



The Indian Police Journal

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Editorial

Dear Reader,

In this issue we have included the articles on violence against women; better policing; property offenders; forensic science; and social issue written by experienced IPS officers, Research fellows, Forensic Scientists and Academicians.

The various structures and functions of police organizations tends to generate job related stress. Shri Naparajit Mukherjee has brought out this aspect very vividly in his article "Dealing with Job-Oriented Frustration and Dissatisfaction in the Police Service".

The job related stress increases irritability level of enforcement officers including police officers. Shri Sankar Sen has dealt this matter in a highly professional manner in his article "Violence Prone Police Officers".

Property offences occupy very important place in the variety of crimes commuted in our country. Shri A Shivamurthy has analyzed it in his article "A study of Spatial Mobility Pattern of Property Offenders" with specific reference to Chennai city. His conclusions are duly validated by the data collected and analyzed by him.

Besides these articles, this issue covers Book reviews and also gives a list of recipients of Gallantry Medals awarded on the occasion of Republic Day, 2005.

We hope, our readers and investigation agencies will find the present issue informative and useful. We seek views and suggestions of our esteemed readers, which will help us to improve its contents further.

EDITOR



Abstracts & Key Words

Registration Numbers of Auto-Vehicles as Forensic Clue to Investigate Criminal Activities

Praveen Kumar
Srivastava

Key Words :

Enormously, Tempered, Numeric digit, Alpha numeric digit, Chassis, Crankcase, Right Panel, Carborator.

Modernisation of police force carries dual process of orientation. One is to make police force well equipped with modern wapons and instruments and other to boost the general knowledge & awareness of police personnels up to constable level to combat Hi-tech crime including theft. Today the theft of auto-vehicles running with fake registration plate are often involve in crimes such as robbery, road holdup, theft, loot and terrorist activities. In such vehicles the engine & chassis numbers are also wipped off. Since the engine & chassis number in the vehicle are embossed at

different places in the vehicle and policing, in most cases failed to locate these numbers in the vehicle. The present paper will fulfil this gap of knowledge. The informations given in this paper will reveal the exact location of engine & chassis number in popular motor vehicles and bikes. The paper will also provide additional knowledge regarding the other important Identification numbers and locations, other than engine & chassis numbers which have equal and unique weightage. The informations will be highly useful for policemen to trap the stolen vehicle involved in murder, terrorist activities and other criminal activities. The trapped vehicles will provide plenty of information about the crime and criminal.

Feudalization of Ancient Indian Police Organization (300 A.D. to 750 A.D.)

Umesh Kumar Singh,
I.P.S.

Key Words :

F e u d l i z a t i o n ,
Gudhapurusas, Coragraha,
C o r a r a j j u k a s ,
C a u r a d h a r a n i k a ,
M a h a s a m a n t a ,
M a h a d a n d a n a y a k a ,
Dasaparadhika, Dandadhikarin, Sthanadhikaranika, Dauhsadha-sadhanika, G u d h a p u r u s h a ,
L e x i c o g r a p h e r ,
Rajasthaniyas, Upakarika

In view of paucity of materials, it is very difficult to know the exact ancient police structure. An attempt has been made to collect materials regarding police organization of ancient India, Covering a period of nearly four hundred and fifty years (300 A.D. to 750 A.D.). Similar strenuous efforts have been made to collect and present such facts which indicate sufficiently the feudalization of police personnel of those days along with their fellow civil and revenue officers. Frequent grants of lands and villages to the bureaucrats as a token of rewards for their good works, specially to the military personnel, free from all the taxes and with

many administrative rights, keeping and additions of pompous and big titles, of their designations, liberty and rightful claims for forced labour from villagers, all these led to the conversion of feudal character of the police officers and their atrocious and despotic behaviour and unbearable sufferings of the general masses of the society. It is an attempt to enable the police officers of to-day to know their past. Presentation is based on the original and authentic source materials, furnished by eminent historians.

Women, Violence and Related Rights in India: A Situational Analysis

Dr. P. Madhava Soma Sundaram

Key Words :

Violence against women, International Instruments on women's rights, Crimes against women, Women's Rights, Trends In Crimes against women. Sexual harassment. Domestic Violence, Contemporary legal initiatives.

