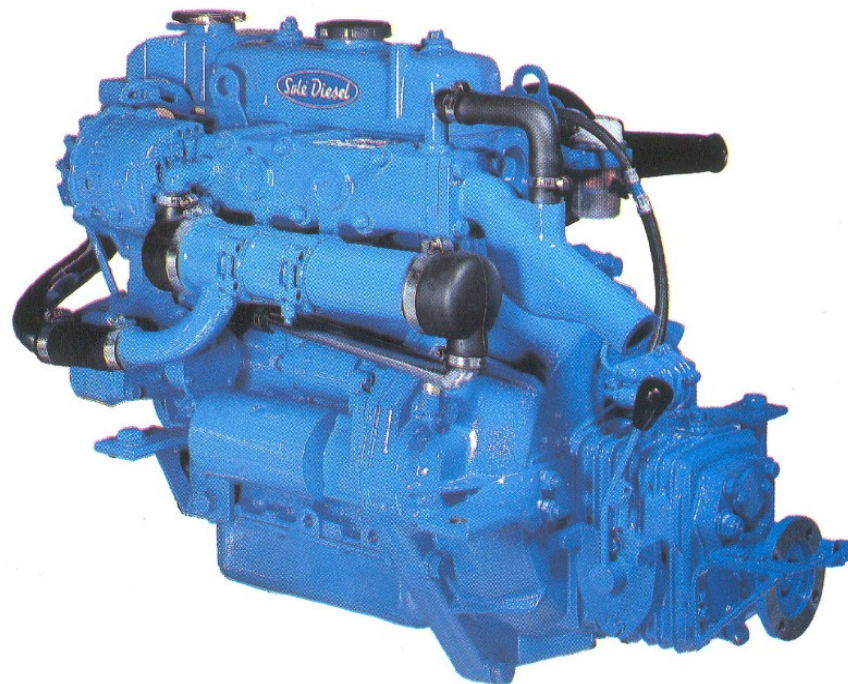




Engine MINI-23  
VERSION 2017-12  
SPARE PARTS MANUAL



## PARTS LIST CATALOGUE

### NORMS TO PLACE AN ORDER:

For fast and more efficient service, please specify the following information on spare parts orders that must be preferably done by FAX or e-mail as specified below:

- 1- Engine model: As shown in identification plate
- 2- Engine serial number: As shown in identification plate and stamped on crankcase
- 3- Item description + part number + quantity required

---

### Spare parts requests must be addressed to:

[recambios@solediesel.com](mailto:recambios@solediesel.com)

Telf.: +34 93 775 44 05

Fax: +34 93 775 30 13

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The components shown in the catalog have:

- Figure: Number by which they are represented in scheme
  - Description: Trade name of the component
  - Quantity: Total number of parts used in the assembly of the part represented (may differ from the total minimum quantities)
- Hoses, indicates the total length in meters

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*The diagrams shown in this catalog of spare parts, have only the purpose to identify the piece in question, its representation is not meaningful and may differ from the actual piece.*

*In case of doubt, contact Solé Diesel, or your authorized dealer.*

*The parts i / or references in this catalog are subject to change without notice.*

---

[SOLE, S.A.](#)

C-243b, Km, 2 - P.O. BOX 15  
08760 Martorell (Barcelona) Spain

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## Engine body, MINI-23

Cylinder Head  
Oil Pan & Gear Case  
Timing Parts  
Crankcase  
Crankshaft, Piston & Connectiong Rod  
Oil Sysem  
Engine Brackets & Exhaust

## Inlet System, MINI-23

Inlet

## Cooling System, MINI-23

Water Pump  
Cooling System 1  
Cooling System 2

## Fuel System, MINI-23

Fuel Pipe  
Fuel Injection Pump  
Nozzle  
Governor Parts  
Fuel Filter

## Electrical System, MINI-23

Electrical System 1  
Electrical System 2  
Electrical Wiring & Panel

## Maintenance Kit, MINI-23

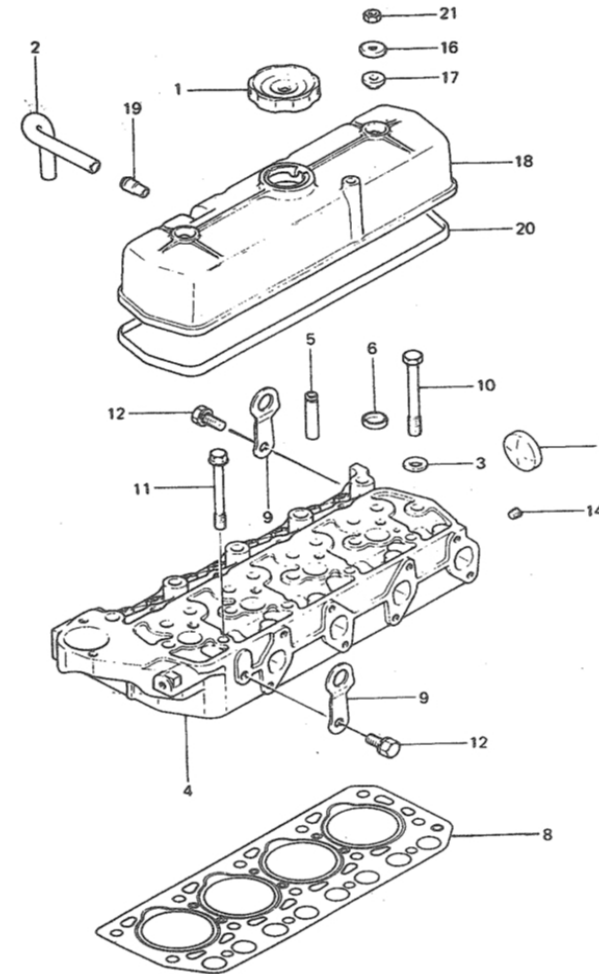
Gasket Kit

## GearBox MINI-23

GearBox RONIM IV R.2,00  
GearBox RONIM IV R.3,00  
GearBox RONIM V R.2,25



| D_MI23_1_1 |          | Cylinder Head |                              |            |            |
|------------|----------|---------------|------------------------------|------------|------------|
| FIG.       | REF.     | QTY           | DESCR.                       | FROM       | UPTO       |
| 1          | 13221003 | 1             | Cap Oil FILLER               |            |            |
| 2          | 13221006 | 1             | Hose BREATHER                |            |            |
| 3          | 13121005 | 8             | Washer FINISHED P            |            |            |
| 4-7        | 13621001 | 1             | Head Assy CYLINDE            |            |            |
| 5          | 13221002 | 6             | Guide Valve                  |            |            |
| 6          | 13220012 | 3             | Cap Sealing                  |            |            |
| 7          | 13220013 | 1             | Cap                          |            |            |
| 8          | 13621004 | 1             | Gasket Cylinder H            |            |            |
| 9          | 13221011 | 2             | HANGER Engine                |            |            |
| 10         | 13221005 | 8             | Bolt,cylinder head           |            |            |
| 11         | 13221012 | 3             | Bolt Cylinder Heat           |            |            |
| 12         | 52202307 | 2             | Bolt DIN 933 M10-1,25-20 8.8 |            |            |
| 14         | 17820011 | 1             | Plug, Tapered [NP]           | 12/07/2017 |            |
| 14         | 13120011 | 1             | Plug, Tapered [NP]           |            | 12/07/2017 |
| 16         | 13221015 | 2             | Washer                       |            |            |
| 17         | 13221016 | 2             | Seal                         |            |            |
| 18         | 13621009 | 1             | Cover Assy Rocker            |            |            |
| 19         | 13221017 | 1             | Pipe                         |            |            |
| 20         | 13621010 | 1             | Gasket Rocker COV            |            |            |
| 21         | 52120008 | 2             | Nut DIN 934 M8 8.8           |            |            |

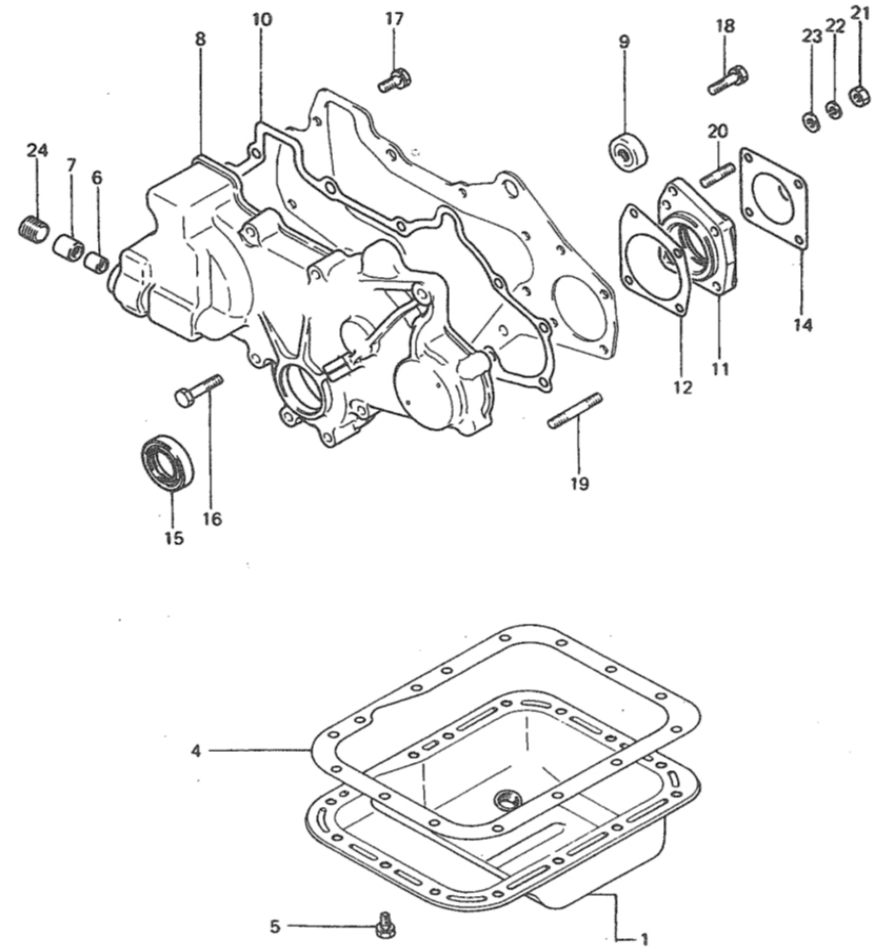


[NP] Not provided





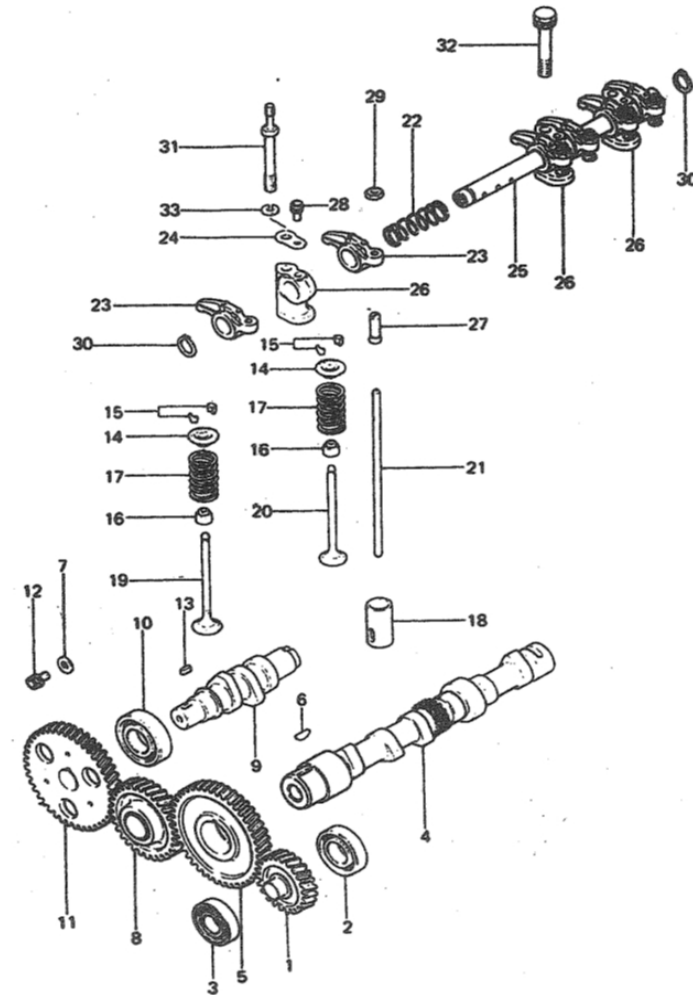
| D_MI23_1_2 |          | Oil Pan & Gear Case |                         |      |      |  |
|------------|----------|---------------------|-------------------------|------|------|--|
| FIG.       | REF.     | QTY                 | DESCR.                  | FROM | UPTO |  |
| 1          | 13620030 | 1                   | PAN Assy Oil            |      |      |  |
| 4          | 13620033 | 1                   | Gasket Oil PAN          |      |      |  |
| 5          | 52102256 | 15                  | Bolt DIN 933 M8-15 8.8  |      |      |  |
| 6          | 13220034 | 1                   | Roller Bearings         |      |      |  |
| 7          | 13220036 | 1                   | Roller Bearings         |      |      |  |
| 8A         | 13220035 | 1                   | Case Gear [NP]          |      |      |  |
| 8B         | 13420035 | 1                   | Case Gear               |      |      |  |
| 9          | 13420051 | 1                   | Plug THRUST             |      |      |  |
| 10         | 13220040 | 1                   | Gasket Gear Case        |      |      |  |
| 11         | 13220037 | 1                   | Housing Pump Gear       |      |      |  |
| 12         | 13220038 | 1                   | Gasket Housing          |      |      |  |
| 14         | 13120047 | 1                   | Gasket Water Pump       |      |      |  |
| 15         | 13220039 | 8                   | Seal Oil                |      |      |  |
| 16         | 52101262 | 2                   | Bolt DIN 931 M8-45 8.8  |      |      |  |
| 17         | 52102256 | 1                   | Bolt DIN 933 M8-15 8.8  |      |      |  |
| 18         | 52101259 | 3                   | Bolt DIN 931 M8-30 8.8  |      |      |  |
| 19         | 13220042 | 3                   | Stud L 54               |      |      |  |
| 20         | 13220043 | 1                   | Stud L 34               |      |      |  |
| 21         | 52120008 | 4                   | Nut DIN 934 M8 8.8      |      |      |  |
| 22         | 53033008 | 4                   | Washer GROWER DIN 127-8 |      |      |  |
| 23         | 51030008 | 4                   | Washer DIN 125-8        |      |      |  |
| 24         | 13120037 | 1                   | Plug TAPER 1/2          |      |      |  |



[NP] Not provided



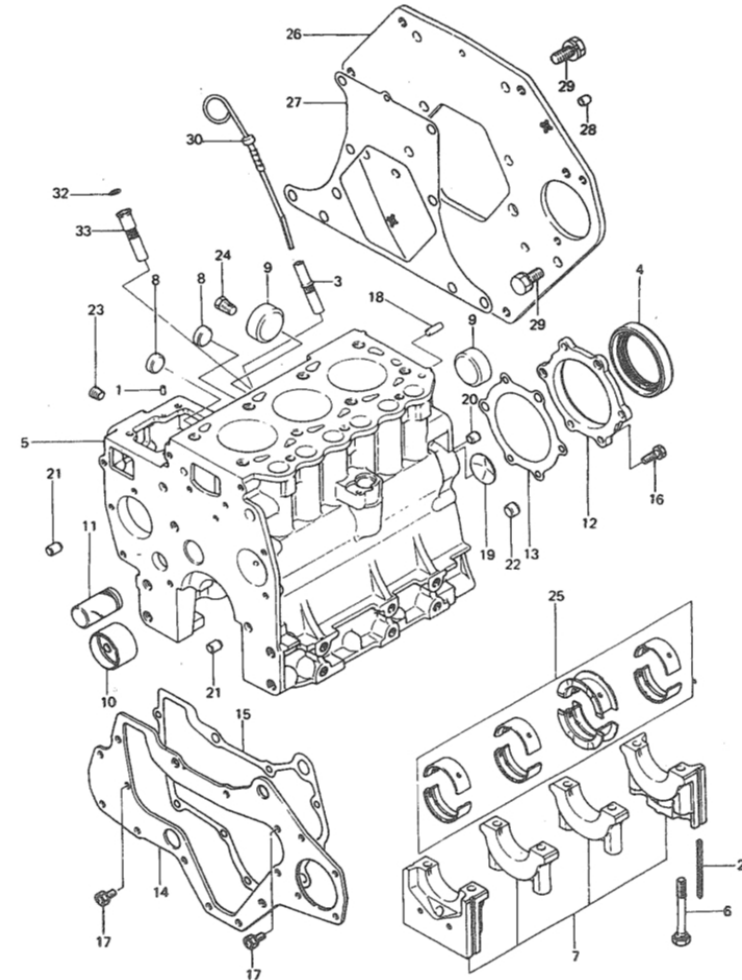
| D_MI23_1_4   |          |     |                           |      |      |  |
|--------------|----------|-----|---------------------------|------|------|--|
| Timing Parts |          |     |                           |      |      |  |
| FIG.         | REF.     | QTY | DESCR.                    | FROM | UPTO |  |
| 1A           | 13222066 | 1   | Gear PRESSUR Oil          |      |      |  |
| 1B           | 13422066 | 1   | Gear Pressure Water Pump  |      |      |  |
| 2            | 13222067 | 1   | Ball Bearing 6205         |      |      |  |
| 3            | 13222068 | 1   | Ball Bearing 6204         |      |      |  |
| 4            | 13622035 | 1   | CamShaft                  |      |      |  |
| 5            | 13222037 | 1   | Gear CamShaft             |      |      |  |
| 6            | 13222020 | 1   | KEY                       |      |      |  |
| 7            | 51030008 | 1   | Washer DIN 125-8          |      |      |  |
| 8            | 13222038 | 1   | Gear Assy IDLER           |      |      |  |
| 9            | 13622040 | 1   | Shaft Fuel IN             |      |      |  |
| 10           | 13222062 | 1   | Ball Bearing 6228         |      |      |  |
| 11           | 13222043 | 1   | Gear Fuel I/P Cam         |      |      |  |
| 13           | 13222060 | 1   | Key, Sunk [NP]            |      |      |  |
| 14           | 13222058 | 6   | Retainer                  |      |      |  |
| 15           | 13222059 | 12  | Lock Valve                |      |      |  |
| 16           | 13222054 | 6   | Seal Valve Stem           |      |      |  |
| 17           | 13222057 | 6   | Spring Valve              |      |      |  |
| 18           | 13222061 | 6   | Tappet                    |      |      |  |
| 19A          | 13222055 | 3   | Intake Valve (27,2)       |      |      |  |
| 19B          | 13222155 | 3   | Intake Valve (32,2)       |      |      |  |
| 20A          | 13222056 | 3   | Exhaust Valve (25,2)      |      |      |  |
| 20B          | 13222156 | 3   | Exhaust Valve (27,2)      |      |      |  |
| 21           | 13222041 | 6   | ROD PUSH                  |      |      |  |
| 22           | 13122047 | 2   | Spring                    |      |      |  |
| 23           | 13222042 | 6   | ARM Rocker                |      |      |  |
| 24           | 13222063 | 2   | Washer Seat               |      |      |  |
| 25           | 13622046 | 1   | Shaft Assy                |      |      |  |
| 26           | 13222049 | 3   | STAY Rocker               |      |      |  |
| 27           | 13122044 | 6   | Screw Adjusting           |      |      |  |
| 28           | 52102156 | 2   | Bolt DIN 933 M6-16 8.8    |      |      |  |
| 29           | 13122045 | 6   | Nut                       |      |      |  |
| 30           | 53040019 | 2   | CIRClip DIN 471 E-19 [NP] |      |      |  |
| 31           | 13222053 | 2   | Bolt                      |      |      |  |
| 32           | 13222065 | 1   | Bolt&Washer               |      |      |  |
| 33           | 53033010 | 2   | Washer GROWER DIN 127-10  |      |      |  |



