



Brake Dynamometer Test Report

Link Test Report #: 145857-1
Test Description: MERITOR DRIVE KIC-002

Customer Reference: N/A
Program #: W09064A0
Platform: MERITOR DRIVE
Lining Material: MERITOR MA312
Test Date: 11/19/2014

Requested By:

KIC HOLDINGS, INC.
OMAR FAKHOURY
3800 FRUIT VALLEY ROAD

VANCOUVER, WA 98660
USA



Tested By:

Testing Coordination and Facility
North America Laboratory Test Operations
13840 Elmira
Detroit, Mi 48227
www.linkeng.com
Phone: 313-933-4900
Fax: (313) 933-0710



MERITOR DRIVE KIC-002

Test Information

Customer Name	KIC HOLDINGS, INC.
Requestor	OMAR FAKHOURY
Test Procedure	KIC-002
Program Number	W09064A0
Test Coordinator	LESKO,JEFF
Technician	MM
Dynamometer	5025
Parts received, start and end dates	N/A, 11/19/2014 - 11/21/2014
Datalog, Template version	3.19 , 1.06

Setup Details

Fixture Identification	00T126
Fixture Design	CV DRIVE
Drive adapter method	LINK STANDARD

Dynamometer Information

Rolling Radius	20.8 inch
Gross Axle Weight	23,000.0 lb
Required Wheel Load	11,500.0 lb
Actual Wheel Load	11,500.3 lb
Required Inertia	1,074.4 slug·ft ²
Actual Inertia	1,071.3 slug·ft ²

Brake Information

Brake Platform	MERITOR DRIVE
Brake Type	Drum
Brake Size	16.5 x 7
Brake ID Number	KIC TRIDENT 80000-018
Drum/Rotor Type	COMPOSITE
Brake FMSI #	4707
Drum/Rotor Finish	New
Pri/Lead/Inner Lining	MERITOR MA312
Sec/Trail/Outer Lining	MERITOR MA312
Orientation	Right
Air Chamber Type	TYPE 30/30
Slack Adjuster Type	6.0"/Haldex / Automatic

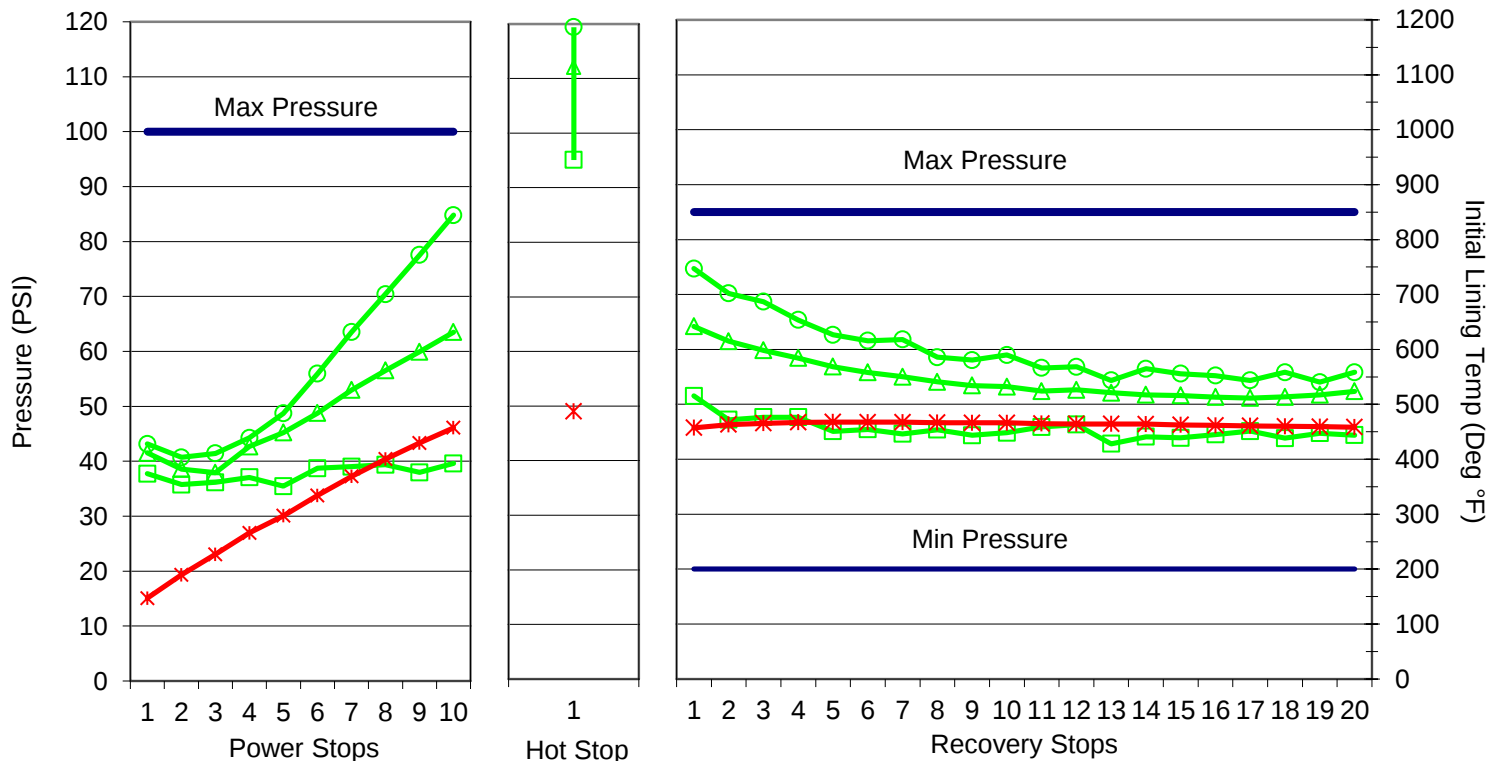
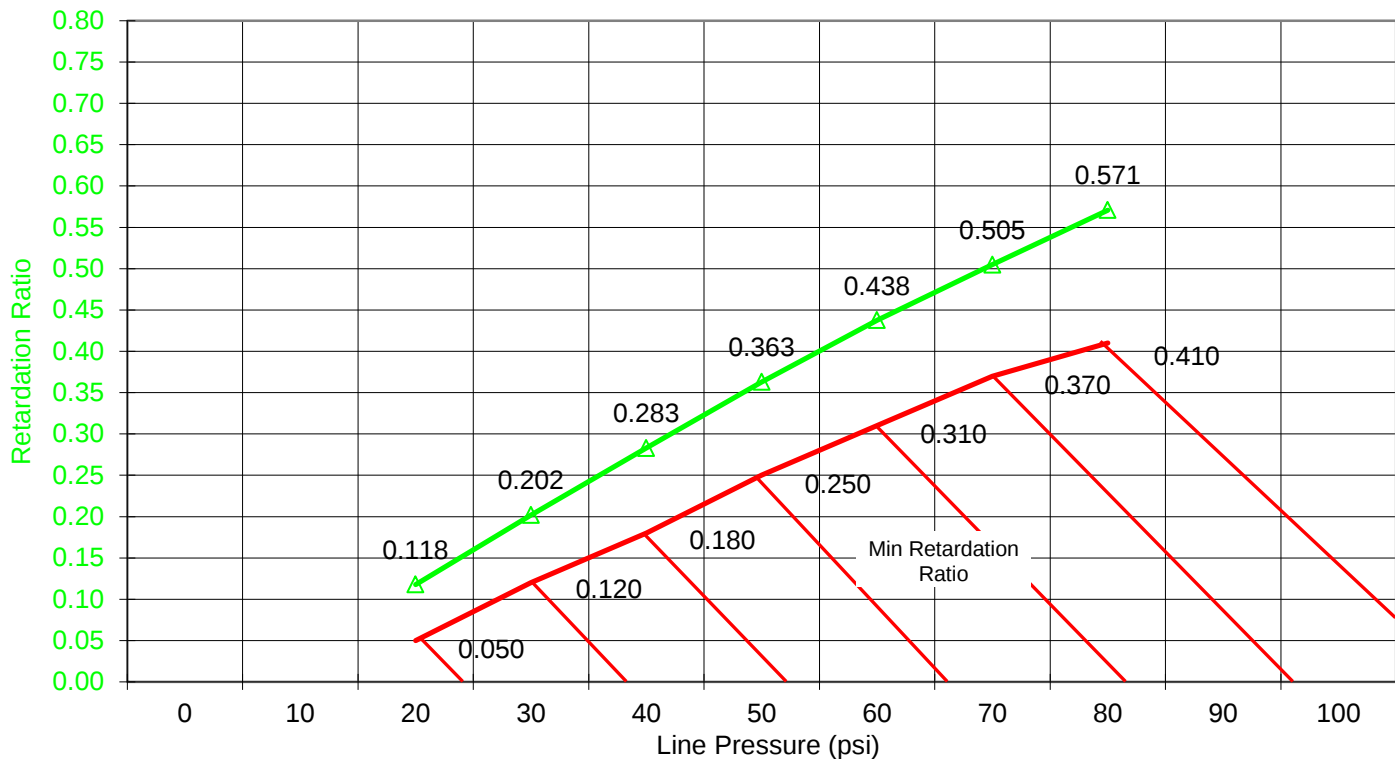
Comments:

DRUM DATE CODE= 11-13-14

Created by:	Jeff Lesko (313) 625-4000	Title	Project Coordinator	Date	11/24/2014
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Reviewed by:	Jeff Lesko (313) 625-4000	Title	Project Coordinator	Date	11/24/2014
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Data applicable to the materials tested. **Valid if signed by the test engineer.** Report can be copied in full.
Bilateral uncertainty of measurements 0.63% of FS. Coverage factor of 2. Confidence of 95%. Details available upon request.



*The minimum pressure limit is displayed as 20 PSI for this non-ABS equipped vehicle

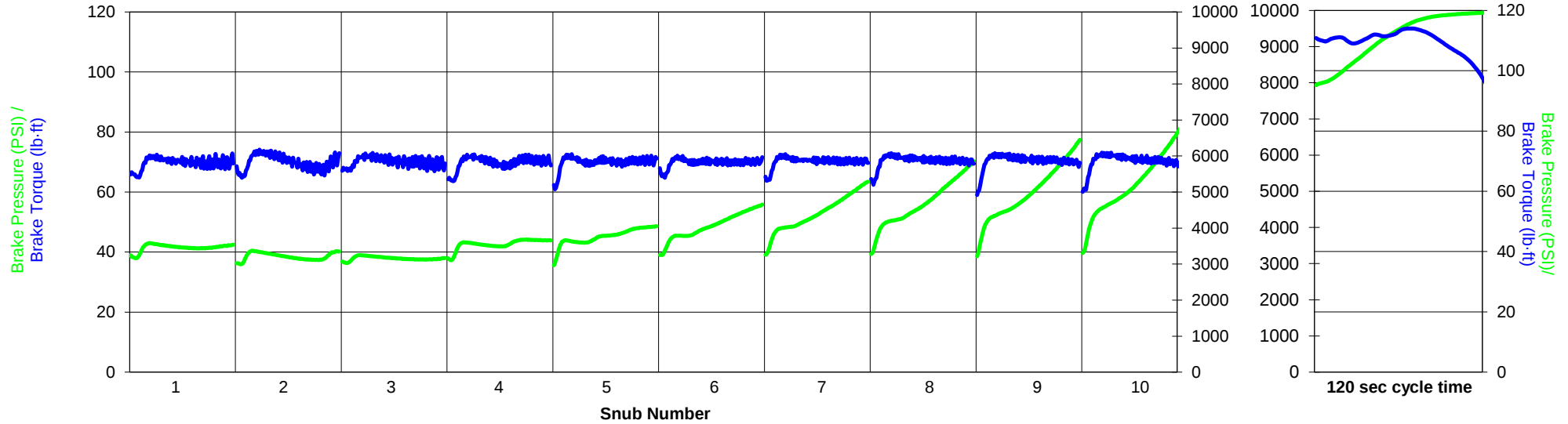
Test Description: MERITOR DRIVE KIC-002	Drum	KIC TRIDENT 80000-018	Air Chamber Type	TYPE 30/30
	Primary Lining	MERITOR MA312	Slack Adjuster Type	6.0"/Haldex / Automatic
	Secondary Linin	MERITOR MA312	Actual Inertia	1,071.3 slug-ft²
			Actual Wheel Load	11,500.3 lb
			Rolling Radius	20.8 inch

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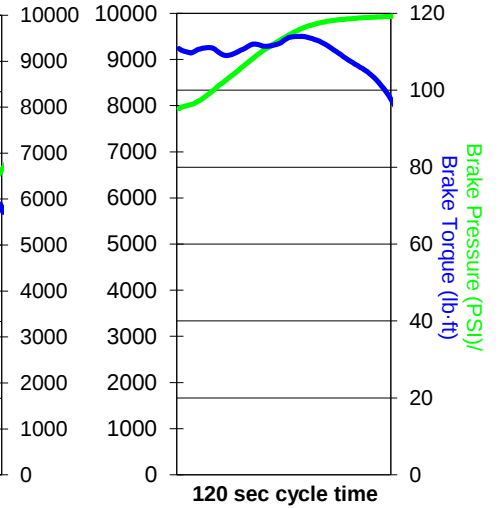