While, the Constitution of the Republic of India guarantees, besides other

rights, protection of life and personal liberty and provides adequate safeguards against the arbitrary deprivation thereof by the State and others. for women, in India. there is no dearth of human rights violations against them. Apart from the constitution at the National level, there is a plethora of United Nations documents on protecting the rights of children and women. at International level, applicable to India as well. Also, if crimes against women, committed in India, are to be considered as an indicator of rights violations, this paper makes a situational analysis of violations against women and children in India with a tight focus on the various forms of crimes. The study highlights that there is an increase of 29.24% of incidences of crimes against Women from 1995 to 2002. Focussing on the forms of violations this study reports that in the year 2002. Torture was the common crime against women with 33.3%, and the other forms of crime were .Molestation (23%), Rape (11.1), Kidnapping & Abduction (9.8%), and Sexual harassment (6.9%). This paper takes a peep into

the salient features, the protection mechanisms envisaged in the various United Nations Covenants, and analyzes the existing situation in India.

Reconciliation for Better Policing : Training, Work Culture and Welfare of Woman Police in Gujarat

Dr. Pavithran G. Nambiar

Key Words :

Interpersonal relation in police, lack of cordial relation among personnel, The prominent factors, *value based training, work culture and welfare*, boost in the efficacy of police organization.

Interpersonal relation in police has much significance in ensuring effective work and its impact on the society. It is the lack of cordial relation among personnel of various levels that are responsible for rising violence and suicide in police and their low image in public eye. The prominent factors that have to be considered for improving the relationship between different levels in police organization are value based training, work culture

and welfare. If sincere efforts are made to bring improvements in these areas, there will be a boost in the efficacy of police organization, and thus its reputation. A study conducted on Woman Police in Gujarat by this writer (for Ph.D. thesis, 1999), depicts their dismal condition in the aforesaid areas. In such a situation, how effective functioning of police organization can be expected? Giving significance to police welfare, inculcation of ethics and moral values in police through formal and non-formal training are key suggestions, for which initiation must come from senior officers.

A Study of Spatial Mobility of Property Offenders

A. Sivamurthy

Key Words :

Mobility of offenders, Journey to crime, Environmental opportunity, Commuting of offenders, Commuting Index, Origin and Destination of offenders, Choropleth and Isopleth maps.

Since the pattern of journey by offenders varies from one

part of the city to another even for the same type of offense, the analysis of spatial pattern of movement of offenders deserves a close attention. With the improvement in quality of data and methodology and the availability of GIS mapping techniques, the study is aimed at understanding the mobility of property offenders in Chennai city. The analysis shows that the pattern of journey to crime is related to the physical and functional characteristics of different parts of Chennai city. In the localities where the environmental opportunity is low, the degree of commuting is relatively higher. In the commercial and high-income residential areas on the other hand, the rate of occurrence of theft and burglary is high owing to greater environmental opportunity and in such areas the commuting of offenders is relatively lower. The Choropleth, and Isopleth maps drawn with the help of GIS software identify the areas of high and low level of commuting out of offenders. Such an identification may help the police for better law enforcement planning.

Violence Prone Police Officers

Sankar Sen, IPS (Retd.)

Key Words :

Police, Police Brutality & Violence, Organizational Style, Training Interventions.

In police there are both trigger happy, violence prone officers as well as officers who are idealistic and considerate. In USA Christopher Commission (1991) referred to the presence to aggressive violence prone officers in Los Angeles Police Department. It has been found by the criminologists and police scholars that very often organizational style and culture influence the outlook of the police officers and encourage hard-nosed policing. Many police departments also encourage instead of discouraging an aggressive Policing and improper use of force. Whenever there is clear evidence of misuse of force and display of brutality by police officers, there should be no hesitation to discipline them. Protecting the black sheep through silence or inaction will not help. Police over-reaction is also influenced by the

expectation of danger in job and bureaucratization of the department. Training interventions can successfully reduce police violence and train police personnel to maintain their temper under stressful situations.

Date Rape

Lt Col (Dr) Ravi Rautji,
Rudra A, Lalwani S,
Dogra TD

Key Words :

Acquaintance, perpetrator, club drugs, flunitrazepam, ketamine.

