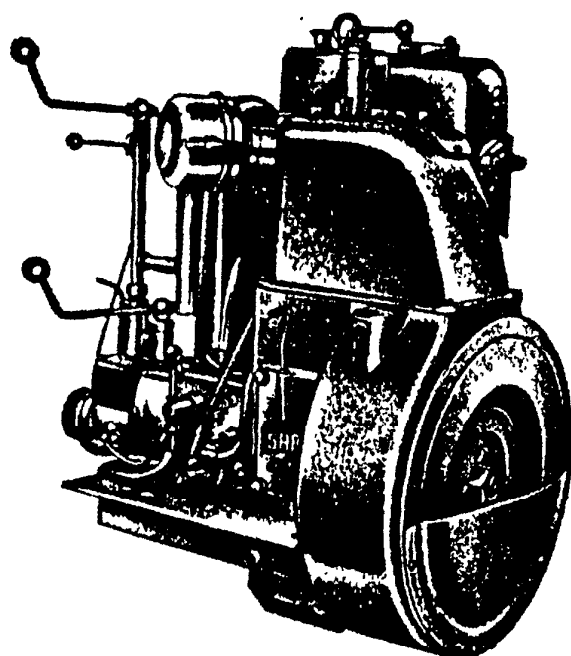


SABB DIESEL

MODEL GA/GAG

**Instruction book and parts list
for aircooled lifeboat engine**



**Instruksjonsbok og stykkelister
for luftkjølt livbåtmotor**

SABB MOTOR A.S

Telephone (05) 34 3510 Telegram: "Sabbmotor"—Telex: 42559 sabb n

BOX 2728 — 5010 BERGEN, NORWAY

TYPE GA: Med frikobling – omstyring
2-bladet, vibrar propell

With clutch and 2-blade,
controllable pitch propeller

TYPE GAG: Med reversgear og 3-bladet,
fast propeller

With reverse gearbox and
3-blade solid propeller

MOTOR NUMBER:
ENGINE SERIAL NO.:

NB.1 For øket sylinderboring (fra 95 mm^ø) til 100 mm^ø
og øket ytelse til 14 hk v./2000 omdr./min.:

Se bakre omslagsside!

NOTE1 Increased cylinder bore from 95 to 100 mm dia.
and increased performance to 14 hp at 2000 rpm.:

See the rear cover of this book!

SABB MOTOR A.S.

Forbehold om rett til endringer av spesifikasjoner og utstyr.
Dimensions and specifications subject to alteration without notice.

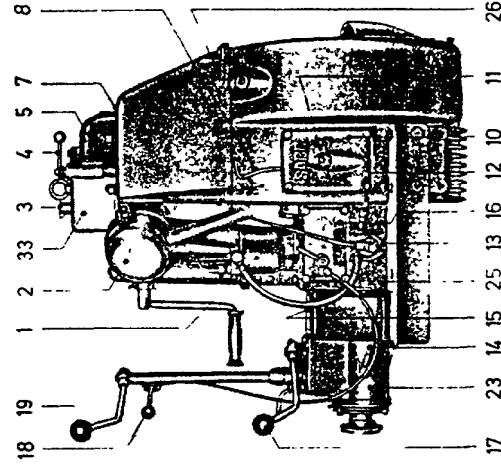
Overgang til millimetergjenger fra 1975.

1975 er et overgangsår fra tomme gjenger til millimetergjenger for nye motordeler
og utstyr. – For reservedelsbestilling, se side 18.

Metric threads from 1975.

Metric threads will replace inch-measured threads for new engine parts and
components, starting from 1975. – Ordering spare parts, see page 18.

TYPE GA. STYRBORD/STARBOARD SIDE – TYPE GAG. BABORD/PORT SIDE



1. Brennofilter/
Fuel filter housing
2. Luftfilter/Air intake filter
3. Oljekopp for ventilsmøring/
Valve lub. cup
4. Dekompresjonshendel/
Decompressor lever
5. Oljekopp for kaldstart/
Cold starting lub. cup
6. Kjøleluft utløp/
Cooling air outlet
7. Deksel for innsprøytingsdyse/
Injector cover
8. Peilepinn/Dipstick
9. Kjøleluftinntak/
Cooling air inlet
10. Veivhusluke/Crankcase cover
11. Propp for oljefylling/lømming
Oil filler plug/and drain
12. Kaldstart-knapp/
Excess fuel knob
13. Brennolepumpe/
Injection pump
14. Justerskrue for propellsign /
Propeller pitch adjusting screw
15. Koblingshustuke/
Clutch housing cover
16. Tomgangsskiftskruer/
Idling adjusting screw
17. Koblingshendel/Clutch handle
18. Reguleringshendel/
Governor control handle
19. Omstyringshendel/
Propeller control handle
20. Gearhendel/
Gear operating lever
21. Peilepinn oljefyll/lømming
(styrbord side av gearhus)
Dipstick, oil filler/drain plug
(starboard side of gearbox)
22. Startveiv/Starting handle
23. Koblingshus/Clutch housing
24. Reversgear/Reverse gearbox
25. Regulatorluke/Governor cover
26. Dynamofeste/
Alternator support
27. Selvstarterfeste/
Self starter support
28. Avtappingskran/Drain cock
29. Blindflens (brennoletøftep) /
Blank flange (fuel lift pump)
30. Fundamentjern/Frame
31. Lyddemper/Silencer
32. Løftemutter/Lifter eye nut
33. Topphefte/Cyl.head cover

Fig. 1. GA – Styrbord/Starboard

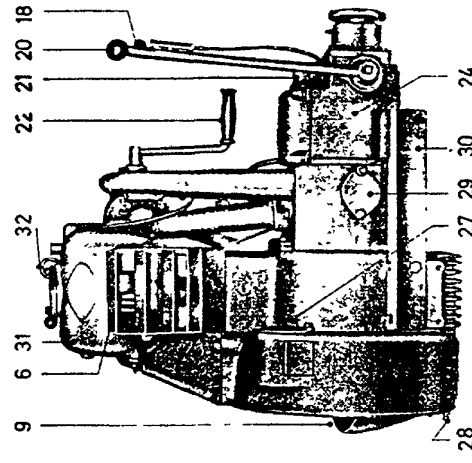


Fig. 2. GAG – Babord/Port

**LIVBÅTMOTOR,
LUFTKJØLT, TYPE GA-GAG**

S P E C I F I K A S J O N E R :

En-sylindret, 4-takts,
luftkjølt dieselmotor

Normal ytelse:
12 hk ved 1800 omdr./min.

Sylinderboring/slaglengde:

95 x 120 mm

Slagvolum:

850 cm³

Kompresjonstrykk:

(ved sveiging) 25 kp/cm²

Effektivt middeltrykk: 7 kp/cm²

Kompresjonsforhold: 1:17

Direkte innsprøyting:

4-hulls dyse, 150 kg/cm²

Brennoljeforbruk:

190 g/hk-time, 2,75 liter/time

Smøreoljeforbruk:

2 g/hk.

Smøreoljemengder:

Veivhus oljesump .. 2,5 liter

Koblingshus, GA .. 0,5 liter

Reversgear, GAG .. 0,5 liter

Reduksjon: 2:1

Gangreining · Venstre

Propellmoment:

Ved 1600 omdr./min : 10 kpm.

Propell GAG: 16" x 14"

Propell GA: 2-bladet vribar,

diam 450 mm

Propellaksel diam. 25 mm

Vekt av motor uten propellutstyr:

220 kg

Toppløring (uten pakning):

1,5-1,7 mm

Ventilkling:

Eksos- og luftventil, kald, 0,3 mm

Forinnsprøytingsvinkel

(mot alm. trykk): f.ø.d. 31°

Tiltrekkingsmomenter:

Toppløknute .. 10 kpm.

Veivlagerbolter (M14) .. 18 kpm.

Veivlagerbolter,

gammel type (3/8" BSP): 14 kpm.

Pumpekassebolter

(side 23, pos. 26) .. 8,5 kpm.

**LIFEBOAT ENGINE,
AIR-COOLED, MODEL GA-GAG**

S P E C I F I C A T I O N S :

One-cylinder, four stroke
aircooled diesel engine

Normal output:

12 hp at 1800 r.p.m

Cylinder bore/stroke:

95 x 120 mm, 3 7/8 x 4 7/8 in

Cylinder displacement:

850 cm³, 51.87 cu in.

Compression pressure:

(cranking by hand) 355 p.s.i

Brake mean effective pressure: 100 p.s.i.

Compression ratio: 1:17

Direct injection, 4-holes nozzle,

150 kg/cm², 2135 p.s.i.

Fuel consumption: 190 g/hp-hour,

41 lb./hph., 2,75 litres (4.8 pints) per hour

Lub. oil consumption:

2 g/hph, 0.04 lb/hph.

Lubricating oil capacities:

Sump .. 2.5 litres, 4.4 pints

Clutch housing, GA: 0.5 litres, .88 pints

Reverse gear, GAG: 0.5 litres, .88 pints

Reduction gear ratio: 2:1

Direction of rotation: Left

Propeller torque, cont. rating

at 1600 r.p.m., 10 kpm, 73 ft./lbs.

Propeller GAG: 16" x 14"

Propeller GA: 2-blade controllable

pitch, dia 450 mm, 17.73 in.

Propeller shaft, diam. 25 mm, 0.97 in

Weight of engine without propeller

equipment: 220 kilos, 485 lbs

Piston top clearance (without gasket):

1.5-1.7 mm, .059-.067 in.

Valve clearance:

Intake and exhaust, cold 0.3 mm, .012"

Injection starts: 31° before TDC

Torque loads of nuts and bolts:

Cylinder nuts .. 72 ft. lbs.

Big end bearing bolts (M14): 130 ft. lbs

Big end bearing bolts,

previous type (3/8" BSP) .. 100 ft. lbs.

Gear housing bolts

(page 23, pos. 26) .. 60 ft. lbs

ENGLISH:

Starting — Operating and Maintenance ..

Page 3 to 11

NORSK:

Start — Kjøring — Stell og vedlikehold ..

Side 11 til 17

ENGLISH/NORSK:

Irregular Engine Operation.

Fault Location Chart/

Motorkluss — Feilsøking .. Page/Side 41 to/til 43

STARTING:

1. Propeller (clutch) disengaged.
2. Governor handle (18) in full speed position, pointing down (fig. 3). Fill valve lubrication cup (fig. 1, pos. 3) with lubricating oil.

In cold weather:

Pull out the excess fuel knob (fig. 4, pos. 12) and fill cold starting oil cup (fig. 6, pos. 5) with *lubricating oil*.

3. Open decompressor. Handle (4) pointing forward.
4. Stand on starboard side of engine (fig. 5) with your right hand on decompressor handle and operate starting handle with your left hand. Crank rapidly and close decompressor by turning handle to starboard.
5. Use governor handle to control engine speed.

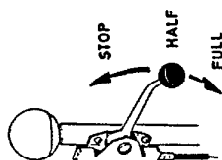


Fig. 3

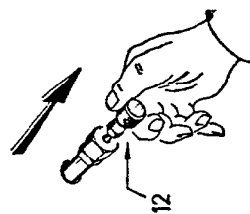


Fig. 4

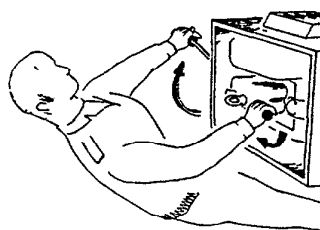


Fig. 5

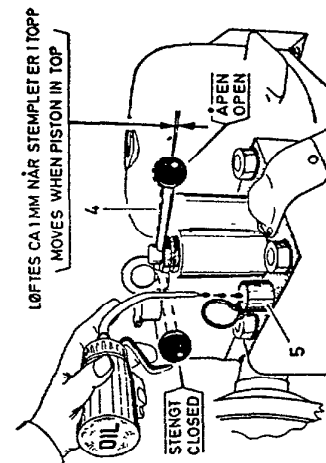


Fig. 6

OPERATION :

Model GA—controllable pitch propeller

Engage clutch by pressing clutch handle (17) firmly forward. See that the clutch handle clears the engine casing. Adjust propeller pitch with propeller control handle (19).

Model GAG—reverse gearbox

Engage gearbox by pressing control lever (20) forward for ahead drive, and backward for astern drive.

GENERAL: Never manipulate propeller or clutch control at full engine speed, but slow down first.

MAINTENANCE :

WEEKLY (AND AFTER LIFEBOAT DRILL)

1. Drain water condensate from fuel tanks. Top up tanks with clean fuel (gas oil, light diesel).

Note: Do *not* close fuel tank tube cock in tank.

2. Drain water from flywheel water shield (fig. 2, pos. 28). (fig. 19, pos. 4).

3. Check sump oil level in engine (dipstick 8), and oil level in reverse gearbox (dipstick 21). Top up with clean lubricating oil if required.

4. Fill oil cup (fig. 6, pos. 5) on cylinder head *two times with lubricating oil* to preserve cylinder and ease next starting.

Turn engine by hand a few times and leave piston in top dead center (TDC) noticed by piston touching the decompressor valve (fig. 6).

Close decompressor.

5. Give greasers for propeller and stuffing box one turn each. Propeller with external nipple is greased with grease gun, boat in davits.

EVERY 50 OPERATING HOURS WHEN IN REGULAR USE (OR AT LEAST ONCE A YEAR):

Change lubricating oil in engine sump:

Engines with separate sump drain hand pump (delivered after GA 71-219).

Run the engine until normal operating temperature is reached.

Unscrew "OIL" plug in crankcase cover. Insert hand pump (fig. 7) into sump and pump out. Use a tin or bottle under pump outlet.

Fill 2,5 litres new lub. oil into sump through plug hole.

IMPORTANT:

If the engine has been immersed in water, the oil in crankcase and clutch housing (or reverse gearbox) should be changed without delay.

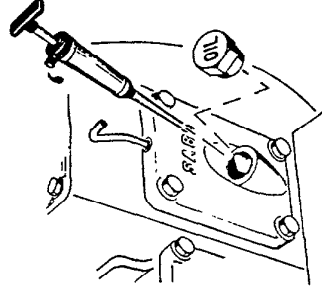


Fig 7

LUBRICATING OIL

API-SERVICE CC OR CD (Previous description DM or DS):

VISCOSITY: Below 0° temperature (+ 32° F) SAE 10
Between 0° (32° F) and 30° C (86° F) SAE 20
Above 30° C (86° F) SAE 30

A multi-grade oil (SAE 10W—40) can be used with advantage.

Recommended lubricating oils:

BP Energol IC-MB	Gulflube Motor HD
Castrol 210MX	Mobiloil Special
Chevron Golden Motor Oil	Ocean Diesoline
Eso Motor Oil	Reginol Motorolje
Fina Solina HD-S.3	Shell Melina Oil
	Texaco Havoline Motor Oil

GREASE:

Grease all nipples with grease gun. Use water proof, MULTI PURPOSE GREASE, to all greasing points (engine and propeller).

YEARLY:

1. Change lubricating oil in clutch housing or reverse gearbox, $\frac{1}{2}$ litre engine oil (SAE 20). Also clean the magnet in gearbox drain plug.
2. If the clutch is slipping, tighten clutch clamp nuts (3) $\frac{1}{6}$ turn, through cover (fig. 8). If the reverse gearbox is slipping, check alignment of engine (fig. 9). See also page 43.

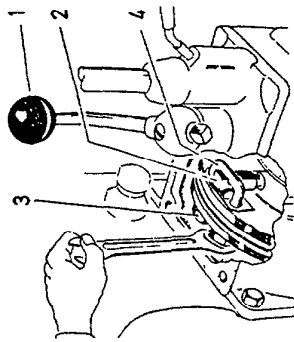


Fig 8

3. Replace fuel filter element. Page 7, fig. 10.
4. Check injector nozzle, clean if necessary. (Multihole 150 kg/cm², 2135 p.s.i.). Page 8, fig 12.
5. See that the fuel system is not leaking.
6. Remove the air intake filter. Clean in fuel oil: Apply some lub. oil to the filter to make it adhesive.

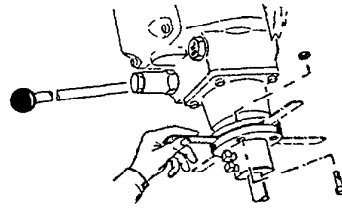


Fig. 9

Change Fuel Oil Filter (fig. 10):

Water coming in with fuel will accumulate in the fuel filter bowl. Foreign particles will settle in the filter element. The element should be changed every year or whenever fuel supply becomes irregular. The element is of the "throw-away" type, can not be cleaned.
(Bosch FJ/SJ 2751 — 1 457 431 324 or H filter EK2.)

Close fuel tank cock.

Unscrew the filter central bolt (1) and pull down the filter bowl (4). Clean the filter bowl and fit a new element (3). See that the rubber seal (2) in filter cover is in its groove before tightening the bolt.

Remember to open cock. Bleed the fuel system before starting.

