THE NSSR ROAD SAFETY/SUPPORT PROGRAMME


MONTHLY BULLETIN

Road Safety / Support is a mainline National Safety and Social Responsibility

# DASHBOARDING ROAD SAFETY / SUPPORT

BY

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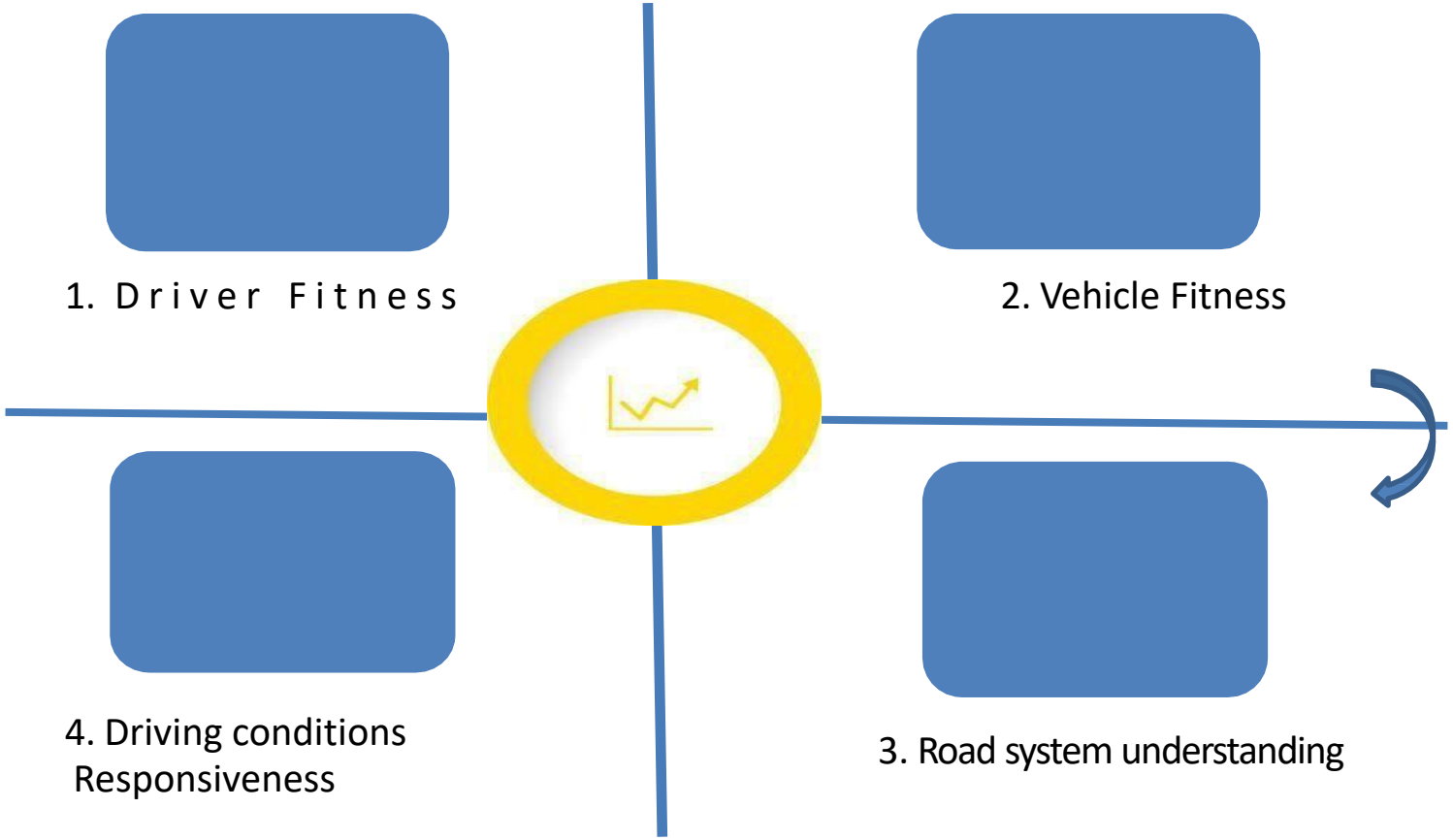
# Dashboarding Road Safety/Support

- **AOEC finds that safety while commuting on road, depends upon the automobile manufacturer's quality assurance, driver fitness, vehicle fitness, driving conditions dimensioning, and road system responsiveness, where driving conditions n**eed us as commuters/road-system-infrastructure stakeholders to fine focus and design capability for improved road safety.