Crime - whatever its nature, is traumatic for the victim, however never more so than rape. Rape is a violent crime engineered through sexual acts that are forced, degrading and totally devastating. The idea is to control, humiliate, force, harm and overpower the victim. The age old myths regarding rape and sexual assault, as being invited, confined only to women or stranger motivated can no longer be said to hold true. Sexual assault does not always necessarily involve a female victim and a male stranger lurking in the dark. It is now a universally accepted fact that rape

occurs between acquaintances and also individuals of the same sex, and this makes the act no less disgusting, degrading or devastating.

Role of Police in Changing Indian Scenario

Dr. (Mrs.) Anupam Sharma

Key Words :

Industrialization, Urbanization, Development, Environment, Changing scenario.

In India, today the socio-economic and political scene of the country has considerably changed due to constitutional amendments, planned economic development, spread of education, political awakening, social awareness in the masses, erosion of moral and social values, criminalization of politics and politicization of crime, party politics, increasing collective violence, crime and terrorism, sociological change with modernization, economic development and its impact on masses. In this changing environment police are expected to act as a barometer of the current

state of a society. Police has to play role in socio, economic, cultural and political field also because political conflict, social tension and different developments have been creating pressure in the external environment.

Dealing with Job-Oriented Frustration and Dissatisfaction in Police Service.

Naparajit Mukherjee,
IPS

Key Words :

Psychological Phenomenon, work efficiency, obvious neglect, selection criteria, victimization, adaptive deterioration, distorted perception, defensive behaviour.

Frustration is one of the major psychological issues arising in a work situation. Due to frustration performance is affected and best output from the human-resource is not available. In a police organization this leads to visible levels of inefficiency. This organization being always matter of public scrutiny is subjected to criticism on falling levels of efficiency. There are several mechanisms to deal with

frustration. The superior officers should share his guilt, his feelings his frustrations with his subordinates. Again, he has to help his employees understand their problems, overcome the same and come up with alternatives. Such constructive approach will help to overcome frustration by joint efforts. The superiors have a greater role to play in this regard since they are responsible for controlling various factors generating frustration in an organization. Thus they have to keep it under check and deliver the best results.

Design Flaws

Shatrujeet kapur

Key Words :

Highly Motorized Countries, Side impact air bags, Anti-lock Break System (ABS), Crumple Zones, fluorescent emergency warning

triangle, Electronic Stability Control, Crash worthiness standards, Pedestrian impact standards.

More than 90000 persons are killed every year in road accidents in India. Even more worrisome is the fact that this number is growing at a rate of almost 5% i.e. nearly 4000 per annum. Comparison with Highly Motorized Countries (HMCs) reveals that fatality rate in those countries is less than 2 per ten thousand vehicles as against 14 in India - a difference of 600 percent! This highlights the utterly poor state of affairs in the country. Even though poor driving skills and bad roads are two major causes of accidents in India, design flaws and lack of safety features in vehicles plying on our roads is an important contributory factor. For example, body of commercial vehicles like trucks, buses and LCVs, tractor trailers etc. are fabricated by

roadside mechanics using outdated designs. The structure often exceeds permissible dimensions with a view to facilitate overloading. Similarly, design of passenger vehicles also suffers from several flaws. As ordinary buyers are not in a position to evaluate design features, there is a need to set up an independent safety regulator in the country on the lines of National Highway Traffic Safety Administration (NHTSA) in the US. This will go a long way in developing and implementing minimum safety standards, crash worthiness standards, pedestrian impact standards, mandatory safety devices, etc. Motor vehicle Act 1988 contains enough provisions empowering the government to make rules & law need to be utilized to ensure compliance of safety standards in the country.

Registration Numbers of Auto-Vehicles as Forensic Clue to Investigate Criminal Activities

Praveen Kumar Srivastava*

Introduction:

The over population, industrialization & urbanization have fascinated the use of auto-vehicles by masses for necessity as well as for luxury. The passion for two-wheelers and cars has increased in all classes of society. It has inspired automobile companies to release a variety of vehicles in the market with newer models almost everyday. But at the same time, cases of vehicle thefts have enormously increased which has become a top ranking headache for police investigation department. On the other hand stolen vehicles are often used in terrorist activities, Road holdup, Murders, Loot, Bank robbery & other crimes.

