

KILDEMOES TREND THE ULTIMATIVE VEHICLE




KILDEMOES
den danske cykel

FRAME WEIGHT:
2990 g, fork alone:
720 g (560 mm).

FRAME SIZES:
540, 560, 585 and
615 mm measured
center to top.
650 and 510 mm on
request.

CARRIER RACKS:
Low rider front and
welded platform type
rear; both in black
anodized aluminium
and especially made
by Minoura to suit the
requirements of
Trend.

SEAT POST:
Sugino SPH

Cables:
RF-Teflon.

SADDLE:
Ideale 90
(Natur colour)

FRAME:
Handbuild of REY-
NOLDS "531" tubing.

PAINTWORK:
4 times oven-dried
lacquer (stroke-solid)
plus clear topcoat.

GEAR LEVER:
Sun Tour LD-4850

BOTTLE CAGES:
(2) Minoura black
anodized.

REAR
DERAILLEUR:
Sun Tour Mountech
RD-5500

TOE CLIPS:
MKS type 121

FREEWHEEL:
Sun Tour WT-5000
RIMS: Weinmann 913
HUBS: Sun Tour RHQ-
4800 (sealed).
SPOKES: single
buted 14/10 gauge

FRONT
DERAILLEUR:
Sun Tour XC.
FD-3500

CHAIN:
Sedis.

CHAINWHEEL SET:
Sugino VP

PEDALS:
MKS AR Black

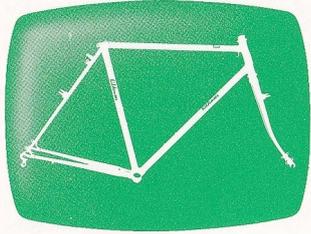
HANDLEBAR
EXTENSION:
Nitto

Brake handles type
AGC 251 (Concealed
cable routing).

HANDLEBAR:
Kusuki type Randon-
neur 420 mm.

BRAKES:
DIA COMPE
cantilever type 980

MOUNTING:
All fixtures are made
with stainless steel Al-
len Key Bolts (17 pcs.).

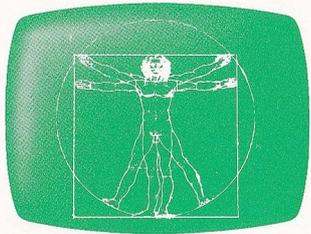


KILDEMOES TREND THE BICYCLE OUT OF THE ORDINARY

KILDEMOES TREND is the ultimate touring bicycle – a superb vehicle for travelling. What has been our goal in its development – and what is to be expected from **KILDEMOES TREND**?

A long day's ride with luggage weighing 20-30 kgs demands a lot from a bicycle which has to be both effective and comfortable. To find these qualities the appearance of the bicycle has not been taken into account. Still we think that with the presentation of **TREND** we offer a bicycle with an excellent finish and equipped with a number of gadgets, which you yourself will be able to confirm of a thorough inspection and a trial ride.

However, an excellent finish and a choice of accessories is not the only thing that the **KILDEMOES TREND** offers: The secret of an effective and comfortable bicycle is the frame or better said the interaction between frame and wheels.

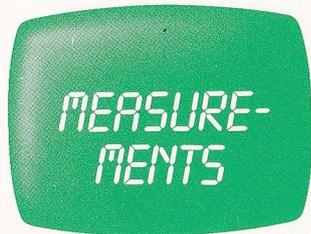


SOME FACTS ABOUT THE DEVELOPMENT OF KILDEMOES TREND

Size, top tube length and seat tube angle – all important frame measurements dictated by the cyclists physiognomy have been determined by testing several hundred people: their length of legs, body and arms, size of shoes etc. The result of the tests shows that it is possible to adjust the bicycle to 75-80% of the danish cyclists with four frame sizes in

such a way that the net-result can be described as – “tailored” or at any rate as “well factory-tailored”.

