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# MOTOR CYCLE, GENERAL PURPOSE, HARLEY-DAVIDSON

## PURPOSE AND PLANNING INFORMATION

REPRINTED INCORPORATING AMDT 1

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## PREFACE

Sponsor : JSOR(BV)  
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## INTRODUCTION

1 Service users should forward any comments on this publication through the channels prescribed in 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 The subject matter of this publication may be affected by Defence Council Instructions (DCIs), by Standing Operating Procedures (SOPs) or by local regulations. When any such Instruction, Order or regulation contradicts any portion of this publication it is to be taken as the overriding authority.

3 For periods of servicing and lubricants to be used reference must be made to the Maintenance Schedule.

## RELATED AND ASSOCIATED PUBLICATIONS

## Related publications

4 The octad for the subject equipment consists of the publications shown below. 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 (see AESP 0100-A-001-013).

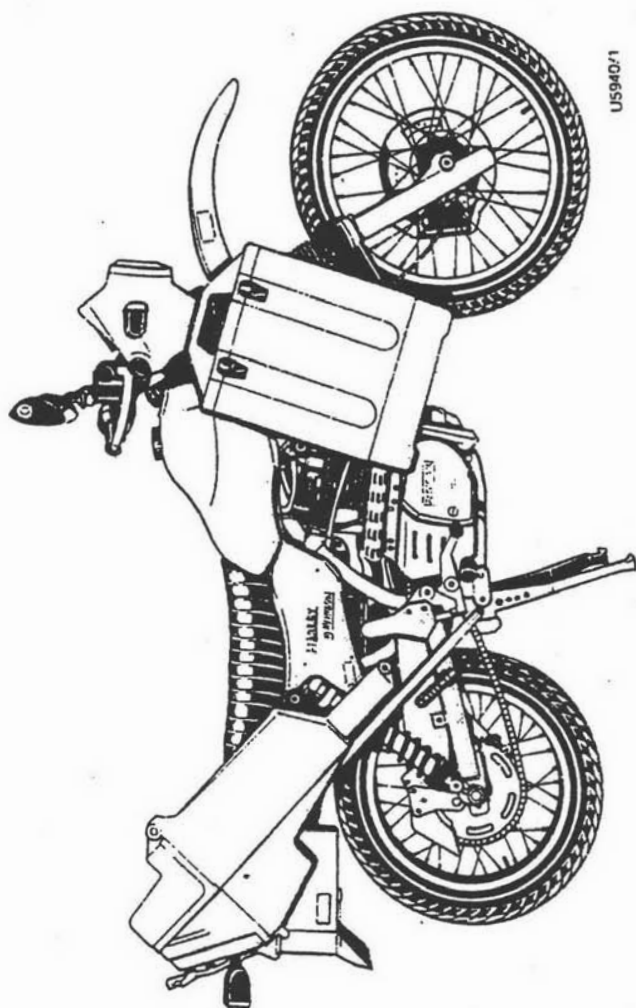
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| 3.0 Technical Description          | 7.1 Illustrated Parts Catalogue |
| 4.1 Installation Instructions      | 7.2 Commercial Parts List       |
| 4.2 Prep for Special Environments  | 8.1 Modification Instructions   |
| 5.1 Failure Diagnosis              | 8.2 General Instructions        |
| 5.2 Repair Instructions            |                                 |

\*Not published

**Associated publications**

5	<u>Reference</u>	<u>Title</u>
	CES P/31927/1	Motor Cycle, General Purpose, Harley-Davidson
	AESP 2610-A-409-301	Pneumatic Tyres, Tubes, Associated Road Wheels, Identification and Maintenance
	EMER A028	Test and Measurement Chapter 056 Roller Chains and Sprockets
	AP 2782E	Data Book for RAF Vehicles
	AP 3260	Mechanical Transport for Maintenance Regulations for RAF



US940/1

Frontispiece



**PURPOSE AND PLANNING INFORMATION**

**EQUIPMENT IDENTITY**

**1 Designation**

1.1	<u>Asset Code</u>	<u>NSN</u>	<u>Designation</u>
	VB 1010-4105 (LHDip)	2340-99-893-8379	MOTOR CYCLE
	VB 1010-9103 (RHDip)	2340-99-893-8846	GENERAL PURPOSE HARLEY-DAVIDSON
1.2	<u>Manufacturer</u>	Harley-Davidson York Inc 1425 Eden Road York PA 17402 USA	
1.3	<u>Contract No</u>	LV2A/067	