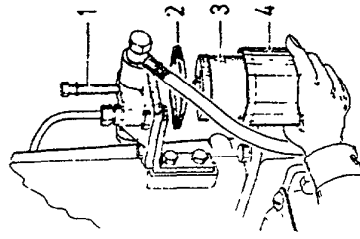


Fig. 10

Bleeding the Fuel System (fig 11):

1. Fuel filter and fuel tank tube are bled by loosening the fuel leak-off pipe nut on filter (B) or the small bleeder screw (A). Keep open until fuel flows freely without bubbles. Tighten securely.
2. To bleed the fuel suction hose between filter and injection pump loosen the banjo nipple (C) screw on fuel pump 3 turns (see fig. 11). Shake the hose and keep screw open until fuel flows freely. Tighten the banjo nipple screw. The suction hose end should point upwards from the banjo nipple to avoid air lock (fig. 11):

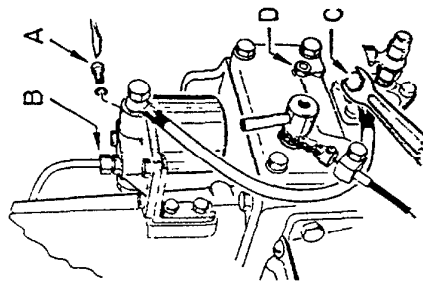


Fig. 11

Note: *The pressure valve on the injection pump should not be unscrewed for bleeding of the pump.*

3. To bleed injection pipe crank engine with governor handle in full speed position, until noticeable "jerks" in the pipe tell that the fuel has arrived to the injector and that the injector functions.

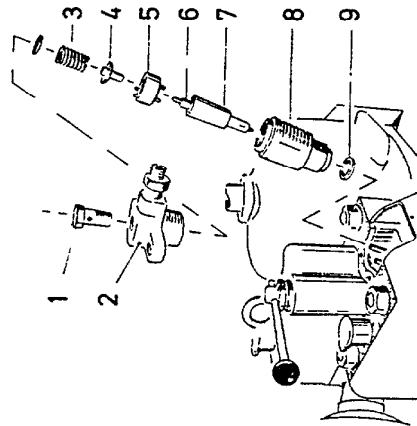


Fig. 12

Dismantle injector holder as shown in fig. 12. Rinse all parts in clean fuel oil and remove dirt with a wooden stick and wipe with clean rag.

Injection pressure: 150 kg/cm² (2135 p.s.i.).

Adjusting Idling Speed (fig. 11, pos. D):

Lowest idling speed should be about 350 r.p.m. and is constant for about 5—10 degrees movement of speed control handle.

The idling speed is only controlled by an idling spring (Gr. 43—2, pos. 15) inside the governor cover (fig 11).

Tension of idling spring is adjusted by loosening nut (outside the cover) and turning screw (D).

Tighter spring gives higher idling speed.

NOTE: *If governor cover has been off:*

Make sure that the arm link (Gr. 43—2, pos. 5) engages the ball at the fuel pump when fitting the governor cover again.

The cover must be off before removing the fuel injection pump.

Adjust valve stem clearance 0,3 mm (.012"), inlet and exhaust (fig. 13). Engine cold.

Remove the cylinder head cover.

The valve clearance should be checked when noisy tappet operation is noticed.

The clearance is measured between valve stem and its rocker arm with valve in closed position.

A special valve feeler gauge is supplied in tool box.

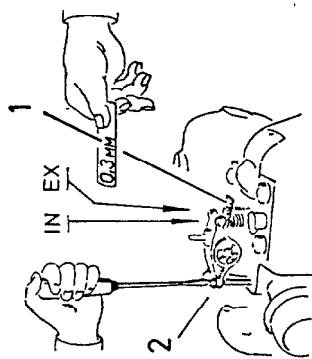


Fig. 13

Grease (GA — fig. 14 and 15, GAG — fig. 15 and 16):

1. Sliding bolts.
2. Rear oil seals.
3. Clutch control ball bearing.
- 4-5. Control bracket.
6. Starting shaft.
7. Rocker arm ball bearing.
8. Rear oil seals.

Tighten all screws, nuts and gland.

Wash engine and restore paint wounds.

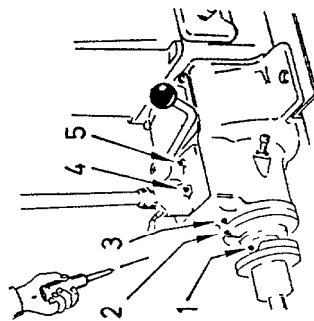


Fig. 14

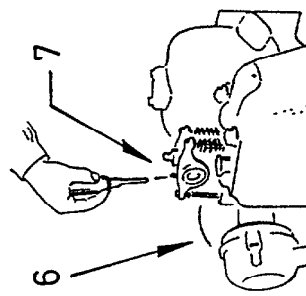


Fig. 15

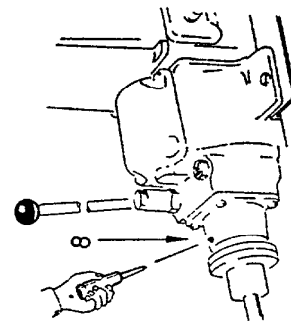


Fig. 16

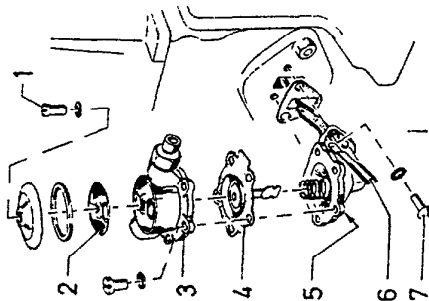


Fig. 17

Fuel Lift Pump (extra equipment) with Hand Priming Device (pos. 6):

- Close fuel tank cock.
- Unscrew the centre bolt (1) and remove the cover.
- Withdraw the screen (2) and clean in fuel oil.
- If necessary, inspect valves and diaphragm (4) and see that the bleeding hole (5) is open.

EVERY 2ND YEAR

Wash out crankcase with fuel oil and clean the centrifugal filter (Gr. GA 30—1, pos. 8).

Remove the magnet from crankcase (Gr. GA 21—23, pos. 6), clean and replace.

Centrifugal Lubricating Oil Filter

The centrifugal oil filter is fitted to the rear crankshaft web. It contains a paper strip on to which the sediment is clogged. The strip is used to ease the cleaning. Remove the strip, rinse in fuel oil and wipe off the dirt inside the steel ring. If undamaged, the paper strip can be used again. New strip is made from carton or kraftpaper. Measure: 520×32 mm ($20\frac{1}{2} \times 1\frac{1}{4}$ ").

Fill new lubricating oil.

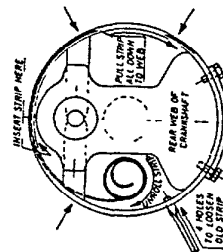


Fig. 18

IMPORTANT:

Cooling air inlet and outlet must not be covered or restricted.

It is of utmost importance that the engine receives ample supply of cooling air and that the hot air may leave the engine case freely.

The engine case or engine room must have at total effective air inlet area of at least 25×25 cm (10×10 in.). Front of engine case must clear the flywheel by at least 8 cm ($3\frac{1}{4}$ in.) to assure free flow to the fan. Main cooling air inlet through the case is placed just in front of the flywheel centre (1) and should be protected against sea water spray by a guard. If the guard reduces the inlet area a compensating air gap of 5 cm (2 in.) around the starting bracket at the rear of the case would be required.

Port hand air outlet guide (3) must penetrate fully the case wall, and the hot air (2) must be guided completely out of the case or engine room. Clearance between guide and case as small as possible, approx. 1 cm ($\frac{3}{8}$ in.). The outlet guide (3) can be turned 180 degrees or extended with a flue, which should be as short as possible and any bend must have at least 15 cm (6 in.) radius.

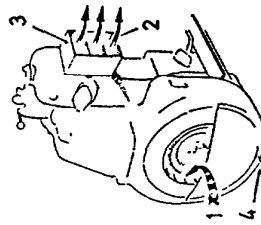


Fig. 19

VIKTIG:

Inntak og utløp for kjøleluft må ikke tildekkes

Det er meget viktig å sørge for rikelig tilgang på frisk luft til motoren og korrekt bortledning av den varme kjøleluften. I motsatt fall blir motoren for varm (stemplet henger).

Frisklufttilgangen må være ordnet gjennom en eller flere åpninger som til sammen utgjør en flate på minst 25×25 cm. For at luften kan strøme fritt til viften i svinghjulet, må det være en klaring på minst 8 cm mellom motorkassen og svinghjulet. Kaldluftåpningen i kassen bør helst være rett ut fra midten av svinghjulet (1), og må skjermes mot sjøskvett. Hvis skjermingen reduserer den effektive åpningen, bør der være en ca. 5 cm bred spalte rundt startstativet i kassens bakvegg. Klaringen rundt utløpstuten (3) på babord side må være minst mulig, ca. 1 cm, og varmluften (2) må ledes helt ut av motorkassen eller styrehuset. Om nødvendig kan utblåsingstuten (3) snues 180° eller forlenges med en kanal for bortledning av varmluften, men kanalen må ikke være lengre enn høyst nødvendig, og eventuelt bend må ha minst 15 cm radius.

NORSK TEKST

(Tilhørende figurer side 3–6)

START :

1. Propellen frakoblet (gear eller kobling i fri).
2. Sett reguleringshendelen (18) i fullfartsstilling (nedover). (fig. 3.)
Fyll ventilmørekoppen (fig. 1, pos. 3) med smøreolje.
I kaldt vær:
Trekk ut kaldstartknappen (fig. 4, pos. 12) for ekstra brennolje-tilførsel og fyll smøreoljekoppen (fig. 6, pos 5).
3. Åpne dekompresjonsventilen. Hendel (4) forover.
4. Stå på motorens *styrbord side*, og sveiv med *venstre* hånd (fig. 5).
Høyre hånd betjener dekompresjonsventilen. Sveiv hurtig og steng dekompresjonen ved å vri hendelen på tvers.
5. Når motoren har startet, innstilles reguleringshendelen for ønsket turtall.

KJØRING :

Type GA – vribar propell

Propellen innkobles ved å presse koblingshendelen (17) *helt fram*.
Pass på at hendelen ikke bunner mot motorkassen. Manøvreringen foregår med omstyringshendelen (19).

Type GAG – med gear

Gearet kobles inn ved å presse gearhendelen (20) forover for foroverdrift og akterover for akteroverdrift.

OBS.! Manøvrer alltid med redusert motorturtall!

STELL OG VEDLIKEHOLD :

UKENTLIG (OG ETTER LIVBATMANØVER)

1. Tapp vann og bunnfall fra brennoljetanken.
Fyll tanken med ren brennolje (gas-oil, auto-diesel).
OBS.! Påse at brennoljekranen er åpen.
2. Tapp vann fra svinghjulsskjermen (fig. 2, pos. 28).
3. Kontroller smøreoljenivået i motor (peilepinn 8) og i reversgear (peilepinn 21). Etterfyll om nødvendig.
4. Fyll oljekopp (fig. 6, pos. 5) *to ganger* med smøreolje for å lette neste start.
Sveiv motoren noen ganger og sett stemplet i topp. (Merkes ved at stemplet tar borti og løfter dekompresjonsventilen — fig. 6.)
Steng dekompresjonen.
5. Fettkoppene for propell- og hylsepakkeboks gis 1 omdreining.
Stevnflens med utvendig fettnippel smøres med fettpressen.

HVER 50. DRIFTSTIME VED REGELMESSIG BRUK (ELLER MINST EN GANG ÅRLIG):

Oljeskift i motor, fig. 7:

Motorer med sump-tømmepumpe (leveret etter GA 71–219):

Kjør motoren varm og stopp den. Skru ut «OIL»-proppen i veivhusluken. Sett sumptømmepumpen ned i veivhus-sumpen. Pump oljen ut og over i en boks. Fyll 2,5 liter ren olje gjennom plugghullet.

VIKTIG: Hvis motoren har vært helt eller delvis under vann, må all oljen i veivhus og koblingshus (eller gear) skiftes straks.

SMØREOLJE:

API-SERVICE CC ELLER CD (Tidligere betegnelse DM eller DS):

VISKOSITET: Under 0° C temperatur SAE 10
Mellom 0° og + 30° C SAE 20
Over + 30° C SAE 30

En multigradsolje (helårsolje) som dekker ovenstående viskositeter (SAE 10W—40) kan med fordel brukes.

Fabrikken anbefaler følgende smøreoljer:

BP Energol IC-MB	Mobiloil Special
Castrol 200 MX	Ocean Diesel
Chevron Golden Motor Oil	Reginol Motorolje
Esso Motor Oil	Shell Melina Oil
Fina Solna HD-S.3	Texaco Havoline Motor Oil
Gulflube Motor HD	

FETT

Alle fettniplene smøres med fettpressen.

Bruk universalfett — MULTI PURPOSE (motor og propell).

ARLIG:

1. Oljeskift i koblingshus eller reversgear, 1/2 liter motorolje (SAE 20). Rens samtidig magneten i bakkant av gearhuset.
2. Hvis koblingen slurer, etterstram koblingsklemmemutrene 1/6 torn, gjennom luken (fig. 8). Hvis reversegearet slurer, kontroller motoropprettingen (fig. 9). For øvrig side 43.
3. Skift innsats i brennoljefilteret. Side 7, fig. 10.
4. Kontroller innsprøytingsdysen — rens om nødvendig (4-hulls dyse, 150 kg/cm²). Side 8, fig. 12.
5. Undersøk om lekkasje i brennoljesystemet.
6. Skru av luftfilteret og skyll det i brennolje. Innsettes med litt tykk smøreolje.

Skifting av brennoljefilterinnsats (side 7, fig. 10):

Kommer det vann i brennoljefilteret, vil dette samle seg i bunnen av beholderen. Det svarer seg å rense filterbeholderen av og til, da vil filterinnsatsen få lengre levetid. Filterinnsatsen skiftes årlig, eller hvis en merker at oljen renner tregt gjennom filteret. Innsatsen kan ikke renses. Steng kranen på brennoljetanken. Løs sentralbolten (1)

i filterhuset og trekk filterbeholderen (4) nedover (se fig. 10). Rens beholderen og sett i ny innsats (3) (Bosch Fj/Sj 2751-1 457 431 324 eller H-Filter E2K). Pass på at pakningen (2) i lokket kommer riktig på plass. — Husk å åpne brennoljekranen. Utluft brennoljesystemet.

Utlufting av brennoljesystemet (side 7, fig. 11):

1. Filteret og tankrøret utluftes ved å løse den lille vannrette lufteskruen (A) i filterlokket eller mutteren (B) for lekkoljerøret. Hold skruen åpen til oljen renner uten bobler. Trekk til skruen og mutter.
2. Sugelangens utluftes ved å løse hulskruen (C) for banjonippelen på brennoljepumpen 3 torn (se fig. 11). Ryst i slangen og hold skruen åpen til oljen renner fritt og uten bobler. (*Trykkeventilen på oljepumpen skal ikke løses.*) Hulskruen trekkes til slik at sugelangens faller naturlig mot pumpen (*fra akterkant*) uten å danne «lås».
3. Innsprøytingsrøret utluftes ved å sette reguleringshendelen i fullfartstilling og sveive motoren til det kan kjønnnes et tydelig «støt» i røret for hver innsprøyting. Støtet forteller at dysen virker.

Rengjøring av innsprøytingsdysen (side 8, fig. 12):

Urenheter i brennoljen kan sette seg fast i dysen og bevirke dårlig forstøvning, skjev stråle osv. Lyden i dysen vil da forandres, motoren banker eller ryker og den blir gjerne vanskelig å starte. Dysen må da rengjøres eller skiftes.

Løs dekslet over dyseholderen.

Løs rørene fra dyseholderen og ta holderen ut fra topplokket.

Demonter dyseholderen som vist i fig. 12.

Vask alle delene i ren brennolje. Faste partikler nederst i dysen eller på nålen fjernes med en trepinn eller fyrstikk.

VIKTIG: Når dyseholderen settes sammen igjen, må en passe på at den korteste enden av stykket (4) mellom dysenålen og fjæren *peker mot* fjæren.
4-hulls dyse, 150 kg/cm².

Justering av tomgang (side 7, fig. 11, pos. D):

Laveste tomgangsturtall skal ligge på ca. 350 omdr./min. og er konstant for 5—10 graders bevegelse av regulatorhendelen.

Tomgangsturtallet er bestemt av tomgangsfjæren (Gr. 43—2, pos. 15) på innsiden av regulatorluken (fig. 11), og kan reguleres utenfra ved å løse mutteren og justere strammeskruen D.

Strammere fjær gir høyere tomgangsturtall.

Vær varsom når regulatorluken skal løses.

NB.! Når luken monteres igjen må en passe nøye på at hullet i armløddet (Gr. 43—2, pos. 5) faller ned på kuletappen på brennoljepumpens reguleringsstang.

Hvis en skal ta ut brennoljepumpen, må først regulatorluken fjernes.

Justering av luft- og eksosventilklaringen (0,3 mm målt på kald motor) (side 9, fig. 13):

Løs toppheten.

