

SULZER

Code Book for Spare Parts of Sulzer Diesel Engines

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Code Book No. 22131

for

Diesel engine Type AL 25/30 Cyl. Nos. General

This book is intended for: Polish Steamship Company,
Szczecin

Instructions for use of Code Book

The different parts of the Diesel engine mentioned above are listed in this Code Book and provided with code numbers. These numbers are indispensable for the speedy handling of your requests and orders.

In telegrams, numbers off and code numbers should be written in full, e.g. not 3 off code 345 **but** three off code three hundred and forty-five.

It is advisable to confirm telephone and telegram orders immediately in writing, giving the fullest details as set out below.

To enable us to deliver a spare parts order correctly, we need the following information:

1. Name of ship, or installation site for stationary engines
2. Engine type
3. Cylinder numbers (state engine manufacturer if numbers are not known)
4. Number of parts wanted
5. Nomenclature of parts
6. Code numbers of parts
7. Classification company

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Sulzer Brothers Limited

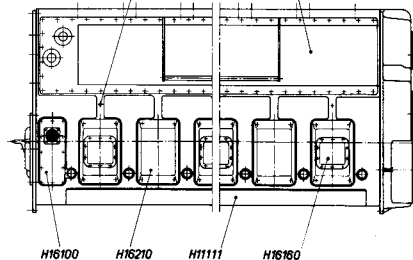
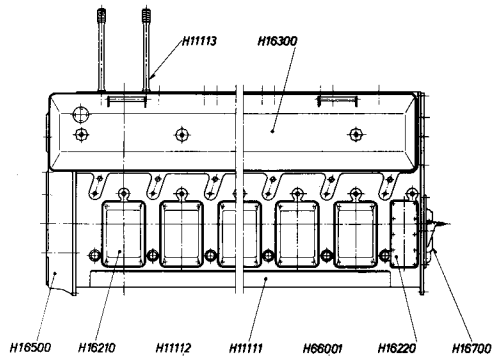
LIST OF SECTIONS

	Code Sheet No.
1. Crankcase	100 - 199
Bedplate	
Crankshaft bearings	
Columns, frame	
Crosshead guide	
Casings	
Thrust bearing	
2. Cylinder	200 - 299
Cylinder jacket, cylinder liner	
Stuffing-box	
Exhaust valves	
Cylinder cover, valves	
3. Running gear	300 - 399
Crankshaft, thrust-bearing shaft	
Flywheel	
Connecting rod, crosshead	
Piston	
Piston cooling system	
4. Control system	400 - 499
Camshaft drive	
Camshaft, cams	
Reversing coupling	
Camshaft trough	
Starting control gear, reversing gear	
Fuel regulation	
Governing linkage	
Automatic equipment	
Control station	
Telegraph, blocking gear, tachometer	

LIST OF SECTIONS

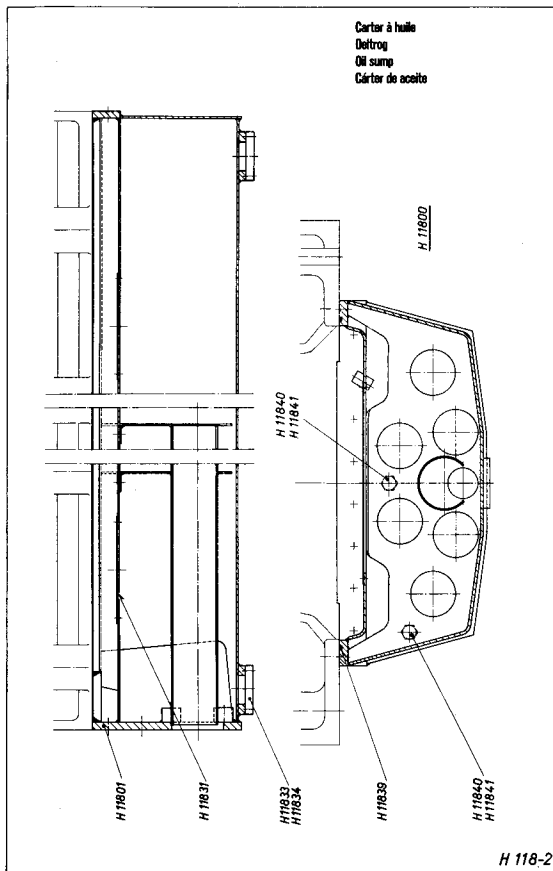
	Code Sheet No.
5. Governor and fuel pump	500 - 599
Governor	
Speed adjustment	
Safety governor, safety cut-out	
Fuel pump	
6. Scavenge pump, charging system, compressor	600 - 699
Scavenge-pump cylinder	
Scavenge-pump drive	
Charging system	
Scavenging-air receiver, scavenging valves	
Compressor	
7. Accessories	700 - 799
Forced-lubrication pump	
Cylinder lubricating pumps	
Water pumps	
Sundry pumps	
Oil cooler, oil filter	
Reversing gear	
Reduction gear	
8. Pipes, fittings	800 - 899
Exhaust pipe	
Suction pipe, charging-air pipes	
Fittings	
9. Measuring instruments, ancillaries	900 - 999
Pressure gauge	
Indicating device	
Air bottles, air containers	

BH motor
 Motorgehäuse
 Engine frame
 Decoder



Engine frame

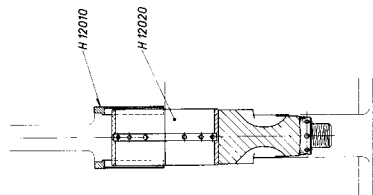
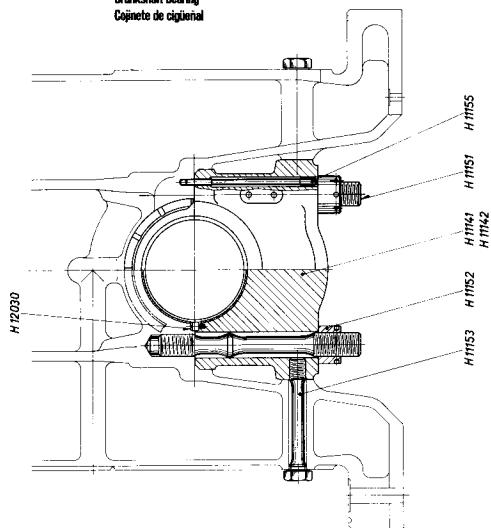
- H 11111 Engine frame, complete
- H 11112 Frame bolts
- H 11113 Cylinder cover bolts
- H 16100 Crankcase vent, complete
- H 16160 Frame cover with safety valve, complete
- H 16210 Frame cover, complete
- H 16220 Dip rod, complete
- H 16300 Cover for camshaft trough, complete
- H 16500 Cover for damper end, complete
- H 16700 Cover for flywheel end, complete
- H 66001 Support for charge air cooler, complete



Oil sump

- H 11800 Oil sump, complete
- H 11801 Oil sump
- H 11831 Apertured plate for oil sump
- H 11833 Square blind flange for oil sump
- H 11834 Square joint for oil sump
- H 11839 Rubber joint for oil sump
- H 11840 Screw plug for oil sump
- H 11841 Joint for screw plug H 11840

Palet de vilebrequin
Kurbelwellenlager
Crankshaft bearing
Cajete de cigüeñal

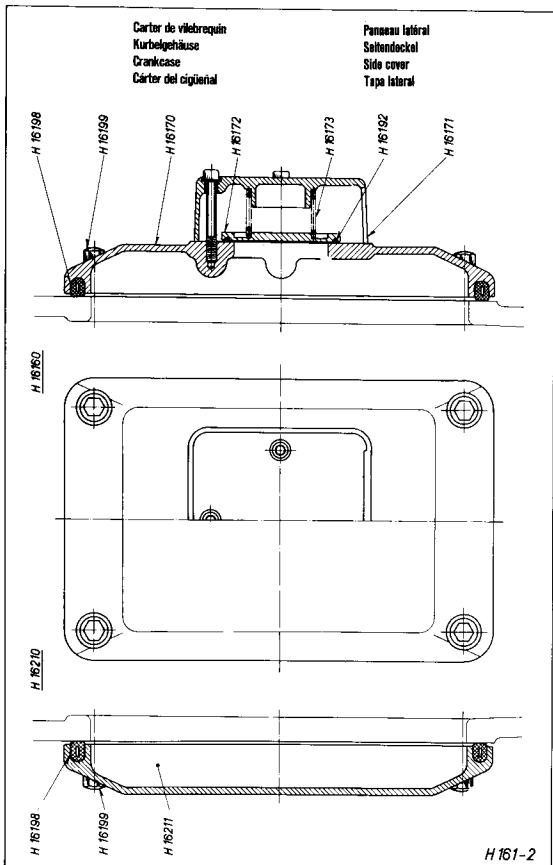


H 120

Crankshaft bearing

- H 11141 Crankshaft bearing cover (with conical pin H 11155)
- H 11142 Crankshaft bearing cover (without conical pin H 11155)
- H 11151 Crankshaft bearing cover bolt
- H 11152 Nut for crankshaft bearing cover bolt H 11151
- H 11153 Crankshaft bearing cover bolt
- H 11155 Conical pin for bearing cover H 11141
- H 12010 Thrust bearing ring half for crankshaft bearing
- H 12020 Crankshaft bearing half
- H 12030 Dowel pin for crankshaft bearing

H 120



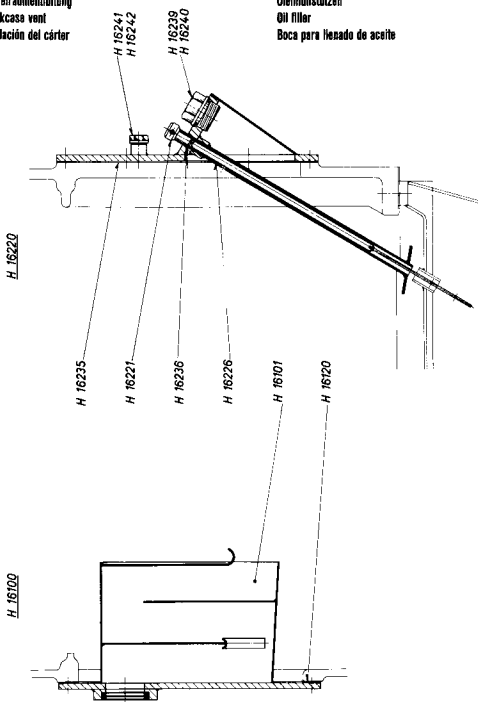
Crankcase

Frame cover

- H 16160 Frame cover with explosion door, complete
- H 16170 Frame cover
- H 16171 Hood for explosion door
- H 16172 Spring plate for explosion door
- H 16173 Spring for explosion door
- H 16192 O-ring for spring plate H 16172
- H 16198 Joint for frame cover
- H 16199 Cap nut for frame cover
- H 16210 Frame cover, complete
- H 16211 Frame cover

Aération du carter
Kurbelraumlüftung
Crankcase vent
Ventilación del cárter

Orifice de remplissage d'huile
Öleinfüllstutzen
Oil filler
Boca para llenado de aceite

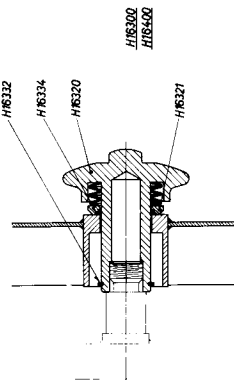
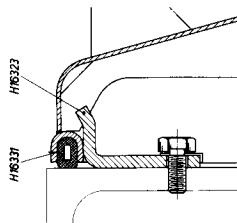
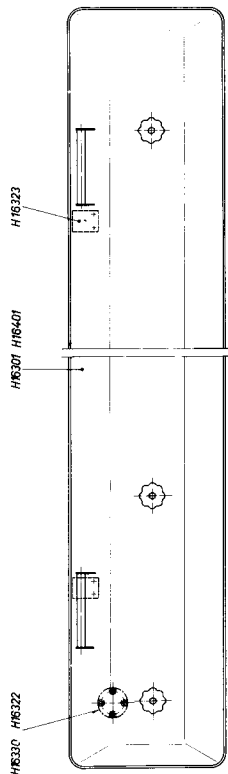


Crankcase vent

Oil filler

- H 16100 Crankcase vent, complete
- H 16101 Crankcase vent housing
- H 16120 Joint for crankcase vent
- H 16220 Oil filler with dip rod
- H 16221 Dip rod, complete
- H 16226 Oil filler
- H 16235 Joint for H 16226
- H 16236 O-ring for dip rod H 16221
- H 16239 Screw plug for oil filler
- H 16240 Joint for screw plug H 16239
- H 16241 Screw plug for oil filler
- H 16242 Joint for screw plug H 16241

