



**O.M.A.R.**  
TECHNOLOGY S.R.L.

# USE AND MAINTENANCE HANDBOOK

Via Civesio, 14

20097 S. DONATO MILANESE - ITALY

Telefono +39. 0255600949

Fax. +39.0255601499

e-mail: [info@omartechnology.com](mailto:info@omartechnology.com)

web site: [www.omartechnology.com](http://www.omartechnology.com)

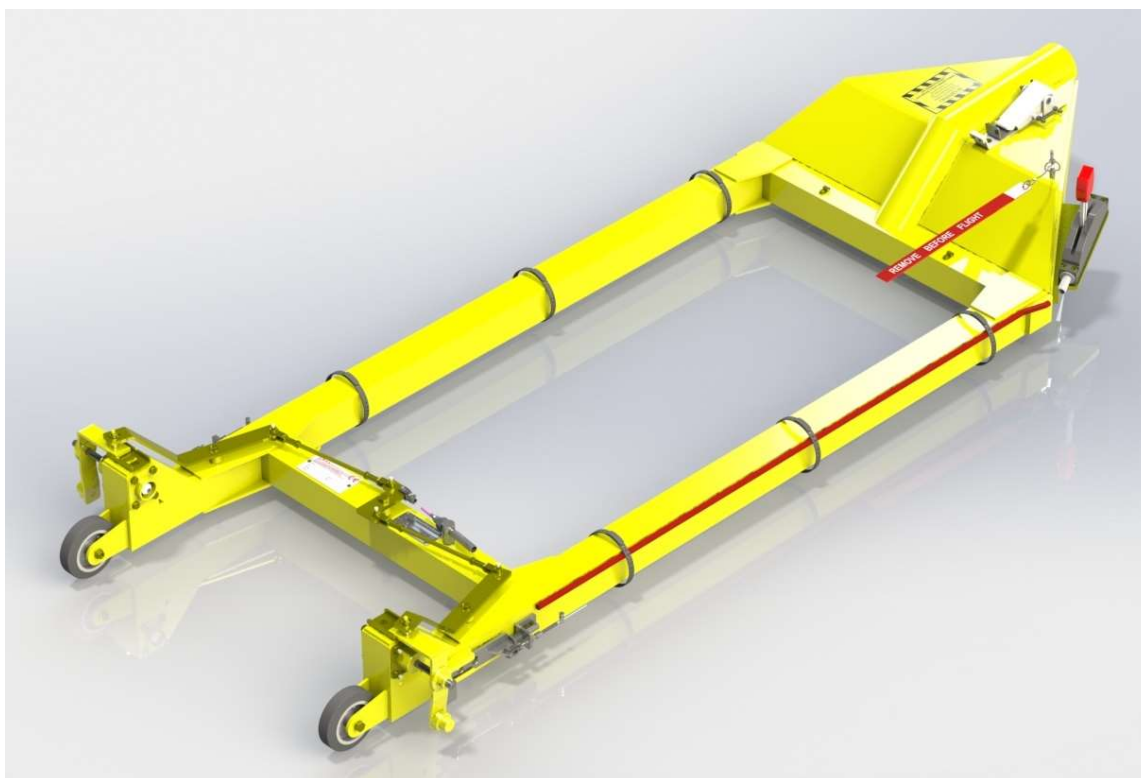


Quality management system certified UNI EN ISO 9001:2015 N° 3966

## FLIR TOW BAR ADAPTER FOR AW 189 HELICOPTERS

**OMAR P/N 02265**

**LHD P/N 8G0910G00332**



Doc. No. **BT 189 C 97 00 00 B** Issued: 7 March 3<sup>rd</sup>, 2024 Page 1/16

**O.M.A.R. TECHNOLOGY S.R.L.**

**VIA CIVESIO, 14 - 20097 S. DONATO MILANESE (MI) – ITALY**

**Tel. +3902.55600949 – Fax +3902.55601499**

**e-mail: [info@omartechnology.com](mailto:info@omartechnology.com)**

**NATO CODE A 4883**

**INDEX**

<b>1. INTRODUCTION</b> .....	4
1.1 PURPOSE .....	4
1.2 REFERENCE .....	4
<b>2. HANDBOOK MODIFICATIONS</b> .....	4
<b>CERTIFICATION FOR CE COMPLIANCE</b> .....	5
<b>3. ITEM DESCRIPTION</b> .....	7
3.1 COSTRUCTION .....	7
3.1.1 Fork .....	8
3.1.2 Coupling device (TELEFLEX® type) .....	8
3.1.3 Wheels .....	8
3.1.4 Safety locking system .....	8
3.1.5 Coupling flange .....	8
3.2 Identification plate .....	8
<b>4. INSTRUCTIONS FOR USE</b> .....	10
4.1 Foreword .....	10
4.2 Warning before use .....	10
4.3 Use .....	10
<b>5. MAINTENANCE INSTRUCTIONS</b> .....	12
<b>6. INSPECTIONS AND ACCEPTANCE TESTS</b> .....	14
6.1 Production process control .....	14
6.2 Acceptance tests .....	14
<b>7. RECURRING MAINTENANCE INSPECTIONS</b> .....	15
7.1 Inspection plan .....	15
7.2 Records of Service .....	15
<b>8. SUGGESTED SPARE PARTS LIST AND RELEVANT P/N</b> .....	16
<b>9. HOW TO REPLACE THE SPARE PARTS</b> .....	16
1.1 Wheel replacement .....	16

OPERATIVE  
INSTRUCTION  
AND  
MAINTENANCE

## 1. INTRODUCTION

### 1.1 PURPOSE

The purpose of this handbook is to provide detailed instructions of use, maintenance and repair of FLIR tow bars adapter. The Adapter must be used with the joint/shock absorber of the tow bar suitable **8G0910G00131**.

### 1.2 REFERENCE

The data herewith provided integrate those included in the “use and maintenance handbook” of tow bar and refer in particular to the adapter of tow bar **8G0910G00131**.