[NP] Not provided



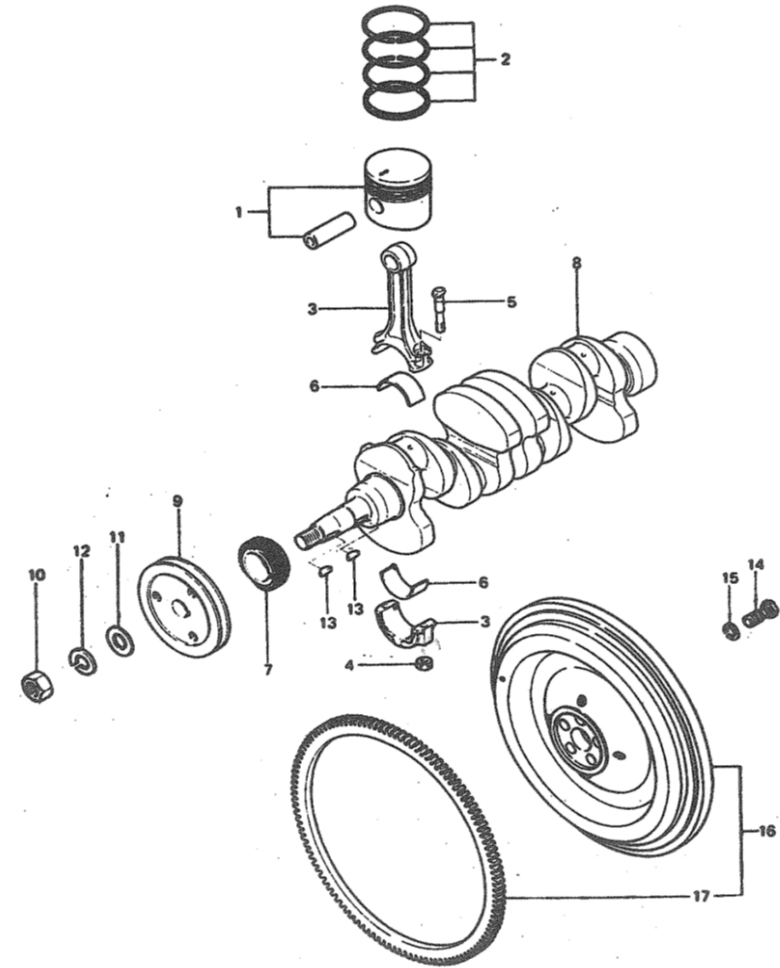
| D_MI23_1_6 |            | Cranckcase |                              |            |            |
|------------|------------|------------|------------------------------|------------|------------|
| FIG.       | REF.       | QTY        | DESCR.                       | FROM       | UPTO       |
| 1          | 13120036   | 2          | Pin Dowel [NP]               |            | 02/08/2017 |
| 1          | 17620036.4 | 2          | Pin Dowel                    | 02/08/2017 |            |
| 2          | 13220002   | 4          | Seal Side                    |            |            |
| 3          | 13220008   | 1          | Seal Oil                     |            |            |
| 4          | 13420001   | 1          | Block Assy,cylinder [NP]     |            |            |
| 5-10       | 13620001   | 1          | Block SUB Assy CY [NP]       |            |            |
| 6          | 13220009   | 8          | Bolt Bearing Cap             |            |            |
| 7          | 13620010   | 1          | Cap Assy,bearing [NP]        |            |            |
| 8          | 13220012   | 2          | Cap Sealing                  |            |            |
| 9          | 13220013   | 2          | Cap                          |            |            |
| 10         | 13220011   | 1          | Bushing                      |            |            |
| 11         | 13220014   | 1          | Shaft IDLER                  |            |            |
| 12         | 13220015   | 1          | Case Oil Seal                |            |            |
| 13         | 13220016   | 1          | Gasket Oil Seal              |            |            |
| 14         | 13220017   | 1          | Plate, Front [NP]            |            |            |
| 15         | 13220018   | 1          | Gasket Front PLAT            |            |            |
| 16         | 52102257   | 6          | Bolt DIN 933 M8-20 8.8       |            |            |
| 17         | (*)        | 3          | Not available [NP]           |            |            |
| 18         | 13220020   | 1          | Pin [NP]                     |            | 02/08/2017 |
| 18         | 17620020.4 | 1          | Pin                          | 02/08/2017 |            |
| 19         | 13120007   | 1          | Plug Expansion               |            |            |
| 20         | 13120009   | 2          | Bushing                      |            |            |
| 21         | 13220021   | 2          | Bushing KNOCK                |            |            |
| 22         | 13220022   | 2          | BUSHING,KNOCK                |            |            |
| 23         | 13220023   | 3          | Plug TAPER                   |            |            |
| 25A        | 13620003   | 1          | Metal Set STD.               |            |            |
| 25B        | 13620004   | 1          | METAL Set 0.25               |            |            |
| 25C        | 13620005   | 1          | METAL Set 0.50               |            |            |
| 25D        | 13620006   | 1          | METAL Set 0.75               |            |            |
| 26         | 13220024   | 1          | Plate REAR [NP]              |            |            |
| 27         | 13220025   | 1          | Gasket REAR Plate            |            |            |
| 28         | 13220026   | 2          | Pin KNOCK (10X12)            |            |            |
| 29         | 52202359   | 8          | Bolt DIN 933 M12-1,25-30 8.8 |            |            |
| 30         | 13220029   | 1          | Gauge Oil LEVEL              |            |            |



[NP] Not provided



| D_MI23_1_8 |          | Crankshaft, Piston & Connecting Rod |                          |      |      |
|------------|----------|-------------------------------------|--------------------------|------|------|
| FIG.       | REF.     | QTY                                 | DESCR.                   | FROM | UPTO |
| 1A         | 13422001 | 3                                   | Piston & Pin Set         |      |      |
| 1B         | 13422002 | 3                                   | Piston & Pin Set         |      |      |
| 1C         | 13422003 | 3                                   | Piston & Pin Set         |      |      |
| 1D         | 13422004 | 3                                   | Piston & Pin Set         |      |      |
| 2A         | 13422006 | 3                                   | Ring Set Piston S        |      |      |
| 2B         | 13422007 | 3                                   | Ring Set Piston O        |      |      |
| 2C         | 13422008 | 3                                   | Ring Set Piston O        |      |      |
| 2D         | 13422009 | 3                                   | Ring Set Piston O        |      |      |
| 3-5        | 13222012 | 3                                   | ROD Assy                 |      |      |
| 4          | 13222011 | 6                                   | Nut,connecting rod       |      |      |
| 5          | 13222013 | 6                                   | Bolt,connecting rod      |      |      |
| 6A         | 13222014 | 3                                   | METAL Set STD            |      |      |
| 6B         | 13222015 | 3                                   | METAL Set 0.25           |      |      |
| 6C         | 13222016 | 3                                   | METAL Set 0.50           |      |      |
| 6D         | 13222017 | 3                                   | METAL Set 0.75           |      |      |
| 7          | 13222021 | 1                                   | Gear CrankShaft          |      |      |
| 8          | 13622018 | 1                                   | CrankShaft               |      |      |
| 9          | 13622024 | 1                                   | Pulley CrankShaft        |      |      |
| 10         | 13222026 | 1                                   | Nut                      |      |      |
| 11         | 51030018 | 1                                   | Washer DIN 125-18        |      |      |
| 12         | 53033018 | 1                                   | Washer GROWER DIN 127-18 |      |      |
| 13         | 13222020 | 2                                   | KEY                      |      |      |
| 14         | 13122031 | 5                                   | Bolt                     |      |      |
| 15         | 13122030 | 5                                   | Washer                   |      |      |
| 16         | 13222027 | 1                                   | Flywheel SUB Assy [NP]   |      |      |
| 17         | 13222029 | 1                                   | Gear                     |      |      |

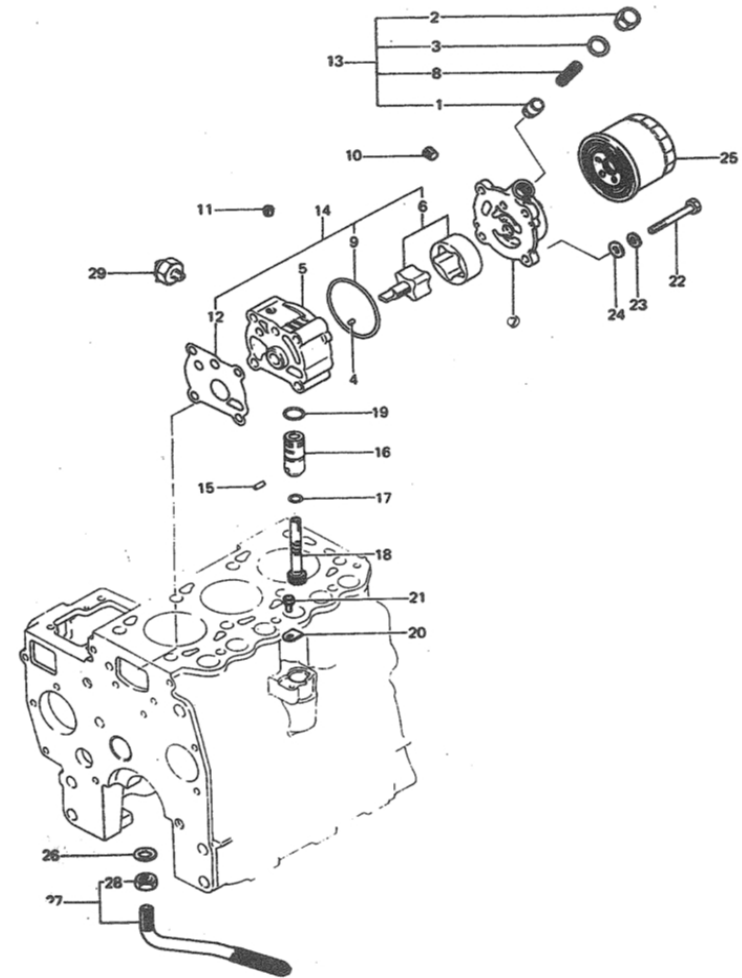


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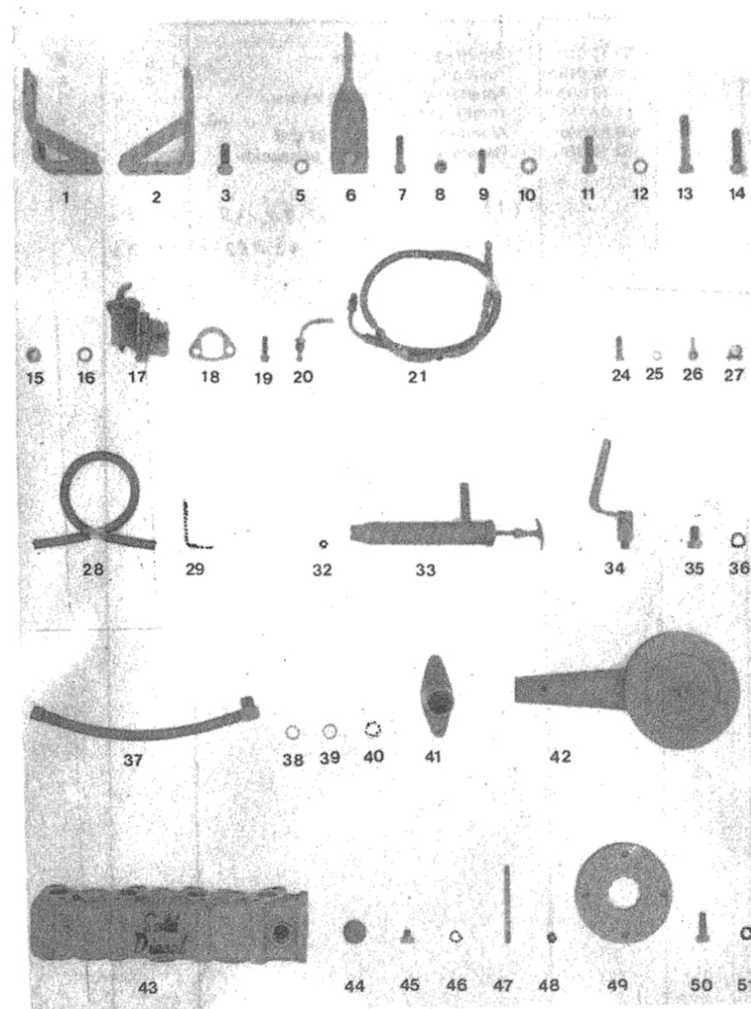
| D_MI23_1_10 |          | Oil System |                              |            |            |  |
|-------------|----------|------------|------------------------------|------------|------------|--|
| FIG.        | REF.     | QTY        | DESCR.                       | FROM       | UPTO       |  |
| 1           | 13224043 | 1          | Plunger                      |            |            |  |
| 1-11        | 13224040 | 1          | Pump Assy Oil                |            |            |  |
| 2           | 13224045 | 1          | Plug                         |            |            |  |
| 3           | 13120032 | 2          | Washer 18-23-1,5 [NP]        |            |            |  |
| 5           | 13224046 | 1          | Body Oil Pump                |            |            |  |
| 6           | 13224042 | 1          | Rotor Assy Oil PU            |            |            |  |
| 7           | 13224061 | 1          | Cover Oil Pump               |            |            |  |
| 8           | 13224044 | 1          | Spring RELIEF                |            |            |  |
| 9           | 13224049 | 1          | O-Ring                       |            |            |  |
| 10          | 13220023 | 1          | Plug TAPER                   |            |            |  |
| 11          | 17820011 | 1          | Plug, Tapered [NP]           | 12/07/2017 |            |  |
| 11          | 13120011 | 1          | Plug, Tapered [NP]           |            | 12/07/2017 |  |
| 12          | 13224041 | 1          | Gasket Oil Pump B            |            |            |  |
| 13          | 13224070 | 1          | SERVICE Kit RELIE            |            |            |  |
| 14          | 13224075 | 1          | SERVICE Kit Rotor            |            |            |  |
| 15-19       | 13224054 | 1          | DriveN UNIT SPEED            |            |            |  |
| 16          | 13224056 | 1          | SLEEVE SPEEDO                |            |            |  |
| 17          | 25210010 | 1          | O-Ring D. 10,77X2,62         |            |            |  |
| 18          | 13224054 | 1          | DriveN UNIT SPEED            |            |            |  |
| 19          | 13224059 | 1          | O-Ring D. 19X2,4             |            |            |  |
| 20          | 13224063 | 1          | Plate                        |            |            |  |
| 21          | 52102156 | 4          | Bolt DIN 933 M6-16 8.8       |            |            |  |
| 22          | 13224062 | 4          | Bolt                         |            |            |  |
| 23          | 53033008 | 4          | Washer GROWER DIN 127-8      |            |            |  |
| 24          | 51030008 | 4          | Washer DIN 125-8             |            |            |  |
| 25          | 13124051 | 1          | Filter Oil Element           |            |            |  |
| 26          | 13224001 | 1          | Washer                       |            |            |  |
| 27-28       | 13624052 | 1          | Tank [NP]                    |            |            |  |
| 28          | 51221014 | 1          | Nut DIN 936 M14X1,5 5.6 ZINC |            |            |  |
| 29          | 13124060 | 1          | Switch                       |            |            |  |



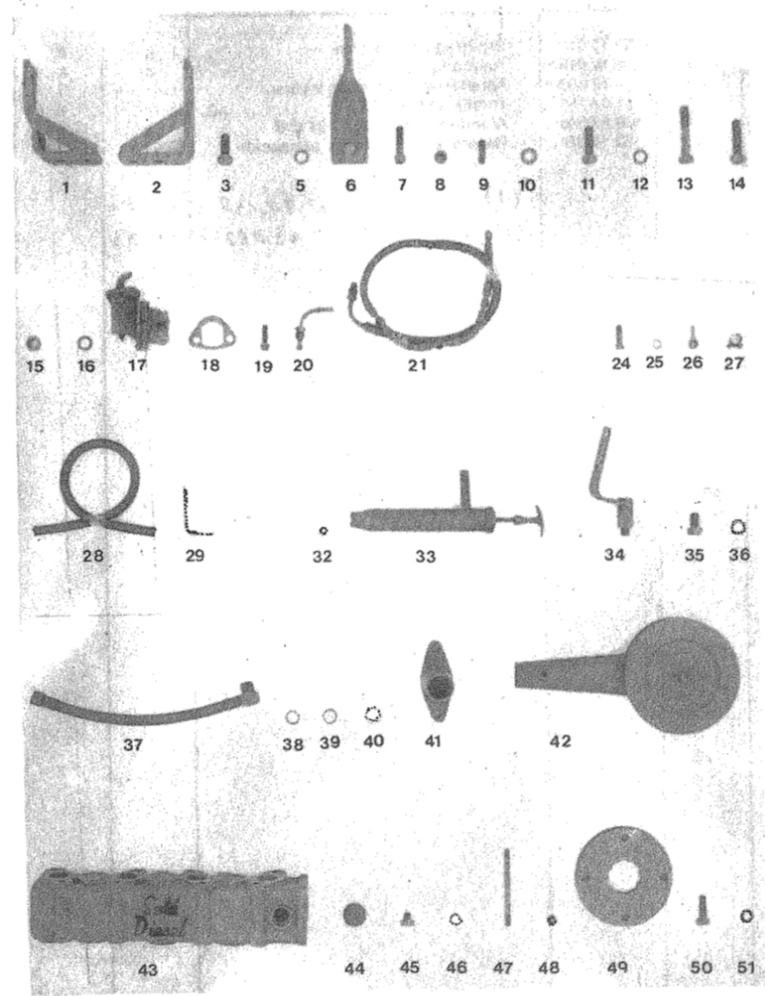
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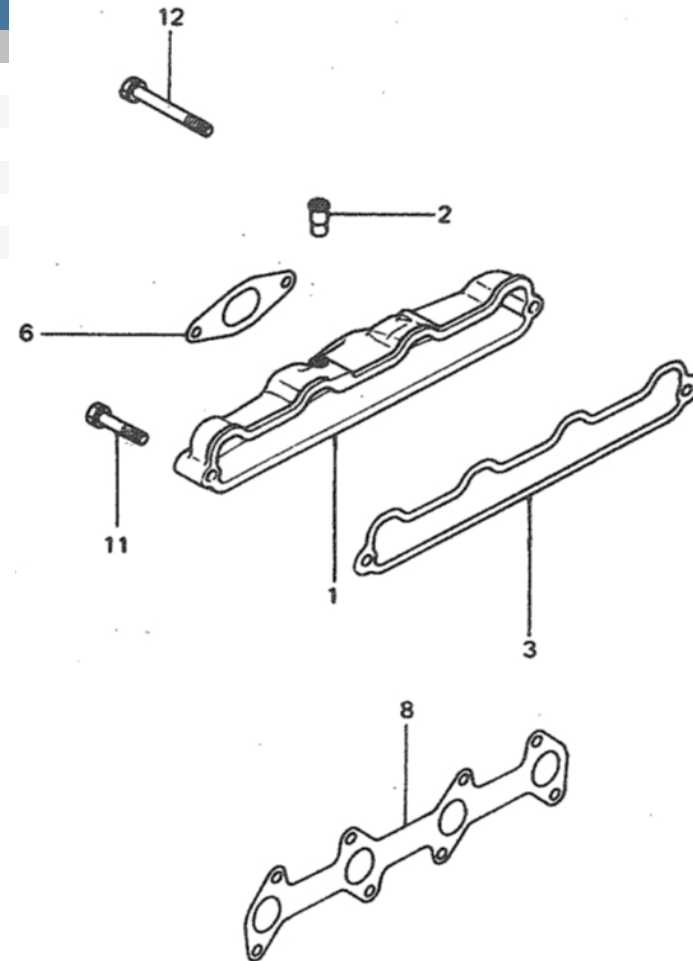
| D_MI23_1_12 |          | Engine Brackets & Exhaust |                              |      |      |
|-------------|----------|---------------------------|------------------------------|------|------|
| FIG.        | REF.     | QTY                       | DESCR.                       | FROM | UPTO |
| 1           | 13210001 | 1                         | RIGHT Front Bracket          |      |      |
| 2           | 13210002 | 1                         | LEFT Front Bracket           |      |      |
| 3           | 52202359 | 4                         | Bolt DIN 933 M12-1,25-30 8.8 |      |      |
| 5           | 53033012 | 4                         | Washer GROWER DIN 127-12     |      |      |
| 6           | 13210010 | 2                         | REAR Bracket                 |      |      |
| 7           | 52103311 | 4                         | Bolt DIN 912 M10-40 8.8      |      |      |
| 8           | 51123010 | 6                         | Nut DIN 985 M10 5.6          |      |      |
| 9           | 13110011 | 2                         | Stud                         |      |      |
| 10          | 13110017 | 6                         | Washer DIN 125               |      |      |
| 11          | 52202361 | 5                         | Bolt DIN 933 M12-1,25-40 8.8 |      |      |
| 12          | 53038012 | 6                         | Washer DIN 6798-A 12         |      |      |
| 13          | 52101363 | 2                         | Bolt DIN 931 M12-50 8.8      |      |      |
| 14          | 52202363 | 1                         | Bolt DIN 933 M12-1,25-50 8.8 |      |      |
| 15          | 52120012 | 2                         | Nut DIN 934 M12 8.8          |      |      |
| 16          | 53033012 | 2                         | Washer GROWER DIN 127-12     |      |      |
| 17          | 13114001 | 1                         | Pump Fuel Supply             |      |      |
| 18          | 13114002 | 2                         | Gasket                       |      |      |
| 19          | 52103258 | 2                         | Bolt DIN 912 M8-25 8.8       |      |      |
| 20          | 13114003 | 1                         | Pipe Inlet                   |      |      |
| 21          | 13614005 | 1                         | Pipe Assy,fuel               |      |      |
| 24          | 13114008 | 1                         | Screw LONG Connector         |      |      |
| 25          | 56000006 | 9                         | Washer 8-12-1                |      |      |
| 26          | 13114011 | 1                         | Connector SPHERICAL OverFLOW |      |      |
| 27          | 51080012 | 4                         | Clamp 12-13                  |      |      |
| 28          | 13614007 | 1                         | Hose Assy,fuel               |      |      |
| 29          | 13614012 | 1                         | Bracket,fuel filter          |      |      |
| 32          | 52120006 | 1                         | Nut DIN 934 M6 8.8           |      |      |
| 33          | 14714001 | 1                         | Pump,oil Suction             |      |      |
| 35          | 52202357 | 2                         | Bolt DIN 933 M12-1,25-20 8.8 |      |      |
| 36          | 53033012 | 2                         | Washer GROWER DIN 127-12     |      |      |
| 37          | 13214021 | 1                         | ExtraCTION Hose              |      |      |
| 38          | 56000068 | 2                         | Washer 13,5-20-1,5           |      |      |
| 39          | 57000367 | 2                         | Washer 13,2-20-1,5           |      |      |
| 40          | 56000077 | 2                         | Washer 18-23-1,5             |      |      |
| 41          | 13211010 | 1                         | Inlet Pipe                   |      |      |