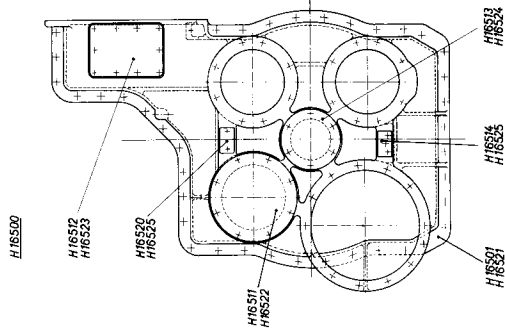
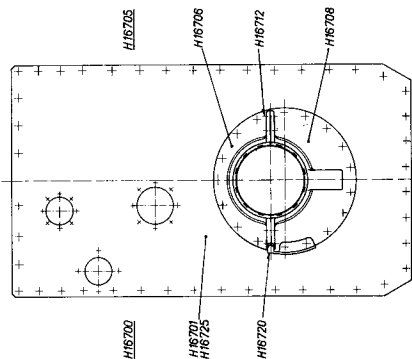
Couvercles du carter de distribution
 Stauertrogdeckel
 Covers for camshaft trough
 Tapas del cárter de distribución



Cover for camshaft trough

- H 16300 Cover for camshaft trough, left-hand side, complete
- H 16301 Cover for camshaft trough, left-hand side
- H 16320 Grip for camshaft trough
- H 16321 Ring for grip H 16320
- H 16322 Cover for camshaft trough cover, left-hand side
- H 16323 Hinge for camshaft trough cover
- H 16330 Joint for H 16322
- H 16331 Joint for camshaft trough cover
- H 16332 Retaining ring for grip H 16320
- H 16334 O-ring for grip H 16320
- H 16400 Cover for camshaft trough, right-hand side, complete
- H 16401 Cover for camshaft trough, right-hand side

Covercie frontal
 Endverschaltung
 End cover
 Envolvente frontal



H 165

Engine frame

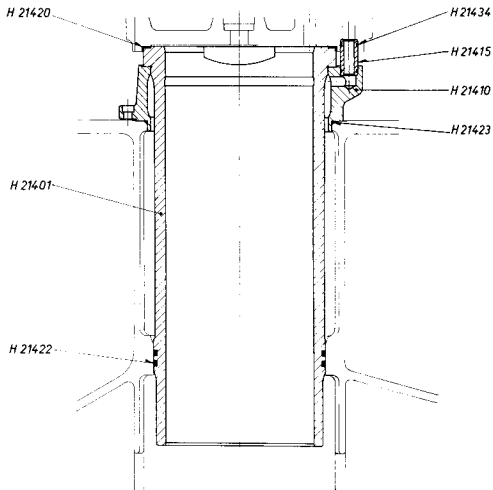
End cover

- H 16500 Cover for damper end, complete
- H 16501 Cover, complete
- H 16511 Cover for cover H 16501
- H 16512 Cover for cover H 16501
- H 16513 Cover for cover H 16501
- H 16514 Luboil nozzle, complet, for cover H 16501
- H 16520 Blind flange for cover H 16501
- H 16521 Joint for cover H 16501
- H 16522 Joint for cover H 16511
- H 16523 Joint for cover H 16512
- H 16524 Joint for cover H 16513
- H 16525 Joint for H 16514 and H 16520
- H 16700 Cover for flywheel end, complete
- H 16701 Cover, complete
- H 16705 Oil catcher, complete
- H 16706 Oil catcher upper part
- H 16708 Oil catcher lower part
- H 16712 Fitted bolt for oil catcher
- H 16720 TDC indicator
- H 16725 Joint for cover H 16701

Chemise de cylindre
Zylindereinsatz
Cylinder liner
Camisa de cilindro

Cylinder liners

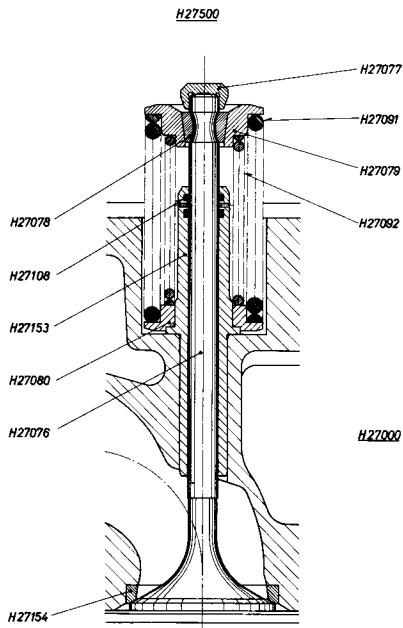
- H 21401 Cylinder liner
- H 21410 Cooling water guide for cylinder liner
- H 21415 Sleeve for cooling water transition from cylinder cover
- H 21420 Joint between cylinder liner and cylinder cover
- H 21422 O-ring for cylinder liner
- H 21423 Rubber ring for cooling water guide H 21410
- H 21434 O-ring for sleeve H 21415



H 214

Culassa de cylindre
Zylinderdeckel
Cylinder cover
Culata

Souppes d'admission et d'échappement
Ein- und Auslassventil
Inlet and exhaust valve
Válvula de admisión y salida



H 270 -1

Cylinder cover

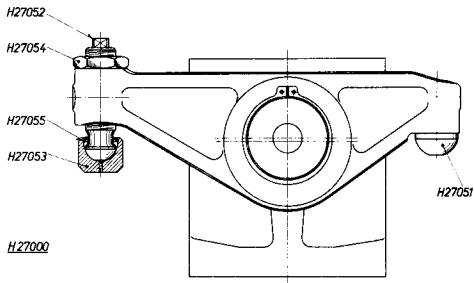
Inlet and exhaust valve

- H 27000 Cylinder cover, complete
- H 27500 Inlet and exhaust valve, complete
(H 27076 - H 27153)
- H 27076 Inlet and exhaust valve
- H 27077 Cap for inlet and exhaust valve
- H 27078 Conical clamping ring in two parts for
inlet and exhaust valve
- H 27079 Upper spring plate for inlet and exhaust
valve
- H 27080 Lower spring plate for inlet and exhaust
valve
- H 27091 Outer valve spring for inlet and exhaust
valve
- H 27092 Inner valve spring for inlet and exhaust
valve
- H 27108 O-ring for valve guide H 27153
- H 27153 Valve guide for inlet and exhaust valve
- H 27154 Annular valve seat for inlet and exhaust
valve

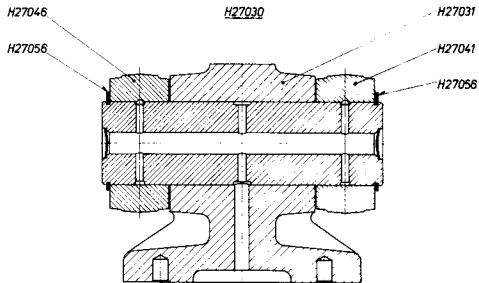
H 270-1

Classe de cylindre
Zylinderdeckel
Cylinder cover
Calata

Clavateur
Kipphebel
Rocker
Balancín



H 27000



H 270-2

Cylinder cover

Rocker

H 27030 Rocker, complete

H 27031 Support for rockers, complete

H 27041 Inlet rocker

H 27046 Outlet rocker

H 27051 Ball pin for rockers H 27041 and H 27046

H 27052 Ball bolt for rockers H 27041 and H 27046

H 27053 Cap for ball bolt H 27052

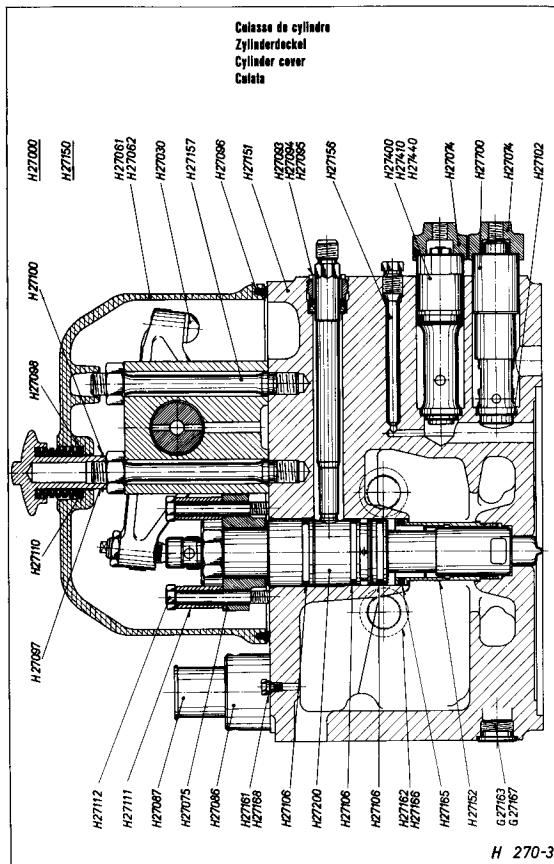
H 27054 Lock nut for ball bolt H 27052

H 27055 Circlip for cap H 27053

H 27056 Retaining ring for rocker support H 27031

H 270-2

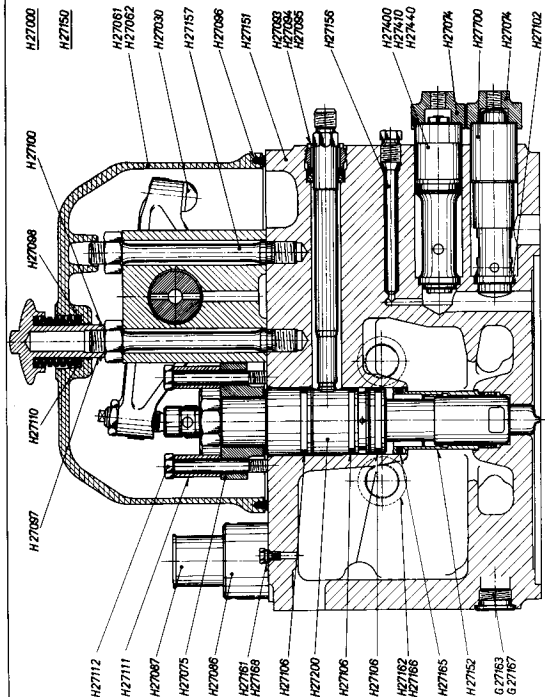
Cylinder cover



H 270-3

- H 27000 Cylinder cover, complete
- H 27030 Rocker, complete
- H 27061 Hood for cylinder cover
- H 27062 Hood for cylinder cover, only for 3 A 25 (cylinder 1)
- H 27074 Cover for starting and relief valves
- H 27075 Thrust flange for fuel injector H 27200
- H 27086 Nut for cylinder cover bolt H 11113
- H 27087 Protective cap for cylinder cover bolt H 11113
- H 27093 Joint for fuel stud H 27211
- H 27094 Clamping ring for fuel stud H 27211
- H 27095 Thrust nipple for fuel stud H 27211
- H 27096 Rubber joint for hoods H 27061 and H 27062
- H 27097 Grip for hoods H 27061 and H 27062
- H 27098 Ring for grip H 27097
- H 27100 Retaining ring for grip H 27097
- H 27102 Joint for starting and relief valves
- H 27106 O-ring for fuel injector H 27200
- H 27110 O-ring for grip H 27097
- H 27111 Spacer for fixing bolt for fuel injector
- H 27112 Fixing bolt for fuel injector
- H 27150 Cylinder cover, complete with insert bush and valve guides (H 27152 and H 27153)

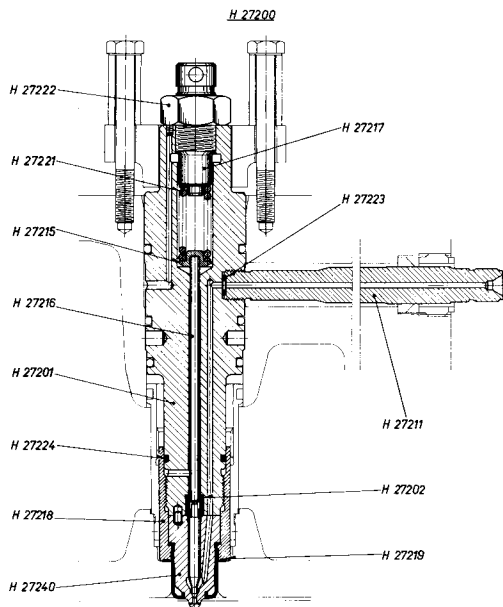
Classe de cylindre
 Zylinderdeckel
 Cylinder cover
 Calote



