

TEST REPORT



ZHENGZHOU BAIYUN
INDUSTRIL CO.,LTD

www.sinobrake.com

Brake linings Dynamometer Test Report

BASED SECTION 6.4 - ISO 26865-2009

Customer

BAIYUN

Brake Linings

FMSI®/WVA 4551

Brake Linings Code

BY-89B

Brake Part Number




Report Number

BYD-89B-20220301

Test Completion Date

18-Mar-22

The data applicable to the friction materials tested. The report can not be copied in full. Valid if signed by the test engineer and acquire guanlean test seal.

APPROVED BY	CHECKED BY	PREPARED BY
 An Zhongwen	 Qu Xiaofei	 Ge Jinrui
Date: 18-Mar-22	Date: 18-Mar-22	Date: 18-Mar-22

Zhengzhou Baiyun Industrial Co.,Ltd Friction aterials laboratory

ADD:Industrial Demonstration Area of GongYi City,HeNan Province,CHINA



Phone:+86-0371-64135616

E-mail:zzbaiyun@163.com

<http://www.zzbaiyun.com>

Brake linings Dynamometer Testing**Test Description**

PROFORMANCE TEST

Test Information

Test Requestor:	BaiYun
Requested By:	
Test Procedure:	ISO 26865-2009
Control Program:	YX-26865-01
Dynamometer:	Model 8000 brake Dynamometer
Fixture ID:	
Test Coordinator:	Qu Xiaofei
Test Technician:	Jiang nan
Date Started:	16-Mar-22
Date Completed:	19-Mar-22
Date Parts Received:	10-Mar-22
Datalog Version:	
Brake Linings Code	BY-89B
Disk Brake Number	

Dynamometer Information

Brake Type		Air Brake
Laden mass:	lb	Kg
Unladen mass:	lb	Kg
Static Loaded Radius:	19.6 inch	497.8mm
Pressure rating		
Gross Axle Weight:	22993 lb	10430 Kg
Test Inertia:	slug·ft ²	1389.0 Kg·m ²
Actual Inertia:	slug·ft ²	1400.0 Kg·m ²

Brake Information

Brake FMSI® / WVA Number :	4551
Type of tested Axle	Air Brake
Brake Configuration	"S"Cam
Identification of tested Axle	
Brake pad manufacturer	Zhengzhou Baiyun Industrial Co.,Ltd
Brake pad formula code	BY-89B
Rated axle load	
Air chamber	24 inch
Maximum stroke capability	68.7 mm
Drum Effective Radius	8.25 inches
Drum Diameter x Shoe Width	16 1/2 x 8 5/8 inches
Drum Mass (nominal)	60.5 kg (nominal)
Thermocouple	Rubbing thermocouple at friction surface of the drum

Signature: 

Title:Engineer

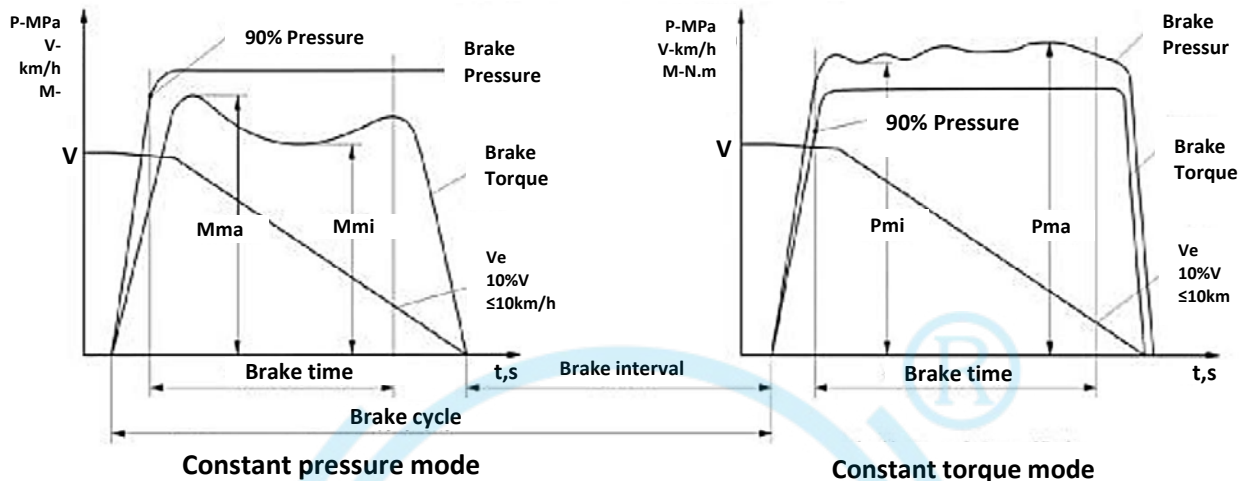
19-Mar-22

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Brake linings Dynamometer Testing

DATA NOTES

Brake test process number value



No.---- Bra ke number

Vb---- Initia l speed at be ginning of bra king

Vr---- Speed at end of ba king

Mma x----Ma ximum bra king torque

Mmin---- Minim um bra king torque

M---- Ave ra ge bra king torque

Km---- Torque uns ta bitily fa ctor

P ma x---- Ma ximum bra king presscure

P min---- Minim um bra king pressure

P ---- Ave ra ge bra king pressure

Kp---- Pressure uns ta bitily fa ctor

T2b---- Initia l brake lin in g temperature of le a ding shoe

T2r---- Bra ke releasing lin in g temperature of le a ding shoe

T3b---- Initia l temperature of brake drum

T3r---- Fina l temperature of brake drum

Stroke ----Displacement (Brake stroke)

