

INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRiP Implementation Society (NATIS), Govt. of India]

ULR No. - TC536018140000038P




C T O V N 0 1 3 3

Date: 30/01/2019

PERFORMANCE TEST (CMVR) REPORT

1	Customer	M/s E-ASHWA AUTOMOTIVE PVT. LTD.
2	Customer Address	404, 410-411, Devika Tower, Chander Nagar, Ghaziabad - 201011, Uttar Pradesh.
3	Tech. Specs & Date Docket ID	e-riksa1-001 Dated :02/02/2019 CVTNBEASHNMCSC64042
4	Vehicle Tested a) Model b) Type c) Category d) Manufacturer	E-RIKSA1 Special Purpose Battery Operated Vehicle E-Rickshaw M/s E-ASHWA AUTOMOTIVE PVT. LTD.
5	Test Requirement	Compliance to the requirements of CMVR -1989 as amended up to date as notified in G.S.R 709(E) Dt. 08/10/2014 and SO 2590(E) Dt. 08/10/2014
6	Test Procedure	As per respective standards.
7	Place of Issue	ICAT Centre II
8	Total No. of pages	04 + 03 Drawings

Remarks: Refer page 4 of 4 for Disclaimer.

Format No.: ICAT/VEL/F/22/03			
Prepared By	Checked By	Approved By	
			
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ULR No. - TC536018140000038P

C T O V N 0 1 3 3

Date: 30/01/2019

PERFORMANCE TEST (CMVR) REPORT E-RIKSA1

Motor No.	EAM-1801	Manufacturer	M/s E-ASHWA AUTOMOTIVE PVT. LTD.
Chassis No.	MD9ER201811454001	Fuel	Battery Operated
Test Site	ICAT Centre II	Vehicle specification	e-rikxa1-001 Dated :02/02/2019
		Reference No. & Date:	

Rule No.	PARAMETER	TEST RESULTS						
96(4)	Brake Test (IS 14664:1999) Dynamic Test - Front Brake	Initial Speed (km/h)	Control Force (kg)	Stopping Distance (m)		MFDD (m/s ²)		Service Brake Type - Mechanical Expandable Brake Shoe Type
				Observed	Limit	Observed	Limit	Front brake - Drum, Hand operated Make of Lining -. M/s SIDDHARTH BRAKES
	Laden [#]	--	--	--	--	--	--	(ID: D17KCC)
	Unladen [#]	15.4	26.5	2.3	5.2	4.7	2.5	Measured Dimensions,mm - 142.6 x 24.9 (ArcLengthxWidth)
	Hot Performance	15.4	9.9	11.4	17.2	0.8	1.0*	Drum Diameter, mm- 130
	Brake Test (IS 14664:1999) Dynamic Test - Rear Brake	Initial Speed (km/h)	Control Force (kg)	Stopping Distance (m)		MFDD (m/s ²)		Rear brake - Drum, Foot operated Make of Lining - E-Ashwa Automotive Pvt. Ltd.
				Observed	Limit	Observed	Limit	(ID: TZRS)
	Laden	15.4	27.7	2.5	4.9	4.5	2.7	MeasuredDimensions,mm - 140.3 x 33.0 (ArcLengthxWidth)
	Unladen	15.4	26.5	2.3	5.2	4.7	2.5	Drum Diameter, mm- 160
	Hot Performance	15.4	30.1	2.4	3.0	4.9	2.7*	Tyre Make (All Tyre) -M/s STF Tyre Size (All Tyre)- 3.75-12 60 J
	Brake Test (IS 14664:1999) Dynamic Test - Both Brake	Initial Speed (km/h)	Control Force (kg)	Stopping Distance (m)		MFDD (m/s ²)		Tyre Pressure (All Tyre)- 250 kPa Parking Brake
				Observed	Limit	Observed	Limit	Type of Brake - Mechanical hand lever operated, acting on rear two wheels
	Laden [#]	15.4	31.1	1.9	3.6	5.7	4.4	Refer Drawing No.-Dwg.-10, Dwg.- 11, Dwg.-12 for brake liner dimensions and brake system layout.
	Unladen [#]	15.4	26.5	1.9	3.6	6.0	4.4	* Conducted after type F test as per Clause 13.1 & 13.3.1 of IS 14664 :1999
	Brake Test (IS 14664:1999) Parking Brake	Initial Speed (km/h)	Control Force (kg)	Stopping Distance (m)		MFDD (m/s ²)		[#] Test Conducted as per Clause 12.10 of IS 14664:1999
				Observed	Limit	Observed	Limit	Test conducted for introduction of new model. First time Type Approval.
	Dynamic Parking Brake	15.4	15.9	5.8	12.0	1.7	1.5	
	Static Parking Brake	Could hold the laden vehicle upwards & downwards, with G.V.W. 731 kg on 18% gradient with force of 14.0 kg.						
Format No.: ICAT/VEL/F/03/01								

Format No.: ICAT/VEL/F/03/01

Prepared By



Vijay Negi

Asst. Manager



Checked By



Keshav Kr. Tripathi

Sr. Manager

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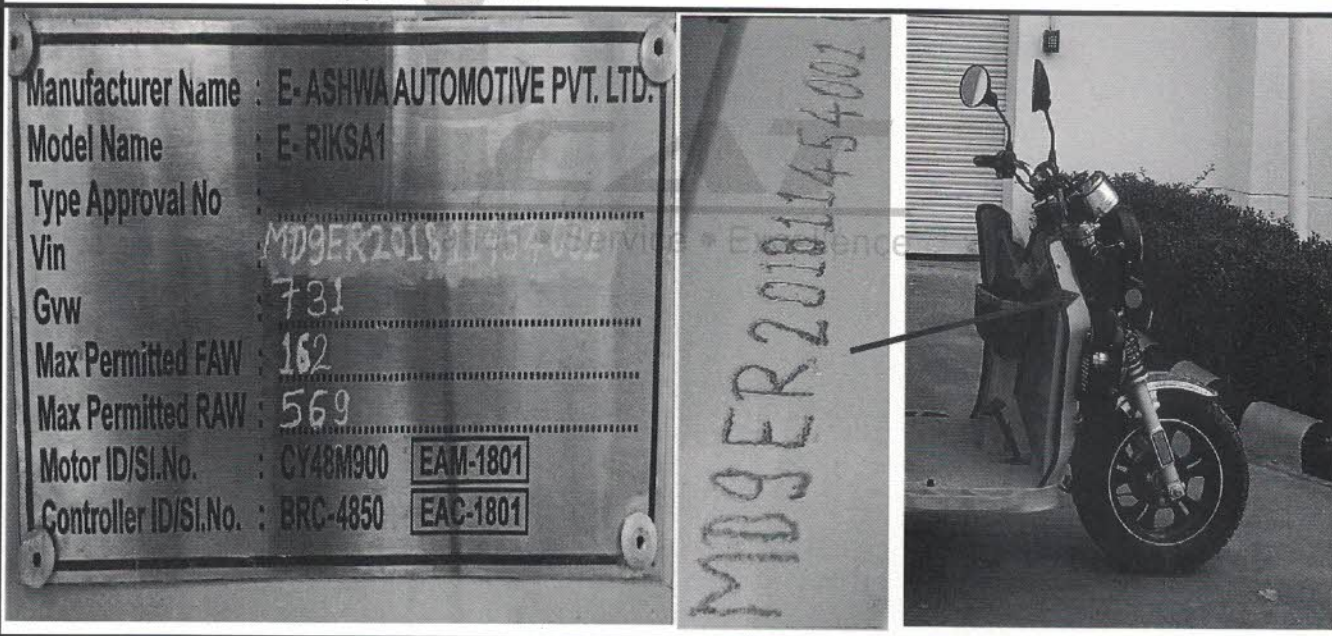
Date: 30/01/2019