H 270-3

- H 27151 Cylinder cover
- H 27152 Insert bush for fuel injector
- H 27156 Screw plug for cylinder cover
- H 27157 Bolt for rocker support
- H 27161 Screw plug for cylinder cover
- H 27162 Screw plug for cylinder cover
- H 27163 Screw plug for cylinder cover
- H 27165 Joint for insert bush H 27152
- H 27166 Joint for screw plug H 27162
- H 27167 Joint for screw plug H 27163
- H 27168 Joint for screw plug H 27161
- H 27200 Fuel injector, complete
- H 27400 SULZER - Starting valve, complete
- H 27410 NOVA - Starting valve, complete
- H 27440 NOVA - Starting valve, complete
- H 27700 Relief valve, complete

Soupage à combustible
Brennstoffventil
Fuel injector
Válvula de inyección



H 272

Fuel injector

- H 27200 Fuel injector, complete
- H 27201 Nozzle holder, complete, for fuel injector
- H 27202 Bush for nozzle holder H 27201
- H 27211 Fuel stud for fuel injector
- H 27215 Spring plate for fuel injector
- H 27216 Push rod for fuel injector
- H 27217 Adjusting screw for fuel injector
- H 27218 Cap nut, complete, for fuel injector
- H 27219 Spacer for cap nut H 27218
- H 27221 Spring for fuel injector
- H 27222 Nut for fuel injector
- H 27223 Joint for fuel injector
- H 27224 O-ring for nozzle holder
- H 27240 Nozzle, complete, for fuel injector

H 272

Bei Bestellung von Brennstoffdüsen sind folgende Angaben zu machen:

- 1. Kodenummer**
- 2. Genaue Düsenbezeichnung, das heißt Einspritzwinkel x Anzahl Löcher x Lochdurchmesser (auf der Düse eingraviert und im Steuerungsprotokoll eingetragen)**
- 3. Flachsitz oder Konussitz**

A la commande de tuyères à combustible, fournir les indications suivantes:

- 1. Numéro de code**
- 2. Désignation exacte des tuyères, par exemple angle d'injection x nombre de trous x diamètre des trous (indication gravée sur la tuyère et mentionnée au procès-verbal de distribution)**
- 3. Siège plat ou conique**

The following are to be quoted when ordering fuel injection nozzles:

- 1. Code number**
- 2. Full details of nozzle, i.e. injection angle x number of holes x hole diameter (engraved on the nozzle and entered in the Valve Setting Tables)**
- 3. Flat or conical seat**

Para el encargo de toberas de inyección de combustible deberán indicarse los datos siguientes:

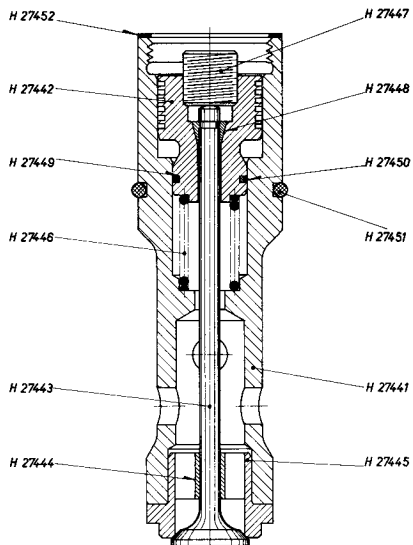
- 1. Número de código**
- 2. Designación exacta de la tobera, es decir, ángulo de inyección x número de agujeros x diámetro de éstos (estos datos están marcados en la tobera y figuran, además, en el Acta de distribución)**
- 3. Asiento plano o cónico**

Na encomenda de injetores de combustível deve-se indicar o seguinte:

- 1. Número de código**
- 2. Especificação exata dos injetores, isto é, ângulo de injeção x número de orifícios x diâmetro dos orifícios (gravados no injetor e especificados na ata de distribuição)**
- 3. Assento plano ou cônico**

Souape de démarrage
Anlaufventil
Starting valve
Válvula de arranque

H 27440



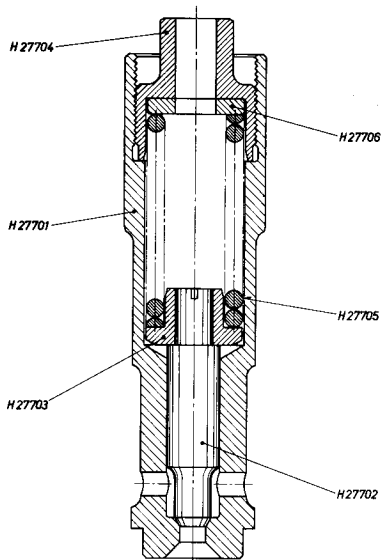
Starting valve

- * H 27440 NOVA-Starting valve, complete
- H 27441 Starting valve housing
- H 27442 Piston for starting valve
- H 27443 Spindle for starting valve
- H 27444 Valve guide for spindle H 27443
- H 27445 Valve seat for starting valve
- H 27446 Spring for starting valve
- H 27447 Screw plug for starting valve
- H 27448 Conical clamping ring in two parts for starting valve
- H 27449 O-ring for piston H 27442
- H 27450 Joint ring for piston H 27442
- H 27451 O-ring for starting valve
- H 27452 Joint ring for starting valve

* When ordering replacement parts, please given main dimensions.

Soupepe de sûreté
Sicherheitsventil
Relief valve
Válvula de seguridad

H 27700

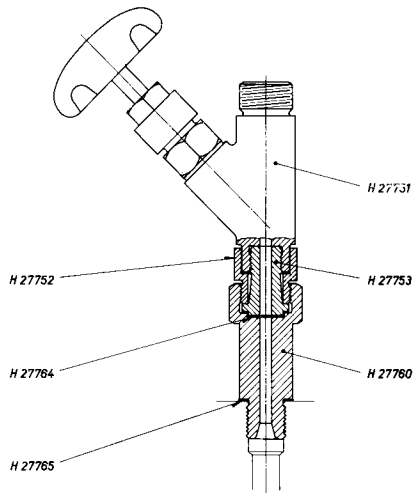


Relief valve

- H 27700 Relief valve, complete
- H 27701 Relief valve housing
- H 27702 Relief valve
- H 27703 Spring plate for relief valve
- H 27704 Adjusting screw for relief valve
- H 27705 Relief valve spring
- H 27706 Spacer for relief valve

Soupape d'indicateur
indikatorventil
Indicator valve
Grife del indicador

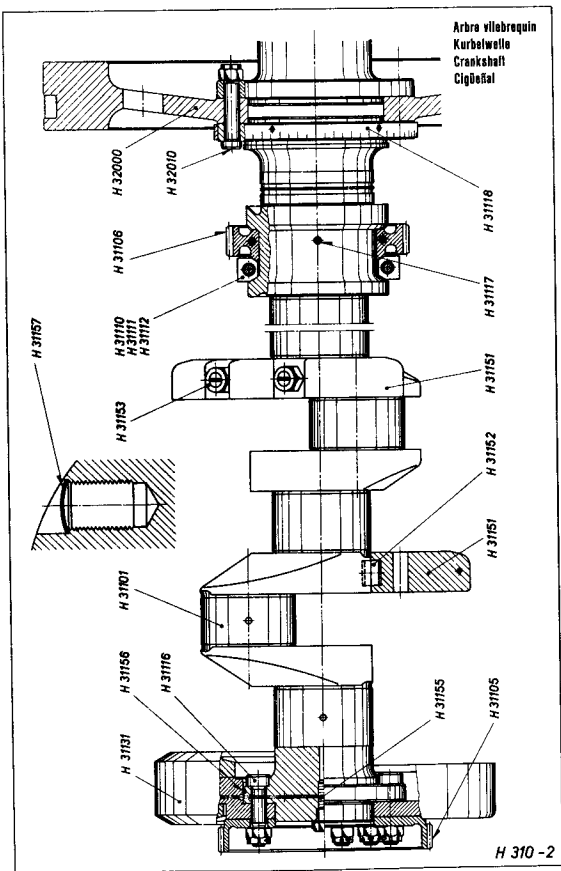
H 27750



H 277-1

Indicator valve

- H 27750 Indicator valve, compl.
- H 27751 Valve casing for indicator valve
- H 27752 Nipple for indicator valve
- H 27753 Distance piece for indicator valve
- H 27760 Nipple for indicator valve
- H 27764 Joint for indicator valve
- H 27765 Joint for indicator valve



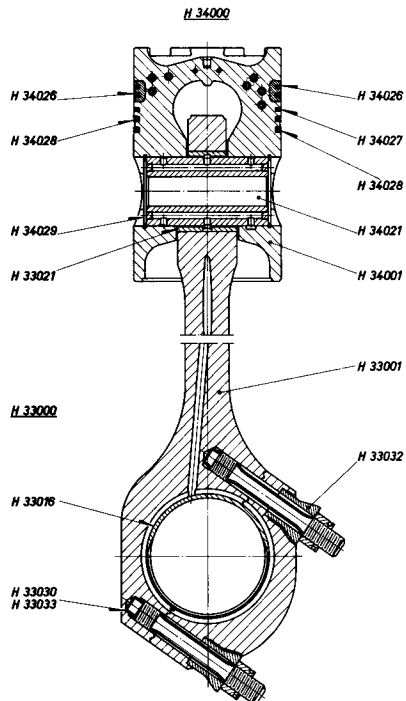
Crankshaft

- H 31101 Crankshaft, complete
- H 31105 Spur wheel for crankshaft
- H 31106 Spur wheel in two parts, complete, for crankshaft
- H 31110 Clamping ring in two parts for crankshaft
- H 31111 Tensioning bolt for clamping ring H 31110
- H 31112 Castle nut for H 31111
- H 31116 Fitted bolt, complete, for crankshaft
- H 31117 Cylindrical pin for spur wheel H 31106
- H 31118 Graduated ring, complete, for crankshaft
- H 31131 Vibration damper, complete
- H 31151 Balance weight for crankshaft
- H 31152 Pin for balance weight
- H 31153 Fixing screw for balance weight
- H 31155 Screw plug for crankshaft *
- H 31156 O-ring for crankshaft *
- H 31157 Cover disc for crankshaft
- H 32000 Flywheel
- H 32010 Coupling bolt for flywheel H 32000

* Only for use with M.A.N. or GEISLINGER vibration dampers

Welle
Schleifringe
Connecting rod
Welle

Piston
Kolben
Piston
Einbaue



Connecting rod and piston

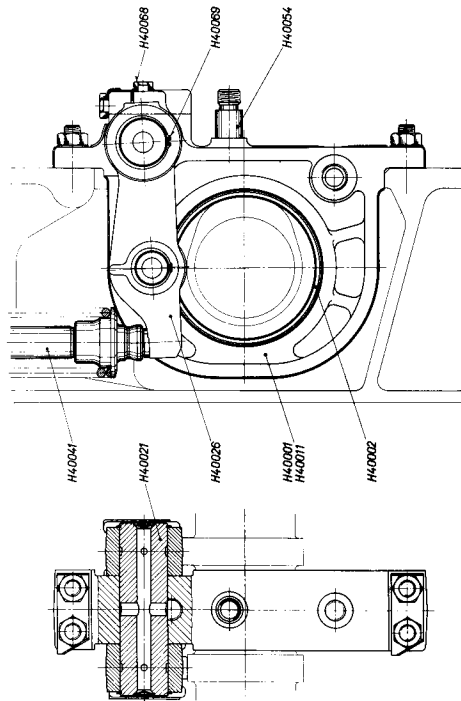
- H 33000 Connecting rod, complete
- H 33001 Connecting rod with cover, complete
- H 33016 Lower connecting rod bearing in two parts
- H 33021 Upper connecting rod bearing
- H 33030 Bolt for connecting rod
- H 33032 Spacer for connecting rod
- H 33033 Nut for bolts H 33030
- * H 34000 Piston, complete
- H 34001 Piston
- H 34021 Gudgeon pin, complete
- H 34026 Piston ring, chrome plated
- H 34027 Piston ring (step-seal ring)
- H 34028 Spring-tensioned oil scraper ring
- H 34029 Retaining ring typ J for gudgeon pin H 34021

* When ordering spares, please state whether cast or aluminium pistons.