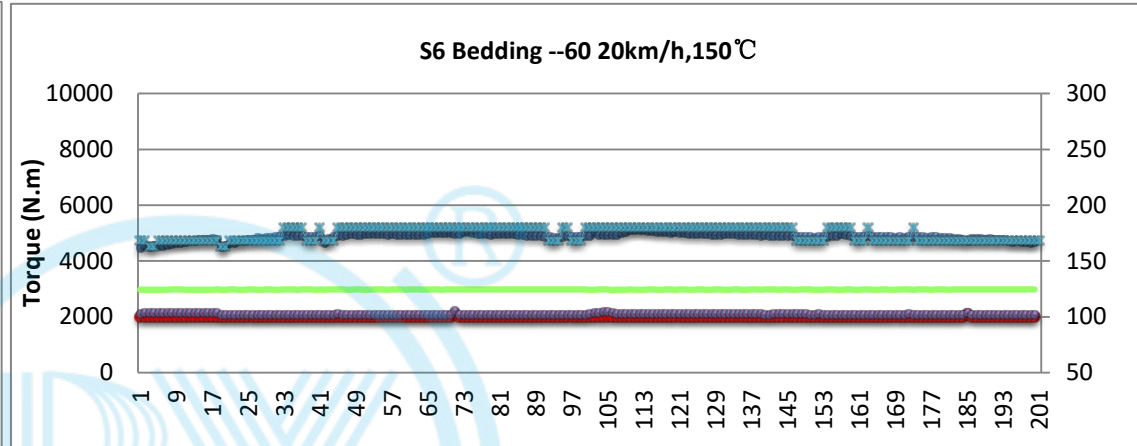
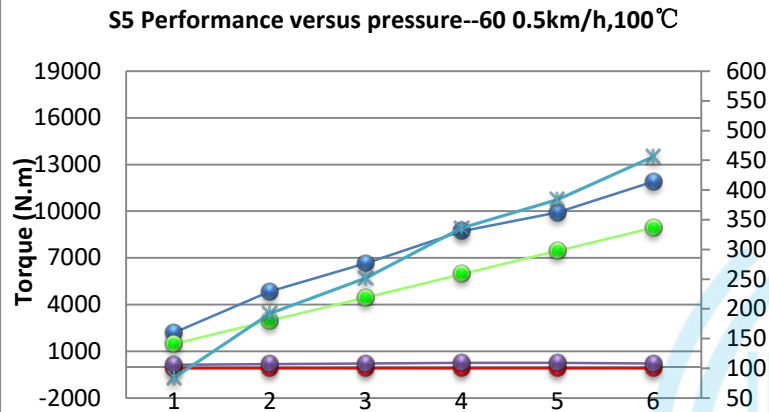
S ---- Stopping dis ta nce

Time ---- Braking time

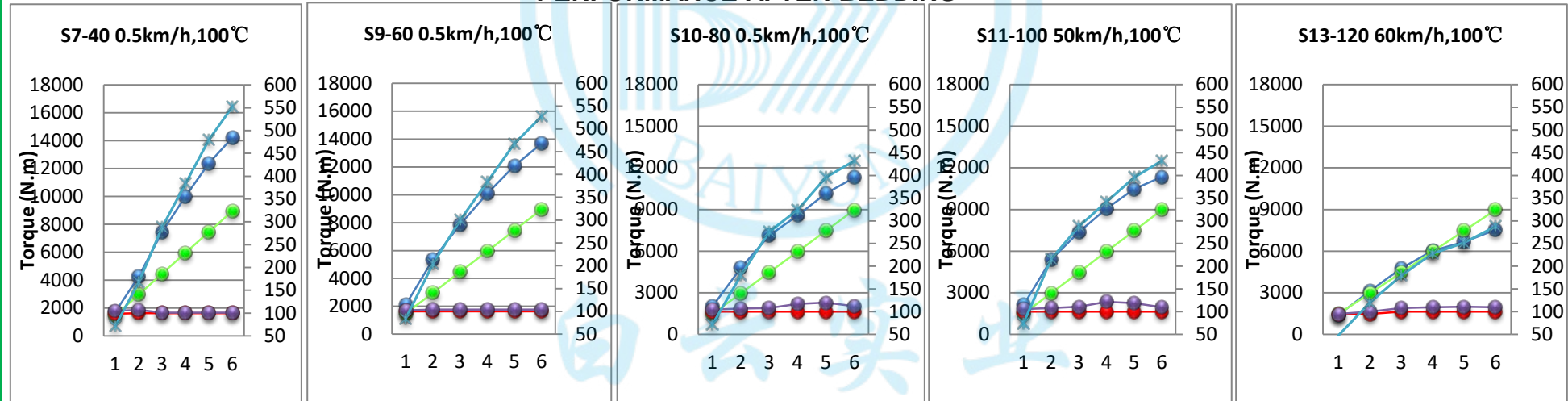
a(-)---- Bra king de ce le ra tion

MFDD----Mean fu lly developed de ce le ra tion

GREEN PERFORMANCE — Torq. N.m — Press x10000 Mpa — Temp Init — Temp Final — MFDD m/s/√2x100



PERFORMANCE AFTER BEDDING



Client: BAIYUN
 Report Number:BY-89B-20220301
 Test Report Date: 2022/03/18
 Test Number: BY89B-D-20220301
 Brake Number:
 Friction Material: BY-89B