Every vehicle besides registration number, has specific chassis and engine number which are embossed over the chassis and engine respectively on the vehicle and can not be tempered easily. The originality & authenticity of the vehicle can only be checked by chassis & engine numbers. Any tempering can easily be detected in these numbers. There is a fixed place in the vehicle for

Key Words :

Enormously, Tempered, Numeric digit, Alpha numeric digit, Chassis, Crankcase, Right Panel, Carbtorator.

Abstract :

Modernisation of police force carries dual process of orientation. One is to make police force well equipped with modern wapons and instruments and other to boost the general knowledge & awareness of police personnels up to constable level to combat Hi-tech crime including theft. Today the theft of auto-vehicles running with fake registration plate are often involve in crimes such as robbery, road holdup, theft, loot and terrorist activities. In such vehicles the engine & chassis numbers are also wipped off. Since the engine & chassis number in the vehicle are embossed at different places in the vehicle and policement, in most cases failed to locate these numbers in the vehicle. The present paper will fulfil this gap of knowledge. The informations given in this paper will reveal the exact location of engine & chassis number in popular motor vehicles and bikes. The paper will also provide additional knowledge regarding the other important Identification numbers and locations, other than engine & chassis numbers which have equal and unique weightage. The informations will be highly useful for policemen to trap the stolen vehicle involved in murder, terrorist activities and other criminal activities. The trapped vehicles will provide plenty of information about the crime and criminal.

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these numbers but may vary in different models. On the other hand registration number is painted on a plate in front & back of the vehicle, allotted by Regional Transport Office (R.T.O.). The registration number can be however altered by fake number plates, tempered, making it illegible by using dust or paint, erasing letters of registration plate or preparing fake RTO documents. Thus the originality of a vehicle by considering only registration number will always be doubtful unless and until checking of chassis and engine number is also made simultaneously.

The frame or chassis number consists of following four types of information-

- (i) Year of production - embossed over chassis with two numeric digits.
- (ii) Month code of production - embossed with one to two numeric digits.
- (iii) Model code - embossed with two to four alphanumeric digits.
- (iv) Frame or Chassis - Alphabetic one letter code (C or F)
{C = chassis, F=frame}

The engine or machine number also consists of the following four information:-

- (i) Year of production - embossed over engine with two numeric digits.
- (ii) Month code of production - embossed with two numeric digits.

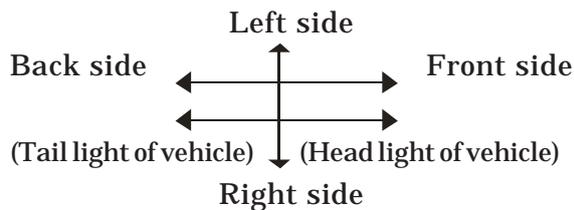
- (iii) Model code - embossed with two to four alphanumeric digits.
- (iv) Machine or Engine - embossed with one letter code (M or E)
{M=machine, E=engine}

The serial of above (i to iv) chassis and engine numbers may vary in different models of vehicle. The complete engine or chassis number is embossed in a series with seven to eight digits like 'XXXXXX' OR 'XXXXXXXXXX'. Policemen and checking personals are generally not aware about the exact location of chassis & engine numbers in the vehicle. During checking, they rely only on registration number and RTO documents. Therefore, there is always a possibility for escape of unauthorised or stolen vehicle from the sight of checking staff. Since no information is available till today on the exact location of chassis & engine nos. in variety of models of vehicles, present project has been undertaken by the author to workout the above information and prepare a list of popular models of vehicles (2-wheelers, 3-wheelers and 4-wheelers) with exact location of chassis & engine number in them. The project has been undertaken under the direction of district police authorities, Fatehpur.

These studies will be of practical utility for police vehicle checking staff to sort out vehicles with fake registration nos. or stolen vehicles. The studies will also be guideline for forensic scientists to come to more appropriate decision in making

investigation to establish originality and authenticity of the vehicles.

The direction of vehicle parts has been considered as follows -



Material and Method

The project has been completed after spot observations of individual popular models of vehicles on road in Fatehpur, Kanpur and Lucknow metropolis. The survey of vehicle was done through the year during 2002-2003-2004 at the time of checking registration of vehicles. For few models of scooters and cars, the Dealers were consulted to obtain the required information.