When tow bars are fitted with adapter for FLIR, this handbook is an integral part of the “use and maintenance handbook” of tow bar **8G0910G00131**.

## 2. HANDBOOK MODIFICATIONS

**O.M.A.R Technology S.r.l. is the owner of this handbook. This handbook has been developed upon Leonardo Helicopters Division (Here in mentioned as LHD) request. Information, drawings and technical data included herein may not be reproduced, disclosed to third parties or used for competition purposes without the approval of the above mentioned companies.**

**O.M.A.R Technology S.r.l. and LHD reserves the right to change any information and description herein contained and carry out all technical modifications necessary to improve the product concerned without notice.**

## CERTIFICATION FOR CE COMPLIANCE

In compliance with enclosure II B of Directive 2006/42/CE referred to machines or parts thereof that are intended to be assembled or integrated into another machine and that cannot operate independently.

### *The Company*

***O.M.A.R. TECHNOLOGY S.R.L. at via Civesio, 14 - 20097 San Donato Milanese (MI) Italy***

### DECLARES

that the adapter for helicopters fitted with snow skids

Make **O.M.A.R. TECHNOLOGY S.r.l.**

MODEL **BT189C**

MASS (kg) **28**

SERIAL NO. \_\_\_\_\_

YEAR OF CONSTRUCTION \_\_\_\_\_

to be used with a tow bar for helicopters towing complies with safety & accident prevention standards in accordance with enclosure I of the 2006/42/CE machine directive.

The above mentioned adapter shall not be operated unless the machine it is fitted or assembled with is in compliance with the above mentioned Directive. Before operating the adapter, additional risks connected with towing shall be stated in compliance with the Directive provisions.

Unauthorized modifications, additions or transformations of adapter are forbidden for safety reasons; the manufacturer is not liable for any damage resulting therefrom.

Users are entirely responsible for risks connected with incorrect use of adapter or under different operating conditions than those specified in this handbook that is an integral part of this statement.

The technical file related to this adapter is kept in the archives of **O.M.A.R. TECHNOLOGY S.r.l.**

Factory tests and acceptance performed in compliance with the machine directive were positive.