Customer Ref.:
N/A

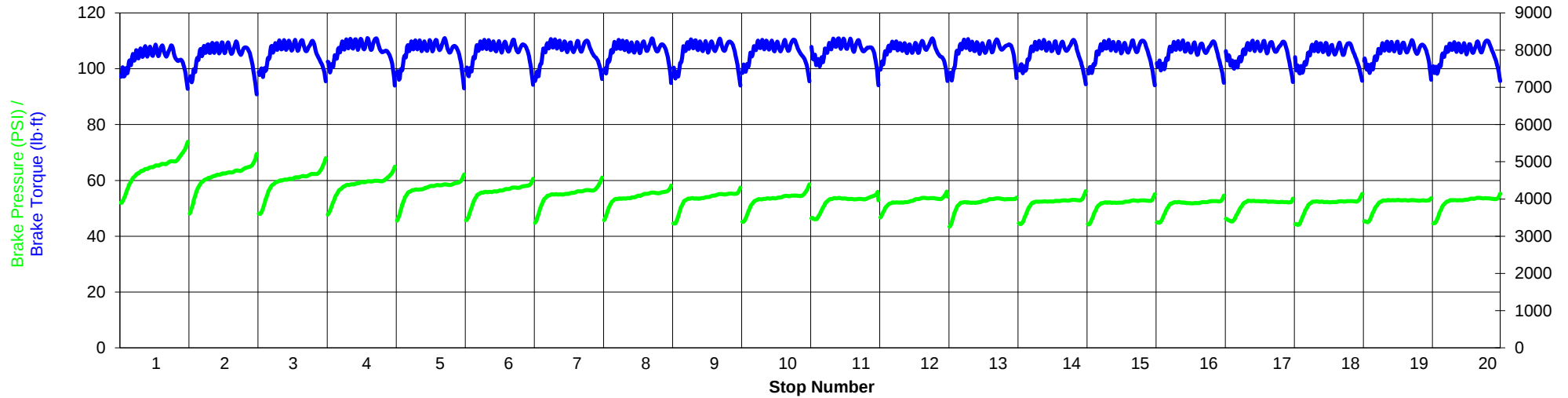
Section 4.10 Brake Power



Section 4.11 Hot Stop



Section 4.12 Brake Recovery



Test Description:

MERITOR DRIVE KIC-002

Drum
Primary Lining
Secondary Lining

KIC TRIDENT 80000-018
MERITOR MA312
MERITOR MA312

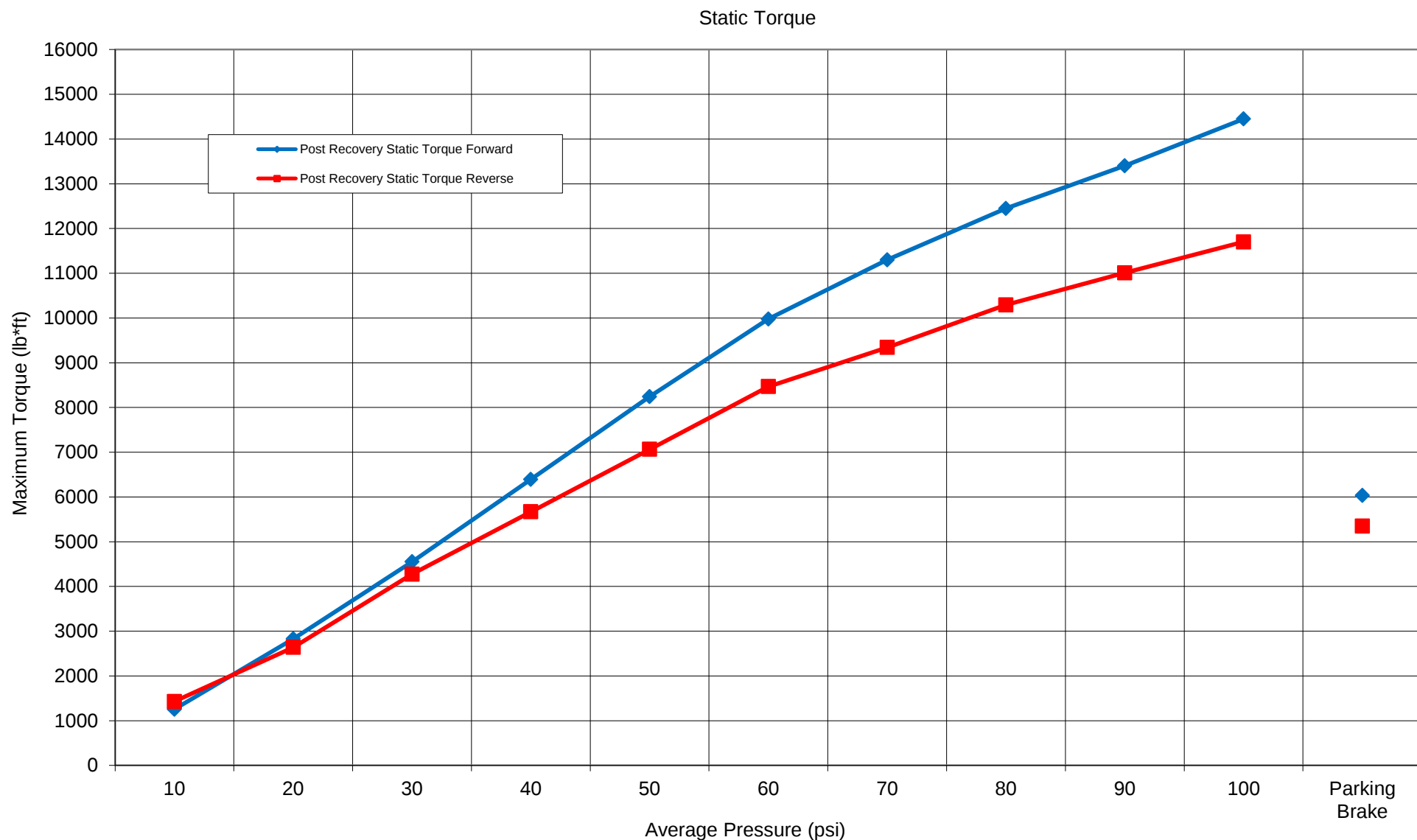
Air Chamber Type
Slack Adjuster Type
Actual Inertia
Actual Wheel Load
Rolling Radius

TYPE 30/30
6.0"/Haldex / Automatic
1,071.3 slug·ft²
11,500.3 lb
20.8 inch

Test Request #:
145857-1



Customer Ref.:
N/A



Test Description:

MERITOR DRIVE KIC-002

Drum
Primary Lining
Secondary Lining

KIC TRIDENT 80000-018
MERITOR MA312
MERITOR MA312

Air Chamber Type	TYPE 30/30
Slack Adjuster Type	6.0"/Haldex / Automatic
Actual Inertia	1,071.3 slug-ft ²
Actual Wheel Load	11,500.3 lb
Rolling Radius	20.8 inch

Test Request #:
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Customer Ref.:
N/A

