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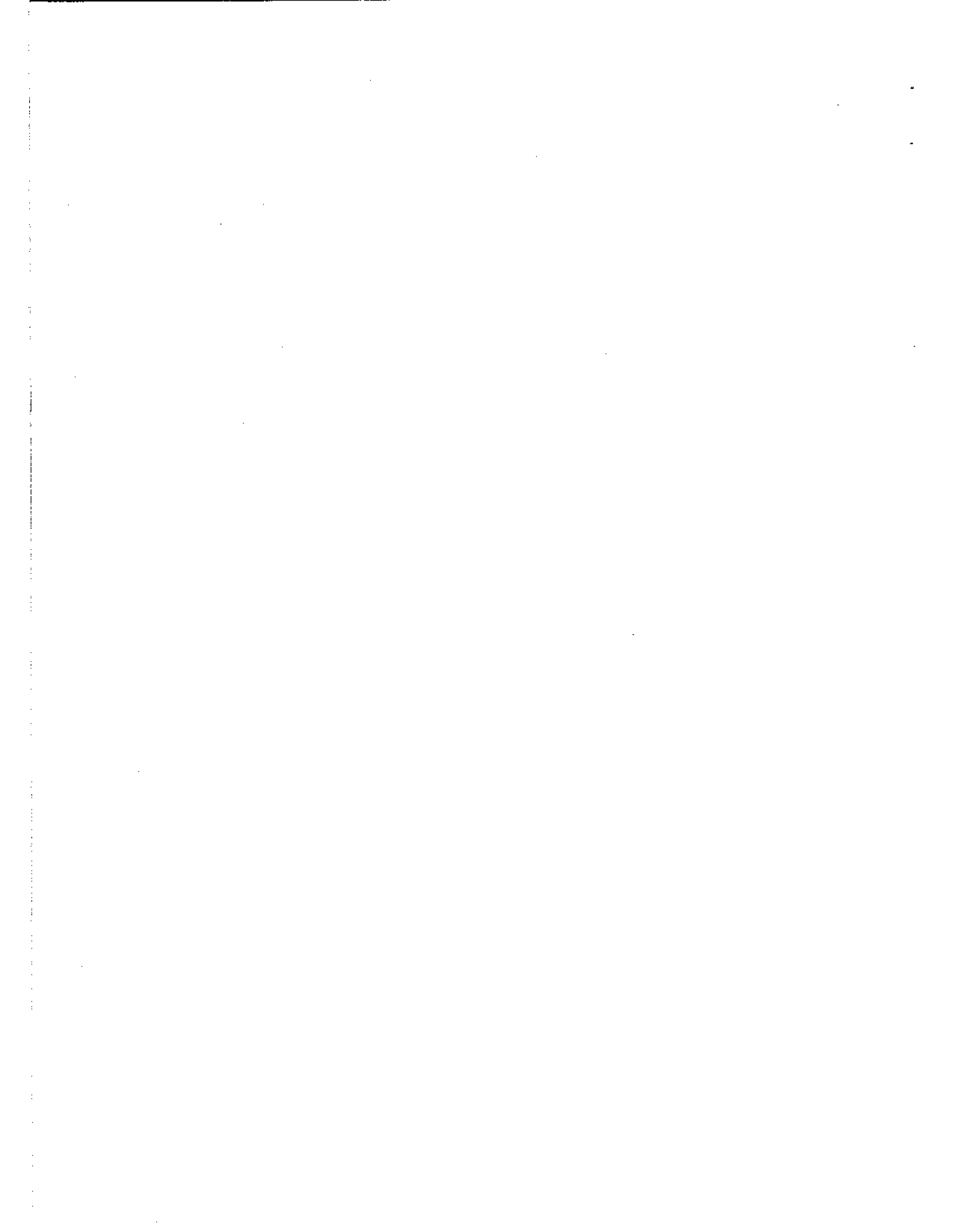
# **TRAILER LIGHTWEIGHT GS CARGO FAILURE DIAGNOSIS - LEVEL 2**

This publication contains information covering the requirements of levels 2 and 3.

