



**We compare the Scamp and the Fellow**

# TWO LITTLE 'UNS

**Two tiny tots from Japan — the Honda Scamp and the Daihatsu Fellow — lose on noise but win in most other fields, including economy.**

**T**HE power race is on. And we don't mean those snarling V8 horses that are giving State Transport Ministers sleepless nights. The race is to see just who can drag the greatest bhp out of 360 ccs. Top contenders for the 360 power race in Australia are the Tiny

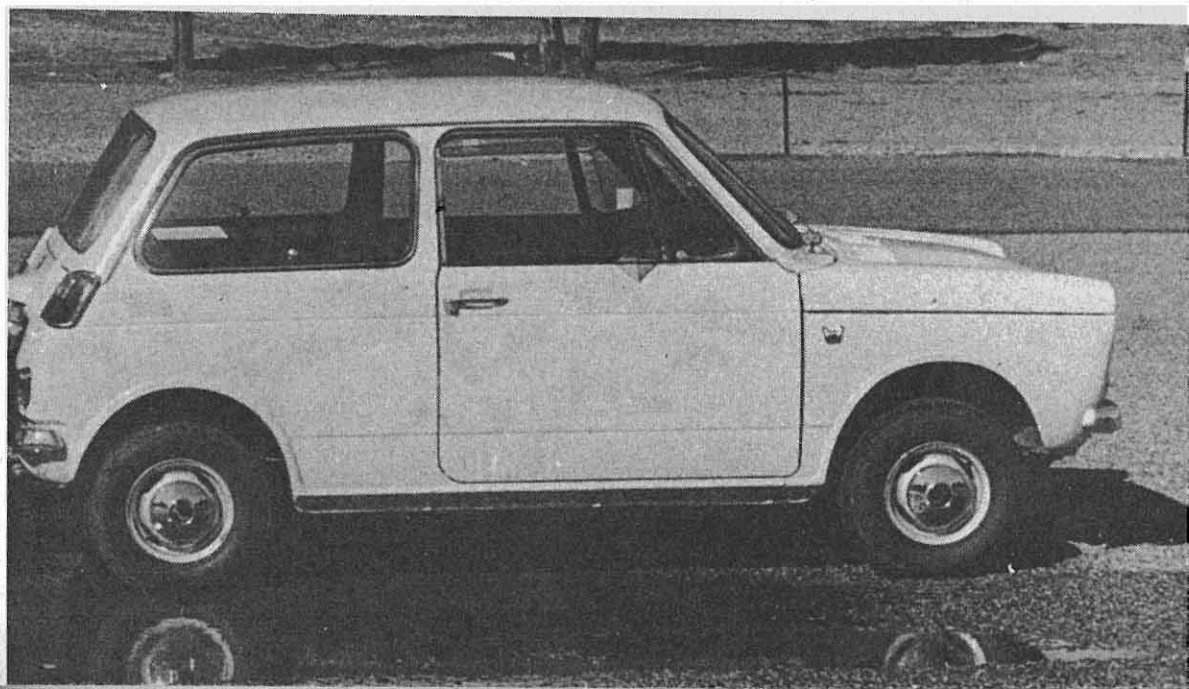
Two — the Honda Scamp and the Daihatsu Fellow. The Honda we tested back in **WHEELS**, June, with preliminary impressions of the Fellow appearing two months ago. With a general rise in new car prices of late, these 360s could well buzz their way on to the market to provide the cheapest practical transport around.

To sort them out we took a long, hard look and a long, hard drive over the same test course, taking in all types of conditions with two drivers swapping at regular intervals to bring all facets of the cars' performances under close scrutiny.

Both cars were supplied quite standard and performance figures were taken with both cars together over the same route and in the same conditions. The Honda came from the NSW Distributor, Bennett-Honda, at Mascot, and the Daihatsu Fellow from Gossen Industries of Rockdale.

## ENGINES

A large dose of ingenuity is stirred into the design ingredients of both. The Honda has had the greater success in power, but loses a bit on noise. The power unit is a single overhead cam, four stroke, two cylinder with air-cooling. The



Fellow runs a two-cylinder, water-cooled two stroke, the water cooling greatly helping to reduce the noise level, which is considerably deafening at high rpm — an inevitable legacy of any small engine producing such power.

For a comparison in engine efficiency, the Honda draws close to 90 bhp-per-litre compared with say, a Falcon GTV8 which produces just 45-bhp-per-litre. On the same principle, if Honda was to take over the Holden Monaro 327 and build it to the same efficiency there would be no less than 500 bhp! The Honda generates its high noise level not only from the lack of a water-jacket-sound-insulation but also from the overhead camshaft valve gear and high rpm — even over the Fellow which produces its peak at 5500 rpm compared to the Honda's 8500 rpm. This Honda, though, was quieter than its noisy brother we tested originally.