Valve driveCamshaft bearing

Commande de soupape
Ventiltrieb
Valve drive
Mando de válvula

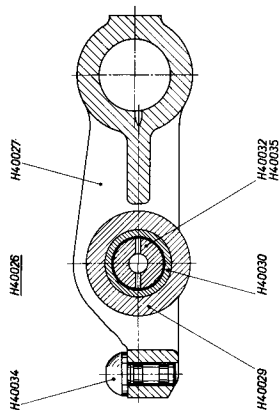
Palier pour l'arbre de distribution
Steuerwellenlager
Camshaft bearing
Cojinete de eje de levas



- H 40001 Bearing block for camshaft bearing on flywheel end
- H 40002 Bearing bush for H 40001 and H 40011
- H 40011 Bearing block for camshaft bearing
- H 40021 Rocker pin, complete, for cam rocker H 40026
- H 40026 Cam rocker, complete
- H 40041 Push rod, complete
- H 40054 Fixing bolt for camshaft trough cover
- H 40068 Set screw, complete, for cam rocker H 40026
- H 40069 Retaining ring for rocker pin H 40021

Commande de soupape
Ventiltrieb
Valve drive
Mando de válvula

Lever-balancier de came
Nocken-schwingehebel
Valve actuating lever
Balancía de leva



H 400-1

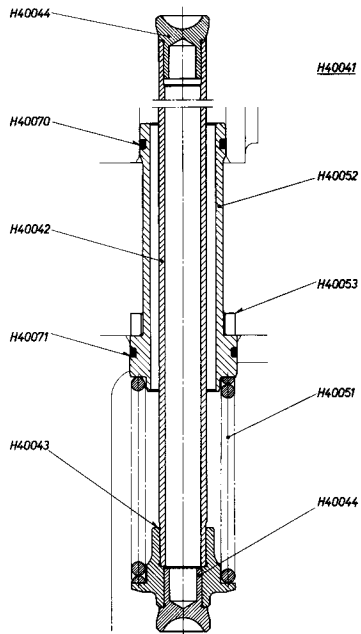
Valve drive

Cam rocker

- H 40026 Cam rocker, complete, for valve drive
- H 40027 Cam rocker
- H 40029 Roller for cam rocker
- H 40030 Bearing bush for rocker H 40029
- H 40032 Roller pin, complete, for cam rocker
- H 40034 Ball pin for cam rocker
- H 40035 Retaining ring for roller pin H 40032

Commande de coupape
Ventilatortrieb
Valve drive
Mando de válvula

Poussoir
Stößstange
Push rod
Barra de empuje



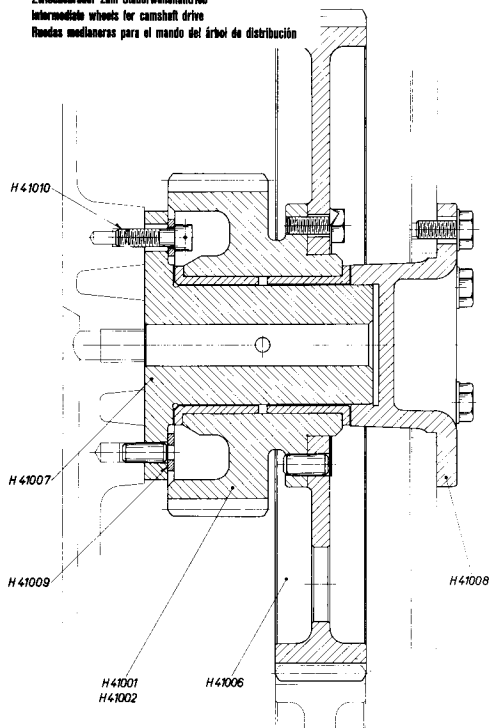
H400-2

Valve drive

Push rod

- H 40041 Push rod, complete, for valve drive
- H 40042 Push rod
- H 40043 Spring plate for push rod
- H 40044 Ball cup for push rod
- H 40051 Spring for push rod
- H 40052 Protective sleeve for push rod
- H 40053 Fixing strap for protective sleeve H 40052
- H 40070 O-ring for protective sleeve H 40052
- H 40071 O-ring for protective sleeve H 40052

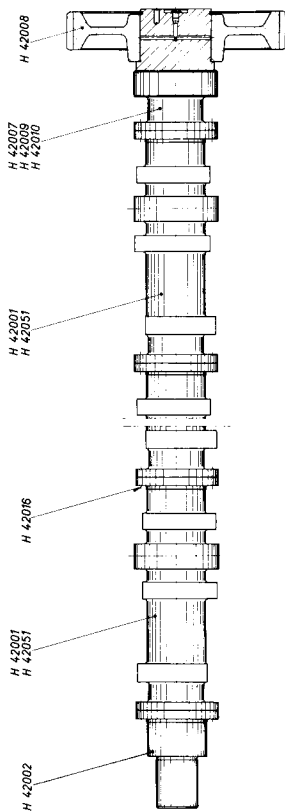
Roues intermédiaires pour commande de l'arbre de distribution
Zwischenräder zum Steuerwellentrieb
Intermediate wheels for camshaft drive
Ruedas medianeras para el mando del árbol de distribución



Intermediate wheels for camshaft drive

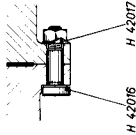
- H 41001 Intermediate wheel for camshaft drive
- H 41002 Bush for H 41001
- H 41006 Intermediate wheel for camshaft drive
- H 41007 Bearing pin for camshaft drive
- H 41008 Step bearing for camshaft drive
- H 41009 Sheet iron ring for camshaft drive
- H 41010 Cylindrical screw for H 41007

Camshaft



Arbre de distribution
Steuerwelle
Camshaft
Eje de levas

H 42050



H 42000

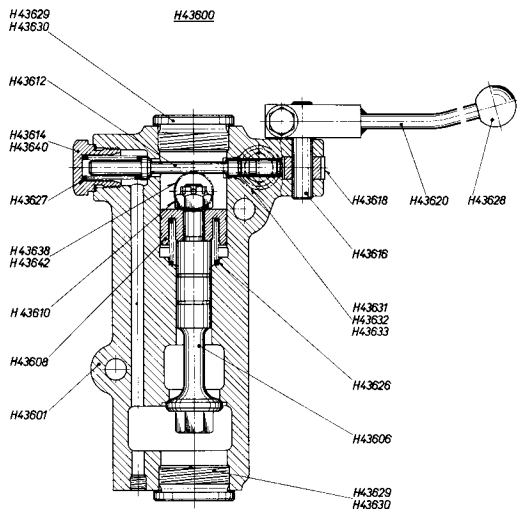
H 420

- H 42000 Camshaft, complete, for clockwise rotation
- H 42001 Camshaft section for clockwise rotation
- H 42002 Bearing pin for camshaft
- H 42007 End piece for camshaft
- H 42008 Spur wheel for end piece H 42007
- H 42009 Retaining ring for end piece H 42007
- H 42010 Protective plug for end piece H 42007
- H 42016 Fitted bolt for camshaft
- H 42017 Locking plate for fitted bolt H 42016
- H 42050 Camshaft, complete, for counterclockwise rotation
- H 42051 Camshaft section for counterclockwise rotation

H 420

Starting air valve

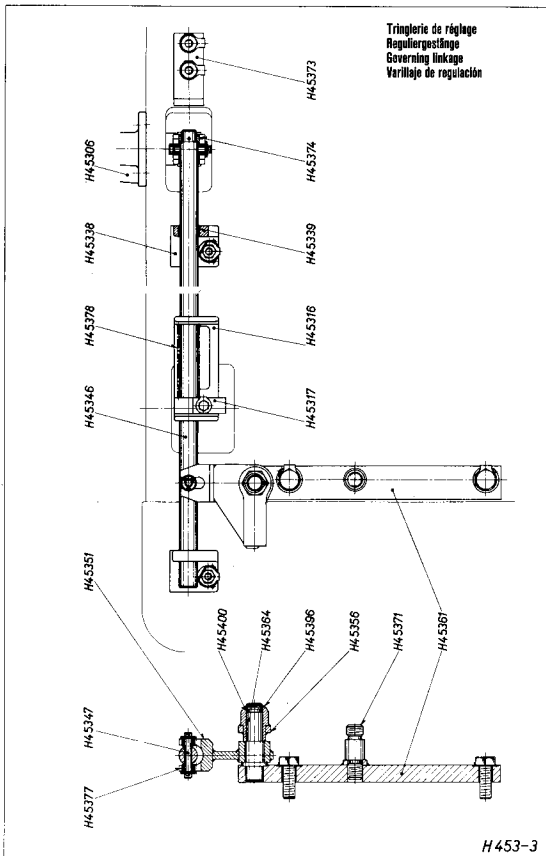
Soupage d'air de démarrage
Anlaufluftventil
Starting air valve
Válvula de paso del aire de arranque



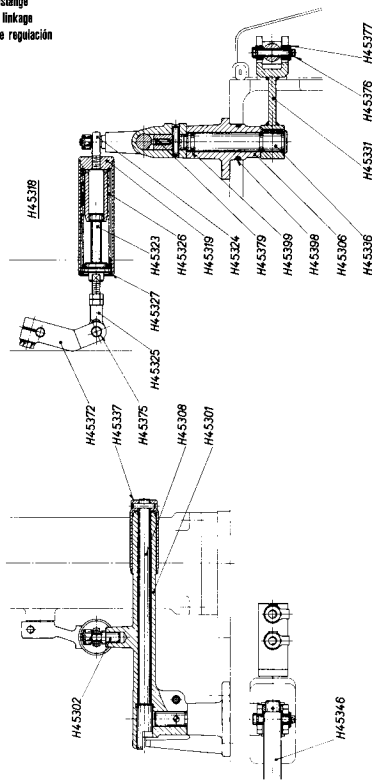
- H 43600 Starting air valve, complete
- H 43601 Housing, complete, for starting air valve
- H 43606 Spindle for starting air valve
- H 43608 Control piston for starting air valve
- H 43610 Castle nut with split pin, complete for valve spindle H 43606
- H 43612 Pilot valve for starting air valve
- H 43614 Screw plug for starting air valve
- H 43616 Pin for starting lever H 43620
- H 43618 Thrust lever for starting air valve
- H 43620 Starting lever for starting air valve
- H 43626 Spring for control piston H 43608
- H 43627 Spring for pilot valve H 43612
- H 43628 Ball grip for starting lever H 43620
- H 43629 Screw plug for housing H 43601
- H 43630 Joint for screw plug H 43629
- H 43631 Hollow screw for ball end H 43632
- H 43632 Ball end for pipe connection
- H 43633 Joint for ball end H 43632
- H 43638 Screw plug for housing H 43601
- H 43640 Joint for screw plug H 43614
- H 43642 Joint for screw plug H 43638

Regulating linkage

- H 45306 Flanged bearing for regulating linkage
- H 45316 Forked piece for regulating linkage
- H 45317 Clamping piece for regulating linkage
- H 45338 Bearing bracket for regulating linkage
- H 45339 Bush for bearing bracket H 45338
- H 45346 Rod for regulating linkage
- H 45347 Pin for rod H 45346
- H 45351 Lever for regulating linkage
- H 45356 Lever for regulating linkage
- H 45361 Lash for regulating linkage
- H 45364 Bearing pin for lash H 45361
- H 45371 Pin for lash H 45361
- H 45373 Stop for regulating linkage
- H 45374 Guide piece for rod H 45346
- H 45377 Sliding piece for pins H 45347 and H 45376
- H 45378 Spring for forked piece H 45316
- H 45396 Retaining ring for bearing pin H 45364
- H 45400 O-ring for bearing pin H 45364



Tringlerie de réglage
Regulierungsstange
Governing linkage
Varillaje de regulación



Regulating linkage

- H 45301 Regulating lever
- H 45302 Pin with collar for regulating lever H 45301
- H 45306 Flanged bearing for regulating linkage
- H 45308 Locking rod for regulating lever H 45301
- H 45318 Elastic rod, complete, for regulating linkage
- H 45319 Spring housing for elastic rod H 45318
- H 45323 Guide rod for elastic rod H 45318
- H 45324 Articulation piece for elastic rod H 45318
- H 45325 Articulation piece for elastic rod H 45318
- H 45326 Spring for elastic rod H 45318
- H 45327 Retaining ring for elastic rod H 45318
- H 45331 Regulating lever
- H 45336 Pin for regulating linkage
- H 45337 Hand grip for regulating lever H 45301
- H 45346 Regulating rod
- H 45372 Regulating lever
- H 45375 Pin with collar for lever H 45372
- H 45376 Pin with collar for lever H 45331
- H 45377 Sliding piece for pins H 45347 and H 45376
- H 45379 Spring for pin H 45336
- H 45398 O-Ring for flanged bearing H 45306
- H 45399 O-Ring for pin H 45336