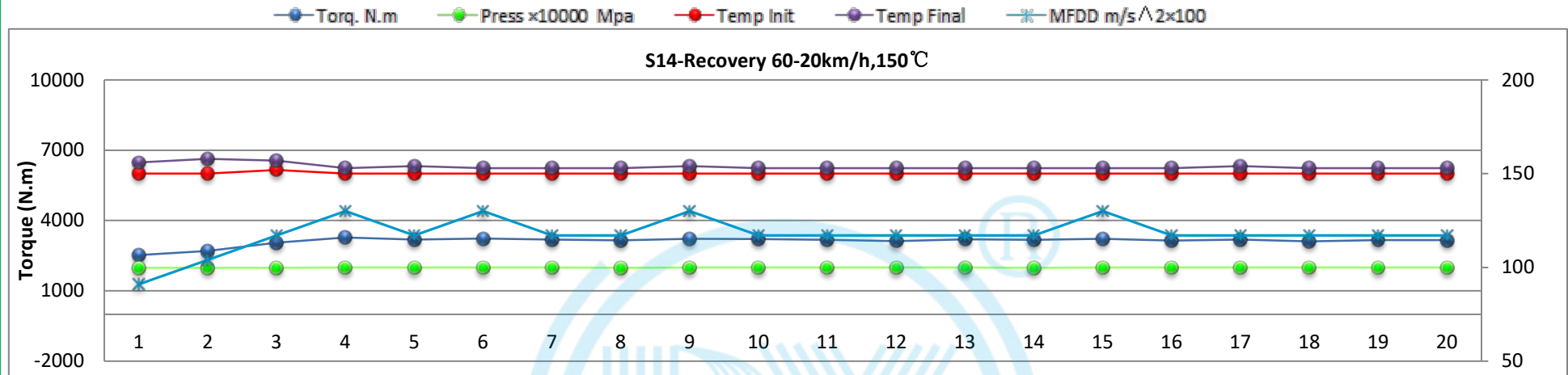
Brake: Meritor - FMSI@WVA Number: 4551
 Air Chamber Size :24 inches
 Axle Load: 23000 lbs
 Static Loaded Radius: 19.6 inches
 Test Inertia: 1389.0Kg.m²
 Simulated Wheel Load: 11500 lbs

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.

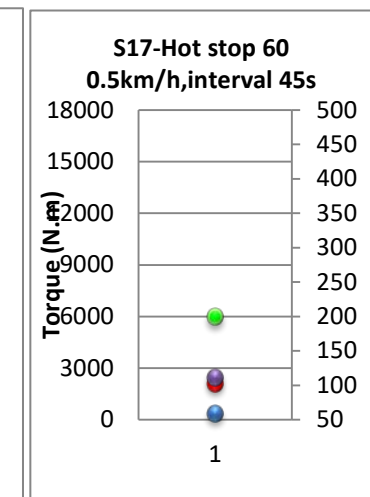
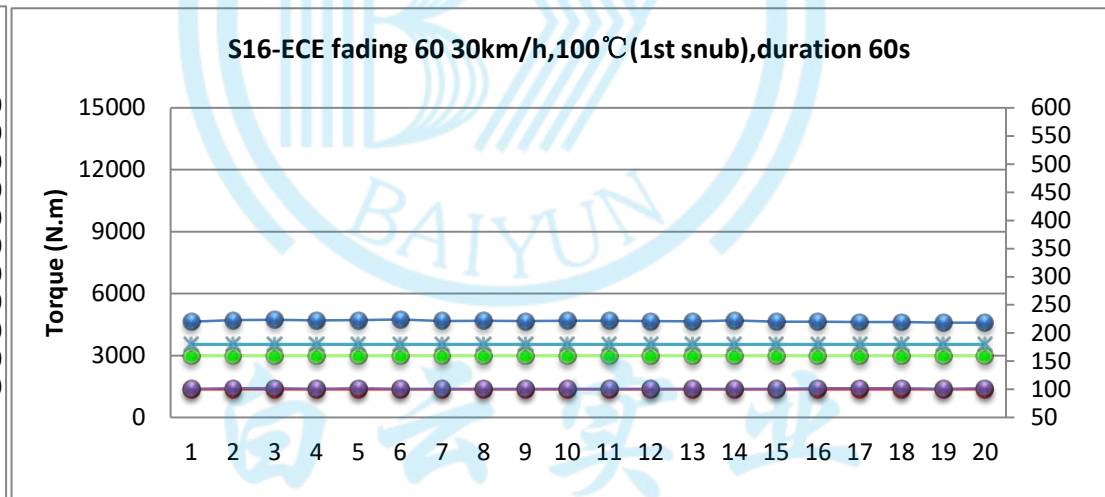
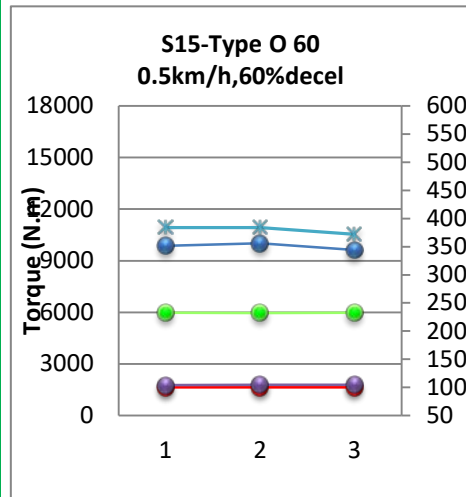
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Zhengzhou Baiyun Industrial Co.,Ltd
Brake Linings Dynamometer Testing