Ventilklaringen bør justeres hvis det oppstår en klirrende eller støvende lyd fra ventilutstyret. Klaringen måles mellom ventilstammen og vippearmen når ventilen er lukket (fig. 13). Et spesielt føleblad til dette bruk følger med i verktøykassen.

Fellsmøring

(GA – side 9, fig. 14 og 15):

(GAG – side 9, fig. 15 og 16):

1. Glidebolter.
2. Tettingsringer.
3. Omsyringskulelager.
- 4-5. Omsyringsbrakket.
6. Startsveiv.
7. Vippearmkulelager.
8. Tettingsringer.

Etterstram alle skruer og mutre samt pakkboksene.
Vask motoren og flikk sår i malingen.

Brennolje-fødepumpe (ekstra utstyr) med håndmateranordning (side 10, fig. 17):

Steng brennoljekranen.

Skru ut sentrumsbolten (1). Ta lokket av. Løs silen (2) og rens den for skitt.

Hvis nødvendig, skru av overdelen (3), inspiser ventilene og membranet (4). Kontroller at luftehullet (5) er åpent.

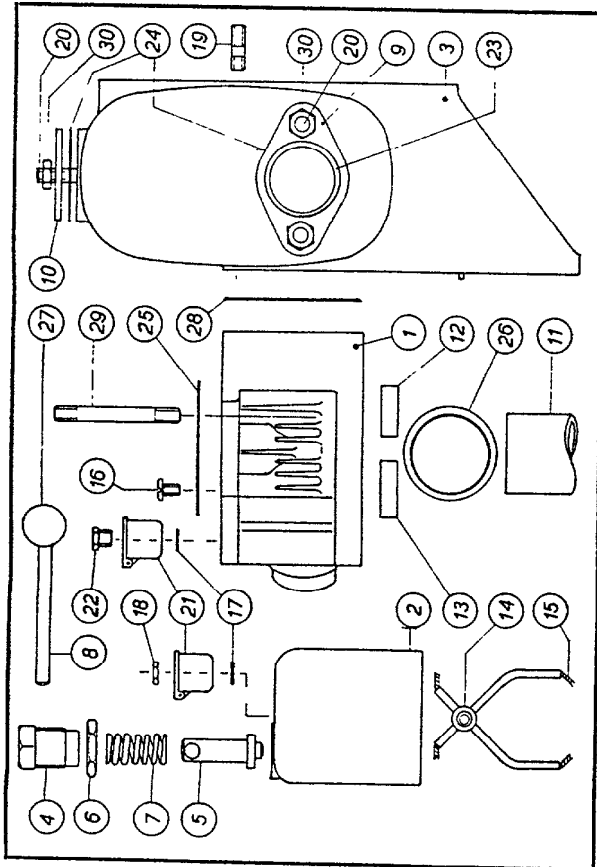
HVERT ANNET ÅR

Vask ut veivhussumpen med brennolje og rengjør sentrifugalfilterpapiret (Gr. GA 30—1, pos. 8) på veivaksel akterpart (fig. 18).

Ta også ut magnet i bunnen av veivhuset (Gr. GA 21—23, pos. 6). Rengjør og legg den inn igjen.

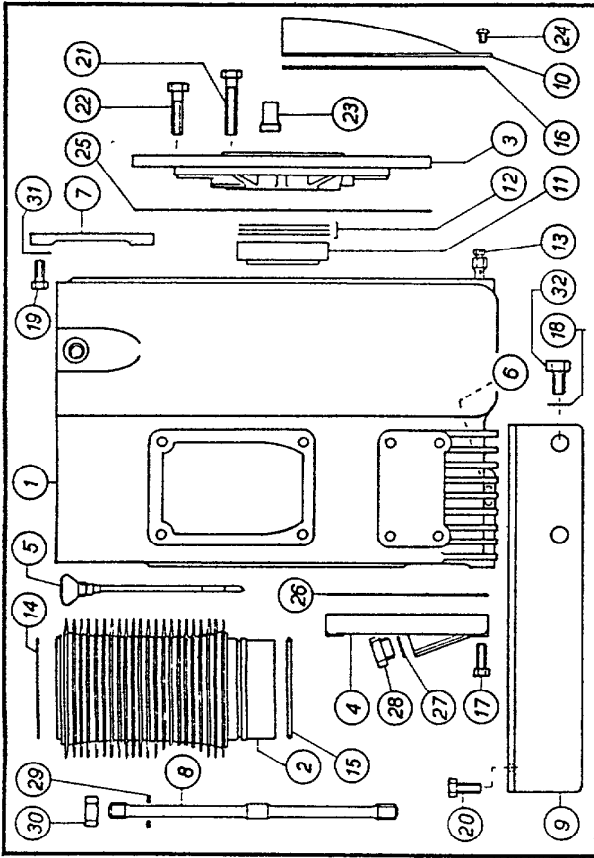
Smøreolje-sentrifugalfilteret (side 10, fig. 18):

Adkomst til filteret gjennom veivhusluken. Vipp pappstrimmelen opp av filteret med en lommekniv og trekk strimmelen ut. Urenheter i smøreoljen ligger som en kittaktig masse på strimmelen. Skrap og tørk filterringen innvendig. Hvis en får ut filterstrimmelen uten å skade den, kan den brukes om igjen etter rengjøring. Pappstrimler kan ellers klippes ut av tynn tegnekartong eller tykt kraftpapir, målene er 520×32 mm. Den nye (eller rengjorte) pappstrimmelen smøres inn med litt grease på den ene siden og settes på plass.



Group GA 10-20. CYLINDER HEAD AND SILENCER

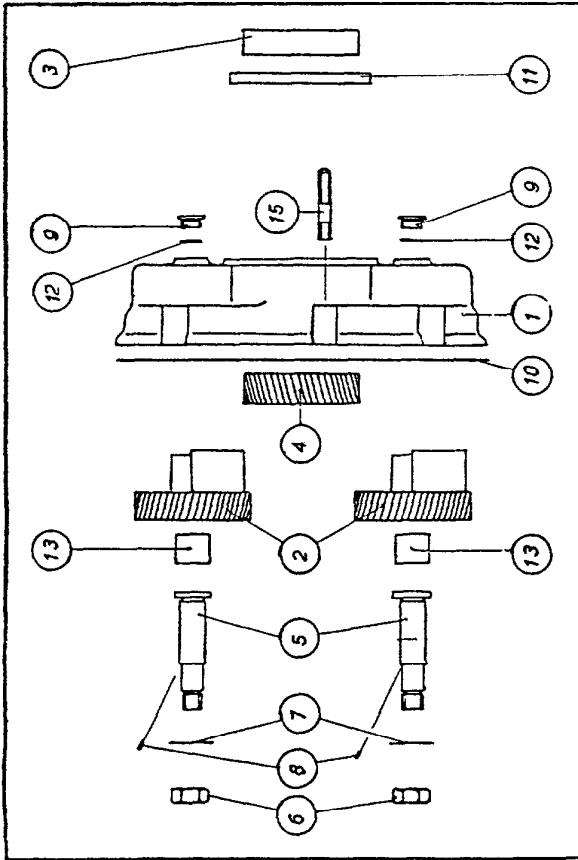
No. Part Name	Part No.	No. Part Name	Part No.
1 Cylinder head	GA11Ab	17 Oil cup gasket	811n
2 Cylinder head cover	G11F	18 Nut, 1/8" BSP	443m
3 Silencer	GA21C	19 Stud, 3/8" x 23	421q
4 Decompr. sleeve	G11g	20 Stud, stainless, 1/8" x 25	411mb
5 Decompr. bolt	G11h	21 Oil cup	911f
6 Decompr. nut	411k	22 Oil cup screw	411n
7 Decompr. spring	711h	23 Exhaust pipe, 1 1/2" x 1200	G21f
8 Decompr. handle	411hc	24 Exh. flange gasket	821v
9 Exhaust flange	G21E	25 Cyl. head cover gasket	811fb
10 Blank flange	G21M	26 Oil seal 5065	984t
11 Push rod tube, 260 mm	GA11k	27 Handle knob	911i
12 Valve seat, exhaust	911db	28 Silencer gasket	821vd
13 Valve seat, intake	911dc	29 Injector stud	453c
14 Wick tube, compl.	S1-G11fm	30 Nut, 3/8"	415g
15 Wick	811fl		
16 Cap screw, 1/4" x 8/16"	455c		



Group GA 21-23. CRANKCASE-CYLINDER

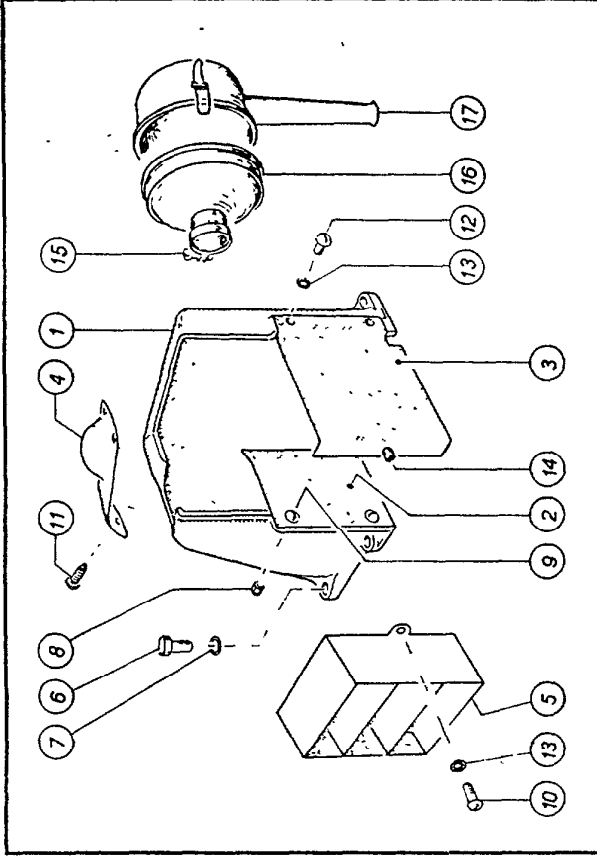
No. Part Name	Part No.	No. Part Name	Part No.
1 Crankcase	GA22A	15 Ribbed cyl. O-rings, 94.5 x 3, silicon	821pc
2 Ribbed cylinder, 95 mm	GA21N	16 Rubber cord, 3 x 635	833a
3 Bearing flange	G23LD	17 Bolt, 3/8" x 1 1/4"	484c
4 Crankcase cover	G22DD	18 Lock washer, 1/8"	735b
5 Dipstick (threads M12)	S1-G23cb*)	19 Bolt, 3/8" x 1"	421L
6 Magnet	923a	20 Bolt, 1/2" x 1 1/4"	482b
7 Blank flange	C21M	21 Bolt, 3/8" x 90, B 80	423r
8 Tension bolt	423d	22 Bolt, 3/8" x 2.5" B 80	423i
9 Frame	GA22eh-ev	23 Pressure collar	623L
10 Flywheel water shield	GA33g	24 Screw, 1/4" x 10, brass	433d
11 Tapered roller bearing, SKF 32211	931a	25 Bearing flange gasket	823m
12 Main bearing shim, 0.2 and .05 mm	723L/Lb	26 Crankcase cover gasket	822hb
13 Drain cock, 1/8" BSP complete	S1-52jb	27 Fibre gasket	882d
14 Cylinder head gasket	821rc	28 Oil filler plug (3/4")	522dc
		29 Washer, 30 x 17 x 3	723d
		30 Nut, 3/8" W	415L
		31 Washer (9.5 x 17 x 2)	781j
		32 Bolt, 1/2" x 1" B80	421n

*) Engine delivered before (approx.) may 1975, dipstick S1-GA23c with threads 1/2" W.



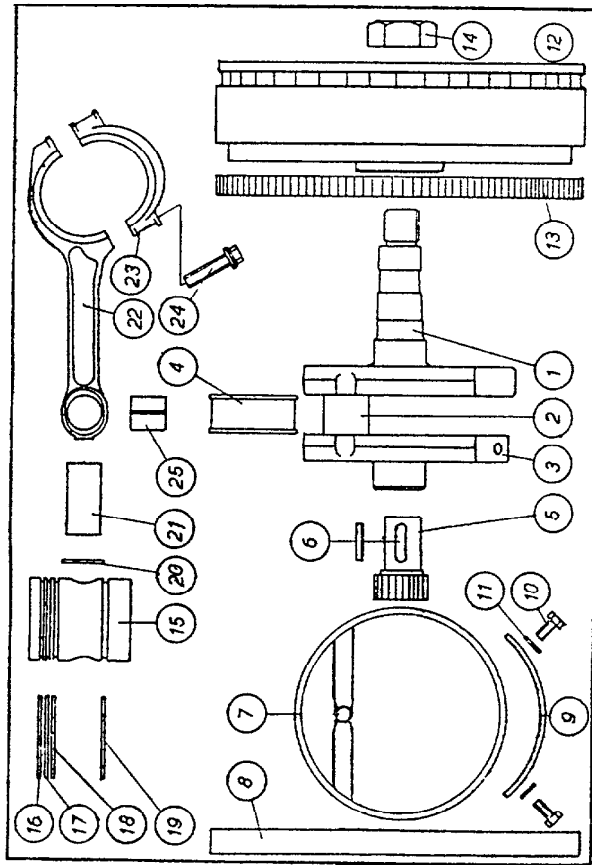
Group GA 23. VIBRATION DAMPER

No.	Part Name	Part No.
1	Vibration damper housing	G23KL
2	Vibration damper wheel with lead	G23NG
3	Flywheel brass ring	633a
4	Flywheel gear ring	G33Am
5	Vibration damper shaft	G33me
6	Nut, 3/4" UNF	415p
7	Lock washer	725 002
8	Lock pin	743a
9	Inspection plug	523k
10	Housing gasket	823p
11	Oil seal, silicon, 120 X 100 X 13	937bb
12	O-ring, 14,3 X 2,4	842q
13	Needle bearing, SKF RHNA 22 28 20	913.002
15	Stud, 3/8" X 45	411b



Group GA 24. AIR GUARD

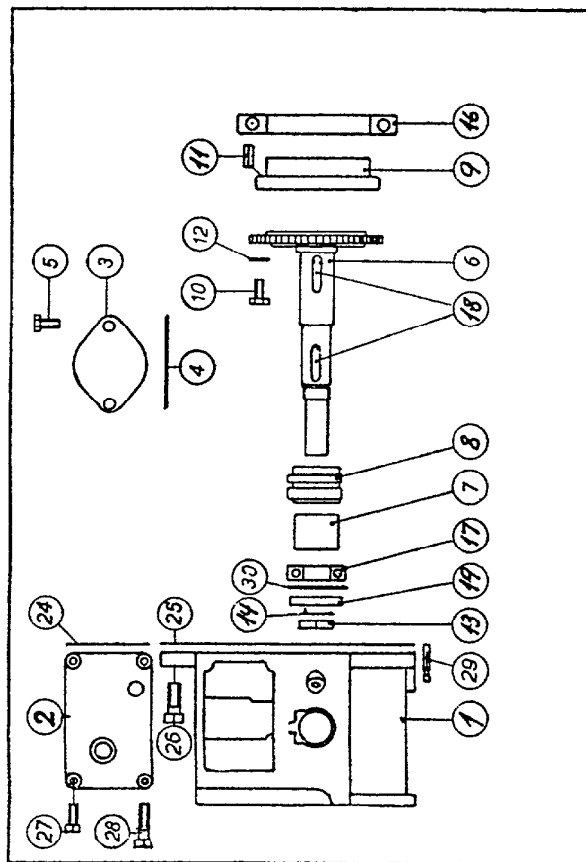
No.	Part Name	Part No.
1	Cooling air guard	GA24Ab
2	Deflector plate	GA24b
3	Air guard rear plate	GA24c
4	Air guard front plate	GA24Ak
5	Air outlet guide	GA24ck
6	Bolt, 5/16" X 1" UNC	421k
7	Washer, 5/16"	781j
8	Nut, 1/4" Nyloc	443b
9	Screw, 1/4" X 3/8"	424b
10	Screw, 1/4" X 10, brass	433d
11	Screw (B12 X 19)	469c
12	Screw, 1/4" X 19	446fb
13	Lock washer, 1/4"	745d
14	Elastic pin, 8 X 24 (connected to silencer)	734d
15	Clamp screw/nut	967st
16	Air filter, Mann 41.021.87.153	967n
17	Air filter cover	967m



Group GA 30-1. CRANKSHAFT

No.	Part Name	Part No.
1	Crankshaft, fore part	G31A
2	Crankpin (49 mm)	G31qc
3	Crankshaft rear part	G31B
4	Big-end roller bearing (31 53 93)	932fb
5	Crankshaft pinion	G31p
6	Key	434e
7	Centrif. filter ring	G31ak-2
8	Centrif. filter paper	942.010
9	Centrif. filter clamp	G31aL
10	Bolt, $\frac{5}{16}$ " $\times$ 20 B 80	434c
11	Lock washer, $\frac{5}{16}$ "	734h
12	Flywheel	GA33A
13	Starter ring (not std.)	G33AL
14	Flywheel nut	433b
15	Piston	GA32A

