Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Atrical and Mechanical Mechanical Enginee al and Mechanical School of Electric anical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and Engineering School of Electrical and Mechanical School of Electrical and Mechanical Engineering of Electrical and Mechanical Engineering School Electrical and Mechanical Engineering School of and Mechanical Engineering School of Electrical Mechanical Engineering School of Electrical and

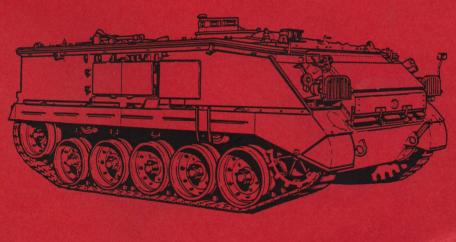
Engineering School of Electrical and Mechanical

School of Electrical and Mechanical Engineering BORDON HAMPSHIRE.

## **WARNING!**

This is not a TQM authorised document — the information may have been superseded.

# FV 430 SERIES



"THIS DOCUMENT IS THE PROPERTY OF HER BRITANNIC MAJESTY'S GOVERNMENT, and is issued for the information of such persons only as need to know its contents in the course of their official duties. Any person finding this document should hand it into a British forces unit or to a police station for its safe return to the MINISTRY OF DEFENCE D.MOD SY LONDON SW1A 2HB with particulars of how and where found. THE UNAUTHORISED RETENTION OR DESTRUCTION OF THE DOCUMENT IS AN OFFENCE UNDER THE OFFICIAL SECRETS ACTS OF 1911-1989. (When released to persons outside Government service, this document is issued on a personal basis and the recipient to whom it is entrusted in confidence within the provision of the Official Secrets Acts 1911-1989 is personally responsible for its safe custody and for seeing that its contents are disclosed only to authorised persons)."

SEME REF NO: V2/18

# CHAPTER 6

## **Final Drive**

## LIST OF CONTENTS

Para		Page
6.1	Introduction	1
6.2	Construction	1

### LIST OF ILLUSTRATIONS

rıg			Pag
6.1	Final	Drive	2

### 6.1 INTRODUCTION

See Fig 6.1.

The unit is a two spur gear assembly which gives the last reduction in the line of drive and converts the reverse output motion of the steering unit into forward motion. The R/H unit drives the speedometer.

#### 6.2 CONSTRUCTION

The final drive consists of:

- a. Housing, split into two halves.
- b. **Input Shaft**, supported on two taper roller bearings which are adjustable by shims located under the oil seal housing.
- c. Output Shaft, supported on two taper roller bearings which are adjustable by shims located under the oil seal housing. The oil seal housing forms one half of a grease filled labyrinth, the other formed on the sprocket hub, which prevents the ingress of dirt and water, and carries two oil seals, fitted back to back, to prevent the grease mixing with the lubricating oil. (OEP 220).
- d. Sprocket Hub Assembly, consists of two sprockets and a supporting hub. To ensure

Chapter 6

correct tooth alignment the sprockets are located onto the hub with dowels. Sprocket to road wheel alignment is achieved by fitting two shims onto the output shaft before fitting the assembly. The hub is retained onto the output shaft with a slotted nut, which is secured by a lock plate.

#### NOTES:

- 1. Two different types of output shaft and sprocket hub are in use, one using splines, the other using serrations. These can be identified by observing the size of the sprocket hub nut. The larger nut is fitted to the serrated shaft, and the smaller one to the splined shaft.
- 2. Two different final drive ratios are used in the FV 430 series, the FV 433 and FV 434 use a higher ratio.

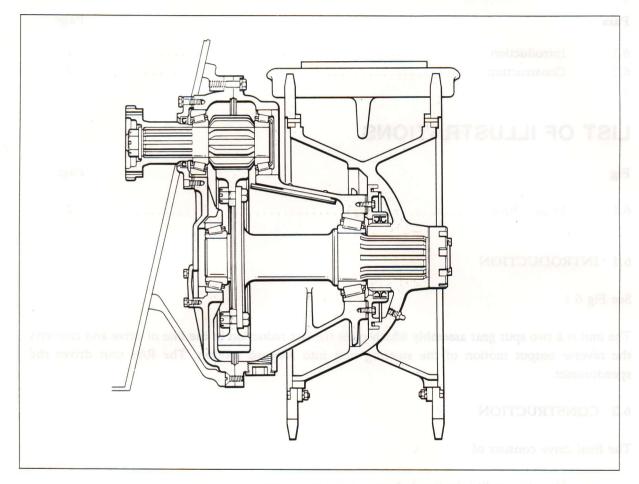


Fig 6.1 Final Drive