Healthy
4	37.6	59.2	Healthy
5	35.0	58.6	Healthy
6	33.9	57.8	Healthy
7	35.8	55.7	Healthy
8	35.3	29.5	Healthy
9	20.0	28.3	Healthy
10	20.5	29.5	Healthy
11	23.0	29.3	Healthy
12	23.6	32.4	Healthy
13	23.8	33.6	Healthy
14	24.1	32.7	Healthy
15	23.0	32.5	Healthy
16	15.2	34.2	Healthy
17	18.8	31.6	Healthy
18	20.0	31.6	Healthy
19	23.9	30.2	Healthy
20	21.8	29.7	Healthy
21	25.2	27.2	Healthy
22	26.5	28.5	Healthy
23	26.0	28.4	Healthy
24	25.7	29.1	Healthy
25	38.7	23.2	Healthy
26	37.3	26.3	Healthy
27	38.0	28.6	Healthy
28	35.5	29.1	Healthy
29	37.2	30.8	Healthy
30	37.0	28.7	Healthy
31	35.4	29.2	Healthy
32	32.2	29.8	Healthy
33	10.1	26.7	Healthy
34	9.2	26.7	Healthy
35	9.3	24.8	Healthy
36	9.3	24.4	Healthy
37	9.8	25.1	Healthy
38	9.7	25.4	Healthy

39	10.3	26.5	Healthy
40	11.0	23.0	Healthy
41	7.8	24.6	Healthy
42	7.7	26.1	Healthy
43	7.8	26.9	Healthy
44	7.6	28.2	Healthy
45	8.3	30.4	Healthy
46	8.8	31.2	Healthy
47	8.0	31.9	Healthy
48	7.9	33.3	Healthy
49	7.5	29.3	Healthy
50	8.3	29.5	Healthy
51	9.1	30.7	Healthy
52	8.5	31.3	Healthy
53	9.2	31.8	Healthy
54	8.7	32.9	Healthy
55	10.2	34.6	Healthy
56	10.5	35.6	Healthy
57	8.4	52.2	Healthy
58	8.2	45.7	Healthy
59	9.0	45.6	Healthy
60	9.3	43.5	Healthy
61	9.5	43.6	Healthy
62	8.8	43.1	Healthy
63	9.1	42.4	Healthy
64	12.6	18.8	Healthy
65	9.9	17.2	Healthy
66	9.3	17.2	Healthy
67	8.9	15.8	Healthy
68	8.0	16.8	Healthy
69	8.5	16.3	Healthy
70	8.7	15.8	Healthy
71	8.7	16.4	Healthy
72	8.4	15.8	Healthy
73	9.9	17.7	Healthy
74	8.8	19.3	Healthy
75	9.4	20.4	Healthy
76	8.7	20.7	Healthy
77	8.7	20.9	Healthy
78	9.8	22.1	Healthy

79	9.7	21.8	Healthy
80	10.3	22.9	Healthy
81	14.3	22.9	Healthy
82	14.1	21.7	Healthy
83	12.4	22.1	Healthy
84	13.8	23.8	Healthy
85	12.6	22.1	Healthy
86	12.3	22.5	Healthy
87	12.5	22.5	Healthy
88	12.0	23.5	Healthy
89	16.5	18.0	Healthy
90	16.2	15.8	Healthy
91	15.4	17.4	Healthy
92	14.2	17.8	Healthy
93	14.0	19.0	Healthy
94	13.8	18.6	Healthy
95	13.9	18.7	Healthy
96	14.1	12.2	Healthy
97	15.1	13.4	Healthy
98	13.6	15.4	Healthy
99	13.2	18.5	Healthy
100	12.9	22.1	Healthy
101	12.5	22.9	Healthy
102	13.1	24.0	Healthy
103	13.0	23.5	Healthy
104	15.2	25.0	Healthy
105	15.3	20.1	Healthy
106	14.5	22.4	Healthy
107	14.4	23.8	Healthy
108	13.4	26.4	Healthy
109	12.6	28.3	Healthy
110	12.7	28.4	Healthy
111	13.1	28.2	Healthy
112	12.2	29.3	Healthy
113	14.6	12.2	Healthy
114	14.9	11.8	Healthy
115	18.5	11.9	Healthy
116	16.9	11.1	Healthy
117	17.1	10.7	Healthy

118	18.4	10.8	Healthy
119	16.8	10.8	Healthy
120	16.1	16.0	Healthy
121	12.7	14.5	Healthy
122	13.3	13.9	Healthy
123	13.3	13.3	Healthy
124	12.8	13.4	Healthy
125	12.7	13.2	Healthy
126	13.0	13.2	Healthy
127	13.5	13.1	Healthy
128	12.6	18.4	Healthy
129	12.4	16.9	Healthy
130	13.2	15.2	Healthy
131	12.3	14.4	Healthy
132	12.4	13.5	Healthy
133	13.1	13.3	Healthy
134	12.1	13.7	Healthy
135	11.4	13.8	Healthy
136	11.7	13.6	Healthy
137	13.3	17.6	Healthy
138	12.9	17.0	Healthy
139	12.8	18.1	Healthy
140	12.5	18.4	Healthy
141	11.8	18.9	Healthy
142	11.7	18.4	Healthy
143	12.0	17.4	Healthy
144	15.9	17.5	Healthy
145	13.7	20.2	Healthy
146	12.8	19.2	Healthy
147	12.5	20.7	Healthy
148	13.2	21.0	Healthy
149	12.4	20.9	Healthy
150	11.6	21.5	Healthy
151	11.0	21.1	Healthy
152	11.2	20.5	Healthy
153	14.4	19.7	Healthy
154	13.5	18.7	Healthy
155	12.0	20.2	Healthy
156	10.7	20.3	Healthy

157	10.7	19.4	Healthy
158	10.0	18.7	Healthy
159	9.7	19.4	Healthy
160	10.1	18.1	Healthy
161	10.1	18.0	Healthy
162	9.6	18.0	Healthy
163	9.4	20.2	Healthy
164	9.5	18.2	Healthy
165	9.1	17.5	Healthy
166	8.6	17.3	Healthy
167	7.9	17.5	Healthy
168	8.1	23.3	Healthy
169	8.4	21.5	Healthy
170	8.3	19.9	Healthy
171	7.9	25.8	Healthy
172	8.1	23.6	Healthy
173	8.5	24.6	Healthy
174	7.2	22.0	Healthy
175	7.8	21.2	Healthy
176	7.4	21.7	Healthy
177	7.6	20.9	Healthy
178	8.5	19.9	Healthy
179	8.0	19.6	Healthy
180	7.8	19.6	Healthy
181	6.0	18.4	Healthy
182	7.1	18.0	Healthy
183	7.3	18.6	Healthy
184	6.9	18.6	Healthy
185	6.1	18.0	Healthy
186	5.7	19.0	Healthy
187	6.5	18.6	Healthy
188	6.4	18.5	Healthy
189	5.1	17.9	Healthy
190	5.7	17.9	Healthy
191	5.8	20.1	Healthy
192	6.1	19.4	Healthy
193	6.0	19.1	Healthy
194	5.9	18.4	Healthy
195	5.9	21.1	Healthy

196	5.4	19.4	Healthy
197	4.4	18.8	Healthy
198	3.4	18.5	Healthy
199	5.0	18.6	Healthy
200	5.2	18.3	Healthy
201	6.2	18.7	Healthy
202	6.1	17.7	Healthy
203	6.3	23.4	Healthy
204	6.1	19.7	Healthy
205	6.2	18.7	Healthy
206	8.6	18.1	Healthy
207	8.3	20.0	Healthy
208	5.9	19.7	Healthy
209	6.6	18.2	Healthy
210	6.6	17.7	Healthy
211	8.2	20.9	Healthy
212	7.9	21.7	Healthy
213	7.1	19.0	Healthy
214	9.1	19.3	Healthy
215	7.0	19.1	Healthy
216	8.1	23.7	Healthy
217	9.3	19.4	Healthy
218	9.5	18.9	Healthy
219	8.6	19.8	Healthy
220	11.4	21.4	Healthy
221	9.1	27.1	Healthy
222	7.7	29.3	Healthy
223	7.9	26.7	Healthy
224	7.5	22.3	Healthy
225	8.8	24.0	Healthy
226	8.3	20.1	Healthy
227	9.7	18.9	Healthy
228	12.5	18.7	Healthy
229	10.8	22.2	Healthy
230	7.4	18.5	Healthy
231	10.4	17.9	Healthy
232	7.5	17.9	Healthy
233	11.4	21.4	Healthy
234	8.3	18.9	Healthy

235	8.1	17.6	Healthy
236	9.4	17.6	Healthy
237	8.3	16.8	Healthy
238	9.6	16.3	Healthy
239	9.4	16.7	Healthy
240	10.6	16.6	Healthy
241	10.8	17.6	Healthy
242	9.8	19.8	Healthy
243	10.1	16.7	Healthy
244	9.2	16.2	Healthy
245	10.6	16.0	Healthy
246	10.4	15.7	Healthy
247	8.8	15.8	Healthy
248	9.9	18.1	Healthy
249	8.4	16.4	Healthy
250	11.2	16.2	Healthy
251	22.2	29.0	W1
252	19.8	29.1	W1
253	19.1	28.8	W1
254	19.5	28.5	W1
255	17.6	28.7	W1
256	19.2	28.5	W1
257	18.6	29.6	W1
258	17.8	29.0	W1
259	21.0	25.8	W2
260	21.0	25.8	W2
261	21.3	26.3	W2
262	22.6	26.2	W2
263	21.0	26.9	W2
264	21.6	26.3	W2
265	22.0	26.4	W2
266	21.8	26.0	W2
267	20.2	27.2	W3
268	21.6	27.2	W3
269	21.3	27.0	W3
270	22.2	26.9	W3
271	19.1	27.5	W3
272	19.0	27.7	W3
273	20.0	28.9	W3

