

Engine & Cooling	Fuel	Ignition	Electrical	Running gear	Torque settings	Capacities	Notes & Illustrations
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# Automotive Technical DATA BOOK

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HELP

## Engine and cooling system Prairie 2.0 (M11) 1990 to 1992

Type		CA20S SOHC
Capacity (cm <sup>3</sup> ) / number of cylinders		1974 / 4
Compression ratio / pressure	bar	9.4 / ≥8.8
Oil pressure	bar	[3.3 to 4.6]
Oil temperature	°C	80
Valve clearance - inlet	mm	0.30 H
Valve clearance - exhaust	mm	0.30 H
Firing order		1-3-4-2
No 1 cylinder position		TBE
Thermostat opening temperature	°C	88
Radiator cap pressure	bar	0.78 to 0.98

## Fuel system Prairie 2.0 (M11) 1990 to 1992

Idle speed - manual [auto]	rpm	750±100
Fast idle speed - manual [auto]	rpm	2500 to 2800 [3100 to 3400]
CO @ idle speed [3000 rpm] - see page VI	%	1.0±0.5
HC @ idle speed [3000 rpm] - see page VI	ppm	≤1200
CO <sub>2</sub> @ idle speed [3000 rpm] - see page VI	%	-
O <sub>2</sub> @ idle speed [3000 rpm] - see page VI	%	-
Carburettor / fuel injection		Hitachi
Type / ref		DCR342-141 [-143] <sup>1</sup>
Main jet / needle		103, 155
Injection pressure	bar	-
Pump pressure	bar	0.20 to 0.27
Octane rating	RON	95[E 95 RON]

## Ignition system Prairie 2.0 (M11) 1990 to 1992

Type		Electronic
Ignition coil		Hanshin. Hitachi
Primary resistance	ohms	0.8 to 1.0
Ballast resistor	ohms	-
Voltage - Tmnl 15(+) to earth	V	-
Distributor		Hitachi
Points gap (air gap)	mm	[0.30 to 0.50]
Dwell angle	° (%)	-
Condenser capacity	µF	-
Rotation		Anticlockwise
Ignition timing - basic [static	° Crankshaft @ rpm	4±1 BTDC @ idle
V = Vacuum  NV = No Vacuum		NV
Total ignition advance	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	-
Centrifugal check.	° Crankshaft @ rpm	0 to 1 @ 1166 to 1760
	° Crankshaft @ rpm	-
	° Crankshaft @ rpm	22 to 26 @ 4600
Vacuum range check	mbar	89 to 440 <sup>3</sup>
Maximum vacuum advance	° Crankshaft	23. 4x4 + AT: 18
Spark plugs		NGK/Champion
Type		BCPR6ES / RC7YC
Electrode gap	mm	0.80 to 0.90

## Electrical system Prairie 2.0 (M11) 1990 to 1992

Battery	V / CC / RC	12 / 60Ah
Alternator voltage / full load current / engine rpm		14.4 to 15.0 / 70, 80 / 2500
Starter motor current / voltage - cranking	A / V	-
- locked	A / V	-

## Running gear Prairie 2.0 (M11) 1990 to 1992

<b>Brakes -</b>		
Front (min. friction material thickness)	mm	2.0
Rear (min. friction material thickness)	mm	1.5

<b>Tyres</b>		
Saloon	Size	-
Estate / Van	Size	195/65x14:195/70x14
Pressure - front / rear - Saloon	bar	-
- Estate / Van	bar	1.9 / 1.9

## Front suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	+0.2 to 4.2 <sup>4</sup>
Camber		-30' to +1° N/A <sup>5</sup>
Castor		-20' to +1°10' N/A <sup>6</sup>
King pin inclination		+13°50' to 15°20' N/A <sup>7</sup>

## Rear suspension / wheel alignment

Toe-in (+) / Toe-out (-)	mm [°]	-2.0 to -6.0 <sup>8</sup>
Camber		-50' to +40' <sup>9</sup>

## Torque wrench settings Prairie 2.0 (M11) 1990 to 1992

Cylinder head - stage 1	Nm	29
- stage 2	Nm	78
Cylinder head - stage 3	Nm	Loosen, then 29
- stage 4	Nm	74 to 83
Big-end bearings	Nm	32 to 36
Main bearings	Nm	44 to 54
Clutch cover	Nm	22 to 29
Flywheel [driveplate]	Nm	98 to 108
Front hubs	Nm	235 to 314
Rear hubs	Nm	186 to 255 <sup>100</sup>
Wheel nuts / bolts	Nm	98 to 118
Spark plugs	Nm	20 to 29

## Capacities Prairie 2.0 (M11) 1990 to 1992

Engine oil & filter	litres	3.6
Gearbox - 4-speed [5-speed]	litres	4.7. Transfer: 1.6
Automatic transmission - refill	litres	7.4
Final drive	litres	Rear 4x4: 1.8
Cooling system	litres	5.9
Fuel tank	litres	65. 4x4: 60

## Notes and Illustrations

<sup>1</sup>4x4: DCR342-142 [-144]

<sup>3</sup>4x4 + AT: 89 to 373

<sup>4</sup>4x4: 0 to +4.0

<sup>5</sup>4x4: -35' to +55' N/A

<sup>6</sup>4x4: -25' to +1°5' N/A

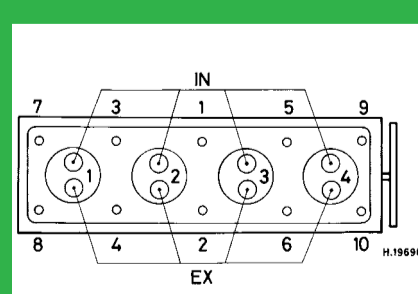
<sup>7</sup>4x4: +13°15' to 14°45' N/A

<sup>8</sup>4x4: -0.3 to -4.3

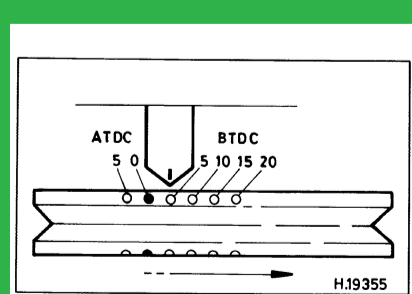
<sup>9</sup>4x4: -40' to +50'

<sup>100</sup>4x4: 235 to 314

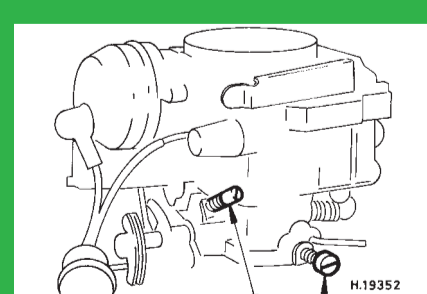
1: Idle speed    2: CO / Mixture



1974 cm<sup>3</sup>



1974 cm<sup>3</sup>



Hitachi DCR342