Driving conditions dimensioning

JOURNEY/TRIP
Route
Road Surface,
Distance,
Drive time, and
Correlation for
Responsiveness,
Safety and
Reliability




COMMUTING AND 5R(S)

Relate

Respond

Reduce Risk

Reciprocal Driving insights

TMS Resilience for route designed RADIUS and CIZ

CIZ : CRITICAL INTERACTION ZONE IN A JOURNEY/TRIP

# Dashboarding Road Safety/Support

- AOEC finds that instrumentally, Dashboarding Road Safety / Support (DRSS) projects must
- define a TMS workflow for accentuating
- 1. Driver Fitness
- 2. Vehicle Fitness
- 3. Road system understanding
- 4. Alpha Assistance
- 5. 5R(s) SMART(ness) for a safer journey

CRITICAL INTERACTION DETERMINERS

ROAD SURAFCE COVERINGS, LIGHT / SHADE ISSUES, CURVES, MEANDERS, INCLINES, BOTTLENECKS, CLOSE PROXIMITY REGIONS

SMART(ness) :

SPECIFIC CRITICAL INTERACTION FOR MEETING NEED WITH APPLICABLE INSIGHT RESPONSE AND TEMPERAMENT

Dashboards

EXPERT SYSTEM

SPHERE OF CONTROL, FOCUS, CAPABILITY AND INGENUITY

TIME MOTION SCALE / POINT SLOPE INTERCEPTION

Handbooks/Guides/Planners

Dashboarding Road Safety/Support

CRITICAL INTERACTIONS

EXPECTED LICENSE, PROBABLE INCIDENCE/HAZARD/ RISK/RULE COMPLIANCE, PRECISE DRIVING, ENDURANCE DRIVING, INTERCEPTING CURVES, MANEUVERING OPTIONS, RESPONSE, RAPID RESPONSE, UNDERSTANDING SERVICE ANYWHERE ANYHOW ASSISYANCE, EMERGENCY RESPONSE / SPECIFIC NEEDS

# Dashboarding Road Safety/Support

- DRSS SMART(ness) for a journey/trip and virtual POINT SLOPE INTERCEPTION can make it simpler to identify the tangible correlation between driving conditions dimensioning of a route/road system/road with a DRSS Workflow to help and improve safer commuting

- This DRSS Workflow plus NSSR RS programme teamwork can
- Record-or-review,
- Relate,
- Reduce risk,
- Reciprocate response and
- Design Resilience for any journey/trip and its dimensions like the
- road surface,
- distance,
- drive time,
- commute reliably factors, where there is universal or brand specific service centre-assessable part-lifetime mitigation, condition monitoring, traceable fault tolerance/preventive and corrective action, where this DRSS Workflow development can help a NSSR participant define/use a NSSR RS index for a journey/trip/TMS radius, where the index can be simply (1), (2), (3), (4) or combinations of them

The DSSR project recommends the use of different assistants to help commuters improve their experience

# Dashboarding Road Safety/Support

- **(1) NRRS-I1:=** where this workflow will need to address History of interaction & **Foreseeable needs** and 5R(s)
- **(2) NRRS- I2:** = this workflow will need to address **Critical Interaction Zone** needs and 5R(s)
- **(3) NRRS- I3:** this workflow will need to address **Road/Route dynamics** and 5R(s)
- **(4 NRRS- I4:** this workflow will need to address A**dvanced safetyneeds and 5R(s)**
- (like air quality, unregulated climate intolerance, temperature/humidity, road system or road or terrain safety, with more than an expected driving style for commuting with safety, reliability & timing and with more than programmed gear changes, or braking or drive distribution between the front and rear wheels as expected in 4WD modes)
- The bulletin looks at the different assistants that can help a commuter's 5R(s). The editions that follow will delve into details of each of them to help a commuter/stakeholder ramp up scores in a dashboard