PERFORMANCE TEST (CMVR) REPORT
E-RIKSA1

Motor No. **EAM-1801** Manufacturer **M/s E-ASHWA AUTOMOTIVE PVT. LTD.**
Chassis No. **MD9ER201811454001** Fuel **Battery Operated**
Test Site **ICAT Centre II** Vehicle specification **e-rikas1-001 Dated :02/02/2019**
Reference No. & Date:

Rule No.	PARAMETER	TEST RESULTS	
--	Weight Measurement (IS 11825:1986)	Measured Vehicle Dimensions	
		Length, mm - 2798	
		Width, mm - 998	
		Height, mm - 1670	
	Unladen	Specified	Measured
	FAW, kg	88.0	88.0
	RAW, kg	263.0	263.0
	Total Weight, kg	351.0	351.0
	Laden		
	FAW, kg	162.0	162.0
	RAW, kg	569.0	569.0
	Total Weight, kg	731.0	731.0
		Total Battery Weight - 127.5 kg	
		Battery Weight,	
		1 st - 32.2 kg, 2 nd - 31.8 kg	
		3 rd - 31.6 kg, 4 th - 31.9 kg	
		Battery,	
		Make : M/s Exide Industries Ltd.	
		Model/ID: ERTUBR115L-OE	
		Format No. : ICAT/VEL/F/12/01	

Remarks: The vehicle meets the requirement of above mentioned CMV Rules applicable as per the G.S.R. 709(E) Dt. 8/10/2014 and SO 2590(E) Dt. 8/10/2014



Prepared By		Checked By	Page 03 of 04 + 03 Dwg.
			
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ULR No. - TC 536018140000038P

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Date: 30/01/2019

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The appropriate local court at Gurugram shall have the jurisdiction in respect of any dispute, claim or liability arising out of this report.