**BY COMMAND OF THE DEFENCE COUNCIL**

*Kenneth D. Smith*

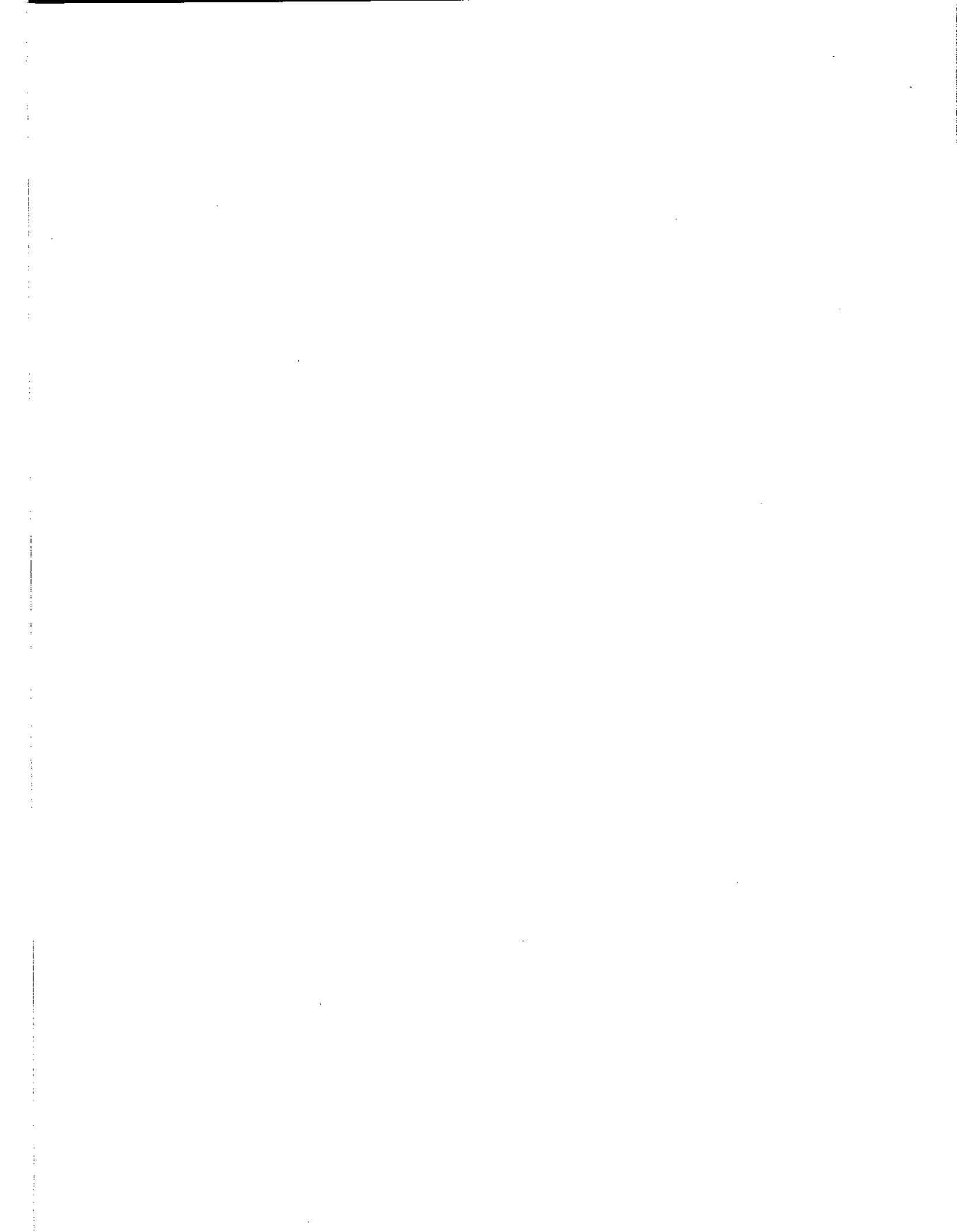
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**FAILURE DIAGNOSIS - LEVEL 2**

Chapter

- 1 General information
- 2 Braking system
- 3 Electrical system

## PREFACE

Sponsor: DEC ELS

### INTRODUCTION

1 Service users should forward any comments concerning this Publication through the channels prescribed in Army Equipment Support Publication (AESP) 0100-P-011-013. An AESP Form 10 is provided at the end of this publication; it should be photocopied and used for forwarding comments on this AESP.

2 AESPs are issued under Defence Council authority and, where AESPs specify action to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores, subject to the provisions of Para 3 below.

3 The subject matter of this publication may be affected by Defence Council Instructions (DCIs), Standard Operating Procedures (SOPs) or by local regulations. When any such Instruction, Order or Regulation contradicts any portion of this publication they are to be taken as the overriding authority.

