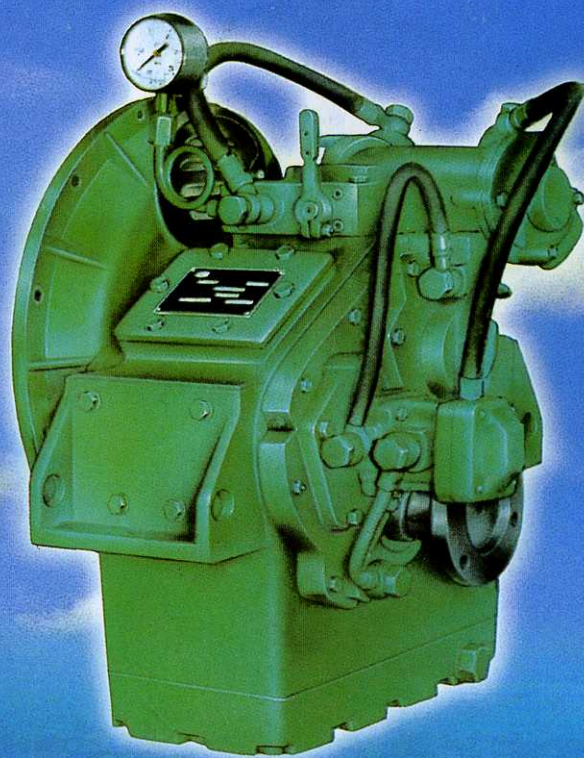


MA 系列

# 船用齿轮箱

*Marine gearbox*



杭州前进齿轮箱集团有限公司  
(杭州 齿 轮 箱 厂)

HANGZHOUADVANCEGEARBOXGROUPCO.,LTD.  
(HANGZHOU GEARBOX WORKS)

使用说明书

SERVICE MANUAL



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## FOREWORD

In order to bring into play the function of the gearbox and obtain a long and reliable service, it is advised to study this manual carefully and be familiar with the technical feature and the operation, as well as maintenance.

For model MA100, the cooler is not fixed on the gearbox. When installing the power unit, ought to choose the suitable place for fixing cooler and connecting oil or water pipe correctly according to the mounting dimensions.

In a column order No, x means an alternative part. If need, should be marked when ordering.

Care should be taken that the contents covered in this manual may be somewhat different from the structure of the newly-made products, it is merely due to the improvements of our products in the lapse of time.



## SECTION I General

Marine gearbox series MA possess the capabilities of ahead and astern, clutching and dis-clutching, reducing speed and bearing the propeller thrust. They can be coupled with various marine diesel engines according to their Capacity Chart so as to form a complete marine power unit, which is suitable for small boats navigating in inland rivers or in coasts.

The gearbox features are as follows:

1. The hydraulic system built in the gearbox made the operation easy from the bridge with remote control. A unit of pressure delay stepping up is fitted in the hydraulic control system and the clutch is smooth in engagement and thorough in disengagement.

2. Two sets of multiplate clutches are mounted at the output end and easy to dis-and re-assemble and maintain.

3. The housing is integral to ensure its rigidity and the precision for engaging.

4. Both ahead and astern are identical in reduction ratios and can transmit the rated power, especially suitable for boats equipped with twin-engines, which with the same rotation, and twin-propellers.

5. The emergency set is provided to ensure the boat travelling continuously in case of severe hydraulic failure.

6. Bell housing and flexible input coupling are connected with the engine, so as to be looked-perfectly the whole unit and easily in mounting.

7. The range of the speed reduction ratios is wider as follows. Customer can choose it reasonably in accordance with the data of the engine or the boat and with transmission capacity.

Nominal ratio		1.5:1	2:1	2.5:1	3:1	3.5:1	4:1	4.5:1	5:1	5.5:1
Actual ratio	MA100	1.6:1	2:1	2.55:1	3.11:1	3.59:1	3.88:1			
	MA125		2.03:1	2.46:1	3.04:1	3.57:1	4.05:1	4.39:1	4.7:1	
	MA142		1.97:1	1.52:1	3.03:1	3.54:1	3.95:1	4.5:1	5.06:1	5.47:1