274	18.3	28.6	W3
275	18.3	27.1	W4
276	18.0	27.6	W4
277	16.2	26.7	W4
278	16.3	26.3	W4
279	18.0	26.8	W4
280	17.9	26.7	W4
281	16.4	26.4	W4
282	15.6	26.3	W4
283	24.5	35.7	W5
284	24.0	34.8	W5
285	22.2	32.9	W5
286	21.7	32.4	W5
287	20.9	31.4	W5
288	20.3	31.2	W5
289	19.1	31.1	W5
290	18.8	31.0	W5
291	20.4	35.2	W6
292	20.4	35.8	W6
293	20.5	36.3	W6
294	20.1	35.9	W6
295	20.1	35.3	W6
296	19.8	36.6	W6
297	19.4	35.6	W6
298	19.6	37.4	W6
299	26.2	43.8	W7
300	26.5	43.0	W7
301	24.8	41.6	W7
302	22.2	41.9	W7
303	24.2	43.5	W7
304	22.5	43.5	W7
305	22.8	44.0	W7
306	22.9	44.3	W7
307	46.8	59.9	W8
308	48.1	59.7	W8
309	43.1	57.3	W8
310	45.9	57.0	W8
311	45.5	55.3	W8
312	46.4	54.5	W8

313	43.0	55.6	W8
314	48.3	55.0	W8
315	71.7	64.7	W9
316	76.7	62.0	W9
317	87.8	62.7	W9
318	88.8	62.5	W9
319	88.0	63.2	W9
320	90.7	61.7	W9
321	84.2	64.3	W9
322	82.4	63.5	W9
323	145.0	60.7	W10
324	146.0	59.9	W10
325	149.0	59.4	W10
326	160.0	59.5	W10
327	146.0	61.4	W10
328	159.0	60.6	W10
329	153.0	60.4	W10
330	160.0	60.2	W10
331	214.0	146.0	W11
332	190.0	145.0	W11
333	154.0	132.0	W11
334	210.0	132.0	W11
335	180.0	156.0	W11
336	178.0	161.0	W11
337	341.0	156.0	W11
338	346.0	158.0	W11
339	130.0	87.3	W12
340	326.0	86.2	W12
341	329.0	101.0	W12
342	342.0	99.9	W12
343	306.0	96.7	W12
344	304.0	97.7	W12
345	381.0	94.3	W12
346	386.0	93.8	W12
347	281.0	169.0	W13
348	277.0	167.0	W13
349	391.0	157.0	W13
350	355.0	155.0	W13
351	409.0	167.0	W13

352	351.0	158.0	W13
353	386.0	157.0	W13
354	342.0	157.0	W13
355	261.0	182.0	W14
356	251.0	176.0	W14
357	265.0	172.0	W14
358	240.0	170.0	W14
359	297.0	181.0	W14
360	275.0	178.0	W14
361	285.0	167.0	W14
362	259.0	161.0	W14
363	295.0	269.0	W15
364	259.0	271.0	W15
365	294.0	269.0	W15
366	277.0	256.0	W15
367	250.0	250.0	W15
368	244.0	246.0	W15
369	260.0	215.0	W15
370	238.0	216.0	W15
371	365.0	223.0	W16
372	354.0	221.0	W16
373	377.0	217.0	W16
374	348.0	218.0	W16
375	357.0	217.0	W16
376	369.0	217.0	W16
377	378.0	215.0	W16
378	347.0	217.0	W16
379	268.0	289.0	W17
380	259.0	292.0	W17
381	272.0	350.0	W17
382	288.0	346.0	W17
383	240.0	354.0	W17
384	268.0	344.0	W17
385	258.0	306.0	W17
386	253.0	268.0	W17
387	424.0	272.0	W18
388	443.0	274.0	W18
389	398.0	268.0	W18
390	498.0	268.0	W18

391	455.0	271.0	W18
392	475.0	269.0	W18
393	470.0	265.0	W18
394	456.0	266.0	W18
395	525.0	258.0	W19
396	483.0	251.0	W19
397	413.0	252.0	W19
398	444.0	251.0	W19
399	446.0	246.0	W19
400	436.0	247.0	W19
401	473.0	247.0	W19
402	475.0	250.0	W19
403	550.0	302.0	W20
404	513.0	301.0	W20
405	606.0	297.0	W20
406	630.0	298.0	W20
407	668.0	301.0	W20
408	685.0	302.0	W20
409	627.0	307.0	W20
410	607.0	305.0	W20
411	594.0	309.0	W21
412	584.0	309.0	W21
413	583.0	290.0	W21
414	579.0	294.0	W21
415	609.0	296.0	W21
416	630.0	297.0	W21
417	639.0	308.0	W21
418	672.0	306.0	W21
419	568.0	305.0	W22
420	606.0	295.0	W22
421	550.0	295.0	W22
422	578.0	296.0	W22
423	535.0	292.0	W22
424	593.0	295.0	W22
425	575.0	292.0	W22
426	616.0	290.0	W22
427	359.0	341.0	W23
428	390.0	340.0	W23
429	358.0	324.0	W23

430	367.0	321.0	W23
431	399.0	314.0	W23
432	428.0	316.0	W23
433	387.0	315.0	W23
434	435.0	316.0	W23
435	515.0	327.0	W24
436	523.0	323.0	W24
437	519.0	332.0	W24
438	501.0	327.0	W24
439	599.0	332.0	W24
440	583.0	329.0	W24
441	634.0	317.0	W24
442	633.0	310.0	W24
443	923.0	600.0	W25
444	906.0	593.0	W25
445	836.0	590.0	W25
446	522.0	580.0	W25
447	516.0	564.0	W25
448	561.0	571.0	W25
449	696.0	564.0	W25
450	669.0	561.0	W25
451	829.0	518.0	W26
452	838.0	511.0	W26
453	652.0	538.0	W26
454	698.0	542.0	W26
455	789.0	527.0	W26
456	844.0	532.0	W26
457	638.0	521.0	W26
458	635.0	530.0	W26
459	1160.0	584.0	W27
460	1150.0	577.0	W27
461	891.0	669.0	W27
462	896.0	663.0	W27
463	934.0	556.0	W27
464	994.0	559.0	W27
465	959.0	609.0	W27
466	996.0	612.0	W27
467	757.0	481.0	W28
468	742.0	459.0	W28

469	863.0	459.0	W28
470	875.0	457.0	W28
471	877.0	481.0	W28
472	861.0	478.0	W28
473	546.0	450.0	W28
474	558.0	455.0	W28
475	1130.0	395.0	W29
476	1030.0	388.0	W29
477	1010.0	438.0	W29
478	1040.0	422.0	W29
479	884.0	427.0	W29
480	897.0	426.0	W29
481	910.0	420.0	W29
482	947.0	418.0	W29
483	835.0	354.0	W30
484	835.0	405.0	W30
485	742.0	401.0	W30
486	743.0	394.0	W30
487	654.0	388.0	W30
488	683.0	389.0	W30
489	844.0	385.0	W30
490	860.0	388.0	W30
491	852.0	410.0	W31
492	886.0	403.0	W31
493	820.0	454.0	W31
494	878.0	452.0	W31
495	973.0	430.0	W31
496	986.0	425.0	W31
497	992.0	419.0	W31
498	996.0	414.0	W31
499	926.0	439.0	W32
500	884.0	457.0	W32
501	805.0	452.0	W32
502	875.0	446.0	W32
503	899.0	431.0	W32
504	1070.0	430.0	W32
505	1130.0	421.0	W32
506	1310.0	419.0	W32
507	986.0	615.0	W33

508	1040.0	608.0	W33
509	769.0	613.0	W33
510	808.0	606.0	W33
511	888.0	607.0	W33
512	905.0	609.0	W33
513	884.0	586.0	W33
514	1030.0	588.0	W33
515	1340.0	1040.0	W34
516	1310.0	1030.0	W34
517	1410.0	1040.0	W34
518	1490.0	869.0	W34
519	1530.0	867.0	W34
520	1660.0	862.0	W34
521	1410.0	934.0	W34
522	1420.0	938.0	W34
523	290.0	651.0	W35
524	294.0	647.0	W35
525	323.0	593.0	W35
526	356.0	579.0	W35
527	353.0	555.0	W35
528	409.0	554.0	W35
529	414.0	546.0	W35
530	391.0	535.0	W35

Figures

Teeth Face view

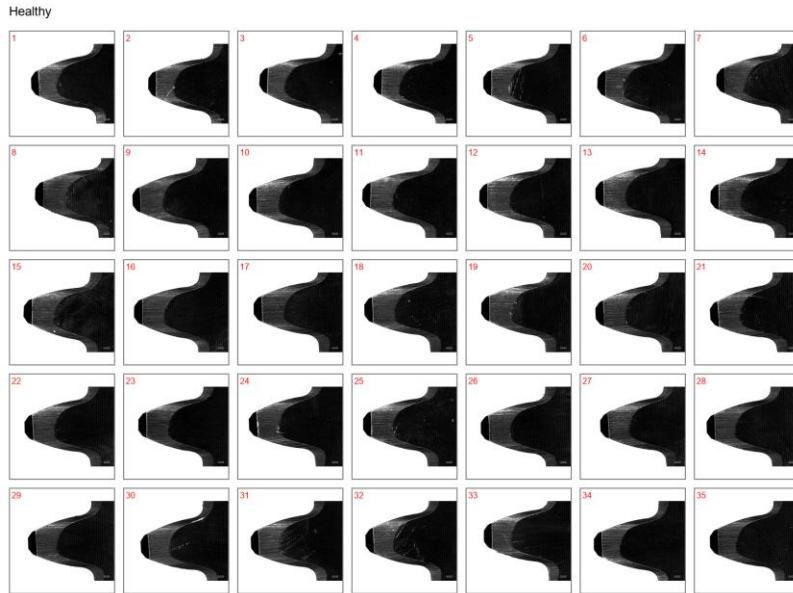


Figure 1: Face view of the drive gear teeth at healthy state.