Stop Num	Brake Speed mph	Rel. Speed mph	Stop Time sec	Decel (stoptime) ft/s ²	Torq. Min lb·ft	Avg Torq. (time) lb·ft	Torq. Max lb·ft	Press Min psi	Avg Press (time) psi	Press Max psi	Min Stroke inch	Avg Stroke (time) inch	Max Stroke inch	Lead Init °F	Lead Final °F	Amb Init °F	Amb Final °F	Drum Init °F	Drum Final °F
Burnish																			
1	40.0	1.0	5.7	9.95	5682	6459	7490	57.3	72.2	77.5	1.746	2.034	2.116	351	366	30	31	331	373
10	40.1	1.0	5.8	9.85	5396	6394	7006	59.4	77.3	81.3	1.184	2.152	2.236	351	371	28	29	394	433
20	40.1	1.0	5.8	9.92	5480	6440	6756	53.5	65.9	67.5	1.160	2.127	2.196	351	373	27	28	396	437
30	40.0	1.0	5.8	9.91	5389	6436	6786	49.1	61.5	63.2	1.159	2.101	2.168	351	373	27	29	396	438
40	40.0	1.0	5.7	9.95	5640	6460	6880	48.2	55.6	56.9	1.033	2.059	2.139	350	374	27	29	394	437
50	40.0	1.0	5.7	9.98	5578	6482	6963	45.2	53.0	54.0	0.894	2.008	2.093	351	374	28	29	395	437
60	40.0	1.0	5.7	10.01	5665	6471	6963	44.3	51.5	52.6	0.954	2.006	2.077	351	374	29	30	395	437
70	40.1	1.0	5.8	9.91	5307	6441	6976	40.1	50.4	51.9	1.154	2.034	2.088	351	374	29	30	395	435
80	40.0	1.0	5.7	9.97	5587	6462	6896	42.8	48.9	50.4	1.031	2.003	2.055	350	374	30	30	396	438
90	40.0	1.0	5.7	9.96	5432	6477	6938	39.5	47.5	49.1	1.197	2.008	2.055	351	374	29	30	397	437
100	40.0	1.0	5.7	9.99	5572	6482	7045	40.3	46.6	48.4	1.189	1.989	2.031	350	374	30	30	392	433
110	40.0	1.0	5.7	10.04	5790	6511	7126	42.1	46.0	47.9	1.040	1.989	2.047	350	374	29	30	391	431
120	39.9	1.0	5.7	10.05	5502	6513	7018	38.9	45.3	47.2	1.162	1.991	2.034	351	375	29	30	392	432
130	40.0	1.0	5.7	10.03	5894	6506	7122	42.4	45.3	48.2	1.207	1.990	2.033	350	375	29	30	392	434
140	40.0	1.0	5.7	10.00	5697	6514	7099	39.5	45.2	47.0	1.245	1.996	2.033	350	375	30	30	390	434
150	40.0	1.0	5.7	10.09	5986	6525	7015	43.0	44.9	46.9	1.155	1.991	2.033	350	376	30	32	394	434
160	40.0	1.0	5.7	10.02	5494	6495	7070	38.2	44.7	47.3	1.102	1.981	2.029	351	376	31	32	394	434
170	39.9	1.0	5.7	10.09	5715	6527	7174	38.5	41.7	44.0	1.191	1.750	1.785	350	375	31	32	383	425
180	40.1	1.0	5.7	10.09	5657	6531	7148	38.3	42.9	45.0	1.186	1.846	1.899	350	376	31	32	390	432
190	40.0	1.0	5.7	10.08	5688	6512	7046	38.2	42.7	44.8	1.012	1.884	1.939	351	376	32	33	390	432
200	40.0	1.0	5.7	10.04	5765	6508	7007	41.0	43.2	47.0	1.068	1.942	1.998	350	376	33	33	391	432
210	40.0	1.0	6.0	9.49	5178	6144	6612	42.1	74.6	106.8	1.751	2.084	2.255	500	528	38	39	600	629
220	40.1	1.0	5.8	9.83	5407	6355	6797	35.9	47.4	56.6	1.494	1.745	1.906	500	524	35	36	528	563
230	40.1	1.0	5.8	9.83	5557	6363	6889	36.4	46.9	57.4	1.511	1.826	1.963	500	524	36	37	538	570
240	39.9	1.0	5.8	9.81	5607	6364	6853	37.0	47.1	58.0	1.669	1.901	2.022	501	523	37	38	542	573
250	40.0	1.0	6.1	9.34	4295	6083	6637	39.9	67.2	97.7	1.991	2.184	2.373	500	528	41	42	615	644
260	40.0	1.0	5.7	10.07	5572	6541	6937	38.9	50.9	61.4	1.857	2.039	2.136	500	523	42	42	549	578
270	40.0	1.0	5.7	10.03	5667	6531	6951	39.4	50.6	61.1	1.883	2.040	2.138	500	523	39	40	543	574
280	40.0	1.0	5.7	10.05	5609	6533	6942	38.8	51.3	61.8	1.896	2.065	2.153	500	524	39	40	544	574
290	40.0	1.0	5.7	10.09	5598	6537	6931	38.8	51.2	61.2	1.930	2.091	2.166	500	523	38	39	544	573
300	40.0	1.0	5.7	10.02	5400	6537	6958	37.7	52.5	63.0	1.899	2.099	2.174	500	524	37	38	545	575
310	40.0	1.0	5.6	10.16	5398	6563	7048	34.7	46.6	54.1	1.513	1.760	1.860	500	523	36	37	531	560
320	40.1	1.0	5.7	10.02	5376	6488	6918	35.2	46.7	54.4	1.511	1.822	1.915	500	524	36	37	537	567
330	40.1	1.0	5.7	10.04	5669	6496	6908	39.1	48.4	56.4	1.484	1.919	2.012	500	524	36	37	542	572
340	39.9	1.0	5.7	9.93	5464	6479	6890	36.4	48.6	57.4	1.731	1.984	2.080	500	524	36	37	544	574
350	40.0	1.0	5.7	9.99	5522	6471	6883	37.1	49.8	59.6	1.830	2.025	2.112	500	525	37	38	545	574
360	40.0	1.0	5.7	10.03	5564	6503	6908	40.4	50.3	58.9	1.900	2.051	2.128	500	525	37	38	545	573
370	40.0	1.0	5.7	9.97	5543	6469	6872	37.7	50.5	60.0	1.897	2.066	2.156	500	525	37	38	545	575
380	40.0	1.0	5.7	9.99	5541	6488	6898	39.2	50.8	59.2	1.931	2.081	2.151	500	525	38	39	543	572
390	40.0	1.0	5.7	9.99	5499	6493	6879	39.4	51.3	59.7	1.925	2.081	2.148	500	526	38	39	543	574
400	40.0	1.0	5.8	9.91	5500	6471	6860	38.3	52.3	61.6	1.912	2.081	2.150	500	526	38	39	543	573

Test Request #:

145857-1



Customer Ref.:

N/A

Stop Num	Brake Speed mph	Rel. Speed mph	Stop Time sec	Decel (Stoptime) ft/s ²	Torq. Min lb·ft	Avg Torq. (time) lb·ft	Torq. Max lb·ft	Press Avg psi	Min Req'd Retard Ratio	Ret Ratio Act	Pass/ Fail	Ret Force lb	Min Stroke inch	Avg Stroke (time) inch	Max Stroke inch	Lead Init °F	Lead Final °F	Amb Init °F	Amb Final °F	Drum Init °F	Drum Final °F
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PERFORMANCE REQUIREMENT:

Retardation ratio above minimum per table below

Brake Retardation

1	50.0	1.0	18.8	3.82	1911	2365	2709	20.4	0.050	0.119	Pass	1364	0.790	0.992	1.037	171	221	33	33	169	272
2	50.0	1.0	11.2	6.39	3533	4051	4476	30.5	0.120	0.203	Pass	2337	1.078	1.255	1.316	171	209	33	34	167	279
3	50.0	1.0	8.1	8.88	5285	5678	6195	40.5	0.180	0.285	Pass	3276	1.312	1.468	1.537	171	208	32	33	167	284
4	50.0	1.0	6.3	11.36	6772	7279	7909	50.5	0.250	0.365	Pass	4200	1.494	1.619	1.685	171	208	33	34	165	276
5	50.0	1.0	5.3	13.56	8257	8779	9443	60.6	0.310	0.440	Pass	5065	1.630	1.739	1.806	170	211	31	32	165	259
6	49.9	1.0	4.6	15.56	9480	10127	10754	70.8	0.370	0.508	Pass	5842	1.752	1.852	1.897	170	212	32	33	165	253
7	50.0	1.0	4.1	17.48	10761	11453	12283	80.9	0.410	0.575	Pass	6607	1.843	1.927	1.965	171	207	31	32	167	237