16	Top compr.ring, chromium plated	GA32b
17	Compression ring	GA32bb
18	Compr./scraper ring	GA32bd
19	Oil control ring	GA32bc
20	Circlip, 35i	732a
21	Gudgeon pin	GA32d
22	Connecting rod compl. S2-G32EB	
23	Big end bearing cap	G32G
24	Connecting rod bolt, Verbus Tensilock M14 $\times$ 2	432g
25	Small end bush, 35 dia. $\times$ 39 dia.	632e
	Piston ring set	S1-GA32b



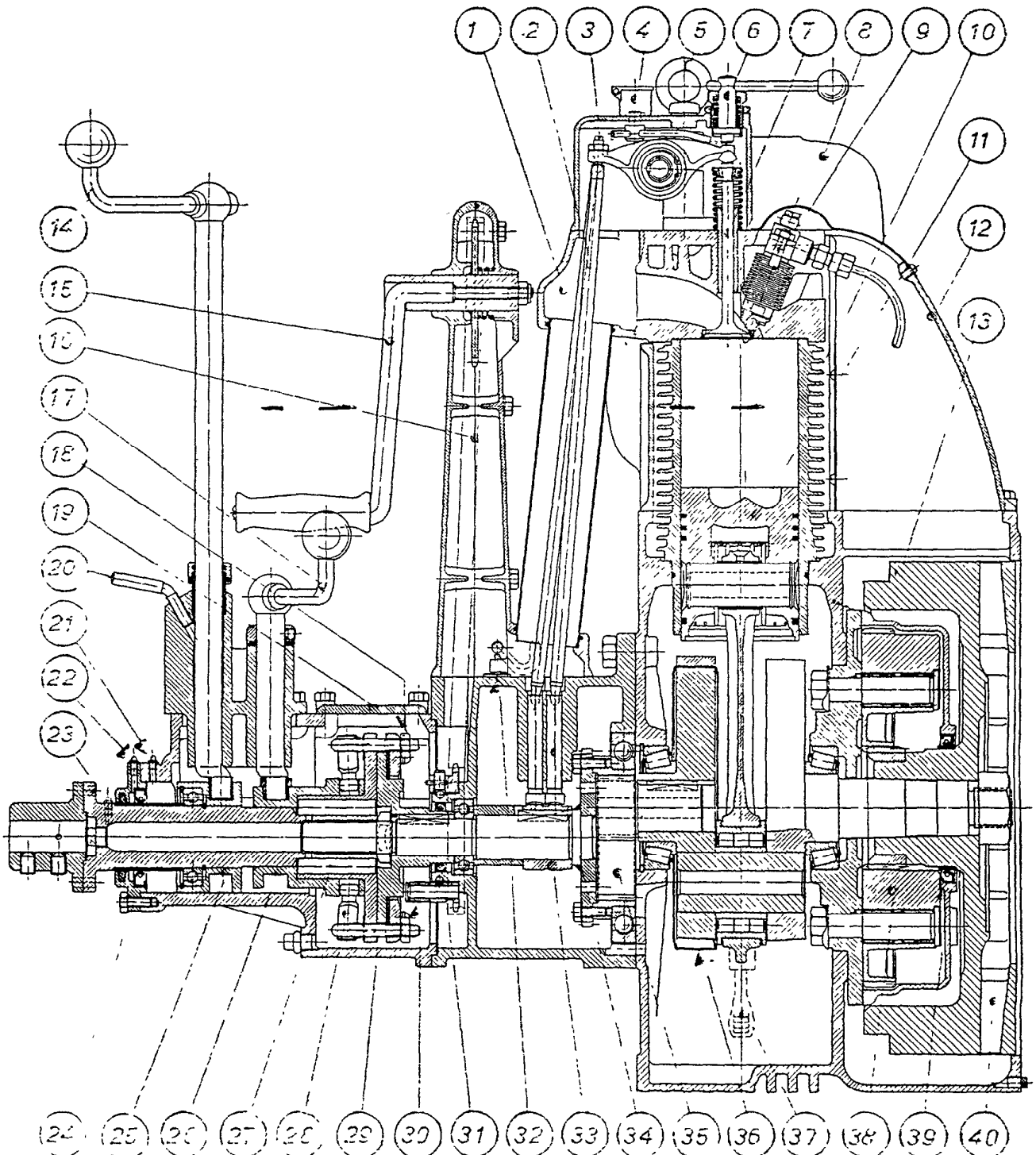
Group GA 30-2. GEAR HOUSING

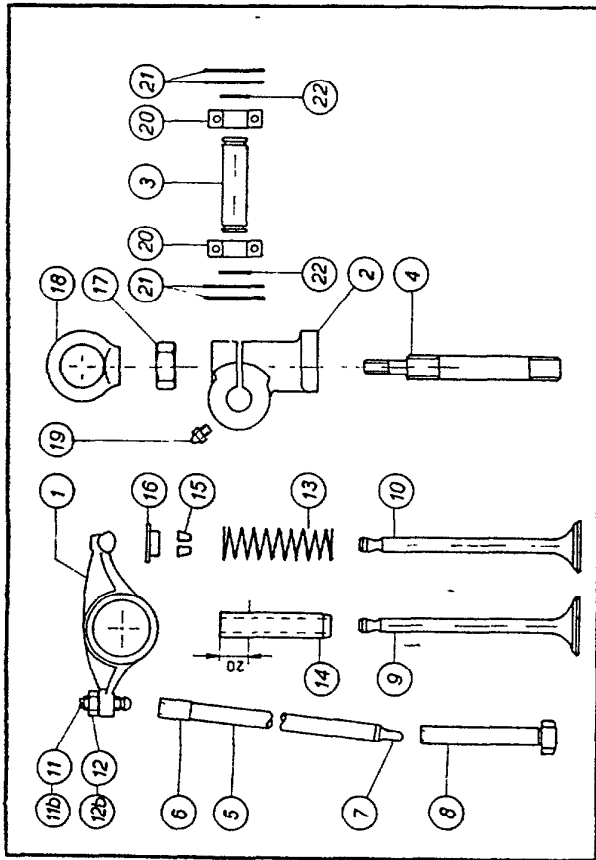
No.	Part Name	Part No.
1	Pump housing	G34A
2	Governor cover	G34B
3	Blank flange	2G42M
4	Blank flange gasket	842c
5	Bolt, $\frac{1}{8}$ " $\times$ $\frac{3}{4}$ "	466b
6	Camshaft	G34c
7	Eccentric pulley	G31c
8	Cam	GA34e
9	Internal gear wheel	G34f
10	Bolt, $\frac{5}{16}$ " $\times$ 20, B 80	434c
11	Elastic pin, 8 $\times$ 24	734d
12	Lock washer, Nomel $\frac{5}{16}$ "	734h
13	Camshaft nut	484t
14	Lock washer	784b
16	Gear wheel ball bearing, SKF 16022	934f

17	Ball bearing, SKF 6206	934c
18	Shaft key, 7 $\times$ 8 $\times$ 40	434e
18b	Shaft key, 7 $\times$ 8 $\times$ 30	434ab
19	Oil seal, 4256-822S	934eb
24	Governor cover gasket	834b
25	Pump housing gasket	834a
26	Bolt, $\frac{1}{2}$ " $\times$ $\frac{1}{4}$ "	482b
27	Bolt, $\frac{5}{16}$ " $\times$ $\frac{1}{8}$ "	453d
28	Bolt, $\frac{5}{16}$ " $\times$ 50	422n
29	Dowel	483g
30	Shim PS 62 $\times$ 50 $\times$ 0.2	734e
	Shim PS 62 $\times$ 50 $\times$ 1	734cb
	Shim PS 62 $\times$ 50 $\times$ 0.3	734ec
	Shim PS 62 $\times$ 50 $\times$ 0.5	734ed
	Stud, $\frac{5}{16}$ " UNC $\times$ 18	421h
	Nut, $\frac{5}{16}$ " UNC	415e
	(for Injection pump)	

LONGITUDINAL SECTION/SNITTEGNING SABB DIESEL – TYPE GA

- | | | | |
|--|---|---|---|
| 1. Air intake/Luftinntak | 13. Flywheel/Svinghjul | 22. Oil seal grease nipple/
Fettnippel for tetningsring | 33. Cam/Nokke |
| 2. Push rod/Ventilløftestang | 14. Propeller pitch control handle/
Omstyringshendel | 23. Sliding bolt grease nipple/
Fettnippel for glidebolter | 34. Valve lifter (inlet)/
Ventilløfter (luft) |
| 3. Rocker arm adj.screw/
Vippearmstillskrue | 15. Starting crank/Startsveiv | 24. Oil seal (double)/
Tetningsring (dobbel) | 35. Red.gear/
Reduksjonsgearhjul |
| 4. Valve lub.cup/Ventilmørekopp | 16. Starting chain/Startkjede | 25. Reversing sleeve/Omstyringshylse | 36. Centrifugal oil filter/
Sentrifugalfilter |
| 5. Eye bolt/Løftebøyle | 17. Clutch handle/Koblingshendel | 26. Clutch sleeve/Koblingshylse | 37. Oil splasher/Oljeplasker |
| 6. Decompressor/
Dekompresjonsbolt | 18. Clutch clamp nut/
Koblingsmutter | 27. Sliding bolts/Glidebolter | 38. Vibration damper/
Vibrasjonsdemper |
| 7. Valve (inlet)/Ventil (luft) | 19. Clutch housing cover/
Koblingshuslokk | 28. Clutch arm/Koblingsarm | 39. Flywheel oil seal/
Svinghjuls-tetningsring |
| 8. Silencer/Lyddemper | 20. Hand screw/
Omstyringslåseskrue | 29. Clutch clamp/Koblingsklemme | 40. Cooling air intake/
Kjøleluftinntak |
| 9. Injector/Dyseholder | 21. Reversing bearing grease nipple/
Fettnippel for omst.lager | 30. Starting pawl/Startpal | |
| 10. Cylinder/Ribbesylinder | | 31. Oil seal/Tetningsring | |
| 11. Piston/Stempel | | 32. Crankcase breather valve
Veivhus pusteventil | |
| 12. Air Guard/Luftkapsel | | | |

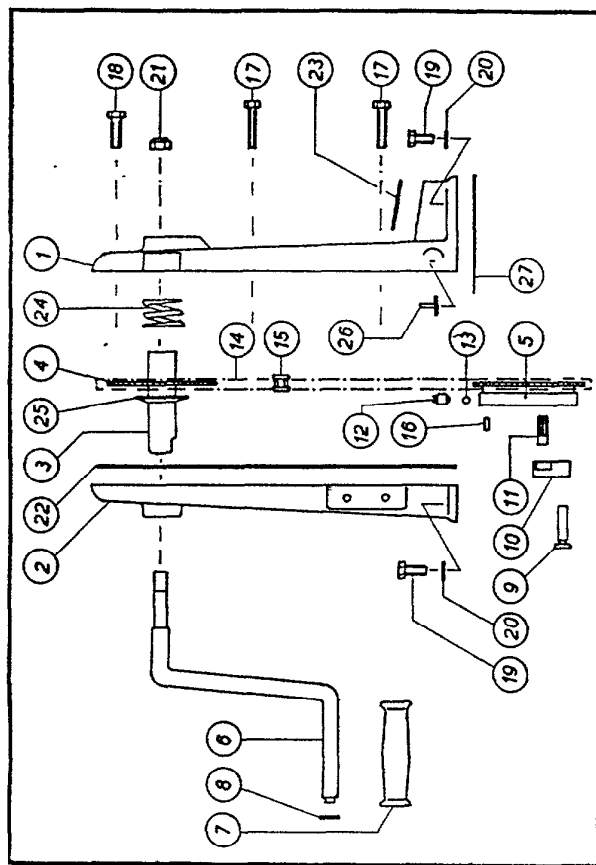




Group GA 34. VALVE GEAR

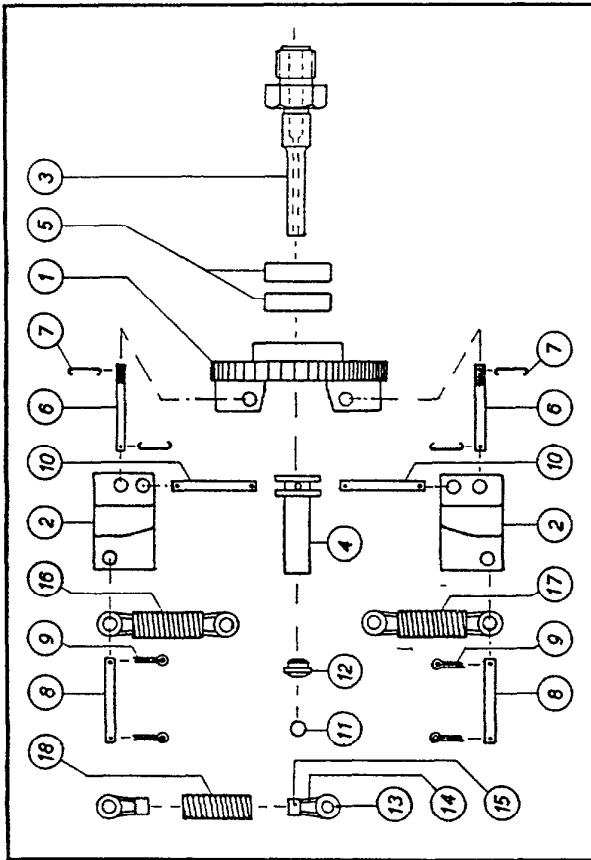
No	Part Name	Part No.
1	Rocker arm (M10) ..	G34Qb
2	Rocker arm bracket ..	G34R
3	Rocker arm bolt ..	G34j
4	Bracket bolt (M12) ..	2J34tb
5	Push rod, compl., 409 mm ..	S1-GA34h
6	Push rod top ..	G34hk
7	Push rod foot ..	G34hL
8	Valve lifter ..	G34g
9	Valve, inlet ..	GA34k
10	Valve, exhaust ..	G34K
11	Rocker arm adj. screw (M10×1) ..	G34.001
11b	Rocker arm adj screw (5/16"), old type*) ..	G34s
12	Nut (M10×1, NV-14Ø) ..	441 054
12b	Nut (5/16", to G34s*) ..	415e
13	Valve spring ..	734k
14	Valve guide ..	2G34mb
15	Valve spring collar ..	G34p
16	Valve spring cone ..	G34n
17	Rocker arm bracket nut (5/8" UNC) ..	415L
18	Eye nut (M12) ..	934tb
19	Grease nipple ..	934r
20	Ball bearing, 6202 ..	934q
21	Circlip, 35i (4 pcs) ..	732A
22	Circlip, 15a (2 pcs) ..	734j

*) After servicing: Engines delivered before GA 75.



