

Integral 1st / 2nd Layshaft

437-42M-000D*

(437-421-000B* / 033-422-008K)

(/ 033-422-008K) ①

437-42M-000G*

(437-421-000G* / 033-422-008K)

(/ 033-422-008K) ②

* = Layshaft Set Code e.g. 437-42M-000DA

Code	1 st				2 nd				
	Input	Output	Sum	Ratio	Input	Output	Sum	Ratio	
A	13	37	50	2.846	15	34	49	2.267	②
E	13	39	52	3.000	15	34	49	2.267	①
A	13	39	52	3.000	13	28	41	2.154	①
B	13	39	52	3.000	13	27	40	2.077	①
C	13	39	52	3.000	13	26	39	2.000	①
D	13	39	52	3.000	13	25	38	1.923	①

Collared 3rd

437-42M-3B

(437-421-003A / 033-422-008K)

Input	Output	Sum	Ratio
15	29	44	1.933
15	28	43	1.867
16	29	45	1.813
13	23	36	1.769
14	24	38	1.714
13	22	35	1.692
14	23	37	1.643
15	24	39	1.600
14	22	36	1.571

4th - 6th

195-42M-4G

(195-421-004E / 033-422-008K)

Input	Output	Sum	Ratio
17	30	47	1.765
18	31	49	1.722
16	27	43	1.688
14	23	37	1.643
15	24	39	1.600
14	22	36	1.571
15	23	38	1.533
18	27	45	1.500
15	22	37	1.467
16	23	39	1.438
17	24	41	1.412
16	22	38	1.375
19	26	45	1.368
17	23	40	1.353
20	27	47	1.350
18	24	42	1.333
16	21	37	1.313
17	22	39	1.294
18	23	41	1.278
16	20	36	1.250
18	22	40	1.222
16	19	35	1.188
18	21	39	1.167
20	23	43	1.150
17	19	36	1.118
20	22	42	1.100
17	18	35	1.059
21	22	43	1.048
24	24	48	1.000
25	24	49	0.960

Drop Gears

091-42M-2B

(091-423-001B / 091-423-001B)

091-42M-2C

(091-423-001C / 091-423-001C)

Input	Output	Sum	Ratio
21	26	47	1.238
22	26	48	1.182
23	26	49	1.130
20	22	42	1.100
24	26	50	1.083
22	23	45	1.045
24	24	48	1.000
23	22	45	0.957
26	24	50	0.923
22	20	42	0.909
26	23	49	0.885
26	22	48	0.846
26	21	47	0.808

External Differential

Customer supply e.g. Xtrac 247/223

Note: Ratings charts (pages 4&6) supplied in accordance with ISO6336-2006 & are based on an engine speed of 6500RPM and torque of 800Nm. (Rating values are comparative, a higher value means that a gear is comparatively stronger or has more resistance to pitting than a lower value. Where possible, always select a gear with the highest values. The gear width is taken into account when the rating is calculated.)

Drawn	Drg	Date	Approved	Issue
Liam Freeman	120-427-001	02/05/2013	ODG	10

Integral 1st Layshaft

437-42M-0C*

(437-421-0A* / 033-422-008A)

* = Layshaft Set Code e.g. 437-42M-000DA

Input	Output	Sum	Ratio
13	39	52	3.000

2nd - 6th

195-42M-4A

(195-421-004A / 033-422-008A)

Input	Output	Sum	Ratio
15	31	46	2.067
15	30	45	2.000
15	29	44	1.933
15	28	43	1.867
16	29	45	1.813
17	30	47	1.765
18	31	49	1.722
16	27	43	1.688
17	28	45	1.647
16	26	42	1.625
15	24	39	1.600
14	22	36	1.571
15	23	38	1.533
18	27	45	1.500
19	28	47	1.474
18	26	44	1.444
19	27	46	1.421
18	25	43	1.389
19	26	45	1.368
20	27	47	1.350
18	24	42	1.333
19	25	44	1.316
20	26	46	1.300
18	23	41	1.278
19	24	43	1.263
20	25	45	1.250
22	27	49	1.227
19	23	42	1.211
21	25	46	1.190
18	21	39	1.167
20	23	43	1.150
23	26	49	1.130
18	20	38	1.111
20	22	42	1.100
23	25	48	1.087
26	28	54	1.077
17	18	35	1.059
22	23	45	1.045
24	24	48	1.000