Test Request #:
145857-1



Customer Ref.:
N/A

Stop Num	Brake Speed mph	Rel. Speed mph	Stop Time sec	Cycle Time sec	Decel (Stoptime) ft/s ²	Min Torq. lb·ft	Avg Torq. (time) lb·ft	Max Torq. lb·ft	Min Press psi	Avg Press (time) psi	Max Press psi	Pass/ Fail	Min Stroke inch	Avg Stroke (time) inch	Max Stroke inch	Init Lead °F	Final Lead °F	Init Drum °F	Final Drum °F
PERFORMANCE REQUIREMENT: Maximum pressure during snubs/stop of 100 psi / 690 kPa																			
Brake Power																			
1	50.0	15.0	5.69	743.0	9.03	5263	5821	6211	37.7	41.5	43.2	Pass	1.332	1.475	1.554	151	176	138	216
2	50.0	15.0	5.72	72.0	8.98	5263	5826	6355	35.8	38.6	40.7	Pass	1.466	1.565	1.660	193	217	231	305
3	50.0	15.1	5.66	72.0	9.05	5431	5839	6289	36.2	37.9	41.4	Pass	1.576	1.660	1.711	231	260	311	363
4	50.0	15.0	5.75	72.0	8.94	5188	5817	6240	37.1	42.7	44.3	Pass	1.670	1.797	1.867	270	295	378	432
5	50.0	15.1	5.73	72.0	8.93	4951	5832	6209	35.5	45.2	48.7	Pass	1.707	1.874	1.936	301	331	434	483
6	50.0	15.0	5.79	72.0	8.87	5283	5821	6167	38.7	48.8	55.9	Pass	1.814	1.944	2.050	338	370	484	528
7	50.0	15.0	5.78	72.0	8.89	5169	5848	6192	39.0	53.0	63.5	Pass	1.862	2.000	2.095	372	405	528	568
8	50.0	15.0	5.75	72.0	8.93	5105	5874	6254	39.4	56.5	70.4	Pass	1.901	2.041	2.152	404	436	566	601
9	50.0	15.0	5.78	72.0	8.89	4845	5866	6265	38.0	59.9	77.5	Pass	1.860	2.057	2.165	433	466	598	632
10	50.0	15.0	5.78	72.0	8.88	4921	5864	6284	39.6	63.5	84.8	Pass	1.905	2.077	2.163	461	493	625	657

Hot Stop																			
1	19.9	1.0	2.19	66.8	12.67	6860	8977	9523	95.1	112.0	119.4	N/A	2.118	2.392	2.486	490	494	657	656

PERFORMANCE REQUIREMENT:
Pressure within limits

													Min.				Max.			
													20/138	psi/kPa	85/586		psi/kPa			
													12/83	psi/kPa	85/586		psi/kPa			
													w/o Antilock							
													w/ Antilock							
Recovery																				
1	29.9	1.0	3.60	120.0	11.79	6756	7797	8208	51.5	64.2	74.7	Pass	1.927	2.058	2.091	457	468	580	585	
2	30.1	1.0	3.60	60.0	11.84	6709	7884	8289	47.2	61.5	70.2	Pass	1.781	2.031	2.077	463	473	568	574	
3	30.1	1.0	3.56	60.0	11.99	6990	7939	8344	47.7	59.8	68.7	Pass	1.669	2.003	2.060	466	475	559	565	
4	29.9	1.0	3.53	60.0	12.03	6919	8000	8381	47.7	58.4	65.4	Pass	1.697	1.989	2.046	467	476	551	557	
5	30.1	1.0	3.56	60.0	11.99	6846	7974	8354	45.1	56.9	62.7	Pass	1.665	1.970	2.021	468	477	544	551	
6	30.1	1.0	3.56	60.0	11.98	6846	7972	8363	45.4	55.8	61.6	Pass	1.634	1.961	2.000	467	476	538	545	
7	29.9	1.0	3.54	60.0	12.00	7067	7970	8378	44.6	55.0	61.8	Pass	1.590	1.950	2.003	468	476	533	540	
8	29.9	1.0	3.54	60.0	12.01	6960	8010	8365	45.4	54.1	58.6	Pass	1.550	1.945	1.989	467	475	529	536	
9	30.1	1.0	3.57	60.0	11.97	6898	7976	8371	44.4	53.4	58.0	Pass	1.570	1.938	1.981	466	475	525	531	
10	29.9	1.0	3.53	60.0	12.02	7077	7980	8360	44.8	53.2	59.0	Pass	1.566	1.936	1.994	466	474	520	528	
11	30.1	1.0	3.54	60.0	12.06	7006	8004	8403	45.9	52.4	56.6	Pass	1.569	1.931	1.969	465	473	517	525	
12	29.9	1.0	3.54	60.0	12.01	7091	8000	8344	46.3	52.6	56.8	Pass	1.561	1.927	1.974	464	473	514	523	
13	29.9	1.0	3.55	60.0	11.97	7009	7998	8381	42.8	52.1	54.3	Pass	1.574	1.923	1.962	464	472	512	520	
14	30.1	1.0	3.55	60.0	12.01	7036	7949	8348	44.1	51.7	56.5	Pass	1.621	1.923	1.968	464	472	510	518	
15	29.9	1.0	3.53	60.0	12.04	6984	7965	8362	43.9	51.6	55.6	Pass	1.631	1.920	1.958	463	471	507	515	
16	29.9	1.0	3.54	60.1	12.00	6981	7940	8339	44.5	51.3	55.2	Pass	1.685	1.923	1.959	462	470	505	513	
17	30.1	1.0	3.55	60.0	12.03	6953	7939	8330	45.1	51.1	54.4	Pass	1.646	1.926	1.966	461	469	504	511	
18	29.9	1.0	3.58	60.0	11.88	7075	7890	8298	43.8	51.4	55.9	Pass	1.618	1.922	1.965	460	468	502	510	
19	30.1	1.0	3.56	60.0	11.99	7050	7948	8322	44.7	51.7	54.0	Pass	1.595	1.927	1.968	459	467	501	508	
20	29.9	1.0	3.55	60.0	11.96	7067	7939	8298	44.4	52.4	55.8	Pass	1.610	1.932	1.972	459	467	499	507	



