

FAILURE MODE AND EFFECTS ANALYSIS (FMEA)

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Subsystem/Name: DC motor

Model Year/Vehicle(s): 2000/DC motor

P = Probabilities (chance) of Occurrences

S = Seriousness of Failure to the Vehicle

D = Likelihood that the Defect will Reach the customer

R = Risk Priority Measure (P x S x D)

Final Design: 31/5/2000

Prepared by:

Reviewed by: Chris

FMEA Date (Org.): 27/4/2000 (Rev.) 31/5/2000

1 = very low or none

2 = low or minor

3 = moderate or significant

4 = high

5 = very high or catastrophic

No.	Part Name Part No.	Function	Failure Mode	Mechanism(s) & Causes(s) of Failure	Effect(s) Of Failure	Current Control	P.R.A.				Recommended Corrective Action(s)	Action(s) Taken
							P	S	D	R		
1	Position Controller	Receive a demand position	Loose cable connection	Wear and tear	Motor fails to move		2	4	1	8	Replace faulty wire.	
			Incorrect demand signal	Operator error	Position controller breakdown in a long- run		4	4	3	48	Q.C checked. Intensive training for operators.	

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2	Drive	Receive speed demand	Incorrect speed demand being received	Fault in position controller's output	Extensive damage to the machine		2	4	4	32	Indicator and Audile warning	
		Measures actual speed	Incorrect speed reading	Wear and tear	Extensive damage		4	4	5	80	Voltmeter Improve check procedures	

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3	Motor	Provides voltage signal	Signal loss	Faulty leads	Unstable control loop Endanger operators Serious damage		3	5	4	60	Durability test on leads	
		Produce final product	Defects in products	Incorrect motion	Customers complain Faulty products are identified		4	5	5	100	QC checked Increased staff in inspection Set up customer complain department	