4 For periods of servicing and lubricants to be used reference must be made to the Maintenance Schedule, Cat 601.

### RELATED AND ASSOCIATED PUBLICATIONS

#### Related publications

5 The Octad for the subject equipment consists of the categories as detailed overleaf. All references are prefixed with the first eight digits of this publication. The availability of the publications can be checked by reference to the relevant Group Index (refer to AESP 0100-A-001-013).

Category/Sub-category			Information Level			
			1 User/ Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	101	*
	1	Equipment Support Policy Directive	111	111	111	*
	2	Equipment Support Policy Directive	*	*	*	*
2	0	Operating Information	201	*	*	*
	1	Aide Memoire	*	*	*	*
	2	Training Aids	*	*	*	*
3		Technical Description	201	302	302	*
4	1	Installation Instructions	411	411	411	*
	2	Preparation for Special Environments	421	421	421	*
5	1	Failure Diagnosis	201	512	512	*
	2	Maintenance Instructions	201	522	522	*
	3	Inspection Standards	*	532	532	*
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	601	601	*	*
7	1	Illustrated Parts Catalogues	711	711	711	*
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedule, Production	*	*	*	*
	4	Complete Equipment Schedule, Service Edition (Simple Equipment)	741	741	741	*
	5	Complete Equipment Schedule, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	*	*	*	*
	2	General Instructions, Special Technical Instructions and Servicing Instructions	*	821	821	*
	3	Service Engineered Modification Instructions (RAF only)	*	*	*	*

\* Category/sub-category not published

**Associated publications**

6 A full list of associated publications is as follows:

<u>Reference</u>	<u>Title</u>
AESP 2330-E-202	Trailer Lightweight GS Cargo

**LIST OF ABBREVIATIONS**

7 The following abbreviations are used in this publication:

AESP	Army Equipment Support Publication
Ah	Ampere Hour
CES	Complete Equipment Schedule
dB	Decibel
dc	Direct Current
DCIs	Defence Council Instructions
EMER	Electrical Mechanical Engineering Regulation
GIE	Government Issued Equipment
LCT	Landing Craft Tank
LST	Landing Ship Tank
NATO	North Atlantic Treaty Organisation
NSN	Nato Stock Number
SOPs	Standard Operating Procedures
UK	United Kingdom



**WARNINGS**

8 The following WARNINGS are applicable to this equipment.

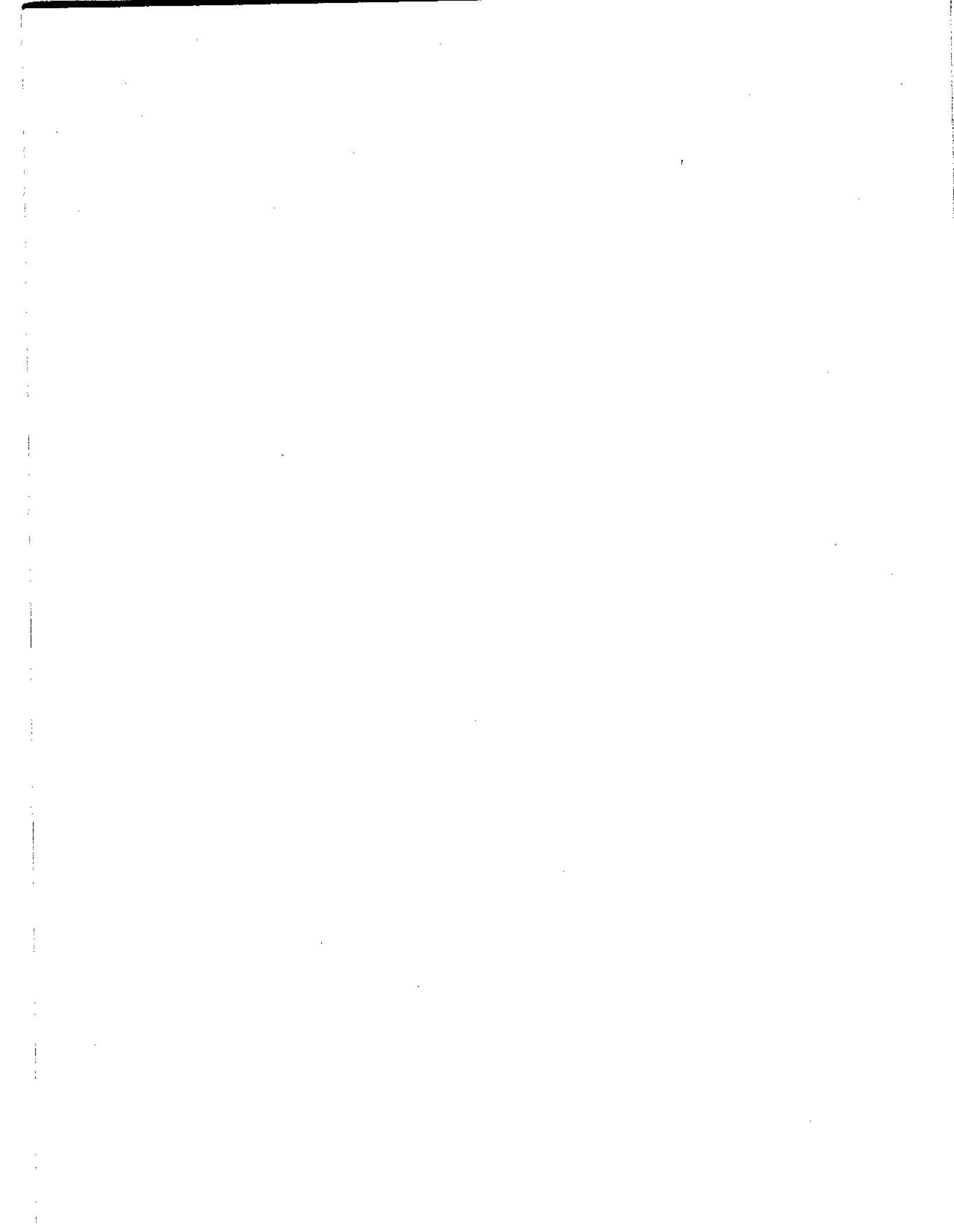
**(1) PERSONAL SAFETY. WHEN PARKING THE TRAILER ENSURE THAT THE PARKING AREA IS AS FLAT AS POSSIBLE, THAT THE HANDBRAKE IS APPLIED FIRMLY, THAT THE REAR SUPPORT LEGS ARE LOWERED AND THE CLAMPING BOLTS ARE TIGHT, AND THAT THE JOCKEY WHEEL IS CLAMPED FIRMLY BEFORE BEING WOUND DOWN.**