Stop Num	Brake Speed mph	Rel. Speed mph	Stop Time sec	Decel (Torque) ft/s ²	Torq. Min lb-ft	Avg Torq. (time) lb-ft	Torq. Max lb-ft	Press Min psi	Avg Press (time) psi	Press Max psi	Min Stroke inch	Avg Stroke (time) inch	Max Stroke inch	Lead Init °F	Lead Final °F	Drum Init °F	Drum Final °F
Drum Durability, 30 MPH Stops @ 23fpsps																	
1	29.9	3.5	2.4	20.45	12359	12677	13244	111.3	118.2	119.9	2.093	2.145	2.168	149	158	201	212
5	29.9	3.5	2.2	22.28	13195	13810	14735	108.4	116.7	119.7	2.094	2.140	2.160	186	192	202	211
10	29.9	3.5	2.2	22.83	13301	14149	15338	105.2	115.1	119.0	2.090	2.134	2.163	193	200	202	210
15	29.9	3.5	2.2	22.74	13178	14092	15146	101.3	113.5	118.4	2.080	2.128	2.156	191	198	201	209
20	29.9	3.5	2.1	22.83	13383	14153	15284	103.5	114.5	118.3	2.037	2.131	2.156	190	196	201	209
25	29.9	3.5	2.2	22.57	13319	13990	14923	105.6	115.9	119.5	1.903	2.146	2.189	186	193	201	209
30	30.1	3.5	2.2	22.40	13158	13883	14625	105.0	115.9	119.5	1.729	2.144	2.227	185	190	201	209
35	29.9	3.5	2.2	22.47	13230	13930	14942	106.0	116.1	119.6	1.809	2.168	2.232	182	189	201	209
40	29.9	3.5	2.2	22.16	13101	13737	14519	104.9	116.0	119.5	2.065	2.190	2.234	181	187	200	209
45	30.1	3.5	2.2	22.21	13109	13769	14520	104.1	115.5	119.4	1.991	2.190	2.226	180	186	201	209
50	30.1	3.5	2.2	22.26	13085	13797	14426	104.6	115.6	119.5	2.061	2.191	2.220	179	185	201	210
Drum Durability, 50 MPH Stops @ 23fpsps																	
1	50.1	3.5	3.7	21.62	12492	13402	14279	106.4	117.9	120.0	2.157	2.259	2.325	178	217	200	264
5	50.0	3.5	3.6	22.06	12950	13672	14277	109.6	118.4	120.0	2.171	2.306	2.378	180	208	202	251
10	49.9	3.5	3.7	21.41	12711	13269	13868	110.7	118.8	120.0	2.171	2.302	2.357	182	211	201	253
15	49.9	3.5	3.7	21.13	12378	13095	13714	111.1	118.9	120.0	2.176	2.309	2.395	182	212	201	253
20	50.0	3.5	3.8	20.98	12218	13007	13630	110.8	118.8	120.1	2.162	2.329	2.413	183	213	200	255
25	50.0	3.5	3.6	21.99	13012	13633	14134	109.2	118.4	120.1	2.156	2.226	2.284	185	215	201	252
30	50.0	3.5	3.7	21.56	12716	13363	13854	110.7	118.7	120.0	2.166	2.253	2.306	187	217	201	253
35	50.0	3.5	3.7	21.27	12463	13185	13721	111.1	118.8	120.0	2.161	2.247	2.291	185	215	200	252
40	49.9	3.5	3.8	21.00	12287	13016	13627	111.2	118.8	120.0	2.160	2.288	2.350	184	214	200	254
45	50.0	3.5	3.8	20.93	12232	12970	13639	111.1	118.9	120.1	2.164	2.266	2.332	182	214	201	254
50	50.0	3.5	3.8	20.92	12186	12967	13611	110.6	118.8	120.1	2.165	2.326	2.405	183	215	201	254
Drum Durability, 60 MPH Stops @ 19fpsps																	
1	60.0	3.5	5.3	17.27	9975	10707	11488	92.4	115.3	119.0	2.024	2.341	2.490	182	238	202	313
5	60.0	3.5	5.4	16.93	9673	10496	11738	99.3	117.8	120.0	2.141	2.303	2.398	186	246	199	315
10	60.0	3.5	5.4	17.12	9756	10614	11870	101.0	117.9	119.9	2.089	2.341	2.464	187	247	201	315
15	59.9	3.5	5.7	15.83	8841	9814	11551	105.0	118.7	119.9	2.160	2.406	2.531	201	262	231	340
20	60.0	3.5	5.4	16.83	9508	10432	11923	100.9	118.0	119.8	2.164	2.362	2.470	189	248	202	315
25	59.9	3.5	5.4	16.94	9618	10499	11839	104.1	118.4	120.0	2.158	2.378	2.474	188	248	202	314
30	60.0	3.5	5.4	16.80	9404	10412	12479	89.9	116.3	119.1	2.139	2.237	2.350	194	254	200	315
35	59.9	3.5	5.3	17.23	9771	10682	12494	95.1	117.1	119.6	2.138	2.276	2.417	192	250	202	313
40	60.0	3.5	5.3	17.12	9732	10613	11913	98.9	117.8	119.8	2.132	2.259	2.359	190	249	202	314
45	59.9	3.5	5.4	17.14	9729	10623	11823	104.1	118.4	120.0	2.110	2.287	2.395	190	248	201	313
50	60.0	3.5	5.4	16.97	9635	10517	11828	100.8	118.1	119.8	2.058	2.317	2.432	188	248	201	314
55	59.9	3.5	5.4	17.16	9771	10639	11842	101.9	118.1	119.9	2.006	2.301	2.422	188	248	202	313
60	60.0	3.5	5.4	17.08	9768	10589	11596	99.4	118.0	119.8	1.913	2.269	2.388	187	247	201	313
65	60.0	3.5	5.4	16.94	9626	10497	11766	104.2	118.4	120.0	1.893	2.317	2.425	186	246	201	313
70	60.0	3.5	5.5	16.72	9507	10361	11617	103.0	118.5	120.0	1.914	2.273	2.385	186	246	202	315
75	60.0	3.5	5.5	16.76	9508	10388	11702	105.5	118.8	120.1	1.826	2.265	2.358	184	246	201	314
80	59.9	3.5	5.8	15.72	8786	9743	11509	105.0	118.7	120.0	1.943	2.271	2.363	193	256	201	321
85	60.0	3.5	5.5	16.51	9359	10233	11558	104.0	118.6	120.0	1.737	2.273	2.392	185	248	202	317
90	60.0	3.5	5.5	16.60	9417	10288	11539	105.0	118.7	120.0	1.830	2.281	2.407	185	248	201	315
95	59.9	3.5	5.5	16.62	9449	10302	11679	103.3	118.5	120.0	1.757	2.277	2.390	184	248	202	314
100	60.0	3.5	5.5	16.73	9546	10368	11530	101.3	118.0	119.8	1.758	2.272	2.405	184	248	201	315