| D_MI23_1_12 |          | Engine Brackets & Exhaust |                             |      |      |
|-------------|----------|---------------------------|-----------------------------|------|------|
| FIG.        | REF.     | QTY                       | DESCR.                      | FROM | UPTO |
| 42          | 17010030 | 1                         | Air Filter Assy             |      |      |
| 43          | 13613002 | 1                         | Exhaust Manifold Assy       |      |      |
| 44          | 12111004 | 6                         | Cap,cylinder                |      |      |
| 45          | 13111038 | 1                         | Bolt DIN 933 M10-15 8.8     |      |      |
| 46          | 56000057 | 8                         | Washer 8-13-1,5             |      |      |
| 47          | 13211015 | 8                         | MANIFOLD MOUNTING Stud 8    |      |      |
| 48          | 13211016 |                           | Nut DIN 1587 M8             |      |      |
| 49          | 13112002 | 1                         | Plate Reverse Gear Coupling |      |      |
| 50          | 52102156 | 8                         | Bolt DIN 933 M6-16 8.8      |      |      |
| 51          | 53033006 | 8                         | Washer GROWER DIN 127-6 1   |      |      |
| 52          | 13214024 |                           | NIPPLE,oil pump bracket     |      |      |

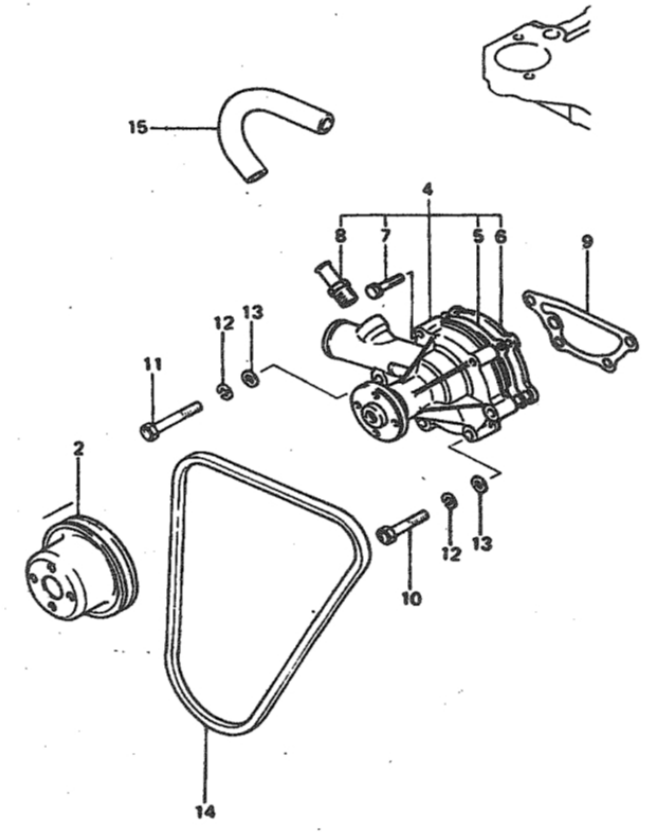


| D_MI23_2_1 |          | Inlet |                         |      |      |  |
|------------|----------|-------|-------------------------|------|------|--|
| FIG.       | REF.     | QTY   | DESCR.                  | FROM | UPTO |  |
| 1-2        | 13621030 | 1     | Cover Assy Intake       |      |      |  |
| 2          | 13221017 | 1     | Pipe                    |      |      |  |
| 3          | 13621032 | 1     | Gasket Intake MAN       |      |      |  |
| 6          | 13221034 | 1     | Gasket Inlet Pipe       |      |      |  |
| 8          | 13621035 | 1     | Gasket Exhaust Manifold |      |      |  |
| 11         | 13221036 | 1     | Bolt                    |      |      |  |
| 12         | 52101265 | 2     | Bolt DIN 931 M8-60 8.8  |      |      |  |





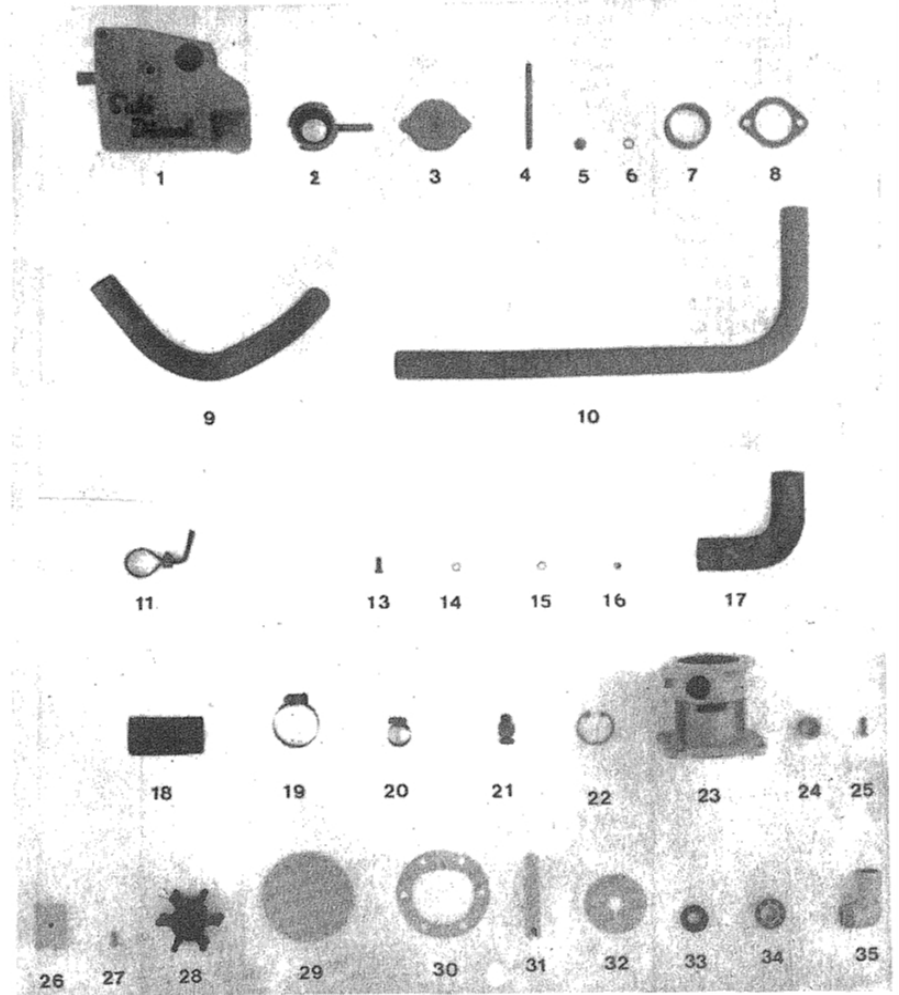
| D_MI23_3_1 Water Pump |          |     |                         |      |      |  |
|-----------------------|----------|-----|-------------------------|------|------|--|
| FIG.                  | REF.     | QTY | DESCR.                  | FROM | UPTO |  |
| 2                     | 13221021 | 1   | Pulley Water Pump       |      |      |  |
| 3                     | 54102156 | 4   | Bolt DIN 933 M6-16 INOX |      |      |  |
| 4                     | 13221020 | 1   | Pump Assy, Water [NP]   |      |      |  |
| 5                     | 13221041 | 1   | Gasket Water Pump       |      |      |  |
| 7                     | 13421043 | 2   | Bolt                    |      |      |  |
| 8                     | 13221026 | 1   | NIPPLE Hose             |      |      |  |
| 9                     | 13221022 | 1   | Gasket Water Pump       |      |      |  |
| 10                    | 52101262 | 3   | Bolt DIN 931 M8-45 8.8  |      |      |  |
| 11                    | (*)      | 1   | Not available [NP]      |      |      |  |
| 12                    | 53033008 | 4   | Washer GROWER DIN 127-8 |      |      |  |
| 13                    | 51030008 | 4   | Washer DIN 125-8        |      |      |  |
| 14                    | 13221028 | 1   | Belt Type AVX 10 950    |      |      |  |
| 15                    | 13221025 | 1   | Hose Assy Water         |      |      |  |
| 19                    | 13221027 | 1   | Thermostat (71°)        |      |      |  |



[NP] Not provided



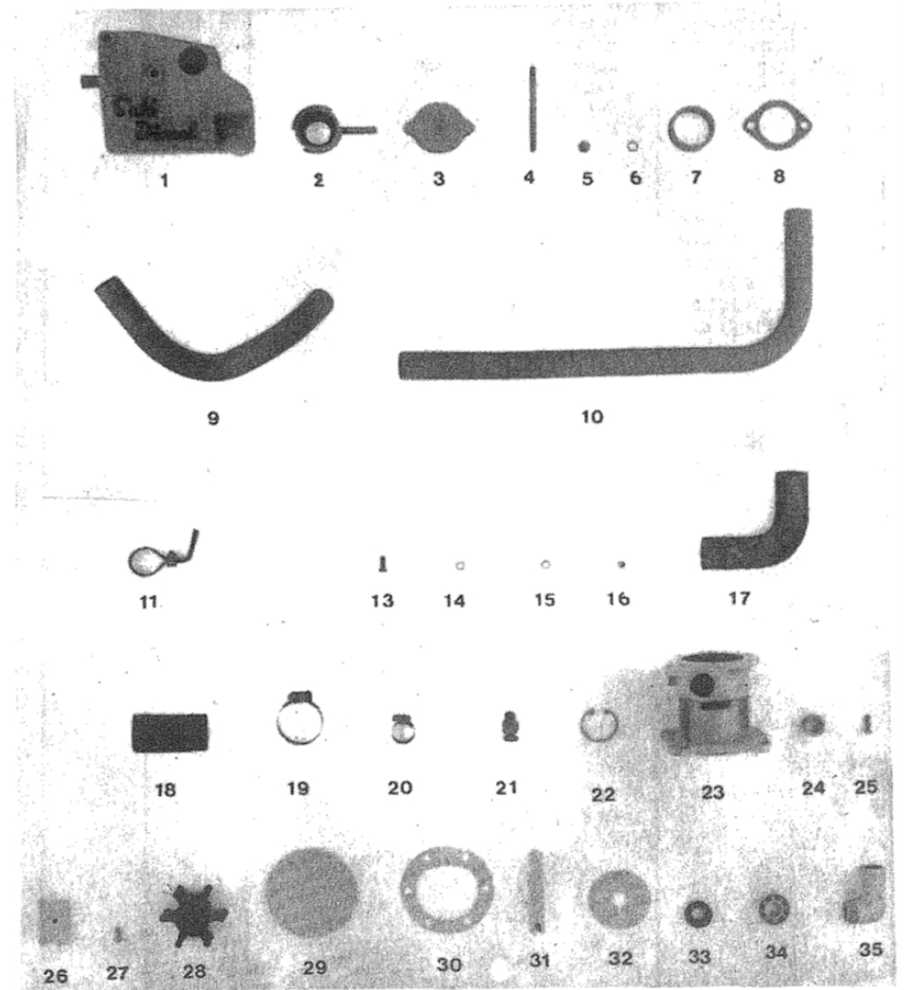
| D_MI23_3_2 |            | Cooling System 1 |                                |            |            |
|------------|------------|------------------|--------------------------------|------------|------------|
| FIG.       | REF.       | QTY              | DESCR.                         | FROM       | UPTO       |
| 1-2        | 13211150   | 1                | Expansion Tank and Cap Momunth |            |            |
| 2          | 15111002   | 1                | Cap Mouth                      |            |            |
| 3          | 14711003   | 1                | Cap [NP]                       |            | 18/01/2017 |
| 3          | 14711003.1 | 1                | Cap                            | 19/01/2017 |            |
| 4          | 13211015   | 2                | MANIFOLD MOUNTING Stud         |            |            |
| 5          | 13211016   | 2                | Nut DIN 1587 M8                |            |            |
| 6          | 56000057   | 4                | Washer 8-13-1,5                |            |            |
| 7          | 13211056   | 1                | Thermostat Holder              |            |            |
| 8          | 13211054   | 1                | Engine Water OutLER Gasket     |            |            |
| 9          | 13211051   | 1                | Pipe From Tank TO Cooler       |            |            |
| 10         | 13611052   | 1                | Pipe From Cooler TO Engine     |            |            |
| 11         | 13611053   | 1                | Bracket,Tube                   |            |            |
| 13         | 52102156   | 1                | Bolt DIN 933 M6-16 8.8         |            |            |
| 14         | 53033006   | 1                | Washer GROWER DIN 127-6        |            |            |
| 15         | 51030006   | 1                | Washer DIN 125-6               |            |            |
| 16         | 52120006   | 1                | Nut DIN 934 M6 8.8             |            |            |
| 17         | 13211057   | 1                | Rubber                         |            |            |
| 18A        | 13611036   | 1                | Pipe 30-40-85                  |            |            |
| 18B        | 13611037   | 1                | Pipe 30-40-80                  |            |            |
| 18C        | 13611038   | 1                | Pipe 30-40-75                  |            |            |
| 19A        | 54082025   | 7                | Clamp DIN 3017 25-40/12 W4     |            |            |
| 19B        | 54082032   | 1                | Clamp DIN 3017 32-50/12 W4     |            |            |
| 20         | 54081012   | 2                | Clamp DIN 3017 12-22/9 W4      |            |            |
| 21         | 13111039   | 1                | Plug,taper                     |            |            |
| 22         | 53041028   | 1                | CIRClip DIN 472 I-28           |            |            |
| 22-34      | 33211000   | 1                | 1/2" Water Pump, Seawater      |            |            |
| 23         | 33211001   | 1                | Body Water Pump                |            |            |
| 24         | 33211015   | 1                | Bushing Spacer                 |            |            |
| 25A        | 55307105   | 1                | Bolt DIN 86 W3/16-13           |            |            |
| 25B        | 57000301   | 1                | Washer 5-7,5-1                 |            |            |
| 26         | 31211005   | 1                | Cam                            |            |            |
| 27A        | 55307104   | 6                | Bolt DIN 86 W3/16-10           |            |            |
| 27B        | 55102104   | 6                | Bolt DIN 933 M5-10 INOX.       |            |            |
| 28         | 31211008   | 1                | 1/2" Impeller                  |            |            |
| 29         | 31211002   | 1                | Cover Pump                     |            |            |



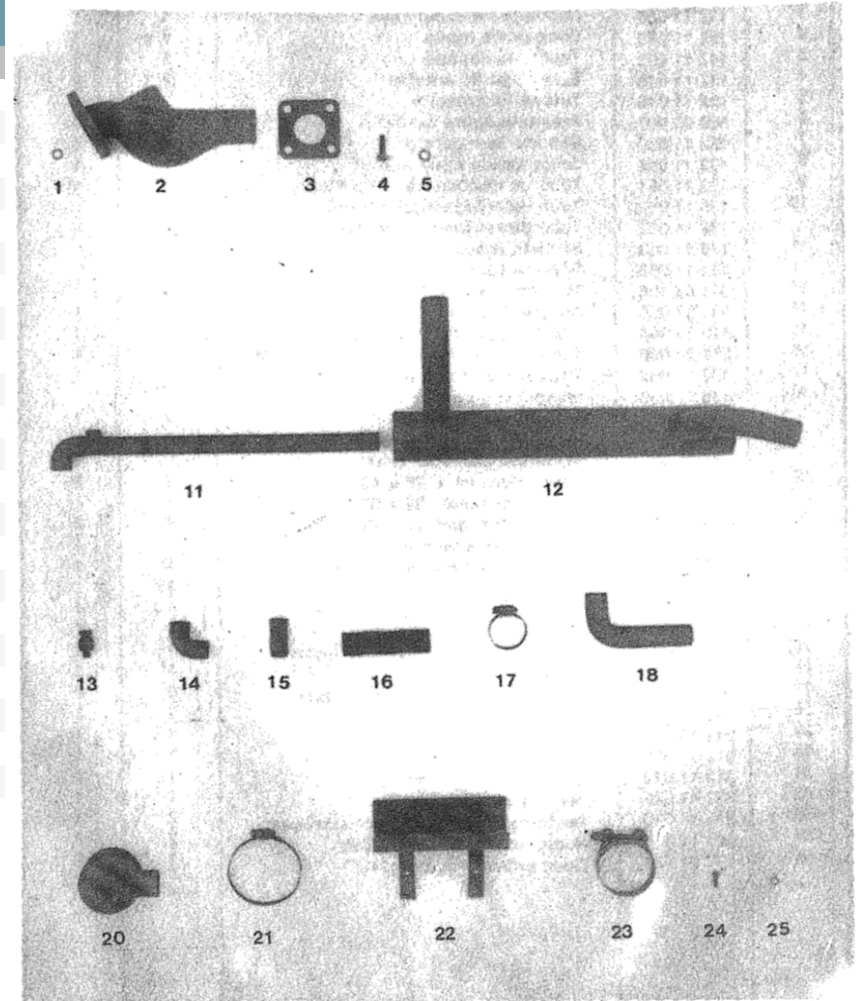
[NP] Not provided



| D_MI23_3_2 |          | Cooling System 1 |                      |      |      |
|------------|----------|------------------|----------------------|------|------|
| FIG.       | REF.     | QTY              | DESCR.               | FROM | UPTO |
| 30         | 31211003 | 1                | Gasket Cover         |      |      |
| 31         | 31211010 | 1                | Shaft Pump           |      |      |
| 32         | 33211026 | 1                | Disk                 |      |      |
| 33         | 32111020 | 2                | Seal Shaft 12-22-7   |      |      |
| 34A        | 12110030 | 2                | Ball Bearing 6001-C3 |      |      |
| 34B        | 25210010 | 1                | O-Ring D. 10,77X2,62 |      |      |
| 35         | 13211027 | 2                | Water Inlet Bend     |      |      |



| D_MI23_3_3 |          | Cooling System 2 |                              |      |      |  |
|------------|----------|------------------|------------------------------|------|------|--|
| FIG.       | REF.     | QTY              | DESCR.                       | FROM | UPTO |  |
| 1          | (*)      | 0                | Not available [NP] [VAR]     |      |      |  |
| 2          | 13111023 | 1                | Elbow, Wet Exhaust           |      |      |  |
| 3          | 15113043 | 1                | Exhaust Elbow Gasket         |      |      |  |
| 4          | 52102258 | 4                | Bolt DIN 933 M8-25 8.8       |      |      |  |
| 5          | 53033008 | 4                | Washer GROWER DIN 127-8      |      |      |  |
| 9A         | 13211026 | 1                | CARRYING Coupling            |      |      |  |
| 9B         | 13411026 | 1                | Coupling,water pump          |      |      |  |
| 11A        | 13611028 | 1                | Pipe,pump to heat exchanger  |      |      |  |
| 11B        | 13611030 | 1                | Pipe,heat exchanger to pump  |      |      |  |
| 12         | 13611029 | 1                | Water Cooler                 |      |      |  |
| 13         | 13111038 | 1                | Bolt DIN 933 M10-15 8.8      |      |      |  |
| 14         | 13211035 | 2                | Exhaust Manifold Outlet Bend |      |      |  |
| 15         | 13211031 | 1                | Raccord 1/2"                 |      |      |  |
| 16         | 13211033 | 1                | Pipe 20-28-80                |      |      |  |
| 17         | 54081020 | 4                | Clamp DIN 3017 20-32/9 W4    |      |      |  |
| 18         | 13211034 | 1                | Rubber Elbow                 |      |      |  |
| 20         | 13211040 | 2                | Water Cooler Cover           |      |      |  |
| 21         | 54081020 | 2                | Clamp DIN 3017 20-32/9 W4    |      |      |  |
| 22         | 13611041 | 1                | Bracket,cooler               |      |      |  |
| 23         | 51083060 | 2                | Clamp "P" 59-63              |      |      |  |
| 24         | 52102156 | 4                | Bolt DIN 933 M6-16 8.8       |      |      |  |
| 25         | 53033006 | 4                | Washer GROWER DIN 127-6      |      |      |  |



