RACING CAR MANUFACTURERS

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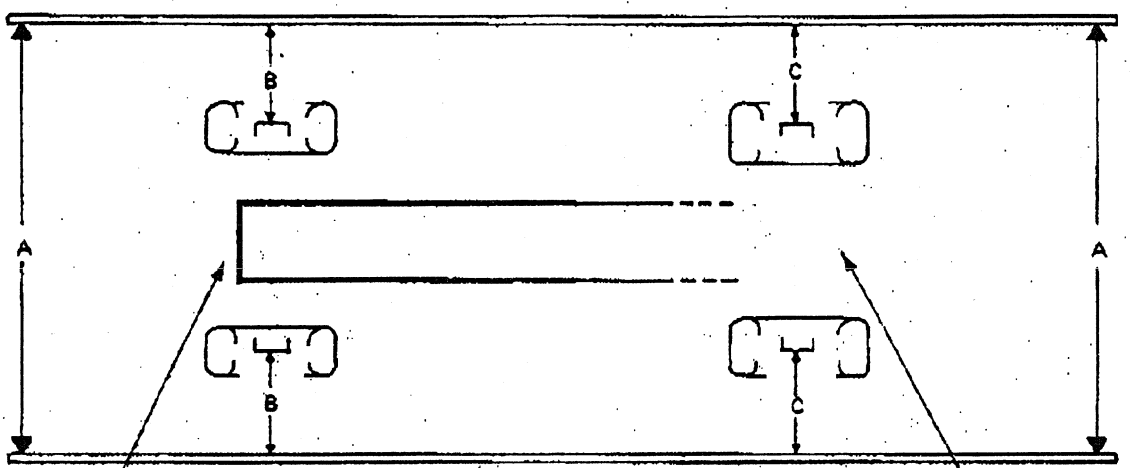
Van Diemen international racing service ltd

Parallel Bar Set Up (approx. hub height)
For Setting Wheel Alignment

Date Year 1981



SPECIFICATION: RF81 FF1600			
FRONT	*REAR*		
6°	N/A	CASTOR	
3/4°	5/8°	CAMBER	
1/16" EACH RIM	1/16" EACH RIM	TOE IN	1/8" OVERALL
2 1/8"	2 3/8"	RIDE HEIGHT (With Driver & 2 Gals. of Fuel)	
SET AT 1 1/8"	SET AT 3 3/4"	ANTI ROLL BAR SIZE	(AS FITTED)
7"	9 1/2"	SPRING LENGTH	
250 lb/in	145 lb/in	SPRINGS	
16 lb/in²	20 lb/in²	TYRE PRESSURE DRY	TYPE – DUNLOPS
25 lb/in²	25 lb/in²	TYRE PRESSURE WET	TYPE – DUNLOPS
N/A	N/A	WINGS	
40 lb/ft	40 lb/ft	WHEEL NUT TORQUE	
120 lb/ft	180 lb/ft	INBOARD NUT TORQUE (Set before wheel nut)	
2 TURNS	1 3/4 TURNS	DAMPERS SPAX	
5/8" ø	0.7" ø	BRAKE MASTER CYLINDERS SIZE	
0.7" ø	–	CLUTCH MASTER CYLINDER SIZE	
9/16"	–	RACK CLEVIS (end of rack to back face of clevis)	
N/A	28 3/4" 30 7/16"	RADIUS ROD LENGTHS TOP & BOTTOM	

VAN DIEMEN 81.

CHASSIS
Multi-Tubular frame utilizing round and square tubing with riveted aluminium undertray to impart greater plan stiffness with extensive bracing in the cockpit also incorporating a roll over bar hoop in the dashboard built to F.3 standards and designed to give more accident and driver safety.

FRONT SUSPENSION.
Featuring inboard suspension using a fabricated top rocker level which ensures a high degree of strength (no bending over kerbs) but also is designed to break on impact with minimum chassis damage. It is also mounted on needle roller bearings to ensure total free movement.

Front lower swishbone is triangulated with a built in easy camber adjustment.

Front Upright is a Van Diemen purpose built fabrication complete; with fixed steering arm and incorporated double row angular contact bearing with a live front axle making an extremely rigid and free running assembly.

REAR SUSPENSION.
This features conventional triangulated bottom wishbone with toe in adjustment with single top link. Left and Right hand threaded for easy camber adjustment and 4 radius rods for top curve adjustment.

The rear upright is of magnesium strength consistency as used in F.2 and F.3.

BRAKES.
Lockheed brakes are fitted front and rear with new 9¾" diameter disc at the front, with rear inboard brakes fitted as standard to the Mk. 9 Hewland Four Speed Gearbox.

BODY.
Removable, glass fibre one piece top section and engine cover with removable nose section after extensive tests. It has been designed to give minimum drag and ultimate stability.

SAFETY.
The dash and main roll over bar hoops are to full FIA and SCCA specifications. Particular attention has been concentrated in the foot well area using sheet metal plate for maximum protection for front and side impact.

COOLING.
One front mounted radiator.

GENERAL.
As standard the car is fitted with 6 point harness — mirrors — formed fibre glass seat — oil cooler — Varley Battery. 10 standard choices of colour. Built in fire system.

The Van Diemen RF81 is a natural development of the all conquering RF80. The new front suspension and bodywork giving more straight line speed and new chassis configuration and change in front geometry improving braking, traction, slow corner turn and fast corner stability scrubbing off less speed.

DIMENSIONS:

Front Track	56"	Overall length	12' 3"
Rear Track	56"	Overall width	64"
Wheel Base	95"		

Agents:

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Switzerland/Austria: Alois Schnellmann.
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SCOTT

DATE: Apr 23, 1999

FROM: Ken Gordon

TO: Paul Rallegh/ 81 Van Dieman

	Front	Rear	Comment
Toe In	1/16-1/8	1/16-1/8	less is better for straight line speed more is better for corners and straight line stability.
Castor	3 1/2-4 1/2 Deg.	0 Bump steer	more front castor=quicker turning
Camber	1-2Deg Neg.	1 Deg. Neg.	see toe in comments
Springs	300-400	350-500	rear start 100 lbs higher than front and maintain that relationship
Ride Height	1 3/4-2 inch	1/2" more	rear must be 1/2" higher than front measure rear where shown below
Tires	14-16 PSI	16-18 PSI	soft compound Goodyears

Suggestions: The lower the better. The front skid blocks should just kiss the ground under severe threshold braking. Tire pressures outside the above range are a waste of time and will not help. Sway bars and shocks should be set at the dead center point of their adjustment ranges as a starting point, and should not be touched while you are arriving at the correct shock, spring, and suspension settings. Doing this ensures that when a handling balance is found, the adjustability of the shocks and springs will allow a fine tuning range at a given track. If you start with the front sway bar on full soft, etc etc, you will never have any tuning range.

Faster=stiffer=lower=newer tires

Slower=softer=higher=older tires

Hope this helps.