Drop Gears

091-42M-2A

(091-423-001A / 091-423-001A)

Input	Output	Sum	Ratio
21	26	47	1.238
22	26	48	1.182
23	26	49	1.130
20	22	42	1.100
24	26	50	1.083
22	23	45	1.045
24	24	48	1.000
23	22	45	0.957
26	24	50	0.923
22	20	42	0.909
26	23	49	0.885
26	22	48	0.846
26	21	47	0.808

External Differential

Customer supply e.g. Xtrac 247/223

Note: Ratings charts (pages 5&7) supplied in accordance with ISO6336-2006 & are based on an engine speed of 6500RPM and torque of 800Nm. (Rating values are comparative, a higher value means that a gear is comparatively stronger or has more resistance to pitting than a lower value. Where possible, always select a gear with the highest values. The gear width is taken into account when the rating is calculated.)

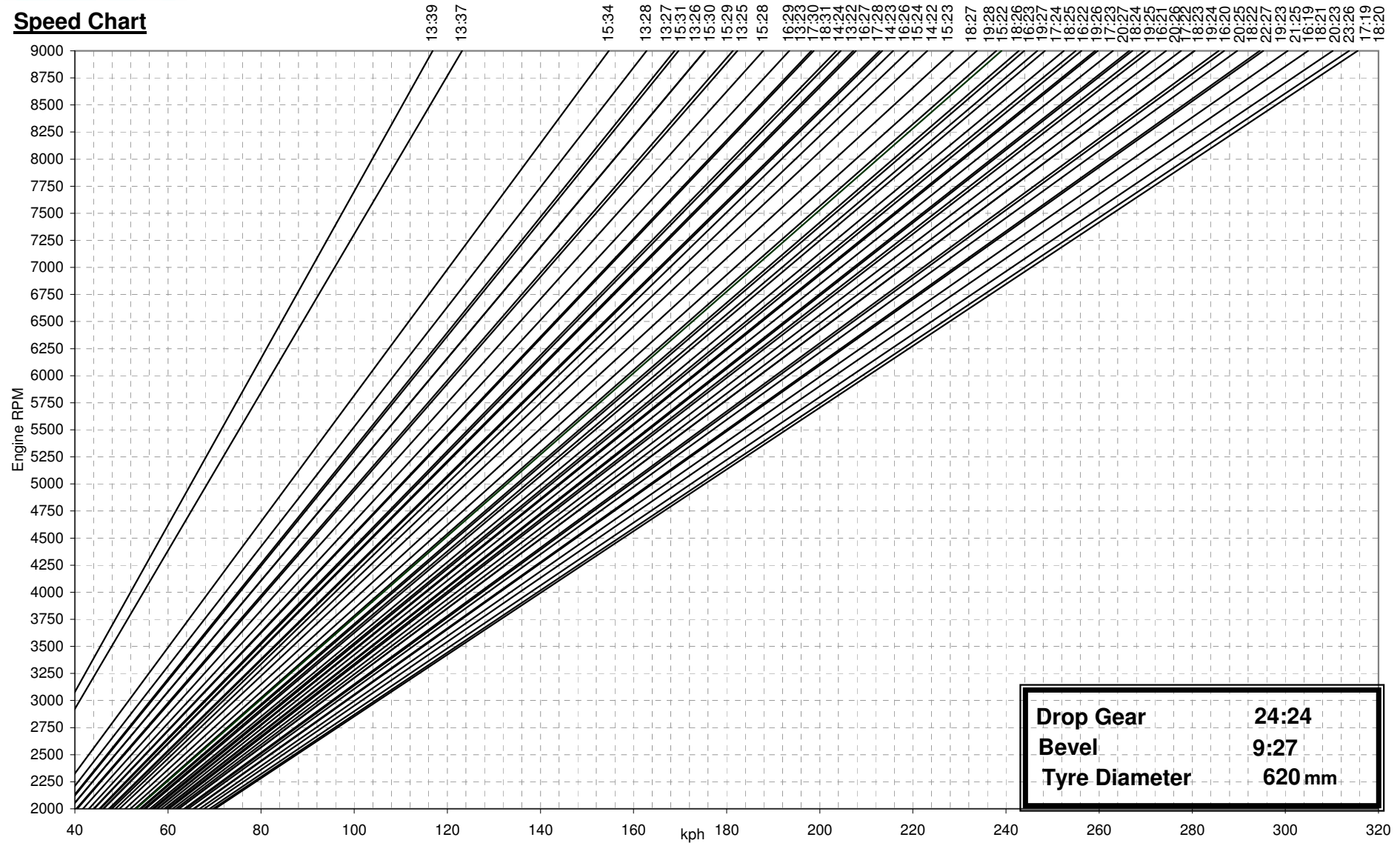
Drawn	Drg	Date	Approved	Issue
Liam Freeman	120-427-001	02/05/2013	ODG	10