San Donato Milanese, \_\_\_/\_\_\_/\_\_\_\_\_

**O.M.A.R. TECHNOLOGY S.r.l**

*General Manager*

# FIRST PART

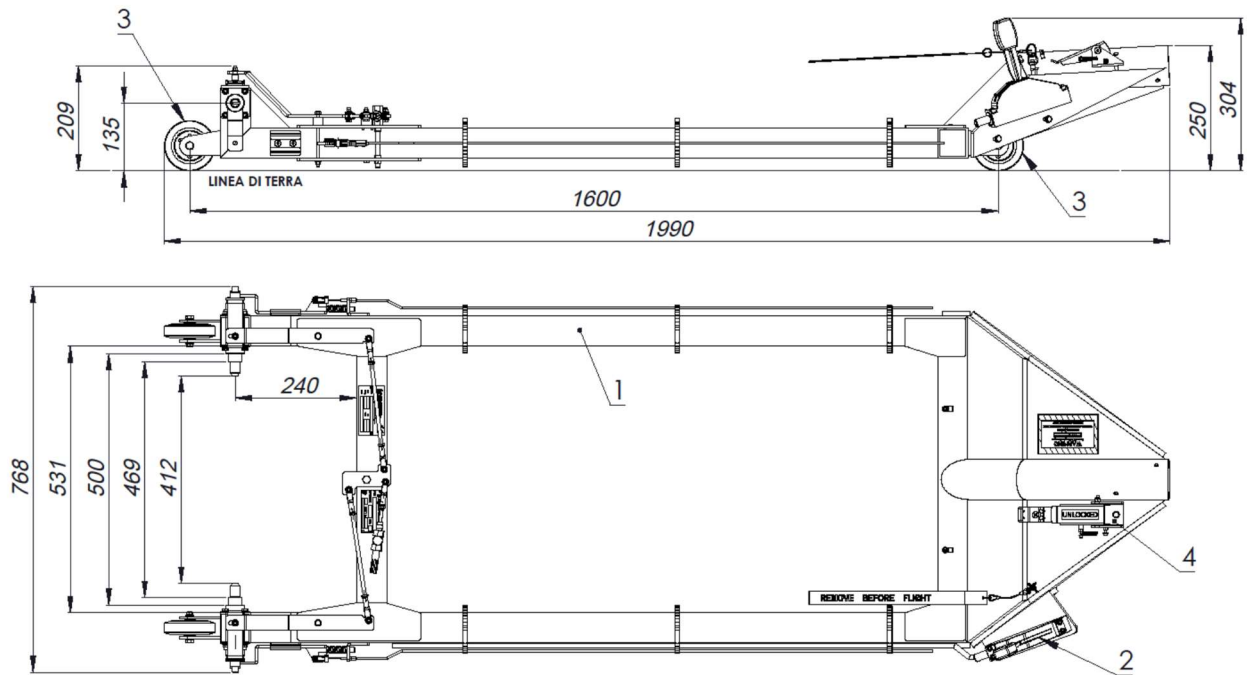
# DESCRIPTION AND

# FEATURES

### 3. ITEM DESCRIPTION

Tow bar adapters cannot operate independently; they have to be used together with tow bars suitable for helicopter towing and a trailer.

**FIGURE 1**



#### 3.1 COSTRUCTION

The construction of the adapter consists of the following parts:

- 1 Fork
- 2 Coupling device (TELEFLEX® type) L= 1500 mm
- 3 Wheels
- 4 Safety locking system
- 5 Coupling flange

### 3.1.1 Fork

Fork has been designed to handle both helicopters equipped with FLIR.

### 3.1.2 Coupling device (TELEFLEX® type)

The operator shall make sure that coupling pins are positioned in compliance with helicopter configuration.

### 3.1.3 Wheels

The fixed wheels make easier for the operator to get close to the helicopter's coupling area.

### 3.1.4 Safety locking system

These wheels are provided to steer the light tow bar towards the helicopter's wheels accurately.

### 3.1.5 Coupling flange

The operator shall make sure that coupling pins are positioned in compliance with helicopter configuration. This device enables coupling of the bar to the helicopter's nose wheels.