Format No.: ICAT/VEL/F/52/00

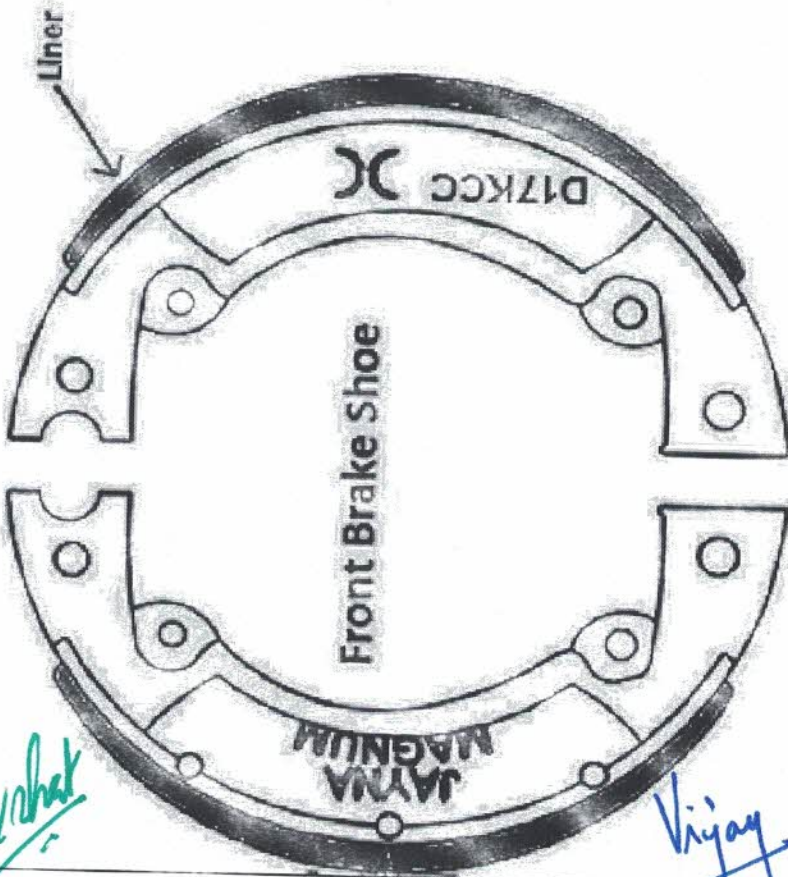
Prepared By		Checked By	
			
Vijay Negi Asst. Manager			
		Keshav Kr. Tripathi Sr. Manager	

ULR No. - TC536018140000038P

C T O V N 0 1 3 3

Date: 30/01/2019

Drawing No. 01



Unhat

Vijay



Make:- Siddharth Brakes Pvt. Ltd. (JAYNA MAGNUM)
Id - D17KCC

Liner:- L x W = 142.6 x 24.9

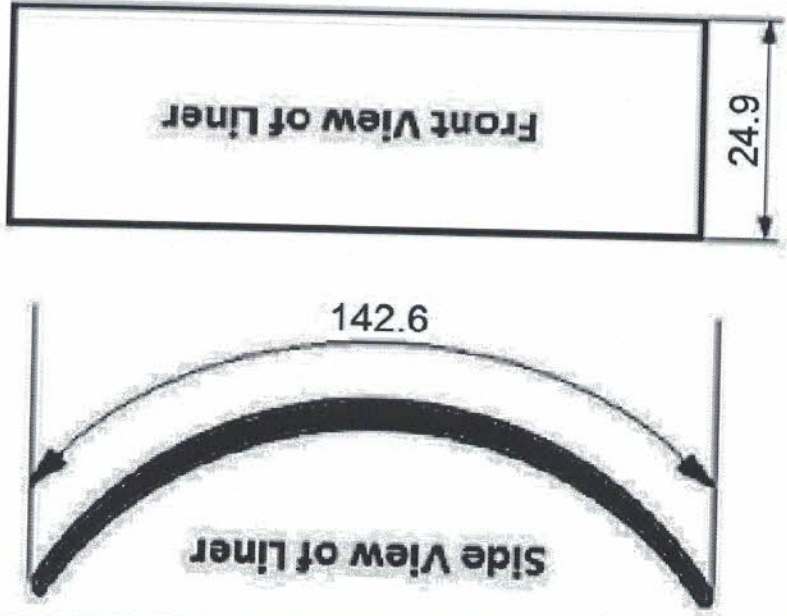
Drum Dia:- 130 mm

M/S E-ASHWA

AUTOMOTIVE PVT. LTD.

Model : E-RIKSA 1

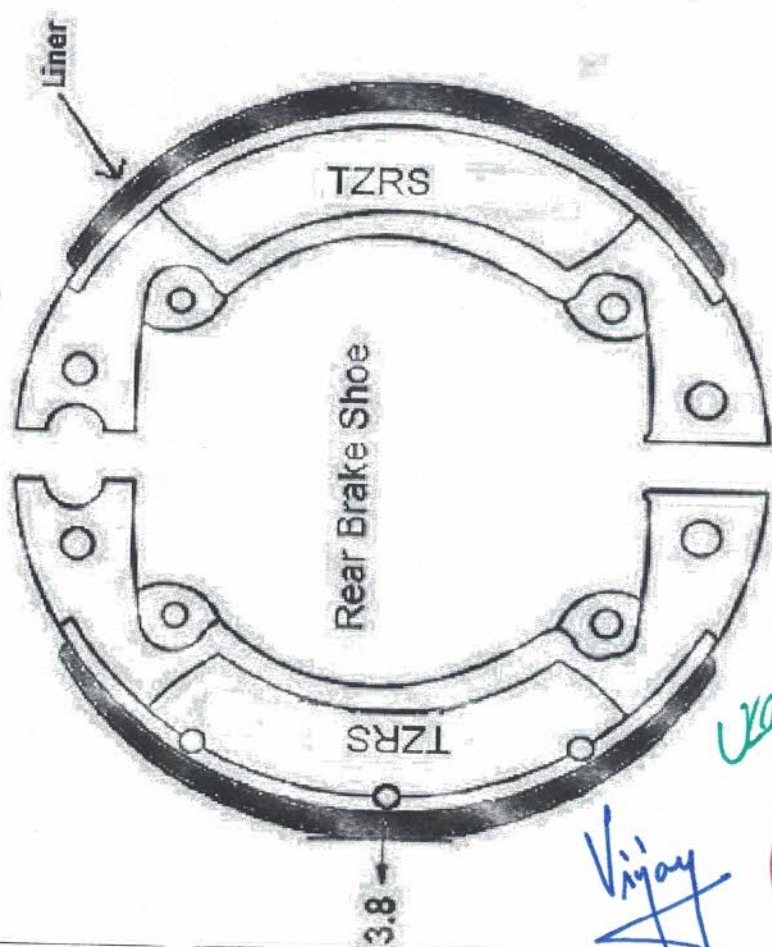
Drawing Name :- Front Brake Shoe



Side and Front view of
FRONT BRAKE SHOE LINER

All Dimensions are in mm

Name	Date
Ajay kumar	11-02-19
Pawan kumar	
Drawing No.- Dwg.-11	



Side and Front view of
REAR BRAKE SHOE LINER

Make:- E-Aswa Automotive Pvt. Ltd.
Id:- TZRS
Liner:- L x W = 140.3 x 33.0
Drum Dia:- 130 mm