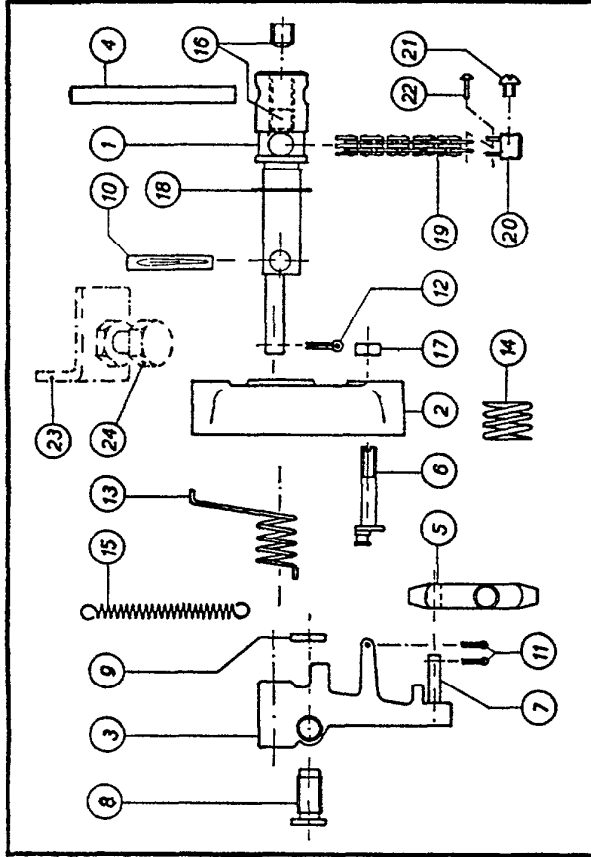
Group G 35. HAND STARTING GEAR

No	Part Name	Part No.
1	Starting bracket, front part ..	H35Lc
2	Starting bracket, rear part ..	H35K
3	Starting shaft ..	H35m
4	Upper sprocket ..	H35n
5	Lower sprocket ..	G35H
6	Starting handle (R-180) ..	H35p
7	Starting handle compl. S1-H35p	
7	Hand grip ..	G35pk
8	Washer ..	742f
9	Starting pawl bolt ..	G35j
10	Starting pawl pin ..	G35i
11	Starting pawl pin ..	435h
12	Steel ball plug ..	G35hk
13	Steel ball (1/4" Ø) ..	953c
14	Starting chain (1/2"×9/16" Mofa) ..	935hg
15	Starting chain lock ..	931.016
16	Grooved pin ..	746e
17	Bolt (4 pcs) (3/8" UNC×1 1/2") ..	435b
18	Bolt (2 pcs) (3/8" UNC×1 1/4") ..	482q
19	Bolt (3/8" UNC×1") ..	421Lb
20	Washer (9.5×17×2) ..	781j
21	Nut (nylock), 3/8" ..	415i
22	Starting bracket rubber cord (3/8"×880) ..	835m
23	Air tube O-ring (OR-49.5×3) ..	811k
24	Starting shaft spring ..	735L
25	Rubber washer ..	835n
26	Dice valve ..	52e
27	Starting bracket gasket ..	835kg
28	Grease nipple ..	934r



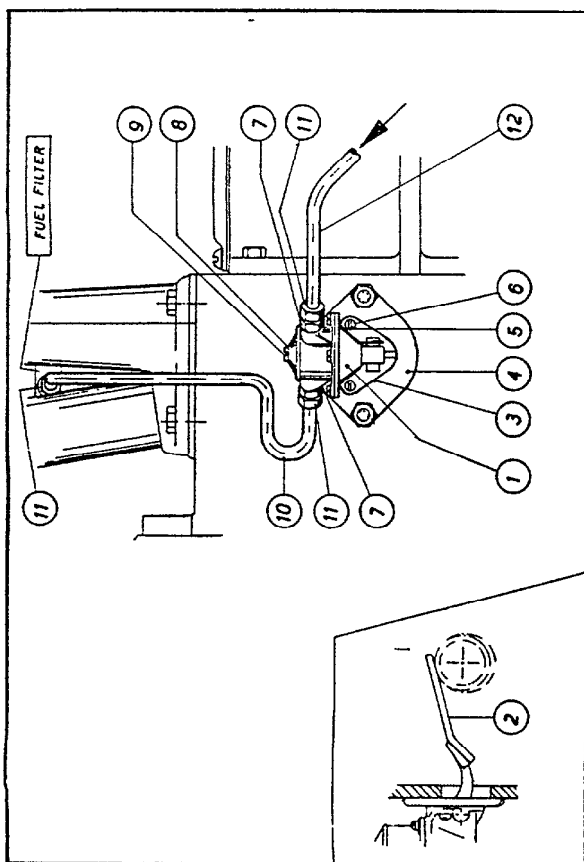
Group G 43-1. CENTRIFUGAL GOVERNOR

No. Part Name	Part No.	No. Part Name	Part No.
1 Governor gear wheel	G43K	13 Spring eye washer	743tb
2 Governor weight	G43Lb	14 Spring eye	743r
3 Governor spindle	G43n	15 Spring eye holder	G43t
4 Governor sleeve	G43p	16 Governor spring No. 1	
5 Ball bearing (6001x)	943k	(marine engine)	
6 Governor weight pin		complete	S1-743m
(36 mm)	G43sb	17 Governor spring No. 2	
7 Lock wire (1,5Ø×28)	G43s	(marine engine)	
8 Spring pin (36 mm)	G43w	complete	S1-743q
9 Split pin (1/16"×3/8")	G43sc	18 Governor spring	
10 Sleeve pin (36 mm)	953b	(stationary) complete	S1-743L
11 Ball	953b	Governor assy. compl. S1-G43K	
12 Governor sleeve pin	S1-G43q		



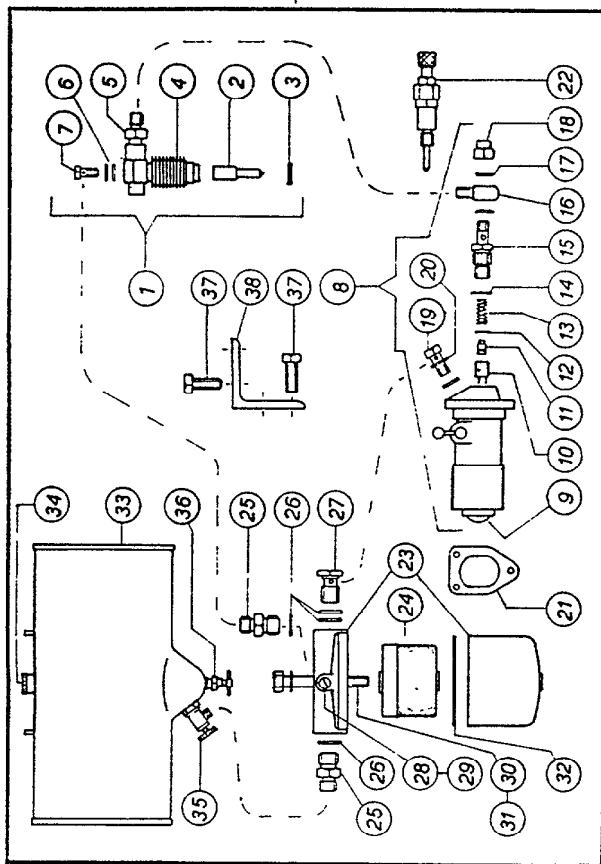
Group G 43-2. GOVERNOR PARTS

No. Part Name	Part No.	No. Part Name	Part No.
1 Governor shaft	G34ub	13 Governor shaft spring	743db
2 Governor cover	G34B	15 Idling spring	743v
2 Governor cover, complete	S1-G34B	16 Socket set screw (3/8")	453b
3 Governor arm	S1-G43Mb	17 Nut (1/4" UNC)	415d
4 Handle	411hd	18 Rubber washer,	
5 Arm link	G43v	governor shaft	811p
6 Idling adjusting screw	G43h	19 Chain (c-c 63 mm)	971sb
7 Governor arm bolt	G43wb	20 Chain fork	S1-G71s
8 Adjusting screw	G43mL	21 Set screw (3/16"×3/8")	472a
9 Lock nut	443m	22 Lock pin (2Ø)	G43x
10 Grooved pin		23 Handle stopper GS	G43x
(1/4"×1 1/4")	421a	24 Handle stop screw GS	
11 Split pin (1/16"×3/8")	743w	(3/16"×UNC×1 3/8")	453d
12 Split pin (1/8"×3/4")	731c	Nut (5/16 UNC)	415e



Group GA 44-2. FUEL LIFT PUMP (Extra Equipment)

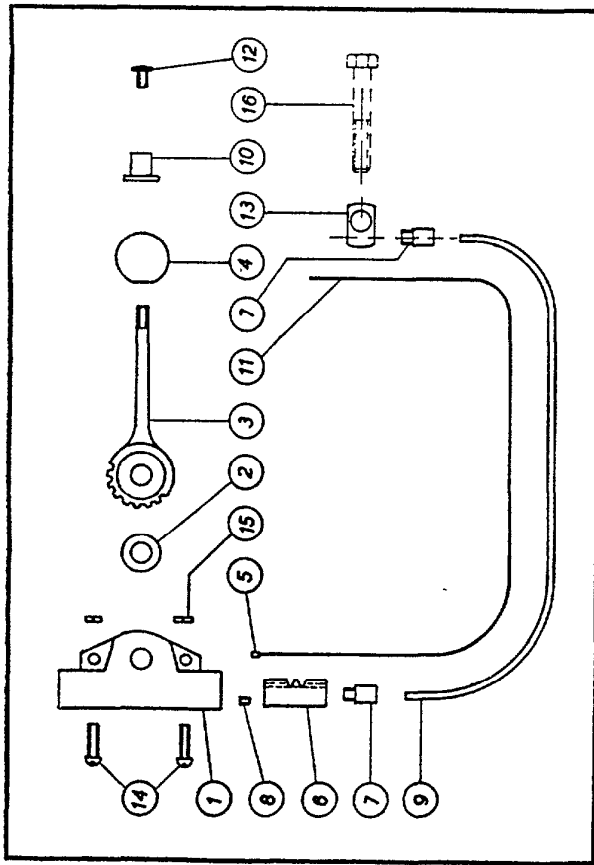
No.	Part Name	Part No.
1	Fuel lift pump (AC-795067) compl.	S1-944K-GA
	with fuel pump arm	
2	Fuel pump arm	
3	GA44g	
4	Gasket, lift pump flange	844g
5	Lift pump flange . . .	2G42MB
6	Screw, 5/16" UNC×1/2" . . .	423L
7	Fuel lift pump (AC-795067) compl.	S1-944K-GA
	with fuel pump arm	
8	Fuel pump arm	
9	GA44g	
10	Gasket, lift pump flange	844g
11	Lift pump flange . . .	2G42MB
12	Screw, 5/16" UNC×1/2" . . .	423L
13	Fuel lift pump (AC-795067) compl.	S1-944K-GA
	with fuel pump arm	
14	Fuel pump arm	
15	GA44g	
16	Gasket, lift pump flange	844g
17	Lift pump flange . . .	2G42MB
18	Screw, 5/16" UNC×1/2" . . .	423L



Group GA 50-60. FUEL INJECTION EQUIPMENT

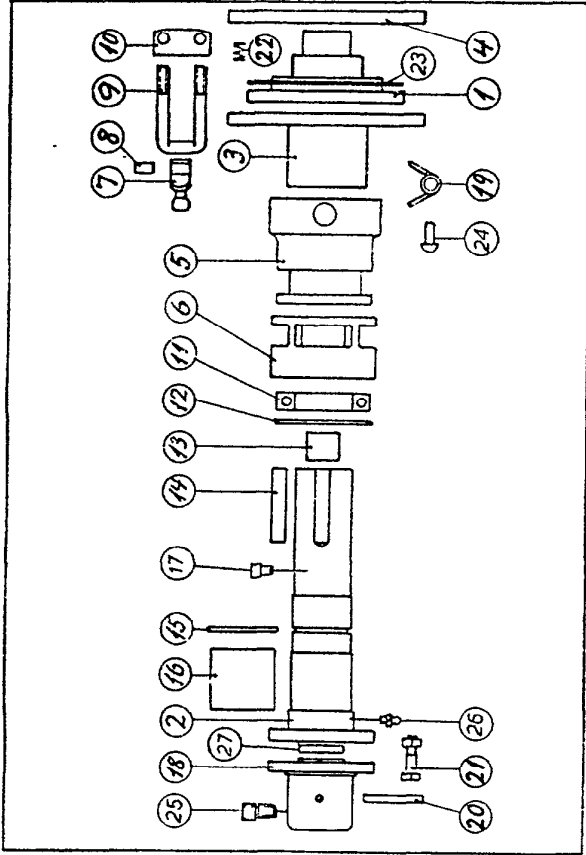
No.	Part Name	Part No.
1	Injector holder	
	KBAL 55 S 1/4	
	Bosch 0 431 212 019 . S-GA53d	
2	Nozzle,	
	BDLL 160 S 6173 . . . GA53i	
3	Nozzle joint washer . 853j	
4	Nozzle nut	
	(433 314 118)	
5	Inj. nipple with filter . G53dk	
6	Banjo nipple washer	
	leak-off, 8 mm 853e	
7	Banjo nipple plug	
	leak-off; NW 2/3 NSR	
	5299/1x (M8) 953h	
8	Injection pump,	
	Bosch 0 414 171 038 . . S-2G44a	
9	Cam roller complete . G44an	

Cont. page 35.



Group G 72-1. GOVERNOR CONTROL

No. Part Name	Part No.	No. Part Name	Part No.
1 Governor control handle	S1-72v	9 Bowden cable (GA and GAG, 640 mm) .	G72g
1 Governor control handle with wire, bowden cable and block	S2-72v-G	10 Handle bolt	72yb
1 Governor handle bracket	72v	11 Wire, stainl. steel (GA and GAG, 1,80, 810 mm)	772f
2 Spring washer (A 10 DIN 137)	72h	12 Handle screw	472i
3 Handle	72g	13 Block	571dc
4 Handle knob	911i	14 Head screw (M5×25) (or 3/16"×1" 471a) . .	431.004
5 Wire lock	G72e	15 Nut M5 (or 3/16") . .	441 010
6 Rack	72x	16 Bolt (3/16" UNC×50). Socket Screw Hex. Vrench (for rack screw), 2,5	976 001
7 Bowden cable sleeve .	571dd		
8 Rack screw	G72ib		



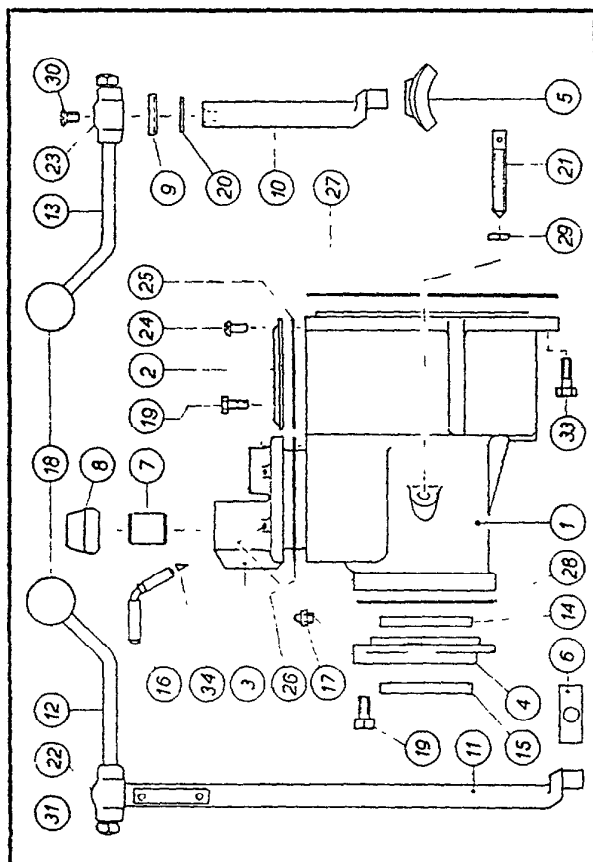
Group G 80-1. CLUTCH AND PROPELLER CONTROL

No. Part Name	Part No.	No. Part Name	Part No.
1 Front clutch member .	G82A	17 Dowel	22ck
2 Rear clutch member .	G82B	18 Coupling flange (25 mm)	2H84R
3 Friction flange	B82C	19 Lock spring	782d
4 Clamp ring	S1-B82D	20 Lock pin (60×60) . .	784v
5 Clutch sleeve	B82E	21 Flange coupling bolt (3/16" UNC×1")	42lk
6 Propeller contr. sleeve	G83D	22 Spring	782c
7 Clutch arm	B82hc	23 Friction disc	G85e
8 Roller	B82mb	24 Grooved stud, Kerpin N4 60×12 . .	454.003
9 Clutch clamp	B82i	25 Squarehead set screw .	482i
10 Wear shim	82j	26 Grease nipple	934r
11 Ball bearing (6010) . .	983d	27 Plug (1")	711p
12 Circlip (80i)	783d	28 Nut (for clutch clamp) 3/8" 170K	415g
13 Bush	682d		
14 Sliding bolt	821d		
15 Circlip	782b		
16 Sleeve	682r		

(Cont. from page 31.)