## 3.2 Identification plate

The identification of each individual tow bar is made with a metal label, represented in the figure below, on which the unique data of the same are engraved, for its traceability over time. Upon request, the **O.M.A.R. Technology S.r.l.** can add a second label supplied by the customer to the label mentioned above.

<b>O.M.A.R. TECHNOLOGY</b> S.R.L.			
20097 S. Donato Milanese (MI) Italy			
Tel. +39 02 55600949 - Fax +39 02 55601499			
www.omartechnology.com - info@omartechnology.com			
<b>MOD.</b>	<input type="text"/>		
<b>P/N</b>	<input type="text"/>	<b>S/N</b>	<input type="text"/>
<b>WT kg</b>	<input type="text"/>	<b>YEAR</b>	<input type="text"/>
<b>N.U.C.</b>	<input type="text"/>		



# SECOND PART

# USE

## 4. INSTRUCTIONS FOR USE

### 4.1 Foreword

This user manual must be kept at all times with the tow bar and within operator's reach for reference and to keep records of any repair or maintenance activity.

### 4.2 Warning before use

Only qualified and trained personnel, knowledgeable of any use-related issue both for people, equipment and vehicles involved are allowed to operate the adapter with tow bar.

### 4.3 Use

The adapter shall be coupled to the front of the BT 189 tow bar, **P/N LHD 8G0910G00131**.

This device enables coupling of the bar to the helicopter's nose wheels.  
The operators shall observe the following sequence:

- ✓ Set the bar next to the helicopter's nose wheels.
- ✓ Release the steering gear of the helicopter's wheels.
- ✓ Pull out the safety pin blocking the tow bar's handle and introduce it in the relevant slot located on the nose landing gear helicopter's (please refer to the helicopter's technical documentation)
- ✓ Open locking pins wheel with Teleflex System (make sure that the Safety Locking System is OPEN rif.4 – figure 1)
- ✓ Couple the tow bar to the helicopter's wheels and close the pins with Teleflex System
- ✓ By operating the lever of the gripping system lock the pins with the Safety Locking System (CLOSED rif.4 – figure 1)
- ✓ Hook the tow bar to the truck
- ✓ Release the helicopter wheels brake (please refer to the helicopter's technical documentation).

**PLEASE REFER TO INSTRUCTION FOR USE OF TOW BAR AW 189  
(P/N 8G0910G00131) INCLUDED IN THE RESPECTIVE "USE & MAINTENANCE  
HANDBOOK"**

# THIRD PART MAINTENANCE

## 5. MAINTENANCE INSTRUCTIONS

Maintenance shall be performed only by qualified and skilled personnel.

With the assistance of the helicopter's manufacturer **O.M.A.R. Technology S.r.l.** will provide all information concerning maintenance and spare parts as well as additional assistance such as:

- training courses for operators and maintenance personnel
- spare parts
- service.

Tow bar adapter components shall be disassembled in good order and following a proper sequence; personnel in charge shall perform any maintenance work under the best safety conditions.

A deep knowledge of the tow bar adapter operating standards and a careful behaviour help preventing any potential risk.

# FOURTH PART

# DOCUMENTATION

## 6. INSPECTIONS AND ACCEPTANCE TESTS

On \_\_\_\_\_ **O.M.A.R. Technology S.r.l.** has carried out inspection and acceptance tests concerning the tow bar adapter.

### 6.1 Production process control

Tests carried out:

- a) Conformity of the assembly with the applicable drawings
- b) Conformity of the components to the applicable drawings

### 6.2 Acceptance tests

Acceptance tests proved that:

- a) The tow bar adapter can perform all operations it is intended for.
- b) Construction undergoing any stress contemplated has passed the tests without showing any permanent deformation or damage.
- c) All safety devices performed flawless.