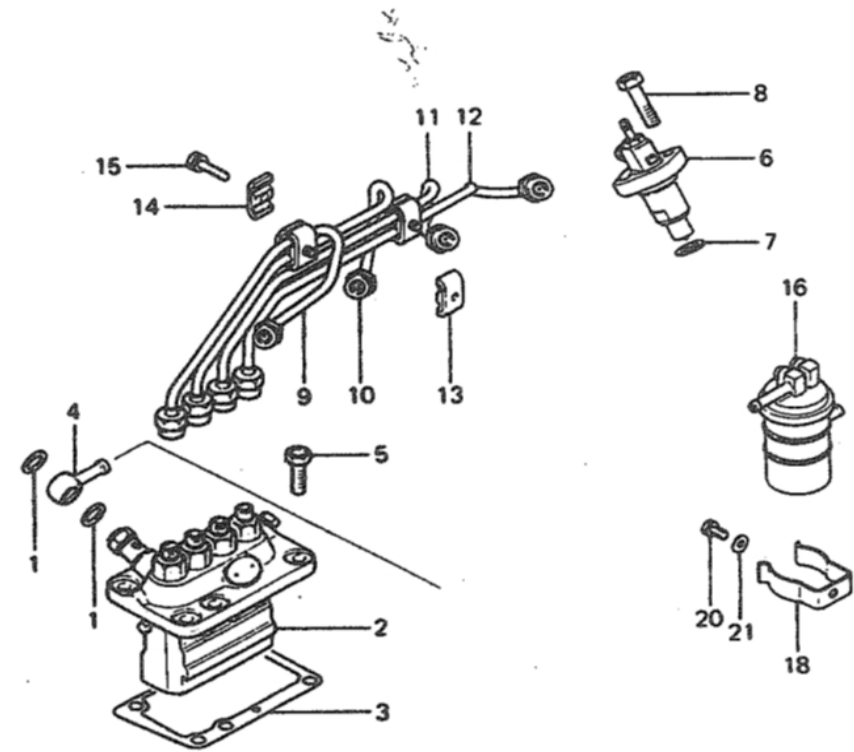
[NP] Not provided

[VAR] Variable according to repair





| D_MI23_4_1 |            | Fuel Pipe |                              |      |      |  |
|------------|------------|-----------|------------------------------|------|------|--|
| FIG.       | REF.       | QTY       | DESCR.                       | FROM | UPTO |  |
| 1          | 13124001   | 2         | Washer                       |      |      |  |
| 2          | 13625001   | 1         | Pump Assy Fuel IN            |      |      |  |
| 3A         | 13624003   | 0         | Shim Adjusting T=0,2mm [VAR] |      |      |  |
| 3B         | 17224004.4 | 0         | Shim Adjusting T=0,3mm [VAR] |      |      |  |
| 3C         | 13624005   | 0         | Shim Adjusting T=0,4mm [VAR] |      |      |  |
| 3D         | 17224006   | 0         | Shim Adjusting T=0,5mm [VAR] |      |      |  |
| 3E         | 17224007   | 0         | Shim Adjusting T=0,6mm [VAR] |      |      |  |
| 3F         | 17224008   | 0         | Shim Adjusting T=0,7mm [VAR] |      |      |  |
| 3G         | 13624009   | 0         | Shim Adjusting T=0,8mm [VAR] |      |      |  |
| 3H         | 17224010   | 0         | Shim Adjusting T=0,9mm [VAR] |      |      |  |
| 3I         | 17224011   | 0         | Shim Adjusting T=1,0mm [VAR] |      |      |  |
| 4          | (*)        | 1         | Not available [NP]           |      |      |  |
| 6          | 13126001   | 3         | Nozzle                       |      |      |  |
| 7          | 13124013   | 3         | Gasket Nozzle HOL            |      |      |  |
| 8          | 52101259   | 6         | Bolt DIN 931 M8-30 8.8       |      |      |  |
| 9          | 13224015   | 1         | Pipe Assy Fuel IN            |      |      |  |
| 10         | 13224016   | 1         | Pipe Assy Fuel IN            |      |      |  |
| 11         | 13224019   | 1         | Pipe Assy Fuel IN            |      |      |  |
| 12         | 13224022   | 1         | Pipe Assy Fuel IN            |      |      |  |
| 13         | 13124017   | 2         | Clamp (B)                    |      |      |  |
| 14         | 13124018   | 2         | Clamp (A)                    |      |      |  |
| 15         | 13124019   | 2         | Bolt                         |      |      |  |
| 16         | 13124020   | 1         | Filter Assy Fuel             |      |      |  |
| 18         | 13124021   | 1         | Clamp Filter                 |      |      |  |
| 20         | 13123005   | 1         | Bolt DIN 933 M6-12 8.8 [NP]  |      |      |  |
| 21         | 51030006   | 1         | Washer DIN 125-6             |      |      |  |

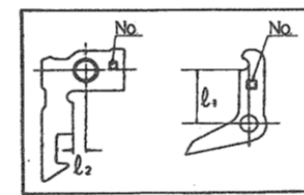
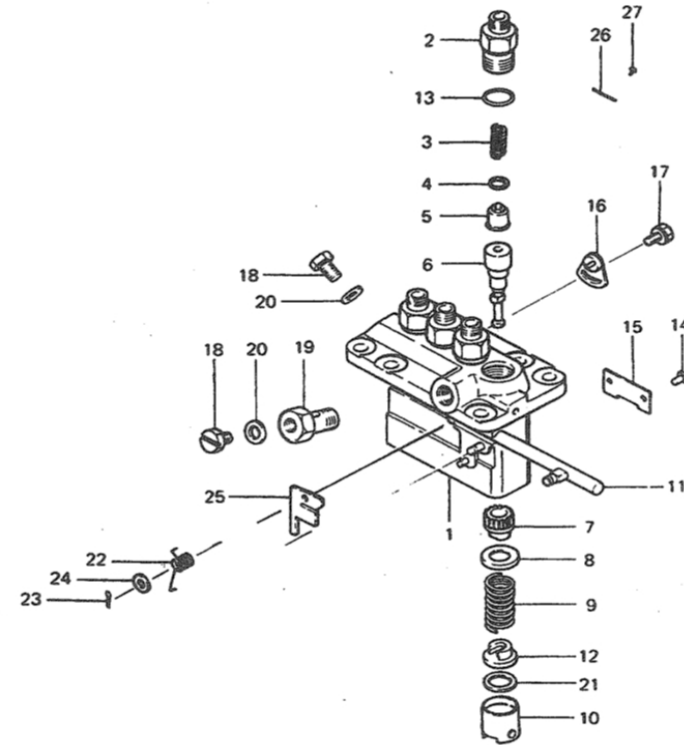


[NP] Not provided

[VAR] Variable according to repair



| D_MI23_4_2 |          | Fuel Injection Pump |                             |      |      |
|------------|----------|---------------------|-----------------------------|------|------|
| FIG.       | REF.     | QTY                 | DESCR.                      | FROM | UPTO |
| 1          | 13625005 | 1                   | Housing SUB Assy [NP]       |      |      |
| 1-27       | 13625001 | 1                   | Pump Assy Fuel IN           |      |      |
| 2          | 13125004 | 3                   | Holder DELIVERY V           |      |      |
| 3          | 13225002 | 3                   | Spring DELIVERY Valve       |      |      |
| 4          | 13125007 | 3                   | Gasket DELIVERY V           |      |      |
| 5          | 13125008 | 3                   | Valve SUB Assy DE           |      |      |
| 6          | 13625009 | 3                   | Element Assy Pump           |      |      |
| 7          | 13125010 | 3                   | SLEEVE                      |      |      |
| 8          | 13125011 | 3                   | Seat Spring Upper           |      |      |
| 9          | 13125012 | 3                   | Spring Plunger              |      |      |
| 10         | 13125021 | 3                   | Tappet SUB Assy             |      |      |
| 11         | 13625006 | 1                   | RACK Control                |      |      |
| 12         | 13125013 | 3                   | Seat Spring LOWER           |      |      |
| 13         | 13125033 | 3                   | O-Ring D. 15X2,5            |      |      |
| 14         | 13125022 | 3                   | Pin Tappet Guide            |      |      |
| 15         | 13625023 | 1                   | Plate                       |      |      |
| 16         | 13125030 | 2                   | Plate Assy Pressure         |      |      |
| 17         | 13125028 | 2                   | Bolt Washer ASSEM           |      |      |
| 18         | 13125026 | 1                   | Screw Air BRETATH           |      |      |
| 19         | 13125027 | 1                   | Screw HOLLOW                |      |      |
| 20         | 13125025 | 1                   | Washer                      |      |      |
| 21A        | 13125014 | 0                   | Shim Adjusting T=0,60 [VAR] |      |      |
| 21B        | 13125015 | 0                   | Shim Adjusting T=0,2 [VAR]  |      |      |
| 21C        | 13125016 | 0                   | Shim Adjusting T=0,3 [VAR]  |      |      |
| 21D        | 13125017 | 0                   | Shim Adjusting T=0,4 [VAR]  |      |      |
| 21E        | 13125018 | 0                   | Shim Adjusting T=0,5 [VAR]  |      |      |
| 21F        | 13125019 | 0                   | Shim Adjusting T=0,25 [VAR] |      |      |
| 21G        | 13125020 | 0                   | Shim Adjusting T=0,35 [VAR] |      |      |
| 22         | 13225031 | 1                   | Spring SMOKE Set            |      |      |
| 23         | 13125032 | 1                   | Pin SPLIT                   |      |      |
| 24         | 51030005 | 1                   | Washer DIN 125-5            |      |      |
| 25Ñ        | 13225049 | 0                   | Stopper [VAR]               |      |      |
| 25A        | 13625042 | 0                   | Stopper [VAR]               |      |      |
| 25B        | 13625043 | 0                   | Stopper [VAR]               |      |      |
| 25C        | 13625044 | 0                   | Stopper [VAR]               |      |      |

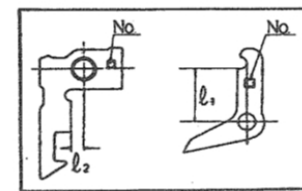
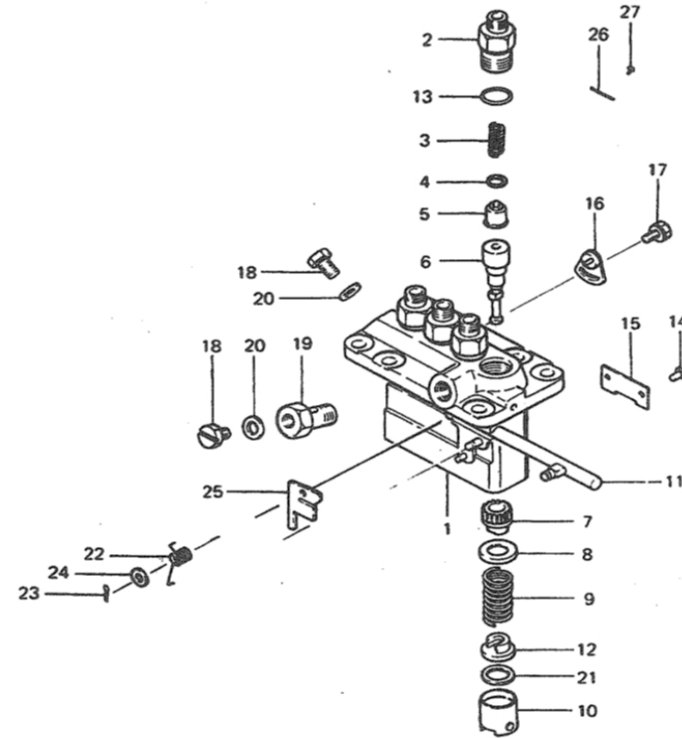


[NP] Not provided

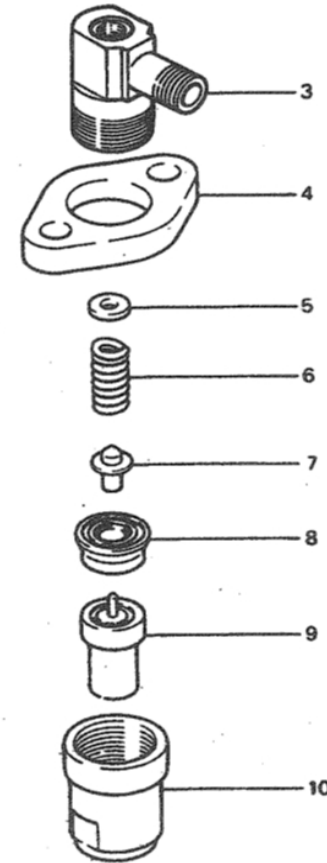
[VAR] Variable according to repair



| D_MI23_4_2 |          | Fuel Injection Pump |               |      |      |  |
|------------|----------|---------------------|---------------|------|------|--|
| FIG.       | REF.     | QTY                 | DESCR.        | FROM | UPTO |  |
| 25D        | 13625045 | 0                   | Stopper [VAR] |      |      |  |
| 25E        | 13625046 | 0                   | Stopper [VAR] |      |      |  |
| 25F        | 13625047 | 0                   | Stopper [VAR] |      |      |  |
| 25G        | 13625048 | 0                   | Stopper [VAR] |      |      |  |
| 25H        | 13625049 | 0                   | Stopper [VAR] |      |      |  |
| 25I        | 13625050 | 0                   | Stopper [VAR] |      |      |  |
| 25J        | 13625052 | 0                   | Stopper [VAR] |      |      |  |
| 25K        | 13625053 | 0                   | Stopper [VAR] |      |      |  |
| 25L        | 13225046 | 0                   | Stopper [VAR] |      |      |  |
| 25M        | 13225047 | 0                   | Stopper [VAR] |      |      |  |
| 25N        | 13225048 | 0                   | Stopper [VAR] |      |      |  |
| 25O        | 13225050 | 0                   | Stopper [VAR] |      |      |  |
| 25P        | 13225052 | 0                   | Stopper [VAR] |      |      |  |
| 25Q        | 13225042 | 0                   | Stopper [VAR] |      |      |  |
| 25R        | 13225043 | 0                   | Stopper [VAR] |      |      |  |
| 25S        | 13225044 | 0                   | Stopper [VAR] |      |      |  |
| 25T        | 13425053 | 0                   | Stopper [VAR] |      |      |  |
| 26         | 13625058 | 1                   | Plate NAME    |      |      |  |
| 27         | 13125003 | 2                   | RIVET         |      |      |  |



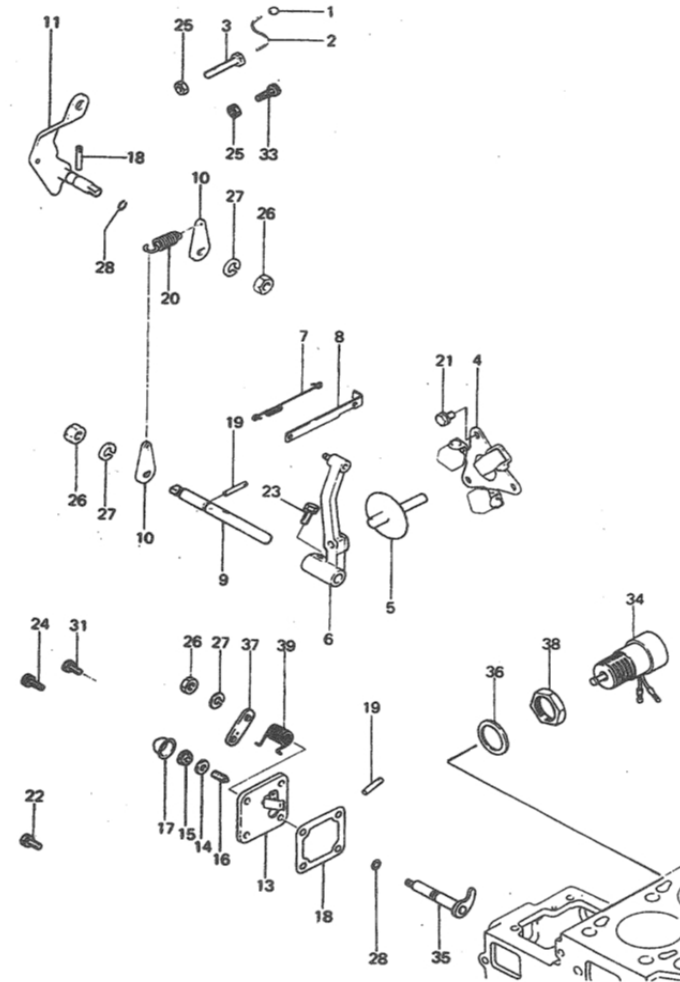
| D_MI23_4_3 |          | Nozzle |                |      |      |  |
|------------|----------|--------|----------------|------|------|--|
| FIG.       | REF.     | QTY    | DESCR.         | FROM | UPTO |  |
| 3          | 13126002 | 3      | Body           |      |      |  |
| 3-10       | 13126001 | 3      | Nozzle         |      |      |  |
| 4          | 13126008 | 1      | Flange         |      |      |  |
| 5A         | 13126017 | 0      | Washer [VAR]   |      |      |  |
| 5B         | 13126010 | 0      | Washer [VAR]   |      |      |  |
| 5C         | 13126011 | 0      | Washer [VAR]   |      |      |  |
| 5D         | 13126012 | 0      | Washer [VAR]   |      |      |  |
| 5E         | 13126013 | 0      | Washer [VAR]   |      |      |  |
| 5F         | 13126014 | 0      | Washer [VAR]   |      |      |  |
| 5G         | 13126015 | 0      | Washer [VAR]   |      |      |  |
| 5H         | 13126016 | 0      | Washer [VAR]   |      |      |  |
| 6          | 13126004 | 3      | Spring         |      |      |  |
| 7          | 13126003 | 3      | Pin            |      |      |  |
| 8          | 13126007 | 3      | PIECE DISTANCE |      |      |  |
| 9          | 13126018 | 3      | Nozzle Assy    |      |      |  |
| 10         | 13126006 | 3      | Nut RETAINING  |      |      |  |