Tachymètre à distance
Ferntachometer
Remote-indicating tachometer
Telefaccómetro

Comando
Antrieb
Drive
Accionamiento

Remote tachometer

Drive

H 46250 Drive for remote tachometer, complete

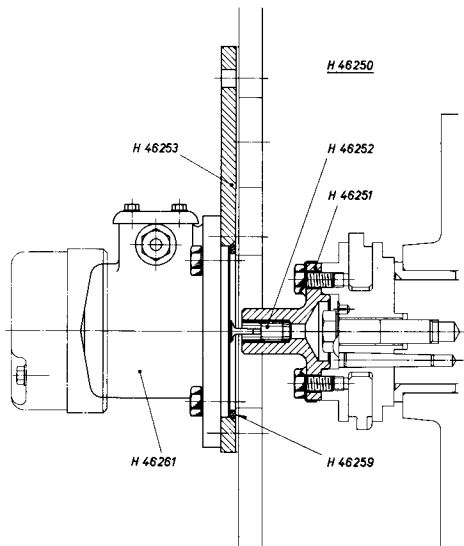
H 46251 Drive shaft for H 46250

H 46252 Follower for H 46250

H 46253 Plate for H 46250

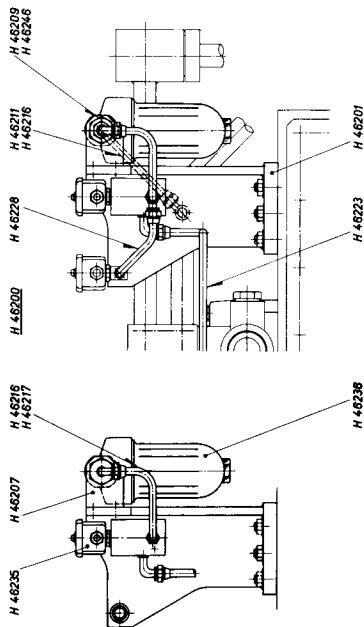
H 46259 O-ring for plate H 46253

H 46261 Transmitter for remote tachometer



H 462

Soupape de démarrage
Startventil
Starting valve
Válvula de arranque



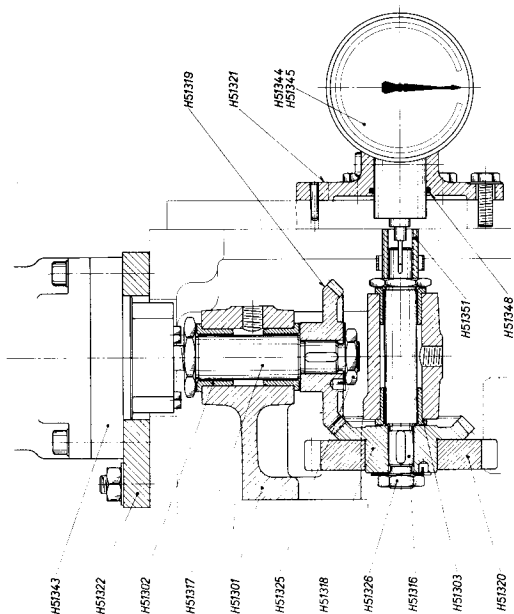
H 462-1

Starting valve

- H 46200 Starting valve, complete
- H 46201 Support for starting and fuel-limiting valve
- H 46207 Angle iron for air filter
- H 46209 Screw for air pipe
- H 46211 Air pipe in front of filter
- H 46216 Joint ring for H 46211 and H 46217
- H 46217 Air pipe after filter
- H 46223 Air pipe for starting air valve
- H 46228 Air pipe after filter
- H 46235 Starting valve
- H 46236 Single-layer filter
- H 46246 Packing ring for screw H 46209

Commande du régulateur
Regulatorantrieb
Governor drive
Accionamiento del regulador

Commande du tachymètre
Tachometerantrieb
Tachometer drive
Mando del tacómetro



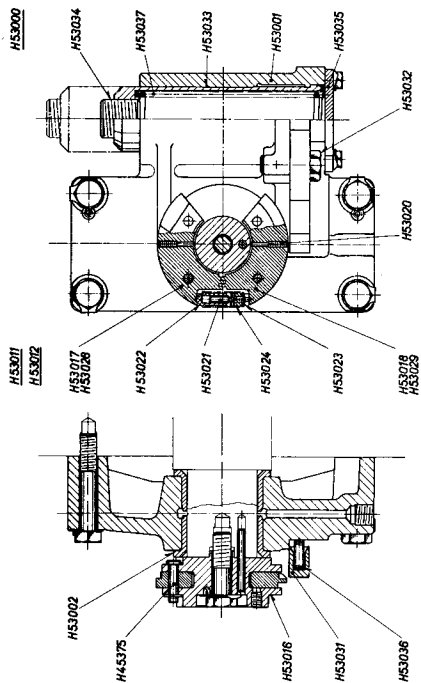
H 513-2

Governor drive

Tachometer drive

- H 51301 Housing for governor and tachometer drive
- H 51302 Bearing bush for housing H 51301
- H 51303 Bearing bush for housing H 51301
- H 51316 Drive shaft for governor and tachometer drive
- H 51317 Governor drive shaft for governor and tachometer drive
- H 51318 Bevel-gear wheel for governor and tachometer drive
- H 51319 Bevel-gear wheel for governor and tachometer drive
- H 51320 Spur wheel for governor and tachometer drive
- H 51321 Clamping flange for tachometer
- H 51322 Governor centering plate
- H 51325 Nut for governor drive shaft H 51317
- H 51326 Nut for drive shaft H 51316
- H 51343 Governor, complete
- H 51344 Tachometer, compl. (clockwise turning engine)
- H 51345 Tachometer, compl. (anti-clockwise turning engine)
- H 51348 O-ring for clamping flange H 51321
- H 51351 Hose and hose sleeve for drive shaft H 51316

Dispositif d'arrêt de sûreté
 Sicherheitsausschaltung
 Overspeed trip
 Parada automática de seguridad



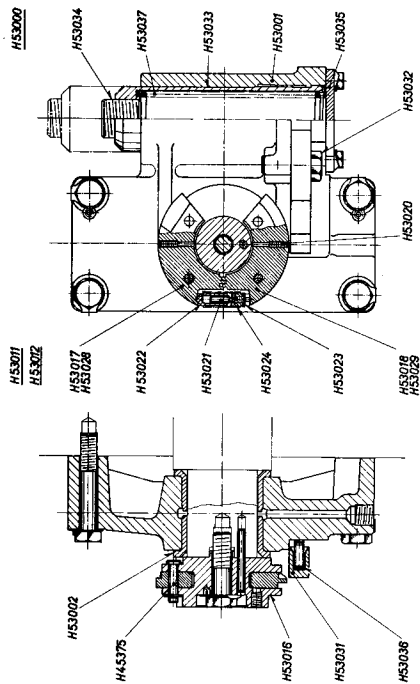
H 530-1

Overspeed trip

- H 53000 Overspeed trip, complete
- H 53001 Thrust bearing for camshaft, complete
- H 53002 Thrust bearing bush for camshaft
- H 53011 Safety governor, complete, for overspeed trip for clockwise rotation
- H 53012 Safety governor, complete, for overspeed trip for counterclockwise rotation
- H 45375 Pin with collar for safety governor
- H 53016 Hub for safety governor
- H 53017 Fly weight for safety governor for clockwise rotation
- H 53018 Fly weight for safety governor for counterclockwise rotation
- H 53020 Set screw for safety governor
- H 53021 Guide pin for safety governor
- H 53022 Guide sleeve for safety governor
- H 53023 Spring plate for safety governor
- H 53024 Spring for safety governor
- H 53028 Fly weight for safety governor for clockwise rotation
- H 53029 Fly weight for safety governor for counterclockwise rotation
- H 53031 Trip lever for overspeed trip
- H 53032 Eccentric pin for overspeed trip
- H 53033 Striker for overspeed trip

H 530-1

Dispositif d'arrêt de sûreté
 Sicherheitsausschaltung
 Overspeed trip
 Parada automática de seguridad



H 530-1

- H 53034 Tapped pin for striker H 53033
- H 53035 Cover for overspeed trip
- H 53036 Spring for trip lever H 53031
- H 53037 Spring for striker H 53033

* When ordering spare parts, please quote rated speed of engine (r.p.m.)

H 530-1

Pompe à combustible
 Brennstoffpumpe
 Fuel pump
 Bomba de combustible

H 55000

H 55066

H 55073

H 55053

H 55074

H 55051

H 55103

H 55071

H 55049

H 55046

H 55030

H 55030

H 55007

H 55064

H 55020

H 55046

H 55060

H 55067

H 55068

H 55058

H 55057

H 55054

H 55052

H 55075

H 55048

H 55050

H 55065

H 55025

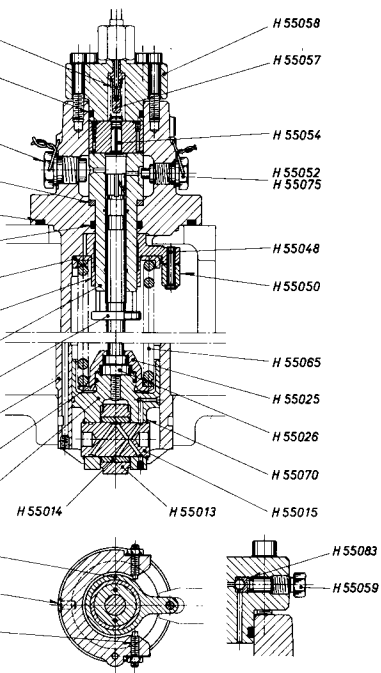
H 55026

H 55070

H 55015

H 55083

H 55059



H 550-4

Fuel pump

H 55000 Fuel pump, complete

H 55007 Fuel pump housing, complete

H 55013 Roller for fuel pump

H 55014 Bush for roller H 55013

H 55015 Roller pin, complete, for fuel pump

H 55020 Guide piston, complete, for fuel pump

H 55025 Lower spring plate for fuel pump

H 55026 Thrust plate for fuel pump

H 55030 Plunger and bush, complete, for fuel pump

H 55046 Regulating sleeve for fuel pump

H 55048 Regulating pin for regulating sleeve

H 55049 Upper spring plate for fuel pump

H 55050 Regulating bush for fuel pump

H 55051 Spacer ring for fuel pump

H 55052 Baffle screw for fuel pump

H 55053 Baffle screw for fuel pump

H 55054 Delivery valve, complete, for fuel pump

H 55057 Stop for fuel pump

H 55058 Cover for fuel pump

H 55059 Relief plug, complete, with ball, for fuel pump

H 55060 Guide pin for fuel pump

H 55064 Spring ring for fuel pump

H 550-4

Bei Bestellung von Brennstoffpumpenplungern sind folgende Angaben zu machen:

- 1. Kodenummer**
- 2. Plungerdurchmesser**

A la commande de plongeurs de pompe à combustible, fournir les indications suivantes:

- 1. Numéro de code**
- 2. Diamètre des plongeurs**

The following are to be quoted when ordering fuel pump plungers:

- 1. Code number**
- 2. Plunger diameter**

Para el encargo de émbolos de bomba de inyección deberán indicarse los datos siguientes:

- 1. Número de código**
- 2. Diámetro del émbolo**

Na encomenda de émbolos para as bombas de combustível deve-se indicar o seguinte:

- 1. Número de código**
- 2. Diámetro do émbolo**

Groupe de suralimentation
Aufladegruppe
Pressure charger
Grupo de sobrealimentación