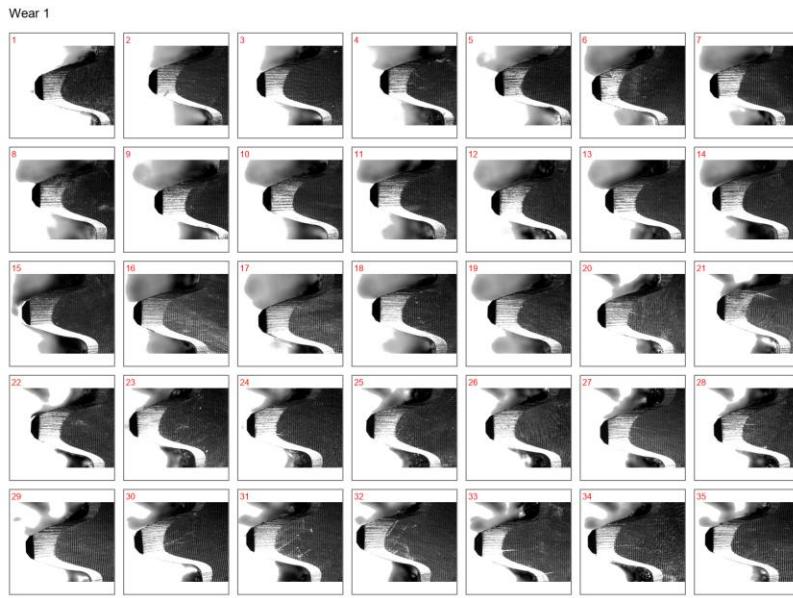


Figure 2: Face view of the drive gear teeth at wear case 1.

Wear 2

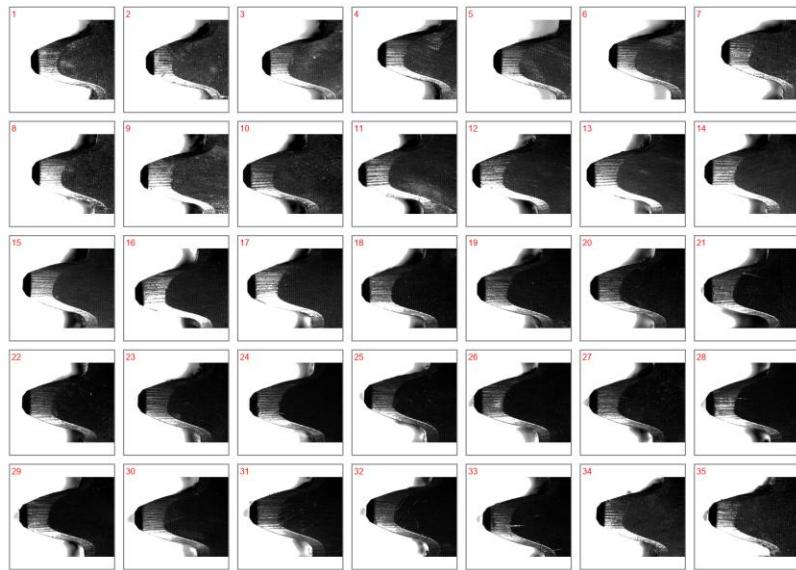


Figure 3: Face view of the drive gear teeth at wear case 2.

Wear 3

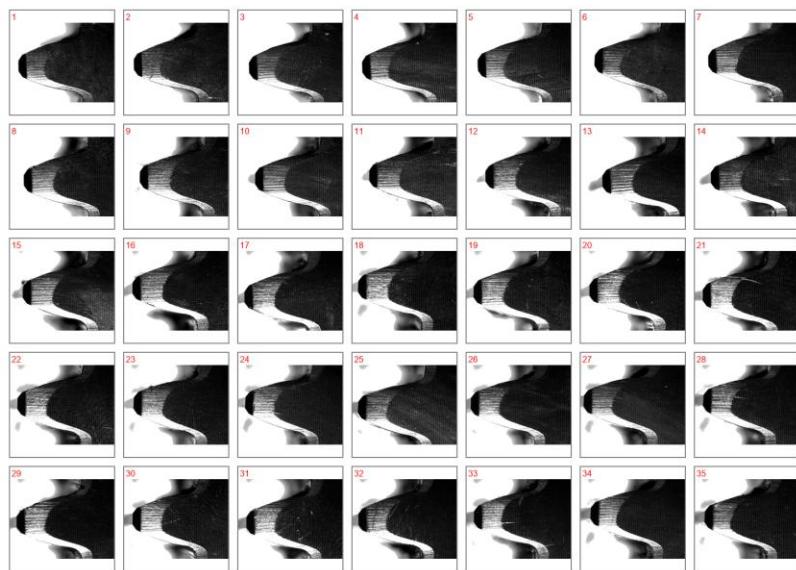


Figure 4: Face view of the drive gear teeth at wear case 3.

Wear 4

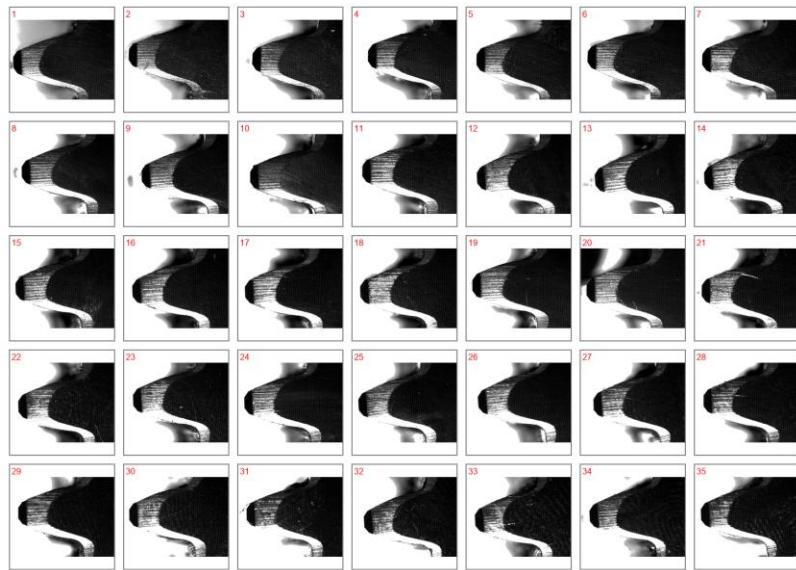


Figure 5: Face view of the drive gear teeth at wear case 4.

Wear 5

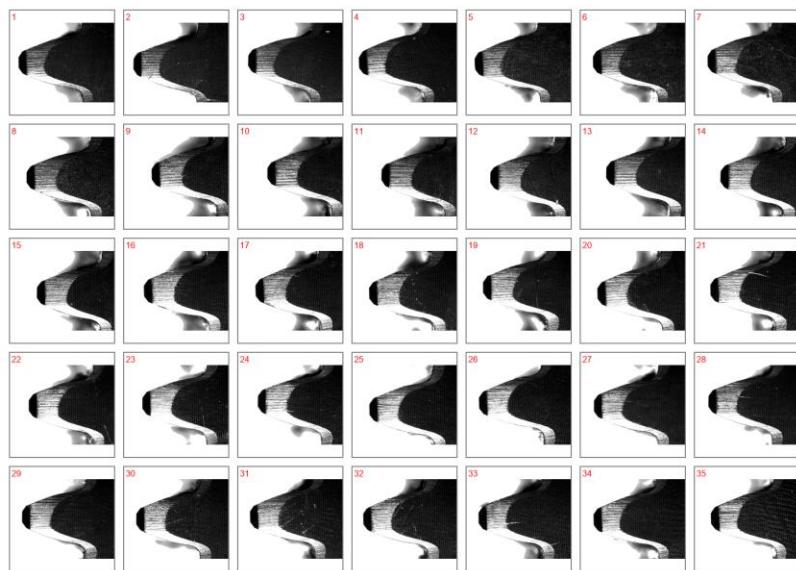


Figure 6: Face view of the drive gear teeth at wear case 5.

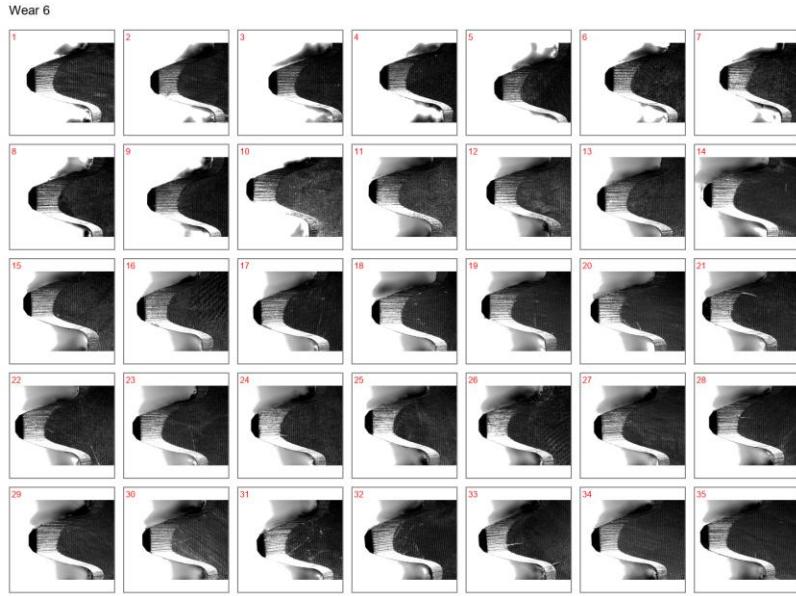


Figure 7: Face view of the drive gear teeth at wear case 6.

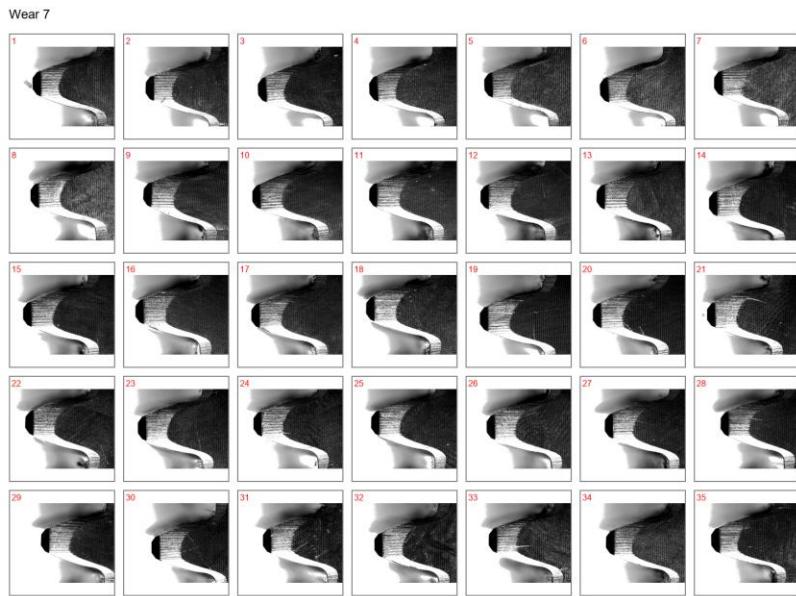


Figure 8: Face view of the drive gear teeth at wear case 7.