Cust Ref: BY89B-D-20220301



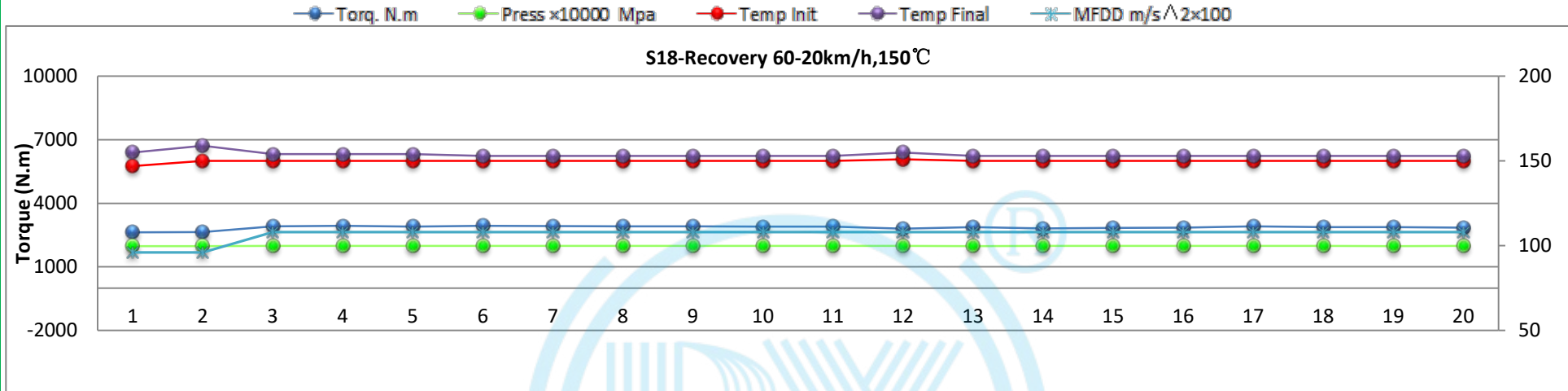
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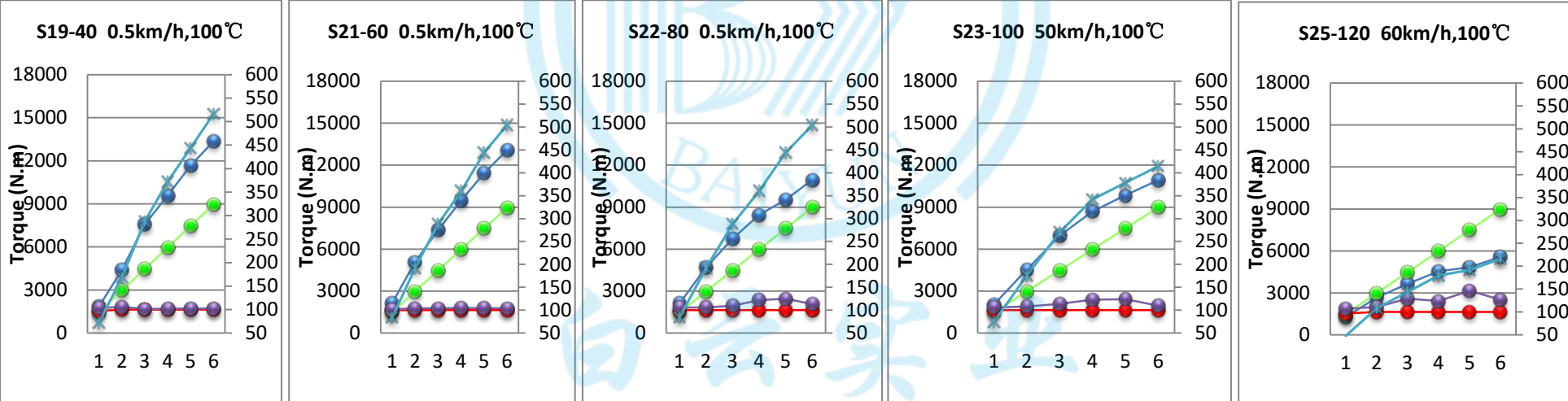
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PERFORMANCE 100°C



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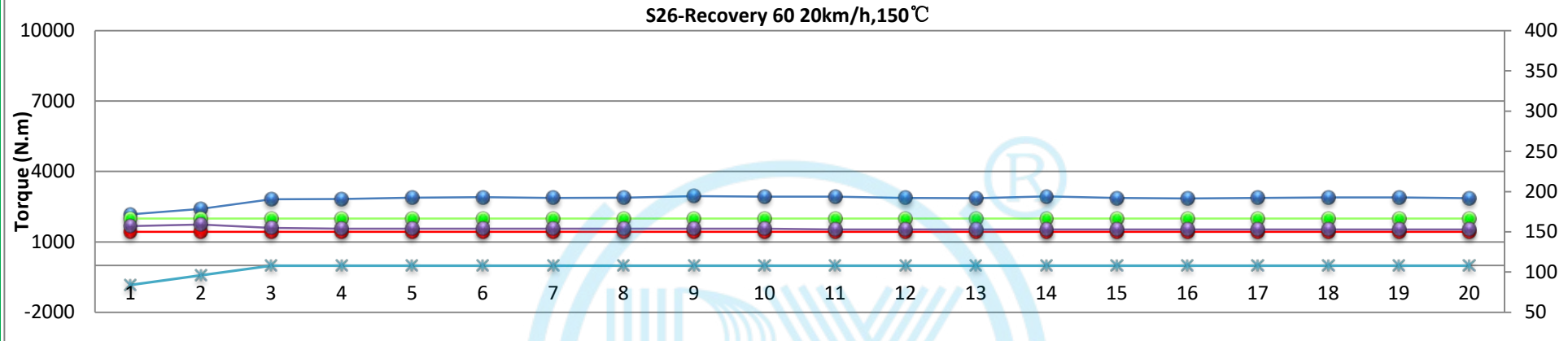
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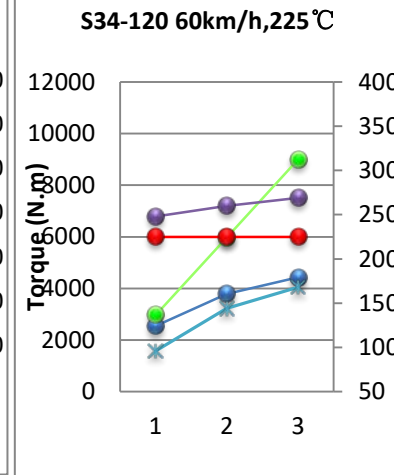
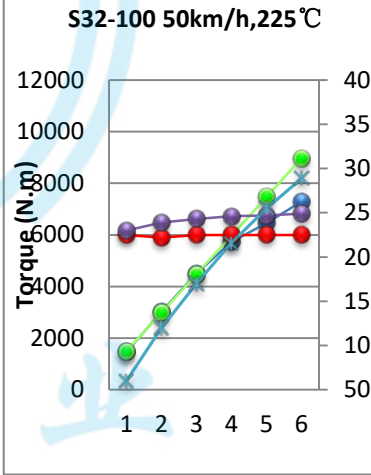
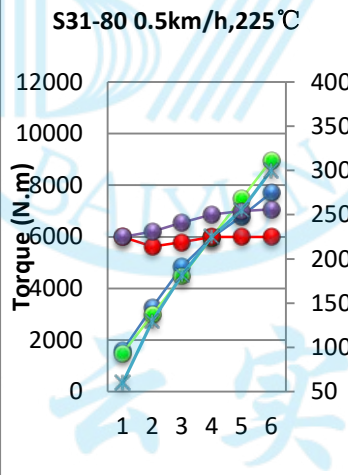
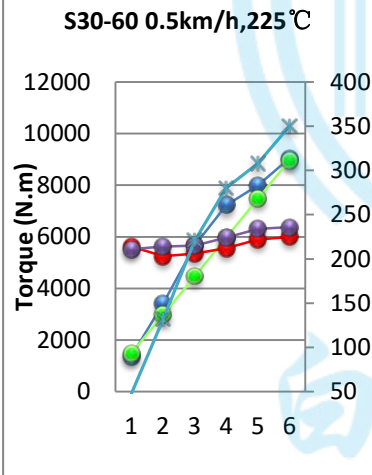
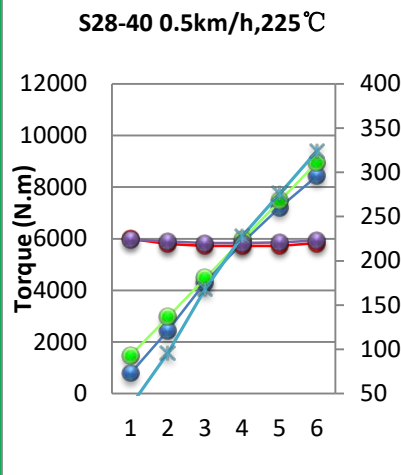
Zhengzhou Baiyun Industrial Co.,Ltd Brake Lings Dynamometer Testing