Support
Support
Support
Soporte

Turbocharger

Support

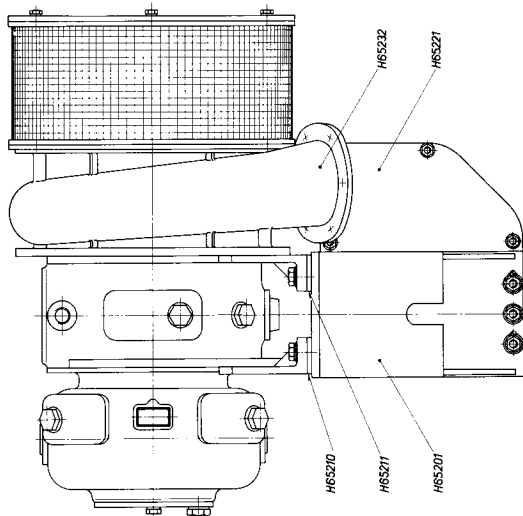
H 65201 Support for turbocharger

H 65210 Shim for support H 65201

H 65211 Shim for support H 65201

H 65221 Cover for support H 65201

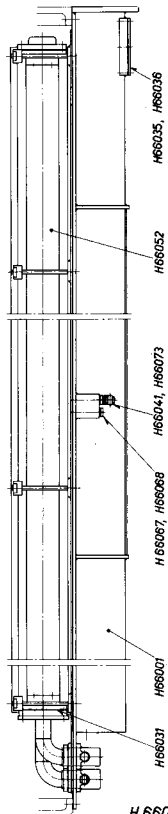
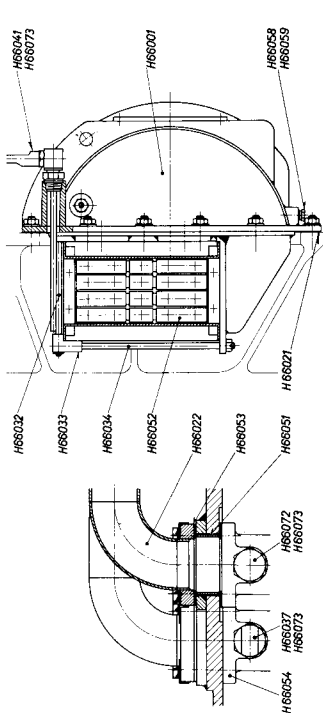
H 65232 Turbocharger



H 652

H 652

Refrroidisseur d'air d'alimentation
 Ladeluftkühler
 Charge air cooler
 Refrigerador del aire de sobrealimentación



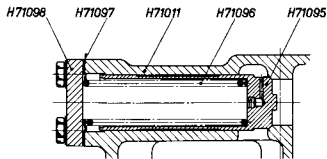
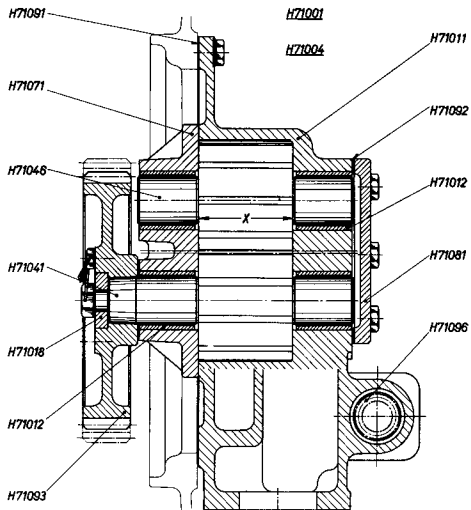
H 660-2

Charge air cooler

When ordering spares, please state whether the fresh- or sea-water type is required.

- H 66001 Support, complete, for charge air cooler
- H 66021 Joint for support H 66001
- H 66022 Connecting pipe for charge air cooler
- H 66031 Joint for connecting pipe H 66022
- H 66032 Tie bolt, complete, for charge air cooler
- H 66033 Angle piece for charge air cooler
- H 66034 Tie bolt, complete, for charge air cooler
- H 66035 Cover for charge air cooler
- H 66036 Joint for cover H 66035
- H 66037 Thermometer for connecting piece H 66054
- H 66041 Angle thermometer for charge air cooler
- H 66051 Bush for support H 66001
- H 66052 Charge air cooler, complete
- H 66053 Square joint for H 66022 and H 66054
- H 66054 Connecting piece for charge air cooler
- H 66058 Screw plug for support H 66001
- H 66059 Joint for screw plug H 66058
- H 66067 Screw plug for support H 66001
- H 66068 Joint for H 66067
- H 66072 Screw plug for connecting piece H 66054
- H 66073 Joint for H 66037, H 66041 and H 66072

Pompe à huile
 Öl-pumpe
 Forcéd lubrication pump
 Bomba de aceite de engrase



H 710-3

Oil pump

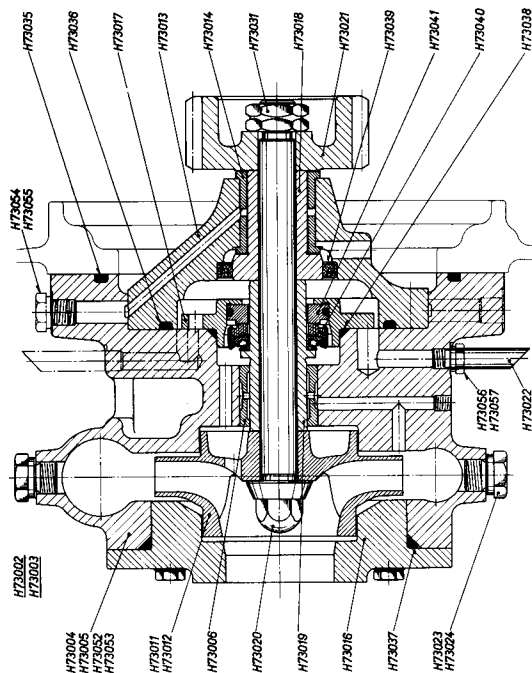
- H 71001 Oil pump, complete (for engine with clockwise rotation)
- H 71004 Oil pump, complete (for engine with anti-clockwise rotation)
- H 71011 Oil pump housing, complete, for H 71001 and H 71004
- H 71012 Bearing bush for oil pump housing and bearing cover
- H 71018 Thrust washer for oil pump
- H 71041 Cogwheel for H 71001 and H 71004
- H 71046 Cogwheel for H 71001 and H 71004
- H 71071 Bearing cover, complete, for oil pump
- H 71081 Cover for oil pump
- H 71091 Joint for oil pump
- H 71092 Joint for oil pump
- * H 71093 Spur-gear wheel for oil pump
- H 71095 Valve for oil pump
- H 71096 Valve spring for oil pump
- H 71097 Joint for valve H 71095
- H 71098 Blind flange for valve H 71095

When ordering spare parts, please quote dimension "X"

- * When ordering spare to code H 71093 please quote rated speed of engine.

Pompe à eau de réfrigération
Kühlwasserpumpe
Cooling water pump
Bomba de agua de refrigeración

Pompe à eau brute
Rohwasserpumpe
Raw water pump
Bomba de agua natural



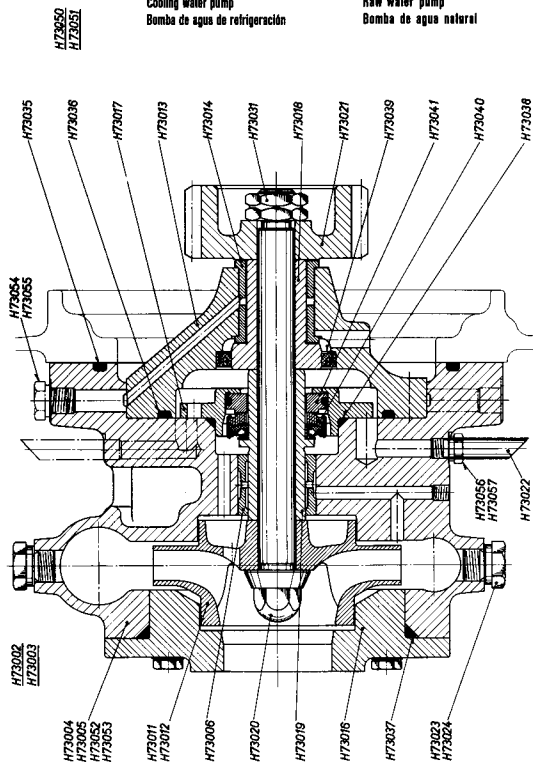
Cooling water pump

Raw water pump

- H 73002 Cooling water pump, complete (clockwise turning engine)
- H 73003 Cooling water pump, complete (anti-clockwise turning engine)
- H 73004 Housing for cooling water pump (clockwise turning engine)
- H 73005 Housing for cooling water pump (anti-clockwise turning engine)
- H 73006 Bush for housing for cooling water pump
- * H 73011 Impeller for cooling water pump (clockwise turning engine)
- * H 73012 Impeller for cooling water pump (anti-clockwise turning engine)
- H 73013 Bearing housing for cooling water pump
- H 73014 Bush for bearing housing H 73013
- H 73016 Cover for cooling water pump
- H 73017 Cover for cooling water pump
- H 73018 Bush for cooling water pump
- H 73019 Bush for cooling water pump
- H 73020 Drive shaft for cooling water pump
- * H 73021 Spur gear wheel for cooling water pump
- H 73022 Pipe stud for cooling water pump
- H 73023 Screw plug for housing for cooling water pump
- H 73024 Joint for H 73023
- H 73031 Nut for drive shaft H 73020

Pompe à eau de réfrigération
Kühlwasserpumpe
Cooling water pump
Bomba de agua de refrigeración

Pompe à eau brute
Rohwasserpumpe
Raw water pump
Bomba de agua natural

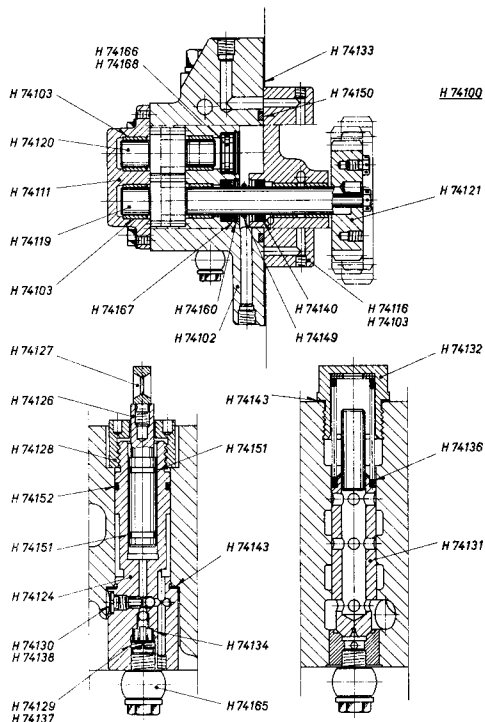


- H 73035 O-ring for housing for cooling water pump
- H 73036 O-ring for H 73013
- H 73037 O-ring for H 73016
- H 73038 O-ring for H 73017
- H 73039 GACO ring for cooling water pump
- H 73040 CYCLAM shaft seal for cooling water pump
- H 73041 CYCLAM - Intermediate ring for cooling water pump
- H 73050 Raw water pump I, complete (clockwise turning engine)
- H 73051 Raw water pump I, complete (anti-clockwise turning engine)
- H 73052 Housing for raw water pump (clockwise turning engine)
- H 73053 Housing for raw water pump (anti-clockwise turning engine)
- H 73054 Screw plug for H 73052 and H 73053 (raw water type)
- H 73055 Joint for H 73054
- H 73056 Screw plug for H 73052 and H 73053 (raw water type)
- H 73057 Joint for H 73056

* When ordering spares to codes H 73011 and H 73012 please quote diameter of impeller wheel.

When ordering spare to code H 73021 please quote rated speed of engine.

