TSD

GRASSROOTS TOOLKIT

4W

fmsci
The Federation of Motor Sports Clubs of India

2W

Introduction

TSD (Time, Speed, Distance) Rally is the gateway to motorsport. This discipline allows entry-level competitors to enter motorsport without heavy investments in vehicle modifications, enabling participation with just their road-legal car or bike.

1. GRASSROOTS DEFINITION

FMSCI's grassroots motorsport initiative aims to make motorsport simple, accessible, and safe, encouraging new participants while enhancing the engagement of existing enthusiasts. The Toolkit provides essential guidance to competitors, wherein, the goal is to create an enjoyable and recreational motorsport experience for all.

2. GRASSROOTS TSD

A Grassroots TSD (time-speed-distance) rally, is a type of motorsport rally with the object of driving each segment of a course in a specified time at a specified average speed. The rally is usually conducted on public roads, but sometimes includes off-road and track sections. Contestants usually compete in teams composed of an amateur driver and navigator. Teams usually start a TSD rally at fixed intervals, creating a field that is spread along the course.

3. THE CREW

Primarily, the rally crew consists of a maximum of four persons, including a driver and navigators inside the car, or a rider and navigator on a two-wheeler. Their responsibilities are defined by their designations. However, in a grassroots TSD Rally, it's not mandatory for only one person to be the driver or navigator. The driver's primary responsibility is to drive according to the instructions from the co-driver/navigator. Besides driving, the driver must also provide feedback to the navigator about the route, as the navigator barely has time to look up from the road book, calculator, etc.

Navigation is an integral part of a TSD rally. The route is a secret, and participants must use the road book to reach the end. During the course, speed limits are imposed in different sections and must be strictly adhered to. Along the way, secret checkpoints (TC Time Control) note the time and determine whether you are driving too fast or too slow, applying penalty points accordingly. Penalties for exceeding the speed limit are double those for driving slower.

Navigation is a common component in all forms of rallying. A series of symbols, along with distances from the start and part distances from the last point, are provided in the instructions. This form of route instruction is called the 'Tulip or Road book,' and all rallying formats follow this system. Using this road book, the crews navigate from start to finish.

The car odometer may not be perfectly accurate. There may be variations pertaining to the distance shown on the odometer. One of the prime requirements in a TSD rally is a good odometer device that provides the correct distance reading at all times. In grassroots rallies, participants are not allowed to fit any additional odometer in the vehicle. They can use any odometer mobile app that offers adjustable odometer readings.

Special GPS apps are available for Android phones in the app store. There is a saying that the road book reading is always correct, regardless of the odometer you are using. Participants can calibrate their odometer with the GPS app on their phone. An accurate clock is another essential item, though with the advent of GPS, this has become much easier. Please make sure to synchronize your clock with the official clock at the start point.

4. SPEED CHART

Information about the speed to be maintained is provided at the start of the rally. Typically, these speeds are given with single or even double decimal digit precision, ideally with average speeds kept below 45 km/h. On highways, speeds are relaxed to 90% of the highway speed limits, but no time controls are established in such areas.

The total rally distance is set at a maximum of 50 km, including the competition zone. A sample tulip of 2 km should be provided during the briefing before the start of the rally to check odometer calibration.

5. TIME CONTROL (TC)

Time controls are points along the route where each competitor's time is recorded. These are surprise points and are not indicated on the road book. Organizers place these time controls at locations designed to catch competitors off guard, such as just after a blind turn.

The intention behind this placement is to prevent competitors from adjusting their speed and correcting their time upon seeing the control. If the team can see the time control from a distance, they can speed up or slow down to make the necessary adjustments.

Time controls, marked by clock signs with a red background, are set along the route to monitor a competitor's progress. When approaching a time control, competitors must stop the vehicle after crossing the flag, hand over the time card to the marshal, and have their time recorded. The marshal will enter the check-in time (hours, minutes, and seconds) in both the marshal card and the competitor's time card. Competitors must sign the marshal card, and the marshal will sign their time card. Failing to stop at a time control or missing one is deemed a missed time control, resulting in heavy penalties. Typically, missing more than two time controls is not permissible. Additionally, stopping or crawling before the time control in the vicinity of the marshal will attract a penalty.

6. PARTICIPATION PREREQUISITES

All the below-mentioned documents need to be presented at the time of scrutiny:

6.1 A Road-legal vehicle

6.2 A valid Civil Driving License for the Driver / Rider

6.3 A valid competitor Licence from FMSCI for Driver / Navigator

6.4 Full body riding gear for Riders / Navigators (applicable for 2 wheelers events only)

6.5 Valid insurance and PUC

7. TERMS AND CONDITIONS OF PARTICIPATION

To participating in the grassroots TSD Rally Event, participants and entrants must agree to abide by the below-mentioned guidelines and regulations.

7.1 **Participant Eligibility:**

7.1.1 Minimum age off participants must be 18 years

7.1.2 Any Participant who has participated in FMSCI Championship events and who has been on Podium in open TSD events are not eligible to participate.