**WARNINGS**

2 The following warnings indicate hazards which are present during normal equipment use and may cause harm to personnel.

- (1) **BRAKE FAILURE. NEVER USE POLISHES ON BRAKE DISCS OR LUBRICATE BRAKE DISCS. THIS COULD CAUSE LOSS OF BRAKING POWER.**
- (2) **TYRE PRESSURES. TYRES MUST BE CORRECTLY INFLATED ACCORDING TO THE LOADING AND TYPE OF RIDING BEING UNDERTAKEN.**
- (3) **FIRE HAZARD. PATROL VAPOURS ARE HIGHLY VOLATILE. DO NOT HAVE NAKED FLAME NEAR THE MACHINE.**
- (4) **EXPLOSIVE VAPOUR. BATTERIES GIVE OFF HYDROGEN GAS WHICH WHEN IN CONTACT WITH SPARKS OR NAKED FLAME WILL EXPLODE.**

**ROLE**

3 A general purpose machine for escort, liaison and despatch rider duties.

**DESCRIPTION**

4 The Harley-Davidson MT350E is specifically designed for military use. It features a single cylinder, 4-stroke, air cooled, belt driven, overhead camshaft engine. The motor cycle has a varied range of roles during wartime and peacetime and is able to operate in a variety of theatres, locations and environmental conditions.

**PHYSICAL DATA**5 Dimensions

Kerb Weight	163 kg (359 lbs)
Gross Vehicle Weight	324 kg (713 lbs)
Dry mass	161 kg (354 lbs)
Length	2240 mm (88.2 in)
Wheelbase	1445 mm (56.9 in)
Handlebar Width	835 mm (32.9 in)
Static Laden Height	N/A
Static Unladen Height	1346 mm (53.0 in)
Ground clearance	
Laden	N/A
Unladen	254 mm (10.0 in)

6 Capacities

6.1	Fuel Tank	13.2 litres
6.2	Engine Oil	3.2 litres
6.3	Front Forks	0.5 litres

7 Engine

7.1	Type	Rotax MT350T - Single cylinder, 4-stroke
7.2	Chamber capacity	349 cc
7.3	Torque	38 Nm (28 ft lbs)
7.4	Compression ratio	8.2:1

8 Transmission

- 8.1 Type 5 speed constant mesh
- 8.2 Primary drive Gear
- 8.3 Chain (non-endless) 520 'O' ring type

9 Clutch

- 9.1 Type Cable operated spring cushioned wet multi-plate type with 8 plates

10 Gear

- 10.1 Type 5 speed constant mesh

Gearbox Ratios

First	1:2.9
Second	1:2.0
Third	1:1.4
Fourth	1:1.1
Fifth	1:0.9

11 Suspension

- 11.1 Front Standard hydraulically dampened, adjustable forks

- 11.2 Rear ~~Fully floating rear suspension with single spring and damper~~ *NORMAL SWINGING ARM WITH SINGLE SPRING AND DAMPER EACH SIDE.*

12 Brakes

- 12.1 Front Hydraulically operated disc brakes
- 12.2 Rear Hydraulically operated disc brakes

AMDT  
1

13 Tyres and rims

13.1 Front 90/90 - 21.54 Metzeler, Enduro 3 sahara  
tyres

13.2 Rear 4.0 - 18 64 S Metzeler, Enduro 3 Sahara  
tyres

14 Performance data

## Range

Road (nominal) 356.76 km  
Cross country (nominal) 314.76 km

## Fuel consumption

AMDT Roads (nominal) ~~20.75 litres/100 km~~ 3.7 LITRES/100 km.  
1 Cross country (nominal) ~~23.54 litres/100 km~~ 4.19 LITRES/100 km.

## Vehicle speed

Average on level roads 138 km/h  
Average cruising on roads  
(laden) 103 km/h  
Average cross country  
(laden) 20 km/h

## Maximum gradient

Dry concrete 27 degrees

## Turning circle

Minimum turning radii 3200 mm (14 ft)

**ELECTRICAL DATA**

15	Battery		
	15.1	Voltage	12 V dc
	15.2	Polarity	Negative earth/ground
	15.3	Capacity	14 Ah
16	Alternator		190 W

**TRANSPORTATION DATA**

17 This vehicle is suitable for transportation by land, sea and air.

**ENVIRONMENTAL DATA**

18 Temperature range -18 degrees C (0 degrees F) to  
+44 degrees C (+110 degrees F)

Terrain European roads with cross-country capability.

**MANNING REQUIREMENTS**

19 One trained motor cyclist



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Date .....

Title of AESP - Motor Cycle, General Purpose, Harley-Davidson

COMMENT

Signed .....

TO .....  
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FROM: LSTPA  
Repository Road  
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London SE18 4QA

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  - (ii) Amend the AESP
  
- No action is considered necessary for the following reasons:

• Delete as necessary

Signed .....





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