The physiognomical measurements revealed many interesting – and rather surprising results. People are far more differently and inharmoniously built than one would have expected. A person with long legs does not necessarily have long arms, just as the proportion between the length of the body and of the limbs varies far more than expected. Therefore the adjustment of the bicycle (choice of length of handlebar extension, height of handlebars in relation to height of saddle etc.) will be much too inaccurate if it is done by using the simple rules of thumb.



For this reason an offer of individual adjustment according to the measurements of the individual buyer will be included in every purchase of a **KILDEMOES TREND**.

Moreover these measurements will be used by our department of development in their efforts to improve our bicycles. As a result of this the **KILDEMOES TREND** is delivered to the dealer without fitted handlebars, which means that one should allow for a short delivery time.

In return we can guarantee you a perfect fitting: Almost equal distribution of weight between handlebars, saddle and pedals and optimum indination of your back – low enough to make it possible to put the great muscle groups of the seat and they in work, high enough to avoid neck tensions.

Another important point is suspension. The problem is that the wall thickness of the tubing of “ordinary” frames is too big to give sufficient resilience, whereas normally frames of light tubes are only available in the racing-version. Recently the trend has been that the enthusiasts choose the latter type – by some misleadingly called “supertouring”. It is a well known fact that a heavily loaded racing type frame will mean a rather harsh ride – at least on everything other than a very smooth surface – just as the steering will become unsafe.

By the development of the frame of the **KILDEMOES TREND** we have thought in the reverse order. High tyre pressure – at least 90 psi and more by full load – is the most important condition for obtaining low rolling resistance. Therefore we have adapted the frame of **KILDEMOES TREND** to this.

The tubes are not a standard set, but specially composed with a view to catching undesirable sideways movements by heavy use of the pedals. The penalty for this under 200 grammes increase of

weight – again compared with a racing type frame made out of simelar light tubing.

The vertical suspension has been accomplished by an extension of the centre distance front to rear, and by designing the front fork with 80-100% more vertical flexibility – again compared with similar racer frames.

The result of this has been easy rolling, safe handling and good road holding worthiness, even on unpaved roads. A large part of the luggage can be placed between the axles (you will not have any problems with your heels knocking against the panniers) and the steering qualities will be steady even with 6-8 kgs luggage over the front part.

What results does it give that the frame geometry of **TREND** has been specially developed in the terms of a touring bicycle. Will this restrict the bicycle's other possibilities?



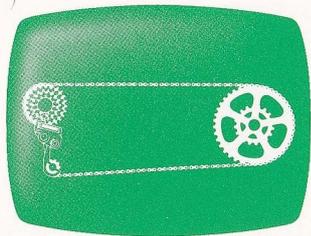
As far as we can see the only limitation of **TREND** is it not being a racer, even though the difference at first may not be visible to a layman.

TREND offers easy cycling, the effective transmission of power and making a good headway in common with a racer, but it is obvious that the longer distance between the axles makes the bicycle accelerate a little slower, just as the steering geometry is not fast and sporty.

All things considered **KILDEMOES TREND** also is the unsurpassed – though somewhat luxurious – everyday bicycle for the cyclist, who makes heavy demands on his bicycle and who considers it to be a good alternative to other means of transport. Besides who would not appreciate low weight, easy rolling and the possibility of obtaining a perfect riding position?

And it surely is not to be sniffed at either that **KILDEMOES TREND** easily transports home the weekend shopping from the supermarket?





KILDEMOES TREND GEARING

Gear numbers (inches), Wheel diameter 684 mm:

	13	15	18	21	26
46	95,3	82,6	68,8	59,0	47,6
42	87,0	75,4	62,8	53,9	43,5
24			35,9	30,8	24,9

Bicycles can be geared in innumerable ways and **KILDEMOES TREND** is no exception: The crankset is available with chainwheels between 54 and 24 th. and sprockets are available with all combinations between 13 and 34 th.

Before you consider another gearing you ought still to study the text below very closely. The choice of gearing and components is based on trial runs of several thousand kilometres under all thinkable conditions.