OBSERVATION

Two Wheelers

1. Type-Scooters

S.No.	Models	Location of chassis number on vehicle	Location of engine number on vehicle	Special Remark
1	2	3	4	5
1.	Bajaj-Chetak Super, Excel, Safair, LML-NV-spl. Select-I, Select-II	Chassis number on right side on body near the right panel hook (can see after opening the right panel)	engine number will appear on right side behind the silencer attachment with the engine.	
2.	Kinetic-Honda Marwal	Chassis number on left side behind the stand, below the front footrest.	Engine number on engine cover below the back wheel mudguard on left side	
3.	Bajaj-Legend NXT-2	Chassis number will appear on the floor of front left footrest	Engine number on right side near the silencer attachment with the engine.	
4.	Kinetic-style	Chassis number on right side below the front footrest over chassis pipe	Engine number on left side below the back wheel mudguard over engine cover.	

Registration Numbers of Auto-Vehicles as Forensic Clue to Investigate Criminal Activities

1	2	3	4	5
5.	Kinetic-safari	Chassis number on right side of steering pipe below the head light	Engine number on left side below the front footrest over chesis.	
6.	Hero Honda-Street DX	Chassis number inside the gight pannel cover	Engine number on left side of crankcase, near the gear paddle.	
7.	Priya, Vespa, Vijai-super Lambrata (old scooter models)	Chassis number on right side, under the right pannel, Near Pannel hook	Engine number on the right side, near the silencer attachment with the engine.	Chassis number will appear on opening the right pannel

2. Type-Motorcycle

1.	Hero Honda Splendor Passion, Passion plus CD-100 CD-100 SS CBZ, Dawan	Chassis number on right side of steering head tube, below the head light	Engine number on left side over lower crankcase, near gear paddle.
2.	TVS-Suzuki-Max-100DC, Max-100 R Fiero, Fiero-es Victor	Chassis number on left side of steering tube below head light	Engine number on left side down below the engine piston body.
3.	Bajaj-Pulser, Croma, Caliber Aspier, Boxer M-80	Chassis number on left side of steering tube, below the head light	Engine number on left side down, at the bottom of engine, near gear pad.
4.	LML-Freedom Energy-fx, Adreno-fx, Adreno-fx-es	Chassis number on right side of steering tube, below the head light	Engine number on left side at the base of engine, near gear pad.
5.	Kinetic-Boss, GF, Challenger	Chassis number on left side, below the handle, over chassis	Engine number on left side, below the head of spark-plug, over engine.
6.	Escort, Yamaha-R Yamaha-Crux Rajdoot	Chassis number on right side of steering tube, below head light	Engine number on right side below the carborator, over engine cover.
7.	Yazdi, Enfield-bullet, Jawa (old models)	Chassis number on the left side of the steering, below the head light.	Engine number on left side, belwo the piston head.

1	2	3	4	5
3. Type-Mopeds				
1.	Kinetic, Luna V2, TVS-Sport XL-super XC-HD	Chassis number on right side of steering (handle) below the head light	Engine number on right side at the bottom of engine, near the silencer attachment with the engine	
2.	Hero-Puch-shakti, Power, (in all the models of GXL, AG, 2G & 3G	Chassis number on right side below the driving seat, at the frame	Engine number near the leg-break on right side over engine cover.	
4. Type-Scooty				
1.	TVS-Self start Kick start	Chassis number below the seat, near the petrol knob.	Engine number on left side, above the back wheel, over engine body.	
2.(i)	Kinetic-Safari	Chassis number on right side of steering tube below the head light.	Engine number on left side below the front foot rest	
2.(ii)	Kinetic-Style	Chassis number on right side below the front foot rest over chassis	Engine number on left side below the back wheel mudguard over engine.	
3.	Bajaj-Spirit	Chassis number on the floor of front foot-rest, on left side	Engine number on left side, near the silencer attachment with engine	
4.	LML-Trendy-ES	Chassis number on right side near the back light.	Engine number on right side near the silencer attachment with engine.	Chesis number will appear on opening the right pannel
5.	Hero-Ex	Chassis number is on the middle of front pannel at inner surface, below the handle & Ignition key.	Engine number on the left side over engine, near shocker attachment with the back wheel.	

