

# ALLIANCE ALLOY WHEELS CO.,LTD.

NO. 186, GONG 2ND RD., LONGTAN DISTRICT, TAOYUAN CITY 32559, TAIWAN

TEL: 886-3-4092555

FAX: 886-3-4092655

## Strength Test Statement



oJWL	xJWL-T	oVIA	xSFI	Dept.
Model	HY853F1		Loading (KG)	860KG
Offset(mm)	14	Nominal Designation of Rim		20x 11.0 J
Number of Bolt holes	5H	P.C.D(mm)		114.3mm
weight(kg)	14.6kg	Structure		1 pcs
Material	A-356.2-T6	Manufacturing method	Flow Forged	
1、Tire used for test				
Item	Nominal Designation of Tire			
Radial load Endurance test	325/30R20			
Impact test	275/40R20			



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 7 (Day) 5 (Year) 2024  
 Testing equipment approval number : VIA A-183

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
3.87	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf) F (F1): 10.3 r: 0.338 (m) d: 0.014 (m)  
 Calculated bending moment value M (KNm) (Kgf·m) M: 3.87 KNm

b、Radial load endurance test Date of test : (Month) 7 (Day) 8 (Year) 2024  
 Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	23.18	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 10.3 (KN) (Kgf)  
 Calculated Radial load Q: 23.18 (kN)

c、Impact test Date of test : (Month) 7 (Day) 5 (Year) 2024  
 Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	696	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk  
 b、Rust-prevention treatment

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## Strength Test Statement



oJWL    xJWL-T    oVIA    xSFI    Dept.

Model	HY853F1	Loading (KG)	860KG
Offset(mm)	24	Nominal Designation of Rim	20× 11.0 J
Number of Bolt holes	5H	P.C.D(mm)	114.3mm
weight(kg)	14.5kg	Structure	1 pcs
Material	A-356.2-T6	Manufacturing method	Flow Forged
1、Tire used for test			
Item	Nominal Designation of Tire		
Radial load Endurance test	325/30R20		
Impact test	275/40R20		



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 5 (Day) 9 (Year) 2025  
 Testing equipment approval number : VIA A-183

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
4.03	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf)    F (F1): 10.3    r: 0.338 (m)    d: 0.024 (m)  
 Calculated bending moment value M (KNm) (Kgf·m)    M: 4.03 KNm

b、Radial load endurance test Date of test : (Month) 5 (Day) 12 (Year) 2025  
 Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	23.18	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 10.3 (KN) (Kgf)  
 Calculated Radial load Q: 23.18 (kN)

c、Impact test Date of test : (Month) 5 (Day) 9 (Year) 2025  
 Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	696	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk  
 b、Rust-prevention treatment

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## Strength Test Statement



oJWL    xJWL-T    oVIA    xSFI    Dept.

Model	HY853F1	Loading (KG)	860KG
Offset(mm)	43	Nominal Designation of Rim	20× 11.5 J
Number of Bolt holes	5H	P.C.D(mm)	114.3mm
weight(kg)	13.3kg	Structure	1 pcs
Material	A-356.2-T6	Manufacturing method	Flow Forged
1、Tire used for test			
Item	Nominal Designation of Tire		
Radial load Endurance test	345/30R20		
Impact test	305/30R20		



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 7 (Day) 10 (Year) 2024

Testing equipment approval number : VIA A-183

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
4.27	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf)    F (F1): 10.3    r: 0.333 (m)    d: 0.043 (m)

Calculated bending moment value M (KNm) (Kgf·m)    M: 4.27 KNm

b、Radial load endurance test Date of test : (Month) 7 (Day) 12 (Year) 2024

Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	23.18	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 10.3 (KN) (Kgf)

Calculated Radial load Q: 23.18 (kN)

c、Impact test Date of test : (Month) 7 (Day) 10 (Year) 2024

Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	696	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk

b、Rust-prevention treatment

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## Strength Test Statement



oJWL    xJWL-T    oVIA    xSFI    Dept.