The twin-cylinder Honda follows the east-west Mini layout but air-cooling has necessitated a "north-south" fan to produce sufficient air flow. The cooling is further aided by placing the engine very close to the grille and having the exhaust ports of the cross-flow cylinder head on the forward side to make most use of any ram cooling effect. The cooling fan (between the engine and firewall) is driven by a belt from a crankshaft pulley with the belt guided around the engine by jockey pulleys. The fan is hidden by a shroud which hinders quick fan belt replacement but is really no worse than the Mini set-up. The engine is fed by a single-choke Keihin carburettor with variable choke. Engine life is cared for by roller bearings. Although the rollers are not small

enough to qualify as needle rollers, they nevertheless do look after the high crank speeds.

While the Honda's engine is buried under a mass of cast alloy and cooling fins, the Fellow's looks almost conventional, with two in-line, north-south cylinders proudly displaying their microscopic spark plugs atop each; an entirely different cup of saki! The saki, in fact, is not the petrol-oil mix which is the bugbear of most two-strokes but falls into line with the latest trends in two-stroke motor cycles of force feeding the cylinders with oil from a separate tank. One can thus quite gamely drive in to fill up without risking a smirk from the attendant and the grins of on-lookers as he stirs up a third-pint-to-a-gallon mix. The oil tank is carried in the engine compartment above the right guard. A dipstick gives the level while a warning light on the dash eliminates the risk of running the tank dry unwittingly. The oil tank not only eliminates the mix process (in actual fact a small amount of oil is still added during running-in for extra protection) but also gives exact metering of oil needed, keeps the wisp of blue smoke from the tailpipe to a minimum and reduces any plug oiling — the Fellow fires

up very easily from dead cold or after the hardest performance testing.

#### TRANSMISSIONS

Both use four-speed gearboxes, the Fellow running the conventional road with syncromesh cones on second, third and fourth. The Honda's gearbox follows the Mini plan of being housed in the sump and using the common engine oil. Drive is taken from the engine by two roller chains to a conventional clutch which feeds power through to the two-shaft gearbox. Gear engagement is by sliding dog clutches which with the small centrifugal loadings works well, even for snap down-changes. We commented in our first test of our dislike for the change. This is mainly caused by the hanging of the change lever under the fascia which gives an unnatural movement, together with the catch of the dog engagement and the lost motion in the lever. On the other side, the Fellow's column shift is excellent. The lever is short and positive with the bands working most effectively for fast, grate-free shifts. Selecting non-synco first is no trouble to those with any double de-clutching experience but as first is quite often needed for steep work on the run, synco would be apprecia-

*Right: Going. Fellow shows more body roll than the Honda when cornered hard, with the swing axes producing alarming rear-wheel angles.*

*Below: Coming. Spray flies high as the Honda bursts through a puddle. It could be the answer to the price of basic transport.*



*Boots are equivalent in load size but Fellow has high loading lip and has to accommodate spare wheel. Both have good, big reversing lights.*

ted. The Fellow's gearbox is quite conventional with power transferred through a mechanical linkage clutch to a separate gearbox housing. Where the Honda uses double universal drive shafts off the rear of the combined gearbox-transaxle, to the front wheels, the Fellow has a conventional drive shaft to a rear-mounted differential with power taken by swing half-shafts to the rear wheels.