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THREE WHEELERS

S.No.	Models	Location of chassis number on vehicle	Location of engine number on vehicle	Special Remark
1	2	3	4	5
1.	Bajaj-Auto-Rickshaw Super FE Auto track trailer. Delivery van, Pickup van	Chassis number appear in the middle of chassis, below driving handle/steering	Engine number will appear on left side below the carburetor	In 4-stroke model engine is installed below the driving seat while in 4-stroke model engine is installed above the back wheels.
2.	Mahindra's - All three wheeler models	-do-	-do-	In auto track trailer engine is installed below the driver seat while in delivery van & Pickup van, engine is installed near the back wheels.
3.	Piaggio-Auto-rickshaw, Delivery van, pickup van	Chassis number at right inside, below the front mirror & dash, near the door.	Engine number at the left side over engine block.	Engine is installed at backside, above the back wheels.
4.	Scooter India ltd. Vikram, Trailer Loader	Chassis number on left side down, at the middle of the vehicle over chassis.	Engine number will appear behind the chassis number on left side, near the air body pipe attachment	

FOUR WHEELERS

1. Light motor vehicles—CARS

1.	Maruti-800 Alto, Zen, 1000 Esteem, Wagon-R, Baleno, Versa & other cars model	Chassis number is embossed below the windscreen under the front panel	Engine number is embossed on engine cylinder block on the engine, on right side	Both numbers will appear on opening the front bonnet.
2.	Dynamic Ford (IKON) 1.3CLXI, 1.3IRIS, 1.6 ZXI, 1.6SXI, 1.8ZXI	Chassis number is embossed on the floor of driving seat towards the right edge	Engine number is embossed on engine head, can see after opening the front bonnet.	Engine number & Chassis number are alike in all models

1	2	3	4	5
3.	Tata-Indica (all models)	Chassis number embossed below the windscreen, under the front bonnet.	Engine number is embossed on the bottom of engine, before spark plug head.	
4.	Hundai-all models of santro	-do-	Engine number is embossed on cylinder block on left side.	
5.	Daewoo's All models of Matiz	-do-	Engine number below the silencer head.	Numbers will appear on opening the front bonnet.
6.	Daewoo's-All models of Cielo	Chassis number is embossed on the floor of driving seat at right edge.	Engine number is embossed on left side, below the distributor.	Engine number will appear on opening the front bonnet.
7.(i)	Fiat-UNO, Sierra,	Chassis number below the windscreen in the middle of chassis, under the front bonnet.	Engine number on engine block at left side.	-do-
7.(ii)	Fiat-118-NE Premier Padmini	Chassis number below the windscreen at left corner, under the front bonnet.	Engine number will appear on the left side of engine, below heater plug.	-do-
8.	Hindustan Motors- All petrol & diesel models of Ambassador	Chassis number below the windscreen, under the front bonnet, at right corner.	Engine number on right side, below the 4 th Inlet	-do-

2. Light motor vehicles—VANS

1.	Maruti - All models of Van & Omini	Chassis number embossed on the floor of driving seat at right edge.	Engine number embossed on cylinder block at right side of engine.	Engine will appear on lifting the front & second seat.
2.	Mahindr's Voyager van	Chassis number on right side over chassis, behind the right front wheel	Engine number on the cylinder cover of engine on left side	Engine is situated below the driving seat.

Registration Numbers of Auto-Vehicles as Forensic Clue to Investigate Criminal Activities