Wear 8

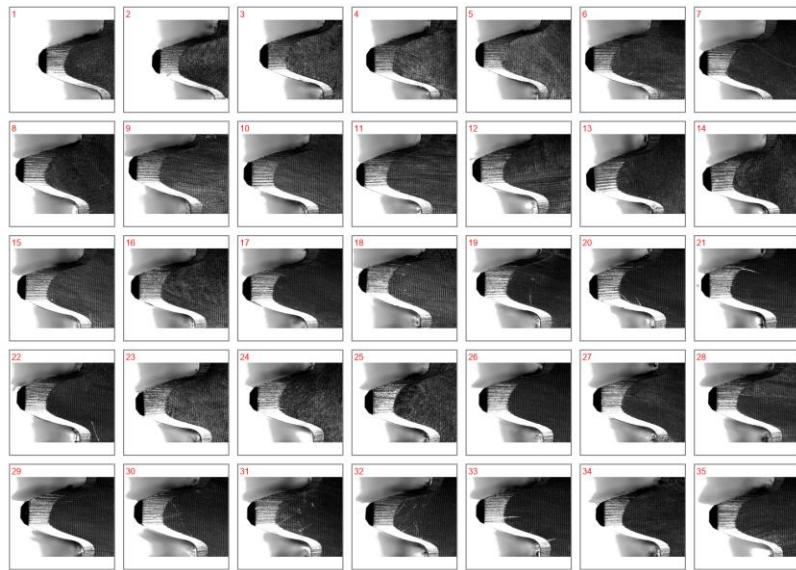


Figure 9: Face view of the drive gear teeth at wear case 8.

Wear 9

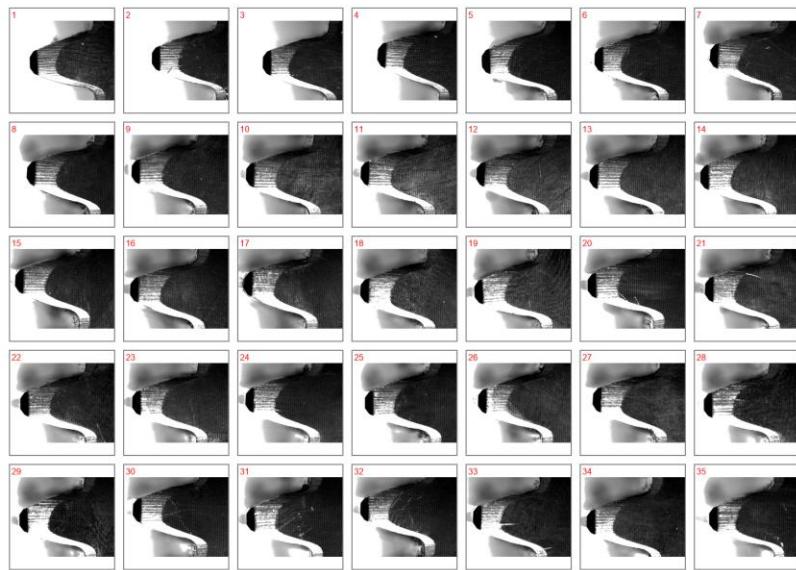


Figure 10: Face view of the drive gear teeth at wear case 9.

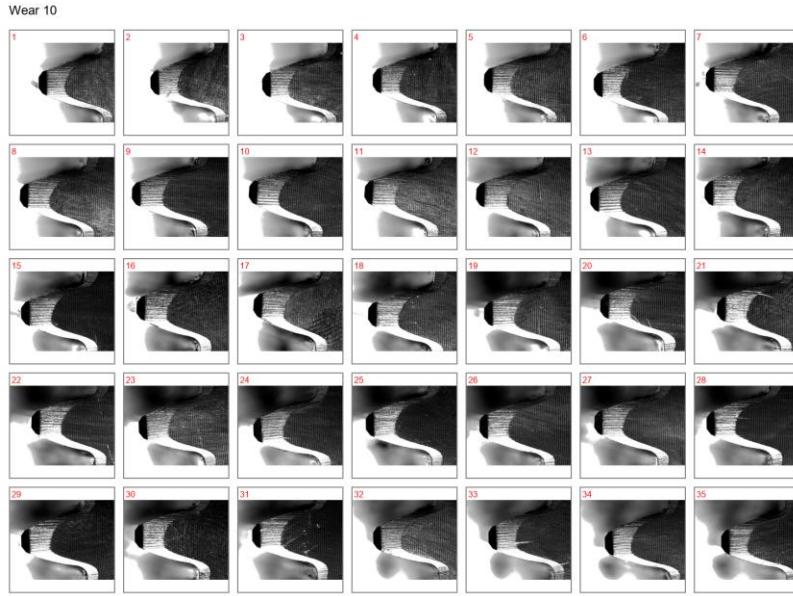


Figure 11: Face view of the drive gear teeth at wear case 10.

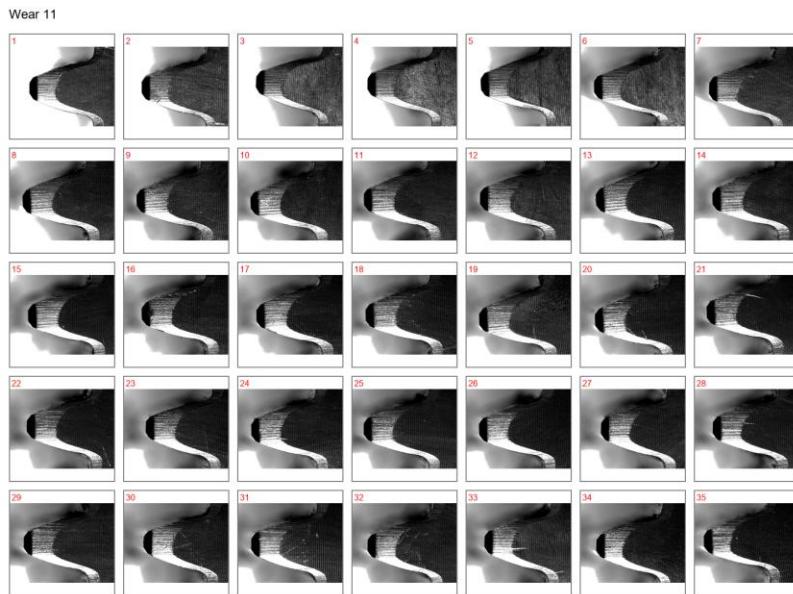


Figure 12: Face view of the drive gear teeth at wear case 11.

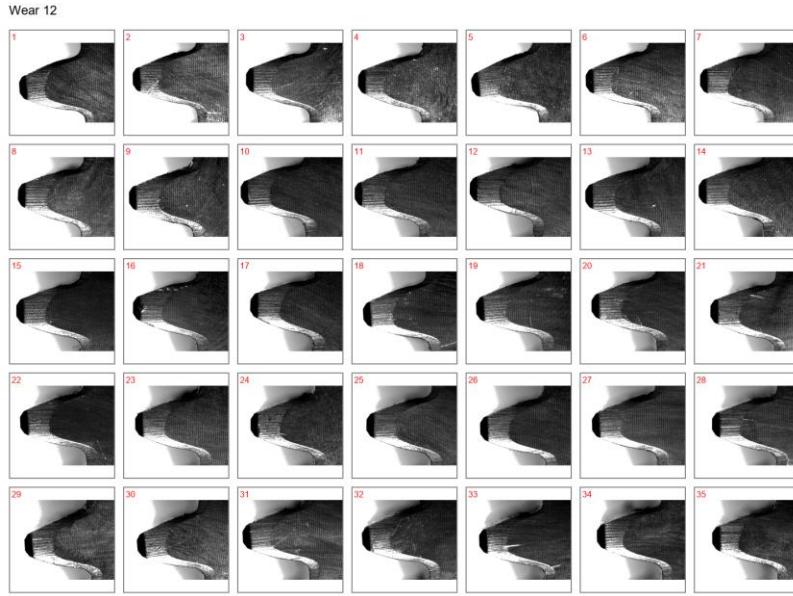


Figure 13: Face view of the drive gear teeth at wear case 12.

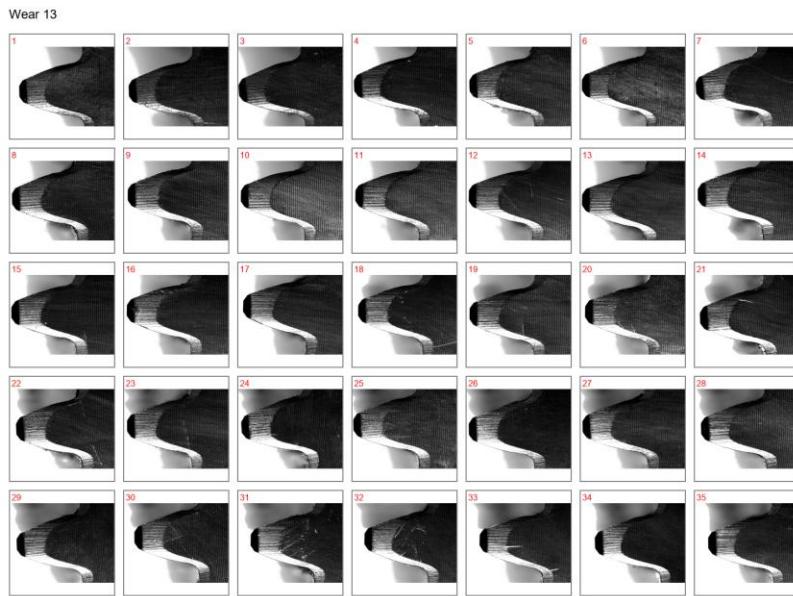


Figure 14: Face view of the drive gear teeth at wear case 13.