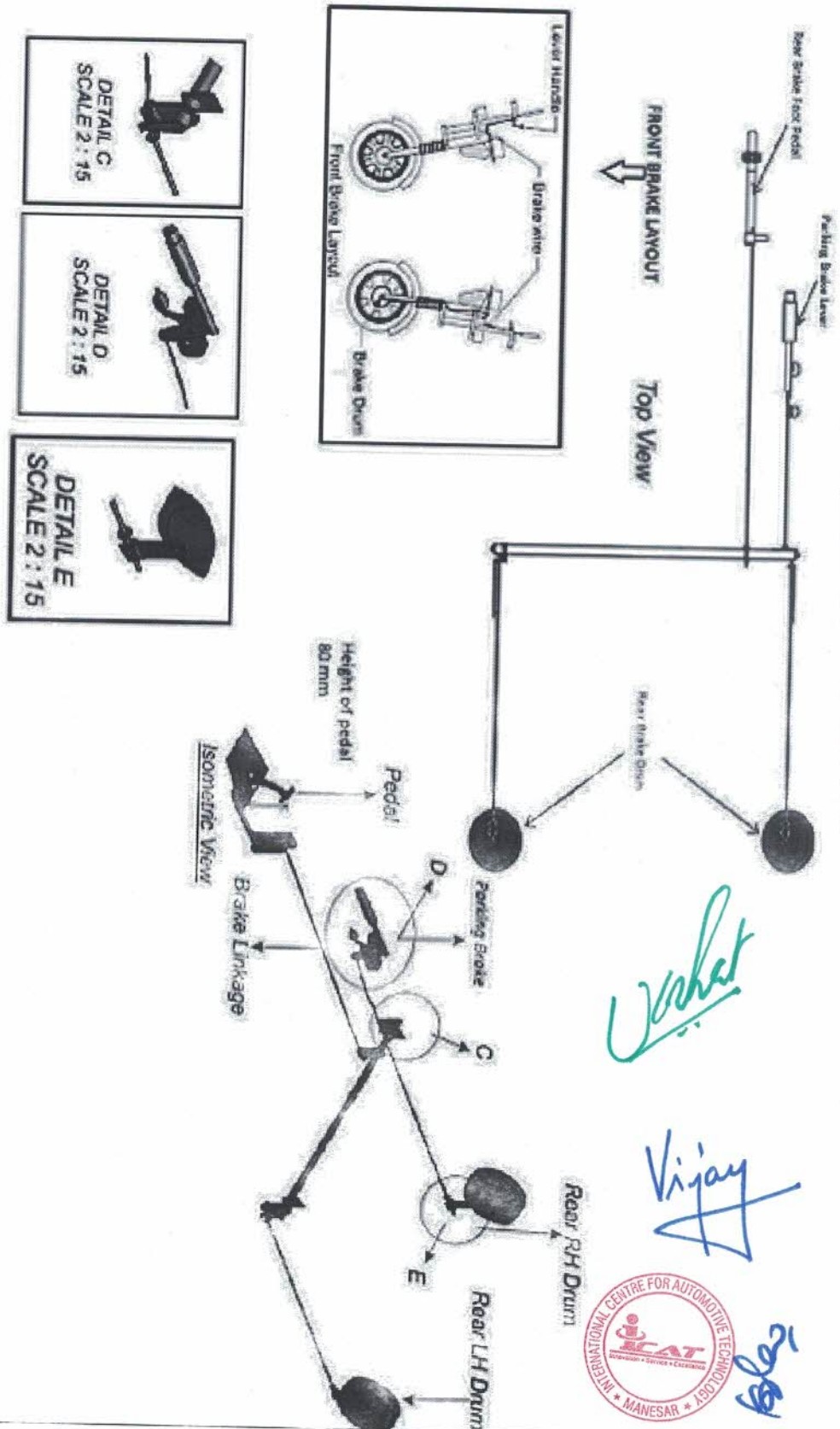
Vijay



Bob

M/S E-ASHWA AUTOMOTIVE PVT. LTD.	All Dimensions are in mm	
	Name	Date
	Drawn By :- Ajay kumar	11-02-19
	Approved By :- Pawan kumar	
Drawing Name :- Rear Brake Shoe		
Drawing No.- Dwg.-12		

Parking Brake Layout & Brake Positions



M/S E-ASHWA

AUTOMOTIVE PVT. LTD.

Model : E-RIKSA 1

Drawing Name :- Brake Positions Layout

All Dimensions are in mm

Name

Ajay kumar

Date

11-02-19

Drawn By :-

Pawan kumar

Approved By :-

Drawing No.- Dwg.-10

INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

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PERFORMANCE TEST (CMVR) REPORT

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2	Customer Address	404, 410-411, Devika Tower, Chander Nagar, Ghaziabad - 201011, Uttar Pradesh.
3	Tech. Specs & Date Docket ID	e-riksa1-001 Dated :02/02/2019 CVTNBEASHNMCSC64042
4	Vehicle Tested a) Model b) Type c) Category d) Manufacturer	E-RIKSA1 Special Purpose Battery Operated Vehicle E-Rickshaw M/s E-ASHWA AUTOMOTIVE PVT. LTD.
5	Test Requirement	Compliance to the requirements of CMVR -1989 as amended up to date as notified in G.S.R 709(E) Dt. 08/10/2014 and SO 2590(E) Dt. 08/10/2014
6	Test Procedure	As per respective standards.
7	Place of Issue	ICAT Centre-II • Excellence
8	Total No. of pages	10 + 03 Drawings

Remarks: Refer page 10 of 10 for Disclaimer.

Format No.: ICAT/VEL/F/22/03			
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Vijay Negi Asst. Manager	Keshav Kr. Tripathi Sr. Manager	U. K. Bhat Advisor VEL	

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+
03 Dwg.

C T O V N 0 1 3 4




Date: 30/01/2019

PERFORMANCE TEST (CMVR) REPORT E-RIKSA1

Motor No. EAM-1801	Manufacturer M/s E-ASHWA AUTOMOTIVE PVT. LTD.	
Chassis No. MD9ER201811454001	Fuel Battery Operated	
Test Site ICAT Centre II	Vehicle specification e-riksa1-001 Dated :02/02/2019	
	Reference No. & Date:	

Installation Requirements of Lighting & Light –Signaling Devices (AIS-009 (Rev. 1.0) 2011 Amend. 1)

Clause No.	PARAMETERS		TEST RESULTS		
	General Requirements	Requirement	Observed	Observed Marking(s)	Colour
5.0	Driving Beam Headlamp (Colour: White)	One	One	RAJULEX JBI-104 RG-2243	White
	Passing Beam Headlamp (Colour: White)	One	One		White
	Front Position Lamp (Colour: White / Amber)	Two	Two	RAJULEX RG-2227 RG-2228 RG-2229 RG-2231	Amber
	Front Direction Indicator Lamp (Colour: Amber)	Two	Two		Amber
	Stop Lamp (Colour: Red)	Two	Two		Red
	Rear Position Lamp (Colour: Red)	Two	Two		Red
	Rear Direction Indicator Lamp (Colour: Amber)	Two	Two		Amber
	Reverse Lamp (Colour: White)	One/Two	Two		White
	Rear Retro Reflecting Device (Colour: Red)	Two	Two	RAJULEX JBI 111 RH2259	Red
	Rear Registration Mark (Illumination) Lamp (Colour: White)	One	One	RAJULEX JBI 103 RG 2211	White
Independent, Grouped, Combined or Reciprocally Incorporated Lamps					
	LAMPS		DETAILS		
	Head lamp Assembly		Passing and Driving Beam are incorporated.		
	Front Combination Lamp Assembly		FPL and FDI are incorporated.		
	Rear Combination Lamp Assembly		RPL and SL are incorporated. RPL/SL, RDI, RL and RR are independent.		
	Rear Registration Mark (Illumination) Lamp		Independent		
	Clause No. 5.3, 5.5.2.1, 5.5.2.2, 5.6.1, 5.6.2.1, 5.8, 5.9, 5.10 & 5.12.1				Complies
	The headlamp may optionally automatically be on when the motor is running. If installed, the daytime running lamp shall automatically be ON when the engine is running (Cl. No. 5.11.1)				Not Mandatory Not Provided

Prepared By		Checked By	
			
Vijay Negi		Keshav Kr. Tripathi	
Asst. Manager		Sr. Manager	

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PERFORMANCE TEST (CMVR) REPORT

E-RIKSA1

Motor No. **EAM-1801** Manufacturer **M/s E-ASHWA AUTOMOTIVE PVT. LTD.**
 Chassis No. **MD9ER201811454001** Fuel **Battery Operated**
 Test Site **ICAT Centre II** Vehicle specification **e-rikas1-001 Dated :02/02/2019**
 Reference No. & Date:

Installation Requirements of Lighting & Light –Signaling Devices (AIS-009 (Rev. 1.0) 2011 Amend. 1)

Clause No.	PARAMETERS	TEST RESULTS			
		HEIGHT(mm)		DISTANCE FROM EXTREME OUTER EDGE OF VEHICLE (mm)	DISTANCE BETWEEN IDENTICAL OPTICAL DEVICES (mm)
		MIN.	MAX.		
	Driving Beam Headlamp	780	935	--	NA
	Passing Beam Headlamp	780	935	--	NA
	Front Position Lamp	577	665	120	626
	Front Direction Indicator Lamp	577	665	120	626
	Stop Lamp	350	450	130	566
	Rear Position Lamp	350	450	130	566
	Rear Direction Indicator Lamp	560	650	130	566
	Reverse Lamp	460	550	130	566
	Rear Retro Reflecting Device	277	343	150	490

INDIVIDUAL SPECIFICATIONS

Driving Beam Head Lamp

6.0

S. No.	Details of Clause No.	Remarks
1	6.1.1.1, 6.1.3, 6.1.3.1.2, 6.1.3.2 & 6.1.7 of AIS-009 (REV-01):2011	Complies
2	Orientation: Forwards. The lamp(s) may move with the steering angle. May not be "combined" with any other lamp. (Cl. No. 6.1.5 & 6.1.6)	Complies (moving)
3	Tell-tale: Circuit-closed tell-tale mandatory. Non flashing Blue signal lamp. (Cl. No. 6.1.8)	Complies

Passing Beam Head Lamp

1	6.2.3.1.2, 6.2.3.3, & 6.2.7 of AIS-009 (REV-01):2011	Complies
2	Orientation: Forwards. The lamp(s) may move in line with the steering angle. (Cl. No. 6.2.5.1)	Complies (moving)
3	The vertical inclination of the passing beam headlamp shall remain between - 0.5 and - 2.5 per cent. (CL. No. 6.2.5.2)	Complies

DIRECTION INDICATOR LAMP

1	Length: The forward distance between the centre reference of the rear indicators and the transverse plane which constitutes the rearmost limit of the vehicle's over-all length shall not exceed 300 mm. (Cl. No. 6.3.3.2 & 6.3.3.3)	28 mm Complies
2	6.3.8, 6.3.8.1 & 6.3.8.2 of AIS-009 (REV-01):2001	Complies

Prepared By

Vijay

Vijay Negi

Asst. Manager



Checked By

Keshav

Keshav Kr. Tripathi

Sr. Manager



C T O V N 0 1 3 4

Date: 30/01/2019

PERFORMANCE TEST (CMVR) REPORT E-RIKSA1

Motor No. EAM-1801	Manufacturer	M/s E-ASHWA AUTOMOTIVE PVT. LTD.
Chassis No. MD9ER201811454001	Fuel	Battery Operated
Test Site ICAT Centre II	Vehicle specification	e-rikas1-001 Dated :02/02/2019
	Reference No. & Date:	

Installation Requirements of Lighting & Light –Signaling Devices (AIS-009 (Rev. 1.0) 2011 Amend. 1)

Clause No.	PARAMETERS		TEST RESULTS
6.0	DIRECTION INDICATOR LAMP		
	S.No.	Details of Clause No.	Remarks.
	3	"Circuit-closed" tell-tale: Mandatory. Shall be optical. It shall be (a) flashing green lamp(s), which, in the event of defective operation of any of the direction-indicators, is extinguished; remains alight without flashing, or show a marked change of frequency. An additional auditory circuit closed tell-tale may also be fitted. (Cl. No. 6.3.9)	Complies
	4	Other Requirements: In the case of all vehicles the direction indicator lamps of which are supplied with direct current, the light flashing frequency shall be 90 ± 30 times per minute. (Cl. No. 6.3.10.1)	94 Flashes/minute Complies
	5	In the event of failure, other than a short circuit, of one direction indicator lamp, the other(s) direction-indicator lamp(s) indicating the same direction shall continue to flash or remain alight, but the frequency in this condition may be different from that prescribed. (Cl. No. 6.3.10.4)	Complies
	STOP LAMP		
	1	6.4.5 & 6.4.6 of AIS-009 (REV-01):2011	Complies
	2	"Circuit-closed" tell-tale: Tell-tale optional; where fitted, this tell-tale shall be an operating tell-tale consisting of a non-flashing warning light which comes on in the event of the malfunctioning of the stop lamps. (Cl. No. 6.4.7)	Not Mandatory Not Provided
	Rear Registration Mark (Illumination) Lamp		
	1	6.5.2, 6.5.3, 6.5.3.1, 6.5.3.2, 6.5.3.3, 6.5.4, 6.5.5 & 6.5.6 of AIS-009 (REV-01):2011	Complies
	2	Tell Tale: Optional Its function shall be performed by the tell-tale prescribed for the position lamp.	Complies (Tell tale same as prescribed for 'Front Position Lamp')
	Front Position Lamp		
	1	6.6.3.1.1 of AIS-009 (REV-01):2011	Complies
	2	Orientation: Forwards. The lamp(s) may move in line with the steering angle. (Cl. No. 6.6.5)	Complies (stationary)
	3	"Circuit-closed" tell-tale: Mandatory. Non-flashing green signal lamp. This tell-tale shall not be required if the instrument illumination lighting can be switched on or off only simultaneously with the position lamp(s). (Cl. No. 6.6.6)	Complies (Instrument illumination)
	Rear Position Lamp		
	1	6.7.5 of AIS-009 (REV-01):2011	Complies
	2	Circuit-closed- tell-tale: Optional: Its function shall be performed by the device prescribed for the front position lamp. (Cl. No. 6.7.6)	Complies (Tell tale same as prescribed for 'Front Position Lamp')
Prepared By		Checked By	
			
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Asst. Manager		Sr. Manager	



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PERFORMANCE TEST (CMVR) REPORT E-RIKSA1

Motor No. EAM-1801	Manufacturer	M/s E-ASHWA AUTOMOTIVE PVT. LTD.
Chassis No. MD9ER201811454001	Fuel	Battery Operated
Test Site ICAT Centre II	Vehicle specification	
	Reference No. & Date:	e-riksa1-001 Dated :02/02/2019

Installation Requirements of Lighting & Light –Signaling Devices (AIS-009 (Rev. 1.0) 2011 Amend. 1)

