



## Why car doesn't start?

AUTO-teams competition 01/10/2009

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## PLIME AUTO MEMBERS:

- ▶ AUTO-Ljubljana
- ▶ AUTO-Tampere
- ▶ AUTO-Mikkeli
- ▶ AUTO-Celje

AUTO-Ljubljana



AUTO-Tampere



AUTO-Celje



AUTO-Mikkeli



# WHY THIS CAR DOESN'T START?

(real case from Luka's practical work in company AVTOCENTER OPEL TROBEC)



This beauty car OPEL was taken to **AVTOCENTER OPEL TROBEC** service by Towed car service. The trouble is that this day car doesn't start (starter turn the engine unsuccessful), but a day before the owner finished driving without any problem. So, what's wrong???

## Vehicle data:

|              |                                  |
|--------------|----------------------------------|
| MARK, MODEL: | <b>OPEL CORSA B</b>              |
| WIN:         | <b>WOL0SBF68X4406263</b>         |
| YEAR:        | <b>1999</b>                      |
| BODY TYP:    | <b>MINI LIM. (3 d.)</b>          |
| COLOUR CODE: | <b>RAL 3018</b>                  |
| KM AGE:      | <b>141.319</b>                   |
| ENGINE TYP:  | <b>X12XE</b>                     |
| ENGINE NR:   | <b>194H49699</b>                 |
| SIZE/FUEL:   | <b>1199 ccm (gasoline motor)</b> |
| EP:          | <b>48 kW/65hp 5.600 rpm</b>      |
| GEARBOX:     | <b>MANUAL 5s</b>                 |

## Original worktask document:

|  |   |
|--|---|
| <b>Avtocenter Trobec</b>   |  |
|  | Stran:  |
|  | DELOVNI NALOG št.: 900244<br>Datum: 06.02.2009                                      |
| Tip vozila : CORSA-B Reg. Stev. : LJ M5-44Z  |   |
| Sasija : WOL0SBF68X4406263 Motor : X12XE194H49699 Letnik : 1999                                      |   |
| Garancija : NE Datum nakupa : 15.09.1999 Kupon: -10%   |   |
| Števec km : 72000  |   |
| Opis del: GORI LUČKA ELEKTRONIKE<br>NE VŽGE  |   |
| Opomba :   |   |
| Delo:<br>ke KONTROLA ELEKTRONIKE Z TECH  |   |
| Vozilo prevzel: Trobec Lavra Vozilo izročil: .....   |   |
| Avtocenter Albin Trobec s.p. Tel.: 01/42 32 535, 25 61 288 Id. št.: SI14437180, matična št.: 5701700 |   |

All teams, please take your procedure how to find a mistake. AUTO-LJUBLJANA team will tell who find/who doesn't find a true mistake. Finally all teams can take financial calculation of this repair.

## TEAM SOLUTIONS

AUTO-CELJE:

Hello Luka, did you check the spark plugs and fuel injection?

Have a nice day, David! Team Celje

AUTO LJUBLJANA

Answer of Luka:

Hello, spark plugs and their cables are ok.

About fuel injection: We made diagnostic test with moto tester TECH. It didn't show any mistake on fuel injection system.

AUTO-CELJE:

Hello Luka, did you check if the fuel is correct (Gasoline and not Diesel)?

Check if the fuel entering the engine.

Check the battery voltage and fuses.

It is also possible oxidation of wiring use tester equipment.

It is also possible skip of the (teeth) belt.

Have a nice day, David! Team Celje

AUTO LJUBLJANA

Answer of Luka:

In car tank there is a correct fuel (Gasoline).

The fuel come to the engine.

The battery voltage and fuses are OK.

Diagnostic tester shows EOBD Trouble code identification:

**P0229**

Nice day, Luka AUTO LJUBLJANA.

AUTO-MIKKELI:

Hello Luka! You have very nice car, reds cars are best (it is similar colour than Ferrari) But now you car doesnt start?

Have you energy in car battery? Maybe you are listen to long time music in you car 😊

Check you battery, please

Team Mikkeli

AUTO LJUBLJANA

Answer of Luka:

Thank you, I agree about coulor😊.

Our battery is in good condition(I checked it with DMM-digital multi meter).

AUTO MIKKELI, Juha-Matti Huikuri

OK, Can motor running/circuit, when you turn inginition key?

AUTO LJUBLJANA

Answer of Luka:

When I turn an ignition key, starter turn the engine, but motor doesn't start to run. When I finished starting, it stays.

On instrument plate a yellow signal light (engine symbol) illuminated when I switch the contact by ignition key.

Diagnostic tester shows EOBD Trouble code identification:

**P0229**

Nice day, Luka AUTO LJUBLJANA.

AUTO-TAMPERE:

AUTO LJUBLJANA

Answer of Luka:

Hello Tampere team, will you try to start this Opel?

Or find some help?

Nice day, Luka AUTO LJUBLJANA.

# WHY THIS CAR DOESN'T START?

(real case from Primoz's practical work in his company AVTO AKTIV)



This beauty car BMW was taken to AVTO AKTIV PSC Trzin BMW service by Towed car service. The trouble is that this day car doesn't start (starter turn the engine unsuccessful), but a day before the owner finished driving without any problem. So, what's wrong???

