



Gerotek Test Facilities a Division of Armscor Business (Pty) Ltd, 7413, Pretoria 0001

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CREATED BY: [Name]
 TEST NO: [Number]

TEST CERTIFICATE

Company : Easy Rider Controls
Address : 11 Tutor Street, Doksburg West, 1409
Telephone no. : 011 826 5695
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Attention : Mr. Louis Nortje
Remarks : None
Project Number : 72CM3339-02
Test Item : Easy Rider Control
Serial no. : None
Test specification : Subjective ride and evaluation questionnaire (Page 3)
Date Received : 2004-08-12
Test Completed : 2004-08-12

Test Equipment :

Equipment	Lab No.	Calibration Certificate No.
Mercedes Benz C180	N/A	N/A

Summary of Tests :

A subjective evaluation was performed on the Easy Rider Control using a control group of eight (7 male, 1 female) drivers. All the drivers had no previous experience of driving with a control unit for the disabled. An evaluation sheet was provided with instructions for driving and inspections.

Summary of Results :

The results (averages) were captured on the evaluation sheet on page 2 of this report. The unit was rated excellent by all the participant drivers.

TESTING PERFORMED BY:

RUAAN VAN DEN BERG
 TEST MANAGER

13-08-2004

Date

APPROVAL:

J.P. SMET
 EXECUTIVE MANAGER:
 TECHNICAL SERVICES

2004-08-13

Date



Subjective Evaluation of Easy Rider Universal Hand Controls

<i>Setting-up of Control Mechanism</i>		
		Result (Ave)
Workmanship		4.5
Instructions (Information supplied)		4.8
Ease of installation as per instruction.		4.9
Aesthetics (Compared to other systems)		4.5
Packaging (Size and construction of box)		4.9
Ease of storage (Size of system)		4.9
Transportation of system.		4.9
<i>Driver Evaluation</i>		
<i>Ergonomics / Layout</i>		
General	Time getting acquainted with controls	4.3
	Ease of operating other controls i.e. handbrake, gear lever, wipers, indicators etc.	3.9
Brake lever	Response and reaction time	4.5
	Force required to stop the vehicle	4.3
	Control position	3.9
	Smoothness and ease of operation	4.0
Accelerator lever	Response and reaction time	4.5
	Control position	4.3
	Force required to accelerate vehicle	4.3
	Smoothness and ease of operation	4.6
<i>Handling</i>		
Brakes	Normal braking	4.9
	Emergency braking from 60 km/h	4.5
Acceleration	Pull away from standstill	4.9
	At incline	4.8
	Accelerating from 60 km/h	4.8
Steering	Cornering at 40 - 60 km/h	4.5
	Turning left and right (Stop street or traffic lights)	4.5
	Hilly terrain	4.5
<i>Recommendations</i>		
<p>The general comment was that the ease with which other controls (indicators) can be operated is hampered, especially under braking, as can be seen from a returned result of 3.9. It should, however, be mentioned that the Mercedes Benz's controls were on the left hand side of the steering column and when the Easy Control was rotated with the lever on the right hand side, the drivers commented that it made a huge difference, improving the ease of use of the indicator on the left hand side.</p>		



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AMCOR BUSINESS (PTY) LTD
GEROTEK TEST FACILITIES

Subjective Evaluation of Easy Rider Universal Hand Controls

Easy Rider Control Evaluation

Complete the following subjective evaluation keeping the following in mind:

The mechanism should be evaluated using a score from 1(Poor, difficult, slow) to 5(Excellent, easy, fast).

The controls should be evaluated from the perspective of a non-disabled person.

Keep in mind that the system will take a while getting used to.

The system must be re-installed each time a new driver takes to the car.

The vehicle is not under test and shortcomings of the vehicle should not influence the result.

The vehicle should be operated under normal driving conditions.

<i>Settings-up of Control Mechanism</i>					
Workmanship	1	2	3	4	5
Instructions (Information supplied)	1	2	3	4	5
Ease of installation as per instruction	1	2	3	4	5
Aesthetics (Compared to other systems)	1	2	3	4	5
Packaging (Size and construction of bag)	1	2	3	4	5
Ease of storage (Size of system)	1	2	3	4	5
Transportation of system	1	2	3	4	5
Driver Evaluation					
Ergonomics / Layout					
General					
Time getting acquainted with controls	1	2	3	4	5
Ease of operating other controls i.e. handbrake, gear lever, wipers, indicators etc.	1	2	3	4	5
Brake lever					
Response and reaction time	1	2	3	4	5
Force required to stop the vehicle	1	2	3	4	5
Control position	1	2	3	4	5
Smoothness and ease of operation	1	2	3	4	5
Accelerator lever					
Response and reaction time	1	2	3	4	5
Control position	1	2	3	4	5
Force required to accelerate vehicle	1	2	3	4	5
Smoothness and ease of operation	1	2	3	4	5
Handling					
Brakes					
Normal braking	1	2	3	4	5
Emergency braking from 60 km/h	1	2	3	4	5
Acceleration					
Pull away from standstill	1	2	3	4	5
At incline	1	2	3	4	5
Accelerating from 60 km/h	1	2	3	4	5
Steering					
Cornering at 40 – 60 km/h	1	2	3	4	5
Turning left and right (Stop street or traffic lights)	1	2	3	4	5
Hilly terrain	1	2	3	4	5
Recommendations					

Installation and Route Instruction

- 1) The system should be installed as per instruction provided.
- 2) Fit controls and spend a few minutes getting acquainted with system while doing the ergonomic evaluation.
- 3) Drive around on Gerotek's access roads in order to become familiar with the system. Find a way of restraining your legs in order not to use them e.g. Hold them in front of you.
- 4) Follow route from Gerotek technical area to Ride and Handling Track.
- 5) Maximum speed on track should not exceed 60 km/h.
- 6) Perform an emergency brake test from 60 km/h on flat straight section.
- 7) Follow back to flat stop sign, stop and perform an incline pull away.
- 8) Use remainder of the track to evaluate the system on hilly, negative camber, spiral-in, spiral-out, and etc. sections.
- 9) Return to technical area.
- 10) Disassemble the control and complete remainder of subjective evaluation.