Clause No.	PARAMETERS		TEST RESULTS
6.0	S. No.	Details of Clause No.	Remarks
	Rear Retro Reflecting Device		
	1	6.8.1, 6.8.2, 6.8.5 & 6.8.6 of AIS-009 (REV-01):2011	Complies
	Reversing Lamp		
	1	6.16.1, 6.16.2, 6.16.3.1, 6.16.3.2, 6.16.3.3, 6.16.5, 6.16.6 & 6.16.7 of AIS-009 (REV-01):2011	Complies
	2	Circuit-closed- tell-tale: Optional	Not Provided
	Vehicle Hazard Warning Signal		
	1	6.9.1, 6.9.2 & 6.9.3 of AIS-009 (REV-01):2011	Not Mandatory Not Provided
	2	"Circuit-closed" tell-tale: Mandatory. Flashing red signal lamp or, in the case of separate tell-tales, the simultaneous operation of the tell-tale prescribed in 6.3.9 of AIS-009 (REV-01):2011	
	3	Other requirements: Light flashing 90 ± 30 times per minute. Operation of the lamp-signal control shall be followed within not more than one second by the appearance of the light and within not more than one-and-one-half seconds by the first extinction of the light.	
Note:- FPL - Front Position Lamp, FDI - Front Direction Indicator, RPL - Rear Position Lamp, RDI - Rear Direction Indicator, SL - Stop Lamp, RL - Reversing Lamp, RR - Retro Reflector, RCLA - Rear Combination Lamp Assembly			

Format No.: ICAT/VEL/F/75/00

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Asst. Manager		Sr. Manager	

C T O V N 0 1 3 4

Date: 30/01/2019

**PERFORMANCE TEST (CMVR) REPORT
E-RIKSA1**




Motor No. EAM-1801	Manufacturer	M/s E-ASHWA AUTOMOTIVE PVT. LTD.
Chassis No. MD9ER201811454001	Fuel	Battery Operated
Test Site ICAT Centre II	Vehicle specification	e-rikas1-001 Dated :02/02/2019
	Reference No. & Date:	

Clauses	RVM Installations as per AIS-002 (Part 2) (Rev.1) : 2011	Remarks
16.1	General Requirement	
16.1.1	The rear-view mirrors installed on the vehicle shall be of "Class L".	Complies
16.1.2	Rear-view mirrors shall be fixed in such a way that they remain steady under normal conditions of use.	Complies
16.2	Number	
16.2.1	All L category vehicles without body work partly or wholly encloses the driver, with a maximum design speed not exceeding 50 km/h shall be fitted with at least one rear-view mirror. This rear-view mirror shall be on the right side of the vehicle.	Complies
16.3	Position Requirement	
16.3.1	Rear-view mirrors shall be mounted or adjusted in such a way that the distance of the centre of the reflective surface, as measured in a horizontal plane, is at least 280 mm outward from the longitudinal vertical plane passing through the centre of the steering head of the vehicle. Before the measurement, the handlebar shall be placed in the straight ahead position and the mirror(s) shall be adjusted to its (their) normal	Complies (Left to center 356 mm and Right to center 362 mm)
16.4	Adjustment of RVM for field of vision	
16.4.1	Rear-view mirror(s) shall be such that the driver is able to adjust it (them) in the normal driving position.	Complies

Rear View Mirror assemblies, Details -

Make	M/s Fiem Pvt. Ltd.
Observed Marking(s)	FM-556 00 L A9 1637
Class	L

Format No.: ICAT/VEL/F/64/00

Prepared By		Checked By	<p>Page 06 of 10</p>
			
Vijay Negi		Keshav Kr. Tripathi	

C T O V N 0 1 3 4




Date: 30/01/2019

PERFORMANCE TEST (CMVR) REPORT E-RIKSA1

Motor No. EAM-1801 Manufacturer M/s E-ASHWA AUTOMOTIVE PVT. LTD.
Chassis No. MD9ER201811454001 Fuel Battery Operated
Test Site ICAT Centre II Vehicle specification e-riksa1-001 Dated :02/02/2019
Reference No. & Date:

Rule No.	PARAMETER		TEST RESULTS	
	Standard	Requirement	Measured Value	
119	IS 15796:2008 (Clause No. 6)	83 dB (A) to 112 dB (A)	94.7 dB(A) @ 13.1 V	Horn Make: M/s Saanwra Engineering Works Horn ID (observed): A049859 II E32 000002 Operating Voltage: 12V
	No multi-toned horn giving a succession of different notes or with any other sound-producing device producing an unduly harsh, shrill, loud or alarming noise shall be installed on the vehicle.		Complies	Test conducted for introduction of new model. First time type approval.

Format No.: ICAT/VEL/F/68/00

Prepared By		Checked By	
			
Vijay Negi Asst. Manager		Keshav Kr. Tripathi Sr. Manager	Page 07 of 10 + 03 Dwg.

C T O V N 0 1 3 4

Date: 30/01/2019

PERFORMANCE TEST (CMVR) REPORT E-RIKSA1




Motor No. EAM-1801	Manufacturer M/s E-ASHWA AUTOMOTIVE PVT. LTD.	
Chassis No. MD9ER201811454001	Fuel Battery Operated	
Test Site ICAT Centre II	Vehicle specification	
	Reference No. & Date: e-riksa1-001 Dated :02/02/2019	

Clauses	Hand Hold Installation as per AIS-046 : 2005	Remarks
4.1	The hand hold holds shall be in the <i>Grab-handle, Strap or Hand-rail form</i> depending on its intended purpose.	Grab-handle
4.1.1	The hand holds shall be fitted for all the occupants sitting outboard except driver.	Complies
4.1.2	The fitment shall be such that it is convenient for the passenger (s) to make use of it in his normal sitting / standing position and during ingress & egress from the vehicle.	Complies
4.1.3	The hand holds shall be a section enabling passengers to grasp them easily and firmly.	Complies
4.1.4	The hand holds shall be such that it can be easily identifiable & having a slip free surface.	Complies
4.1.5	The hand holds shall be so designed and installed as to present no risk of injury to passengers.	Complies
4.2	Dimensional Requirements	
4.2.1 (a.)	The length of the hand hold (L) shall be at least 100 mm to accommodate a hand of passenger.	Complies (100.6 mm)
4.2.1 (b.)	The clearance between hand-hold(s) (C) and the adjacent part of vehicle body or wall shall be of at least 25 mm.	Complies (228.0 mm)
4.2.1 (c)	The cross sectional area measured at the middle of the length of the hand holds other than strap shall be between 130mm ² and 1500 mm ² , enabling passenger to grasp them easily and firmly.	Complies
4.2.1 (d)	In case of straps, width measured at the middle of the length of the strap shall be 40±5 mm.	Not Applicable
4.3	Strength Requirement	
4.3.1	The grab-handle for individual passenger shall be designed in such a way that they shall be able to withstand, without snapping under installed condition, a traction force of 70 kgf, applied statically in the direction of application to the center surface of the grab handle. The compliance of the strength of the grab handle is to be demonstrated, either when installed on the vehicle or on separately on the test fixture, simulating vehicle installation condition.	Complies