THE GEAR RANGE HAS TO BE ADEQUATE

The standard assembling gives gears between 95,3 and 43,3 when using the two biggest sprockets. The lowest of these gears will be sufficient on most gradients – at least if the road surface is good.

The little chainwheel acts as stand-by under extreme conditions. The 3 innermost cogs used together with the chainwheel are to be applied on the most steep rises, on unpaved roads, forest roads, on grass (camping sites) on ferry decks and in other situations where slow driving is necessary.



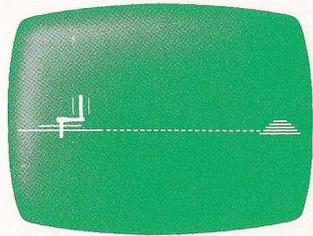
THE GAPS BETWEEN THE GEARS HAVE TO BE SMALL AND OVERLAPPING SHOULD BE AVOIDED

This point is important when heavily loaded, because tired legs are more sensitive to variations of the strain. By the standard assembling you have ten different gears with gaps of 8-10%, to which the three extra on the little chainwheel each with about 20% extra change down can be added.

THE GEARING HAS TO BE EASY

It is no use, having the necessary gears, if the change is difficult or if it is hard to remember, which combinations give a higher or lower gear. On TREND it is easy: The system is adjusted in a way that a change at the rear will give two gaps and a change in front one gap. Example: If you have the combination 46×18 and wish a lower gear, you have the choice between changing in front (10% down) or at the rear will give you 20% (46×15) and does this seems too intense you can shift the chain in front.

In practice it appears that by bicycling in hilly terrain ground vigorous changes are necessary and therefore the change will be at the rear. This is also the case without luggage. Here the majority will make use of the five steps given by the rear derailleur and not worry about, how the chain is placed at the front.



A GEARING SYSTEM HAS TO BE OPTIMUM MECHANICAL ADJUSTED

In a system with 3 chainwheels there is no advantage of using a freewheel with six cogs. This would mean a weaker rear wheel at the risk of breaking the spokes, just as a "narrow" 6-speed freewheel would give an inaccurate change of gears. The most frequently used gears has to be in the centre of the freewheel, this fixes the limits of effectiveness and minimizes the wear and tear. Here you will find gears in the area 60-70, which will suit most bicyclists. The "XC" frontshifter lends the change a special mechanical gadget. It is (opposite many others) adjusted in a way that drawing the shifter will make the chain move downwards. This implies that there never will be any problem by getting the chain down on the chainwheel, when the chain is under tension. And this will always be the case together with a little panic, when it turns out that the hill is steeper or longer than expectet.

THE POSSIBILITY OF THE SYSTEM

If you are not familiar with gear numbers, the following may be useful to you. If we assume that you pedal with 70 revolutions a minute (this is rather normal) you will have the following speed by use of the standard set-up:

	13	15	18	21	26
46	32	28	23	29	16
42	29	25	21	18	15
24			12	10	8

Speed (KM/H)

The average touring speed is 20-25 km/h. The table gives an idea of the good possibilities of adjusting the system according to wind conditions and nature of ground.

Another aspect is the thrust force you have to use when pedalling.

	13	15	18	21	26
46	20,1	14,1	9,1	6,5	4,2
42	16,0	11,3	7,4	5,4	3,5
24			2,5	2,0	1,4

Thrust force (kgs), 70 rpm, total weight 110 kgs. Even ground and calm weather.

The table above shows how the gearing works. Energy of 7-9 kgs is normal. But if we assume that the gradient is 4%, the picture changes totally:



	13	15	18	21	26
46	51,0	40,8	31,4	25,6	19,6
42	44,2	35,2	27,8	22,8	17,6
24			14,1	11,9	9,5

Thrust force (kgs), 70 rpm, total weight 110 kgs, 4% gradient and calm weather.

