

SURVEY VESSELS OF THE ROYAL NETHERLANDS NAVY

The Hydrographic Department of the Royal Netherlands Navy has at its disposal a number of vessels especially designed for surveying purposes. These can be classified as follows :

1. *Surveying vessels for overseas services.*

These are H.M. ships carrying a complement of naval personnel. They are destined for service in the East Indian Archipelago or in Netherlands West Indies. Before World War II there were 4 ships carrying out hydrographic duties in the East Indian Archipelago. These vessels were all lost owing to enemy action. After the war the hydrographic work was originally resumed by the Neth. East Indies Government ship « Gemma », which was replaced after one year - January 1948 - by the cable ship « Zuiderkruis ». This vessel passed into Indonesian hands with the transfer of sovereignty to the officially recognized Indonesian Government.

Meanwhile local surveys were also carried out by small craft and in August 1950 H.Neth.M.S. « Jan van Brakel », a converted minelayer-escort vessel, was brought into commission as a surveying vessel.

To replace war losses two ships were laid down in 1949. They will be equipped with the most modern survey equipment, while one or two auxiliary vessels will usually operate in conjunction with them. Trials will be carried out in 1951.

2. *Surveying vessels for the Netherlands coastal waters.*

The ships belong to the Royal Neth. Navy, but are Government vessels with a civilian crew. They are under command of a naval officer, who is assisted by a staff of 3 junior naval officers for the surveying work.

After hostilities had ceased the survey of the Netherlands coastal waters was resumed by two ships. One of these was the « Hydrograaf », which had been in the United Kingdom during the war, while the other was a vessel of the Netherlands Pilotage Service, which was received on loan for the time being.

Meanwhile a newly built surveying vessel of the same name, « Zeefakkel », has been launched in July 1950 and it is intended to bring her in commission in March 1951, while the old vessel was returned to the Pilotage Service. The new « Zeefakkel », which is equipped with modern survey equipment, will take the place of the prewar « Eilerts de Haan ».

3. *Wiredrag tenders.*

These craft, which are used in the East Indian Archipelago, operate in conjunction with a surveying vessel and are manned by her crew. In order to