# Dashboarding Road Safety/Support

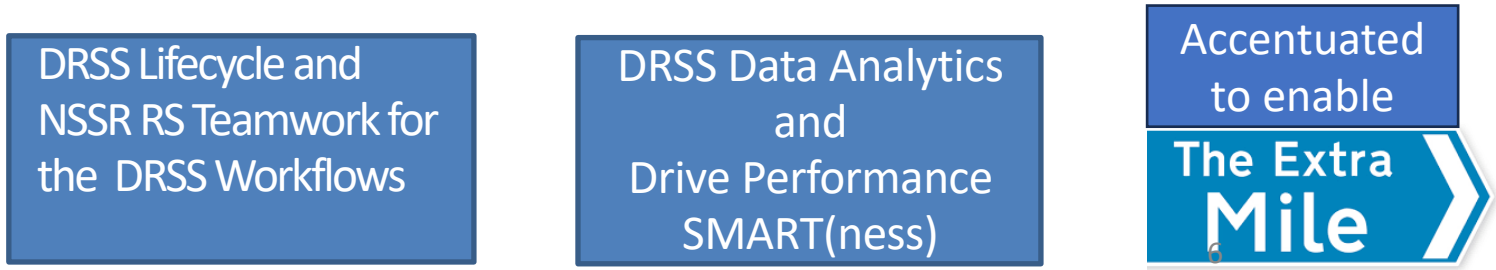
- The DRSS Data Analysis Channel Building for an **automobile manufacturer's quality assurance, driver fitness, vehicle fitness, driving conditions dimensioning, and road system responsiveness** for deteriorating or changing driving conditions dimensioning of the needed SMART(ness for safer commuting will need to

- **1. Improve Sensitization and Awareness for Road Safety**

- **2. Develop issue/feedback/data channelization for safer commuting**

- **3. Provide handbooks/guides/planners for such planning/ incorporation**

- **4. Promote quality for road safety and infrastructure via NSSR guided methodologies like the training programmes/monthly bulletins & quizzes/dashboarding of experience or incidences**



# Road safety and Accountability Dashboard for the Year 2026

- ❑ Certificate of Excellence — YES / NO / NOT SATISFACTORY
- ❑ Traffic issues or incidences — YES / NO / NOT SATISFACTORY
- ❑ Compliance with FMVSS standards — YES / NO / NOT SATISFACTORY
- ❑ Onboarding of NSSR Road Safety objectives — YES / NO / NOT SATISFACTORY
- ❑ Upgradability of NSSR Road Infrastructure objectives — YES / NO / NOT SATISFACTORY
- ❑ Traffic Engineering Assets planning — YES / NO / NOT SATISFACTORY
- ❑ Traffic Engineering Defects Liability — YES / NO / NOT SATISFACTORY
- ❑ Improved on-road assistance — YES / NO / NOT SATISFACTORY
- ❑ Cost of Quality /Cost of Poor-Quality Project Assistance — YES / NO / NOT SATISFACTORY
- ❑ Complexity for Road Safety and Accountability — YES / NO / NOT SATISFACTORY


Year:

# Road safety and Accountability Dashboard for the Year/Season 1

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Season: Summer / Spring/ Monsoon/ Winter

# Road safety and Accountability Dashboard for the Year/Season 2

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- ❑ Complexity for Road Safety and Accountability — YES / NO / NOT SATISFACTORY


Season: Summer / Spring/ Monsoon/ Winter

# Road safety and Accountability Dashboard for the Year/Season 3

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Season: Summer / Spring/ Monsoon/ Winter