Pompe de transfert à combustible
 Brennstoffförderpumpe
 Fuel transfer pump
 Bomba de alimentación de combustible

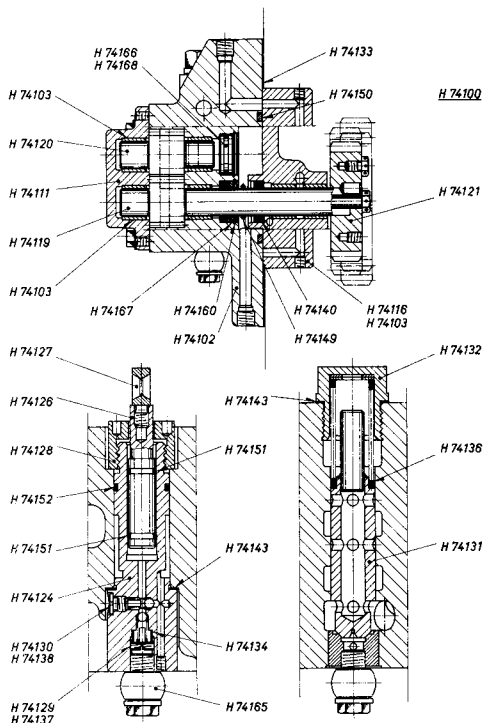


H 741-2

Fuel transfer pump

- H 74100 Fuel transfer pump, complete
- H 74102 Housing for fuel transfer pump
- H 74103 Bearing bush for H 74102, H 74111 and H 74116
- H 74111 Cover for fuel transfer pump
- H 74116 Flanged bearing for fuel transfer pump
- * H 74119 Lower cogwheel for fuel transfer pump
- * H 74120 Upper cogwheel for fuel transfer pump
- * H 74121 Spur-gear wheel for fuel transfer pump
- H 74124 Hand pump housing for fuel transfer pump
- H 74126 Plunger for H 74124
- H 74127 Eye for plunger H 74126
- H 74128 Cap nut for H 74124
- H 74129 Stud screw for H 74124
- H 74130 Screw with collar for H 74124
- H 74131 Slide valve for fuel transfer pump
- H 74132 Sealing nipple for slide valve H 74131
- H 74133 Joint for fuel transfer pump
- H 74134 Bush for H 74124
- H 74136 Spring for slide valve H 74131
- H 74137 Spring for stud screw H 74129
- H 74138 Spring for screw H 74130
- H 74140 GACO ring for fuel transfer pump

Pompe de transfert à combustible
 Brennstoffförderpumpe
 Fuel transfer pump
 Bomba de alimentación de combustible

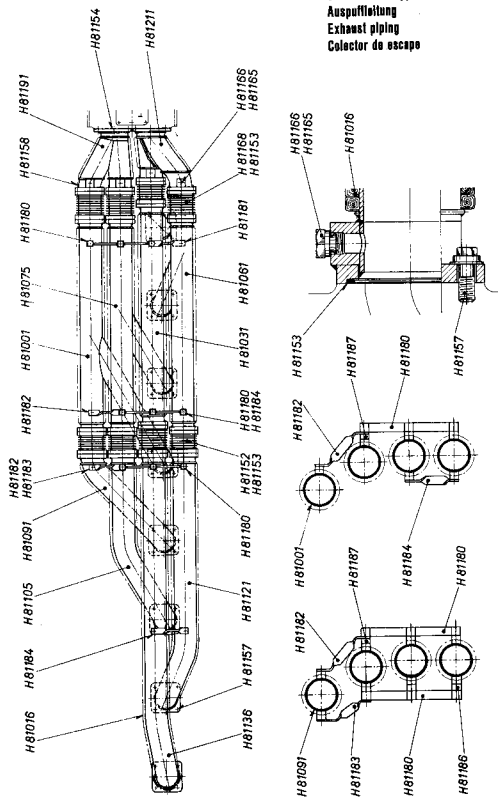


H 741-2

- H 74143 Joint for H 74124 and H 74132
- H 74149 Rubber ring for H 74119
- H 74150 Rubber ring for H 74102
- H 74151 Rubber ring for H 74126
- H 74152 Rubber ring for H 74124
- H 74160 Retaining ring for H 74102
- H 74165 Connecting pipe, complete
- H 74166 Sealing disc for fuel transfer pump
- H 74167 GACO supporting ring for fuel transfer pump
- H 74168 Rubber ring for H 74166

* When ordering spare please quote rated speed of engine

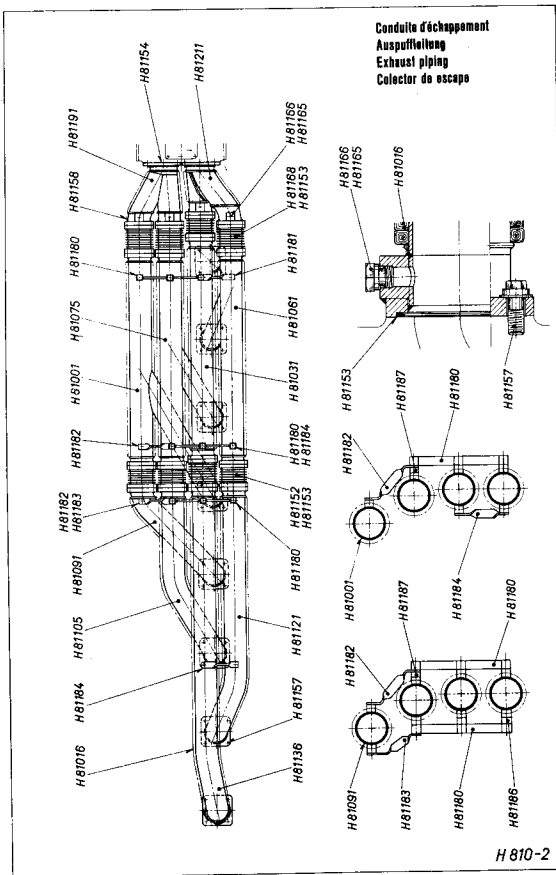
**Condeite d'échappement
Auspuffleitung
Exhaust piping
Colector de escape**



H 810-2

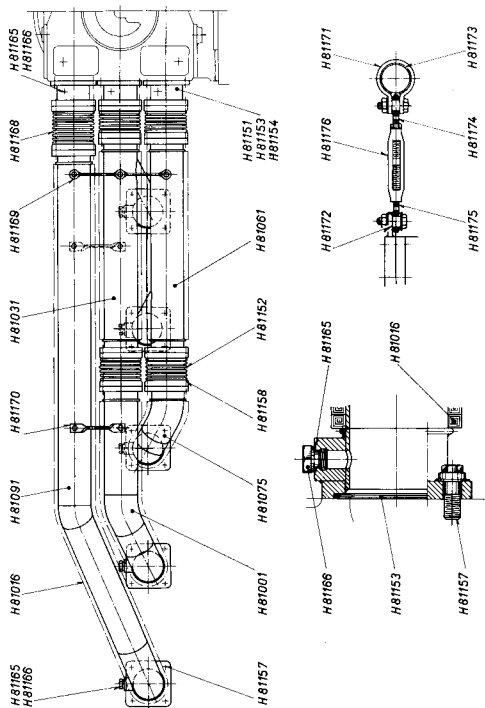
Exhaust piping

- H 81001 Exhaust pipe for cylinder 4
- H 81016 Insulation for exhaust piping
- H 81031 Exhaust pipe for cylinder 1
- H 81061 Exhaust pipe for cylinder 2
- H 81075 Exhaust pipe for cylinder 3
- H 81091 Exhaust pipe for cylinder 5
- H 81105 Exhaust pipe for cylinder 6
- H 81121 Exhaust pipe for cylinder 7
- H 81136 Exhaust pipe for cylinder 8
- H 81152 Axial expansion piece with 6 folds, for exhaust piping
- H 81153 METAFLEX joint for exhaust piping
- H 81154 Joint for exhaust piping
- H 81157 Screw with collar, complete, for exhaust piping
- H 81158 Screw, complete, for exhaust piping
- H 81165 Joint for screw plug H 81166
- H 81166 Screw plug for exhaust piping
- H 81168 Axial expansion piece with 8 folds, for exhaust piping
- H 81180 Support for exhaust piping
- H 81181 Support for exhaust piping
- H 81182 Support for exhaust piping
- H 81183 Inner support for exhaust piping



- H 81184 Support for exhaust piping
- H 81186 Sleeve for support
- H 81187 Sleeve for support
- H 81191 Upper Y pipe for exhaust piping
- H 81211 Lower Y pipe for exhaust piping

Conduite d'échappement
 Auspuffleitung
 Exhaust piping
 Colector de escape



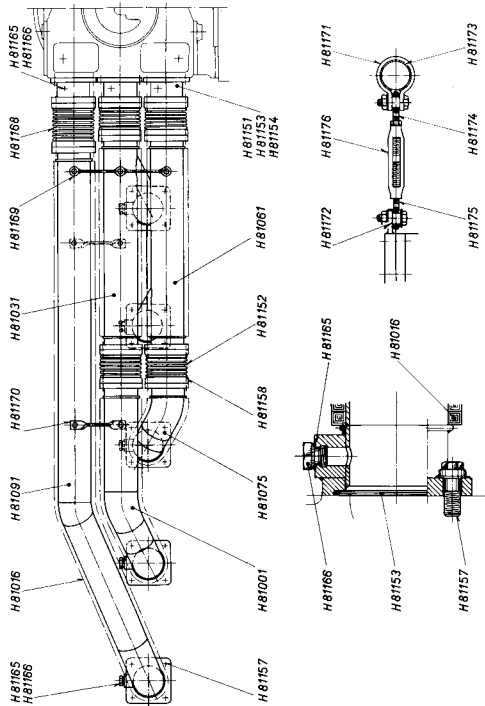
H 810-3

Exhaust piping

- H 81001 Exhaust pipe for cylinder 4
- H 81016 Insulation for exhaust piping
- H 81031 Exhaust pipe for cylinder 1
- H 81061 Exhaust pipe for cylinder 2
- H 81075 Exhaust pipe for cylinder 3
- H 81091 Exhaust pipe for cylinder 5
- H 81151 Transition stud for exhaust piping
- H 81152 Axial expansion piece with 6 folds, for exhaust piping
- H 81153 METAFLEX joint for exhaust piping
- H 81154 Joint for exhaust piping
- H 81157 Screw with collar, complete, for exhaust piping
- H 81158 Screw, complete, for exhaust piping
- H 81165 Joint for screw plug H 81166
- H 81166 Screw plug for exhaust piping
- H 81168 Axial expansion piece with 8 folds, for exhaust piping
- H 81169 Support for exhaust piping
- H 81170 Support for exhaust piping
- H 81171 Bracket for exhaust piping
- H 81172 Sleeve for eyebolt H 81174 and H 81175
- H 81173 Bush for bracket H 81171
- H 81174 Eyebolt for nut for tension lock H 81176

H 810-3

Conduite d'échappement
 Auspuffleitung
 Exhaust piping
 Colector de escape

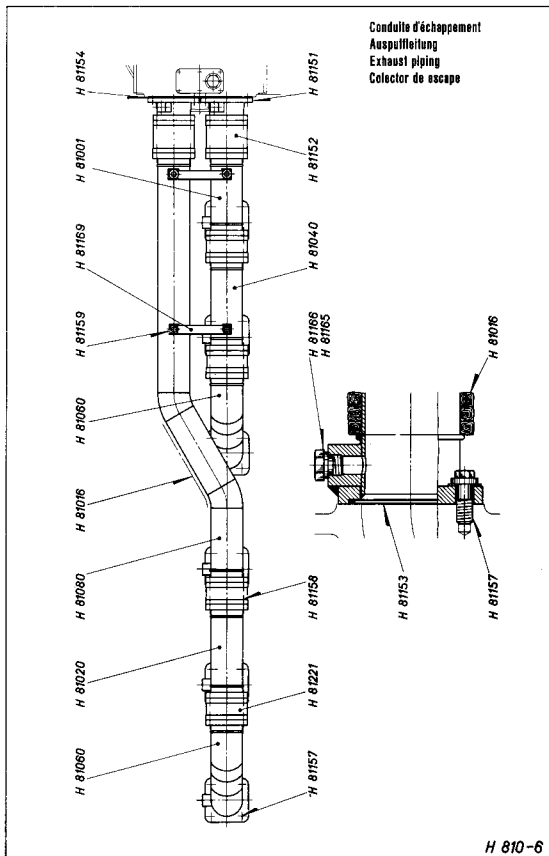


H 810-3

H 81175 Eyebolt for nut for tension lock H 81176

H 81176 Nut for tension lock for exhaust piping

H 810-3

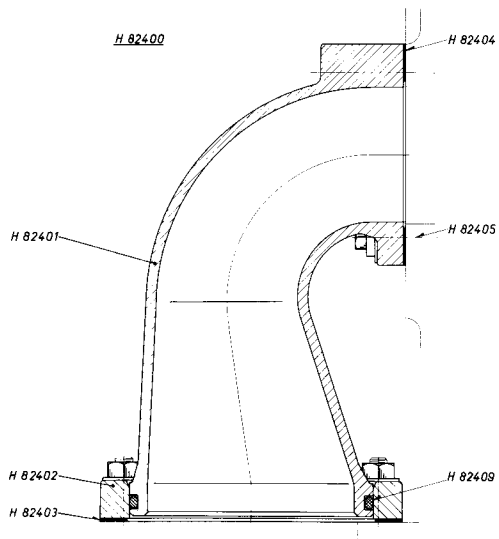


H 810-6

Exhaust piping

- H 81001 Exhaust pipe for cylinder 1
- H 81016 Insulation for exhaust piping
- H 81020 Exhaust pipe for cylinder 5
- H 81040 Exhaust pipe for cylinder 2
- H 81060 Exhaust pipe for cylinders 3 and 6
- H 81080 Exhaust pipe for cylinder 4
- H 81151 Transition stud for exhaust piping
- H 81152 Axial expansion piece with 6 folds, for exhaust piping
- H 81153 METAFLEX joint for exhaust piping
- H 81154 Joint for exhaust piping
- H 81157 Screw with collar, complete for exhaust piping
- H 81158 Screw, complete for exhaust piping
- H 81159 Screw, complete for support H 81169
- H 81165 Joint for screw plug H 81166
- H 81166 Screw plug for exhaust piping
- H 81169 Support for exhaust piping
- H 81221 Axial expansion piece with 3 folds, for exhaust piping