[VAR] Variable according to repair



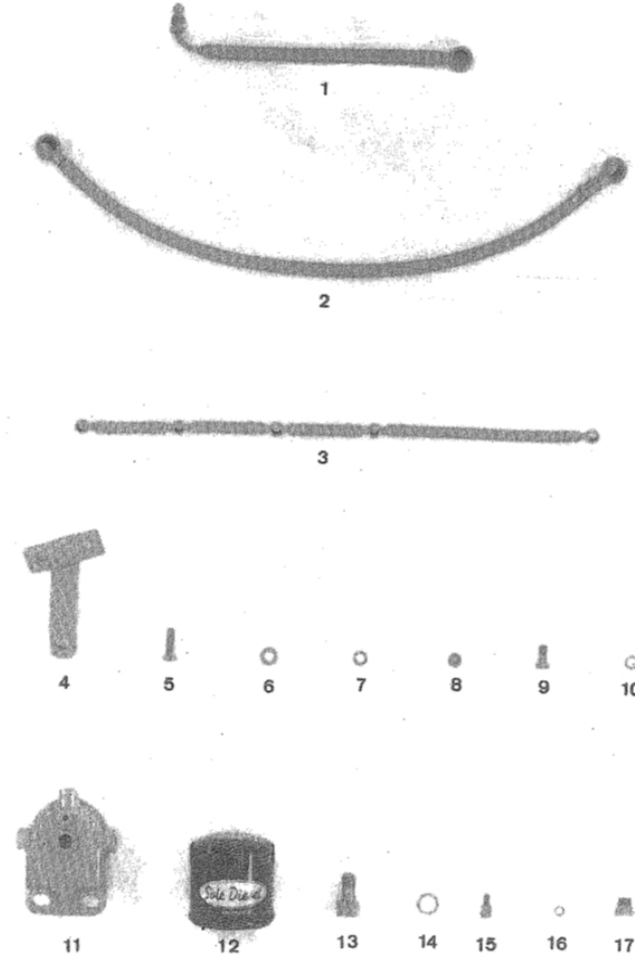
| D_MI23_4_4 |            | Governor Parts |                        |            |            |
|------------|------------|----------------|------------------------|------------|------------|
| FIG.       | REF.       | QTY            | DESCR.                 | FROM       | UPTO       |
| 1          | 13123019   | 1              | Metal Sealing          |            |            |
| 2          | 17623020.4 | 1              | Metal,Fuel             | 02/08/2017 |            |
| 2          | 13123020   | 1              | Metal,Fuel [NP]        |            | 02/08/2017 |
| 3          | 13123017   | 1              | Bolt High Speed        |            |            |
| 4          | 13223001   | 1              | WEIGHT Assy,GOverNOR   |            |            |
| 5          | 13223002   | 1              | Shaft Assy             |            |            |
| 6          | 13223003   | 1              | Lever Assy GOverN      |            |            |
| 7          | 13223004   | 1              | Spring TIE ROD         |            |            |
| 8          | 13423005   | 1              | ROD TIE                |            |            |
| 9          | 13223006   | 1              | Shaft Governor         |            |            |
| 10         | 13223007   | 2              | Lever Governor         |            |            |
| 11A        | 13423008   | 1              | Lever Assy SPEED       |            |            |
| 11B        | 13223008   | 1              | Lever Assy Speed       |            |            |
| 13-16      | 13423019   | 1              | Cover Assy TIE RO      |            |            |
| 15         | 13423021   | 1              | Nut SPECIAL (6)        |            |            |
| 16         | 13423022   | 1              | Screw Adjusting        |            |            |
| 17         | 13423023   | 1              | Cap SeallNG            |            |            |
| 18         | 13223014   | 1              | Gasket Cover           |            |            |
| 19         | 13123009   | 2              | Pin GROOVED            |            |            |
| 20A        | 13423015   | 1              | Spring Governor (A)    |            |            |
| 20B        | 17023015   | 1              | Spring Governor (B)    |            |            |
| 21         | 13223016   | 3              | Bolt                   |            |            |
| 22         | 52102156   | 1              | Bolt DIN 933 M6-16 8.8 |            |            |
| 23         | 52102156   | 1              | Bolt DIN 933 M6-16 8.8 |            |            |
| 24         | 13124019   | 3              | Bolt                   |            |            |
| 25         | 52120006   | 2              | Nut DIN 934 M6 8.8     |            |            |
| 26         | 52120008   | 3              | Nut DIN 934 M8 8.8     |            |            |
| 28         | 13123021   | 1              | O-Ring D. 7X1.8        |            |            |
| 33         | 13423025   | 1              | Bolt LOW IDLE Set      |            |            |
| 34         | 13424025   | 1              | Solenoid               |            |            |
| 35         | 13425026   | 1              | Lever Assy Stop        |            |            |
| 36         | 13425028   | 1              | Gasket                 |            |            |
| 37         | 13425027   | 1              | Lever Stop             |            |            |
| 38         | 13425029   | 1              | Nut (old)              |            |            |
| 39         | 13425030   | 1              | Spring Return          |            |            |



[NP] Not provided



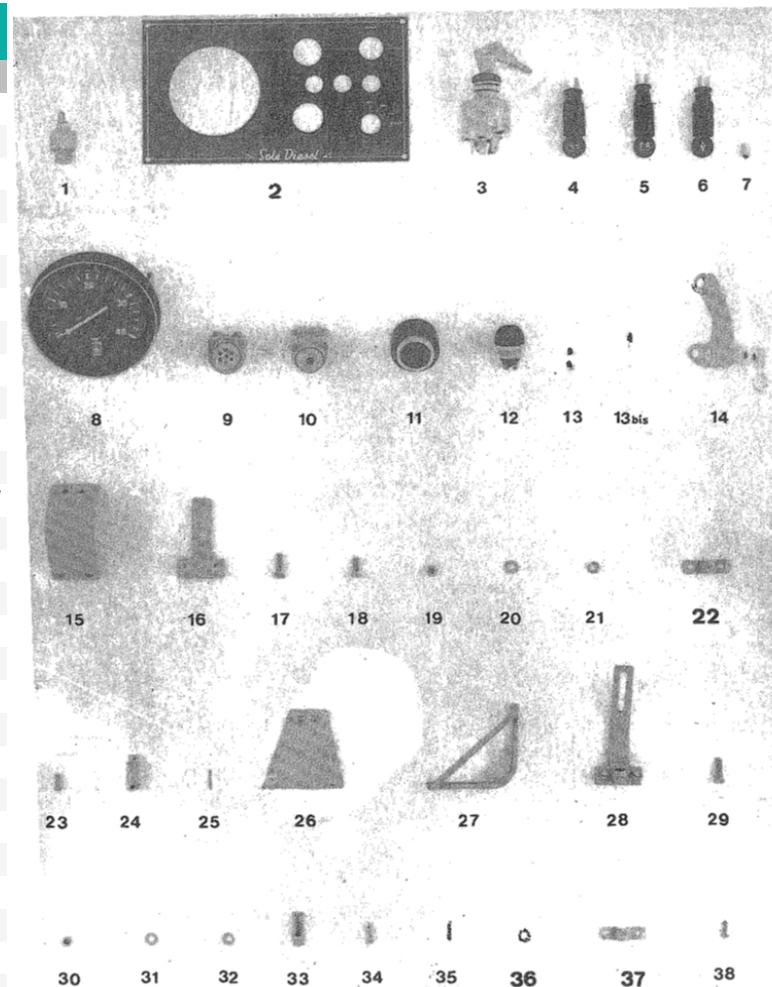
| D_MI23_4_5 |          | Fuel Filter |                             |      |      |  |
|------------|----------|-------------|-----------------------------|------|------|--|
| FIG.       | REF.     | QTY         | DESCR.                      | FROM | UPTO |  |
| 1          | 13414016 | 1           | Pipe, Pump TO Filter [NP]   |      |      |  |
| 2          | 13614017 | 1           | Pipe, Filter TO INJEC. Pump |      |      |  |
| 3          | 13414018 | 1           | Assy,Fuel Return            |      |      |  |
| 4          | 13614002 | 1           | Bracket,oil pump            |      |      |  |
| 5          | 52102258 | 2           | Bolt DIN 933 M8-25 8.8      |      |      |  |
| 6          | 51030008 | 2           | Washer DIN 125-8            |      |      |  |
| 7          | 53033008 | 2           | Washer GROWER DIN 127-8     |      |      |  |
| 8          | 52120008 | 2           | Nut DIN 934 M8 8.8          |      |      |  |
| 9A         | 13114007 | 1           | Screw SHORT Connector       |      |      |  |
| 9B         | 13114008 | 1           | Screw LONG Connector        |      |      |  |
| 10         | 57000357 | 2           | Washer 8,2-12-1,5           |      |      |  |
| 11         | 13114020 | 1           | Cover,filter                |      |      |  |
| 12         | 13114022 | 1           | Gas-Oil Filter Element      |      |      |  |
| 13         | 13114021 | 1           | Coupling,cover filter       |      |      |  |
| 14         | 57000353 | 4           | Washer 6,2-11-1,5           |      |      |  |
| 15         | 13114023 | 1           | Screw, air breather         |      |      |  |
| 16         | 57000353 | 1           | Washer 6,2-11-1,5           |      |      |  |
| 17         | 12814051 | 1           | Screw,eye                   |      |      |  |



[NP] Not provided



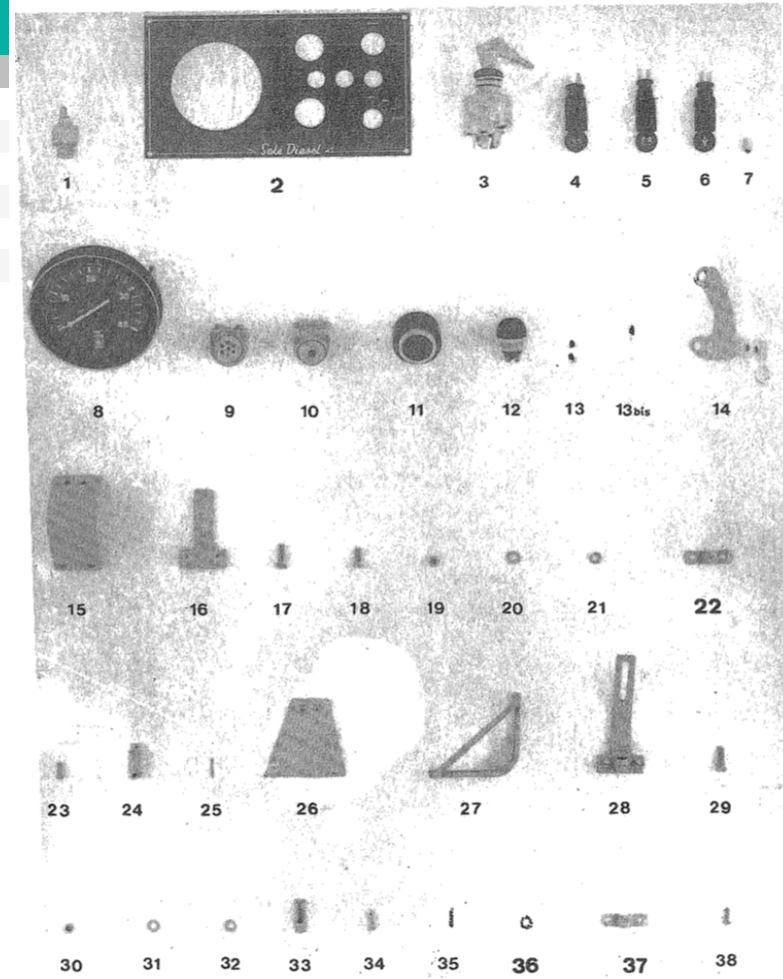
| D_MI23_5_1 |          | Electrical System 1 |                            |            |            |
|------------|----------|---------------------|----------------------------|------------|------------|
| FIG.       | REF.     | QTY                 | DESCR.                     | FROM       | UPTO       |
| 1          | 60900070 | 1                   | Thermo-Switch 97°C         |            |            |
| 2          | 60931001 | 1                   | Panel                      |            |            |
| 2-13       | 60936000 | 1                   | Panel MINI-23              |            |            |
| 3A         | 60900031 | 1                   | Key-Locking Switch         |            |            |
| 3B         | 60900035 | 1                   | Cover,key                  |            |            |
| 4          | 60900050 | 1                   | LAMP, oil press.           |            |            |
| 5          | 60900051 | 1                   | LAMP, charge               |            |            |
| 6          | 60900052 | 1                   | LAMP, water temp.          |            |            |
| 7          | 60900045 | 3                   | Bulb 12V 3W Connector B    |            |            |
| 8          | 60934710 | 1                   | Tachometer MINI-33/34/44   |            |            |
| 9          | 60936095 | 1                   | LAMP Glow (3CYL-3          |            |            |
| 11         | 60900060 | 1                   | Alarm, SWITCH              |            |            |
| 12         | 60900040 | 1                   | Pushbutton Stop [NP]       |            | 13/07/2017 |
| 12         | 60900049 | 1                   | Pushbutton Stop [NP]       | 13/07/2017 |            |
| 13A        | 60900115 | 2                   | Fuse 3 A.                  |            |            |
| 13B        | 60900110 | 2                   | DIODE 3 A.                 |            |            |
| 14         | 13619001 | 1                   | Bracket,engine control     |            |            |
| 16         | 12119021 | 1                   | SUPPORT Clamp              |            |            |
| 17         | 52102157 | 2                   | Bolt DIN 933 M6-20 8.8     |            |            |
| 18         | 52102156 | 2                   | Bolt DIN 933 M6-16 8.8     |            |            |
| 19         | 52120006 | 4                   | Nut DIN 934 M6 8.8         |            |            |
| 20         | 51030006 | 4                   | Washer DIN 125-6           |            |            |
| 21         | 53033006 | 4                   | Washer GROWER DIN 127-6    |            |            |
| 22         | 14719013 | 1                   | Clamp,cable                |            |            |
| 23         | 55307105 | 2                   | Bolt DIN 86 W3/16-13       |            |            |
| 24         | 13419003 | 1                   | GAS,control yoke           |            |            |
| 25         | 51051107 | 1                   | Pin DIN-94 1,6-16          |            |            |
| 26         | 13119015 | 1                   | Bracket Morse REVERSE Gear |            |            |
| 27         | 12119020 | 1                   | Bracket,Gear box control   |            |            |
| 28         | 12119021 | 1                   | SUPPORT Clamp              |            |            |
| 29         | 52102157 | 4                   | Bolt DIN 933 M6-20 8.8     |            |            |
| 30         | 52120006 | 4                   | Nut DIN 934 M6 8.8         |            |            |
| 31         | 51030006 | 4                   | Washer DIN 125-6           |            |            |
| 32         | 53033006 | 4                   | Washer GROWER DIN 127-6    |            |            |
| 33         | 13119128 | 1                   | SPLIT,piece special        |            |            |



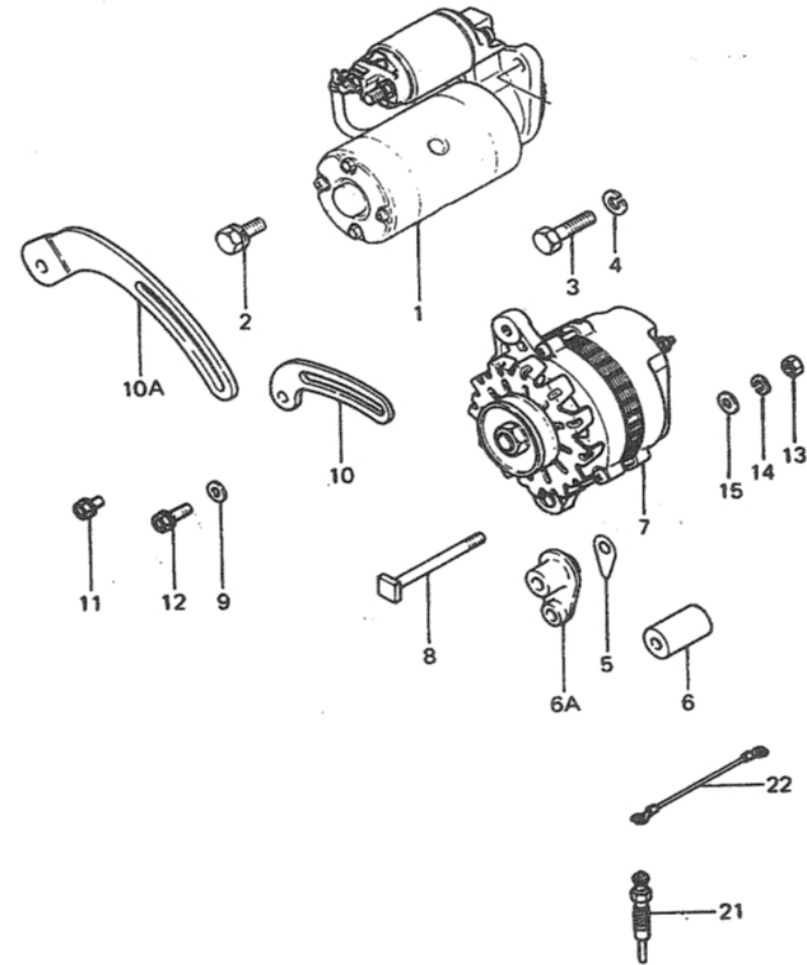
[NP] Not provided



| D_MI23_5_1 |          | Electrical System 1 |                      |      |      |  |
|------------|----------|---------------------|----------------------|------|------|--|
| FIG.       | REF.     | QTY                 | DESCR.               | FROM | UPTO |  |
| 34         | 14719027 | 1                   | Pin                  |      |      |  |
| 35         | 51051107 | 1                   | Pin DIN-94 1,6-16    |      |      |  |
| 36         | 51030005 | 2                   | Washer DIN 125-5     |      |      |  |
| 37         | 14719013 | 1                   | Clamp,cable          |      |      |  |
| 38A        | 55307104 | 2                   | Bolt DIN 86 W3/16-10 |      |      |  |
| 38B        | 60934117 | 1                   | Fuse 60A.            |      |      |  |



| D_MI23_5_2 |          | Electrical System 2 |                              |      |      |  |
|------------|----------|---------------------|------------------------------|------|------|--|
| FIG.       | REF.     | QTY                 | DESCR.                       | FROM | UPTO |  |
| 1          | 13227001 | 1                   | STARTER Assy 12 V            |      |      |  |
| 2          | 52202308 | 2                   | Bolt DIN 933 M10-1,25-25 8.8 |      |      |  |
| 3          | 52202311 | 1                   | Bolt DIN 933 M10-1,25-40 8.8 |      |      |  |
| 4          | 53033010 | 1                   | Washer GROWER DIN 127-10     |      |      |  |
| 5          | 13127005 | 0                   | Shim Adjusting [VAR]         |      |      |  |
| 6-A        | 13427006 | 1                   | Spacer                       |      |      |  |
| 7          | 13627010 | 1                   | Alternator 12V/35A           |      |      |  |
| 8          | 13227008 | 1                   | Bolt                         |      |      |  |
| 10         | 13224007 | 1                   | Shim Adjusting T=0,6mm       |      |      |  |
| 10-A       | 13427007 | 1                   | BRACE Generator              |      |      |  |
| 11         | (*)      | 1                   | Not available [NP]           |      |      |  |
| 12         | 13127012 | 1                   | Bolt DIN 933 M8-25 8.8       |      |      |  |
| 13         | 52120008 | 1                   | Nut DIN 934 M8 8.8           |      |      |  |
| 14         | 53033008 | 1                   | Washer GROWER DIN 127-8      |      |      |  |
| 15         | 51030008 | 1                   | Washer DIN 125-8             |      |      |  |
| 21         | 13127017 | 3                   | Plug Glow Type V-110         |      |      |  |
| 22         | 13127018 | 2                   | Wire Glow Plug LE            |      |      |  |

