



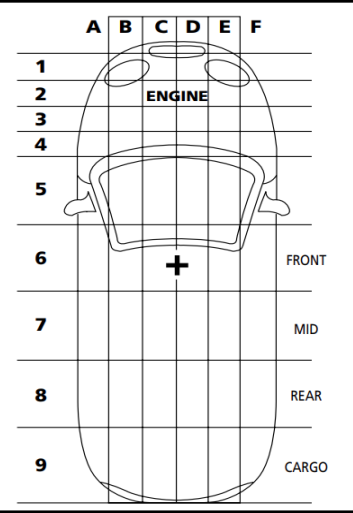


"WRITE-UP" JOB AID - SPECIFIC SYMPTOM IDENTIFICATION

INSTRUCTIONS: Check below sense affected and location of concern on the generic vehicle illustration (darken the vehicle area). Plus circle appropriate responses to the right.

	SEE YES <input type="checkbox"/>		FEEL YES <input type="checkbox"/>
	HEAR YES <input type="checkbox"/>		SMELL YES <input type="checkbox"/>

	A	B	C	D	E	F	
1							
2	ENGINE						
3							
4							
5							
6	+						FRONT
7							MID
8							REAR
9							CARGO

* NOTE: Shaded backgrounds indicate caution areas. Selection of two or more caution areas "flag" difficult repairs. In general, shaded areas are the more difficult to verify and repair, and require all applicable columns to be completed.

VEHICLE SYMPTOM AREA	HOW OFTEN?	VEHICLE OPERATING MODE	VEHICLE SPEED (KM)	AMBIENT CONDITION	WHEN VEHICLE IS:
Front of Vehicle	Always	Start Up	1 -15	Below 20- C	Turning Left
Engine Compartment	Daily (AM? PM?)	Idle	16-29	-20 to -5	Turning Right
Dash	Conditional	Gear Selection	30-49	-5 to 0	Over Bumps
Steering Wheel	Weekly	Acceleration - light	50-64	1 to 10	Up Hills
Accelerator Pedal	Monthly	Acceleration - moderate	65-79	11 to 20	Down Hills
Brake Pedal	Intermittent	Acceleration - heavy	80-94	21 to 30	Upshifting
Clutch Pedal	Unknown	Steady Speed	95-109	Above 30	Downshifting
Shift lever / Knob		Deceleration	110+	Sunny	Parked
Seat	VEHICLE CONDITIONS	Coast down	ROAD SURFACE	Dry	In Traffic
Rear of Vehicle	Accessories On	Braking Soft	Smooth paved	Windy	ENGINE TEMP.
Top of Vehicle	Windows Open	Braking Moderate	Rough paved	Wet / humid	Cold
Floor Pan	In 4x4	While in Reverse	Bumpy	Rain	Normal
Under Vehicle	Hauling		Wet	Snow	Hot
	Towing			Ice	

Description of Noises:

BACKFIRE – Similar to a gunshot sound coming from the engine or tailpipe.

BANGING – Brief, loud and sharp sounds almost like a gun firing. (A backfire is an example of a "bang".)

BOOM- Low resonant sound like a drum roll or distant thunder.

BUZZING – A constant, low pitched sound (like a bee) usually associated with vibrations. This sound can often be felt through the steering wheel or floor.

CHATTER- rapidly repeating metallic sound, like teeth chattering.

CHIRPING – Repetitive bird-like sounds.

CHUCKLE- A rapid noise, similar to a stick against the spokes of a bicycle.

CLANGING – A heavy sound of metal to metal, with reverberation (like a gong).

CLICKING – Light, high-frequency tapping (like the sound of a pen top being clicked, or a keyboard.)

CLUNKING – Any heavy thump or bump sound without reverberation that can often sound a little muted.

FLAPPING – Any repetitious noise that sounds like a flag in a strong wind.

GRINDING – An abrasive sound, for instance metal-on-metal or a grinding wheel.

GROANING- a continuous low pitched sound, may change tone depending on speed of the car.

GROWL- a low guttural sound, like an angry dog.

HESITATION – A brief loss of power upon acceleration.

HISSING –The sound of air or steam escaping from somewhere.

HOWLING – A strong wind noise even if the windows are completely rolled up.

HUM- Continuous sound, although the pitch may vary.

KNOCK- a heavy, loud, repeating sounds - like someone's fist on a door.

PINGING – A higher pitch than a knock. Can sound like someone dropping marbles into an empty can.

POPPING – Sharp, explosive sounds can be described as popping and usually aren't as loud as banging.

RATTLING – The sound of pebbles shaking around in an empty can can be described as rattling.

ROARING – the sound a jet makes when it accelerates to take off. A deep & prolonged sound.

RUMBLING – A low, continuous sound, like far away thunder.

SCRAPING – Usually a high-pitched, metallic noise that speeds up as the vehicle speeds up.

SQUEAKING- High pitched, like rubbing a clean window

SQUEALING – High-pitched and long lasting.

TAPPING – A heavier noise than a click but similar, like tapping on a board with a hammer.

WHINING – a drawn out higher-pitched noise that usually changes with engine speed.

WHIRING- A high pitched, buzzing sound- like an electric drill or motor.

WHISTLING – Shrill, loud, high-pitched noise.