Looking at the above table one could expect that a rise of 4% would require a heavy gearing down. However it turns out that the human “engine” is in possession of an extraordinary suppleness. Most cyclists will be able to double or triple their thrust force, if the hill is not too long. Also it is a good idea now and then to pedal standing up. This will do good to the muscles and will “cool” a hot behind. But if the hill is too long, most bicyclists will appreciate the advantage, which lays in using the little sprocket-wheel.



WHY DOES THE STANDARD ADJUSTMENT NOT INCLUDE EVEN LOWER GEARS?

With 24×34 you could come down on gear 19, but it is not worth it. The legs would have to move much too fast and only a few would like the slow speed (6 km/h, 70 rpm), just as it would increase the gaps between the gears, which are most frequently used.

WHY NOT HIGHER GEARS?

We have to admit that it was first and foremost the bona fide touring cyclists, we have had in mind by planning the gearing of **TREND**, and it is well-known that they rather wish to increase the number of revolutions than to give up the possibilities of many low, close gears.

By 100 rpm the high gear goes to 46 km/h and this will be enough for most cyclists. On the other hand there is no reason why the gearing should not be a little higher. As long as a difference of 4 teeth is used on the two larger chainwheels, the equal gaps between gears and the small handy gear pattern will be obtained. But do not exceed 50×44 . **TREND** is no racer.



REGULAR OVERHAULS – A CONDITION FOR UNPROBLEMATIC BICYCLING

It is difficult to give advice about maintenance of bicycles, as various factors have to be taken into account. We will especially abstain from giving schematic references, such as “The pedal bearing is to be cleaned and lubricated once the year and the chain lubricated every month or for every 200 km”. It is actually a fact that under disadvantageous circumstances – e.g. unpaved road combined with rain – a ride of 10 km can be a heavier strain to the system than a whole summer holidays.

There are two things to be aware of. Firstly water, which inevitably will make the steel balls rust if it penetrates into the bearings, and secondly dirt, which causes tear and wear on the system.

The hub and pedals of **TREND** have bearings of the so-called sealed-up type. This does not mean that they are watertight or that they will work forever without lubricant, but it has turned out that such bearings in hubs are able to work for two or three years and in pedals many years without maintenance.

Crankbearings are traditionally constructed with conic bearings – to secure the customer a robust system, which can be repaired everywhere. We suggest, that the crank-axle bearing is disassembled, cleaned and lubricated once a year and this should be done in autumn or early winter or at all times, when the bicycle is “stabled” for a longer period. Probably the bearing does not have to be lubricated that often, but it is important to make sure that water or detergent have not removed the lubricant.

The most critical point for formation of rust in the bearings is the freewheel and this is due to the use of oil lubricating. Besides this is the only place where oil should be used. Oil is easier to wash out than grease and the weaker the oil the bigger the problem.

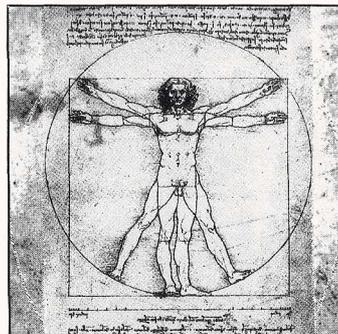
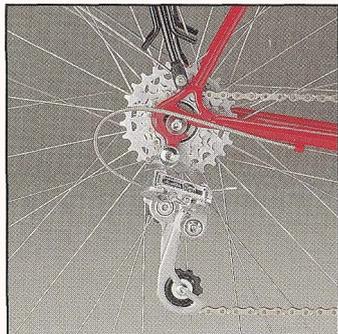
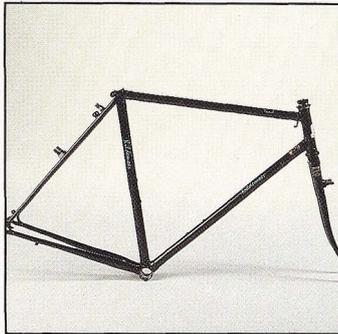
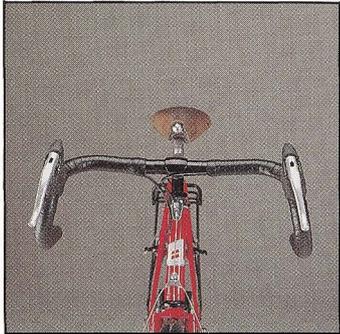
The freewheel cannot be lubricated too often and it is of special importance to do so, when the bicycle is put away for a period. Also it is a good idea to lubricate the freewheel after use, instead of just before a bicycle ride. In this way you can partly avoid that the excess of oil, to dirty either the rim, the tyre, the chain or the gear wheels. If you, after the lubrication, let the bicycle lean to the right side, you will be able to catch the excess of oil in a piece of paper, which is placed under the hub.