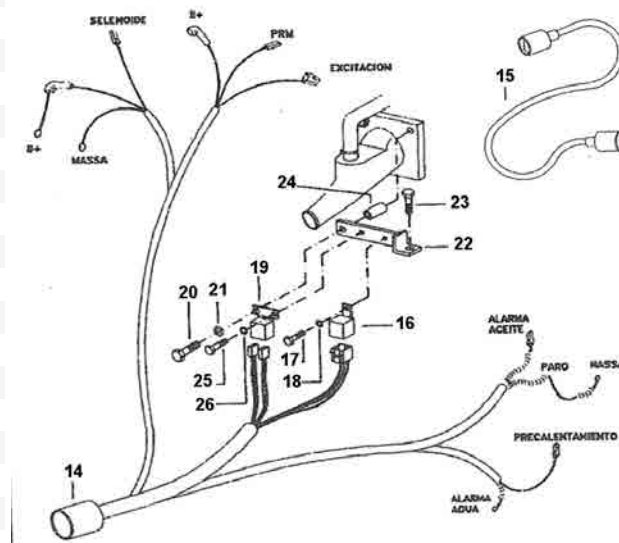
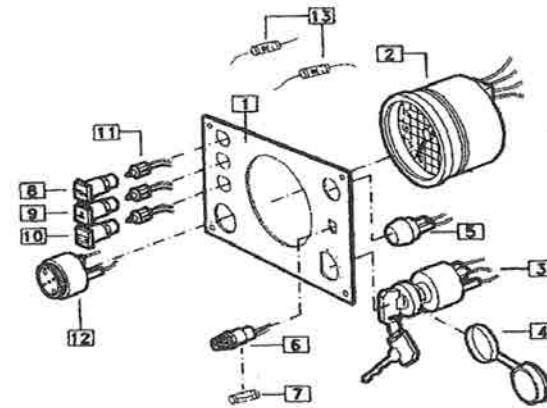


[NP] Not provided

[VAR] Variable according to repair



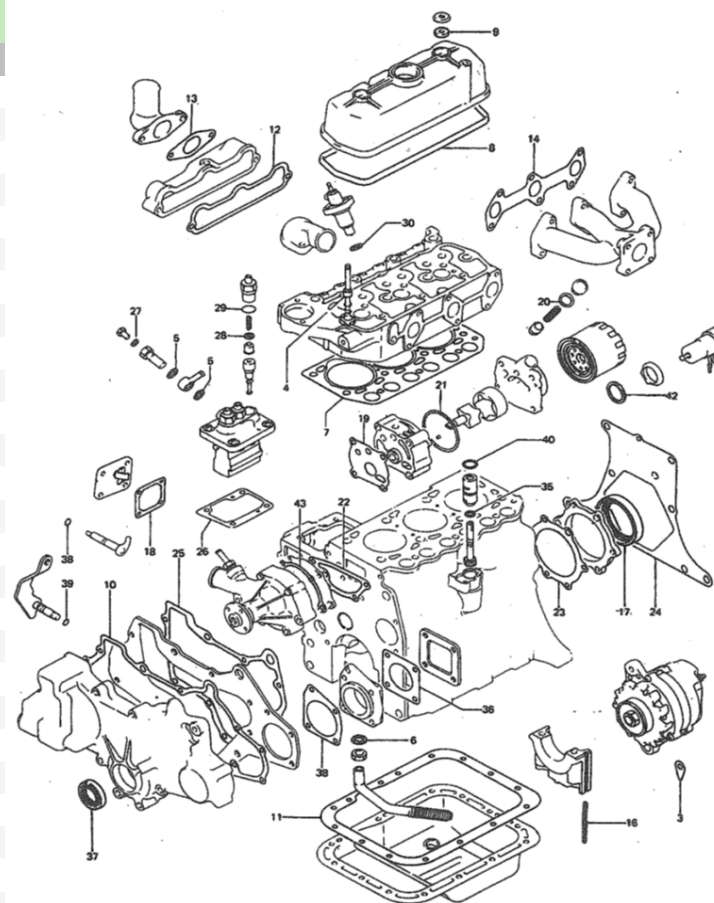
| D_MI23_5_5 |           | Electrical Wiring & Panel |                           |            |            |
|------------|-----------|---------------------------|---------------------------|------------|------------|
| FIG.       | REF.      | QTY                       | DESCR.                    | FROM       | UPTO       |
| 1          | 60938001  | 1                         | Panel                     |            |            |
| 1-13       | 60934000R | 1                         | Panel MINI-33/34/44       |            |            |
| 2          | 60934710  | 1                         | Tachometer MINI-33/34/44  |            |            |
| 3          | 60900031  | 1                         | Key-Locking Switch        |            |            |
| 4          | 60900035  | 1                         | Cover,key                 |            |            |
| 5          | 60900040  | 1                         | Pushbutton Stop [NP]      |            | 13/07/2017 |
| 5          | 60900049  | 1                         | Pushbutton Stop [NP]      | 13/07/2017 |            |
| 6          | 60900121  | 1                         | FuseHolder, panel         |            |            |
| 7          | 60900118  | 1                         | Fuse 10 A.                |            |            |
| 8          | 60900050A | 1                         | LAMP, oil press.          |            |            |
| 9          | 60900052A | 1                         | LAMP, water temp.         |            |            |
| 10         | 60900051A | 1                         | LAMP, charge              |            |            |
| 11         | 60900045A | 3                         | Bulb 12V 3W Connector JKL |            |            |
| 12         | 60900060  | 1                         | Alarm, SWITCH             |            |            |
| 13         | 60900110  | 2                         | DIODE 3 A.                |            |            |
| 14         | 60934200R | 1                         | MINI-34 Electrical Wiring |            |            |
| 15         | 60938210  | 1                         | Wiring Ext. 3 M.          |            |            |
| 16         | 18517005  | 1                         | Relay Nagares 12V 40A     |            |            |
| 17         | 54102104  | 1                         | Bolt DIN 933 M5-10 INOX.  |            |            |
| 18         | 51030005  | 1                         | Washer DIN 125-5          |            |            |
| 19         | 13827005  | 1                         | Glow Relay                |            |            |
| 20         | 52101262  | 1                         | Bolt DIN 931 M8-45 8.8    |            |            |
| 21         | 51030008  | 1                         | Washer DIN 125-8          |            |            |
| 22         | 13417001  | 1                         | Support,relay             |            |            |
| 23         | 52102259  | 1                         | Bolt DIN 933 M8-30 8.8    |            |            |
| 24         | 13417002  | 1                         | Spacer                    |            |            |
| 25         | 52102156  | 1                         | Bolt DIN 933 M6-16 8.8    |            |            |
| 26         | 51030006  | 1                         | Washer DIN 125-6          |            |            |



[NP] Not provided



| D_MI23_6_1 |          | Gasket Kit |                             |      |      |
|------------|----------|------------|-----------------------------|------|------|
| FIG.       | REF.     | QTY        | DESCR.                      | FROM | UPTO |
| 3          | 13127005 | 0          | Shim Adjusting [VAR]        |      |      |
| 3-43       | 13620101 | 1          | Kit Gasket                  |      |      |
| 4          | 13222054 | 6          | Seal Valve Stem             |      |      |
| 5          | 13124001 | 2          | Washer                      |      |      |
| 6          | 13224001 | 1          | Washer                      |      |      |
| 7          | 13621004 | 1          | Gasket Cylinder H           |      |      |
| 8          | 13621010 | 1          | Gasket Rocker COV           |      |      |
| 9          | 13221016 | 2          | Seal                        |      |      |
| 10         | 13220040 | 1          | Gasket Gear Case            |      |      |
| 11         | 13620033 | 1          | Gasket Oil PAN              |      |      |
| 12         | 13621032 | 1          | Gasket Intake MAN           |      |      |
| 13         | 13221034 | 1          | Gasket Inlet Pipe           |      |      |
| 14         | 13621035 | 1          | Gasket Exhaust Manifold     |      |      |
| 16         | 13220002 | 4          | Seal Side                   |      |      |
| 17         | 13220008 | 1          | Seal Oil                    |      |      |
| 18         | 13223014 | 1          | Gasket Cover                |      |      |
| 19         | 13224041 | 1          | Gasket Oil Pump B           |      |      |
| 21         | 13224049 | 1          | O-Ring                      |      |      |
| 22         | 13221022 | 1          | Gasket Water Pump           |      |      |
| 23         | 13220016 | 1          | Gasket Oil Seal             |      |      |
| 24         | 13220025 | 1          | Gasket REAR Plate           |      |      |
| 25         | 13220018 | 1          | Gasket Front PLAT           |      |      |
| 26A        | 13624003 | 1          | Shim Adjusting T=0,2mm      |      |      |
| 26B        | 13624004 | 1          | Shim Adjusting T=0,3mm [NP] |      |      |
| 26C        | 13624005 | 1          | Shim Adjusting T=0,4mm      |      |      |
| 26D        | 13624009 | 1          | Shim Adjusting T=0,8mm      |      |      |
| 27         | 13125025 | 1          | Washer                      |      |      |
| 28         | 13125007 | 3          | Gasket DELIVERY V           |      |      |
| 29         | 13125033 | 3          | O-Ring D. 15X2,5            |      |      |
| 30         | 13124013 | 3          | Gasket Nozzle HOL           |      |      |
| 35         | 25210010 | 1          | O-Ring D. 10,77X2,62        |      |      |
| 36         | 13120047 | 1          | Gasket Water Pump           |      |      |
| 37         | 13220039 | 1          | Seal Oil                    |      |      |
| 38         | 13220038 | 1          | Gasket Housing              |      |      |
| 39         | 13123021 | 2          | O-Ring D. 7X1.8             |      |      |

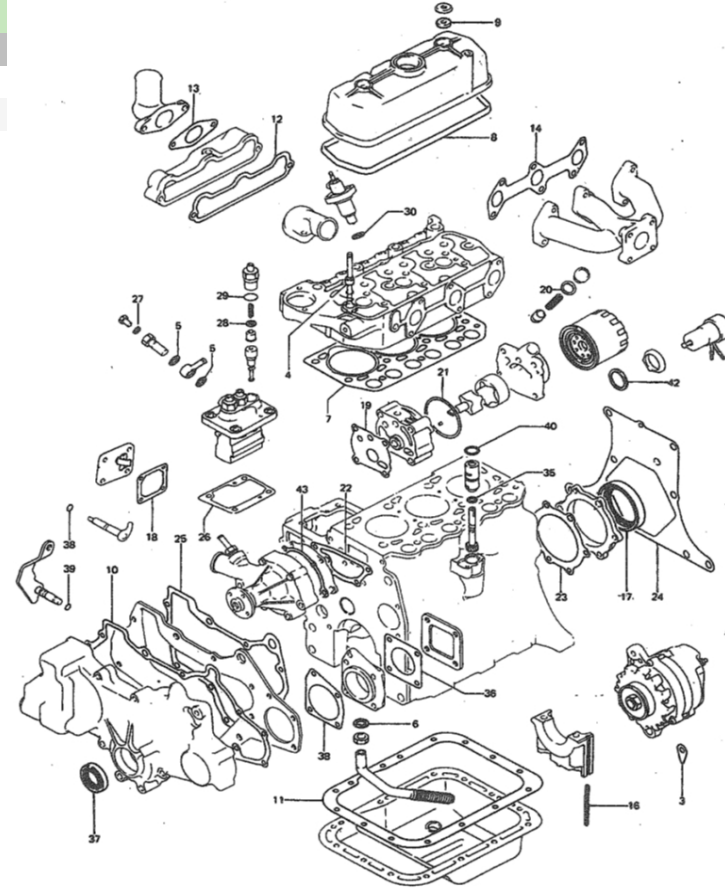


[NP] Not provided

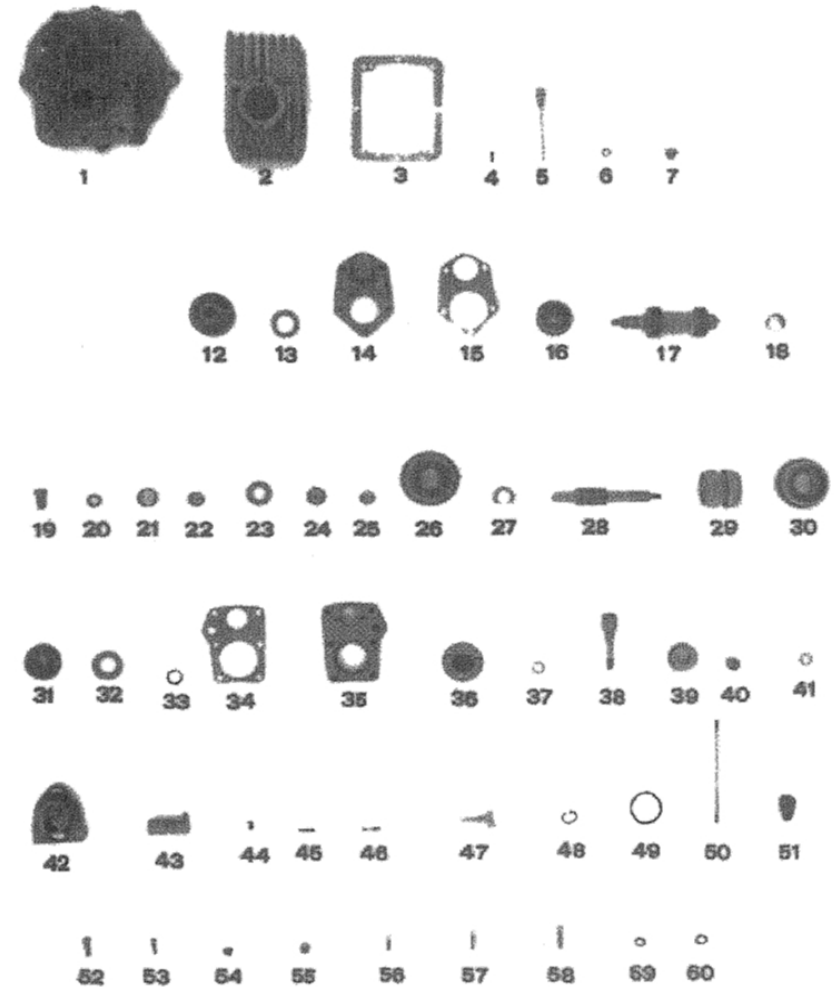
[VAR] Variable according to repair



| D_MI23_6_1 Gasket Kit |          |     |                   |      |      |  |
|-----------------------|----------|-----|-------------------|------|------|--|
| FIG.                  | REF.     | QTY | DESCR.            | FROM | UPTO |  |
| 40                    | 13224059 | 1   | O-Ring D. 19X2,4  |      |      |  |
| 42                    | 13425028 | 1   | Gasket            |      |      |  |
| 43                    | 13221041 | 1   | Gasket Water Pump |      |      |  |



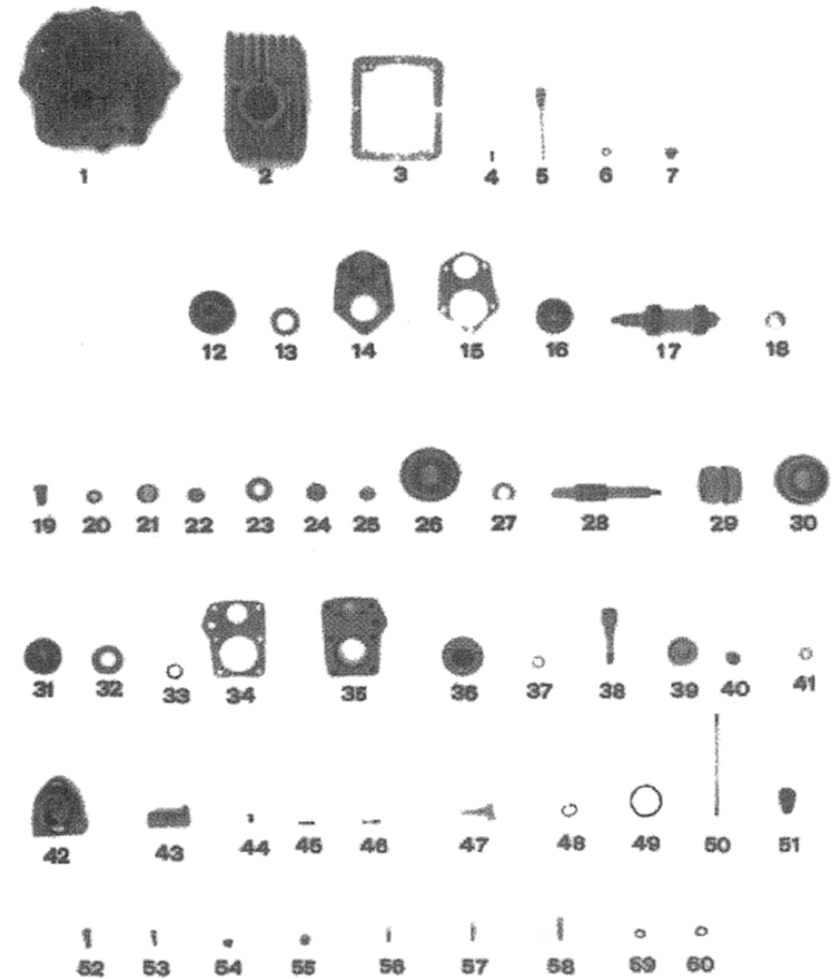
| D_22413000 |          | GearBox RONIM IV R.2,00 |   |      |      |
|------------|----------|-------------------------|---|------|------|
| FIG.       | REF.     | QTY                     | DESCR.                                    | FROM | UPTO |
| 1          | 22410001 | 1                       | Housing,front [NP]                        |      |      |
| 1-64       | 22413000 | 1                       | GearBox RONIM-5 R. 2,25:1 MINI-33/34 [NP] |      |      |
| 2          | 22410002 | 1                       | Housing,rear [NP]                         |      |      |
| 3          | 22310003 | 1                       | Gasket                                    |      |      |
| 5          | 22310008 | 1                       | Plug,oil level                            |      |      |
| 6          | 13820044 | 1                       | O-Ring D. 11X2,50                         |      |      |
| 7          | 51102254 | 1                       | Bolt DIN 933 M8-10 8.8                    |      |      |
| 12         | 22410005 | 1                       | Flange,input                              |      |      |
| 13         | 22210103 | 1                       | Seal,oil BA 30-47-7                       |      |      |
| 14         | 22310102 | 1                       | Cover,front [NP]                          |      |      |
| 15         | 22310105 | 1                       | Gasket                                    |      |      |
| 16         | 22210204 | 1                       | Bearing,needle                            |      |      |
| 17         | 22413101 | 1                       | Shaft,input 2:1                           |      |      |
| 18         | 22210106 | 1                       | Bearing,needle                            |      |      |
| 19         | 25210222 | 1                       | Bolt,blockage                             |      |      |
| 20         | 22210204 | 2                       | Bearing,needle                            |      |      |
| 21         | 22210204 | 2                       | Bearing,needle                            |      |      |
| 22         | 22210205 | 2                       | Ring                                      |      |      |
| 23A        | 22310218 | 1                       | Spacer,bearing                            |      |      |
| 23B        | 22410218 | 1                       | Spacer,rear bearing                       |      |      |
| 24         | 22410204 | 1                       | Bearing,needle                            |      |      |
| 25         | 22410205 | 1                       | Ring,bearing                              |      |      |
| 26         | 22413203 | 1                       | Gear,front 2:1                            |      |      |
| 27         | 22310217 | 1                       | Spacer,Gear                               |      |      |
| 28         | 22410201 | 1                       | Shaft,output [NP]                         |      |      |
| 29         | 22310232 | 1                       | Cone,clutch [NP]                          |      |      |
| 30         | 22410210 | 1                       | Gear,rear                                 |      |      |
| 31         | 22410224 | 1                       | Ball Bearing 6305-NR                      |      |      |
| 32         | 22410223 | 1                       | Seal,oil 35-47-7                          |      |      |
| 33         | 22210225 | 1                       | O-Ring D. 20X23X1,5                       |      |      |
| 34         | 22410209 | 1                       | Gasket                                    |      |      |
| 35         | 22410208 | 1                       | Cover,rear [NP]                           |      |      |
| 36         | 22410225 | 1                       | Flange,output                             |      |      |
| 37A        | 51030012 | 2                       | Washer DIN 125-12                         |      |      |
| 37B        | 51030016 | 1                       | Washer DIN 125-16                         |      |      |