**(2) PERSONAL SAFETY. OBSERVE ALL SAFETY INSTRUCTIONS CONCERNING JACKING AND SCOTCHING WHEN CHANGING WHEELS OR EXAMINING BRAKE PADS.**

**CAUTION**

9 The following CAUTION is applicable to this equipment.

**EQUIPMENT DAMAGE. If the towing vehicle has a 12V electrical system, the 24V lamps on the trailer must be changed to 12V lamps of an equivalent type and wattage. Additionally, an indelible and legible label must be fitted to the trailer, adjacent to the lighting cable, stating '12 VOLT SYSTEM'.**



**CHAPTER 1**  
**GENERAL INFORMATION**  
**CONTENTS**

**Para**

- 1 Introduction
- 3 Level 2 repairs
- 4 Special tools and test equipment
- 5 Failure diagnosis chart symbols

**Fig**

**Page**

- 1 ISO flowchart symbols..... 2

**INTRODUCTION**

1 This publication details the procedures for failure diagnosis necessary to carry out repairs on the Trailer Lightweight GS Cargo.

2 The abbreviation *Left-Hand (LH)* and *Right-Hand (RH)* used in this publication refer to the left hand and right hand side of the trailer when standing at the rear facing forward.

**Level 2 repairs**

3 Level 2 repairs are limited to:

3.1 Replacement of defective components or minor assemblies, within the limits of the spares available.

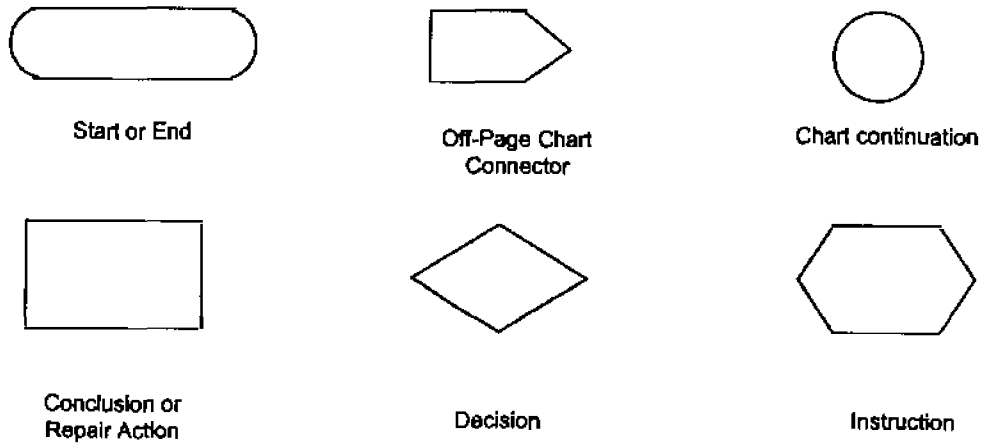
3.2 Adjustment or repair of any component or assembly within the limitations of the tools and equipment available.