NAME OR TYPE OF SHIP	JAN VAN BRAKEL	² SURVEYING SHIPS for TROPICAL WATERS TYPE 1949	HYDROGRAAF	ZEEFAKKEL	⁴ WIRE-DRAG TENDERS DREG I-IV	² WIRE-DRAG LAUNCHES TYPE H D M L
Completed in	Febr. 1936	about July 1951	May 1910	March 1951	Aug.-Sept. 1950	
Displacement stand	970 t.	1275 t.	297 t.	341 t.	45 t.	46 t.
— full load	1170 t.					
Dimensions : Length	59 m.	71,5 m.	40,5 m.	45,5 m.	20 m.	22 m.
— Beam	10 m.	10,8 m.	6,7 m.	7,5 m.	4,2 m.	4,6 m.
— Draught	4 m.	3,6 m.	2,1 m.	2,1 m.	1,4 m.	1,3 m.
Speed economical	8 Kts					
— cruising	10 Kts					
— full	14 Kts					
Radius at full speed	2.200 mls	15 Kts	9,5 Kts	13 Kts	10 Kts	10 Kts
Food storage	enough for two months	± 5500 mls	1 week	± 1900 mls	750 mls	11 Kts
Fuel storage	oil 72 t.	2 months	Coal 34 t.	1 month		2000 mls
Machinery	2 Tr. exp. (each IHP = 800)	solar oil 187 t.	2 Tr. exp. (each IHP = 180)	solar oil 24 t.	solar oil 1,8 t.	solar oil 7,7 t.
Boilers	2 Yarrow (14 at)	2 (6 cyl.) Stork-Diesels	1 Scotch (10 at)	2 (8 cyl.) Smit-M.A.N. Diesels	2 (6 cyl.) Kromhout-Gardner	
Propellers	2	(each SHP = 1000)	2	(each SHP = 320)	(each SHP = 60) Diesels	
Rudders	1 electric hydr. operated each	2 variable pitch reversible	1 steam operated	2 variable pitch reversible	2	2
Electric generators	2 Diesel (325 A - 120 V)	1 electric hydr. operated each	1 steam	2 electric hydr. operated each	2 hydr. operated	2
Winches anchor	1 steam	3 Diesel (475 A - 220 V)	1 steam	2 Diesel (225 A - 20 V)	1 Diesel 220 - 24 V	1 110 - 24 V
— stern	1 —	1 electric	1 steam	1 electric	1 electric	1 hand-operated
— boat	1 electric	1 —			1 electric wiredrag winch	
Boats-surveying	2 (26 ft)	3 (25 ft)	1 (28 ft), 1 (25 ft)	1 electric crane 5t.		
— small	1	3	2	1 (28 ft.), 1 (25 ft.)		
Rafts	6 (for 16 men)	5 (for 20 men), 1 (for 10 men)	1	3 (for 10 men)	1 (for 10 men)	2
Canoes	2	1				
Anchors bow	2 (1000 Kg)	1 (1300 Kg)	2 (400 kg)	2 (600 kg)	2 (70 kg)	1
— reserve	1 (375 Kg)	1 (1300 Kg)	1 (200 kg)	1 (600 kg)		
Derricks		1 (400 Kg), 1 (200 Kg)		1 (180 kg), 1 (100 kg)		
Gyroscopic compass	1 Sperry	4 (1,5 ton.)		1 (1,5 t.)		
— repeaters	5	1 Sperry		1 Sperry		
Magnetic compass	1 Husun deat beat	5	1 Bossman	2		
Echo-sounding gear	1 Hughes MS 21 G	2 Kelvin Hughes	1 AP 920	1 Kelvin Hughes		2 Patt 0 1151 A
Asdic		5 Hughes MS 21 G	2 Hughes MS 12	4 Hughes MS 21 F	1 Hughes MS 21 G	1 Hughes MS 12
Radio Navigation Aids		1 Hughes MS 21 K	1 Hughes MS 21 F			1 type 134 C
Radar	1 SO, 1 (US made)	1 type 128 CVS		1 type 128 V		Decca
Direction-finder	1 Telefunken E 404 N	1 Decca Marine type 12		Decca		
Radio-transmitters	1 TBL	1 EM 12		1 Sperry		
— --receivers	1 TCS, 1 TBS, 1 SCR 522	1 TBL	1 TCS, 1 SCR 522	1 EM 12		
Radio-receivers	3 HR07, 1 RBL	1 TCS, 1, 3BZ, 2 SCR 522	3 SCR 536	1 TCS, 1 SCR 522	1 TCS	1 TCS
Handy-talkies		2 HR07, 1 RBL		1 HR07		1 RBL resp. 1-B28
Sounding equipment		3 SCR 536		3 SCR 536		3 APW
Other equipment	200 sticks bamboo	1-5000 fath. Lucas (electr.)	1 Jeep (not to be carried aboard)	Wiredrag gear	1 Lucas	Wiredrag gear
Beacon Material		1-300 fath. Kelvite HD (electr.)		1 Jeep	Wiredrag gear	
Drawing-room installation	air-conditioned	Bamboo				
Laboratory-equipment	2 drawing tables	1 Jeep		4 buoys	1 Chart table	
Workshop		1 Taut Wire Measuring Gear		1 Egeria beacon	(in wheelhouse)	
Armament	for boat maintenance	11 Buoys		3 Dan buoys		
Complement (incl. specialists)	4-20 mm. Oerlikons	12 Egeria beacons		3 drawing tables		
	8 off., 6 cpo., 63 men	6 Dan buoys				
		air-conditioned				
		4 drawing tables	2 drawing tables			
		dark-room				
		for boat and jeep maintenance				
		1-40 mm. Bofors				
		2-20 mm. Oerlikons				
		11 off. 11 cpo., 20 men	4 off., 3 cpo., 20 men	2-20 mm. Oerlikons		
				4 off., 3 cpo., 20 men	1 off. + 8 men	1 off. + 5 men