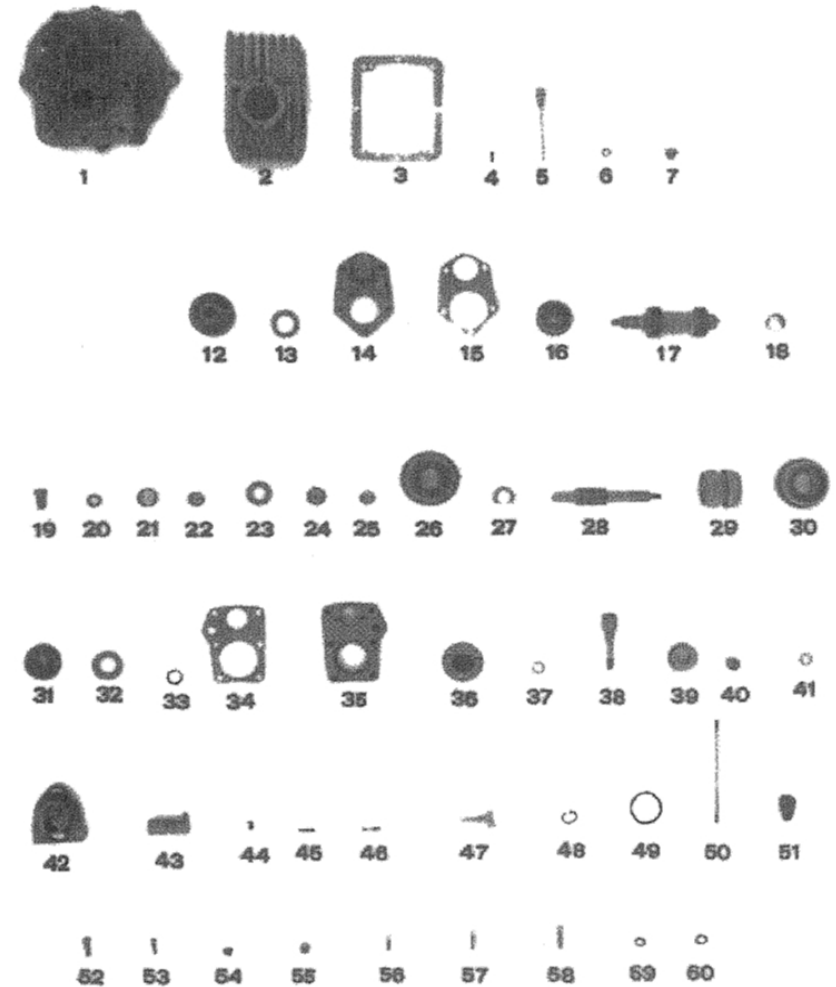
[NP] Not provided



| D_22413000 |          | GearBox RONIM IV R.2,00 |                         |      |      |
|------------|----------|-------------------------|-------------------------|------|------|
| FIG.       | REF.     | QTY                     | DESCR.                  | FROM | UPTO |
| 38         | 22310301 | 1                       | Intermediate Shaft      |      |      |
| 39         | 22210302 | 1                       | Gear,INTERMEDIATE       |      |      |
| 40         | 22210306 | 1                       | Bearing,needle          |      |      |
| 41         | 22310304 | 1                       | Washer,friction [NP]    |      |      |
| 42         | 22310401 | 1                       | Control Assy            |      |      |
| 43         | 22310402 | 1                       | EXCENTRICA,control      |      |      |
| 44         | 25210418 | 1                       | Eccentric Command       |      |      |
| 45         | 53052310 | 1                       | Pin DIN 1481 4-20       |      |      |
| 46         | 25210411 | 1                       | Spring                  |      |      |
| 47         | 22510423 | 1                       | ARM, control            |      |      |
| 48         | 25210408 | 1                       | O-Ring D. 18,3X25,5X3,6 |      |      |
| 49         | 22310417 | 1                       | O-Ring D. 49X2,5        |      |      |
| 50         | 25210424 | 1                       | Lever,control           |      |      |
| 51         | 22110416 | 1                       | Handle                  |      |      |
| 52         | 52102258 | 1                       | Bolt DIN 933 M8-25 8.8  |      |      |
| 53         | 52103157 | 2                       | Bolt DIN 912 M6-20 8.8  |      |      |
| 54         | 52120006 | 2                       | Nut DIN 934 M6 8.8      |      |      |
| 55A        | 51123016 | 2                       | Nut DIN 985 M16 5.6     |      |      |
| 55B        | 51123012 | 1                       | Nut DIN 985 M12 5.6     |      |      |
| 56         | 52101258 | 11                      | Bolt DIN 931 M8-25 8.8  |      |      |
| 57         | 52101259 | 2                       | Bolt DIN 931 M8-30 8.8  |      |      |
| 58         | 52101260 | 5                       | Bolt DIN 931 M8-35 8.8  |      |      |
| 59         | 51030008 | 20                      | Washer DIN 125-8        |      |      |
| 60         | 56000116 | 1                       | Washer 12,5-20-2        |      |      |
| 61         | 22410226 | 1                       | Cover [NP]              |      |      |
| 62         | 32111023 | 1                       | Gasket                  |      |      |
| 63         | 52102156 | 2                       | Bolt DIN 933 M6-16 8.8  |      |      |
| 64         | 57000353 | 2                       | Washer 6,2-11-1,5       |      |      |



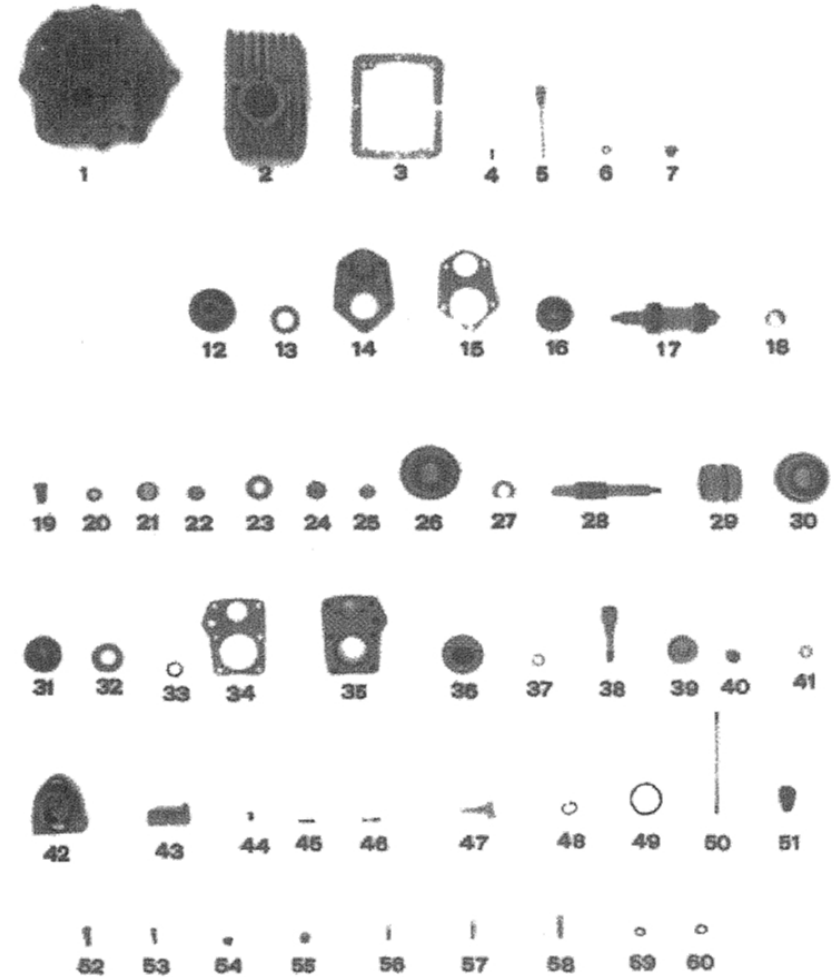
| D_22415000 |          | GearBox RONIM IV R.3,00 |                                       |      |      |
|------------|----------|-------------------------|---------------------------------------|------|------|
| FIG.       | REF.     | QTY                     | DESCR.                                | FROM | UPTO |
| 1          | 22415001 | 1                       | MOUSING,front                         |      |      |
| 1-64       | 22415000 | 1                       | GearBox RONIM 5 R.3,05:1/MINI-33 [NP] |      |      |
| 3          | 22310003 | 1                       | Gasket                                |      |      |
| 4          | 22210007 | 2                       | Pin                                   |      |      |
| 5          | 22310008 | 1                       | Plug,oil level                        |      |      |
| 6          | 13820044 | 1                       | O-Ring D. 11X2,50                     |      |      |
| 7          | 51102254 | 1                       | Bolt DIN 933 M8-10 8.8                |      |      |
| 12         | 22415005 | 1                       | Flange,input [NP]                     |      |      |
| 13         | 22410223 | 1                       | Seal,oil 35-47-7                      |      |      |
| 14         | 22415102 | 1                       | Cover,front                           |      |      |
| 15         | 22415105 | 1                       | Gasket                                |      |      |
| 16         | 22410224 | 1                       | Ball Bearing 6305-NR                  |      |      |
| 17         | 22415101 | 1                       | Shaft,input [NP]                      |      |      |
| 18         | 22210106 | 1                       | Bearing,needle                        |      |      |
| 19         | 25210222 | 1                       | Bolt,blockage                         |      |      |
| 20         | 22210204 | 1                       | Bearing,needle                        |      |      |
| 21         | 22210204 | 2                       | Bearing,needle                        |      |      |
| 22         | 22210205 | 2                       | Ring                                  |      |      |
| 23A        | 22410218 | 1                       | Spacer,rear bearing                   |      |      |
| 23B        | 22415218 | 1                       | Spacer,bearing                        |      |      |
| 24         | 22410204 | 1                       | Bearing,needle                        |      |      |
| 25A        | 22410205 | 1                       | Ring,bearing                          |      |      |
| 26         | 22415203 | 1                       | Gear [NP]                             |      |      |
| 27         | 22410217 | 1                       | Spacer,Gear                           |      |      |
| 28         | 22410201 | 1                       | Shaft,output [NP]                     |      |      |
| 29         | 22310232 | 1                       | Cone,clutch [NP]                      |      |      |
| 30         | 22415210 | 1                       | Gear,rear 3:1 [NP]                    |      |      |
| 31         | 22415224 | 1                       | Ball Bearing 6306-NR                  |      |      |
| 32         | 22415223 | 1                       | Seal,oil 40-55-8                      |      |      |
| 33         | 22210225 | 1                       | O-Ring D. 20X23X1,5                   |      |      |
| 34         | 22415209 | 1                       | Gasket                                |      |      |
| 35         | 22415208 | 1                       | Cover,rear [NP]                       |      |      |
| 36         | 22415225 | 1                       | Flange,output                         |      |      |
| 37A        | 51030016 | 2                       | Washer DIN 125-16                     |      |      |
| 37B        | 51030016 | 2                       | Washer DIN 125-16                     |      |      |



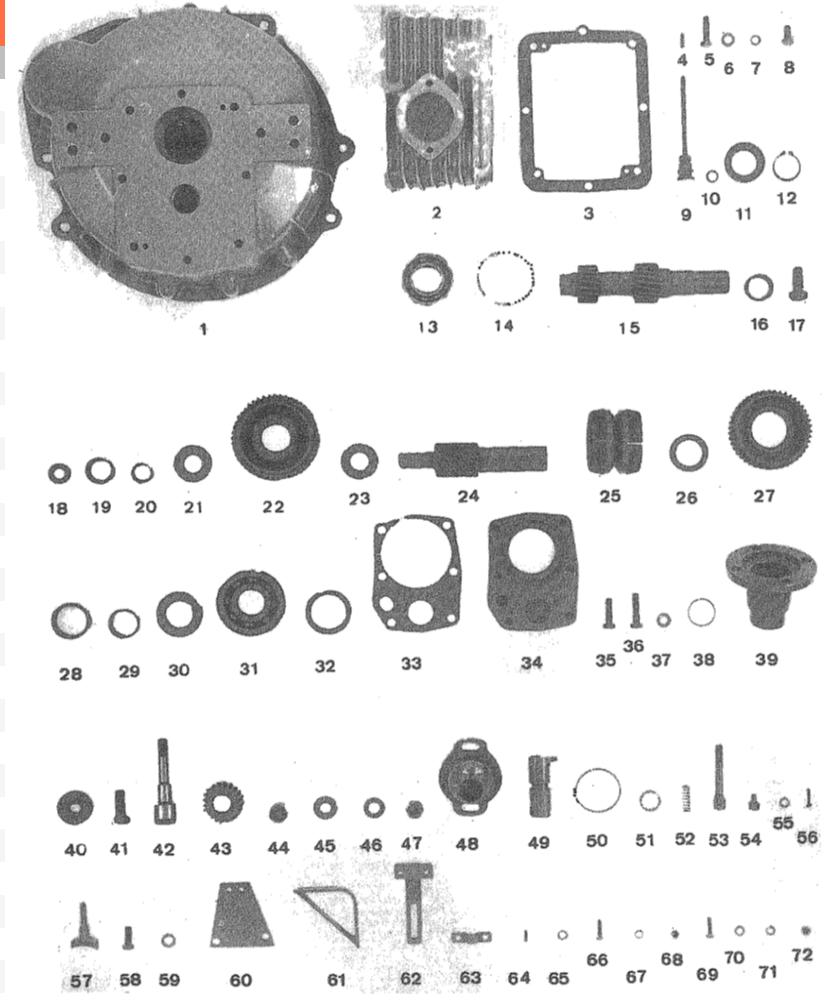
[NP] Not provided



| D_22415000 |          | GearBox RONIM IV R.3,00 |                         |      |      |
|------------|----------|-------------------------|-------------------------|------|------|
| FIG.       | REF.     | QTY                     | DESCR.                  | FROM | UPTO |
| 38         | 22310301 | 1                       | Intermediate Shaft      |      |      |
| 39         | 22310302 | 1                       | Gear,INTERMEDIATE [NP]  |      |      |
| 40         | 22210306 | 1                       | Bearing,needle          |      |      |
| 41         | 22310304 | 1                       | Washer,friction [NP]    |      |      |
| 42         | 22310401 | 1                       | Control Assy            |      |      |
| 43         | 22310402 | 1                       | EXCENTRICA,control      |      |      |
| 44         | 25210418 | 1                       | Eccentric Command       |      |      |
| 45         | 53052310 | 1                       | Pin DIN 1481 4-20       |      |      |
| 46         | 25210411 | 1                       | Spring                  |      |      |
| 47         | 22510423 | 1                       | ARM, control            |      |      |
| 48         | 25210408 | 1                       | O-Ring D. 18,3X25,5X3,6 |      |      |
| 49         | 22310417 | 1                       | O-Ring D. 49X2,5        |      |      |
| 50         | 25210424 | 1                       | Lever,control           |      |      |
| 51         | 22110416 | 1                       | Handle                  |      |      |
| 52         | 52102258 | 2                       | Bolt DIN 933 M8-25 8.8  |      |      |
| 53         | 52103157 | 2                       | Bolt DIN 912 M6-20 8.8  |      |      |
| 54         | 52120006 | 2                       | Nut DIN 934 M6 8.8      |      |      |
| 55B        | 51123012 | 1                       | Nut DIN 985 M12 5.6     |      |      |
| 56         | 52101258 | 11                      | Bolt DIN 931 M8-25 8.8  |      |      |
| 57         | 52101259 | 2                       | Bolt DIN 931 M8-30 8.8  |      |      |
| 58         | 52101260 | 5                       | Bolt DIN 931 M8-35 8.8  |      |      |
| 59         | 51030008 | 20                      | Washer DIN 125-8        |      |      |
| 60         | 56000116 | 1                       | Washer 12,5-20-2        |      |      |
| 61         | 22410226 | 1                       | Cover [NP]              |      |      |
| 62         | 32111023 | 1                       | Gasket                  |      |      |
| 63         | 52102156 | 2                       | Bolt DIN 933 M6-16 8.8  |      |      |
| 64         | 57000353 | 2                       | Washer 6,2-11-1,5       |      |      |



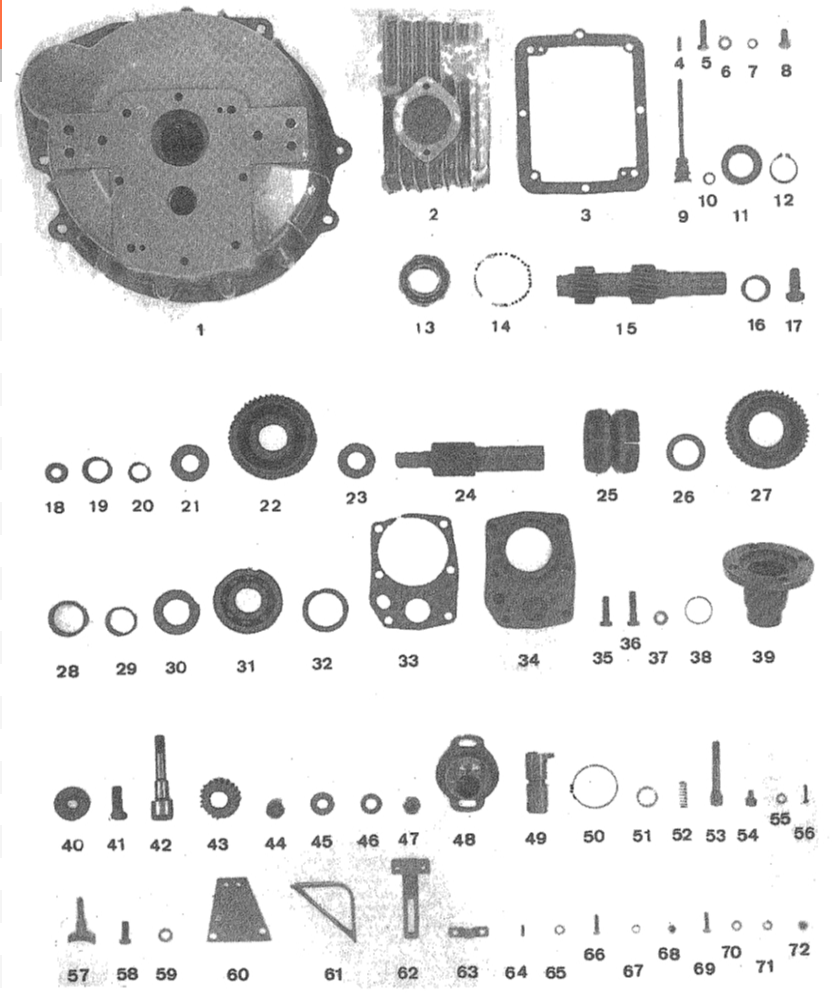
| D_22513100 |          | GearBox RONIM V R.2,25 |                                      |      |      |
|------------|----------|------------------------|--------------------------------------|------|------|
| FIG.       | REF.     | QTY                    | DESCR.                               | FROM | UPTO |
| 1          | 22510020 | 1                      | Housing, front                       |      |      |
| 1-72       | 22513100 | 1                      | GearBox RONIM-5 R. 2,25:1 MINI-33/34 |      |      |
| 2          | 22513002 | 1                      | Housing, rear red.2:1                |      |      |
| 3          | 22510003 | 1                      | Gasket                               |      |      |
| 4          | 22210007 | 2                      | Pin                                  |      |      |
| 5          | 52102259 | 8                      | Bolt DIN 933 M8-30 8.8               |      |      |
| 6          | 51030008 | 8                      | Washer DIN 125-8                     |      |      |
| 7          | 57000357 | 1                      | Washer 8,2-12-1,5                    |      |      |
| 8          | 52102256 | 1                      | Bolt DIN 933 M8-15 8.8               |      |      |
| 9          | 22310008 | 1                      | Plug,oil level                       |      |      |
| 10         | 13820044 | 1                      | O-Ring D. 11X2,50                    |      |      |
| 11         | 22210103 | 1                      | Seal,oil BA 30-47-7                  |      |      |
| 12         | 53040030 | 1                      | CIRClip DIN 471 E-30                 |      |      |
| 13         | 25110104 | 1                      | Ball Bearing 6206                    |      |      |
| 14         | 53041062 | 1                      | CIRClip DIN 472 I-62                 |      |      |
| 15         | 22513101 | 1                      | Shaft,input red. 2:1                 |      |      |
| 16         | 22210106 | 1                      | Bearing,needle                       |      |      |
| 17         | 25210222 | 1                      | Bolt,blockage                        |      |      |
| 18         | 22210219 | 1                      | Washer                               |      |      |
| 19         | 22210204 | 2                      | Bearing,needle                       |      |      |
| 20         | 22210205 | 2                      | Ring                                 |      |      |
| 21         | 22510228 | 1                      | Spacer                               |      |      |
| 22         | 22513203 | 1                      | Gear,front red. 2,28:1 [NP]          |      |      |
| 23         | 22510216 | 1                      | Spacer, Gear                         |      |      |
| 24         | 22510201 | 1                      | Shaft, output                        |      |      |
| 25         | 22510202 | 1                      | CONE, clutch (With THREAD)           |      |      |
| 26         | 22510217 | 1                      | Spacer, Gear                         |      |      |
| 27         | 22513210 | 1                      | Gear,rear red. 2:1 [NP]              |      |      |
| 28         | 22510204 | 1                      | Bearing, needle                      |      |      |
| 29         | 22510205 | 1                      | Ring, bearing                        |      |      |
| 30         | 22510218 | 1                      | Bearing D. 32,25X52X5                |      |      |
| 31         | 22415224 | 1                      | Ball Bearing 6306-NR                 |      |      |
| 32         | 25210214 | 1                      | Seal,oil 40-52-7                     |      |      |
| 33         | 22510209 | 1                      | Gasket, rear                         |      |      |
| 34         | 22513208 | 1                      | Cover, rear red. 2:1                 |      |      |