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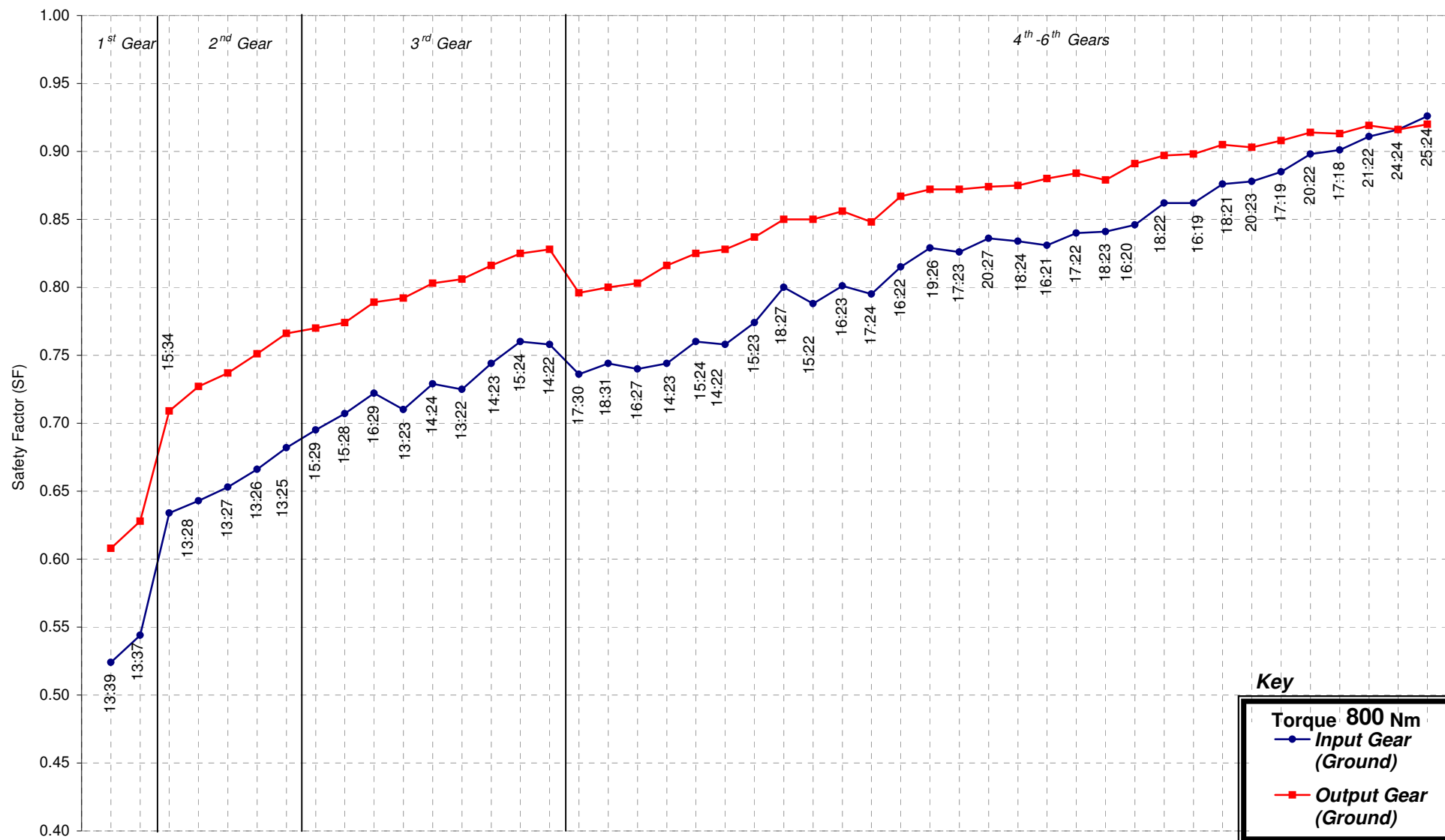
Gearbox Type: 427

