

Competitor Instructions – Automobile Technology

Competitor Name	Competitor No	Task
.....	F

Manual Transaxle

Competitor Instructions

Task F	Transmission
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Familiarization Time	5 minutes
Task Duration	55 minutes
Total Time	60 minutes

Marking Summary		
Section		Possible Mark
1.	Preparation	100
2.	Disassembly Gear Box	250
3.	Assembly Gearbox	250
4.	Transmission Test	200
Task Total		800

You are required to

- Observe occupational health & safety standards
- Only ask necessary questions
- Not speak to the public while competing
- Comply with Experts instructions
- Ensure Competitor Number on all forms
- Use appropriate tools and procedures
- Complete all instructions on the next page

Remark: Suzuki Esteem SF 413

Competitor Name	Competitor No	Task
.....	F

Transaxle Instruction

1.	Car does not move in 1 positions Find out and rectify the fault on the Transmission. Fill in the report sheet.
2.	Disassemble and Assemble the manual transmission on stand.

Form 5 – Automobile Technology

Competitor Name	Competitor No	Task	Marking Scale
		F	Transmissions

Marking Summary

Section	Possible Mark

Section		Possible Mark	Actual Mark
1.	Preparation	100	
2.	Disassembly Gear Box	250	
3.	Assembly Gearbox	250	
4.	Transmission Test	200	
Task Total		800	

Time Keeping

Familiarization		Competition		Breaks			
Start		Start		Start			
Stop		Stop		Stop			

Experts Signatures

1	2	3	4

Competitor Name	Competitor No	Task	Marking Scale
		F	Transmission

1.	Preparation	Max	Actual	Comments
1.1	Use workshop manual	10		
1.2	Check all equipments	10		
1.3	Check all instructions	10		
1.4	Select the correct test equipment	15		
1.5	Use logical working procedure	10		
1.6	Proper tools handling	15		
1.7	Clean up the working area	10		
1.8	Clean up tools and equipment	10		
1.9	Clean up the test models	10		
Sub-Total		100		

2.	Transmission test	Max	Actual	Comments
2.1	Transmission working properly at all position	100		
2.2	Rectify the faults	100		
Sub-Total		200		

3.	Disassembling MT Gear Box (on benz)	Max	Actual	Comments
3.1	Use workshop manual	5		
3.2	Remove Sub Assy Extension Housing	5		
3.3	Remove the clutch housing	5		
3.4	Remove Sub Assy Shift Lever shaft 1.	5		
3.5	Remove output shaft Assy	5		
3.6	Release Gear Shift Fork shaft No.3	10		
3.7	Remove Gear Shaft Fork No.1	10		
3.8	Remove Gear Shaft Fork No.2	10		
3.9	Remove Reserve shift arm	10		
3.10	Remove Plat Shift Interlock	10		
3.11	Remove Sub Assy Reverse Idle Gear	10		
3.12	Remove Locker Plate Bearing	10		
3.13	Remove input shaft Assy	5		

3.14	Remove select Inner Lever	10		
3.15	Remove seal oil transmission box	10		
3.16	Remove seal oil extension	10		
3.17	Remove Gear Oil Plate	10		
3.18	Remove counter 3th gear	10		
3.19	Remove counter 5th gear	10		
3.20	Remove Input shaft front bearing	10		
3.21	Remove Hub Sleeve No.2	10		
3.22	Remove Hub Sleeve No.3	10		
3.23	Remove 1nd gear	10		
3.24	Remove 2nd gear	10		
3.25	Remove out put shaft center bearing	10		
3.26	Remove Hub Sleeve No.1	5		
3.27	Remove Bearing Input Shaft	5		
3.28	Remove Ring Synchronizer No.1	5		
3.29	Remove Radial Ball Bearing	5		
3.30	Remove Drive Gear Speedometer	5		
3.31	Remove Output Shaft Center Bearing	5		
Sub-Total		250		

4.	Assembling MT Gear Box (on Stand)	Max	Actual	Comments
4.1	Install Hub Sleeve No.1	5		
4.2	Install out put shaft center bearing	5		
4.3	Install 2nd gear	5		
4.4	Install 1st gear	5		
4.5	Install Hub Sleeve No.3	5		
4.6	Install Hub Sleeve No.2	5		
4.7	Install counter 5th gear	5		
4.8	Install counter 3th gear	5		
4.9	Install Out Put Shaft Center Bearing	5		
4.10	Install Drive Gear Speedometer	5		
4.11	Install Radial Ball Bearing	5		
4.12	Install Ring Synchronizer No.1	5		
4.13	Install input shaft bearing	5		
4.14	Install Gear Oil Plate	5		
4.15	Install Seal Oil Extension Housing	10		
4.16	Install Seal Oil Transmission Box	10		
4.17	Install Select Inner Lever	10		

4.18	Install Input Shaft Assy	10		
4.19	Install Lock Plate Bearing	10		
4.20	Install Sub Assy Reverse Idle Gear	10		
4.21	Install Plate Shift Interlock	10		
4.22	Install Shift Arm Reverse	10		
4.23	Install Gear Shift Fork Shaft No.2	10		
4.24	Install Gear Shift Fork Shaft No.1	10		
4.25	Install Gear Shift Fork Shaft No.3	5		
4.26	Install Output Shaft Assy	5		
4.1	Install Hub Sleeve No.1	5		
4.2	Install out put shaft center bearing	5		
4.3	Install 2nd gear	5		
4.4	Install 1st gear	5		
4.5	Install Hub Sleeve No.3	5		
4.27	Install Transmision Case	5		
4.28	Install Sub Assy Shift lever Shaft No.1	5		
4.29	Install Limiter shaft reverse	5		
4.30	Install Reverse Restrict Pin Holder	5		
4.31	Install Sub Assy Select lever shaft	5		
4.32	Install Bearing Output shaft	5		
4.33	Install silinger oil output shaft	5		
4.34	Install Transmision Magnet	5		
4.35	Install Sub Assy Extension Housing	5		
4.36	Install Drain Plug	5		
4.37	Install Fill Oil Plug	5		
4.38	Install Sub Assy Drive gear Speedometer	5		
4.39	Test the transmission operation	10		
Sub-Total		250		

Competitor Report Sheet – Automobile Technology

Competitor Name	Competitor No	Task
		F (MT)

Report Sheet

1. Transmission Test

Are the Transmission have problem ? Yes No

2. List of bad condition parts

Item No.	Bad condition parts	Remarks
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		