**Special tools and test equipment**

4 Where applicable, any items of special tools and test equipment are detailed as required.

**Failure diagnosis chart symbols**

5 The symbols used throughout the failure diagnosis charts in this publication are the ISO flow chart symbols as shown in Fig 1.



**Fig 1 ISO flowchart symbols**

**CHAPTER 2**  
**BRAKING SYSTEM**  
**CONTENTS**

**Para**

- 1 Introduction
- 2 Special tools and test equipment
- 3 Failure diagnosis procedure
- 5 Failure diagnosis chart symbols

**Chart**

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| 2 Handbrake mechanical failure diagnosis..... | 3           |

**Fig**

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| 1 Brake system hydraulic circuit diagram..... | 4 |
|---|---|

**INTRODUCTION**

- 1 This chapter details the failure diagnosis procedures applicable to the Trailer Lightweight GS Cargo.

**SPECIAL TOOLS AND TEST EQUIPMENT**

- 2 There are no special tools or test equipment required to carry out the failure diagnosis procedures detailed in this chapter.

**FAILURE DIAGNOSIS PROCEDURE**

- 3 The failure diagnosis charts detailed in this chapter make the following assumptions.

3.1 That all relevant Level 1 maintenance, failure diagnosis and rectification has been successfully carried out.

3.2 That the running gear and braking system are free from obvious obstructions.

- 4 The brake system hydraulic circuit diagram (Fig 1) should be used in conjunction with the failure diagnosis charts.

**Failure diagnosis chart symbols**

- 5 The symbols used throughout the failure diagnosis charts in this chapter are detailed in Chap 1.