3. Light motor vehicles—JEEPS

S.No.	Models	Location of chassis number on vehicle	Location of engine number on vehicle	Special Remark
1	2	3	4	5
1.	Maruti-Gypsy (in all models)	Chassis number embossed below the windscreen under the front bonnet	Engine number embossed on cylinder block on right side.	Numbers will appear after opening the front bonnet
2.	Mahindra's commander Marshal Grand Bolero MAXX Delux Economy CDR CL500 MDI (including all models)	Chassis number on right side over chassis, behind the right front wheel.	Engine number embossed on cylinder cover on the left side of the engine.	Engine will appear on opening the front bonnet.
3.	Tata-Sumo Spacio, Carrier, Safari, Estate, Sierra (including all models)	Chassis number embossed over chassis below the left front door.	Engine number on the bottom of the engine, over cylinder body.	Engine No. will appear on lifting the vehicle as engine is situated under the front bonnet.
4.	Hindustan Motors- Porter, Pushpak (including all models)	Chassis number on front side, over the chassis, in middle (below the front radiator)	Engine number on right side over cylinder head, below electric heater.	Engine will appear on opening the front bonnet.
5.	TOYOTA - All popular models	Chassis number is embossed on either below the wind screen under the front bonnet or below the driving seat at right.	-do-	-----

**SIX/TEN/FOURTEEN WHEELERS - HEAVY MOTOR VEHICLES
(Truck/Tipper/Goods carrier/tractor carrier)**

S.No.	Models	Location of chassis number on vehicle	Location of engine number on vehicle	Special Remark
1	2	3	4	5
1.	Mahindra's Double cab Single cab King cab Picup cbc Express DI 3200 Load King Cab King (including all models)	Chassis number on the right side over chassis, behind the right front wheel	Engine Number on cylinder cover, on the left side of the engine	Generally Engine is placed near/under the driving seat.
2.	Hindustan Motors-Eicher truck (including all models)	Chassis number on left side over chassis behind the left front wheel	Engine number on left side below the 4th "inlet"	-do-
3.	Swaraj Mazda-Small trucks & *LCVs	Chassis No. on the right side, over the chesis, behind the right front wheel.	Engine number embossed on the left side, below the "Intect manifold"	-do-
* LCV=Light Commercial Vehicle				
4.	Telco-(TATA)-All models of trucks and buses LPTA 713 407 SFC cab/truck LPT 407/31 LPT 407 CAB 1613 LPT/42 LPT 1613 tractor LPS 1613/48FFC SK 1613/36 SFC (TPPER). SE 1613/42 truck LPT 909 LPT 709 SFC 709 LPT 1613/48 LPT 1613/52 SK 1613/36 TC	Chassis number is embossed on left side behind the left front wheel, over chassis.	Engine number is written over a iron plate label on engine head.	Engine number is not embossed on engine. Only a label chip contain all information about the engine. (The first two digits of engine number shows the year of production i.e. 69 mean the year of production is '96.

Registration Numbers of Auto-Vehicles as Forensic Clue to Investigate Criminal Activities

*** LCV=Light Commercial Vehicle**

1	2	3	4	5
	LPT 2516 LPK 2516/38TC (TIPPER). SK 1613/36 SFC- (TIPPER). LPT1109 and all other models of full & semi forward engine.			
5.	Ashok Leyland-All models of Tasker, Comet, Tractor carrier, Taurus (Multi-axel), Cargo 759, Cargo 909, Comet gold and all other models of goods carrier.	Chassis number on left side in front of rear spring, over chassis near backwheel.	Engine number on left side over cylinder head (AL type) or on right side above inlet manifold (Hino type engine).	In carrier tractor & comet models- engine is AL type while in tasker models (Multi-axel) engine may AL or Hino type. The first six digits of engine number shows the type of engine.

Heavy Motor Vehicles - Buses - Mini & Big (Six Wheelers)

1.	Mahindra's- Mini bus 2 WD heigh roof & low roof	Chesis number on the right side of the chesis, behind the right front wheel	Engine number on cylinder cover, on the left side of engine.	Engine will appear near/under the driving seat.
2.	Swaraj Majda- standard mini bus	-do-	-do-	-do-
3.	DCM-TOYOTA All models	-do-	-do-	-do-
4.	Telco- (TATA) LP 407 SFC 1510 LPO/SS FFC 207/28 Normal cab passenger, 207/28 Passenger, LP709 E/38 FFC LP 709 E/38 FFC control, LPO 1512 TC FFC LPO 1313/55 TC FFC,	Chassis number is embossed on left side, behind the left front wheel over chesis	Engine number is written over a iron plate on engine head.	Engine is installed on left side of driving seat. Engine number is not embossed on any where over engine while other numbers i.e. frame no., gear box no., axel no. , are embossed on concerned parts.