Stop Num	Brake Speed mph	Rel. Speed mph	Stop Time sec	Decel (Torque) ft/s²	Torq. Min lb-ft	Avg Torq. (time) lb-ft	Torq. Max lb-ft	Press Min psi	Avg Press (time) psi	Press Max psi	Min Stroke inch	Avg Stroke (time) inch	Max Stroke inch	Lead Init °F	Lead Final °F	Drum Init °F	Drum Final °F
Drum Durability, 70 MPH Stops @ 12fpsps																	
1	69.9	3.5	8.8	11.75	6527	7281	8789	61.8	104.6	118.4	1.295	2.259	2.434	183	286	201	401
5	70.0	3.5	8.9	11.63	6589	7207	8935	65.3	107.5	118.7	0.979	2.012	2.169	192	297	201	409
10	70.0	3.5	9.0	11.56	6577	7168	8816	65.7	108.6	118.9	0.923	2.020	2.199	189	297	202	404
15	69.9	3.5	8.9	11.61	6625	7199	8718	67.7	108.6	118.9	1.034	2.024	2.164	187	296	201	405
20	70.0	3.5	9.0	11.59	6595	7182	8685	65.4	108.7	119.0	0.817	2.011	2.183	187	294	201	403
25	70.0	3.5	9.0	11.60	6450	7191	8495	66.9	109.4	118.6	0.866	2.014	2.183	187	294	202	399
30	70.0	3.5	9.1	11.50	6589	7129	8403	69.2	110.7	118.9	0.865	2.019	2.181	188	299	201	401
35	69.9	3.5	9.1	11.50	6599	7129	8355	73.0	112.3	119.3	0.755	2.022	2.184	186	280	201	386
40	69.9	3.5	9.1	11.41	6498	7074	8387	70.4	111.6	118.9	0.809	2.035	2.223	186	295	201	398
45	69.9	3.5	9.0	11.58	6631	7176	8452	73.5	111.8	119.4	0.808	2.040	2.193	186	288	200	385
50	70.0	3.5	9.1	11.44	6506	7089	8228	71.5	112.6	119.2	1.065	2.057	2.214	188	295	201	386
55	69.9	3.5	9.1	11.43	6522	7084	8329	72.2	112.9	119.3	1.435	2.103	2.268	189	299	202	389
60	69.9	3.5	9.1	11.40	6522	7067	7729	80.2	114.9	119.7	1.494	2.060	2.202	198	305	201	387
65	69.9	3.5	9.3	11.18	6469	6927	7847	83.0	116.1	119.7	1.758	2.127	2.297	190	292	201	390
70	70.0	3.5	9.3	11.25	6430	6973	8075	76.4	114.9	119.6	1.862	2.123	2.281	189	296	202	388
75	69.9	3.5	9.1	11.41	6529	7072	8162	74.0	112.9	119.2	1.803	2.105	2.236	191	302	201	392
80	70.0	3.5	9.1	11.50	6372	7129	8369	69.7	111.8	119.2	1.818	2.112	2.271	191	308	202	388
85	69.9	3.5	9.1	11.52	6375	7143	8284	70.9	112.1	119.1	1.850	2.111	2.255	191	307	201	393
90	69.9	3.5	9.0	11.49	6451	7125	8130	71.5	111.8	119.0	1.862	2.125	2.281	191	306	201	385
95	70.0	3.5	9.1	11.44	6538	7089	8065	75.4	112.9	119.4	1.820	2.127	2.285	191	297	201	392
100	69.9	3.5	9.2	11.36	6433	7041	8233	75.8	113.0	119.4	1.713	2.156	2.330	190	314	202	385



Static Torque

Section ID: 6

<u>Forward</u>		<u>Reverse</u>	
Pressure	Torque (lb*ft)	Pressure	Torque (lb*ft)
Stop 1 = 10 PSI	1255.1	Stop 12 = 10 PSI	1429.4
Stop 2 = 20 PSI	2829.0	Stop 13 = 20 PSI	2637.7
Stop 3 = 30 PSI	4552.1	Stop 14 = 30 PSI	4273.6
Stop 4 = 40 PSI	6393.7	Stop 15 = 40 PSI	5668.4
Stop 5 = 50 PSI	8243.7	Stop 16 = 50 PSI	7064.8
Stop 6 = 60 PSI	9977.4	Stop 17 = 60 PSI	8466.5
Stop 7 = 70 PSI	11299.0	Stop 18 = 70 PSI	9342.4
Stop 8 = 80 PSI	12446.9	Stop 19 = 80 PSI	10293.5
Stop 9 = 90 PSI	13402.9	Stop 20 = 90 PSI	11009.8
Stop 10 = 100 PSI	14447.6	Stop 21 = 100 PSI	11699.9
Stop 11 = PARKING BRAKE	6035.7	Stop 22 = PARKING BRAKE	5349.1

Test Description:	Drum	KIC TRIDENT 80000-018	Air Chamber Type	TYPE 30/30
MERITOR DRIVE KIC-002	Primary Lining	MERITOR MA312	Slack Adjuster Type	6.0"/Haldex / Automatic
	Secondary Lining	MERITOR MA312	Actual Inertia	1,071.3 slug·ft²
			Actual Wheel Load	11,500.3 lb
			Rolling Radius	20.8 inch

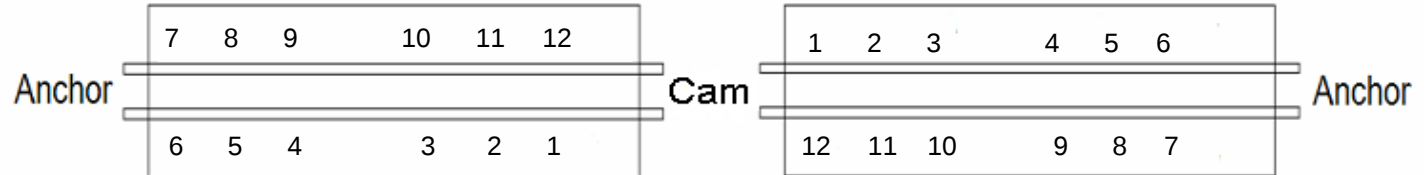
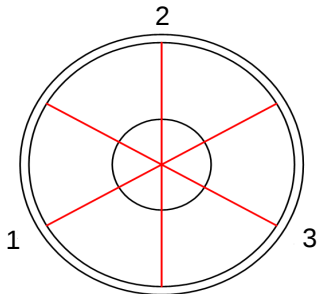
Test Request #:
145857-1



Customer Ref.:
N/A

		Lead/Inner (inch)														Post Burnish Shoe Contact (%)
		1	2	3	4	5	6	7	8	9	10	11	12	Average	Mass (gram)	
Post 121 Recovery	Initial	0.891	0.988	1.001	0.964	0.863	0.679	0.686	0.868	0.967	1.008	0.988	0.892	0.900	7883.0	82
		0.906	0.991	1.001	0.954	0.853	0.684	0.688	0.855	0.955	0.999	0.986	0.900	0.898	7822.0	
	Final	0.907	0.986	0.992	0.943	0.843	0.677	0.677	0.841	0.939	0.983	0.970	0.887	0.887	7782.0	
	Loss	-0.016	0.002	0.009	0.021	0.020	0.002	0.009	0.027	0.028	0.025	0.018	0.005	0.012	101.0	
		Trail/Outer (inch)														Post Burnish Shoe Contact (%)
		1	2	3	4	5	6	7	8	9	10	11	12	Average	Mass (gram)	
Post 121 Recovery	Initial	0.892	0.986	1.000	0.963	0.865	0.683	0.683	0.864	0.962	1.001	0.985	0.894	0.898	7883.0	75
		0.884	0.980	1.002	0.968	0.876	0.690	0.694	0.874	0.969	1.005	0.991	0.900	0.903	7831.0	
	Final	0.866	0.969	0.991	0.960	0.869	0.687	0.693	0.872	0.962	0.996	0.983	0.890	0.895	7807.0	
	Loss	0.026	0.017	0.009	0.003	-0.004	-0.004	-0.010	-0.008	0.000	0.005	0.002	0.004	0.003	76.0	

		Drum Diameter (inch)								
		1		2		3				
		In	Out	In	Out	In	Out	Average	Mass (lb)	Drum Runout
Post 121 Recovery	Initial	16.493	16.494	16.495	16.496	16.492	16.494	16.494	89.840	0.006
		16.496	16.497	16.496	16.498	16.495	16.496	16.496	0.000	
	Final	16.497	16.500	16.497	16.500	16.499	16.500	16.499	89.760	
	Change	-0.004	-0.006	-0.002	-0.004	-0.007	-0.006	-0.005	0.080	Brinell Hardness
										228