Speed Chart



Drawn	Drg	Date	Approved	Issue
Liam Freeman	120-427-001	02/05/2013	ODG	10

Ground Gears Pitting Safety Factors (for comparison purposes)



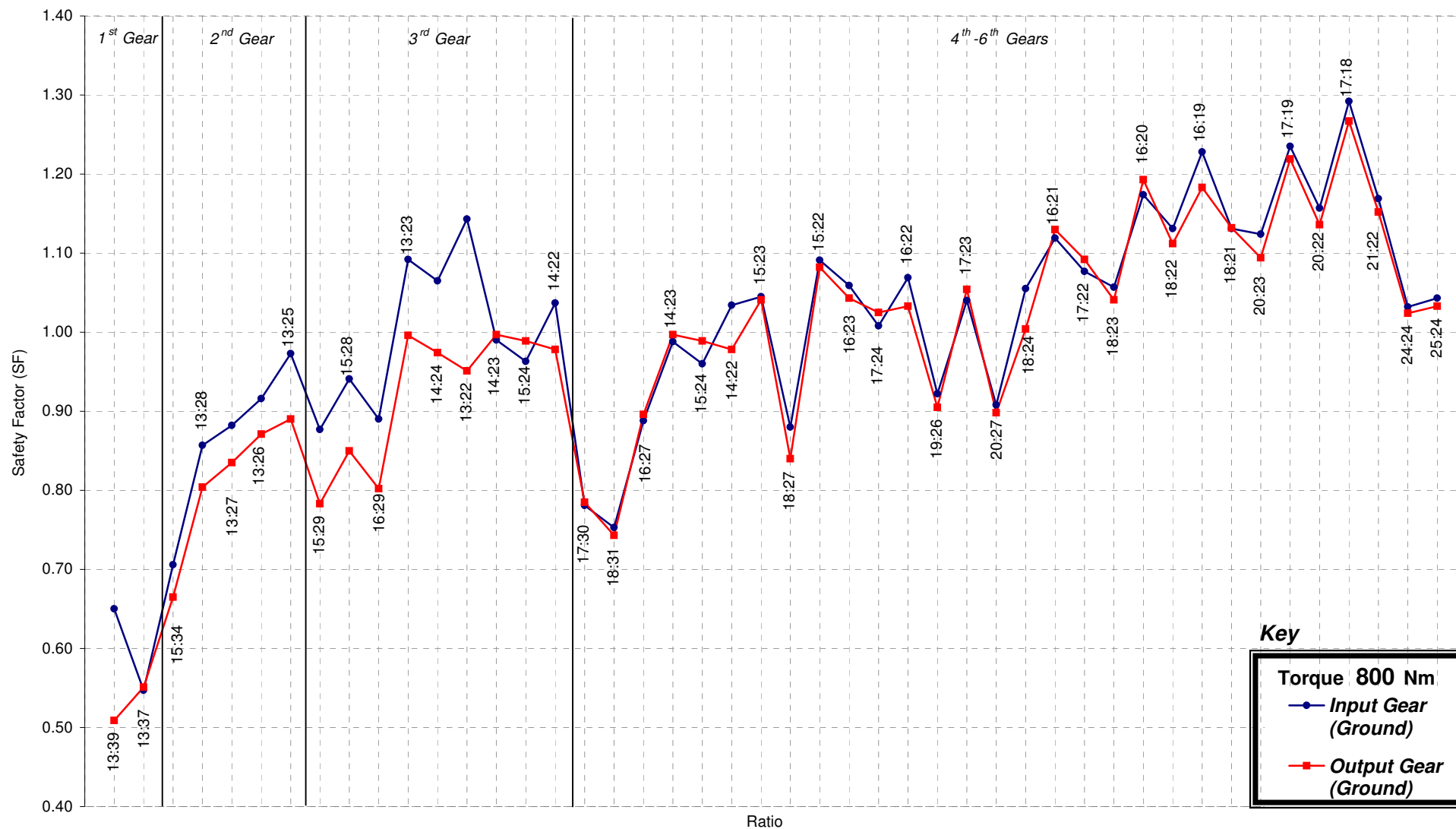
Drawn	Drg	Date	Approved	Issue
Liam Freeman	120-427-001	02/05/2013	ODG	10

Hobbed Gears Pitting Safety Factors (for comparison purposes)