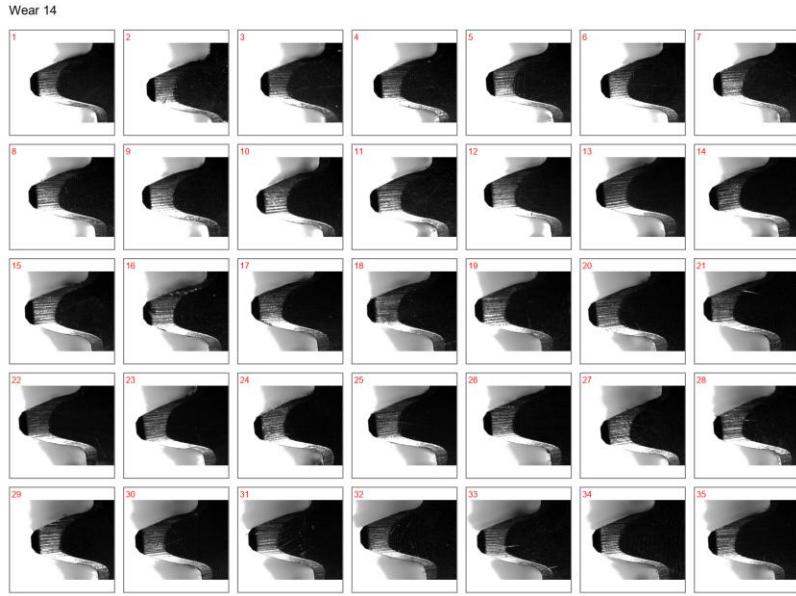


Figure 15: Face view of the drive gear teeth at wear case 14.

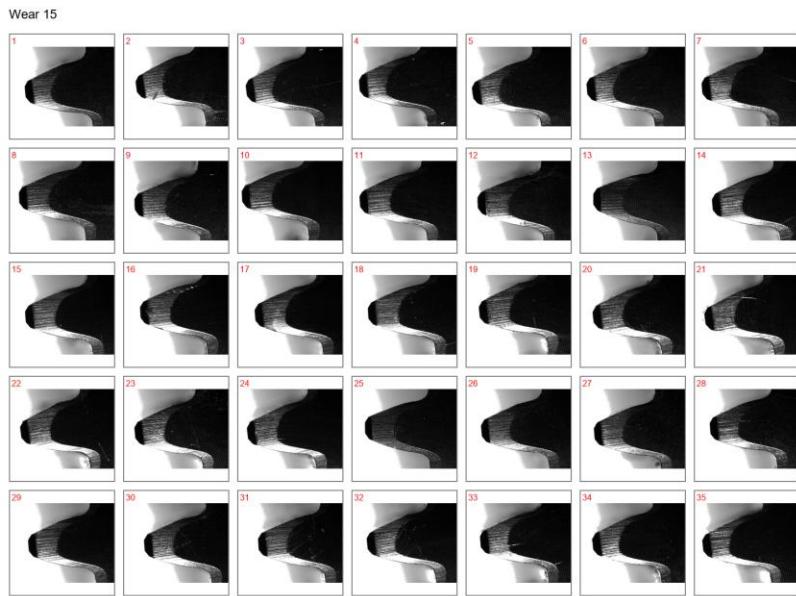


Figure 16: Face view of the drive gear teeth at wear case 15.

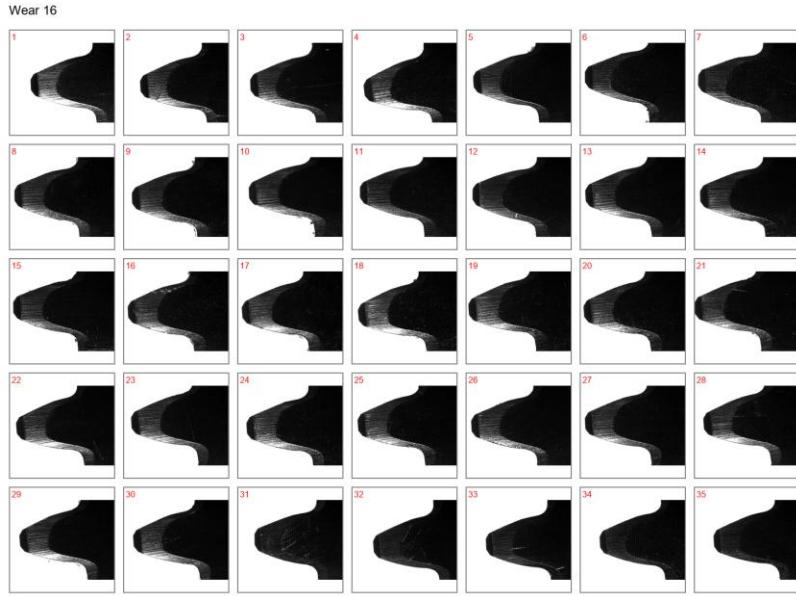


Figure 17: Face view of the drive gear teeth at wear case 16.

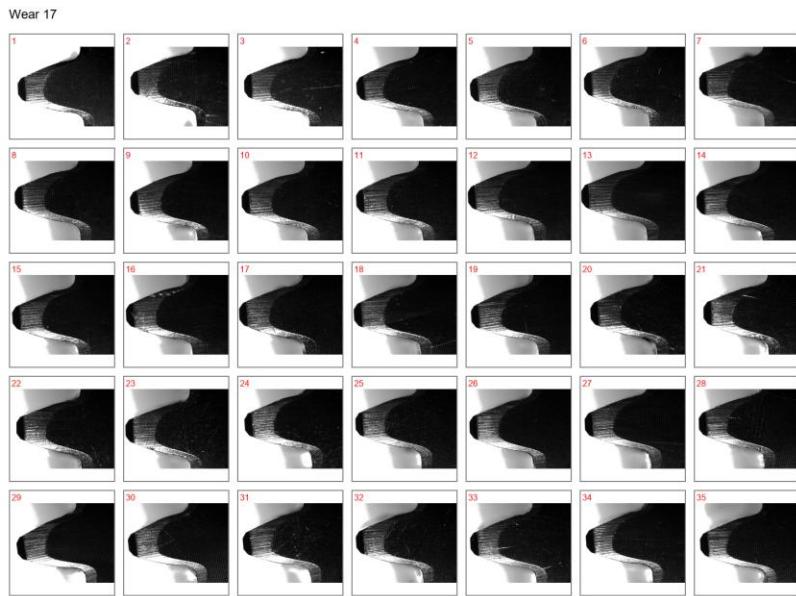


Figure 18: Face view of the drive gear teeth at wear case 17.

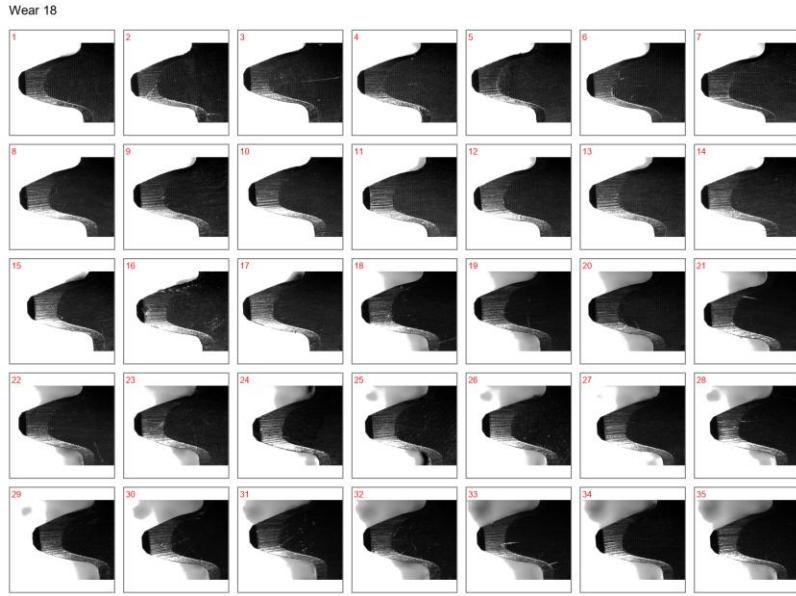


Figure 19: Face view of the drive gear teeth at wear case 18.

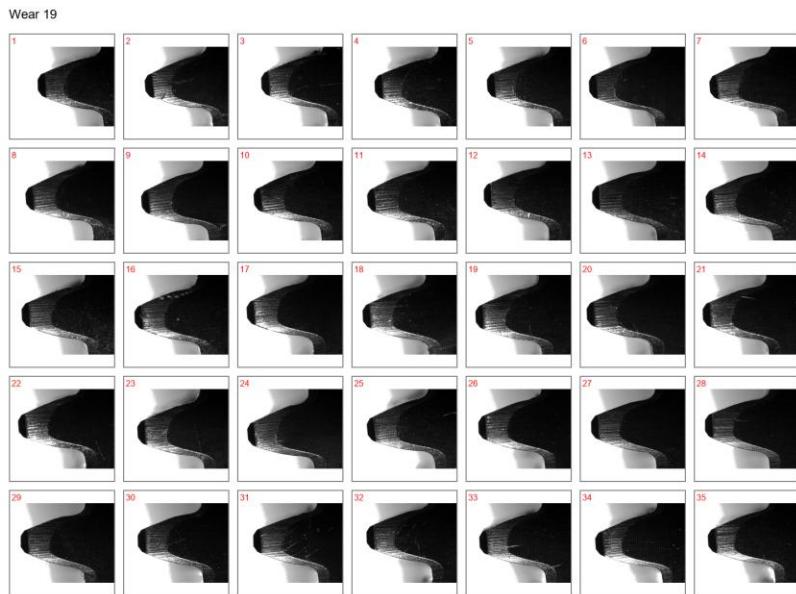


Figure 20: Face view of the drive gear teeth at wear case 19.