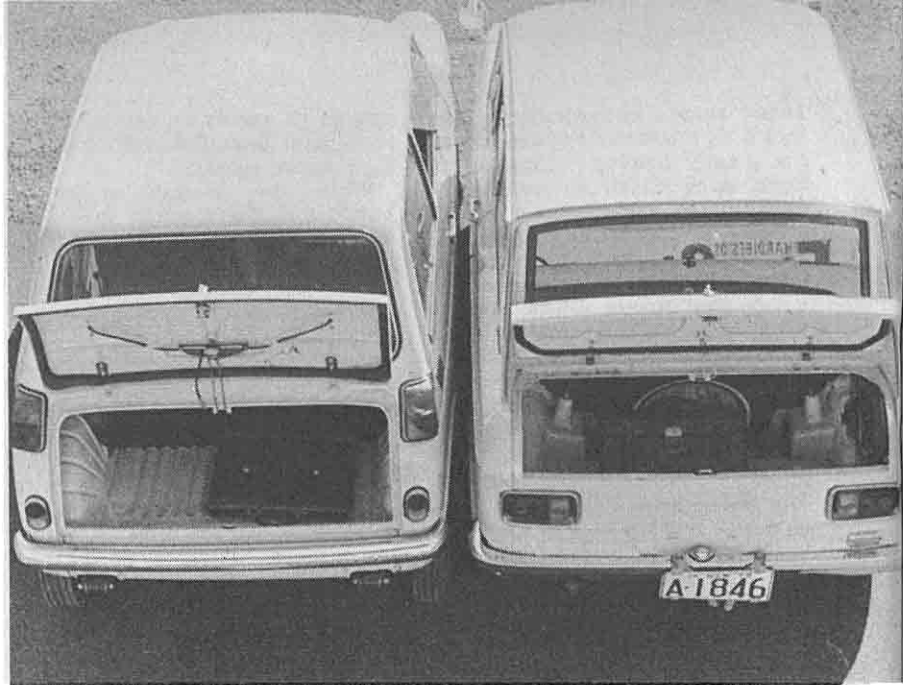
#### PERFORMANCE

As the Honda is both lighter and more powerful it has a big edge in performance. In fact, stepping from the Fellow to the Honda gives one a power complex and you rapidly become carried away with the storming 31.6hp of the Honda. While the Fellow does stay with the Honda in passing flexibility — due to its lower final drive gearing — the Honda has a good edge in top speed, straight line acceleration and economy.

#### HANDLING AND BRAKING

Both are a let-down in the handling department. Unlike the Mini neither of the 360s has anywhere near the stability or road-holding. Their individual handling instability however stems from directly opposed designs in either case. The Honda has the engine mounted as far forward as possible with spare wheel, battery and jack all in the same compartment. The weight bias to the front is therefore considerable. Combined with a proportionately narrow track and a dead-beam axle hung on simple leaf springs at the rear, the Honda very easily picks up the inside wheels and generally develops alarming angles when cornered hard. The Fellow has much the same problem of having a small track and high roll centre but does not have the same forward weight bias. In fact on paper the Fellow should be a good-handling vehicle but, as with the Fiat 500, the trailing arms at the rear are cantered so steeply to the longitudinal axis of the car, they accentuate the changing camber swing of the axle half-shafts which promotes rear-end loss of traction under even reasonably hard cornering. If in fact the rear wheels caught on a ridge or bump in the road while the car was in a rear-end slide, we feel the little Fellow would very easily fall over.

So in practice the Honda is a very heavy understeerer which, with only a 29-foot turning circle, makes it not particularly man-



oeuvrable for a small car. However for normal use the Honda is quite safe. The Fellow is far more a drivers' car and without the encumbrance of front-wheel drive is particularly light and manoeuvrable. Through our handling course at the Hardie-Ferodo Proving Ground we found the Fellow to be seconds quicker. If the Fellow is cornered hard the tail will break loose which, with such a small wheelbase, means the driver needs quick reaction to save a spin. However it takes some winding up to explore the Fellow's handling characteristics and only a maniac would ever find himself in trouble with the Fellow.

The Fellow is a better braked car. From 60 mph we recorded a stopping time of 3.8 secs for the Scamp, 3.0 for the Fellow; from 30 mph the Scamp managed 1.5 secs, the Fellow 0.9 secs, the last being an extraordinarily good time.

#### EQUIPMENT

Neither car could be said to be lavishly equipped. However the Honda does have a few more refinements than the Fellow and in general both are a lot better finished than the mini cars of five years ago. The Honda has through-flow ventilation which the Daihatsu sadly lacks. Both have lockable fuel fillers, the Fellow has exterior rear view mirrors which the Honda lacks. The Fellow sports power windscreen washers while the Honda relies on a slow-to-act plunger unit. The Honda has a speedo and fuel gauge but no temperature light or gauge. The second omission to our minds is of some magnitude with an air-cooled engine. Presumably Honda rely on the alternator light showing if the fan belt breaks. The Fellow sports both fuel and tem-

perature gauges. The rectangular headlights on the Daihatsu give a far stronger and better coverage of the road than the round units on the Honda.

#### RIDE AND COMFORT

The Honda undoubtedly has more room and with better shaped and better padded seats, is more comfortable. However the independent springing of the Fellow makes it ride better than the Scamp. The Scamp's front engine makes more cabin space and while four adults are possible in the Scamp (just!) the Fellow allows virtually no rear legroom with the front seat back — which is where anyone taller than 5 ft 7 in. will have it. Driving positions in both is most commendable and it takes a leaf right out of BMC's book to prove you can have fwd, a break-away steering column, and all the safety stuff that go with it and have a good driving position as well. The Honda does in fact have a double universal steering column so that the wheel can be where it is comfortable and the steering box where it is convenient to the engine layout. The gearlever of the Honda is particularly convenient but its action (it pivots on the underside of the fascia) seems unnatural for fast changes. The Daihatsu has an admirable set-up and the lever which is just slightly bigger than the indicator stalk can be flicked up and down — even with one hand still on the wheel.