**CHART 1 BRAKE SYSTEM FAILURE DIAGNOSIS**

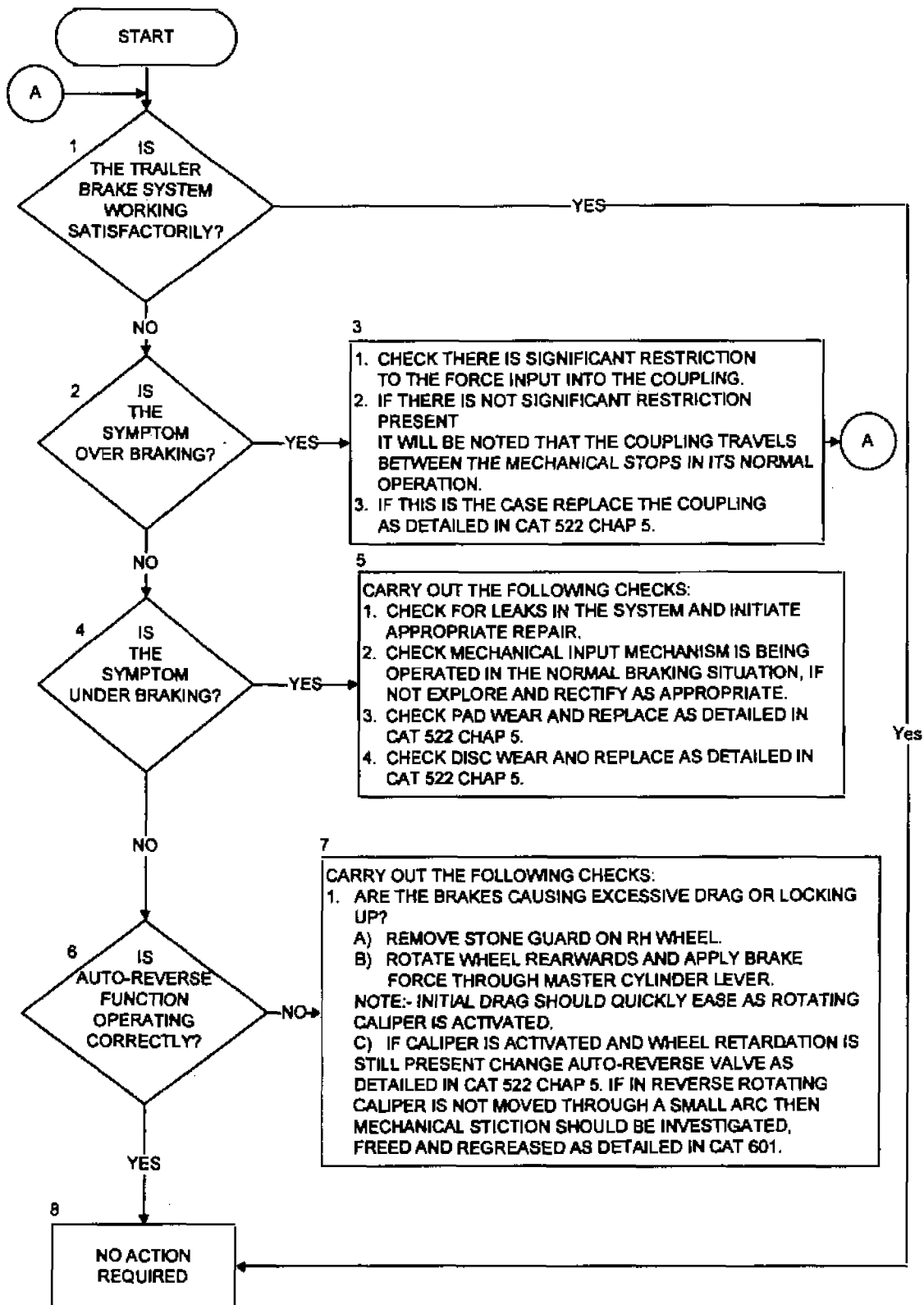