Hand Hold Details -

Make	:	E-Ashwa Automotive Pvt. Ltd.
Identification Number	:	-

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Prepared By		Checked By
		
Vijay Negi Asst. Manager		Keshav Kr. Tripathi Sr. Manager

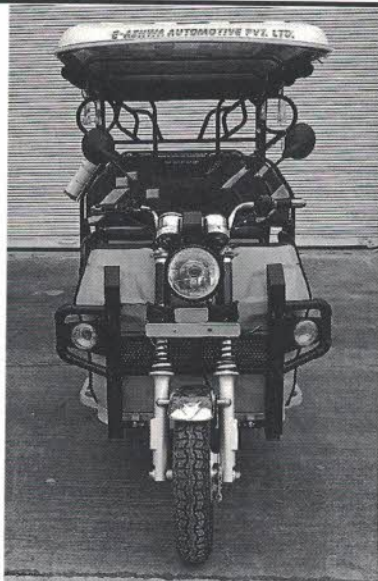
C T O V N 0 1 3 4

Date: 30/01/2019

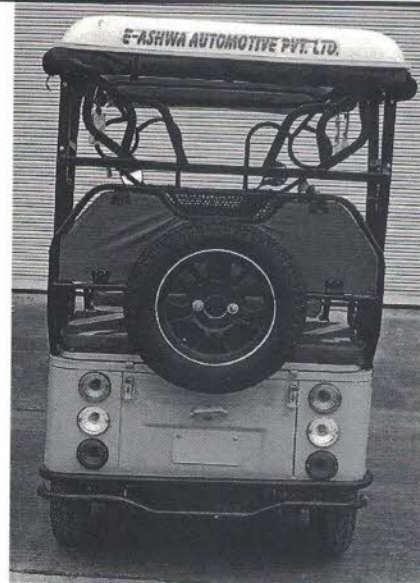
**PERFORMANCE TEST (CMVR) REPORT
E-RIKSA1**

Motor No. EAM-1801	Manufacturer	M/s E-ASHWA AUTOMOTIVE PVT. LTD.
Chassis No. MD9ER201811454001	Fuel	Battery Operated
Test Site ICAT Centre II	Vehicle specification	e-rikas1-001 Dated :02/02/2019
	Reference No. & Date:	

Photographs



Front View



Rear View



Left Hand View



Right Hand View

Prepared By

Vijay

Vijay Negi

Asst. Manager



Checked By

Keshav

Keshav Kr. Tripathi




Sr. Manager

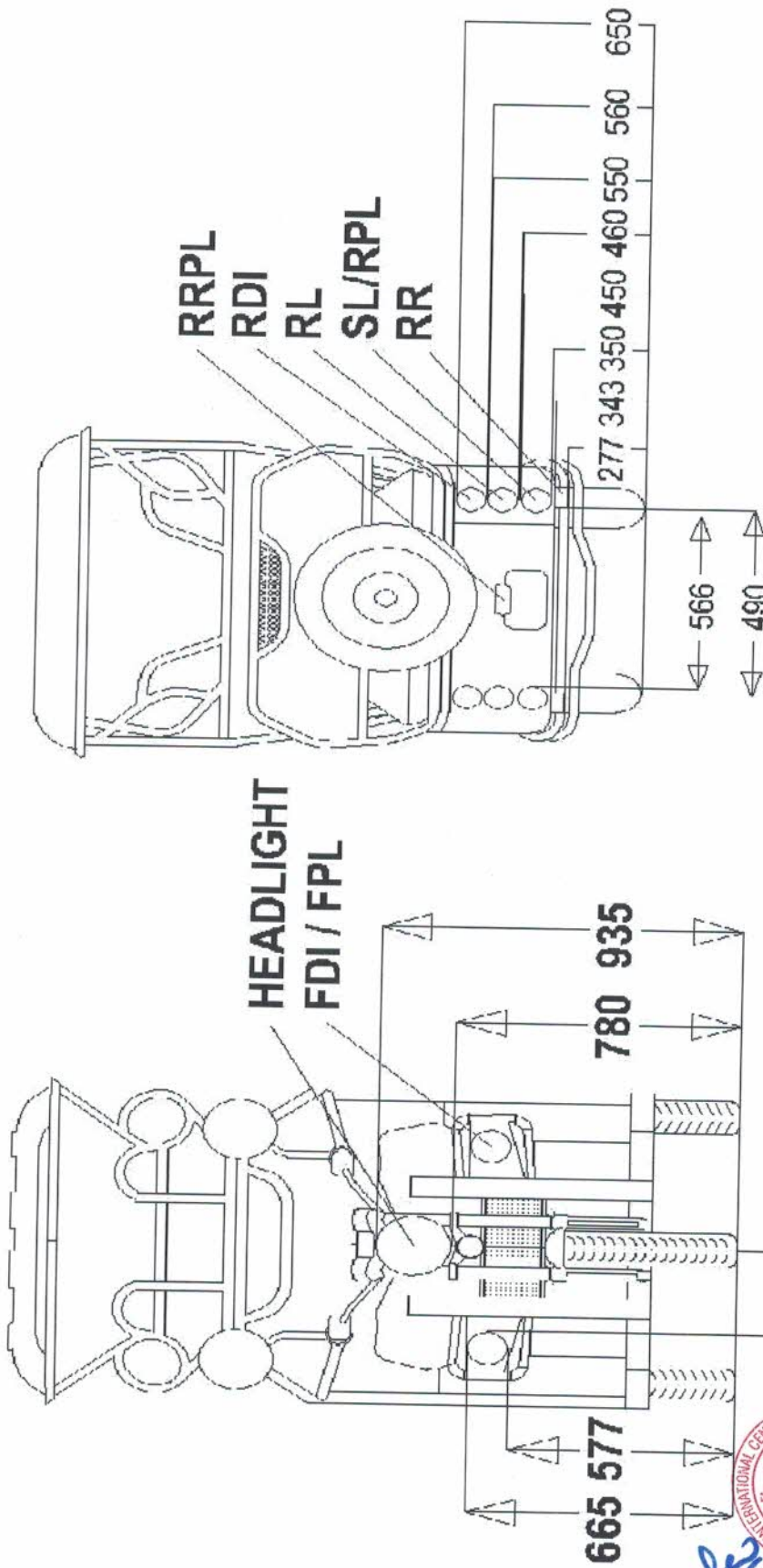
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Format No.: ICAT/VEL/F/52/00

Prepared By			Checked By	
				
Vijay Negi Asst. Manager			Keshav Kr. Tripathi Sr. Manager	



M/S E-ASHWA

AUTOMOTIVE PVT. LTD.