# Road safety and Accountability Dashboard for the Year/Season 4

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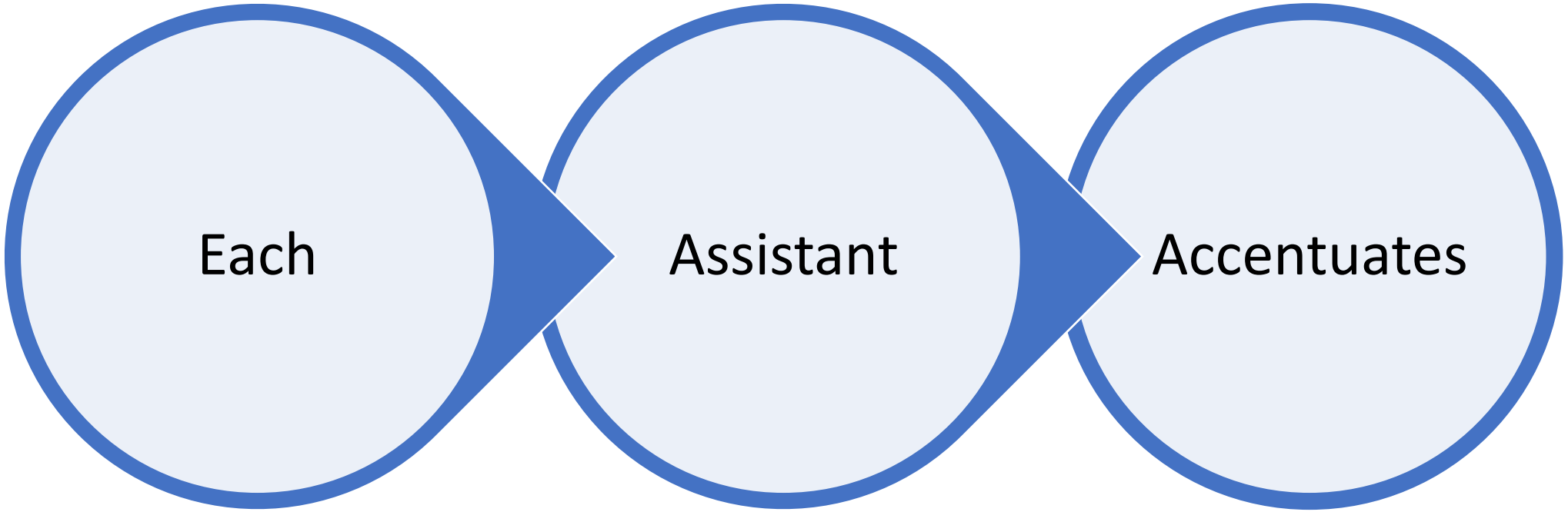
Season: Summer / Spring/ Monsoon/ Winter

# DRSS Assistants – Vehicle Fitness




# Guidelines for Trouble shooting

# Guidelines for Trouble shooting

**Being Anywhere at Any time needs you to be sensitized towards vital trouble shooting that is as relevant to the Brand. Model and Variant of the vehicle)**

[ ] Noises (Engine, Crank, Piston, Valve Train)

[ ] Pre-ignition problems

[ ] Engine will not crank

[ ] Engine cranks slowly but does not start (related to ICE vehicles)

[ ] Overheating of engine

[ ] Excessive smoke

[ ] Loss of coolant

[ ] Oil pressure problem

# Guidelines for Trouble shooting

| 1. Guidelines for possible Engine noises | Source or Cause possibly |
|---|---|
| Tap sound | Improper adjustment of Valve clearance |
| Rattle sound | Loose or broken components like piston rings |
| Light knocking | Small end bearings worn out |
| Deep knocking | Big end bearings worn out |
| Irregular heavy knocking | Loose fly wheel |
| Rumble noise | Main bearings worn out |
| Slapping noise | Worn out piston or bores |
| Vibrating sounds | Loose fittings of components |
| Clatter noise | Broken rocker shaft or broken piston rings |
| Hiss sound | Leak from inlet or exhaust manifolds or connections |
| Roar sound | Air filter malfunctioning noise, Air filter failure |
| Clunking sound | Loose fly wheel, worn out thrust bearing, loose damper pulley |
| Whining sound | Malfunction in power steering or alternate bearings |
| Shrieking sound | Dry bearings in ancillary components |
| Squealing | Slipping drive belt |
| Snapping sound on engine overhauling | Tight fitting of piston rings |