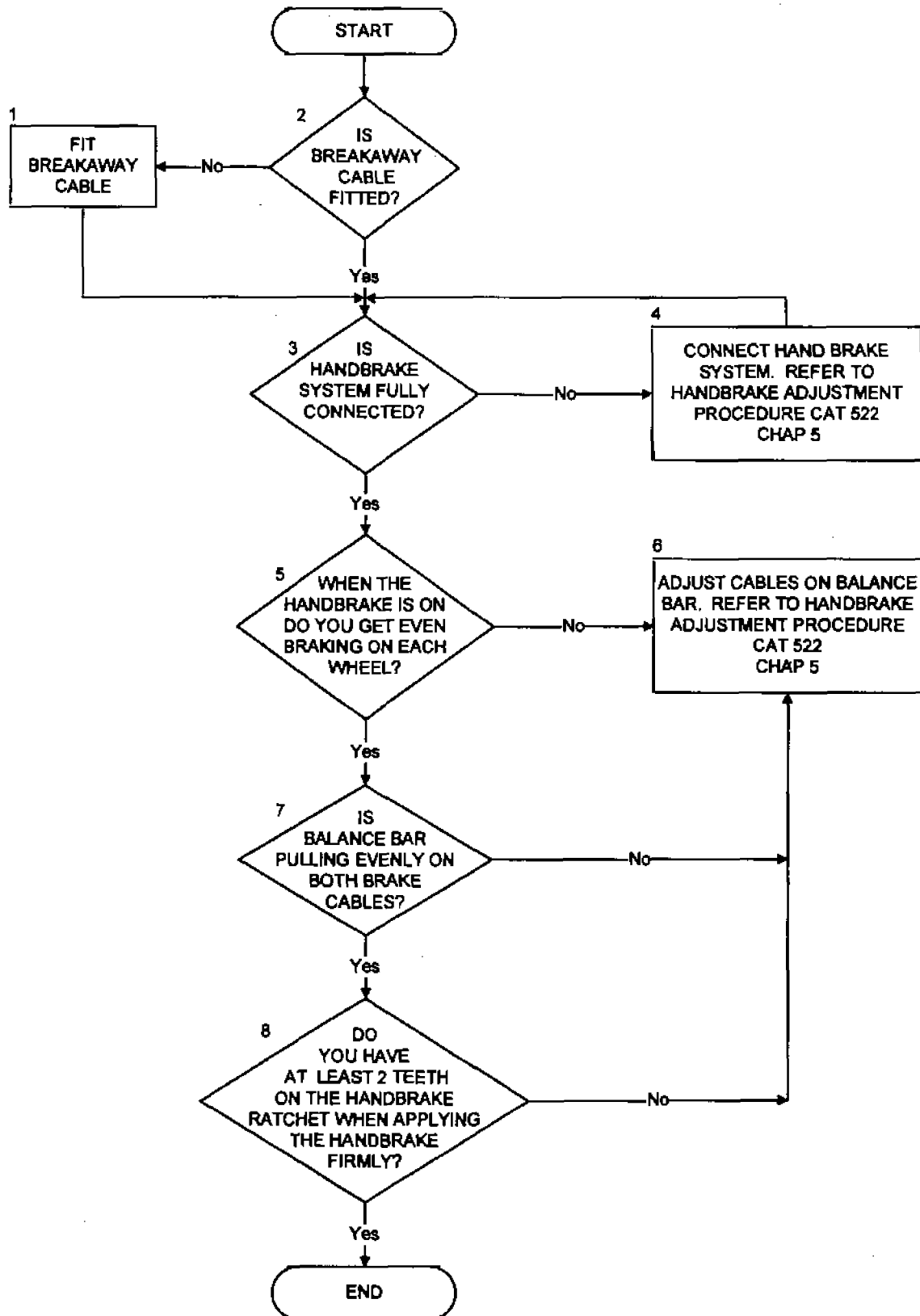
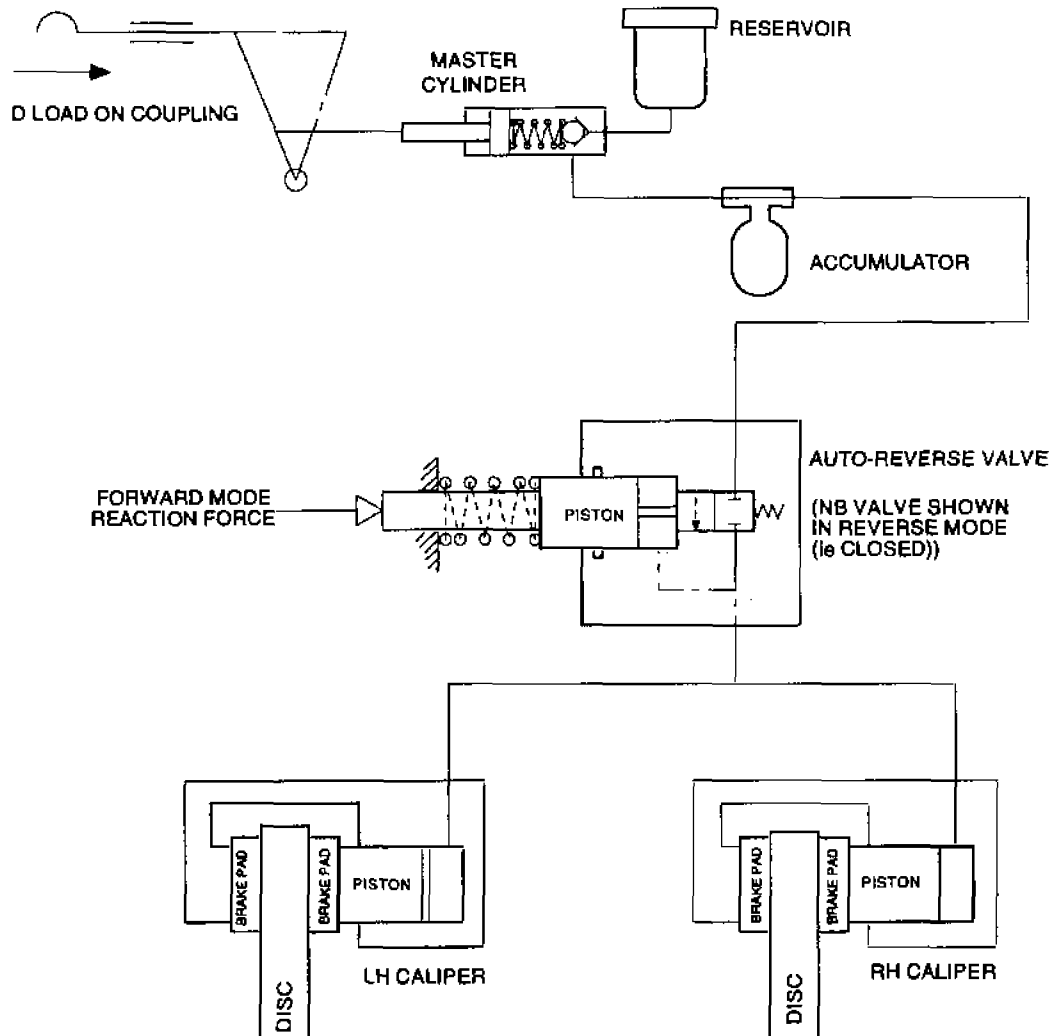