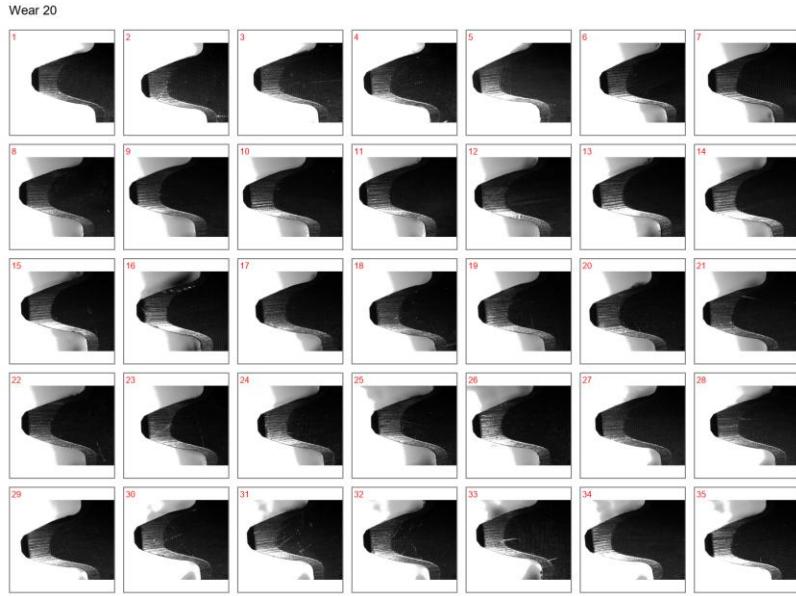


Figure 21: Face view of the drive gear teeth at wear case 20.

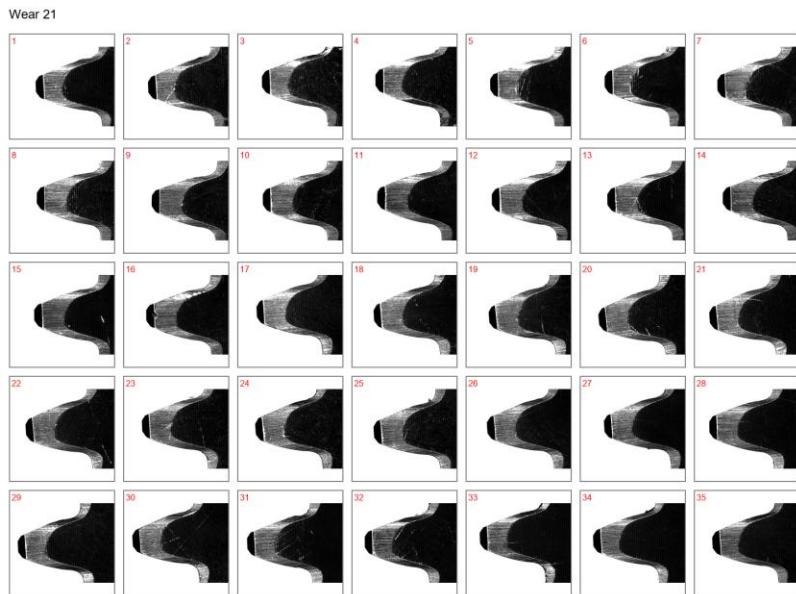


Figure 22: Face view of the drive gear teeth at wear case 21.

Wear 22

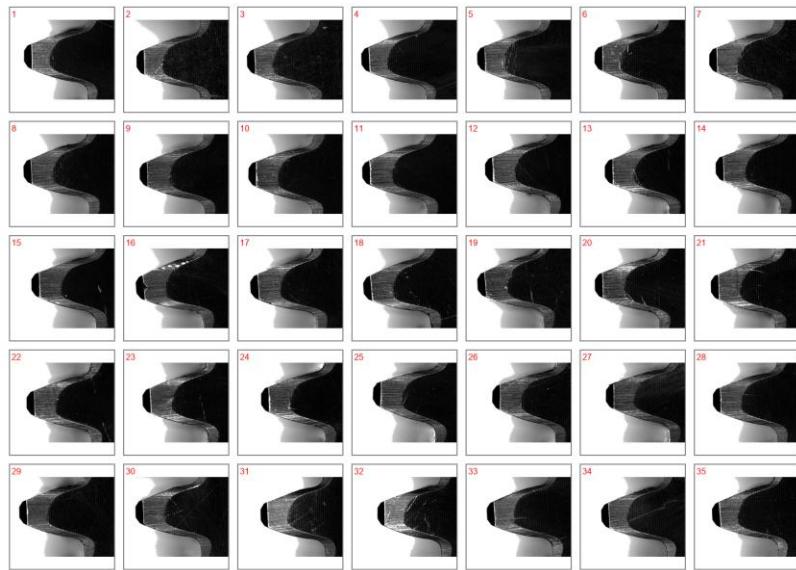


Figure 23: Face view of the drive gear teeth at wear case 22.

Wear 23

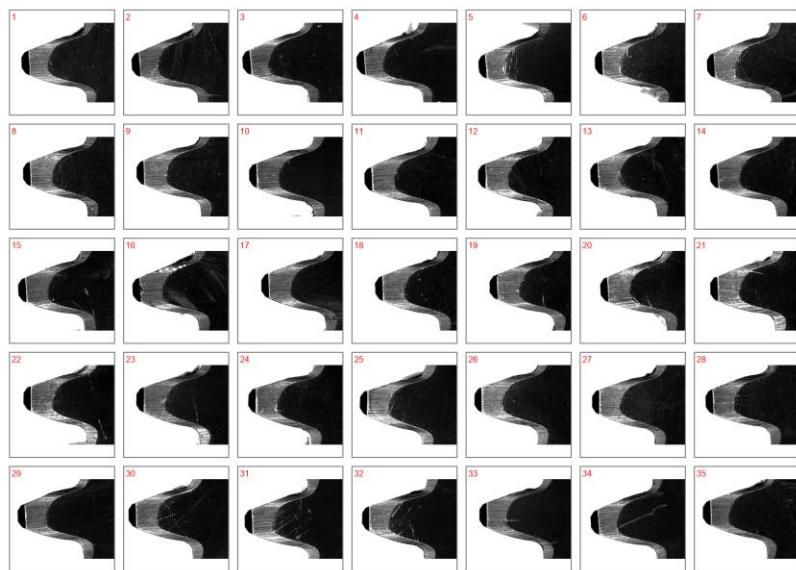


Figure 24: Face view of the drive gear teeth at wear case 23.

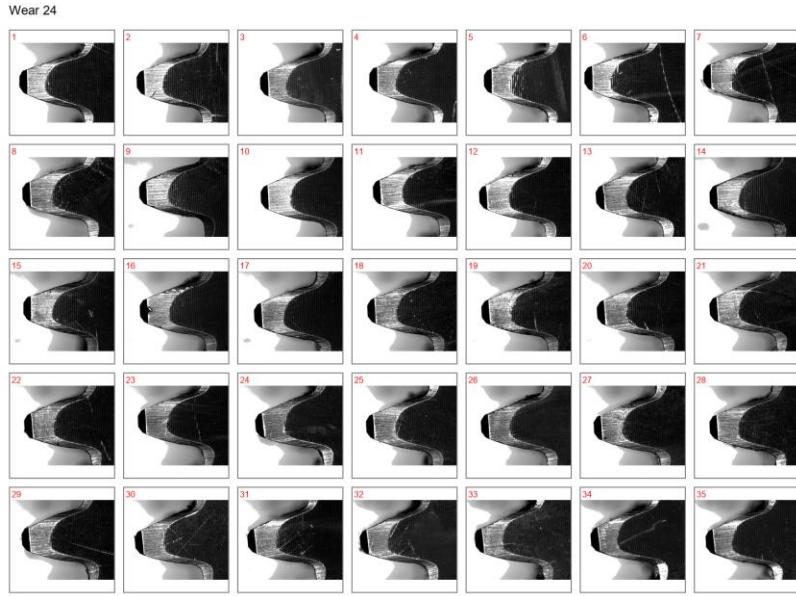


Figure 25: Face view of the drive gear teeth at wear case 24.

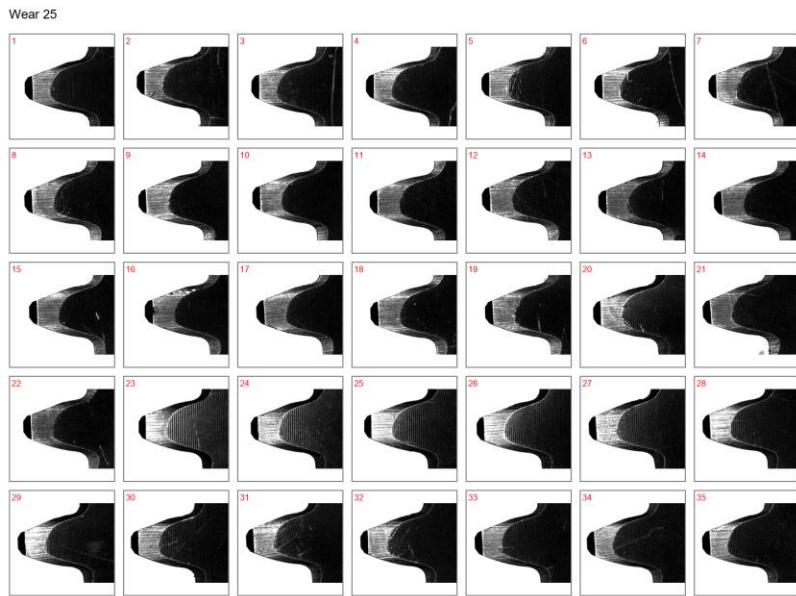


Figure 26: Face view of the drive gear teeth at wear case 25.

