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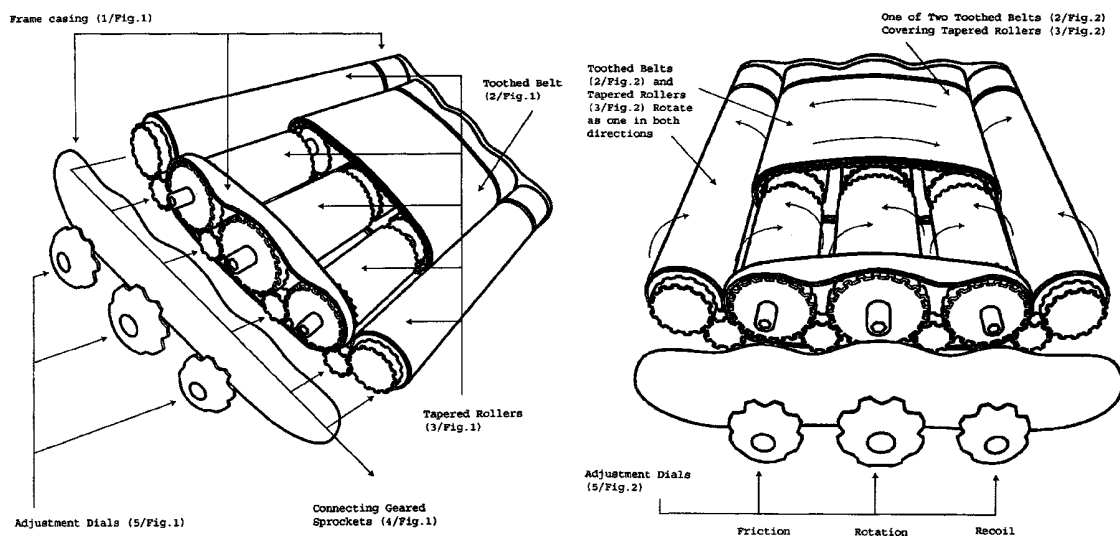
(51) INT CL:
B62J 1/12 (2006.01)

(56) Documents Cited:
EP 1382521 A1 DE 019537653 A
DE 004013807 A1 JP 010197187 A
JP 2008049792 A

(58) Field of Search:
UK CL (Edition X) **A4L**
INT CL **B62J**
Other: **EPODOC, WPI**

(54) Abstract Title: **Racing motorcycle seat with rollers and toothed belt**

(57) A seat which may be for a racing motorcycle has a frame 1 having a plurality of tapered rollers 3 mounted thereon. A pair of toothed flat belts 2 engage with 3 of said rollers. A pair of further rollers are located one on either side of the three centre rollers and are connected via geared sprockets 4. The friction, rotation and recoil of said rollers may be adjusted via dials 5. A motorbike rider shifts his weight across the seat and hence leans from one side to the other to change direction. Movement across the longitudinal axis of the motorbike causes the rider to move the belt with respect to the rollers. The rider uses their thigh and buttock muscles to control movement.



DESCRIPTION: Motorcycle racing seat

Over the years racing seats on a motorcycle have been given little consideration to the rider and the performance of the machine, other than how small and how light can it be made?

Yet there is possibly more movement over this area of the machine by the rider in race conditions than any other part of the motorcycle. The lifting of the riders weight from toe to toe in every corner as the bike leans left to right and right to left is a skill developed by modern riders to be almost seamless.

However, this lifting of weight and transferring it forward and from side to side over the distance of a race requires a great deal of effort. More importantly the rider in middle speed corners lifts his head outside the firing bubble when changing direction and disturbs the aerodynamics of the bike.

In slower chicane sequence of corners the direction change and weight of the bike is more apparent requiring even more effort to make the transition from left to right.

The racing seat was designed to overcome these problems. Aiding the weight transfer of the rider when leaning a motorcycle in a sequence of corners ensuring the rider holds the correct line on entry and exit whilst maintaining optimum speed.

Using a combination of modern lightweight materials such as Aluminum and Carbon Fibre this racing seat incorporates adjustable rollers (3/Fig.1), toothed belts (2/Fig.1) and geared sprockets (4/Fig.1).

The seat can be tune to the required settings, via recoil, friction and rotation dials (5/Fig.2).