CHART 2 HANDBRAKE MECHANICAL FAILURE DIAGNOSIS





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Fig 1 Brak system hydraulic circuit diagram



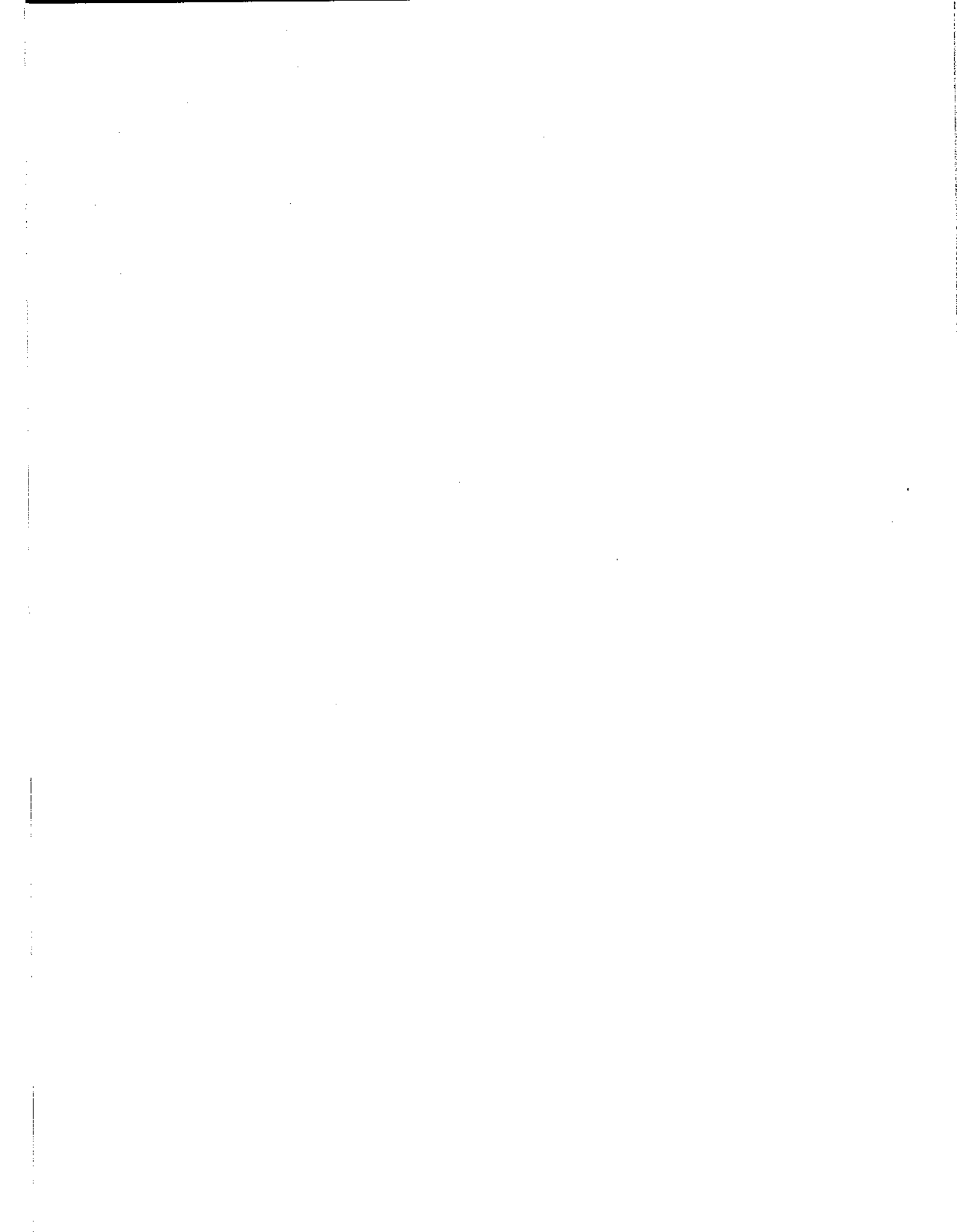
**CHAPTER 3**  
**ELECTRICAL SYSTEM**  
**CONTENTS**

Para

- 1 Introduction

**INTRODUCTION**

1 To preserve the waterproof integrity of the main wiring harness, no repairs to the harness are to be undertaken other than replacement of the harness as a complete assembly, as detailed in Cat 522 Chap 7.



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