7.1.3 All participants must sign the duly filled in entry form and attend a mandatory briefing before the event to review and understand the specific rules and regulations, including the imposed speed limit.

7.2 **Vehicle Requirements:**

7.2.1 Vehicles must be roadworthy and comply with local safety standards.

7.2.2 Each vehicle must have a valid insurance certificate and Pollution Under Control certificate. Rally cover insurance is highly recommended.

7.3 Document and Technical Inspection:

7.3.1 All vehicles must undergo a pre-event document check and technical inspection to ensure compliance with safety standards.

7.3.2 Inspection will cover essential components such as verification of vehicle RC book, insurance cover, drivers driving license, brakes, lights, tires, PUC and safety equipment.

7.4 Navigation and Timing:

Supplementary Regulations will be published prior to the event. Any changes will be informed through a bulletin during the course of the event. It is highly recommended that participants should read the Supplementary Regulations (SR) and clarify their doubts during briefing.

7.5 Start and Finish:

7.5.1 Participants must start and finish at designated locations within specified time windows.

7.5.2 Late arrivals may incur penalties & Early arrival incurs double the penalty of the late arrival.

7.6 Regulations:

7.6.1 Safety:

7.6.1.1 Seatbelts must be always be worn and all safety features of the vehicle must be functional.

7.6.1.2 Participants must prioritise the safety of spectators, and any reckless driving that endangers spectators will result in severe penalties.

7.6.2 Road:

7.6.2.1 Participants must adhere to all traffic rules and regulations during/ throughout the course of the event.

7.6.2.2 Speed limits specified for certain sections must be strictly followed.

7.7 **Penalties:**

7.7.1 Penalties will be imposed for violations, including late arrivals, missed checkpoints, and safety infractions.

7.7.2 Event penalties will be calculated as per the SR and any other violation will be reported to the steward.

7.8 **Liability:**

The event organisers will not be held responsible for any accidents or damages incurred during the rally.

7.9 **Code of Conduct:**

7.9.1 Respecting the fellow participants, event officials, and the public is mandatory.

7.9.2 Unsportsmanlike conduct may lead to disqualification.

7.10 **Environmental Stewardship:**

7.10.1 Participants must respect the environment, local communities and biodiversity.

7.10.2 Littering or any form of environmental damage will result in penalties. The Sustainability Officer deputed will have the authority to report the same to the steward with any photo or video evidence.

7.11 **Event Officials' Decision:**

7.11.1 Decisions made by event officials are final and binding.

7.11.2 Participants must comply with instructions from event marshals and organisers

7.11.3 The stewards reserve the right to disqualify any participant for serious breaches of rules or safety concerns.

7.12 **Vehicle Markings:**

Each participating vehicle must display their competition numbers prominently. Failure to do so may result in penalties.

7.13 **Media and Public Relations:**

Participants are encouraged to engage positively with the media and the public. Any negative behaviour that tarnishes the image of the event may lead to penalties or disqualification.

7.14 **Community Outreach:**

Participants are encouraged to engage in community outreach activities associated with the event, fostering a positive relationship with local communities.

7.15 **Notice Board:**

A digital/analog/manual notice board should be put up by the organiser on which the names and penalties of the participants should be displayed.

7.16 **First Aid:**

7.16.1 It is <u>mandatory</u> to have a first aid kit in the vehicle.

7.16.2 A Doctor and a Paramedic is compulsory. Lady doctors recommended in case of women participants.

7.17 **Event Officials:**

Following event officials are required to conduct this event:

7.17.1 It's up to the organiser to nominate the 'judge of fact(s)' to check on penalties and compute results.

7.17.2 There must be presence of at least one local Steward for the whole event.

7.18 **Grassroots Licence:**

Participation is open to FMSCI Grassroots licence holders only (for easy instant issue – scan the QR code below)!
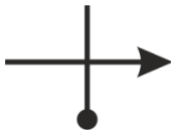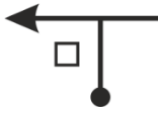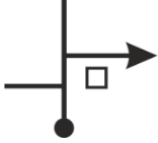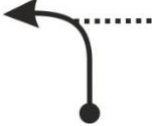
8. ROAD BOOK

Also known as *Tulip Chart* is a set of instructions to help you navigate the event route.

The first column gives the distance from the start or cumulative distance. The second column shows the part distance from the last instruction. The diagram in the third column describes the road directions to be followed, and the next column provides additional information. The dot/ball at the bottom of the arrow denotes where you are, and the arrow indicates the direction you have to go. There is no North, South, East, or West—always the direction of your nose as you approach the instruction point. Some road books use the last column to give the distance to go.
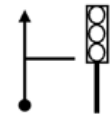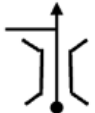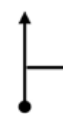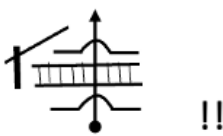
8.1 SAMPLE TULIP CHART INDICATIONS

	STRAIGHT ON 'Dot' - indicates your current location 'Arrow' - indicates where you have to go
	Four Cross Turn Right
	Take Left at the 'T' Junction. □ - Indicates a Land Mark
	Take a 'U' Turn. Dotted line indicates road divider.
	Take Right Turn after the Land Mark on your right. There is a road joining from left before the turn.