## Vehicle data:

|              |                                |
|--------------|--------------------------------|
| MARK, MODEL: | <b>BMW 530 DT E39</b>          |
| WIN:         | <b>WBADP81050GS91836</b>       |
| YEAR:        | <b>2000</b>                    |
| BODY TYP:    | <b>TOURING (5 d.)</b>          |
| COLOUR CODE: | <b>354</b>                     |
| KM AGE:      | <b>187.213</b>                 |
| ENGINE TYP:  | <b>30 6D1</b>                  |
| ENGINE NR:   | <b>29549483</b>                |
| DATA:        | <b>2926 ccm (diesel motor)</b> |
| EP:          | <b>142 kW/193 KM 4.000 rpm</b> |
| GEARBOX:     | <b>AUTOMATIC</b>               |

## Original worktask document:

**Avto Aktiv  
PSC Trzin**



Avto Aktiv d.o.o., PSC Trzin, Ljubljanska cesta 24, 1236 Trzin, tel.: 01/560 58 00

|                      |                       |
|----------------------|-----------------------|
| Reg. št.: LJ B0-62K  | Oznaka :              |
| Tip.....: 530D A TO  | Sprejem: 18.12.2006   |
| Dat. Reg:            |                       |
| KM.....: 187213      | Dat. opr. storit. oz. |
| Sprejel: B. Tehovnik | odpošiljanja blaga    |
| Šasija GS91836       | 18.12.2006            |

|                      |                    |                       |
|----------------------|--------------------|-----------------------|
| 00-1201-024939-36127 | Valuta: 30 dni     | N. plač.: Gotovina    |
| DELOVNI NALOG        | Naročilo 525849-38 | Kupec 24939           |
|                      |                    | št. dok. 36127        |
|                      |                    | Datum dok. 18.12.2006 |
|                      |                    | Stran 1               |

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| Poz | DV/K-št | Opis  | kol/Tm |     |
|-----|---------|---|--------|-----|
| 1   | 1199000 | KONTROLA MOTOR TEŽKO VŽGE ČE JE V<br>REZ. MALO GORIVA | -> 38  | .00 |

  

| A-Pos | FG    | DV-št | Opis  | Količina/DV | Cena  | Opomba |
|-------|-------|-------|-------|-------------|-------|--------|
| ..... | ..... | ..... | ..... | .....       | ..... | .....  |

|          |       |
|----------|-------|
| Naročnik | Datum |
| b        | ( )   |

Podjetje: Avto Aktiv d.o.o., Cesta v Mestni log 88a, 1000 Ljubljana  
 Transakcijski račun: 06000-0517119909 pri Banki Celje d.d.  
 Matična številka: 1353829, ID številka za DDV: SI98014765  
 Cene veljajo na dan vgradnje nadomestnega dela. Zamenjane nadomestne dele naročnik prevzema ob prevzemu vozila, oziroma ob vročitvi računa, sicer bodo uniženi. Rač. in le. potrebno poravnati pred prevzemanjem vozila, razen v primeru medsebojnega nihanja stroškov. Vsi ostali pogoji so navedeni na info tabli

All teams, please take your procedure how to find a mistake. AUTO-LJUBLJANA team will tell who find/who doesn't find a true mistake. Finally all teams can take financial calculation of this repair.

## TEAM SOLUTIONS

AUTO-CELJE:

Check operation of electric starter motor for engine start. Check battery voltage under load. Check the electrical wiring from the battery to the starter motor. Check the operation of the main start switch for start the engine and also check the fuses.

Best regards, Simon-Auto team Celje

Hello,

- battery voltage is (still) OK
- the wiring battery-starter is OK,
- main start switch is OK,
- fuses are all OK.

So: I checked all this, but starter turns the engine and it doesn't start running anymore. If we continue, the battery will become empty.

Any more ideas?

Nice day, Primož AUTO LJUBLJANA

Hello!

Check the pressure from the fuel pump in the tank and pressure regulator, which takes care of the systemic pressure. If the pressure is OK then check sensor on the high-pressure pumps and check that the feed intake pipe for the fuel does not leave it, so if air entering in the pipe then engine could not start. The air bubble can then cause problems. Check all the joints from the tank to the pump. Problem also could be the fuel filter.

I hope you will successfully solve the problem! David, Auto CELJE

Hello David!

You've got it!!!

When we check fuel pressure from fuel pump in the tank, we see that fuel pump sometimes work and some times not. We check voltage on pump connection and it is O.K., so we change the pum pand the car started at once.

**You find a mistake, the car is running now, so this task is finished.**

Good bye,

Primož AUTO LJUBLJANA

AUTO-MIKKELI:

Hello David!

You've got it!!!

When we check fuel pressure from fuel pump in the tank, we see that fuel pump sometimes work and some times not. We check voltage on pump connection and it is O.K., so we change the pum pand the car started at once.

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Good bye,

Primož AUTO LJUBLJANA

AUTO-TAMPERE:

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When we check fuel pressure from fuel pump in the tank, we see that fuel pump sometimes work and some times not. We check voltage on pump connection and it is O.K., so we change the pum pand the car started at once.

**You find a mistake, the car is running now, so this task is finished.**

Good bye,

Primož AUTO LJUBLJANA