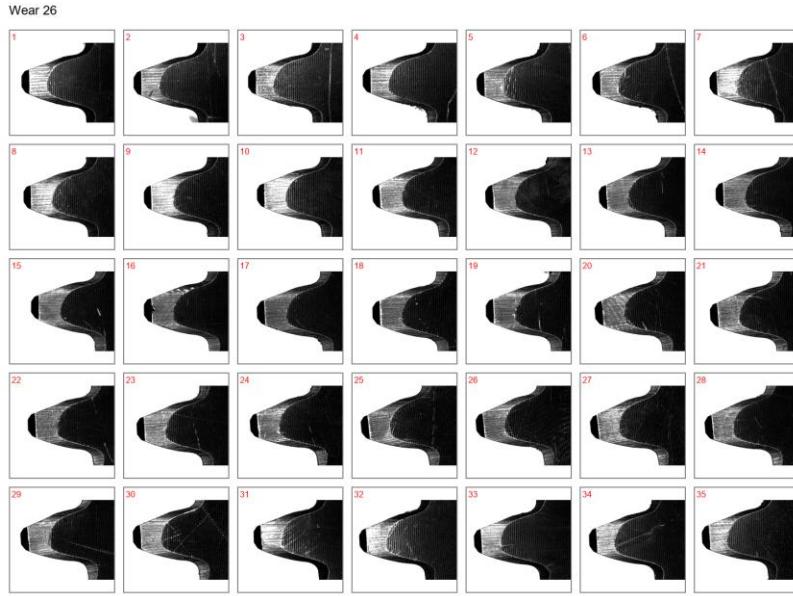


Figure 27: Face view of the drive gear teeth at wear case 26.



Figure 28: Face view of the drive gear teeth at wear case 27.

Wear 28



Figure 29: Face view of the drive gear teeth at wear case 28.

Wear 29

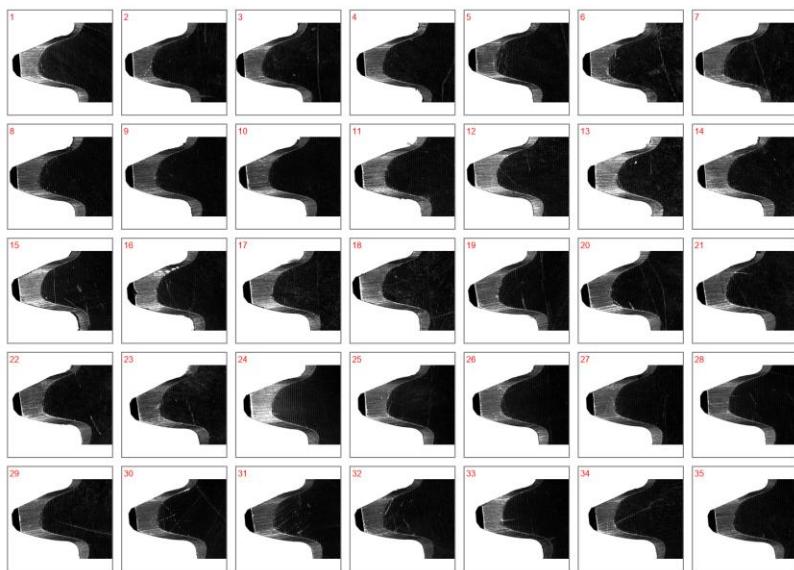


Figure 30: Face view of the drive gear teeth at wear case 29.

Wear 30

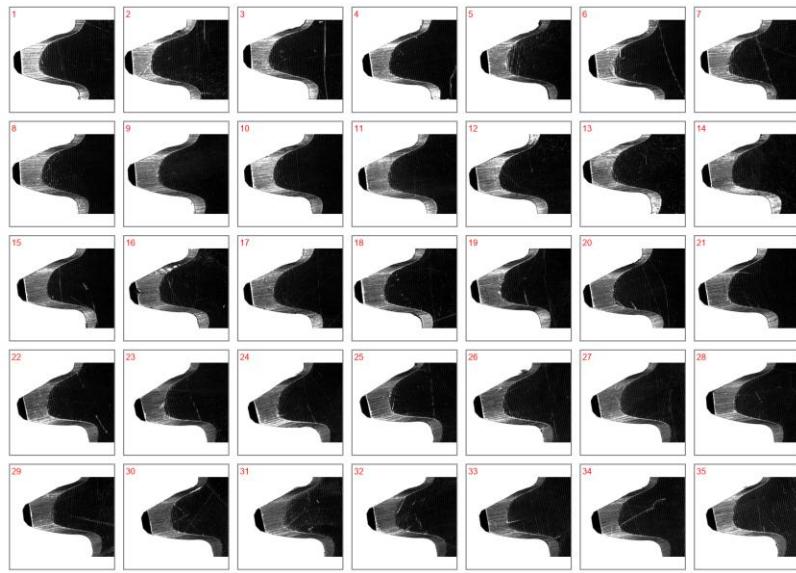


Figure 31: Face view of the drive gear teeth at wear case 30.

Wear 31

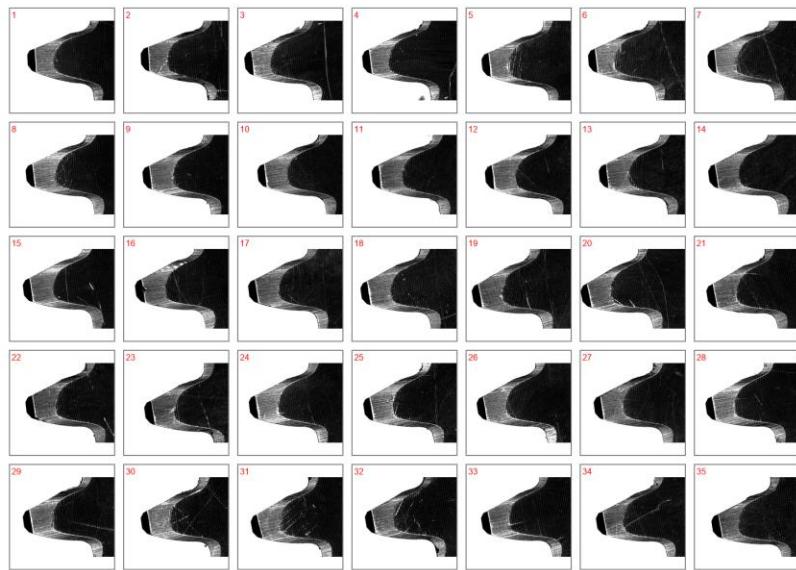


Figure 32: Face view of the drive gear teeth at wear case 31.

Wear 32

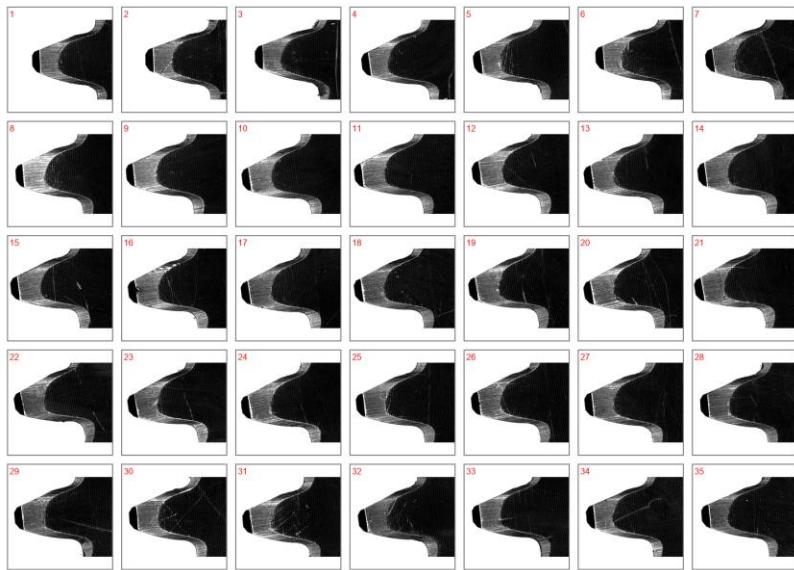


Figure 33: Face view of the drive gear teeth at wear case 32.

Wear 33



Figure 34: Face view of the drive gear teeth at wear case 33.

Wear 34

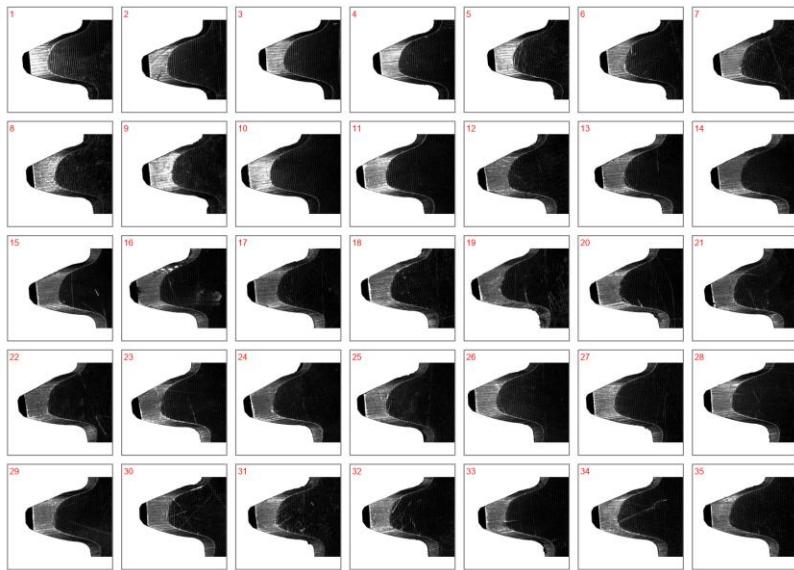


Figure 35: Face view of the drive gear teeth at wear case 34.