Model : E-RIKSA 1

Drawing Name :- Lighting Installation

All Dimensions are in mm

Name

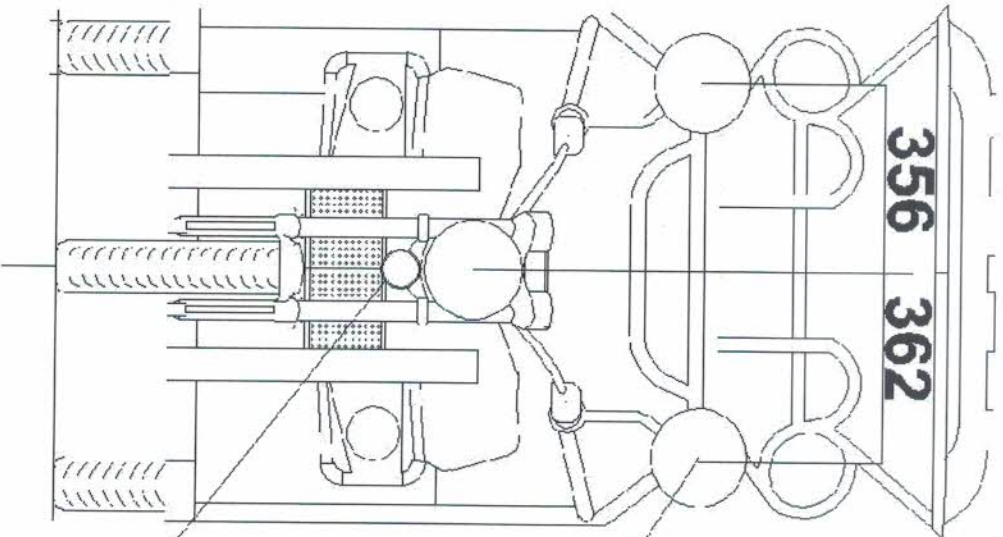
Date

Drawn By :- Ajay kumar

11-02-19

Approved By :- Pawan kumar

Drawing No.- Dwg.-02



Part Name : RVM
 Make: Fiem Industries
 Ltd.

TAC - A91637

Horn
 M/s Saanwra Engineering Works
 Horn ID : A049859 II E32 000002

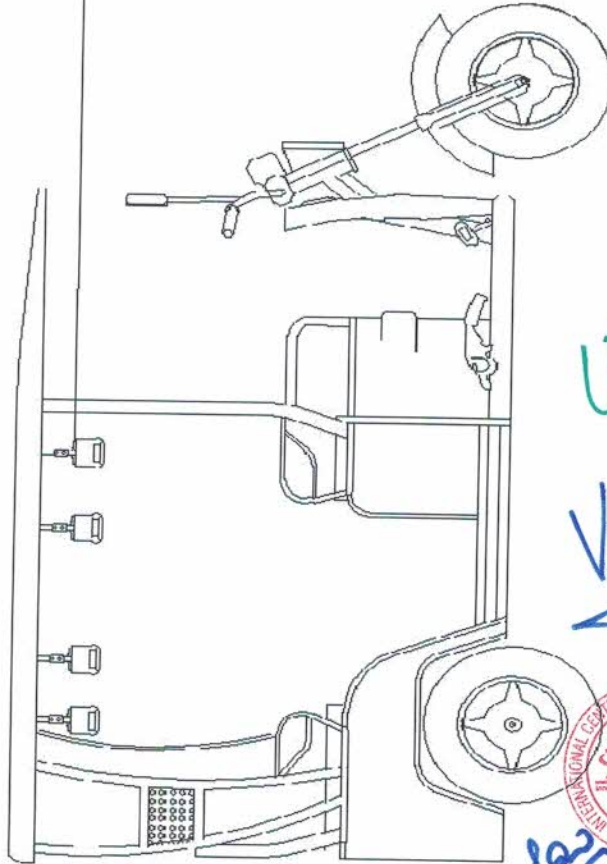
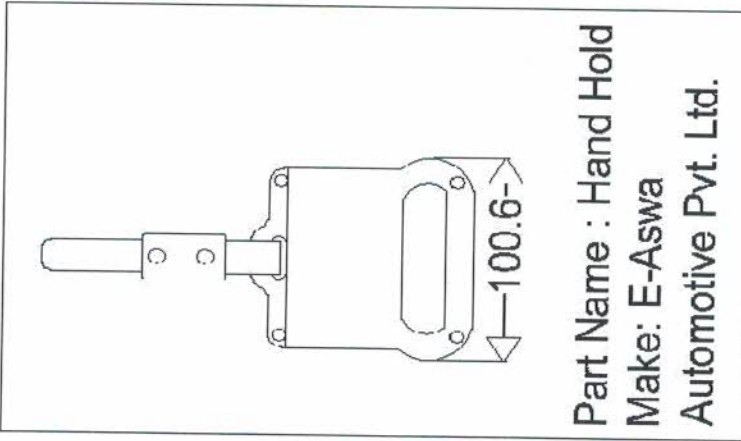
Signature

Signature

Signature



M/S E-ASHWA AUTOMOTIVE PVT. LTD.		All Dimensions are in mm	
Model : E-RIKSA 1	Drawn By :-	Name	Date
	Approved By :-	Ajay kumar	11-02-19
Drawing Name :- RVM Installation and horn installation		Pawan kumar	
		Drawing No.- Dwg.-06	



M/S E-ASHWA
AUTOMOTIVE PVT. LTD.

Model : E-RIKSA 1

Drawing Name :- Hand Hold Installation

All Dimensions are in mm

Name	Date
Ajay kumar	11-02-19

Approved By :- Pawan kumar

Drawing No.- Dwg.-04