Cust Ref: BY89B-D-20220301

—●— Torq. N.m —●— Press ×10000 Mpa —●— Temp Init —●— Temp Final —*— MFDD m/s²×100



PERFORMANCE 225°C

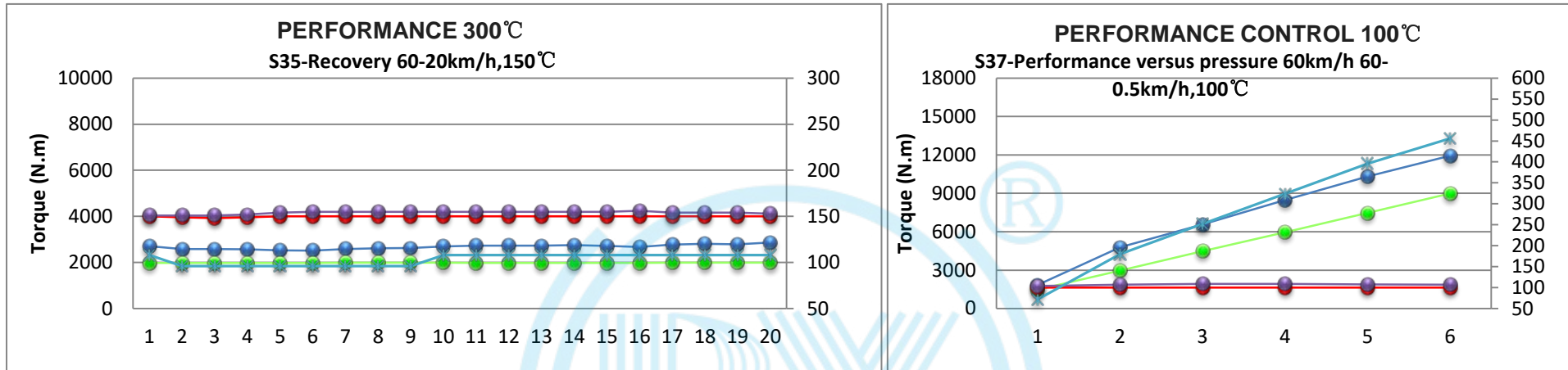


Client: BAIYUN
 Report Number: BY-89B-20220301
 Test Report Date: 2022/03/18
 Test Number: BY89B-D-20220301
 Brake Number:
 Friction Material: BY-89B