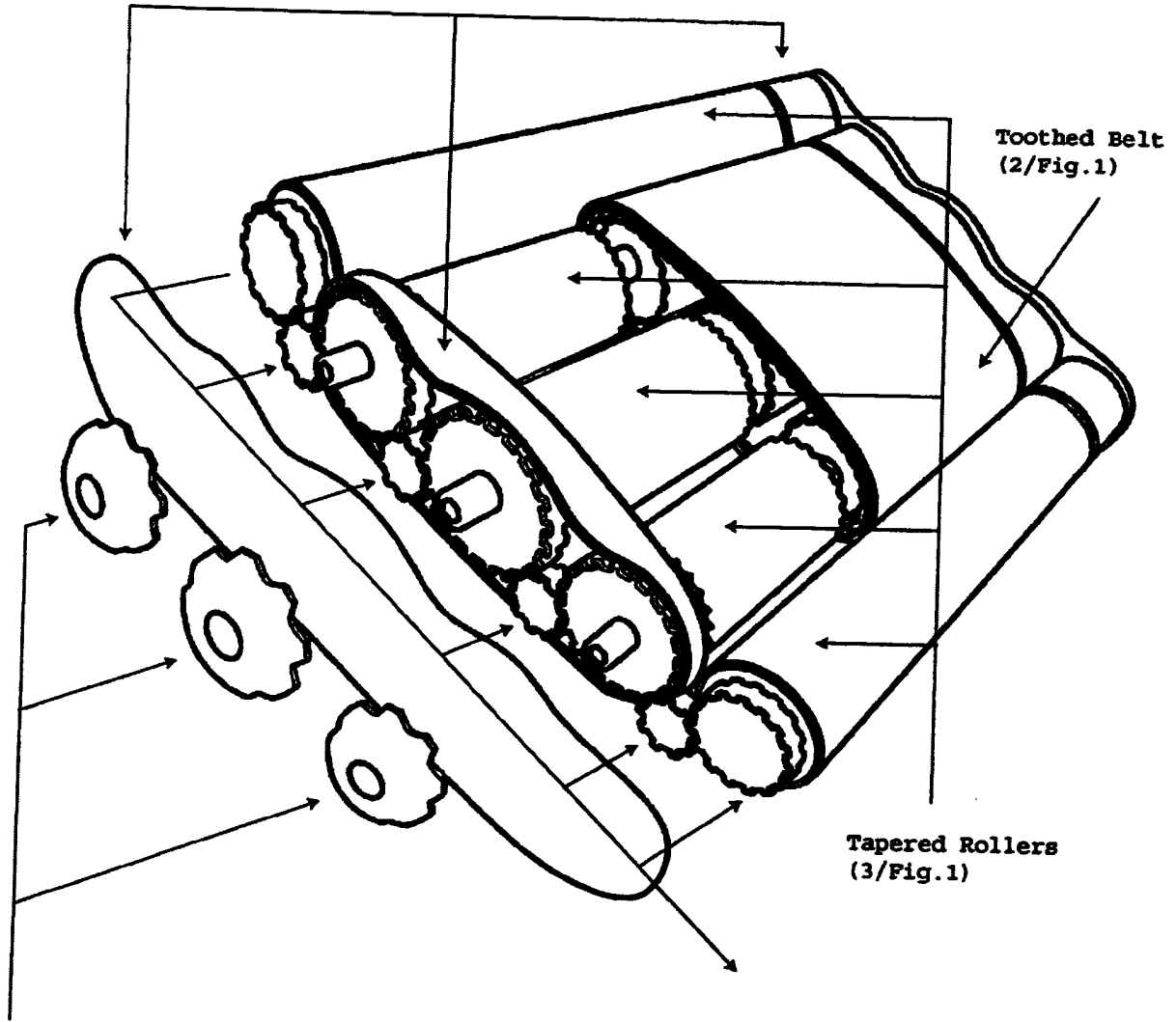
The frame casing (1/Fig.1) of the seat is mounted either directly to the rear sub frame of the motorcycle or incorporated into the seat pod as part of the bodywork. The seat can be controlled by the rider using the upper thighs and lower buttocks ensuring a smoother and quicker transfer of direction as the rollers rotate and recoil as one under the riders weight.

CLAIMS:

1. Motorcycle racing seat comprising of a light weight frame structure (1/Fig.1) incorporating multiple tapered rollers (3/Fig.1) connected by geared sprockets (4/Fig.1) covered by and in direct contact with toothed belts (2/Fig.1).
2. Motorcycle racing seat as claimed in claim 1, in which the tapered rollers friction, rotation and recoil are individually adjustable (5/Fig.2) but rotate as one in both directions (3/Fig.2)
3. Motorcycle racing seat as claimed in claim 1 or claim 2, in which the tapered rollers (3/Fig.2) and toothed belts (2/Fig.2) rotation is effected by the riders body weight and direction change whilst leaning the motorcycle into and out of left and right hand corners.
4. Motorcycle racing seat as claimed in 3, in which the tapered rollers (3/Fig.2) and toothed belts (2/Fig.1) aid the riders weight transfer in both left and right hand corners by allowing the rider to remain in direct contact with seat for prolonged periods.
5. Motorcycle racing seat as claimed in 4, in which the lightweight frame casing (1/Fig.1) of the seat mounts either directly to the motorcycle rear sub frame or incorporated into the seat pod as part of the motorcycle bodywork.
6. Motorcycle racing seat substantially as hereinbefore described with reference to and shown in the accompanying drawing.

