

FASTag Issuance Vehicle Classification Document

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About NETC Program

Government of India has undertaken an initiative to build India's highway network. This emphasises the need for instituting toll collection points on large scale, which leads to a framework for creating an automated and interoperable electronic tolling structure across the country's highway network.

Indian Highway Management Company Ltd. (IHMCL) is engaged in the maintenance of National Highways of India and as part of this endeavour, National Highway Authority of India (NHAI) has given the responsibility to IHMCL for implementing Electronic Toll Collection (NETC) system at toll plazas of National Highways.

NHAI/IHMCL has authorized NPCI for providing a composite solution on Electronic Toll Collection which would take care of the clearing and settlement of electronic toll transaction to make it interoperable and secure.

NETC program aims to establish a non-stop toll regime in which a vehicle with a FASTag can pass through toll plazas on Indian highways and pay toll without actually stopping. The program started on 3rd December 2016, since it has grown exponentially.

Background

The FASTag Program was started by IHMCL & ICICI bank in 2013. At that time, most of the toll plazas were operating on proprietary Toll Management System and it was important that all of them follow a single ETC specification. IHMCL released the ETC specification (Interface Control Document) version 2.4 which lays down the specifications & the process to be followed between the acquiring bank & the toll plaza. As a part of the process, there are 20 type of vehicles classes which are mapped by the acquiring bank at the time of toll plaza integration. NHAI has issued a maximum of 7 type of vehicle class for calculation of toll fare. At the time of integration, the plaza operators provide the master data sheet which has a clear mapping of these 20 vehicle class to the 7 NHAI vehicle class.

During the last one year, it has been observed that there has been multiple cases, where Issuer banks have issued a wrong FASTag to their customers. The issuers have demanded a simple document which clarifies the vehicle classification so that they issue the right Tag. The Issuer Banks want clear directive on how to identify the Vehicle class on the basis of:

1. RC copy- which parameters to be considered- gross weight/ seating capacity/ no of axel?
2. Visual identification- no of axel

This document describes the issues in detail which are being faced for Tag issuance by the Issuer banks. This also covers a solution of each category of vehicle with Number of Axle and GVW of respective Vehicle as per MoRTH Notification **S.O. 728 (E) dated 18.10.1996**.

This document requires approval from competent Authority for circulation for FASTag issuance.

Definitions

a) Mapper Vehicle Classes

NETC Mapper is a repository of NETC Tag IDs maintained by NPCI and NETC Switch is used for the purpose of switching NETC transactions to the member banks. This contains below vehicle classification. Toll fare is calculated basis the mapper vehicle class.

Mapper Vehicle Class	Vehicle Class Description
1	Two wheeler
2	Three - Wheeler Passenger
3	Three - wheeler Freight
4	Car / Jeep / Van
5	Light Commercial vehicle 2-axle
6	Light Commercial vehicle 3-axle
7	Bus 2-axle
8	Bus 3-axle
9	Mini-Bus
10	Truck 2 - axle
11	Truck 3 - axle
12	Truck 4 - axle
13	Truck 5 - axle
14	Truck 6 - axle
15	Truck Multi axle (7 and above)
16	Earth Moving Machinery
17	Heavy Construction machinery
18	Tractor
19	Tractor with trailer
20	Tata Ace or Similar Mini Light Commercial Vehicle

b) Tag Vehicle Classes

Tag class is as per the vehicle class defined under NETC program and tolling categories of the toll plaza. There are 7 Tag classes as per tolling class at the toll plaza of National Highway. These classes are written on FASTag. Issuer can identify the Fastag with classes written on the tag. Toll plaza system also identifies the FASTag class.

Tag Class	Class Description
4	Car / Jeep / Van/ Tata Ace and similar mini light commercial vehicle
5	Light Commercial Vehicle
6	Three Axle Commercial Vehicles
7	Bus/Truck
12	4 to 6 axle
15	7 or More Axle
16	Heavy Construction Machinery (HCM)/Earth Moving Equipment (EME)

c) Gross Vehicle Weight Rating (GVWR)

The gross vehicle weight rating (**GVWR**), or gross vehicle mass (GVM) is the maximum operating weight/mass of a vehicle as specified by the manufacturer including the vehicle's chassis, body, engine, engine fluids, fuel, accessories, driver, passengers and cargo.

Reference –

MoRTH Notification S.O. 728 (E) dated 18.10.1996 for Vehicle Classification on GVW and Axle




Requirement







Since start of the program, we observed below challenges that are faced by various stakeholder in the existing system.