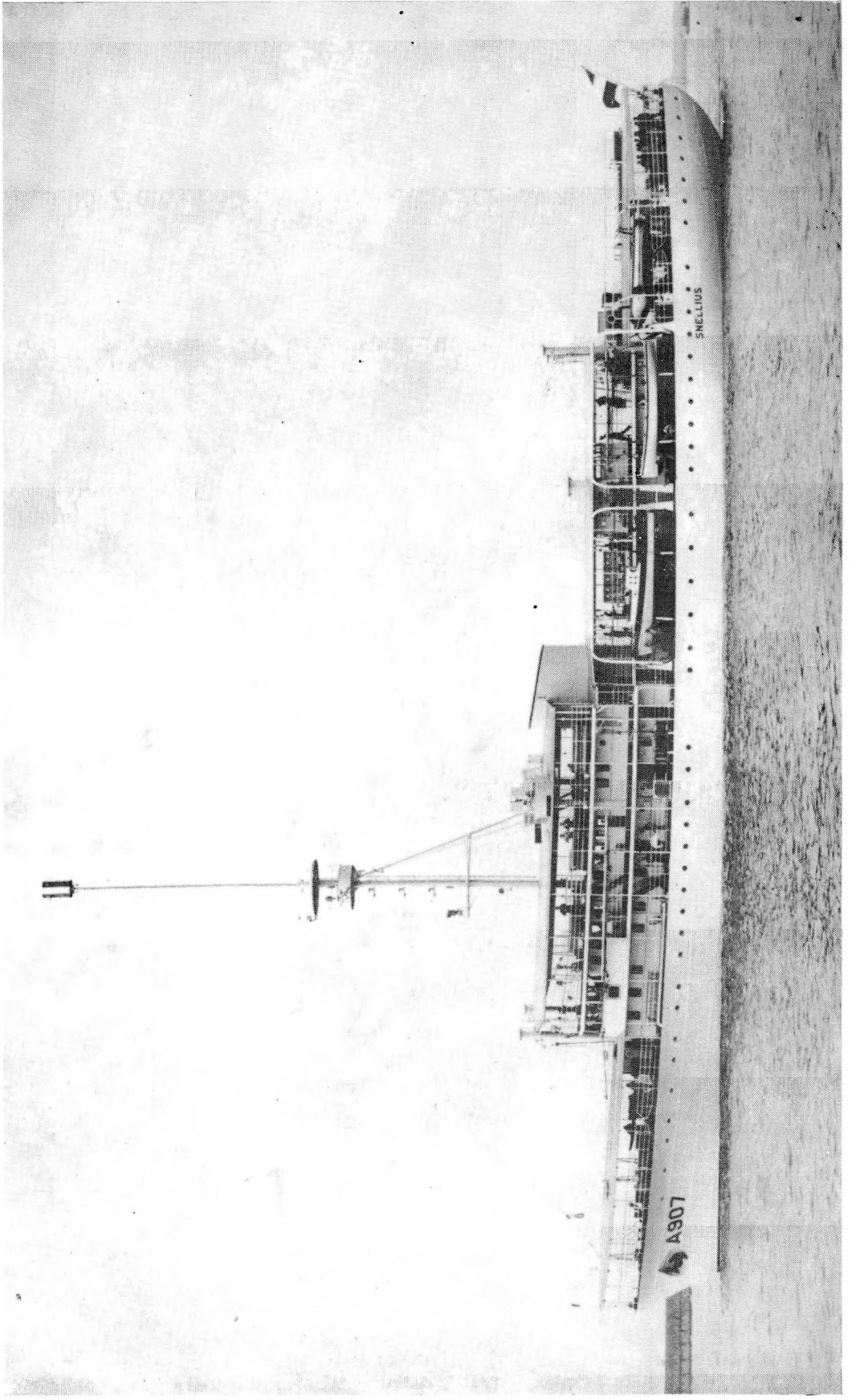


Fig. 1. — Royal Netherlands Navy Surveying Vessel *Snellius*

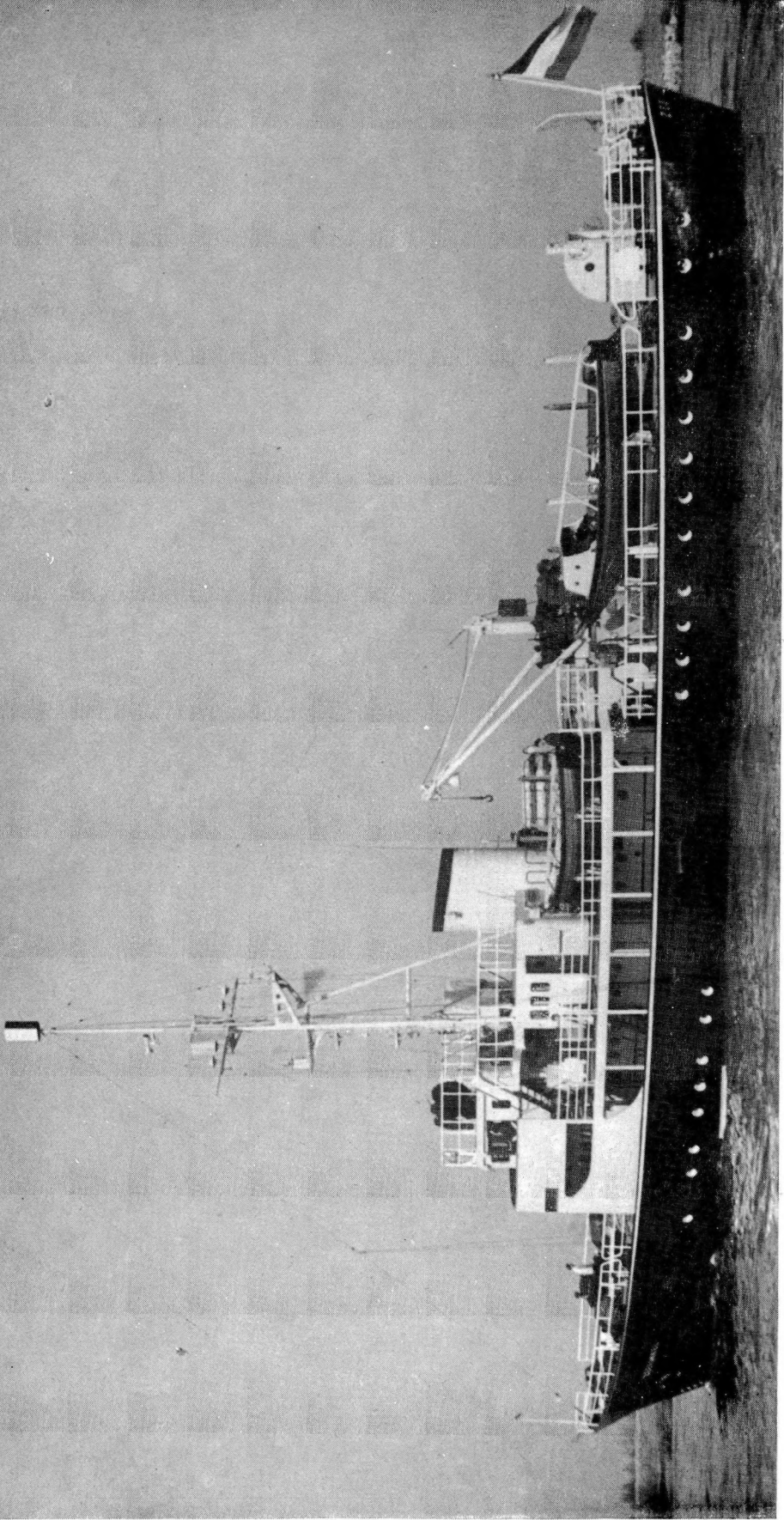


Fig. 2. — Royal Netherlands Navy Surveying Vessel *Zeefakkel*

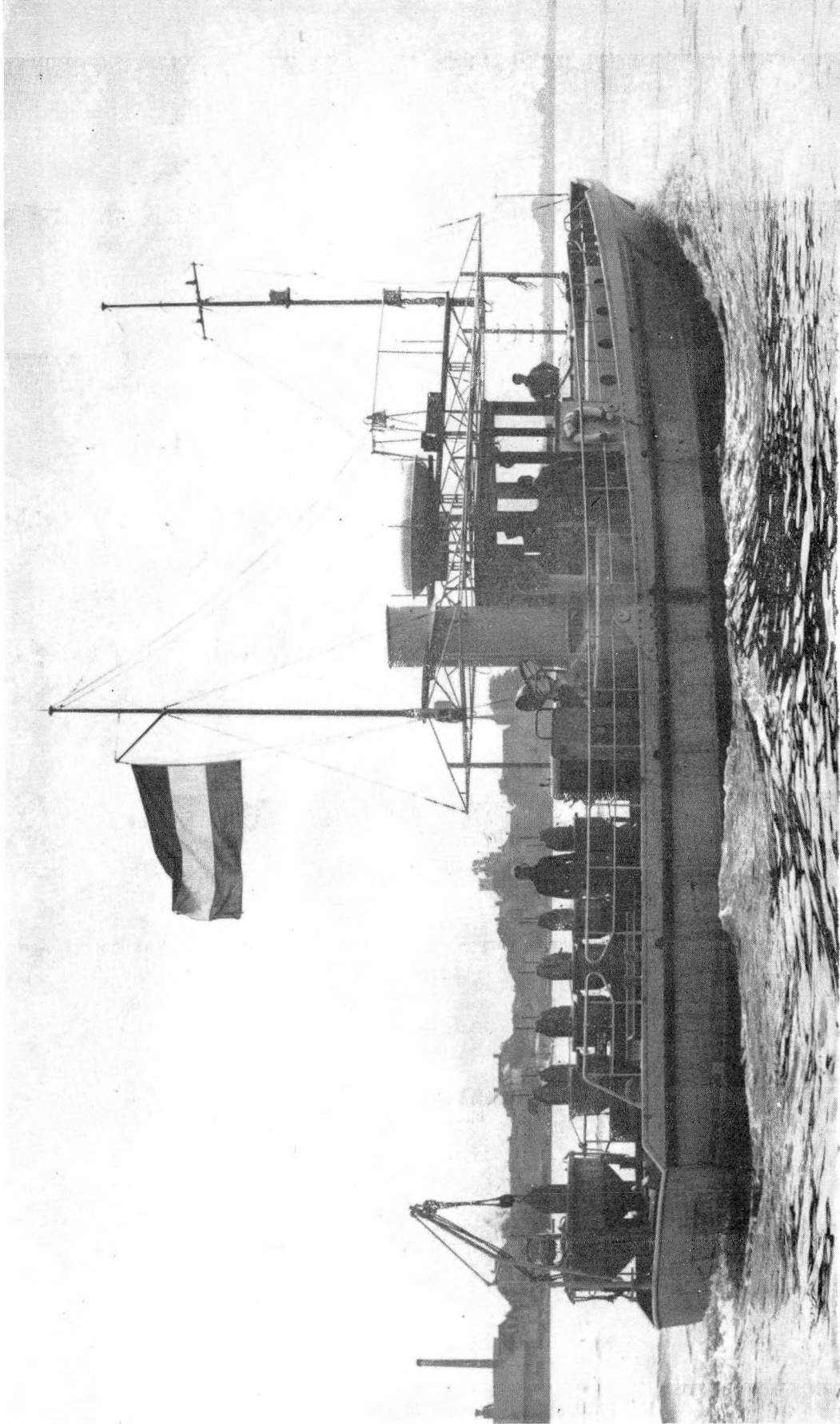


Fig. 3. — Wire drag Tenders

resume this work 4 tenders (Dreg I-IV) have been built in the Netherlands, of which 2 have been shipped to New Guinea, where they have joined H.Neth.M.S. « Jan van Brakel ». The 2 other tenders will join one of the new surveying vessels for overseas service.

4. *Wiredrag launches.*

Two Harbour Defence Motor Launches (HDML) were taken over from the Royal Navy and converted for wiredrag purposes in order to determine the least depth and exact position of wrecks in the channels along the Netherlands coast. For this purpose they are equipped with asdic and wiredrag gear. This gear is operated with a motorboat or with the surveying vessel to which they are detached.

5. *Wreck search launch.*

This motorlaunch, which operates independently as a naval unit, carries a naval complement. In order to increase efficiency by reducing the loss of good dragging weather with regard to the launches mentioned in par. 4, this launch has been assigned the special task of searching (asdic) and locating - either by station-pointer fix or by decca - wrecks, while the approximate depth is only determined by echo-sounding.

This motorlaunch was also taken over from the Royal Navy after the last war.

6. *Motorboats.*

These have been specially built for the surveying vessels and are equipped with echo sounding gear.

For further specifications reference is made to the following list.