**Starved sound with high -speed acceleration noise on starting -** Timing belt problems

# Guidelines for Trouble shooting

| 2. Guidelines for possible Crank noises |
| --- |
| Source or Cause possibly |
| Excessive clearance in main bearings |
| Main journals out of alignment |
| Excessive axial play in crank shaft |
| Low oil pressure |
| Unbalanced crank shaft |
| Loose fly wheel |
| Loose fitting of main journals and main bearing caps |
| Improper seating of thrust bearings |
| Loose damper pulley |
| Excessive play in main journal bearings |

Timing belt problems

| 3. Guidelines for possible Piston noises (sharp noises while at idling speed) |
| --- |
| Source or Cause possibly |
| Excessive side clearance |
| Loose fitting in small end bearing |
| Bent connecting rod |
| More clearance between piston pin and boss |

| 4. Guidelines for possible Valve Train Noise |
| --- |
| Source or Cause possibly |
| Improper adjustment of valve clearance |
| Bent push rod |
| Worn out rocker arm and valve tip |
| Warped valve |
| Carbonized or scored valve stems |
| Excessive clearance between valve stem and valve guide |
| Worn out or broken valve spring |
| Improper valve timing |
| Worn out cam lobes |
| Broken or damaged valve lifter |
| Loose fitting of adjustment screw and nut for valve tappet clearance |

# Guidelines for Trouble shooting

| 5. Guidelines for Pre-ignition problems (deposits in combustion chambers and/or on spark plugs) |
| --- |
| Experience - poor acceleration, engine roughness and reduced top speed Source or Cause possibly |
| Clogging of carburettor jets |
| Improper idling |
| Loose fitting of spark plugs |
| Improved driving / Maintaining constant speed when possible |

| 6. Guidelines for Causes for the Engine to not crank or fully start |
| --- |
| Source or Cause possibly |
| Defective starting motor |
| Defective battery |
| Loose connection of battery wire and starting motor wire |
| Fly wheel problem needing servicing |
| Worn out teeth of fly wheel |
| Slow running of armature shaft |
| Timing belt problems |

# Guidelines for Trouble shooting

| 7. Guidelines for the Causes for the Engine to crank slowly but does not start |
|---|
| Source or Cause possibly |
| Defective fuel pump |
| Fuel line blocked |
| Fuel filter blocked |
| Defective Fuel pump |
| Air lock or air may be present in fuel line |
| Less Fuel in tank |
| Air cleaner blocked |
| Defective fuel injector |
| Worn out valves and springs in pump |
| What can cause Over heating of engine Source or Cause possibly |
| Loose fan belt |
| Radiator blocked or surface area reduction |
| Radiator tubes blocked |
| Improper opening of thermostat valve |
| Hose pipes blocked |
| Coolant pump malfunctioning |
| Coolant jackets and hoses may be clogged |
| Head gasket seating improper |
| Coolant level low |
| Leakage of coolant from radiator |
| Early or late ignition problem |
| Clutch slipping |
| Brake jamming or drag |
| Tight wheel bearings |

# Guidelines for Trouble shooting

| 8. Guidelines for what can cause Excessive smoke (Black) |
| --- |
| Source or Cause possibly |
| Choked Air filter |
| Fuel injection pump not properly calibrated |
| Defective injector |
| Defective governor diaphragm |
| Incorrect valve clearance |
| Poor compression |

| 9. Guidelines for what can cause Excessive smoke (Blue) |
| --- |
| Source or Cause possibly |
| Sticky or broken piston rings |
| Worn out cylinder bores |
| Weak compression |
| Oil level in oil sump not proper |
| Mixing of lubricating oil with fuel |
| Improper grade engine oil |
| Improper grade lubricating oil |

# Guidelines for Trouble shooting

| 10. Guidelines for what can cause Excessive smoke (White) |
| --- |
| Source or Cause possibly |
| Defective valve seating |
| Fuel injection pump not properly calibrated |
| Delay between injection and combustion of fuel |
| More unburnt fuel |
| Low operating temperature |

| 11. Guidelines for what causes the Loss of coolant |
| --- |
| Source or Cause possibly |
| Radiator leakage |
| Hose pipe leakage |
| Loose drain plug or drain plug leakage |
| Oil seal damaged for pump |
| Leaky or faulty head gasket |
| Damaged or cracked pump casing |
| Improper or Loose or damaged thermostat or valve packing |
| Faulty or missing radiator cap |
| Crack in cylinder block |
| Engine overheating |