	Take Right Curve Dotted Line Denotes dirt road

	Take Left Curve. There is a dirt road joining from right
	Take 4th Left exit on Roundabout
	Caution - Observe surroundings and drive slowly
	Rally Route Passes through Bridge or Culvert

	Speed Breaker on Rally Route
	Dip on Rally Route
	Two Dots denotes Gate or Pillers
	Petrol Pump
	Bad surface at Right Turn

8.2 SAMPLE ROAD BOOK:

TOTAL DISTANCE	PARTIAL DISTANCE	DIRECTIONS	REMARKS
0.00	0.00		START AT IOCL
0.02	0.02		CROSSING
3.85	3.83		CULVERT
5.00	1.15		
9.24	4.24	!!	RAILWAY CROSSING
10.64	1.40		
11.60	0.96	!!	
12.00	0.40	!!	ONTO DIRT/OFF ROAD

9. SAMPLE SPEED CHART CALCULATION

The Speed Chart indicates you the speed that you are to maintain during the event at various sections

Example :

Distance in Kms. Time in Minutes Avg. speed in Kmph (approx)

0 - 5	14	21
5 - 12	10	42

From the above chart you have to calculate the time you have to be, at any given point, along the Route.

Using the above chart as example:	0 - 5 kms	= 14 mins.
Therefore to cover:	1km	= 2 mins.48 seconds.

Assuming your start time is 9 : 12 hrs.

At 0 km (Start) your start time is	:9 . 12
At 1st km	:9 . 14.48 (9.12 00 + 2.48)
At 2nd km	:9 . 17.36 (9.14.48 + 2.48)
At 3rd km	:9 . 20.24 (9.17.36 + 2.48)
At 4th km	:9 . 23.12 (9.20.24 + 2.48)
At 5th km	:9 . 26.00 (9.23.12 + 2.48)

Based on the above example calculate for the entire rally and follow the route maintaining your time.

Note:

9.1 The average speed given in the Speed Chart is approximate only.

9.2 Non – Cumulative calculations: The ideal time from time control to time control is on a non-cumulative basis, for example time Control distance - 3.80 kms. Your schedule time there is, say - 9 hrs 20 mins 50 seconds. You will be on time if you check in exactly at 9 hrs 20 mins & 50 seconds. If you check in at 9 hrs 19 mins & 48 seconds , you are 1 minute 2 seconds early, likewise if you check in at 9 hrs 20 mins & 55 seconds you will be 5 seconds late.

9.3 If you are late at a time control you must add the minute & seconds lateness, likewise if you are early you should subtract the minutes & seconds you are early to calculate your time for subsequent check

points. The official time for the event will be the GPS Time. You should synchronize your watch with the official time before start of the event. There may be free zones (FZ) indicated in the speed chart which means, there will not be a time control in that zone.

10. TIME CARD

10.1 Time Card tracks your performance during the rally

10.2 Given to your at start of rally and must be submitted to a marshal at the end of rally

10.3 Competitors must never write on the Time Card

10.4 Time Card records information such as Start Time, Check in Time, Restart Time, Marshal's signature etc.

10.5 All competitors must carry a digital clock that displays the seconds field also

10.6 Before the rally starts, this clock must be synchronized with the Marshal's clock

11. CLUES AND TASKS

Enroute you may be asked to answer some question or solve some clues or perform some task like taking a selfie or noting down some details etc. Each unsolved clue/unperformed task will attract penalty as mentioned under Penalties.

12. DO's AND DONT's

12.1 Follow traffic regulations at all times; don't over speed, Drink & Drive etc.

12.2 In case of any accident the competitors should report to the nearest police station. Failure to do so will result in exclusion. Take extreme caution while driving through villages.

12.3 Rally organisers are NOT responsible for your violations of traffic rules and other laws

12.4 Try not to lose your way, follow instructions scrupulously and you should be fine.

13. ADVISORY

13.1 Speed restrictions at crowded villages, markets, schools and hospitals have to be followed properly. Required speed at these places/areas will be given by the organiser in tulip or speed chart.

13.2 Competitors must clarify any doubts at the briefing or before the start of the event.

14. ENTRY FEE

Organizer is free to decide the entry fee for participants.

15. FMSCI PERMIT

Organiser must obtain an FMSCI Grassroots Event Permit to conduct the event and is also required to submit an entry list.

DECLARATION

Those who have previously participated in any National/Cup/Series/Challenge/Trophy or have had a podium finish in any of the other status events including 'open', are ineligible to participate in the Grassroots discipline!