1	2	3	4	5
	LP/1109 Turbo FFC & all other models of Telco bus.			
5.	Ashok Leyland- Viking and all other models of passenger bus	Chassis number is embossed in front of rear spring, near the back wheel of bus on left side.	Engine number is embossed on left side over cylinder head or on engine, above the inlet manifold, on the right side.	Passenger carriers of Ashok Leyland has two types of engine. One is AL type where engine is gray in colour and engine number is embossed on right side, above the inlet manifold. The other type is Hino engine, red in colour where engine number is embossed over cylinder head on the left side of vehicle. Engine is placed on the right side or below the driving seat.

Heavy Motor Vehicles - Tractors

1.	HMT- 2522 3022 3522 (including all models)	Chassis number embossed over chassis, behind the break bottle at right side	Engine number embossed on right side behind the "Exhaust albo", near the silencer attachment heater.	Engine number will appear on opening the right bonnet
2.	Mahindra-Tafe, Massy	-do-	-do-	-do-
3.	Escort	-do-	-do-	-do-
4.	Swaraj	-do-	-do-	-do-
5.	Tata	-do-	-do-	-do-
6.	Sonalika	-do-	-do-	-do-

General principles followed in embossing chassis and engine numbers in vehicles:-

- (i) Though the place of embossing chassis and engine number may vary in different models as newer models of vehicles are coming almost everyday in the market, but in general it has been observed that engine and chassis numbers are located as follows -

S.No.	Vehicle	Location of	
		Chassis No.	Engine No.
1.	Scooters	On right side behind the panel, near panel hook	On right side over engine near silencer attachment with engine.
2.	Motorcycles	On right/left side below head light over steering tube	On right side over engine cover near break paddle.
3.	Mopeds	On right/left side below head light over steering tube or below left/right front foot rest over chassis	On the bottom of engine near silencer attachment with engine.
4.	Cars	Below the wind-screen under front bonnet. or on the floor of driving seat	Over engine head below inlets under the front bonnet
5.	Jeeps	Over right/left side behind front wheel, over chassis	Over engine cover head under the front bonnet
6.	Trucks/Buses	-do-	-do-
7.	Tempo/Vikram	On right/left side in the middle of vehicle over chassis	Behind the chassis number near the gas tube
8.	Tractors	On the chassis near break pad on right/left side	Behind the silencer base on right/left side under the right/left panel.

- (ii) The engine number and chassis number are also printed over a iron/plastic/paper label and this label is chipped at easy looking are of vehicle but this label may removed or become useless in old vehicles.

- (iii) Light and heavy motor vehicles, also contain Frame number, Rear axel number, Rear box number, Front axel number, Piston pump number, Control valve number, Power steering gear box number and Turbo

charger numbers, those have an equal importance as chassis and engine number but these can be checked only with the technical help of any mechanic or known person, as these numbers are located deep in the frame/engine and invisible on surface view. These numbers are not mentioned in RTO/concerned documents but mentioned in "customer service book or user manual" provided by the company at the time of buying any new vehicle.

- (iv) Special vehicles where chassis numbers have been re-embossed by the cutting of chassis number portion, such cases may be checked on the Rear axle, Rear box, front box, turbo charger, piston pump, and other alike numbers to decide the authenticity of the vehicle.
- (v) The other serial numbers of six/ten/fourteen wheeler heavy vehicles (loader, trucks/tipper) are embossed at following places at vehicle -
 - i) Constant mesh gear box number is embossed on top or bottom of gear casing on left side.
 - ii) Front axle number is punched on the tip of axle beam on left side/right side/center.
 - iii) Rear axle number is punched on the drive head on right/left/center side.
 - iv) Steering box number are-

- (a) In manual steering-in front portion of steering housing.

- (b) In power steering-Identification plate is fixed on steering gear box.

Suggestions

- (I) During checking of vehicles, emphasis should be given on chassis and engine numbers along with registration documents.
- (II) Though chassis and engine numbers are normally not tampered but in cases where tampering has been made either by hammering or rubbing or any doubt of re-embossing of fake numbers, these cases should be referred to Forensic scientist of the concerned district for restoration studies.
- (III) Every checking staff of police department should be made well aware for the location of engine and chassis nos. in the different models of vehicle.

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