Drawings: Fig.1 Motorcycle racing seat

Frame casing (1/Fig.1)



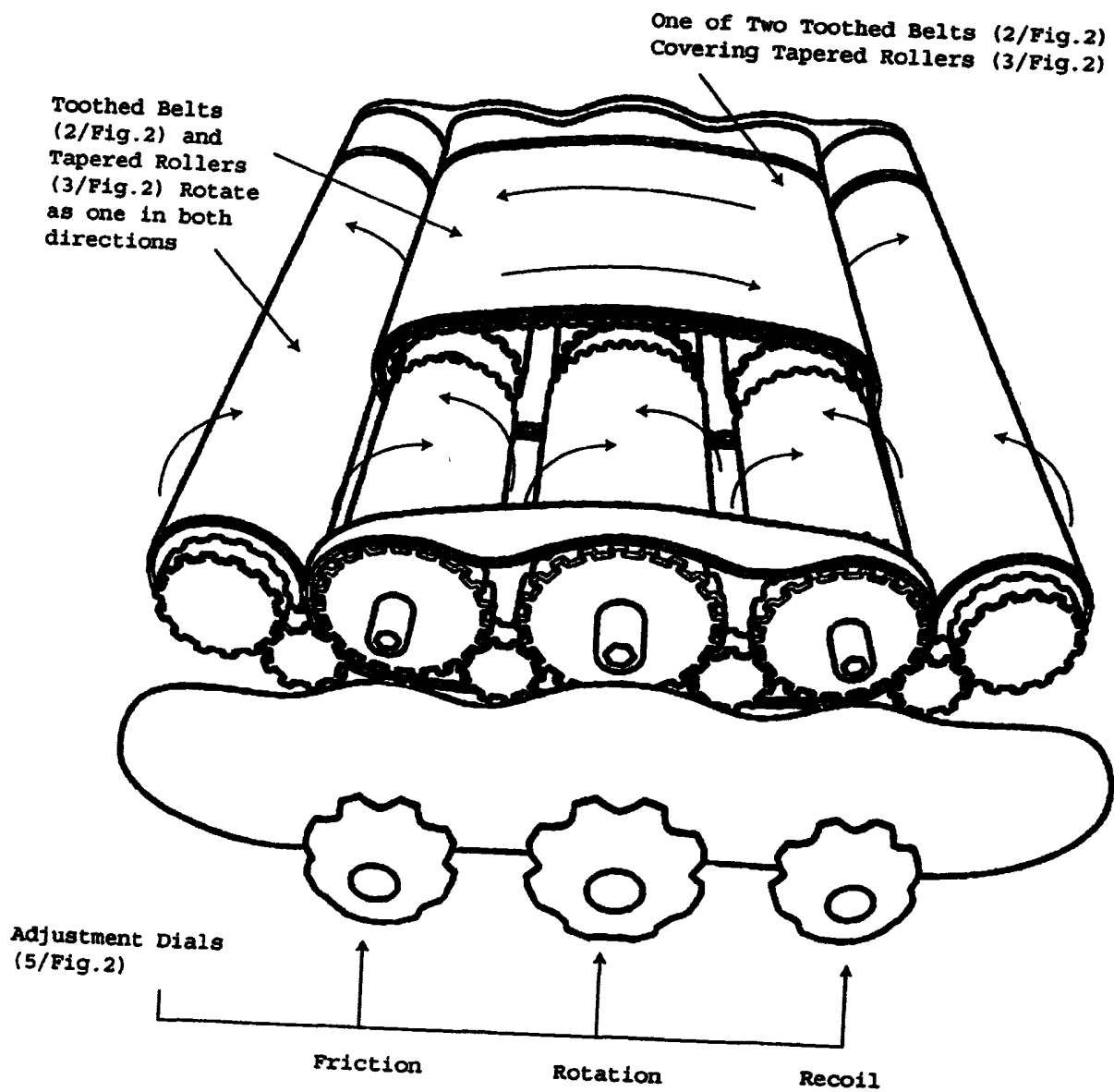
Toothed Belt
(2/Fig.1)

Tapered Rollers
(3/Fig.1)