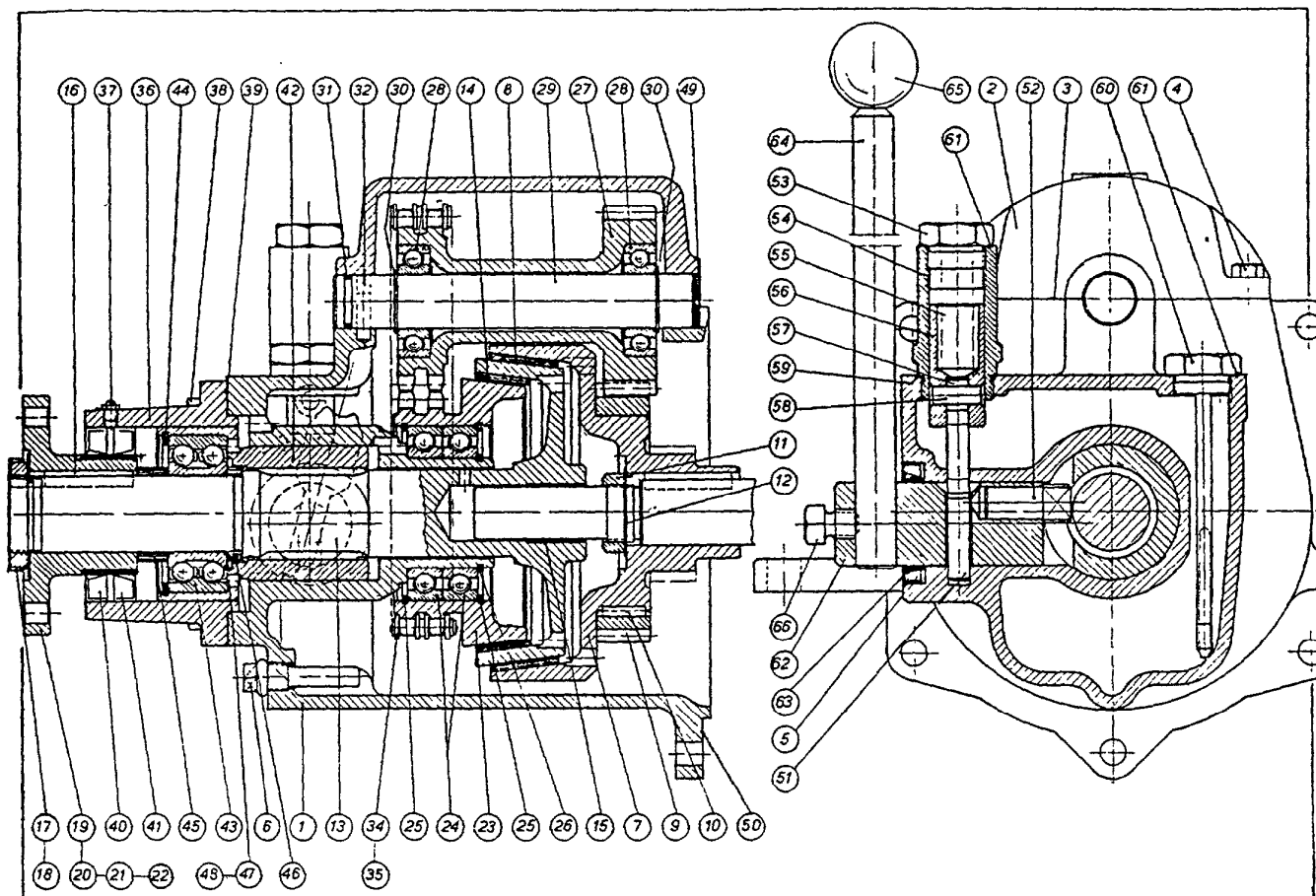
Group GA 50-60. FUEL INJECTION EQUIPMENT

No.	Part Name	Part No.	No.	Part Name	Part No.
21	Injection pump shim, a/0,3, ab/0,2, ac/0,5 ..	744a/ab/ac	28	Bleeder screw, fuel f.,	967j
22	Excess fuel knob, complete ..	S1-GA41g	29	Fibre joint ..	867j
23	Fuel filter housing, compl. 0 450 015 003 ..	S-G67a	30	Fuel filter bolt,	967i
24	Fuel filter element, Bosch 1 457 431 324 ..	G67i	31	Bosch 2 911 165 261 ..	867i
25	Filter nipple, 1/4" BSP-M14 ..	545db	32	Gasket, filter bolt ..	867a
26	Banjo nipple washer, filter, 14 mm ..	867d	33	Fuel tank, 42 litres, stainless steel ..	S1-B63bb
27	Banjo nipple plug, filter, NW 8 NSR 5202/1 (M14) ..	967a	34	Fuel tank cap ..	63hk
			35	Fuel tank cock (needle valve) compl.	946 001
			36	Fuel drain cock, complete ..	S-52ib



Group G 80-2. CLUTCH HOUSING

No.	Part Name	Part No.	No.	Part Name	Part No.
1	Clutch housing ..	G82Q	17	Grease nipple ..	934r
2	Housing cover ..	G82qL	18	Knob ..	971b
3	Control bracket ..	2H83A	19	Head screw (5/16" UNC x 1") ..	421k
4	Flange ..	G82R	20	Rubber washer ..	881f
5	Clutch control shoe ..	G82F	21	Max. pitch stop screw	G41f
6	Pitch control shoe ..	G83e	22	Handle head ..	71mL
7	Bushing ..	683a	23	Handle head (Lens head screw) ..	71mq
8	Rubber cuff ..	883c	24	Head screw (5/16" UNC x 1/2") ..	423L
9	Washer ..	783f	25	Cover gasket ..	882t
10	Clutch shaft ..	2H81fb	26	Contr. bracket gasket	883a
11	Pitch control shaft ..	G83f	27	Clutch housing gasket	882q
12	Handle for pitch control with knob ..	S1-71nc	28	Flange gasket ..	882s
13	Handle for clutch control with knob ..	S1-71nf	31	Set screw (1/2") ..	471mL
14	Oil seal (5580) ..	982r	33	Bolt (3/8" UNC x 1") ..	421L
15	Oil seal with dust lip (5580) ..	982rb	34	Friction taper ..	G83ak
16	Hand screw ..	471c			



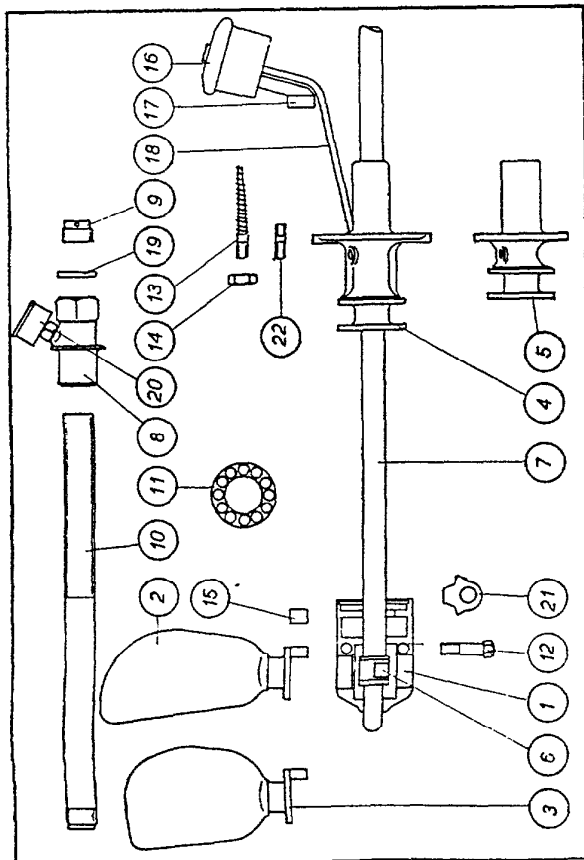
REVERSE GEAR - Model H-1971

Group GG 84. REVERSE GEARBOX (Model H-1971)

No. Part Name	Part No	No. Part Name	Part No	No. Part Name	Part No.
1 Gearbox	S1-H84Qb	24 Ball bearing		45 Spacer	684b
2 Gearbox cover . . .	H84qL	(SKF 6010Z)	983db	46 Spacer	684c
3 Gasket, gearbox cover	884n	25 Circlip (80i)	783d	47 Shim (Seeger PS	
4 Bolt ($\frac{5}{16}$ " $\times$ 1") . . .	421k	26 Circlip (50A)	782b	35 $\times$ 45 $\times$ 0,1)	741 006
5 Oil seal (4256)	934eb	27 Intermediate gear . . .	S1-H84ub	48 Shim (Seeger PS	
6 Magnet plug	S-584b	28 Ball bearing		35 $\times$ 45 $\times$ 0,3)	741 007
7 Ahead clutch cone . .	S1-H84m	(SKF 6205Z)	935mb	49 Rubber washer	884a
8 Ahead clutch lining . .	H84mk	29 Intermediate shaft . .	H84L	50 Gasket, gearbox front	882q
9 Driving gear	H84sb	30 Circlip (25A)	784L	51 Lock bolt	H84nc
10 Key (7 $\times$ 8 $\times$ 20) . . .	436a	31 O-ring (Sor 10) . . .	884L	52 Operating shaft dowel	H84rL
11 Lock nut ($\frac{3}{4}$ " BSP) . .	484t	32 Grooved pin		53 Plug	522de
12 Lock washer	784b	($\frac{1}{4}$ " $\times$ $\frac{3}{4}$ ")	422f	54 Lock sleeve retainer . .	H84z
13 Gear shaft	S1-H84db	34 Chain, 19 links		55 Spring	784i
14 Astern clutch cone		(114046), 483 mm . . .	984c	56 Lock sleeve	S1-H84pc
lining	H84dk	35 Chain lock	984n	57 Lock sleeve roller . . .	H84y
15 Bush	682d	36*) Rear support flange .	S1-H84w	58 Lock sleeve pin	484h
16 Key (7 $\times$ 8 $\times$ 40) . . .	434e	37*) Grease nipple	934r	59 Gasket	836j
17 Ring nut	486c	38 Bolt		60 Dipstick	S1-H84x
18 Lock washer	786c	($\frac{3}{8}$ " UNC $\times$ 1" K80) . .	421L	61 Gasket	882d
19 Coupling flange,		39 Rear support flange		62 Operating shaft . . .	S1-H84rb
front part	S1-H84vb	gasket	884w	63 Operat shaft sleeve . .	684r
19b Coupling flange,		40) Oil seal (5580) with		64 Gear operating lever . .	H71m
rear part (25 mm) . .	S1-2H84RG	dust lip	982rb	65 Knob	971b
20 Bolt ($\frac{3}{8}$ " UNC $\times$		41") Oil seal (5580)	982r	66 Set screw, $\frac{1}{2}$ "	471mL
1 $\frac{1}{4}$ " k80)	484c	42 Operating sleeve	S1-H84ec	67**) Shim, 42 $\times$ 30 $\times$ 0,5	784m
21 Nut ($\frac{3}{8}$ " UNC)	415g	43 Angular-contact		Shim, 42 $\times$ 30 $\times$ 0,3 . .	784mb
22 Sleeve	682re	bearing	984h	Shim, 42 $\times$ 30 $\times$ 0,1 . .	784mc
23 Lower chain wheel . .	S1-H84T	44 Circlip (72 I)	784t		

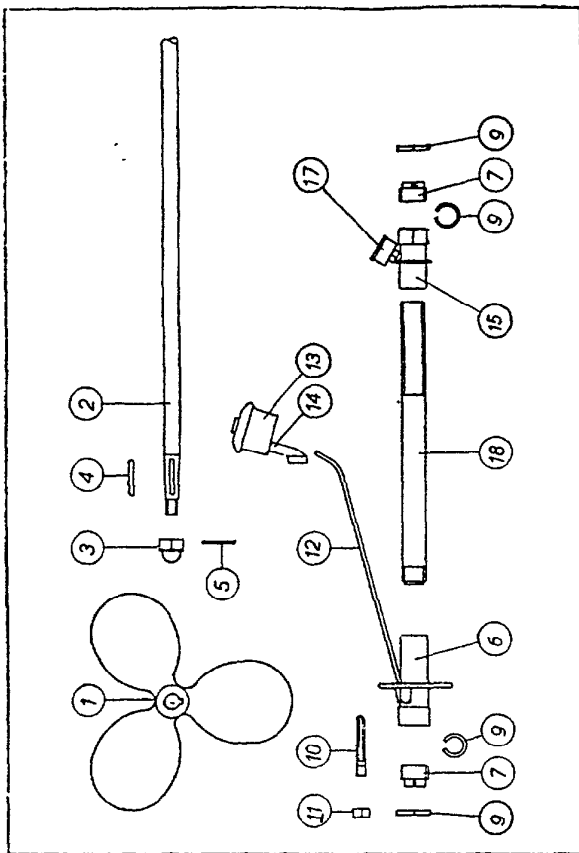
*) S1-H84w consists of pos 36-37 40-41.

**) Not shown in drawing. Used in front of pos. 7.)



Group G 91. CONTROLLABLE PITCH PROPELLER

No. Part Name	Part No.	No. Part Name	Part No.
1 Propeller boss (with boss screws)	S1-2H91AC	14 Nut, 1/2"	491c
2 Propeller blade, normal 450 mm dia	B91B	15 Wing tap block	2H91m
3 Propeller blade, short 394 mm dia.	B91BB	16 Propeller greaser	64Ab
4 Stern bearing, normal	2H91C	17 Prop greaser bracket	64Bb
5 Stern bearing w/grease nipple for lifeboat	2H91CB	18 With reducing nipple	581n
6 Stern bearing, short	2H91CC	19 Greaser tube, 3/8"X750	664a
7 Driving block	2H91d	20 Greaser tube, 3/8"X1500	664b
8 Propeller shaft, 25 mmØX1750 mm stainless steel	2H91eb	21 Stuffing box packing	841e
9 Propeller shaft with driving block	S1-2H91eb	22 Stuffing box grease cup No. 4	982b
10 Stuffing box	2H91FB	23 Lock washer	722.003
11 Stern tube, 450 mm	B91g	24 Stern stud. (for steel boats)	91Lb
12 Thrust ring	B91i	25 Socket screw, Hex. wrench	982h
13 Boss screw (M10)	433.003	*) After servicing: Engines delivered before GA 74—82:	
14 Stern wood screw	91L	Boss screw (1/2")	B91k
		Lock washer	791e



Group G 92. SOLID PROPELLER

No. Part Name	Part No.	No. Part Name	Part No.
1 3-blade propeller (16"X14"X25V)	2H92B	13 Greaser	64Ab
2 Propeller shaft, 25 mmØX1750 mm stainless steel	2H92eb	14 Greaser bracket	64Bb
3 Shaft nut	2H92d	15 with reducing nipple	581n
4 Key	492bb	16 Stuffing box	2H91FB
5 Nut lock pin	792d	17 Stuffing box greaser cup No. 4	982b
6 Stern bearing	2H92c	18 Stern tube, 450 mm	B91h
7 Gland	B92g	For GRP and steel boats (1975):	
8 Lock nut	592g	10b Stern bolt, stainless steel, M12X50	432.108
9 Stuff. box packing (6)	841e	11b Nut, M12	441.068
10 Stern wood screw	91L	Washer (2 pcs.)	721.007
11 Nut (1/2")	491c		
12 Greaser tube, 3/8"X750 mm	664a		
Greaser tube, 3/8"X1500 mm	664b		

IRREGULAR ENGINE OPERATION

Faults Location Chart

MOTORKLUSS – FEILSØKING

1. THE ENGINE WILL NOT START

- Fuel control not wide open (in full speed position).
- Too low cranking speed.
- Dry cylinder. Inject lub-oil.
- Water in fuel.
- Injection not good. Check injector.

MOTOREN STARTER IKKE

Regulator ikke i fullfartstillning.
For liten hastighet på sveiven.
Tørr sylindervegg. Smør med sprøyte-kann.
Vann i brennoljen
Feil med innspøytingen.
Kontroller dysen.

2. LACK OF COMPRESSION

- Check valve tapped clearance, 0,3 mm.
- Valve sticking. To loosen, squirt mixture of lub-oil and fuel through springs to lubricate valve stem. Check valve movement by hand.
- Valve leaking. Listen for leakage while turning engine by hand. If blow-by, remove cylinder head to clean and grind valve seats.
- Check adjustment of decompressor.
- Check cylinder and piston wear.

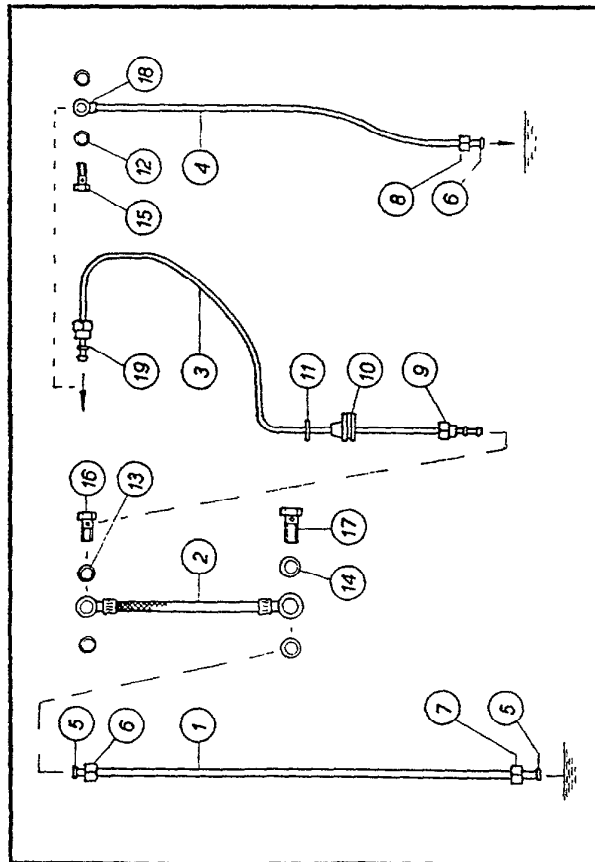
MANGEL PÅ KOMPRESJON

Kontroller at ventilklingen er 0,3 mm.
Undersøk om ventilene går lett ved å trykke dem ned med hånden. Går de trøt, så sprøyt en blanding brenn- og smøreolje gjennom fjæren på ventilspringen, samtidig som den trykkes ned. Lytt til ventilene når motoren tørnes for hånd. Hvis en eller begge blåser gjennom, må topplokket av og ventilene gjøres rene eller slipes inn hvis nødvendig. Kontroller innstilling av dekompressions-ventilen.
Kontroller stempel- og ringklingingen.