Model	HY853F1	Loading (KG)	860KG
Offset(mm)	56	Nominal Designation of Rim	20× 11.5 J
Number of Bolt holes	5H	P.C.D(mm)	114.3mm
weight(kg)	13.2kg	Structure	1 pcs
Material	A-356.2-T6	Manufacturing method	Flow Forged
1、Tire used for test			
Item	Nominal Designation of Tire		
Radial load Endurance test	345/30R20		
Impact test	305/30R20		



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 5 (Day) 14 (Year) 2025  
 Testing equipment approval number : VIA A-183

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
4.47	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf)    F (F1): 10.3    r: 0.333 (m)    d: 0.056 (m)

Calculated bending moment value M (KNm) (Kgf·m)    M: 4.47 KNm

b、Radial load endurance test Date of test : (Month) 5 (Day) 16 (Year) 2025  
 Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	23.18	500000	NONE	NONE	OK

F Used in calculation of radial load    F (F1): 10.3 (KN) (Kgf)

Calculated Radial load    Q: 23.18 (kN)

c、Impact test    Date of test : (Month) 5 (Day) 14 (Year) 2025  
 Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	696	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk  
 b、Rust-prevention treatment

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## Strength Test Statement



oJWL	xJWL-T	oVIA	xSFI	Dept.
Model	HY853F2		Loading (KG)	750KG
Offset(mm)	35	Nominal Designation of Rim		19× 10.0 J
Number of Bolt holes	5H	P.C.D(mm)		114.3mm
weight(kg)	12.1kg	Structure		1 pcs
Material	A-356.2-T6	Manufacturing method	Flow Forged	
1、Tire used for test				
Item	Nominal Designation of Tire			
Radial load Endurance test	285/40R19			
Impact test	255/35R19			



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 7 (Day) 18 (Year) 2024

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
3.58	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf) F (F1): 9 r: 0.329 (m) d: 0.035 (m)

Calculated bending moment value M (KNm) (Kgf·m) M: 3.58 KNm

b、Radial load endurance test Date of test : (Month) 7 (Day) 22 (Year) 2024

Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	20.25	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 9 (KN) (Kgf)

Calculated Radial load Q: 20.25 (kN)

c、Impact test Date of test : (Month) 7 (Day) 18 (Year) 2024

Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	630	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk

b、Rust-prevention treatment

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## Strength Test Statement



oJWL	xJWL-T	oVIA	xSFI	Dept.
Model	HY853F2		Loading (KG)	860KG
Offest(mm)	35	Nominal Designation of Rim	20× 10.0 J	
Number of Bolt holes	5H	P.C.D(mm)	114.3mm	
weight(kg)	12.7kg	Structure	1 pcs	
Material	A-356.2-T6	Manufacturing method	Flow Forged	
1、Tire used for test				
Item	Nominal Designation of Tire			
Radial load Endurance test	285/50R20			
Impact test	255/40R20			



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 5 (Day) 13 (Year) 2025  
 Testing equipment approval number : VIA A-183

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
4.47	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf) F (F1): 10.3 r: 0.363 (m) d: 0.035 (m)  
 Calculated bending moment value M (KNm) (Kgf·m) M: 4.47 KNm

b、Radial load endurance test Date of test : (Month) 5 (Day) 15 (Year) 2025  
 Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	23.18	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 10.3 (KN) (Kgf)  
 Calculated Radial load Q: 23.18 (kN)

c、Impact test Date of test : (Month) 5 (Day) 13 (Year) 2025  
 Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	696	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk  
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## Strength Test Statement



oJWL	xJWL-T	oVIA	xSFI	Dept.
Model	HY853F2	Loading (KG)	860KG	
Offset(mm)	50	Nominal Designation of Rim	20x 11.0 J	
Number of Bolt holes	5H	P.C.D(mm)	114.3mm	
weight(kg)	13.3kg	Structure	1 pcs	
Material	A-356.2-T6	Manufacturing method	Flow Forged	
1、Tire used for test				
Item	Nominal Designation of Tire			
Radial load Endurance test	325/30R20			
Impact test	275/40R20			

### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 5 (Day) 16 (Year) 2025  
 Testing equipment approval number : VIA A-183

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
4.43	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf) F (F1): 10.3 r: 0.338 (m) d: 0.05 (m)  
 Calculated bending moment value M (KNm) (Kgf·m) M: 4.43 KNm

b、Radial load endurance test Date of test : (Month) 5 (Day) 19 (Year) 2025  
 Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	23.18	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 10.3 (KN) (Kgf)  
 Calculated Radial load Q: 23.18 (kN)

c、Impact test Date of test : (Month) 5 (Day) 16 (Year) 2025  
 Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	696	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk  
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## Strength Test Statement



oJWL	xJWL-T	oVIA	xSFI	Dept.
Model	HY853F3		Loading (KG)	750KG
Offset(mm)	24	Nominal Designation of Rim		19× 11.0 J
Number of Bolt holes	5H	P.C.D(mm)		114.3mm
weight(kg)	12.2kg	Structure		1 pcs
Material	A-356.2-T6	Manufacturing method		Flow Forged
1、Tire used for test				
Item	Nominal Designation of Tire			
Radial load Endurance test	285/40R19			
Impact test	275/35R19			



