

# International Centre for Automotive Technology (ICAT)

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



## READY RECKONER FOR L1 & L2 CATEGORY

<b>Definition</b>	Category L1 means motorcycle without gear or light two wheeled powered vehicle with maximum speed 70 kmph & engine capacity not exceeding 50cc if fitted with thermic engine or motor power not exceeding 4 kW if fitted with electric motor Category L2 means a motorcycle or a light two wheeled powered vehicle with engine capacity exceeding 50 cc if fitted with a thermic engine or motor power exceeding 4.0 kW if fitted with electric motor					
<b>Seating Capacity</b>	NA					
<b>Weight (kg)</b>	<b>GVW</b>	NA	<b>GCW</b>	NA	<b>ULW</b>	NA
<b>Dimensions (mm)</b>	<b>Length</b>	≤ 4000	<b>Width</b>	≤ 1000 (L1) / ≤ 2000 (L2)	<b>Height</b>	≤ 2500
<b>Speed (kmph)</b>	As per above definition					
<b>Power (kW)</b>	As per above definition					
<b>Fuel</b>	Gasoline (Internal Combustion Engine Vehicle - ICEV) / Electric (Battery Operated Vehicle - BOV)					
<b>AIS-007 Tables</b>	<b>Brief Specs</b>	ICEV - 7 & 11 BOV - 7, 11 & 13		<b>Detailed Specs</b>	ICEV - 1C, 8, 9, 10 & 12 BOV - 1A, 8, 9, 10 & 12	
					<b>Updated on</b>	1-May-25
<b>Sr. No.</b>	<b>Test Details</b>		<b>CMV Rule No.</b>	<b>Reference Standard</b>	<b>Effective Date</b>	<b>Remarks</b>
<b>VEHICLE LEVEL</b>						
1	Mass emission test (Type I, II & III)		115 (1), (2)(i) & (19)(i)	AIS-137 (Part 1)	-	For ICEV
2	Evaporative emission test (Type IV)		115 (1), (2)(i) & (19)(i)	AIS-137 (Part 1)	-	For ICEV
3	OBD - I (BS - VI)		115 (1), (2)(i) & (19)(i)	AIS-137 (Part 1)	-	For L2 ICEV
4	OBD - II (BS - VI)		115 (1), (2)(i) & (19)(i)	AIS-137 (Part 1)	-	For L2 ICEV
5	Measurement of electrical energy consumption		124 (1)(27)	AIS-039 (Rev. 1)-2015	-	For BOV
6	Method of measuring the range		124 (1)(28)	AIS-040 (Rev. 1)-2015	-	For BOV
7	Measurement of net power and maximum 30 minute power		124 (1)(29)	AIS-041 (Rev. 1)-2015	-	For BOV
8	Full throttle performance (FTP) test		115 (19)(i)	AIS-137 (Part 5)	-	For ICEV
9	Photographs		-	ICAT PROCEDURE	-	-
10	Fitment of tyres		94 & 95	AIS-050-2004	-	-
11	CMVR Physical Verification		93 to 125	ICAT PROCEDURE	-	-
12	Brake test		96 (1), (2), (3), (4)(ib), (7)(c) & (8)	IS:14664-2010	-	-
13	CBS test (ICEV - engine capacity ≤ 125cc BOV - net power ≤ 11kW & power/weight ratio ≤ 0.1 kW/kg)		96 (4A)	IS:14664-2010	-	For L2 only