Group GA 600. FUEL PIPES

No.	Part Name	Part No.
1	Fuel tank pipe, complete, 5/16" x 1700, Cu	S-663b
2	Filter Pump suction hose, 350 mm	S-844ae
3	Injection pipe, complete, 1,60" x 60" x 640	S-653g
4	Leak-off pipe, complete	S-653fe
5	Solder ring	563b
6	Solder ring	522b
7	Pipe nut, 1/4" BSP	553b
8	Pipe nut, 1/4" BSP	553g
9	Injection pipe nut	453m
10	Inj pipe rubber seal	811fd
11	Rubber washer	853n
12	Banjo nipple washer, Leak-off, 8 mm	853e

No.	Part Name	Part No.
13	Banjo nipple washer, pump, 12 mm	844d
14	Banjo nipple washer, filter, 14 mm	867d
15	Banjo nipple plug, Leak-off, NW 3/8	953h
16	Banjo nipple plug, pump, NW 6 NSR	944b
17	Banjo nipple plug, filter, NW 8 NRS	967a



3. THE ENGINE IS HARD TO CRANK

- Too heavy lubricating oil.
- Bent propeller shaft.
- Check flange coupling. Flywheel rusted in housing. Clean and apply rust inhibitor.

MOTOREN ER TUNG Å DREIE RUNDT

For tykk smøreolje.
Bend i akselledning til propell.
Kontroller flenskobling.
Svinghjul fastrustet.

4. LACK OF POWER

- Fuel oil filter clogged. Change element.
- Air in fuel system. Bleed.
- Dirty injector nozzle.
- Clutch slipping. Remove clutch cover. Tighten clamp nuts 1/6 turn each.
- Incorrect valve tapped clearance. Exhaust pipe clogged.
- Lack of compression. See above.

MOTOREN TREKKER IKKE

Oljefilteret tilstoppet.
Skift brennoljefilterinnsats.
Luft i oljesystemet. Utluft.
Skitt i dysen.
Koblingen slurrer. Etterstram koblings-klemmenutrene 1/6 tærn gjennom loken.
Feil ventilklinging.
Tilstoppet eksosrør.
Mangel på kompresjon. Se ovenfor.

5. ENGINE STOPS

- Overheating of engine. Let the engine cool down before turning to check compression. Start again and slowly load the engine.
- Leak of fuel. Fuel tank cock closed. Fuel filter clogged.

MOTOREN STOPPER

Motoren for varm. La den gå for avkjøling. Tærn forsiktig for hånd og prøv kompresjonen. Start igjen og belast motoren langsomt.

Mangel på brennolje. Brennoljekran stengt. Filterinnsats tett.

SPARE PARTS FOR LIFEBOAT ENGINE MODEL GA AND GAG

Every engine needs regular servicing and maintenance. Quick delivery of correct spare parts is of utmost importance, wherever the ship might call.

SABB MOTOR A.S maintains full stocks of spares all times, and every part will be available at short notice.

However, to save time and expenses SABB MOTOR A.S has prepared *SPECIAL SETS OF SPARES* containing the most vital parts to the engines. See below.

ORDERING SPARE PARTS

SABB MOTOR A.S is prepared to give express spares service, and you can help out by giving us full details when ordering spares.

TYPE OF ENGINE: GA or GAG

ENGINE SERIAL NO. (engine number plate at rear side of starter bracket)

Note that serial no. also comprises the year of manufacture, and this figure is very important

F. inst.: GA 75—100

i.e.: Model GA—year 1975—engine no. 100

PART NAME AND PART NO. as stated in this manual.

Your order should be sent by:

TELEX: 42559 sabb n

TELEPHONE: Bergen, Norw.: Intern. + 47 5 343510

CABLE: "SABBMOTOR"

MAIL: Box 2728, 5010 Bergen, Norway

State your address—port of call—name of ship—marking—forwarding instructions (airmail, by ship, by mail).

STANDARD SETS OF SPARES:

	Code:
1. Maintenance set of spares, GA	V-15
2. Maintenance set of spares, GAG	V-15A
3. Maintenance set of gaskets, GA—GAG	P-7
4. Repair set of gaskets, GA	P-8
5. Repair set of gaskets, GAG	P-9
6. O-rings and oil seals	O-15
7. Set of piston rings	S1-GA32b
8. Fuel lift pump maintenance set	944ka
9. Fuel lift pump repair set	944kb

RESERVEDELER TIL LIVBÅTMOTOR TYPE GA OG GAG

Enhver livbåtmotor trenger regelmessig service og vedlikehold. Rask tilgang på korrekte reservedeler er av største betydning, samme hvor skipet befinner seg.

SABB MOTOR A.S har til enhver tid på lager alle reservedeler til motoren. For å spare tid, har vi laget opp *STANDARDSETT* av de viktigste delene som erfaringsmessig brukes. Se nedenfor.

BESTILLING AV RESERVEDELER

Vi er klar til å gi hurtig service, og De kan hjelpe oss ved å gi fullstendige opplysninger ved bestilling:

MOTOR TYPE: GA eller GAG

SERIENUMMER: Motorskiltet er plassert i bakkant av startstativet. Merk at motornummeret også inneholder årstallet motoren er bygget. F.eks.: GA 75—100
type GA — år 1975 — nr. 100.

DEL NAVN OG DEL NUMMER: Se stykkliste

FULLSTENDIG ADRESSE: Skipets navn, anløpshavn, agent, forsendelsesmåte (skip, fly, post, ilpost) og hvordan forsendelsen skal merkes.

Bestillingen kan sendes oss:

TELEX: 42559 sabb n

TELEGRAM: «SABBMOTOR»

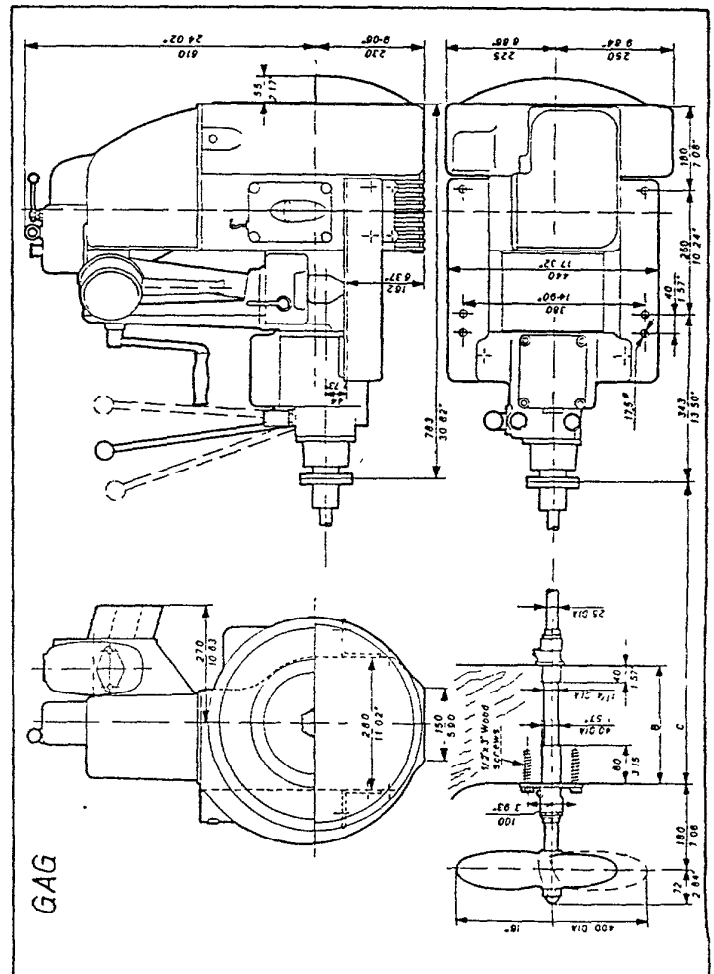
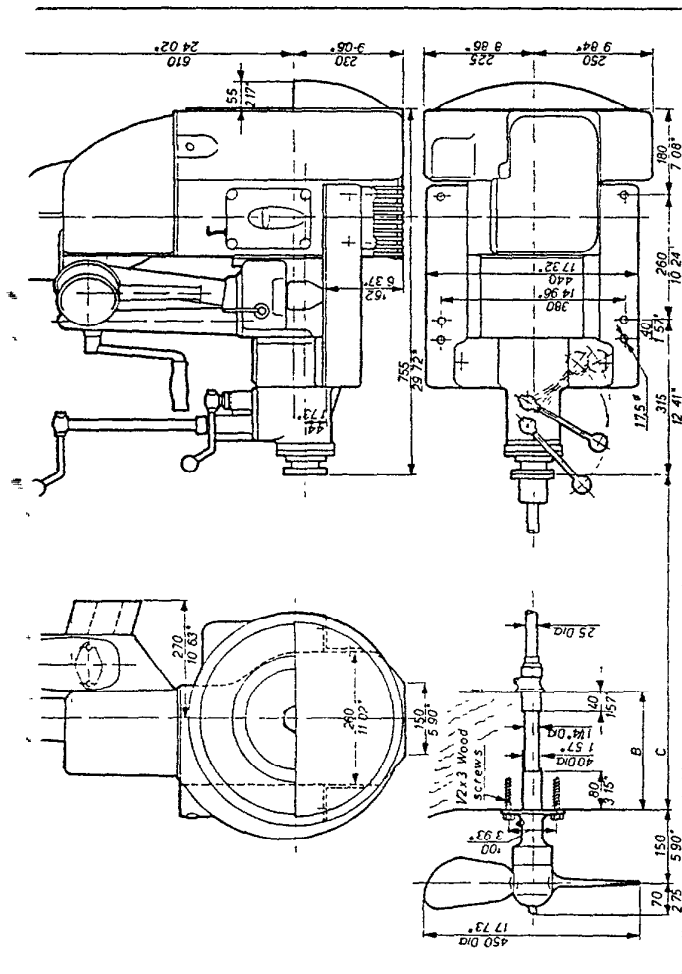
TELEFON: (05) 343510, Bergen, Norway

BREV: Boks 2728 5010 Bergen, Norway

STANDARD RESERVEDELSETT

Bestillingskode:

1. Vedlikeholds-reservedelssett, GA	V-15
2. Vedlikeholds-reservedelssett, GAG	V-15A
3. Vedlikeholds-pakningssett, GA—GAG	P-7
4. Reparasjons-pakningssett, GA	P-8
5. Reparasjons-pakningssett, GAG	P-9
6. O-ringer og oljetettingringer	O-15
7. Stempelringsett	S1-GA32b
8. Fødepumpe-vedlikeholdssett	944ka
9. Fødepumpe-reparasjonssett	944kb



Dimensional drawing: 1.15



(See inside front cover)

**LIVBÅTMOTOR,
LUFTKJØLT, TYPE GA—GAG**
ØKET YTELSE FRA
MEDIO 1978:
Motor nr. GA.78.

**LIFEBOAT ENGINE,
AIR-COOLED, MODEL GA—GAG**
INCREASED PERFORMANCE FROM
MEDIO 1978:
Engine serial No. GA.78.

STANDARD RESERVEDELSSETT/STANDARD SETS OF SPARES:

For motor med sylinderboring 100 mm^ø/
For engine with Cylinder bore 100 mm dia.

	Code:
1. Vedlikeholds-reservedelssett, GA/	V-15B
Maintenance set of spares	
2. Vedlikeholds-reservedelssett, GAG/	V-15C
Maintenance set of spares	
3. Vedlikeholds-pakningssett, GA—GAG/	P-7A
Maintenance set of gaskets	
4. Reparasjons-pakningssett, GA/	P-8
Repair set of gaskets	
5. Reparasjons-pakningssett, GAG/	P-9
Repair set of gaskets	
6. O-ringer og oljetetningsringer/	O-15
O-rings and oil seals	
7. Stempelringsett (Rød), 100 mm ^ø dia./	2J32.005
Set of piston rings (Red), 100 mm dia. . .	
8. Fødepumpe-vedlikeholdssett/	944ka
Fuel lift pump maintenance set	
9. Fødepumpe-reparasjonssett/	944kb
Fuel lift pump set	

SPE SIFIKASJONER:

En-sylindret,

4-takts, luftkjølt dieselmotor

Normal ytelse:

14 hk ved 2000 omdr./min.

Sylinderboring/slaglengde:

100×120 mm

Slagvolum:

940 cm³

Ventilklaring:

Ekso- og Inntak 0,05-0,1 mm

NYE DELER/NEW PARTS:

Group GA 21—23. Side/Page 19.

Pos.		New Part No.:
2.	Ribbesylinder/Ribbed cylinder, 100 mm ^ø	GA21.001
»	14. Toppakning/Cylinder head gasket, 100 mm	831.039
»	15. Ribbesylinderpakning/Ribbed cylinder O-ring, innv./int. dia. 104,5×3	821.044

Group GA 30—1. Side/Page 22.

Pos.	15. Stempel/Piston, 100 mm ^ø	GA32.001
»	16. Toppstempelring/Top compression ring, 100 mm	2J32.001
»	17. Kompresjons stempelring/Compression ring, 100 mm	2J32.002
»	18. Kompresjons skrapering/Compr./scrapper ring, 100 mm	2J32.003
»	19. Spiralfjær oljeskrapering/Spiral oil control ring, 100 mm	2J32.004
»	Stempelringsett/Piston ring set, 100 mm (Rød/Red)	2J32.005
»	21. Kryssbolt/Gudgeon pin	2J32d

Group GA 50—60. Side/Page 31.

Pos.	1. Dyseholder komplett/Injector holder complete	S-GA53db
»	2. Dyse/Nozzle, 0 433 271 090 (DLA 150 S273)	2J53i
»	8. Innsprøytingspumpe/Injection pump complete	S-2J44a
»	10. Elementinnsats/Injector pump element	2J44am
»	11. Trykkventil/Delivery valve	2J44ap
	Sumpvarmer/Sump heater complete	969.068
	Group GA 34. Side/Page 26	
	8. Valve lifter, EX (1)	GA34.001
	8. Valve lifter, IN (1)	GA34g

Date:
21 08 92

Sign.:
foss

EGENPRODUSERT RIBBESYLINDER Ø100 FOR
MOTORER PRODUS. FØR GA 78 118 - 12HK

Gr. nr./Gr. No.:
GA21-23

Side/Page: 1 Av/Ot: 2

NEW RIBBED CYLINDER FOR GA 12 HP
(SERIAL NOS. BEFORE GA 78 118)

Type:
GA-GAG

Arsak til forandring/Cause of change:

Det har lenge vært et problem
å skaffe Ø95 mm ribbesylinder
GA21N, til utskifting på 12HK
luftkjølte motorer produsert
før GA 78 118.

Ribbed Cylinder GA21N is not
available from manufacturer
(Foundry).

Del nr./Part No.:

Forandring/Alteration:

Til erstatning lages en ny
ribbesylinder 011482 med
100 mm boring. Den nye sylin-
deren vil passe til eldre
veivhus med 110 mm styring.
Ved montering nyttes paknings-
pasta (Jointing Compound
991040) i stedet for O-ring.
Videre monteres nytt
Stempel GA32.001-002471
Kryssbolt 2J32D-001548
Ringsett 2J32.005-002601
Toppakning 831039

Pakn.pasta (1 tube) 991040
(påføring som vist)

Replacement Ribbed Cylinder
with 100 mm bore is machined
to fit older type crankcase.
Previous O-ring is replaced
by special Jointing Compound
included.

Also supplied:

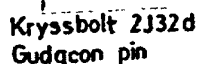
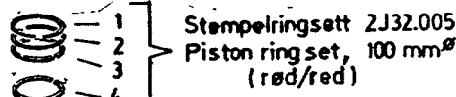
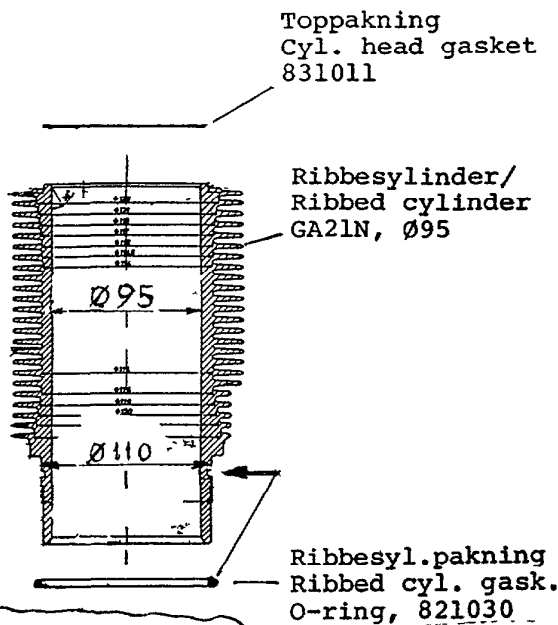
Cylinder Head Gasket 831039
Piston GA32.001-002471
Gudgeon Pin 2J32D-001548
Piston Rings 2J32.005-002601
Jointing Compound 991040

Apply compound as shown.