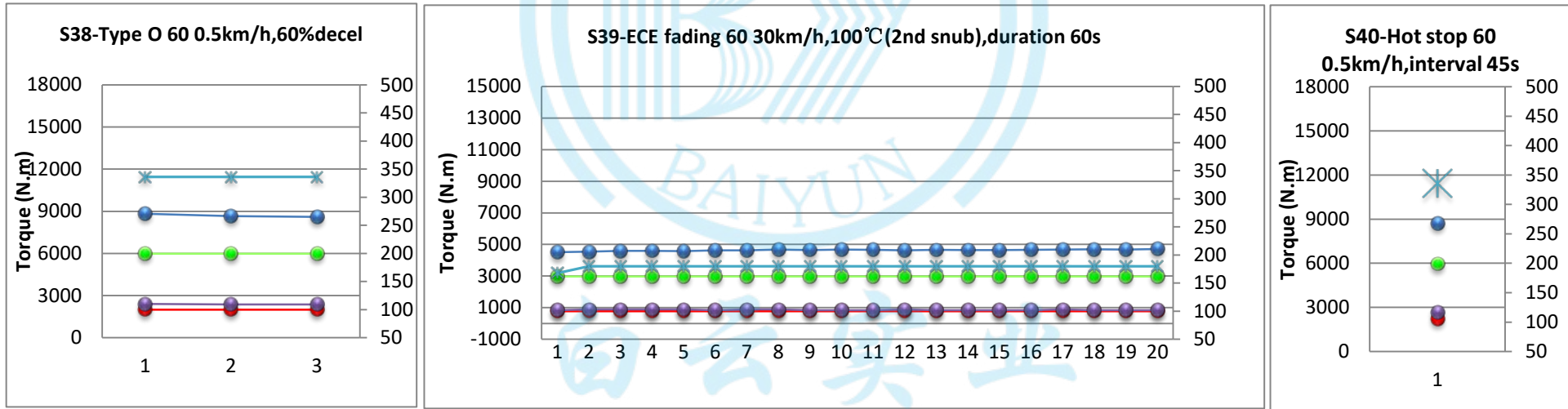
Brake: Meritor - FMSI@WVA Number: 4551
 Air Chamber Size :24 inches
 Axle Load: 23000 lbs
 Static Loaded Radius: 19.6 inches
 Test Inertia: 1389.0Kg.m²
 Simulated Wheel Load: 11500 lbs

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2nd FADING

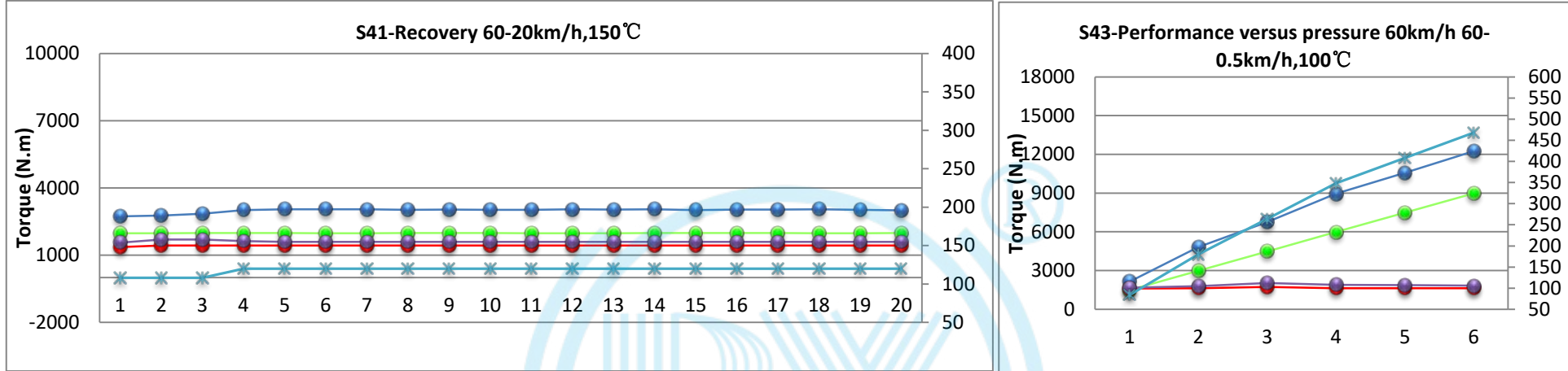


Client: BAIYUN
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 Test Number: BY89B-D-20220301
 Brake Number:
 Friction Material: BY-89B

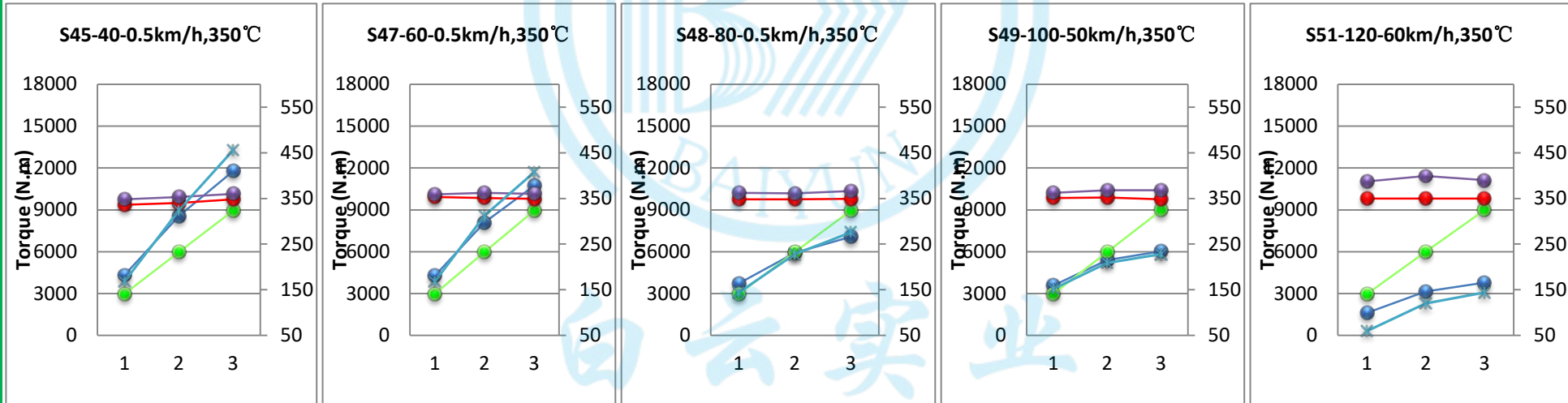
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PERFORMANCE 350°C



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 Test Report Date: 2022/03/18
 Test Number: BY89B-D-20220301
 Brake Number:
 Friction Material: BY-89B

