

<b>ANNEX 8</b>	
<b>SPECIFIC REQUIREMENTS FOR TRUCK MOUNTED CRANES</b>	
<b>1.0</b>	<b>SCOPE</b>
1.1	This annexure specifies constructional and functional requirements for Truck mounted cranes necessary for roadworthiness of N2 & N3 category vehicles as defined in IS 14272 amended from time to time with the exception of Truck mounted cranes developed for Defence applications.
1.2	Vehicles covered under this Annexure shall necessarily meet the requirements specified in Part 1 of AIS 163 amended from time to time. Additionally, the vehicles shall meet the requirements specified in this Annexure for those special purpose duty application for which the vehicle is intended to perform.
1.3	Manufacturer may have the option to refer ISO 15442 or IS 4573 as recommendatory guideline for design and testing requirements for Truck mounted cranes.
	Note: Latest version of standards (AIS, IS, ISO etc.,) referred in this Annexure shall be checked for compliance
1.4	Any alteration or modification in already type approved vehicle to build truck mounted cranes shall be carried out in accordance with sound engineering practices and in compliance with Central Motor Vehicles Act 1988 and Central Motor Vehicles Rule, 1989, as amended from time to time.
<b>2.0</b>	<b>REFERENCE</b>
2.1	ISO 15442: 2012 - Cranes — Safety requirements for loader cranes
2.2	IS 4573: 2020 - Power driven mobile cranes — specification
<b>3.0</b>	<b>DEFINITION</b>
	In addition to the definitions available in Part 1 of this standard, following definition shall apply to Truck mounted cranes.
3.1	<b>“Approval of a Vehicle”</b> - The approval of Truck mounted cranes with regard to its special function as defined in Clause No. 3.2 of this Annexure.
3.2	<b>“Truck mounted cranes”</b> are a type of crane mounted on a truck chassis. They are primarily used for loading and unloading trucks and vehicles, as well as moving and erecting materials. These cranes can be equipped with various booms, including straight booms and knuckle booms, and can lift loads from all sides, offering flexibility in lifting operations. Maximum lifting capacity shall be 25 Tonnes.
<b>4.0</b>	<b>APPLICATION FOR TYPE APPROVAL</b>

	The application for type approval of a vehicle type shall be submitted by the vehicle / appliance manufacturer along with at least the details given in Appendix 1 to this annexure
<b>5.0</b>	<b>SPECIFIC REQUIREMENTS</b>
5.1	Truck mounted cranes shall be Special Purpose Vehicle with following specifications:
5.1.1	Maximum speed shall be 80 kmph
5.1.2	Maximum height shall be 4.2 m
5.1.3	Maximum length shall be 14 m
5.1.4	A load indicator shall be provided in full view of the driver/operator giving the information about the radius at which the crane is derricked and the appropriate load
5.1.5	Reflector on Cranes / booms shall be provided to enhance safety during working in night. For better conspicuity, amber light shall be provided in the extreme edge of Cranes / booms. In case Cranes / booms exceeds 3m in length, additional amber light shall be provided at a distance not exceeding 3m.
5.1.6	The vehicle shall be loaded to its technically permissible maximum mass distributed between the axles as declared by the vehicle manufacturer. Where provision is made for several arrangements of the mass on the axles, the distribution of the maximum mass between the axles shall be such that the mass on each axle shall not exceed maximum permissible mass for each axle.
5.1.7	TCD / TCCD requirements shall be compliant with IS 12222: 2011 as amended from time to time
5.1.8	All surfaces of the access system designed for walking, climbing, stepping or crawling shall be slip-resistant (including any device or structural component designed as part of an access system)
5.1.9	Handrails / Handholds complying to IS/ISO 2867: 2011 shall be provided in crane / boom portion, for better accessibility.
<b>5.2</b>	<b>Provisions for consideration for CMVR requirements exemption –</b>
	Testing Agency may only grant exemption(s) if the manufacturer demonstrates that the vehicle cannot meet the below requirements due to its special purpose.
	a) Overall dimension as per CMVR 93
	b) External Projection as per IS 13942 provided there shall not be any projection at the rear beyond RUPD or front beyond FUPD or sides beyond SUPD / LUPD in vehicle actual running condition on road
	c) Installation of lighting and light-signalling devices as per AIS-008 (Rev 1)

	d) Spray Suppression System as per AIS-013 (Rev.1)
	e) Rear Under Run Protection Device as per IS 14812
	f) Vehicle Lateral Protection Side SUPD as per IS 14682
	g) Approval of Retro-Reflecting Devices as per AIS-057 (Rev.1)
	h) Vehicle reverse parking alert system as per AIS-145
	i) Constant Speed Fuel consumption test as per IS 11921 exempted
	j) Retro-Reflective marking installation as per AIS 090.
<b>6.0</b>	<b>STATUTORY PLATE</b>
	Each appliance shall be clearly and permanently marked with the following information:
	Manufacturer's name, or trade-mark, if any;
	Safe working load or loads and the radii appropriate
	Year of manufacture.

**APPENDIX 1 TO ANNEX 8**  
**INFORMATION TO BE SUBMITTED AT THE TIME OF APPROVAL OF TRUCK**  
**MOUNTED CRANES**

<b>Sl. No.</b>	<b>General</b>	<b>Details</b>
1.0	<b>Manufacturer details</b>	
1.1	Name and address of the manufacturer	
1.2	Name of variants, if any:	
1.3	Plant/(s) of manufacturer:	
2.0	<b>Description of vehicle under test</b>	
2.1	Vehicle category	
2.2	Vehicle type	
2.3	Vehicle manufacturer	
2.4	CMVR certificate no	
2.5	Chassis no	
2.6	Engine no	
2.7	Engine displacement	
2.8	Fuel type	
2.9	Engine Power	
2.10	Dimensions (mm)	
2.10.1	Length	
2.10.2	Width	
2.10.3	Height	
2.10.4	Ground clearance	
2.10.5	Wheelbase	
2.11	Gross vehicle weight	
3.0	Truck mounted cranes	
3.1	Type of Crane offered with drawing no.	
3.2	Crane Capacity	
3.3	Range of Lift in Metres at Approximate Radii	
3.4	Driving power	

3.5	Speeds of Various Motions	
3.6	Maximum Gradient at which the Crane May Travel (loaded / unloaded)	
3.7	Particulars of Grab or Magnet, if to be Supplied with Crane	
3.8	Particulars of Safety and Indicating Devices Provided	