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 7 (Day) 22 (Year) 2024

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
3.43	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf) F (F1): 9 r: 0.329 (m) d: 0.024 (m)

Calculated bending moment value M (KNm) (Kgf·m) M: 3.43 KNm

b、Radial load endurance test Date of test : (Month) 7 (Day) 24 (Year) 2024

Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	20.25	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 9 (KN) (Kgf)

Calculated Radial load Q: 20.25 (kN)

c、Impact test Date of test : (Month) 7 (Day) 22 (Year) 2024

Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	630	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk

b、Rust-prevention treatment

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## Strength Test Statement



oJWL    xJWL-T    oVIA    xSFI    Dept.

Model	HY853F3	Loading (KG)	750KG	
Offset(mm)	50	Nominal Designation of Rim	19x 11.0 J	
Number of Bolt holes	5H	P.C.D(mm)	114.3mm	
weight(kg)	12.0kg	Structure	1 pcs	
Material	A-356.2-T6	Manufacturing method	Flow Forged	
1、Tire used for test				
Item	Nominal Designation of Tire			
Radial load Endurance test	285/40R19			
Impact test	275/35R19			

### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 7 (Day) 22 (Year) 2024

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
3.78	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf)    F (F1): 9    r: 0.329 (m)    d: 0.05 (m)

Calculated bending moment value M (KNm) (Kgf·m)    M: 3.78 KNm

b、Radial load endurance test Date of test : (Month) 7 (Day) 24 (Year) 2024

Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	20.25	500000	NONE	NONE	OK

F Used in calculation of radial load    F (F1): 9 (KN) (Kgf)

Calculated Radial load    Q: 20.25 (kN)

c、Impact test    Date of test : (Month) 7 (Day) 22 (Year) 2024

Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	630	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk

b、Rust-prevention treatment

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## Strength Test Statement



oJWL	xJWL-T	oVIA	xSFI	Dept.
Model	HY853F3		Loading (KG)	750KG
Offset(mm)	56	Nominal Designation of Rim		19x 11.5 J
Number of Bolt holes	5H	P.C.D(mm)		114.3mm
weight(kg)	11.9kg	Structure		1 pcs
Material	A-356.2-T6	Manufacturing method		Flow Forged
1、Tire used for test				
Item		Nominal Designation of Tire		
Radial load Endurance test		345/35R19		
Impact test		295/35R19		



### 2、Testing conditions and results

a、Rotary bending fatigue test Date of test : (Month) 7 (Day) 23 (Year) 2024

Bending moment during test (KNm)	Rotational speed for test	Damage to disk wheel	Loosening of tightening section	Evaluation
3.93	100000	NONE	NONE	OK

F Used in calculation of bending moment (KN) (Kgf) F (F1): 9 r: 0.336 (m) d: 0.056 (m)

Calculated bending moment value M (KNm) (Kgf·m) M: 3.93 KNm

b、Radial load endurance test Date of test : (Month) 7 (Day) 25 (Year) 2024

Testing equipment approval number : VIA B-168

Pre-test air Pressure (kPa) (kgf/cm <sup>2</sup> )	Radial load during test (kn)	Rotational speed for test	Damage to Disk wheel	Loosening of fixtrue section etc.	Evaluation
460	20.25	500000	NONE	NONE	OK

F Used in calculation of radial load F (F1): 9 (KN) (Kgf)

Calculated Radial load Q: 20.25 (kN)

c、Impact test Date of test : (Month) 7 (Day) 23 (Year) 2024

Testing equipment approval number : VIA C-238

Pre-test air pressure (kPa) (kgf/cm <sup>2</sup> )	Weight mass(kg)	Drop height(mm)	Impact Position(13°)		Damage To disk wheel	Air leakage	Evaluation
200	630	230	0	180	NONE	NONE	OK

3、Overall evaluation : Qualified

4、Remarks : a、Position of load indication mark : reverse、disk

b、Rust-prevention treatment