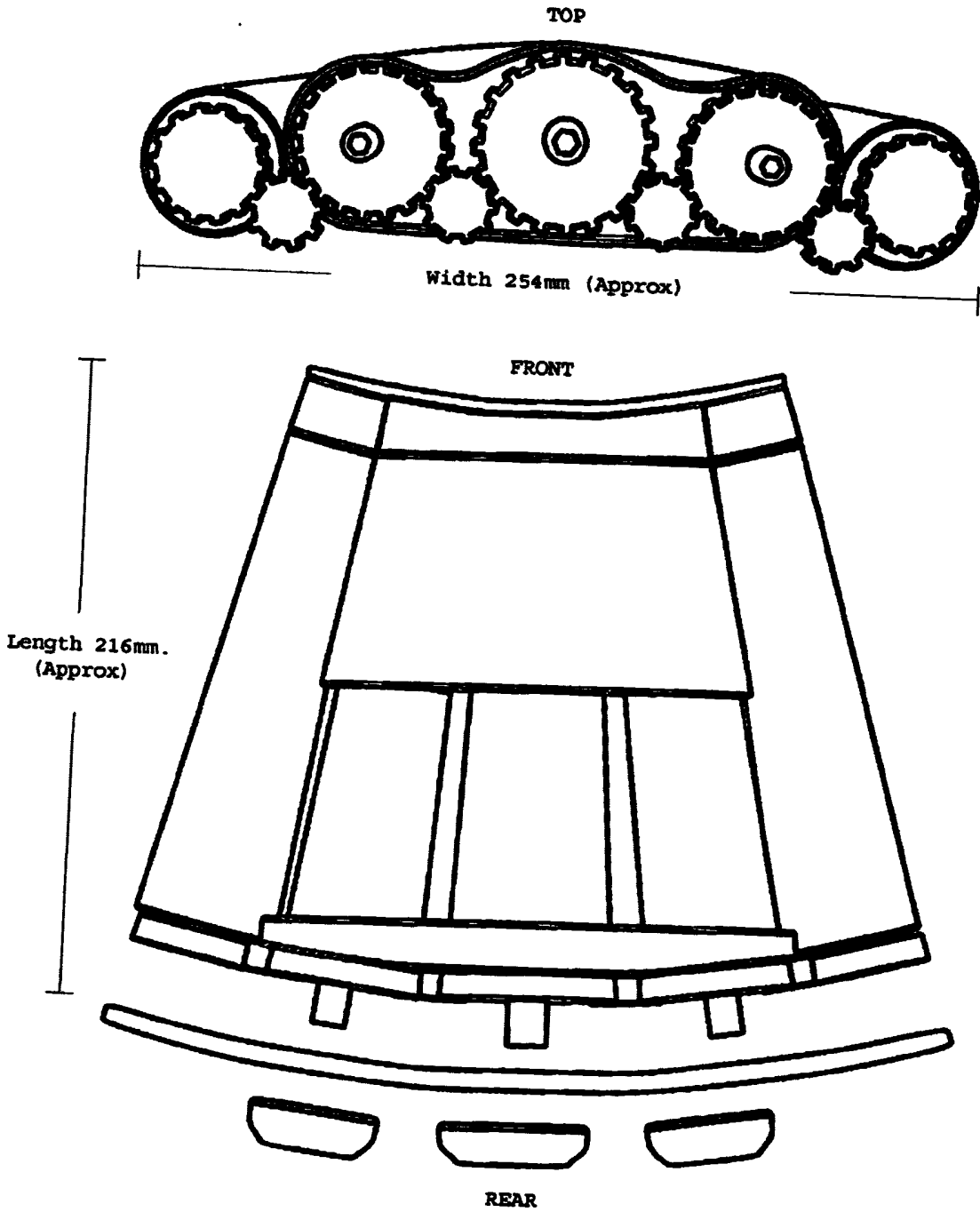
Adjustment Dials (5/Fig.1)

Connecting Geared
Sprockets (4/Fig.1)

Drawings: Fig.2 Motorcycle racing seat



Drawings: Fig.3 Motorcycle racing seat



Application No: GB0808440.2
Claims searched: 1 - 6

Examiner: Gareth Jones
Date of search: 14 July 2008

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
A	-	JP2008049792 A (HONDA) 06.03.2008. See all figures and WPI Abstract Accession No. 2008-E57074[31].
A	-	DE19537653 A (GROSS) 17.04.1994. See all figures and WPI Abstract Accession No. 1997-227422[21].
A	-	JP01197187 A (HONDA) See whole document.
A	-	DE4013807 A1 (BAYERISCHE MOTOREN WERKE AG) 31.10.1991. See whole document
A	-	EP 1382521 A1 (DUCATI) See whole document.

Categories:

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
Y Document indicating lack of inventive step if combined with one or more other documents of same category.	P Document published on or after the declared priority date but before the filing date of this invention.
& Member of the same patent family	E Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X:

A4L

Worldwide search of patent documents classified in the following areas of the IPC

B62J

The following online and other databases have been used in the preparation of this search report

EPODOC, WPI

International Classification:

Subclass	Subgroup	Valid From
B62J	0001/12	01/01/2006