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14	ABS test (ICEV - other than engine capacity ≤ 125cc BOV - net power ≤ 11kW & power/weight ratio ≤ 0.1 kW/kg)	96 (4A)	IS:14664-2010	-	For L2 only	
15	Speedometer calibration	117 (1) & (2)	IS:11827-2008	-	-	
16	Pass by noise measurement	120 (1) & (2)	IS:3028-1998	-	-	
17	Tell tale symbols	124 (1)(18-A)	AIS-126-2014	-	-	
18	Gradeability	124 (1)(23)	AIS-003-1999	-	-	
19	VIN verification	122 (1) & (2)	AIS-065-2005	-	-	
20	Horn installation	119 (1) & (2)	IS:15796-2008	-	-	
21	Automatic headlamp on (AHO)	105 (1)(bb)	-	-	-	
22	Rear view mirror installation	125 (2)(a)	AIS-002 (Part 2)(Rev. 1)-2011	-	-	
23	Installation requirements for lighting & signaling devices	124 (1)(24)(b)	AIS-009 (Rev. 1)-2011	-	-	
24	Spray suppression system	124 (1)(48)	AIS-103-2009	-	if engine capacity < 200cc	
25	Pillion hand hold	123 (1)	IS:14495-1998	-	If seating capacity > 1	
26	Footrest	123 (2)	AIS-148-2018	1 <sup>st</sup> January 2022	-	
27	Light weight container	123 (3)	-	-	If fitted	
28	Stand requirements	123 (4)	AIS-146-2018	1 <sup>st</sup> January 2022	-	

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29	External projection	123 (5)	AIS-147-2018	1 <sup>st</sup> January 2022	-	
30	Anti-theft device	124 (1)(44)	AIS-074-2005	-	-	
31	Electromagnetic compatibility (EMC)	124 (1)(21)(ii)	AIS-004-1999 (Part 3)	-	-	
32	Construction & functional safety	124 (1)(26)	AIS-156 (Part 1)	-	For BOV	
33	Component clearance	93 to 125	ICAT PROCEDURE	-	-	
34	Type Approval of electric powertrain vehicles	124 (1)(30)	AIS-049 (Rev. 1)-2016	-	For BOV	
35	Certification per base model per variant	-	ICAT PROCEDURE	-	-	
36	Document verification	-	ICAT PROCEDURE	-	-	
<b>COMPONENT LEVEL</b>						
1	Horn	119 (1)	IS:1884-1993	-	-	
2	Rear view mirror	125 (2)(a)	AIS-001 (Part 2) (Rev. 1)-2011	-	-	
3	Tyres	95 (1)	IS:15627-2005	-	-	
4	Lighting & light signalling devices (Main beam & dipped beam)	124 (1)(32)(ii)(a)	AIS-010 (Part 1)(Rev. 1)-2010 / AIS-010 (Part 2)(Rev. 1)-2010 / AIS-010 (Part 4)(Rev. 1)-2010	-	-	
5	Lighting & light signalling devices (Front position lamps, rear position lamps, stop lamps, direction indicator lamps, rear registration plate (mark) illuminating devices)	124 (1)(32)(ii)(b)	AIS-010 (Part 3)(Rev. 1)-2010	-	-	

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6	Lighting & light signalling devices (Front fog lamps)	124 (1)(32)(ii)(c)	AIS-012 (Part 1)(Rev. 1)-2011	-	-	
7	Lighting & light signalling devices (Rear fog lamps)	124 (1)(32)(ii)(d)	AIS-012 (Part 2)(Rev. 1)-2011	-	-	
8	Lighting & light signalling devices (Stop lamps of S3 or S4 category)	124 (1)(32)(ii)(e)	AIS-012 (Part 6)(Rev. 1)-2011	-	-	
9	Lighting & light signalling devices (Daytime running lamps)	124 (1)(32)(ii)(f)	AIS-012 (Part 10)(Rev. 1)-2011	-	-	
10	Automobile lamps (bulbs)	124 (1)(1)(a) & (c)	AIS-034 (Part 1) (Rev. 1)-2010 / AIS-034 (Part 2) (Rev. 1)-2010	-	-	
11	Brake hose	124 (1)(2)	IS:7079-2008	-	If fitted	
12	Brake fluid	124 (1)(3)	IS:8654-1986	-	If fitted	
13	Fuel tank (Metallic / Plastic)	124 (1)(25)(a) & (b)	IS:14681-1999	-	For ICEV	
14	Wheel rims (Alloy / sheet metal / spoke)	124 (1)(43)(b/c/d)	IS:16192 (Part 1)-2014 / IS:16192 (Part 2)-2014 / IS:16192 (Part 3)-2018	21 <sup>st</sup> September 2021	-	
15	Traction batteries	124 (1)(49)	AIS-156 (Part 2)	-	For BOV	
16	Reflex reflector	104 (4)	AIS-057 (Rev. 1)-2010	-	-	