Brake: Meritor - FMSI@WVA Number: 4551
 Air Chamber Size :24 inches
 Axle Load: 23000 lbs
 Static Loaded Radius: 19.6 inches
 Test Inertia: 1389.0Kg.m²
 Simulated Wheel Load: 11500 lbs

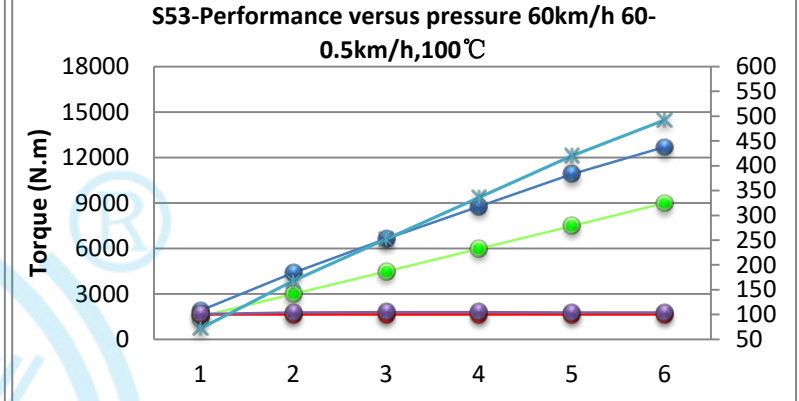
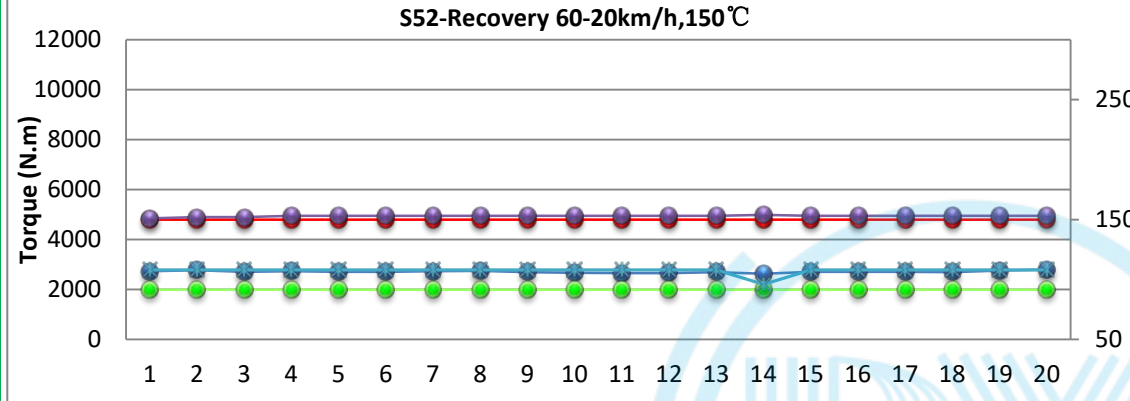
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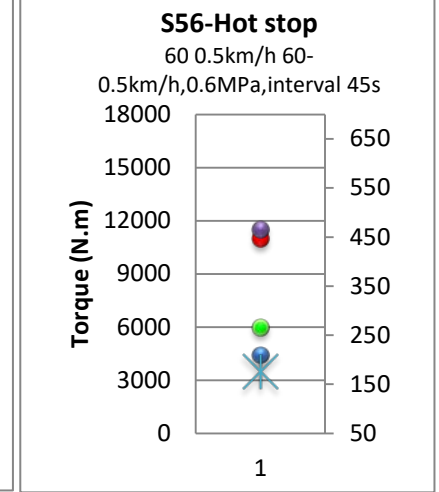
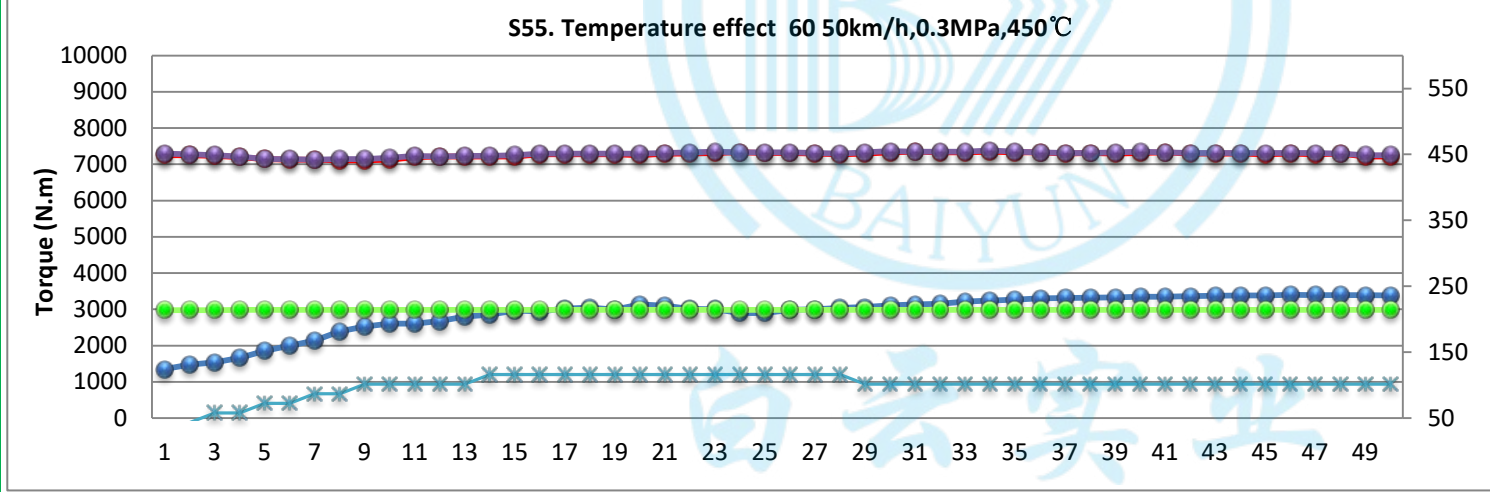
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Brake Linings Dynamometer Testing