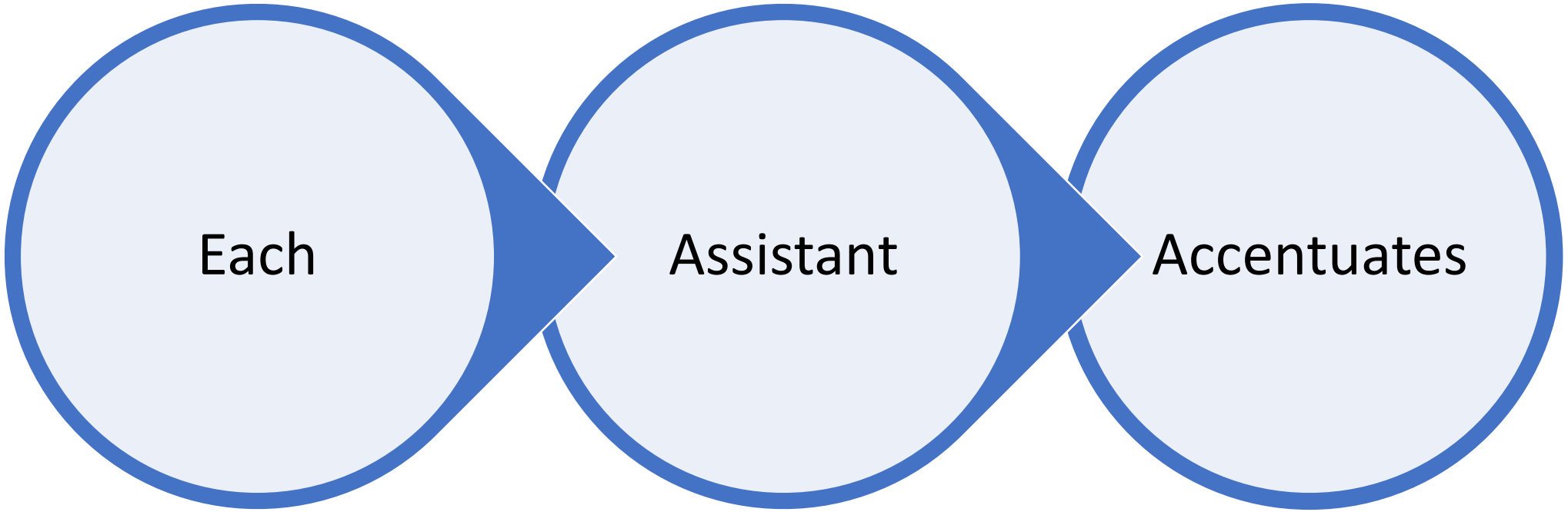
# Guidelines for Trouble shooting

| 12. Guidelines for Oil pressure problems (No reading) |
| --- |
| Source or Cause possibly |
| No oil in sump or reservoir |
| Oil gauge not functioning properly |
| Faulty oil pump |
| Faulty valve or valve spring |
| Loose connection or Faulty pressure gauge |
| Leakage of oil |

| 13. Guidelines for Oil pressure problems (low pressure reading) |
| --- |
| Source or Cause possibly |
| Less oil in sump or reservoir |
| Oil Filter clogged |
| Faulty or worn out oil pump |
| Faulty or broken valve spring |
| Faulty or slack main bearings |
| Leakage of oil |

| 14. Guidelines for Oil pressure problems (high pressure reading) |
| --- |
| Source or Cause possibly |
| Oil lines clogged |
| Faulty or broken valve |
| Faulty or defective pressure gauge |
| High viscosity or improper grade oil |

# DRSS Assistants – Vehicle Fitness




Quiz

# DRSS Assistants – Vehicle Fitness