Drawn	Drg	Date	Approved	Issue
Liam Freeman	120-427-001	02/05/2013	ODG	10

Ground Gears Bending Safety Factors (for comparison purposes)

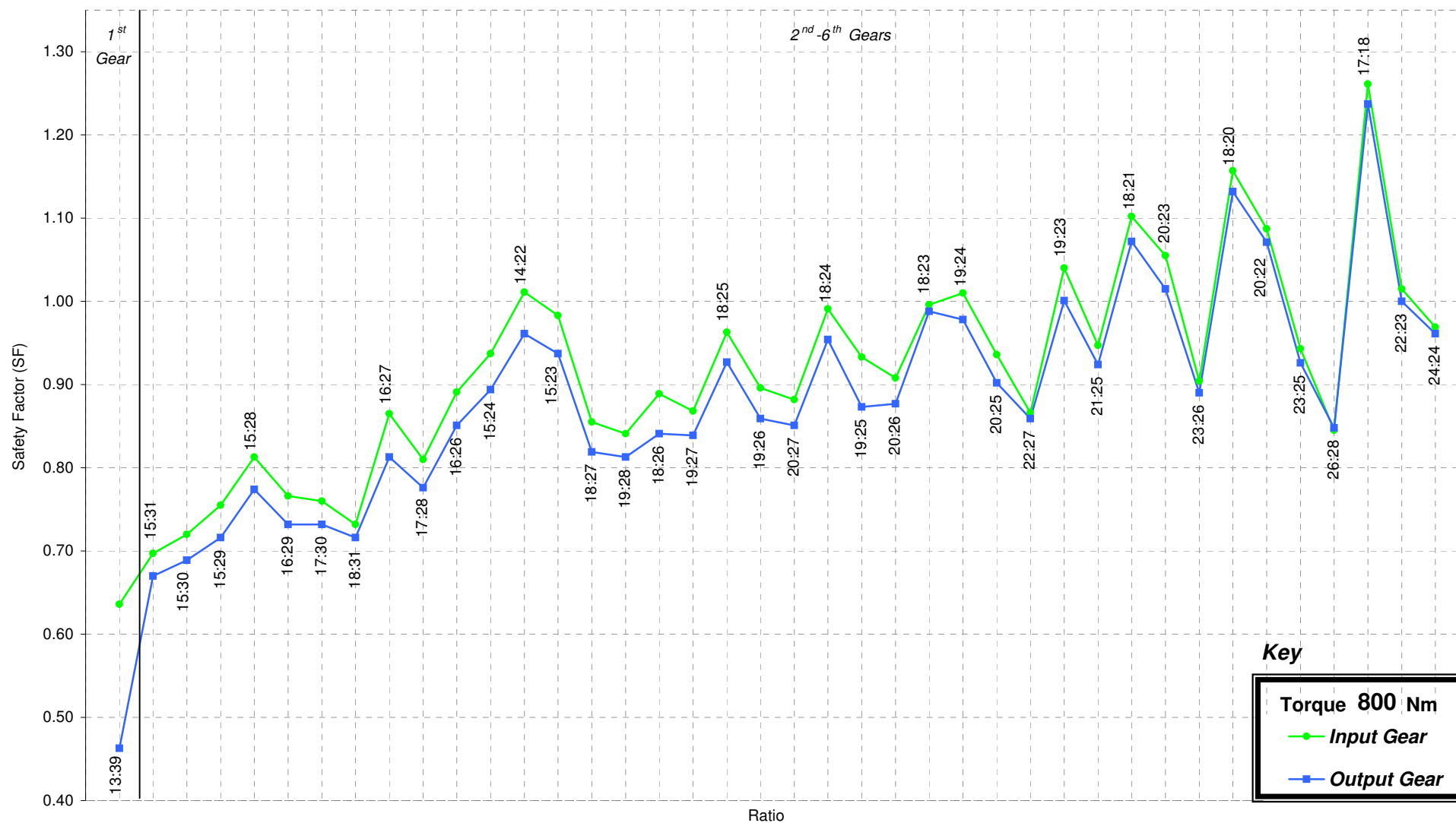


Key

Torque 800 Nm
 —●— Input Gear (Ground)
 —■— Output Gear (Ground)

Drawn	Drg	Date	Approved	Issue
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Bending Safety Factors (for comparison purposes)



Drawn	Drg	Date	Approved	Issue
Liam Freeman	120-427-001	02/05/2013	ODG	10