**O.M.A.R. Technology S.r.l.** – The responsible for the tests: \_\_\_\_\_

## 7. RECURRING MAINTENANCE INSPECTIONS

### 7.1 Inspection plan

TYPE OF INSPECTION	RECURRENCE
Coupling mechanism to helicopter wheels	Weekly
Wheels wear / front	Monthly
Visual inspection of the structure	Monthly

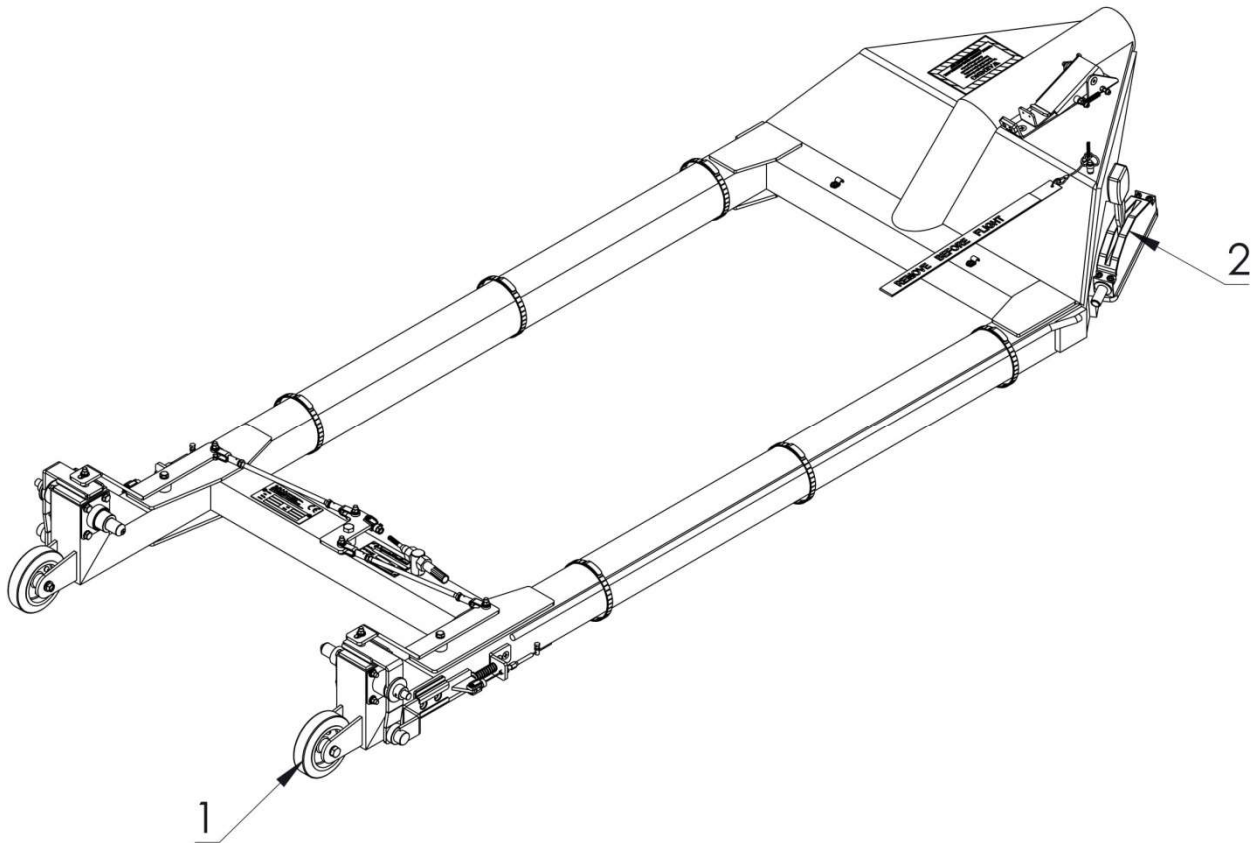
The user must observe the tow bar maintenance and inspection schedule as shown in this manual.

### 7.2 Records of Service

No	Date	Description of service	SIGNATURE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

## 8. SUGGESTED SPARE PARTS LIST AND RELEVANT P/N

**FIGURE 2**



Ref.	DESCRIPTION	QTY	P/N
1	Wheels	4	00772
2	TELEFLEX® type L=1500 mm	1	00580

## 9. HOW TO REPLACE THE SPARE PARTS

To replace some spare parts, proceed as described in the following paragraphs.

### 1.1 Wheel replacement

- ✓ Unscrew and remove the screws.
- ✓ Replace the wheels.
- ✓ Insert and tighten the screws.