



Differentials Ltd

The Solution To Your Transmission Problems



Motorsport, Classic & Commercial
Transmission Components

...geared for you

Gain The Advantage!



Superior Quality
Increased Strength & Durability
Made to Order
Design & Development Service

**Whatever your drivetrain requirements
from Escort to Earth Mover
KAM has the answer:**

With a range of transmission related products currently on the market including traction control devices, axle half shafts, spiral and hypoid bevel, helical and spur gearing and the ability to offer a design and development service to suit your specific requirements.

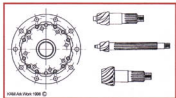
Our on going commitment to quality and unique design and development service has provided the solution to many satisfied customers over the last fourteen years.

We have established an impressive track record including developing and supplying products to companies including Ford Motorsport and Land Rover.

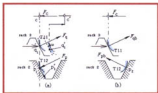


Design Services

KAMs design and development service is geared to suit your needs. We have the knowledge and experience to design our products to suit your requirements. We are able to modify or improve existing products from samples or drawings, or develop basic design concepts right through to the manufacturing stage.



Our on-going research and development into engineering processes, materials and heat treatment ensures of a quality product which has been designed to give the performance you expect!



Research & Development

Most design work is carried out in house by our experienced engineers. Basic design concepts are developed through calculation to manufacturing drawing utilising the latest CAD software.



KAM spiral and hypoid bevel final drive gears are designed to set up as per the manufacturers original specifications; but giving increased strength and durability over the original item. The design and development process takes into account many factors - each gear is specifically tailored to suit its particular application. Careful attention is paid to the heat treatment process - this is where inferior products distort presenting setup problems and axle whine.



Applications

Crown Wheel and Pinions

35 different types of crown wheel and pinions.



Differential Locking Systems

KAM produce axle differentials lockers for Rover Salisbury BHA and Suzuki axles.



Half Shafts

Please send sample for a quotation.



General Production and Services

Spur and Helical gears, CNC, Dog gears, Shafts, Friction and Electron beam welding, Laser cutting Clutch plates, Shot peening, Tooth conditioning, Axle modifications.



Suppliers to...

KAM supply to over 50 motorsport outlets throughout Europe. References are available from all distributors.



KAM Products Supplied to:

Ford Motorsport. Vehicles competing in the Paris-Dakar Rally and 'Rhino Charge - Kenya' off-road event. Land Rover for vehicle prototyping. World record breaking diesel IbeX vehicle. World record for the highest ever altitude achieved by a vehicle and a number of Military applications.

Transmission

Spiral & Hypoid Bevel Final Drive Gears

For rear wheel drive vehicles and requirements for turning drive through 90 degrees. Each different gear set is manufactured with a specific drop forging and tooling for cutting and fixtures.

The manufacturing processes are outlined below:

- Design of tooth formation*
- Development of Tooling and Fixtures*
- Drop Forging*
- Weathering of Forging*
- Rough Machining*
- Gear Cutting*
- Carefully Controlled Heat treatment*
- Grinding*
- Lapping-In*
- Quality Control, Inspection and Packaging*



Managing Director Kevin A. Mason

All gears are run up to speed on a machine and lapped in after manufacture to identify pinion height settings and noise. Each gear is individually stamped with pinion height setting, date and batch number. Gears are supplied as matched sets and conform to ISO9000 standards.

Lead times - Normally 26 weeks
 Minimum batch order - 25 off
 A deposit of 25-50% if new tooling is required.



Current Developments

Spur & Helical Gears

KAM can offer replacement, strengthened, and alternative gear ratios for any transmission. Designs are based on original drawings or samples provided and tooth profile and count selected according to specific requirements; strength, noise and durability.

Gear blanks are machined from drop forgings and carefully selected materials. Tooth profile is precision cut buy dedicated cutting tools, before carefully applied heat treatment to ensure minimum of distortion for ease for setup and reliable running.

Lead Times - Normally 8 weeks.
 Minimum batch order - 20 off
 A deposit may be required.



Tooth Conditioning & Lighting

If required KAM offer the facility to shot peen and condition the tooth surface after heat treatment to relieve residual stresses and introduce excellent wear rate characteristics, superior strength, and surface finish.

As shown below lighting is also undertaken on most crown wheels. This is now becoming a KAM trade mark



Limited Slip Differential

Developed through off-road racing this unit is available to fit all Land Rover vehicles (except Long wheelbase Land Rovers and the new Range Rover.) The unit utilises friction clutch plates to provide the locking action and can be installed in both the front and rear of the vehicle. It provides greater traction both on and off road, is fully automatic requiring no adjustment, and is smooth in operation. It is particularly suited to high powered vehicles for racing, fast road



CV Conversion

Damage mostly occurs in a few seconds when the shaft is put under excessive stress. Understanding this, KAM have designed into this kit, a "fused stub shaft" which is designed to break first if excess loading is created. This saves the more expensive parts of the transmission. The amount of shear the outer stub shaft can take can be adjusted to the customers' requirements with the depth of radiused undercut on the inside of the hub. Please state your customers' requirements when ordering.



Axle Half-Shafts

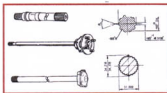
KAM hold in stock a range of shafts for Land Rover and Suzuki vehicles. These are designed for use with the axle diff lock, racing applications or can be used to modify and strengthen the existing axle.

Development through racing has resulted in optimum material selection and application of heat treatment - allowing the shaft to take higher loading torques and suffer less fatiguing.

KAM Land Rover halfshafts are supplied to many race vehicles around the world including Paris Dakar, Top placed Hill Rally championship vehicles and Military applications. KAM has the facility to produce half shafts for most vehicles.

Lead times - 6-12 weeks

Minimum batch order - 20 pairs



Traction Control Devices, Axle Diff Lock

KAM engineers have undertaken extensive development of a locking axle differential enabling maximum traction in off road situations. This device is currently available for all Land Rover vehicles (except the new Range Rover), and Suzuki Samurai and SJ413 vehicles. The design can easily be adapted to fit other vehicles depending on requirements.

Further Information

Quotations

Normally an indication of a price will be given within 7 days of receiving a sample, sketches or manufacturing drawings. For spur or helical transmission gears or half shafts a firm quote can be given within 2 weeks. For spiral and hypoid bevel gears, and traction control devices a firm quote can usually be given within 2-3 weeks.

Web Site

Why not visit our internet site? Detailed product descriptions and pricing structure are listed on our extensive web site.

E Mail Address: sales@kamdiffs.com
Internet site: <http://www.kamdiffs.com>

Distributors

KAM are building a network of distributors throughout the world and are always looking for new outlets. If you are interested in marketing KAM products please fax or call with details.



We get our teeth into the problem.



Dealer:

Gain The Advantage!

Superior Quality
Increased Strength & Durability
Direct replacement
Made to Order
Design & Development Service
Excellent Value



Transmission Grief ?
Let Us Get Our Teeth Into
The Problem



Call Us Now For More Information

If you would like to receive more information about KAM products please contact us at the address below.



Differentials Ltd

Clock Barn House, Hambleton Road
Godalming, Surrey, GU8 4AY.
Tel: 01483 419779
Fax: 01483 416009