



### Abstract

**A UK company offers a system for compacting motor vehicle tyres thereby reducing their bulk volume for onward transportation as one step in the re-cycling process. Partners are sought either from within or those with an understanding of the scrap tyre industry. Partners are sought either to licence the technology or for technical co-operation to further develop the technology and bring it to market.**

### Description

A UK company has developed a system that significantly reduces the bulk and volume of individual end-of-life vehicle tyres, by cutting and joining them into a continuous, compact form. The resulting compacted tyres take up significantly less space which has benefits for storage and transportation.



In essence, the system works by first cutting the wire bead. The tyre is then converted into a strip of rubber which is then joined to adjacent tyre strips. The joined strips are then whole rolled into a compact disc. The photograph below clearly demonstrates that by using this system ten tyres can be compacted into the volume taken by less than two tyres.

A manual version of the machine has confirmed the system's basic performance and a UK Patent application has been filed. Strong interest has already been shown by companies involved in the automotive aftermarket. The process will be applicable to all types of tyre, from unused tyres to used tyres that have been in storage for many years.

The technology and know-how to develop an automated version of the system is understood. It could be envisaged for example that an automated version of the machine could be mounted at the rear of a lorry for ease of transport, whereas a mobile version of the machine could provide an inexpensive way of clearing this dangerous and often unsightly waste.

Partners are sought either to license the technology

as is or to work with the company to help complete the development of the automated system and bring it to market. In the latter case, the company would ideally be looking for partners that are able to co-finance the development work and who have appropriate access to market.

### Innovations and advantages of the offer

The process reduces the volume of a stack of tyres to around 15%, allowing lorries to be loaded to their weight capacity, rather than volume capacity.

The rolling process results in a compact disc of tyres, making it easier to move using mechanical handling methods and to present them more conveniently to machines that will undertake further processing, whether tyre-derived fuel plants or crumbing systems using choppers or tread strippers.

This compaction system also destroys a tyre and thus ensures that scrap tyres cannot be re-sold, preventing potentially dangerous situations.

The reduction in storage space required by tyre re-processors is a further advantage.

### Current and Potential Domain of Application

Automotive aftermarket; tyre transport companies; tyre reprocessing and re-cycling companies; waste management companies.



INDUSTRIAL MANUFACTURING, MATERIAL AND TRANSPORT

Technology Offer

Scrap Tyre Compaction System

(08 GB 41n8 2S0N)



**For further information (including IPR status)**

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