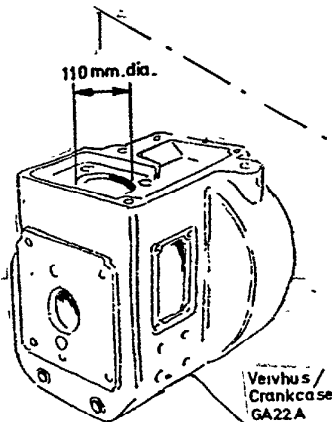
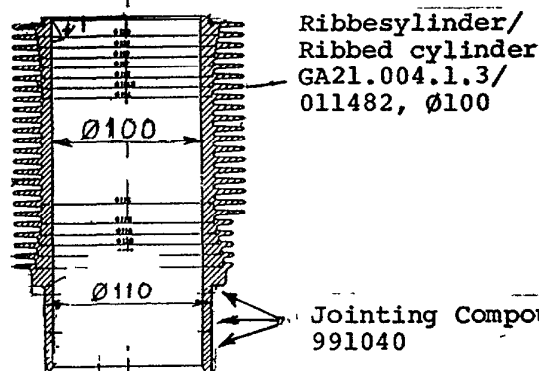
**NOTE: PISTON COMBUSTION
CHAMBER POSITIONED FOR-
WARD AGAINST INJECTOR.**

See page 2.

Merknader/Marks:



Toppakning
Cyl. head gasket
831039



Fra motor nr./From engine serial No :

August 1992

Tilhørende/See also

veivhus

Int. 390

610, 610A og 610B

Se også meld. n

Se også meld. n

SABB MOTOR A/S
5010 BERGEN - NORWAY

**FORANDRINGSMELDING /
ALTERATION REPORT**

Meld. nr./Rep. No.:

623

Date:

15.10.79

Sign.:

[Signature]

Gr. nr./Gr. No.:

GA10-20

Side/Page:

1 Av/Ot: **3**

Type:

GA - GAG

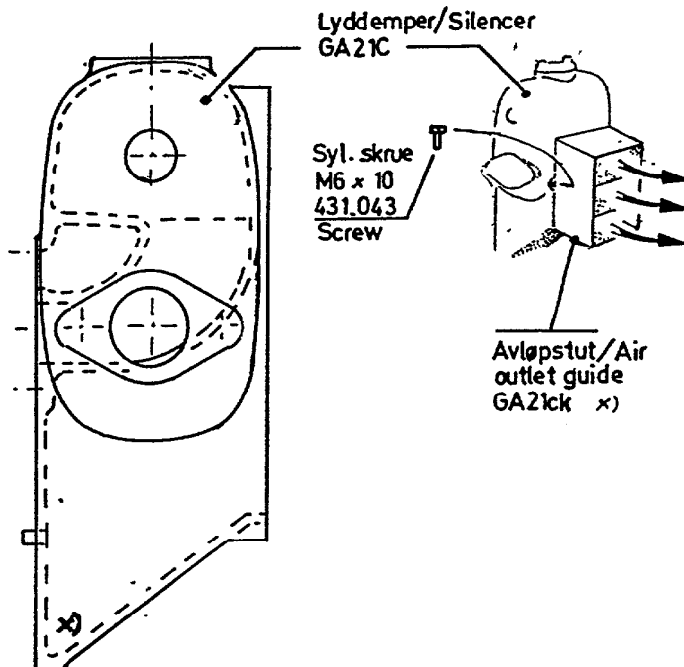
Arsak til forandring/Cause of change:

Lyddemper GA21C for luftkjølt livbåt motor er stor i forhold til volumet og komplisert å lage (støpe).

Silencer for air cooled lifeboat engine is too big and difficult to make.

Del nr./Part No.:

GA21C, GA21ck



Forandring/Alteration:

Vi har konstruert en ny, mindre og enklere lyddemper, nytt nr. GA21.002.1.1

Tidligere støpte "luftavløpsskjørt" m.k. x) på GA21C erstattes av en enklere luftavløpsskjørt av 1 mm galv. st. plate, GA21.003.1.2

For nye plater se side 2,

ETTERBETJENING

Den nye lyddemper GA21.002 sammen med luftavløpsskjørt, GA21.003 og plater etc., direkte utskiftbar med tidligere som utgår.

Se eget oppsett side 3.

New smaller silencer, New part No. GA21.002.1.1

AFTER SERVICING

New silencer GA21.002 together with new air outlet duct and plates is directly interchangeable with silencer GA21C

See special part list page 3.

Silencer GA21C cancelled.

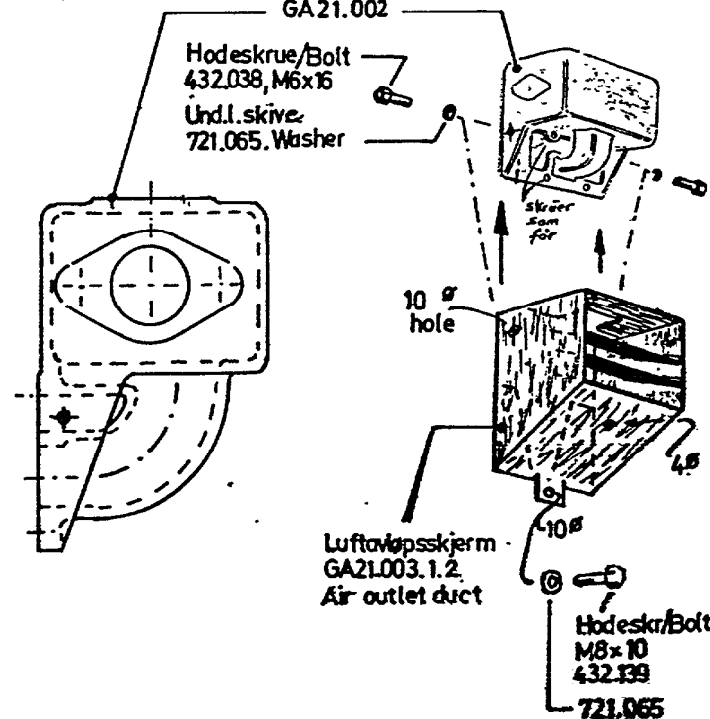
Air outlet guide GA21ck in stock.

x) 2 igjen 1-84. 10 stk bestilt 1-84

Del nr./Part No.:

GA21.002, GA21.003

Lyddemper/Silencer (S1-GA21.002)
GA21.002



Merknader/Marks: Avløpstut GA21ck beholdes for etterbetjening

Frå motor nr./From engine serial No.:

GA 79.133

112-113-114-115-116-117

Tilhørende/See: Service Instruction No.:

Se også meld. nr./See also rep. No.: 424-546

SABB MOTOR A/S
5010 BERGEN - NORWAY

**FORANDRINGSMELDING /
ALTERATION REPORT**

Meld. nr./Rep. No.:

623

Date:

28. 2. 80

Sign.:

[Signature]

Gr. nr./Gr. No.:

GA 24

Side/Page:

2

Av/Ot: **3**

Ny ledeplate og plate for luftskjerm
New deflector plate and air guard rear pl.

Type:

GA 6AG

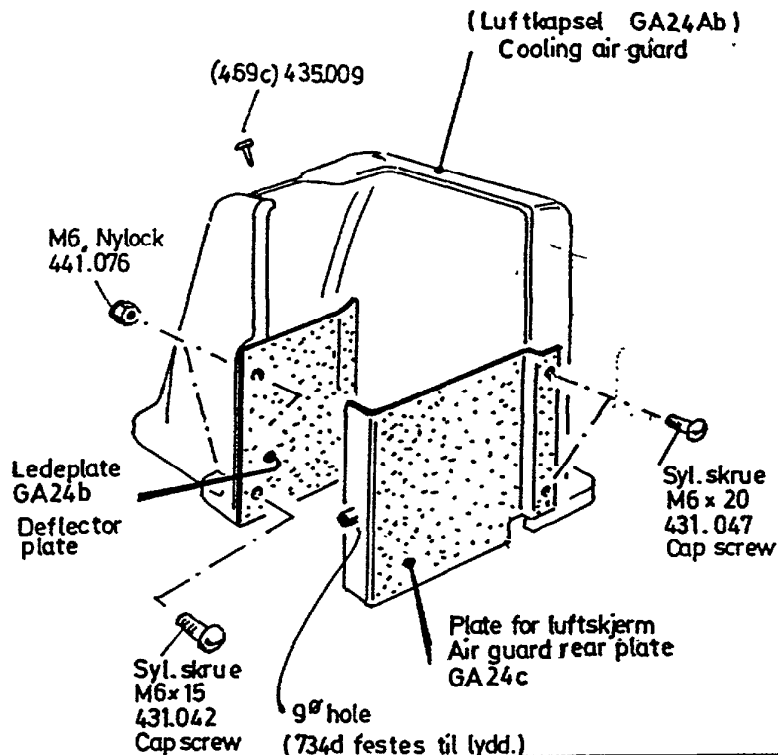
Arsak til forandring/Cause of change:

Er overgang til ny
lyddemper og luftavløps-
skjerm

Se melding nr. 623.
side 1

Introducing of new silencer and
Air outled duct - See report 623
page 1

Del nr./Part No.:



Forandring/Alteration:

Ledeplate GA24b utgår - erstattes av
ny ledeplate GA24.001 - også for eldre
motorer.

Plate GA24c utgår også. Erstattes av
ny plate GA24.002. På eldre motorer
kan den erstatte GA24c ved å bore
ekstra (9 $\emptyset$) hull for 734d.

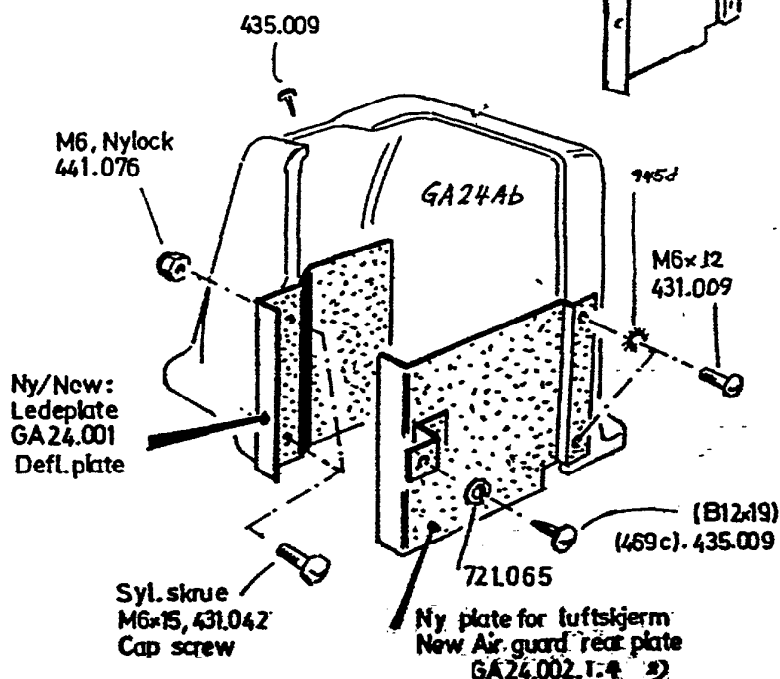
Noen GA24c (ca 25 stk) holdes av for
etterbetjening. 30.04.81 Oppbrukt. $\otimes$

Deflector plate GA24b cancelled.
Replaced by new deflector plate
GA24.001 - also for older engines.

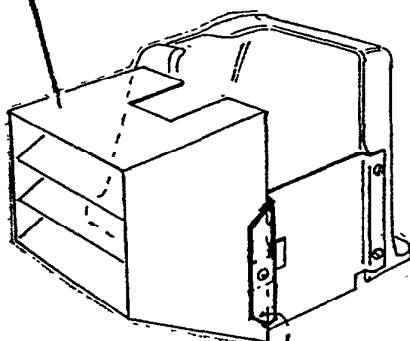
Plate GA24c cancelled also.
Replaced by new air guard rear plate
GA24.002

Del nr./Part No.:

*x) Erst. av / Replaced by GA24.002.2.4
(høsten '80)*



GA21.003



Fra motor nr./From engine serial No.:

GA 79 133

Endret slik 30.04.81

Tilhørende/See Service Instruction No.:

Se også meldt nr./See also rep. No. **462, 546**

PDS100/B

Vise består-av-analyse

5.11.99 10.56.37

MOVEX V10R7

SABB

QPADEV0024

Firma 002/div 1

Sabb Motor AS Produksjonsdata

Firma: 002-1

Virks enhet.... 001 Sabb Motor, Damsgård

<u>1</u>	Produktnummer	Stp	Niv	Antall....	Rev.	Str	dt
	<u>001562</u>	<u>STD</u>	<u>1</u>	<u>1</u>		<u>51199</u>	

LUFTKAPSEL+LEDE/KAPSELPL. Benevning

	Niv	Materialnummer	Antall	Enh	A sat	Tegn	pos
—	1	001560	1	STK	LUFTKAPSEL	SNAU	
—	1	003547	1	STK	LEDEPLATE	FRONT	
—	1	003743	1	STK	LUFTKAPSELPLATE	BAKRE	
—	1	431042	2	STK	SYLSKR M/SPOR	M6X15 NS1087	
—	1	431047	2	STK	SYLSKR M/SPOR	M6X20 NS1087	
—	1	441076	2	STK	LÅSEMUTTER	M6 NYLOC ELFRS	

F3=Avslutt

F4=Forespørsel

F5=Forny

F12=Foregående

F13=Parametre

F14=Konfigurere

F23=Alternativ

F24=Flere F-taster

SABB MOTOR A/S 5010 BERGEN - NORWAY		FORANDRINGSMELDING / ALTERATION REPORT	Meld. nr./Rep. No.: 623
Date: 28.8.80	Sign.: N	Lyddemper GA21C utgår Silencer GA21C obsolete	Gr. nr./Gr. No.: GA10-20 / 24
Side/Page: 3	Av/Ot: 3		Type: GA - GAG
Del nr./Part No.:			

Ved levering av ny type lyddemper til eldre motorer før GA 79 133 - leveres følgende./New type silencer for older engines before GA 79 133 - following parts are supplied:

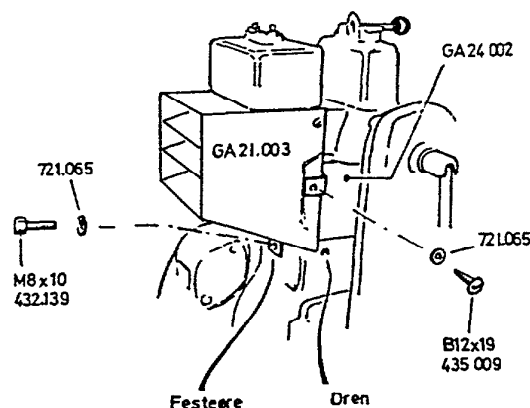
	1 Lyddemper/Silencer	S1-GA21.002
x)	1 Luftavløpsskjerm/Air outlet duct	GA21.003
	1 Ledepate/Deflector plate	GA24.001
	1 Plate for luftskjerm/Air guard rear plate ...	GA24.002
	2 Hodeskrue/Bolt M6x16	432.038
	1 Plateskrue/Screw (469c.- B12x19)	435.009
	4 Underlagskiver/Washer	721.065
	1 Hodeskruer/Bolt M8x10.....	432.139

For motorer eldre enn GA.72.256 (Meld./Rep.No.: 464)
Leveres i tillegg./For engines older than GA 72 256
add following parts:

1 Luftkapsel/Cooling air guard	GA24Ab
4 Hodeskruer/Bolt 5/16 UNC x 1" ... (421k).....	432.028
4 Underlagsskiver/Washer	(781j)..... 721.065

- x) Når luftavløpsskjerm (GA21.003) er ferdig påmontert motoren, må veivhuset bores opp med M8 gjengebor - (bruk "festeøret" GA21.003 som mal) for hodeskrue 432.139.

- x) When air outlet duct (GA21.003) has been fitted, drill and tap M8 as shown to fasten duct at lower end



Merknader/Marks:

Fra motor nr./From engine serial No.:

GA. 79.133

PDS100/B

Vise består-av-analyse

5.11.99 10.56.37

MOVEX V10R7

SABB

QPADEV0024

Firma 002/div 1

Sabb Motor AS Produksjonsdata

Firma: 002-1

Virks enhet.... 001 Sabb Motor, Damsgård

<u>1</u>	Produktnummer	Stp	Niv	Antall....	Rev.	Str	dt
	<u>003934</u>	<u>STD</u>	<u>1</u>	<u>1</u>		<u>51199</u>	

LYDDEMPER/KAPSEL/SKJERM GA72 Benevning

Niv	Materialnummer	Antall	Enh	A sat	Tegn	pos
___ 1	001562	1	STK	LUFTKAPSEL+LEDE/KAPSELPL.		
___ 1	003545	1	STK	LYDDEMPER FRA 1979		
___ 1	003548	1	STK	LUFTAVLSKJERM FRA GA79-133		
___ 1	432028	4	STK	HSKRUE 6K 5/16UNCX25 NS963		
___ 1	432038	2	STK	HSKRUE 6K M 6X 16 FZB		
___ 1	432139	1	STK	HSKRUE 6K M 8X 10 FZB		
___ 1	435009	1	STK	PLATESKRUE B12X19 SYREFAST		
___ 1	721065	4	STK	UNDERLAGSSKIVE 8,5X17X2		

F3=Avslutt

F4=Forespørsel

F5=Forny

F12=Foregående

F13=Parametre

F14=Konfigurere

F23=Alternativ

F24=Flere F-taster