

## *RB (1.87:1) - MS (1.91 : 1)*

### Reverse gear

#### Type 48

Ratio without additional gear .....  
with additional gear .....  
Lubricating system .....

1.87:1  
2.92:1  
Common with engine

#### Type 86

Ratio with reduction gear .....  
Lubricating system .....  
Oil capacity incl. reduction gear, dm<sup>3</sup> .....  
Oiling system .....  
Oil grade/viscosity .....

1.91:1  
Deceler. (not common with engine)  
0.88 (0.94) = 0.88  
Same as in engine

# SELF-CHARGING GEARS

## Type designation

MR 350 .....
Oil grade and viscosity .....
Oil capacity .....
Oil pressure during operation .....
Weight .....

## Type designation

MRP 350 .....
---------------

Oil grade and viscosity .....
Oil pressure during operation .....
Oil capacity .....
Weight .....

## Type designation

MRP 350 HC, MR 3 .....
------------------------

Oil grade and viscosity .....
Oil capacity .....
Oil pressure during operation .....
Weight, ratio .....

Ratio	Direction of rotation
1/1	Similar to engine
Transmission oil SAE 90 EP	
approx. 6 litres (5.3 imp. qts. = 6.4 US qts.)	
approx. 3.7 kg/cm <sup>2</sup> (110 p.s.i.)	
approx. 80 kg (176 lb.)	

Ratio	Direction of rotation
2/1	Opposite to engine
2/1	Similar to engine
3/1	Opposite to engine
3/1	Similar to engine

Transmission oil SAE 90 EP	
approx. 3.7 kg/cm <sup>2</sup> (110 p.s.i.)	
approx. 7 litres (6.2 imp. qts. = 7.4 US qts.)	
approx. 90 kg (200 lb.)	

Ratio	Direction of rotation
1.5/1	Opposite/similar to engine
2/1	Opposite to engine
2/1	Similar to engine
3/1	Opposite to engine
3/1	Similar to engine
4/1	Opposite to engine
4/1	Similar to engine

Transmission oil SAE 90 EP	
approx. 13 litres (11.5 imp. qts. = 13.7 US qts.)	
approx. 3.7 kg/cm <sup>2</sup> (110 p.s.i.)	
1.5/1 approx. 140 kg (309 lb.)	
2/1, 3/1 approx. 160 kg (353 lb.)	



## P & M reverse gear

Manufacturer and model . . . . .  
Type input shafts, one common  
output shaft  
Reduction ratio . . . . .  
Oil capacity, lit  
oil<sup>2</sup> (litre) . . . . .  
Imp.galls./100.galls<sup>2</sup> . . . . .  
Weight without oil . . . . .

Point A Mousson R11000

0.1 or 0.2:1

60

11.1/18.2

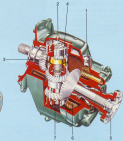
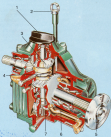
1900 kg

2030 lbs

Type oil<sup>2</sup>

Make <sup>1</sup>	Engine oil <sup>2</sup>	Hydraulic oil	Turbine oil
BP	Verdell 110A/200 <sup>2</sup> 40 Class 0.1 20W or 30	Energy HLP 100, 120, 150	Energy 100 68/100 150 150 150
Esso	Essolet 60W 30 or 50 Tromp 60 30 or 50	Recht 64 or 64	Verdell 5L 50 or 60
Mobil	Delvac 11100, 1200, 1100 or Shelving 31 0-1000	OTB oil heavy medium or heavy	OTB 10 or 10
Shell	Mobina oil 20 or 30 Gardina oil 30 or 30	Tellus oil 30 or 60	Tellus T 33, T 32

# MS2B (2.4:1 veya 3.0:1) -MS4A (1.93:1 veya 2.63:1)

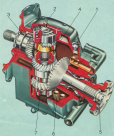


1. Easily accessible oil filter cap.
2. Oil sump.
3. Helicity cut gearwheels for quiet operation.

4. Spring cone clutch for light and smooth engagement.
5. Output shaft on MS2B is angled 7° downwards, on MS4A 8° downwards.
6. Supply pipe for oil cooling.

7. Built-in slip clutch gives protection from overloads (i.e. blocked propeller) for safety of integral components.
8. Choice of counterclockwise or clockwise propellers.

## MS 3C ( 1.93 : 1 upa 2.73:1 )



### MS3C Reverse gear

1. Easy access of filter.
2. Oil dipstick.
3. Spiral bevel gears for quiet, efficient operation.
4. Spring-loaded cone clutch gives smooth quiet engagement of forward and reverse.
5. Output shaft with 8° downward angle.
6. Coolant pipe for oil cooling.
7. Built-in slip coupling which safeguards against over-loading (say running aground) thereby protecting the transmission.
8. Uses same oil as engine.
9. Ability to operate propeller in either direction for counter-rotation.