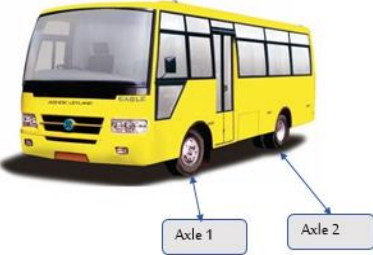
- FASTag is issued basis Axle of vehicle which is not written on Vehicle Registration certificate. GVW is always mentioned on the Vehicle registration certificate.
- Tolling is done basis Axle of the vehicle but RC copy follows the GVW.
- Due to this difference, Issuer Banks are finding difficulty in identifying the correct vehicle class of vehicle for FASTag issuance. This is resulting in customer complaints and disputes between Bank and concessionaire.
- GVW of Vehicle **type “7 Axle and more”, Earth Moving Machinery and Heavy Construction Equipment** is not available in notification. Passenger carrying capacity of **3 Axle Bus** is also not available. This needs to be clarified that Tolling of Bus 3 Axle shall be done under Bus 2 axle category or separate category.
- There is Vehicle category defined as LCV – 3 Axle which is not defined in any document. Clarification is requested to identify this type of vehicle. Since start of the program, we have not observed any such vehicle.



In order to bring clarity for FASTag issuance, the below clarification is being proposed with pictorial presentation of vehicle with Axle count and GVW against each mapper class and Tag Class, so as to make the issuers accountable for the right tag issuance.



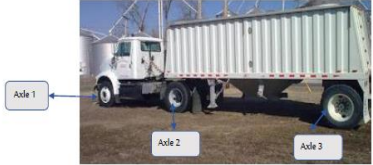
FASTag Vehicle Classification




Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Sample Image
NA (No Fastag Applicable)	Two wheeler	Mapper Class (1)	No Fastag is issued	NA	
NA (No Fastag Applicable)	Three - Wheeler Passenger	Mapper Class (2)	No Fastag is issued	NA	
NA (No Fastag Applicable)	Three - wheeler Freight	Mapper Class (3)	No Fastag is issued	NA	


Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Sample Image
Tag Class (4)	Car / Jeep / Van	Mapper Class (4)	GVW ≤7,500 Kgs	NA	   
	Tata Ace or Similar Mini Light Commercial Vehicle	Mapper Class (20)		NA	 



Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Sample Image
Tag Class (5)	Light Commercial vehicle 2-axle	Mapper Class (5)	GVW >7,500 Kgs but <= 12,000 Kgs	2 Axle	
	Mini-Bus	Mapper Class (9)		2 Axle	

Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Sample Image
Tag Class (7)	Bus 2-axle	Mapper Class (7)	GVW > 12,000 Kgs but <= 16,200 Kgs	2 Axle	
	Truck 2 - axle	Mapper Class (10)	GVW > 12,000 Kgs but <= 16,200 Kgs	2 Axle	

Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Sample Image
Tag Class (6)	Light Commercial vehicle 3-axle	Mapper Class (6)		3 Axle	
	Bus 3-axle	Mapper Class (8)	GVW > 16,200 Kgs but <= 25,000 Kgs	3 Axle	
	Truck 3 – axle (Rigid)	Mapper Class (11)	GVW > 16,200 Kgs but <= 25,000 Kgs	3 Axle	
	Truck 3 - axle (Semi-Articulated)	Mapper Class (11)	GVW > 16,200 Kgs but <= 25,000 Kgs	3 Axle	

Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Sample Image
Tag Class (12)	Truck 4 - axle	Mapper Class (12)	GVW > 25,000 Kgs but ≤ 36,600 Kgs	4 Axle	
	Truck 5 - axle	Mapper Class (13)	GVW > 36,600 Kgs but ≤ 45,400 Kgs	5 Axle	
	Truck 6 - axle	Mapper Class (14)	GVW > 45,400 Kgs but ≤ 54,200 Kgs	6 Axle	

Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Image
Tag Class (15)	Truck Multi axle (7 and above)	Mapper Class (15)	GVW >54,200 Kgs	7 Axle and More	
Tag Class (16)	Earth Moving Machinery	Mapper Class (16)	NA	NA	
	Heavy Construction machinery	Mapper Class (17)	NA	NA	

Tag Vehicle Class	Vehicle Class Description	Mapper Vehicle Class	GVWR	No. Of Axle	Sample Image
NA	Tractor	Mapper Class (18)	No FASTAG is issued	NA	
NA	Tractor with trailer	Mapper Class (19)	No FASTAG is issued	NA	

END OF THE DOCUMENT