To our minds the Honda is a bit noisy but a fine form of cheap transport which has used every last drop of ingenuity to produce an amazing amount of interior space for so small a car. The Daihatsu on the other hand loses on performance and space but wins in looks and character. #





## TECHNICAL DETAILS

# DAIHATSU FELLOW HONDA N360 (in brackets)

MAKE ... Daihatsu (Honda)  
MODEL ..... Fellow (N360)  
BODY TYPE ..... 2-dr sedan  
(2-dr sedan)  
PRICE ..... \$1398 approx  
(\$1397)

**FUEL CONSUMPTION:**  
Overall ..... 36.2 mpg (37.7 mpg)  
Cruising ..... 42-50 mpg (48-55 mpg)

**TEST CONDITIONS:**  
Weather fine. Surface hot mix bitumen. Load two persons. Fuel premium grade.

**SPEEDOMETER ERROR:**  
Indicated (mph) 30 40 50 60 70  
Actual 29.0 39.0 48.5 58.5  
(28.5) (38.5) (45.5) (66.5)

## PERFORMANCE

Piston speed at max bhp .... 1935 ft/min (3230 ft/min)  
Top gear mph per 1000 rpm ..... 7.0 mph (8.8 mph)  
Engine rpm at max speed ..... 9000 rpm (7700 rpm)  
Lbs (laden) per gross bhp (power to weight) ..... 49.5 (34.4)

**MAXIMUM SPEEDS:**  
Fastest run ..... 64.2 mph (72.2 mph)  
Average of all runs ..... 63.0 mph (69.3 mph)  
Speedometer indication fastest run, 64 mph (75 mph)  
In gears: 1st 17 (19), 2nd 33 (34), 3rd 47 (54),  
4th 63 (69) mph.

**ACCELERATION:**  
Through gears:  
0-30 mph ..... 8.1 (7.0) secs  
0-40 mph ..... 14.9 (12.5) secs  
0-50 mph ..... 26.5 (21.5) secs  
0-60 mph ..... (35.0) secs

3rd gear 4th gear  
20-40 mph ..... 10.3 (9.8) secs 18.9 (19.2) secs  
30-50 mph ..... (11.0) secs 23.0 (22.6) secs  
40-60 mph ..... (23.7) secs

**STANDING QUARTER MILE:**  
Fastest run ..... 26.0 (22.4) secs  
Average of all runs ..... 26.4 (23.2) secs

## SPECIFICATIONS

**ENGINE:**  
Cylinders ..... two in line — watercooled  
(two in line — aircooled)  
Bore and stroke ..... 62 by 59 mm (62.5 by 57.8 mm)  
Cubic capacity ..... 356 cc (354 cc)  
Compression ratio ..... (8.5 to 1)  
Valves ..... two stroke (single overhead camshaft)  
Carburettor ..... single downdraft (single downdraft)  
Power at rpm, 23 bhp at 5000 rpm (31 bhp at 8500 rpm)  
Torque at rpm ..... 25.3 ft/lb at 4000 rpm  
(21.7 ft/lb at 5500 rpm)

## TRANSMISSION:

Type ..... 4-sp, 2, 3, 4 syncro (4-sp constant mesh)  
Clutch ..... single dry plate (mechanical engagement)  
Gear lever location ..... column (under facia)  
Final drive ..... 5.28 to 1 (3.542 to 1)

## CHASSIS AND RUNNING GEAR:

Construction ..... monocoque (monocoque)  
Suspension front ..... wishbones, coils (strut coils)  
Suspension rear ..... trailing arms, coils  
(beam axle, leaf springs)

Shock absorbers ..... telescopic (telescopic)  
Steering type ..... rack and pinion (rack and pinion)  
Turns 1 to 1 ..... 3½ (3)  
Turning circle ..... 26 ft (29 ft)  
Brakes type ..... drum/drum (drum/drum)

## DIMENSIONS:

Wheelbase ..... 6 ft 6.2 in. (6 ft 6.7 in.)  
Track front ..... 3 ft 7 in. (3 ft 8.3 in.)  
Track rear ..... 3 ft 6 in. (3 ft 7.3 in.)  
Length ..... 9 ft 10 in. (9 ft 9.9 in.)  
Height ..... 3 ft 8 in. (4 ft 5 in.)  
Width ..... 4 ft 3 in. (4 ft 3 in.)  
Tank capacity ..... 7 gals (5 gals)

## TYRES:

Size ..... 5.20-10 (5.20-10)  
Make on test car, Dunlop Dunsafe (Dunlop Dunsafe)

## GROUND CLEARANCE:

Registered ..... 6 in. (7.3 in.)