Wear 35

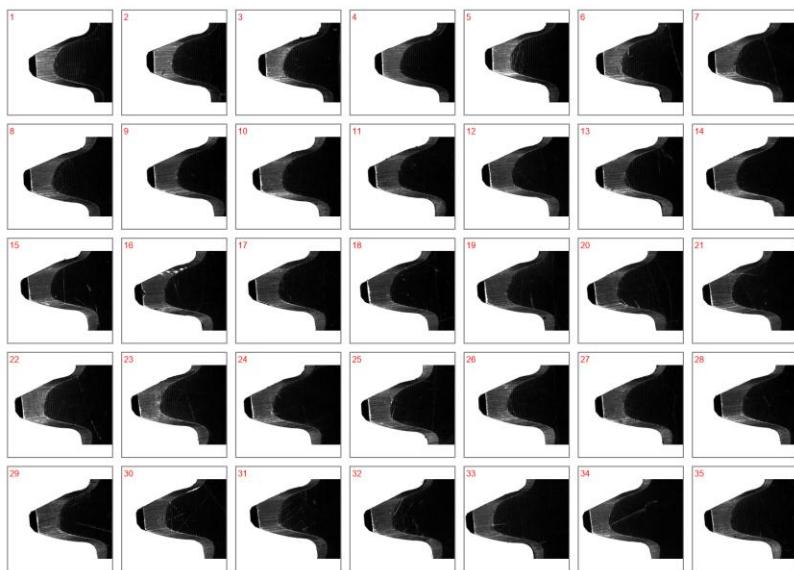


Figure 36: Face view of the drive gear teeth at wear case 35.

Wear depths measurements

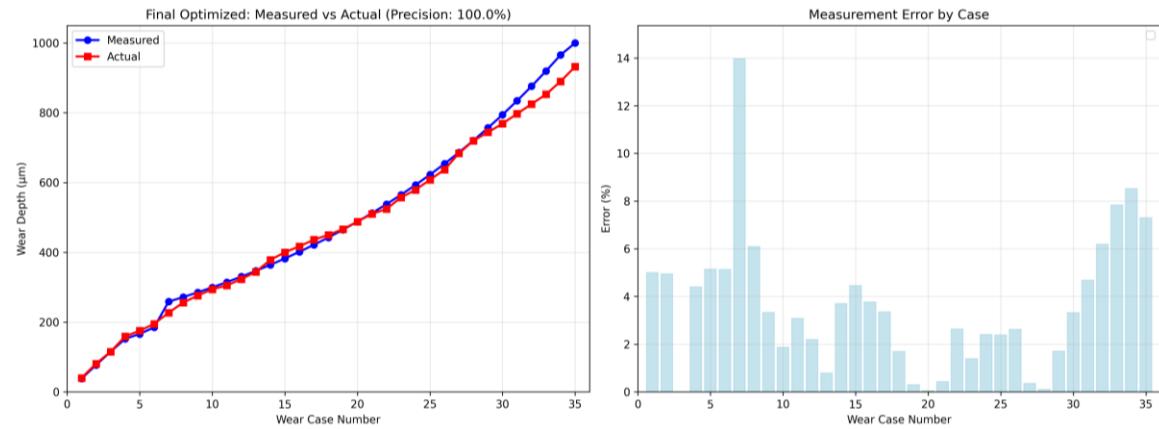


Figure 37: Comparison of wear depth from image processing and actual measurements of tooth 1.

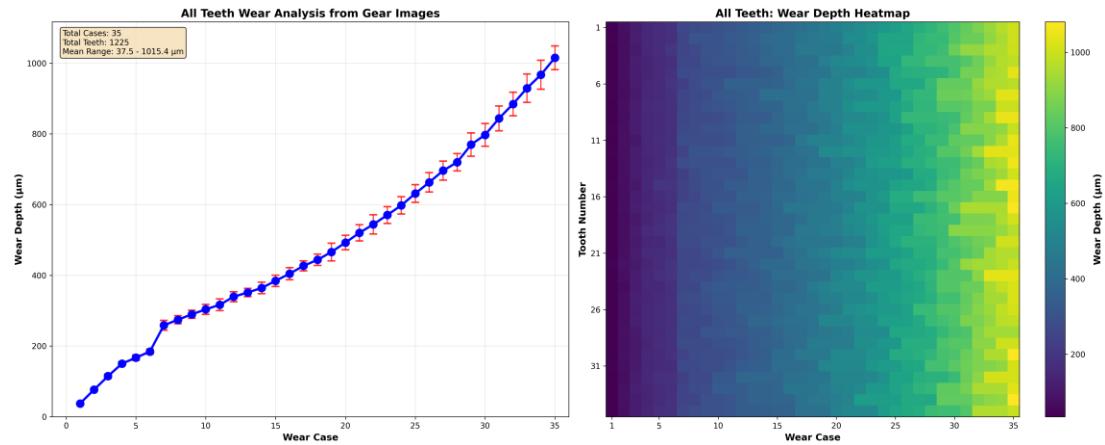


Figure 38: Mean wear depth at all wear cases and heat map for wear growth at all teeth.

Vibrations signals

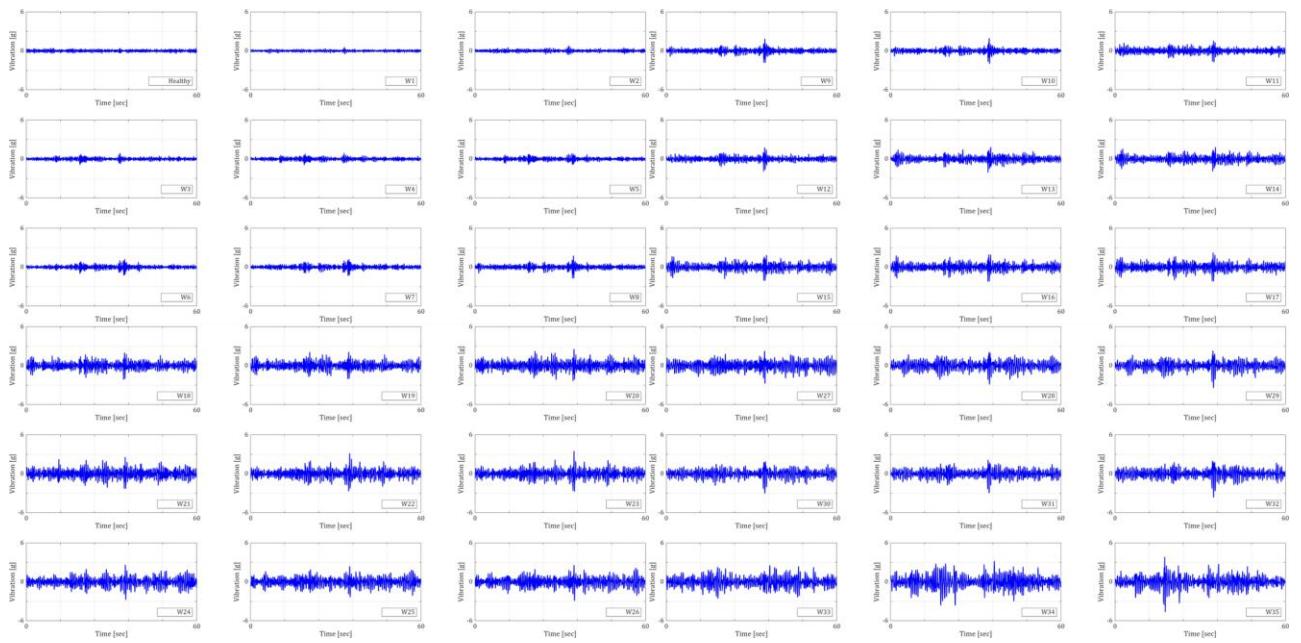


Figure 39: Examples of vibration signals at low speed, the records mentioned at Table 37 .

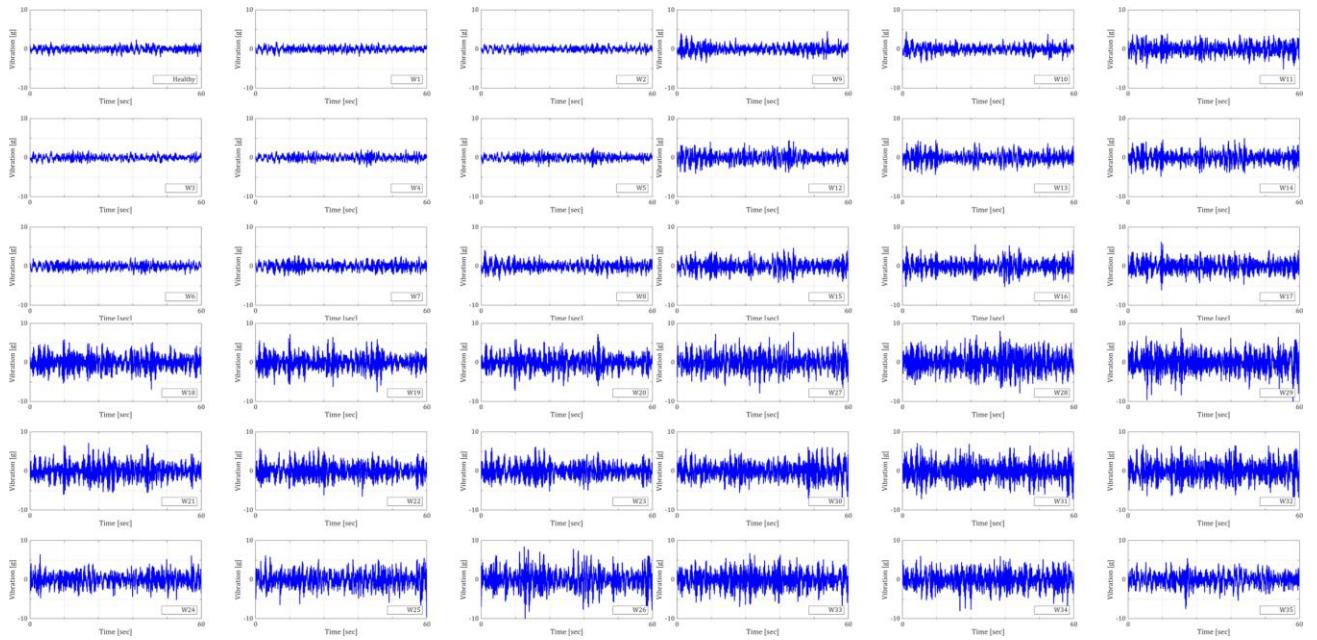


Figure 40: Examples of vibration signals at low speed, the records mentioned at Table 37.