Coude de conduit d'air
Luftrohrkrümmer
Air pipe bend
Codo conducto de aire



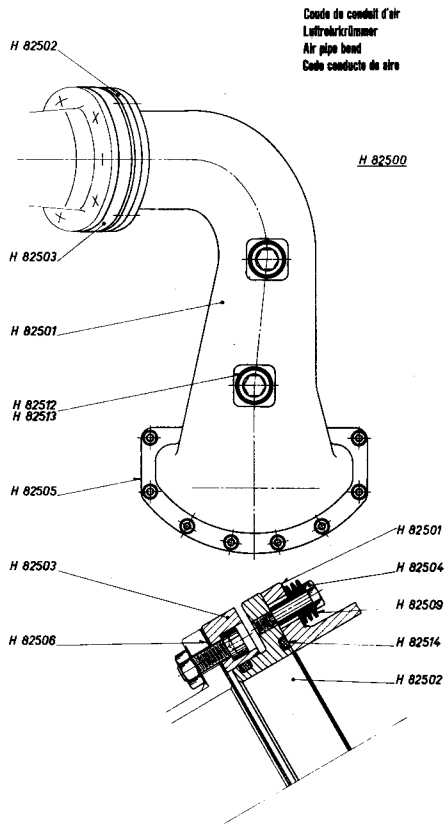
H 824

Air pipe bend

- H 82400 Air pipe bend between charge air cooler and cylinder cover, complete
- H 82401 Air pipe bend
- H 82402 Flange for air pipe bend
- H 82403 Joint for air pipe bend
- H 82404 Joint for air pipe bend
- H 82405 Screw with collar, complete, for air pipe bend
- H 82409 O-ring for air pipe bend

H 824

Air pipe bend



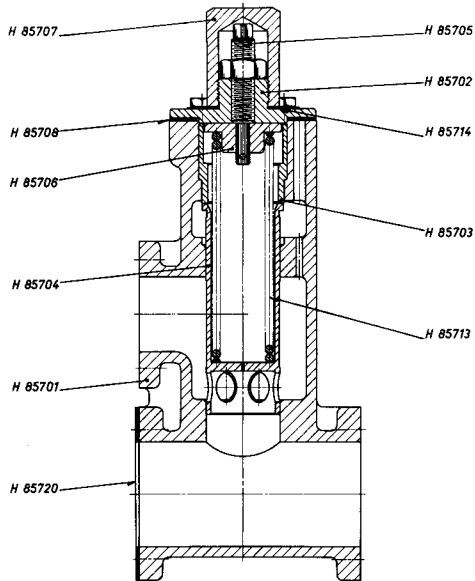
H 825

- H 82500 Air pipe bend after turbocharger, complete
- H 82501 Air pipe bend after turbocharger
- H 82502 Connecting piece for air pipe bend after turbocharger
- H 82503 Guide ring for air pipe bend after turbocharger
- H 82504 Screw for air pipe bend after turbocharger
- H 82505 Joint for air pipe bend after turbocharger
- H 82506 Joint for air pipe bend after turbocharger
- H 82509 Spring washer for air pipe bend after turbocharger
- H 82512 Screw plug for air pipe bend after turbocharger
- H 82513 Joint for screw plug H 82512
- H 82514 O-ring for connecting piece H 82502

H 825

Soupepe de réglage de pression d'huile
Öldruckregulventil
Oil pressure regulating valve
Valvula de regulación de presión aceite

H 85700

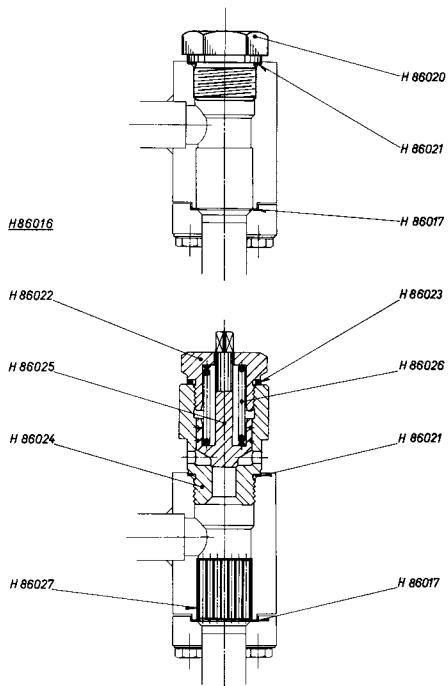


Oil pressure regulating valve

- H 85700 Oil pressure regulating valve, complete
- H 85701 Housing for oil pressure regulating valve
- H 85702 Cover for oil pressure regulating valve
- H 85703 Stroke limiting stop for oil pressure regulating valve
- H 85704 Slide valve for oil pressure regulating valve
- H 85705 Set screw for oil pressure regulating valve
- H 85706 Spring plate for oil regulating valve
- H 85707 Cap nut for oil pressure regulating valve
- H 85708 Joint between H 85701 and H 85702
- H 85713 Spring for oil pressure regulating valve
- H 85714 Joint between H 85702 and H 85707
- H 85720 Square joint for oil pressure regulating valve

Conduite pour air de démarrage
Anlaufleitung
Starting-air piping
Tubería de aire de arranque

Soupage de sûreté
Sicherheitsventil
Relief valve
Válvula de seguridad

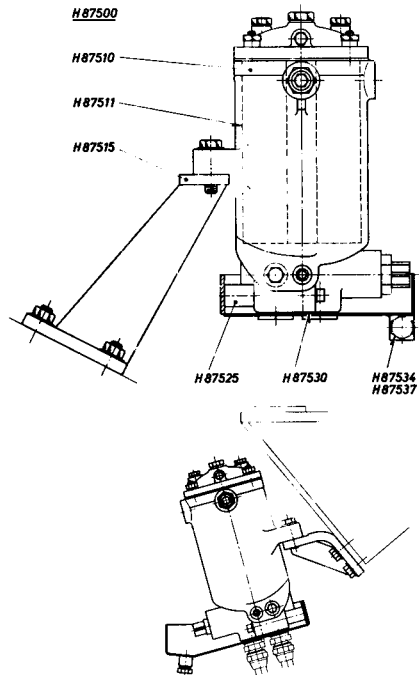


Starting air pipe

Relief valve

- H 86017 Joint for starting air pipe
- H 86020 Screw plug for starting air pipe
(for stationary engines only)
- H 86021 Joint for H 86020 and H 86024
- H 86022 Tensioning bolt for relief valve
- H 86023 Shim for relief valve
- H 86024 Housing for relief valve
- H 86025 Valve body for relief valve
- H 86026 Spring for relief valve
- H 86027 Flame baffle for starting air pipe

Filtro de combustible
Brennstoff-Filter
Fuel filter
Filtro de combustible

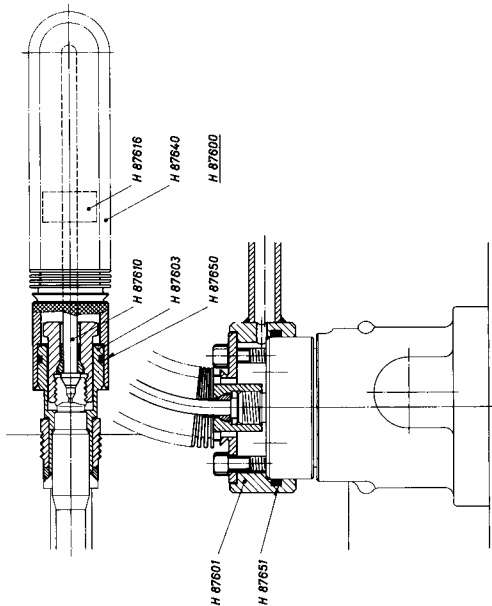


H875

Fuel filter

- H 87500 Fuel filter, compl.
- H 87510 Fuel double filter, compl.
- H 87511 Fuel filter insert
- H 87515 Support for fuel filter
- H 87525 Drip pan for fuel filter
- H 87530 Sealing for drip pan
- H 87534 Locking screw for drip pan
- H 87537 Packing for locking screw H 87534

Conduite de refoulement de combustible
 Brennstoff-Druckleitung
 Fuel pressure pipe
 Tube de impulsión de combustible

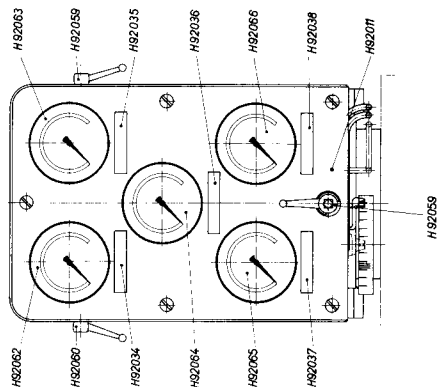
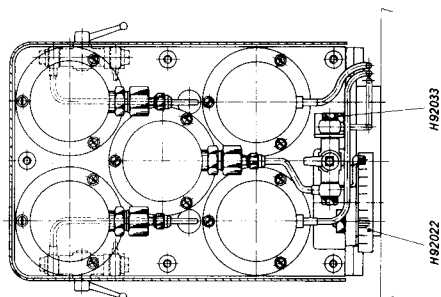


H 876

Protection tube for fuel pressure pipe

- H 87600 Protection tube for fuel pressure pipe, compl.
(AL and AV = Left-hand side of engine)
- H 87601 Connecting ring for fuel pressure pipe
- H 87603 Thrust nipple, compl. for fuel pressure pipe
- H 87610 Fuel pressure pipe, compl.
(AL and AV = Left-hand side of engine)
- H 87616 Rubber sleeve for fuel pressure pipe
- H 87620 Fuel pressure pipe, compl.
(AV = Right-hand side of engine)
- H 87640 Protection tube, compl.
- H 87650 O-Ring for thrust nipple H 87603
- H 87651 O-Ring for connecting ring H 87601
- H 87655 Protection tube for fuel pressure pipe, compl.
(AV = Right-hand side of engine)

Tableau d'instruments
 Instrumententafel
 Instrument panel
 Tablero de instrumentos



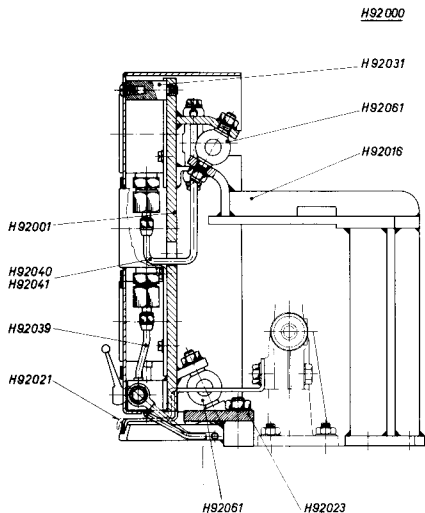
H 920 -3

Instrument panel

- H 92000 Instrument panel, complete
- H 92011 Cover for instrument panel
- H 92022 Graduated scale support for instrument panel
- H 92033 Hollow screw for ARGUS ball cock
- H 92034 Inscription plate "Charge air pressure"
- H 92035 Inscription plate "Oil pressure before engine"
- H 92036 Inscription plate "Cooling water pressure"
- H 92037 Inscription plate "Exhaust temperature after turbine"
- H 92038 Inscription plate "Cooling water temperature"
- H 92059 ARGUS ball cock, for clockwise rotation
- H 92060 ARGUS ball cock, for counterclockwise rotation
- H 92062 Pressure gauge for charge air pressure
- H 92063 Pressure gauge for oil pressure before engine
- H 92064 Pressure gauge for cooling water pressure
- H 92065 Thermometer for exhaust temperature after turbine
- H 92066 Thermometer for cooling water temperature

Instrument panel

Tableau d'instruments
Instrumententafel
Instrument panel
Tablero de instrumentos



- H 92000 Instrument panel, complete
- H 92001 Support for instrument panel
- H 92016 Bracket for instrument panel
- H 92021 Indicator for instrument panel
- H 92023 Bracket for instrument panel
- H 92031 Pin for instrument panel
- H 92039 Connecting pipe for instrument panel
- H 92040 Connecting pipe, right hand, for instrument panel
- H 92041 Connecting pipe, left hand, for instrument panel
- H 92061 VIBRATEX element for instrument panel