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TEMPERATURE EFFECT 450°C



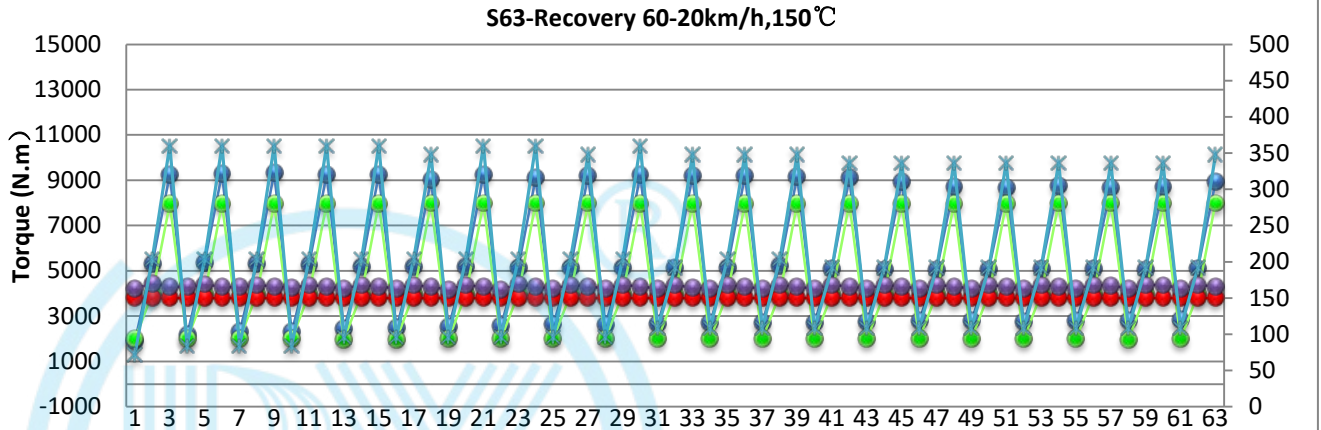
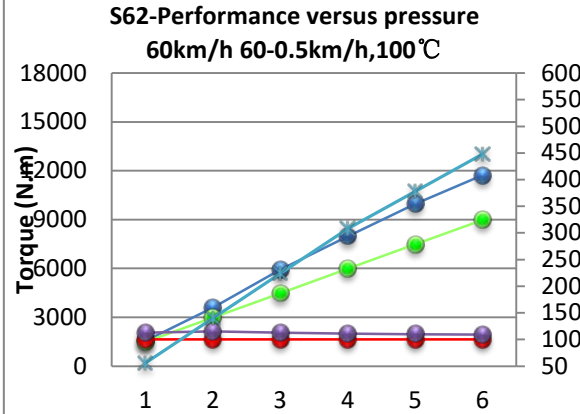
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 Friction Material: BY-89B

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 Simulated Wheel Load: 11500 lbs

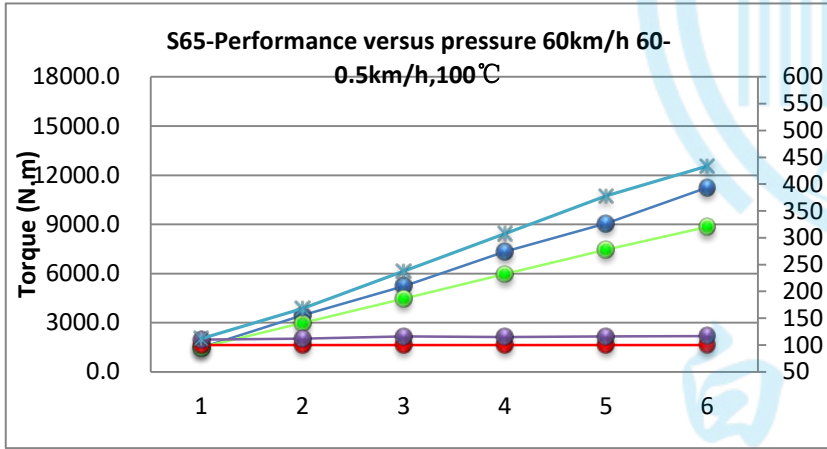
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PERFORMANCE CONTROL 100°C

● Torq. N.m ● Press ×10000 Mpa ● Temp Init ● Temp Final * MFDD m/s²×100



PERFORMANCE CONTROL 100°C



SUMMARY BRAKE LININGS DATA SHEET

Brake torque versus pressure of 0.6MPa, except step 17 and 40

Step	Section	Torque KN.m	Press Mpa	MFDD m/s ² × 2
5	Green 60Km/h;100°C	8.723	0.596	3.36
9	After bedding 60Km/h;100°C	10.108	0.596	3.84
11	After bedding 100Km/h;100°C	9.058	0.746	3.42
17	1st fading,hot stop	9.179	0.897	3.48
21	After 1st fading 60Km/h;100°C	9.470	0.148	3.60
23	After 1st fading 100Km/h;100°C	8.699	0.297	3.42
30	60Km/h;300°C	5.975	0.447	2.80
32	100Km/h;300°C	5.731	0.596	2.16
40	2nd fading,hot stop	8.710	0.747	3.36
47	50Km/h;500°C	8.089	0.897	3.12
49	100Km/h;500°C	5.392	0.149	2.09
53	50Km/h;100°C	8.755	0.298	3.36
62	60Km/h;100°C	7.977	0.447	3.08
65	60Km/h;100°C	7.332	0.597	3.08

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