Test Description:

MERITOR DRIVE KIC-002

Drum
Primary Lining
Secondary Lining

KIC TRIDENT 80000-018
MERITOR MA312
MERITOR MA312

Air Chamber Type	TYPE 30/30
Slack Adjuster Type	6.0"/Haldex / Automatic
Actual Inertia	1,071.3 slug·ft²
Actual Wheel Load	11,500.3 lb
Rolling Radius	20.8 inch

Test Request #:
145857-1



Customer Ref.:
N/A

Inner Pad / Lead-Primary Shoe

	Stress Cracks	Structural Cracks	Grooves	Glazing	Pitting	Blisters	Edge Chipping	Lining Separation	Discoloration
Post Burnish	5	5	5	4	4	5	5	5	4
Post 121 Recovery	5	5	5	4	4	5	5	4	4
Final	5	5	5	5	5	5	5	5	3

Outer Pad / Trail-Secondary Shoe

	Stress Cracks	Structural Cracks	Grooves	Glazing	Pitting	Blisters	Edge Chipping	Lining Separation	Discoloration
Post Burnish	5	5	5	4	4	5	5	5	4
Post 121 Recovery	5	5	5	4	4	5	5	4	4
Final	5	5	5	5	5	5	5	5	3

Drum/Rotor Surface

	Stress Cracks	Structural Cracks	Grooves	Lining Transfer	Hot Spots	Bluing	Discoloration
Post Burnish	5	5	4	5	5	5	4
Post 121 Recovery	5	5	4	5	5	4	4
Final	4	5	4	4	4	5	3

1 = Severe
2 = Heavy
3 = Moderate
4 = Light
5 = Not Observed

Test Description:

MERITOR DRIVE KIC-002

Drum
Primary Lining
Secondary Lining

KIC TRIDENT 80000-018
MERITOR MA312
MERITOR MA312

Air Chamber Type	TYPE 30/30
Slack Adjuster Type	6.0"/Haldex / Automatic
Actual Inertia	1,071.3 slug·ft²
Actual Wheel Load	11,500.3 lb
Rolling Radius	20.8 inch

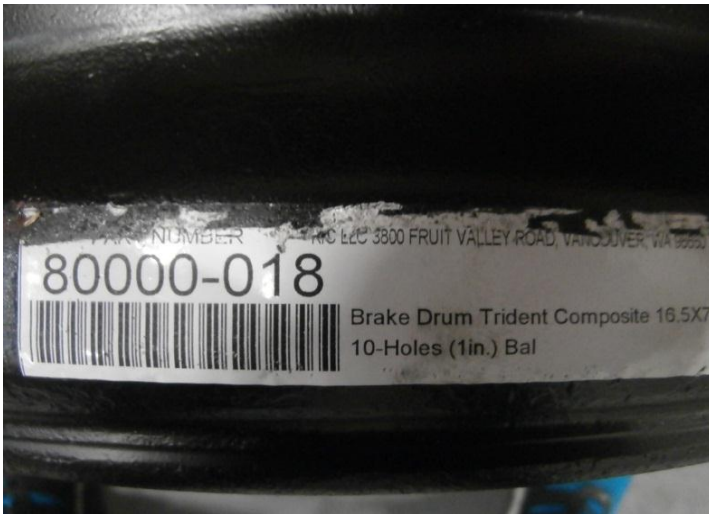
Test Request #:
145857-1



Customer Ref.:
N/A

Initial

View #1



View #2



View #3



View #4



Test Description: MERITOR DRIVE KIC-002	Drum	KIC TRIDENT 80000-018	Air Chamber Type	TYPE 30/30
	Primary Lining	MERITOR MA312	Slack Adjuster Type	6.0"/Haldex / Automatic
			Actual Inertia	1,071.3 slug-ft²
	Secondary Linin	MERITOR MA312	Actual Wheel Load	11,500.3 lb
			Rolling Radius	20.8 inch

Post Performance

View #1



View #2



View #3



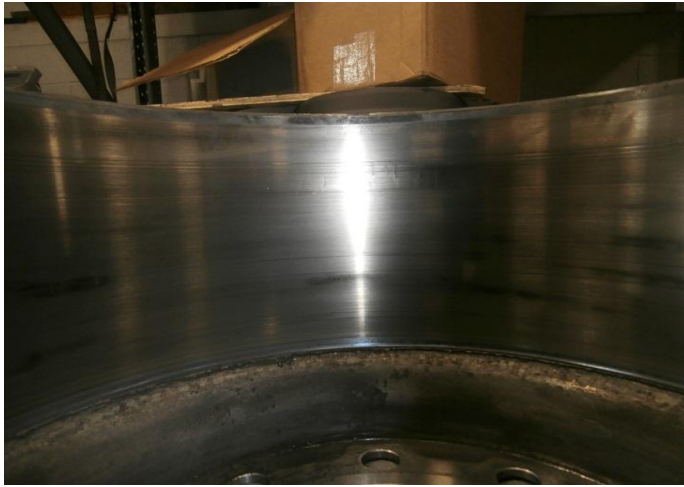
View #4



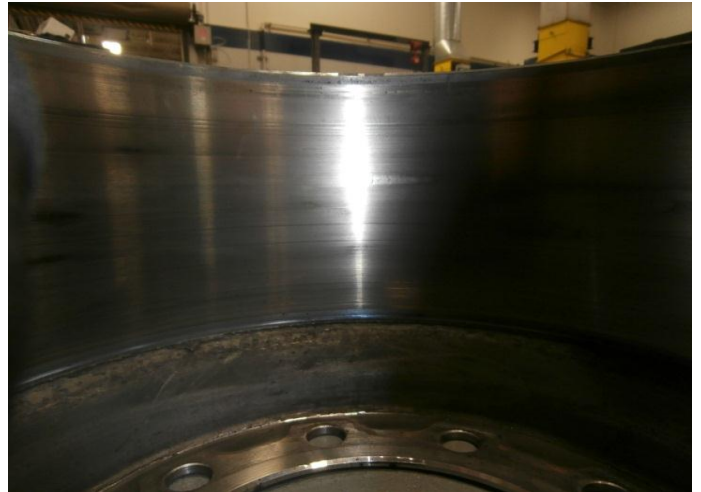
Test Description: MERITOR DRIVE KIC-002	Drum	KIC TRIDENT 80000-018	Air Chamber Type	TYPE 30/30
	Primary Lining	MERITOR MA312	Slack Adjuster Type	6.0"/Haldex / Automatic
			Actual Inertia	1,071.3 slug-ft ²
	Secondary Linin	MERITOR MA312	Actual Wheel Load	11,500.3 lb
			Rolling Radius	20.8 inch

Final Drum

View #1



View #2



View #3



View #4



Test Description: MERITOR DRIVE KIC-002	Drum	KIC TRIDENT 80000-018	Air Chamber Type	TYPE 30/30
	Primary Lining	MERITOR MA312	Slack Adjuster Type	6.0"/Haldex / Automatic
			Actual Inertia	1,071.3 slug-ft ²
	Secondary Linin	MERITOR MA312	Actual Wheel Load	11,500.3 lb
			Rolling Radius	20.8 inch