As mentioned above, dirt is the worst enemy of the transmission – and moreover for the gearchange too. The solution is cleaning and lubrication of the chain and again it has to be emphasized that no intervals for doing this can be stated. Between one week and five months, depending on how much the bicycle is in use and on the conditions under which it being used. Do with regular intervals wipe the chain with a rag. If the chain is very dirty, or if there are thick black edges on it, it is time to take action.

Kerosine or a solution of synthetic soap (Ajax etc.) and hot water can be used. Only use Kerosine, when the chain, crankset and gearchanger have been dismantled for cleaning, as the dirty petroleum otherwise cannot be caught and delivered to a service station for destruction.

Another advantage of using soap and water is that rinsing can be done with a garden hose.

Use a washin-up brush and take care to wash all over; for chain and gearwheel a flat radiator-brush is indispensable.



FRAME: Handbuild with Prugnat lugs in specially developed mix of REYNOLDS "531" tubing. The frame displays the 531 ST transfer, only because most of the tubes origin from this tubeset. There are braze-ons for: cantilever-brakes, direct mounting of carrier racks (front and rear), gearcontrol, 2 bottle cages (seat- and down tube), pump (under top tube), gearcables and cable stof for rear brake, the cable of which is routed inside the top tube.

FRAME SIZES: 540, 560, 585 and 615 mm measured center to top. 650 and 510 mm on request.

FRAME WEIGHT: 2990 g, fork alone 720 g (560 mm):.

PAINTWORK: 4 times oven-dried lacquer (chip resistant) plus clear topcoat.

CHAINWHEEL SET: Sugino VP-170 mm × 46/42/24 t black anodized.

BOTTOM BRACKET: Sugino type H-3NB with CrMo axle and sealed, polished cups.

FREEWHEEL: Sun Tour WT-5000 - 13-15-18-21-26 t.

WHEELS: Rims: Weinmann 913, Hubs: Sun Tour RH-4800 with sealed bearings and with spoke drillings especially made to suit TREND's spoking concept. Spokes: single butted 2 mm laced radially/4X rear. Tires:

GEAR: Front derailleur: Sun Tour XC. FD-3500
Rear derailleur: Sun Tour Mountech RD-5500
Gear lever: Sun Tour LD-4850

CHAIN: Sedis

PEDALS: MKS AR-1 Black

TOE CLIPS: MKS type 121

BRAKES: DIA COMPE cantilever type 980 B6 with brake handles type AGC 251 (concealed cable routing). Cables: RF-Teflon

HANDLEBAR: Kusuki type Randonneur 420 mm.

HANDLEBAR EXTENSION: Nitto type in sizes between 50 and 140 mm mounted after individual selection.

SADDLE: Ideale 90 (Leather naturel colour)

SEAT POST: Sugino SPH

BOTTLE CAGES: (2) Minoura black anodized.

CARRIER RACKS: Low rider front and welded platform type rear; both in black anodized aluminium and especially made by Minoura to suit the requirements of TREND.

MOUNTING: All fixtures are made with stainless steel Allen Key Bolts (17 pcs.).

PLEASE NOTE: All quotations are subject to revision, without notice if the Development Dept. of KILDEMOES CYKELFABRIK A/S should find improvements necessary.