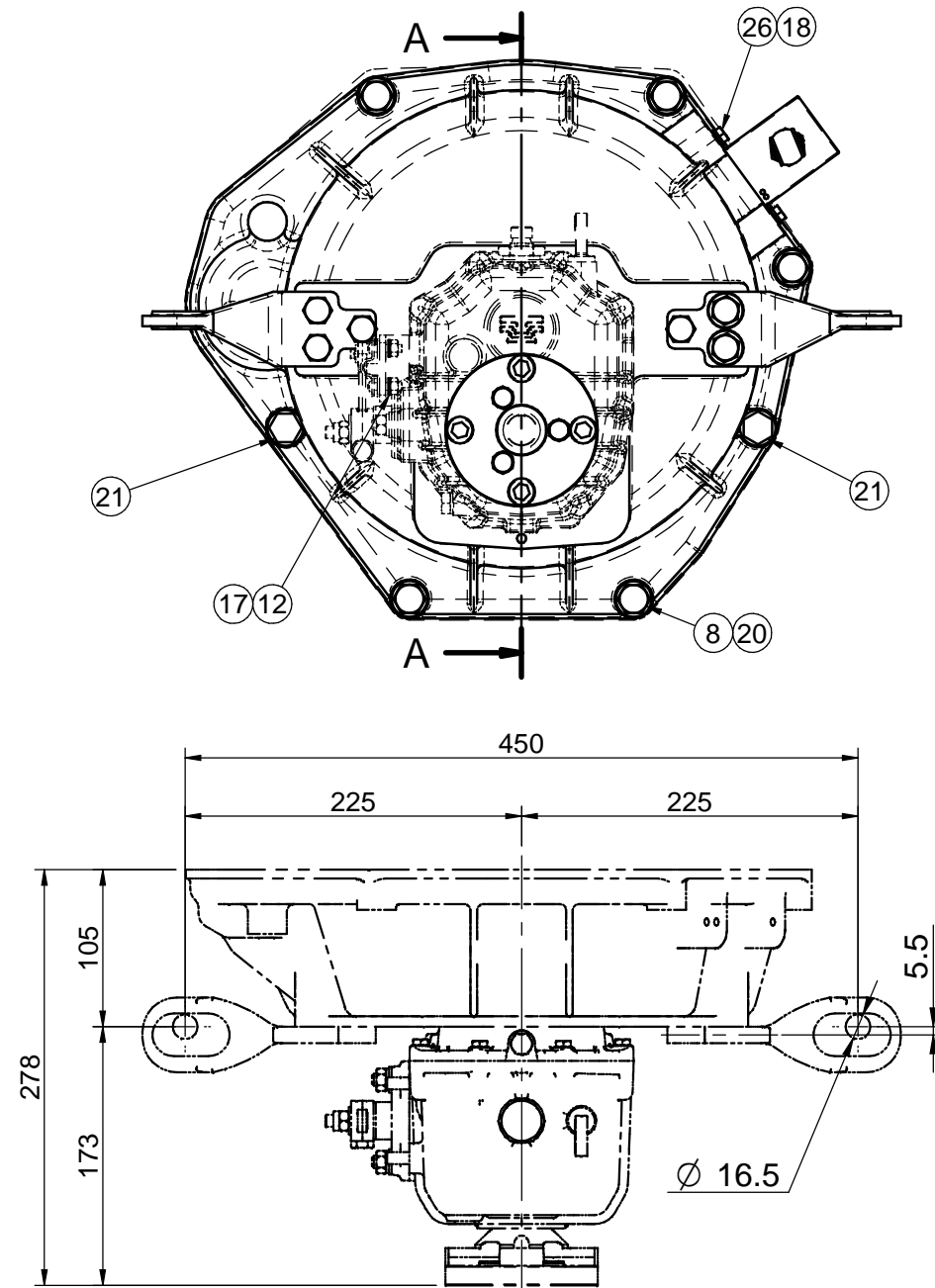


[NP] Not provided



| D_22513100 |          | GearBox RONIM V R.2,25 |                            |      |      |
|------------|----------|------------------------|----------------------------|------|------|
| FIG.       | REF.     | QTY                    | DESCR.                     | FROM | UPTO |
| 35         | 52102259 | 4                      | Bolt DIN 933 M8-30 8.8     |      |      |
| 36         | 52101260 | 2                      | Bolt DIN 931 M8-35 8.8     |      |      |
| 37         | 51030008 | 6                      | Washer DIN 125-8           |      |      |
| 38         | 25210231 | 1                      | O-Ring D. 29,5X1,5         |      |      |
| 39         | 22510225 | 1                      | Flange, output             |      |      |
| 40         | 25210219 | 1                      | Washer,blockage            |      |      |
| 41         | 53102359 | 1                      | Bolt DIN 933 M12-30 12.9   |      |      |
| 42         | 22510301 | 1                      | INTERMEDIATE Shaft [NP]    |      |      |
| 43         | 22510302 | 1                      | Gear,intermediate          |      |      |
| 44         | 22510306 | 1                      | Bearing, needle            |      |      |
| 45         | 22510305 | 1                      | Washer, friction           |      |      |
| 46         | 51030012 | 1                      | Washer DIN 125-12          |      |      |
| 47         | 51123012 | 1                      | Nut DIN 985 M12 5.6        |      |      |
| 48         | 22310401 | 1                      | Control Assy               |      |      |
| 48-56      | 22513400 | 1                      | Control Assy               |      |      |
| 49         | 22310402 | 1                      | EXCENTRICA,control         |      |      |
| 50         | 22310417 | 1                      | O-Ring D. 49X2,5           |      |      |
| 51         | 25210408 | 1                      | O-Ring D. 18,3X25,5X3,6    |      |      |
| 52         | 25210411 | 1                      | Spring                     |      |      |
| 53         | 25210424 | 1                      | Lever,control              |      |      |
| 54         | 14719115 | 1                      | Coupling,cable             |      |      |
| 56         | 54051155 | 1                      | Pin DIN-94 1,6-16          |      |      |
| 57         | 22510423 | 1                      | ARM, control               |      |      |
| 58         | 52102257 | 2                      | Bolt DIN 933 M8-20 8.8     |      |      |
| 59         | 51030008 | 2                      | Washer DIN 125-8           |      |      |
| 60         | 22510915 | 1                      | Bracket Morse REVERSE Gear |      |      |
| 61         | 12119020 | 1                      | Bracket,Gear box control   |      |      |
| 61-68      | 12119000 | 1                      | Assy Bracket,morse control |      |      |
| 62         | 12119021 | 1                      | SUPPORT Clamp              |      |      |
| 63         | 14719013 | 1                      | Clamp,cable                |      |      |
| 64         | 55307104 | 2                      | Bolt DIN 86 W3/16-10       |      |      |
| 66         | 52102157 | 2                      | Bolt DIN 933 M6-20 8.8     |      |      |
| 67         | 53033006 | 2                      | Washer GROWER DIN 127-6    |      |      |
| 68         | 52120006 | 2                      | Nut DIN 934 M6 8.8         |      |      |
| 69         | 52102157 | 2                      | Bolt DIN 933 M6-20 8.8     |      |      |
| 70         | 51030006 | 7                      | Washer DIN 125-6           |      |      |
| 72         | 52120006 | 2                      | Nut DIN 934 M6 8.8         |      |      |





### Kit sustitución RONIM IV / RONIM V por TMC-40P

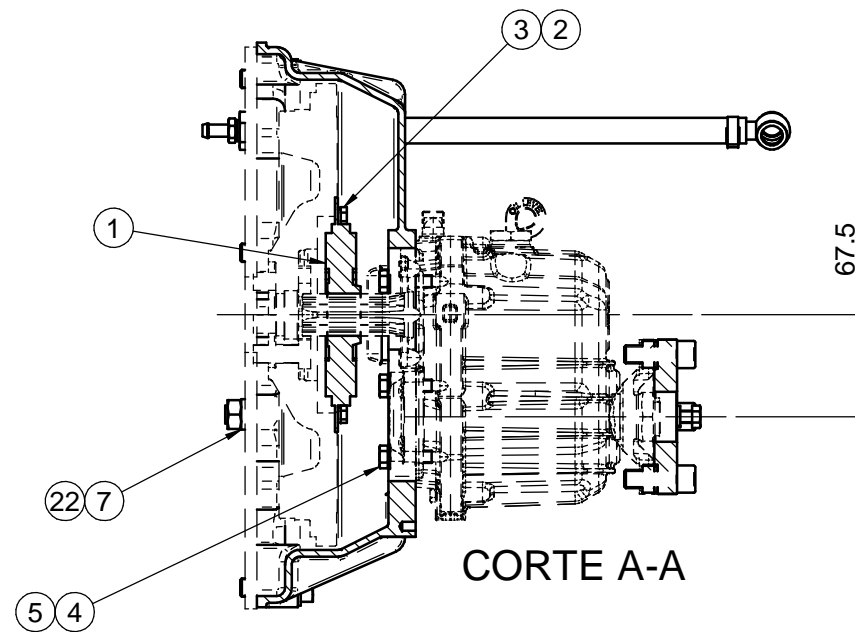
- Si el volante de inercia no está mecanizado, se tendrá que mecanizar a parte según el plano de la siguiente página.

- La bomba de alimentación de combustible necesita ser conectada a una fuente de 12V durante el funcionamiento del motor.

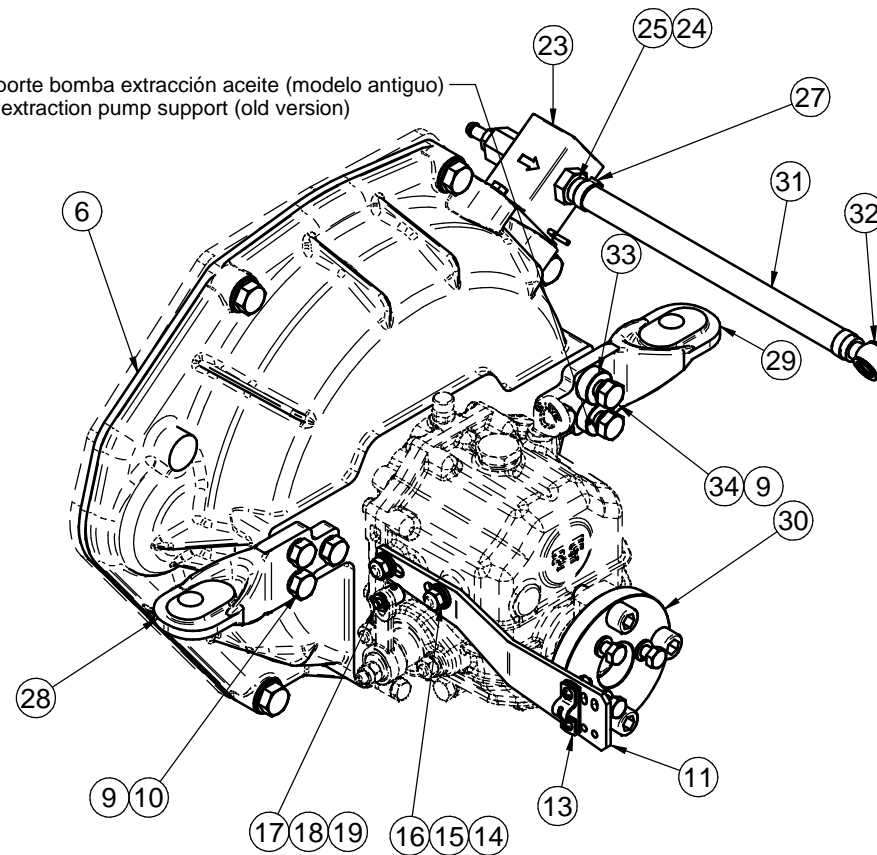
### RONIM IV / RONIM V to TMC-40P replacement kit

- If the flywheel is not mechanized yet, It is needed mechanize it separately according to drawing of the next page.

- The fuel feeding pump must be connected to a 12V electric source while the engine is running.



Soporte bomba extracción aceite (modelo antiguo)  
Oil extraction pump support (old version)



Los soportes nº28 y nº29 pueden montar en una posición u otra, según convenga.

*Brackets # 28 and # 29 mount in one position or another, as appropriate.*

\* Inversor TMC-40P no incluido (se suministra a parte)  
TMC-40P gearbox not included (supplied separately)

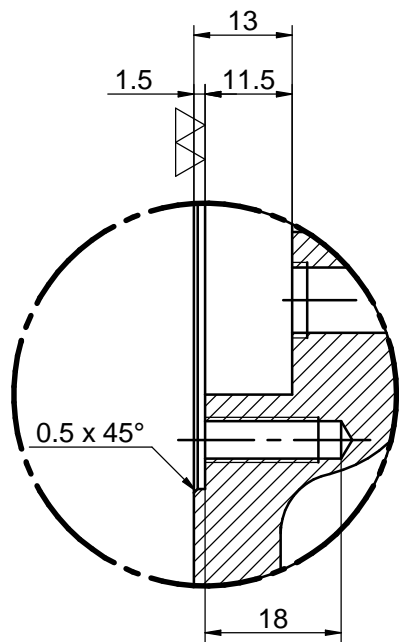
| Nº | Referencia | Descripción                          | Material   | Cant. |
|----|------------|--------------------------------------|------------|-------|
| 1  | 13110040   | ACOPLAMIENTO ELASTICO                |            | 1     |
| 2  | 53033006   | ARANDELA GROWER DIN 127 Ø6           | Acero      | 8     |
| 3  | 52102155   | TORNILLO M6x12 DIN 933               | ACERO 8.8  | 8     |
| 4  | 53101259   | TORNILLO DIN 931 M8x30 12.9          | Acero 12.9 | 6     |
| 5  | 53038008   | ARANDELA ESTRIADA Ø8 DIN-6798A       | Acero      | 6     |
| 6  | 17210009   | CARACA ACOPLAMIENTO INV.             | Aluminio   | 1     |
| 7  | 53033012   | ARANDELA GROWER Ø12 DIN 127          | S-275 JR   | 2     |
| 8  | 52202361   | TORNILLO M12x1.25, L= 40 DIN 933     | ACERO 8.8  | 5     |
| 9  | 53033010   | ARANDELA GROWER Ø10 DIN-127          | Acero      | 6     |
| 10 | 52102309   | TORNILLO DIN 933                     | Acero      | 4     |
| 11 | 24810901   | SOPORTE MORSE INVERSOR               | S-275 JR   | 1     |
| 12 | 51030005   | ARANDELA PLANA DIN125-05             | Acero      | 2     |
| 13 | 24810913   | BRIDA FIJACION CABLE                 |            | 1     |
| 14 | 51030008   | ARANDELA ACERO DIN125-8 CINCADA      | Acero      | 2     |
| 15 | 53033008   | ARANDELA GROWER DIN 127-8 CINCADA    | Acero      | 2     |
| 16 | 52120008   | TUERCA M8 DIN-934                    | Acero      | 2     |
| 17 | 14719115   | TERMINAL CABLE                       | Latón      | 1     |
| 18 | 51030006   | ARANDELA PLANA Ø6 DIN125             | Acero      | 3     |
| 19 | 51051107   | PASADOR ALETAS Ø1.6x16 DIN 94        | Acero      | 1     |
| 20 | 53038012   | ARANDELA ESTRIADA Ø12 DIN-6798A      |            | 7     |
| 21 | 52101363   | TORNILLO M12x50 DIN 931              | ACERO 8.8  | 2     |
| 22 | 52120012   | TUERCA DIN 934 M12 8.8               | Acero      | 2     |
| 23 | 13814070   | BOMBA ALIMENTACIÓN ELECTRICA 12V     |            | 1     |
| 24 | 13814072   | ENTRONQUE 1/8" NPTF                  | F-111      | 2     |
| 25 | 57000361   | ARANDELA                             | Aluminio   | 2     |
| 26 | 52102154   | TORNILLO M6x10 DIN 933               | Acero 8.8  | 2     |
| 27 | 51086016   | ABRAZADERA UNA OREJA CON ARO         | AISI A-304 | 1     |
| 28 | 13210026.2 | SOPORTE POSTERIOR EXCEN. +5.5D/-5.5I | Fundición  | 1     |
| 29 | 13210026.1 | SOPORTE POSTERIOR EXCEN. +5.5I/-5.5D | Fundición  | 1     |
| 30 | 40019110   | CONJUNTO ADAP. BRIDA 62 A 102        |            | 1     |
| 31 | 13814012   | TUBO BOMBA A FILTRO                  |            | 1     |
| 32 | 57000369   | ARANDELA DE ALUMINIO Ø20/14.2x1.5    | Aluminio   | 2     |
| 33 | 19017018   | GRUESO 10,5x24x10                    | F-111      | 2     |
| 34 | 52101311   | TORNILLO M10x40 DIN 931 8.8          | Acero 8.8  | 2     |

| Medidas Nominales (mm) |       | KIT SUST. RONIM A TMC-40P MINI-23/32      |            |                 |                |                 |
|------------------------|-------|---|------------|-----------------|----------------|-----------------|
|                        |       | RONIM TO TMC-40P REPL. KIT FOR MINI-23/32 |            |                 |                |                 |
|                        |       | MATERIAL                                  | ACABADO    | TRATAMIENTO     | PRESENTACION   | ESCALA          |
|                        |       | DIBUJADO                                  | VERIFICADO | GRADO PRECISION | FECHA CREACION | ULTIMA REVISION |
| 100 a 300              | ±0.2  | OSCARV                                    | P.IGLESIAS | MEDIO           | 29/04/2021     |                 |
| 30 a 100               | ±0.15 |   |            |                 |                |                 |
| 6 a 30                 | ±0.1  |   |            |                 |                |                 |
| 0 a 6                  | ±0.05 |   |            |                 |                |                 |
| Fino                   | ±0.1  |   |            |                 |                |                 |
| Medio                  | ±0.2  |   |            |                 |                |                 |
| Basico                 | ±0.5  |   |            |                 |                |                 |

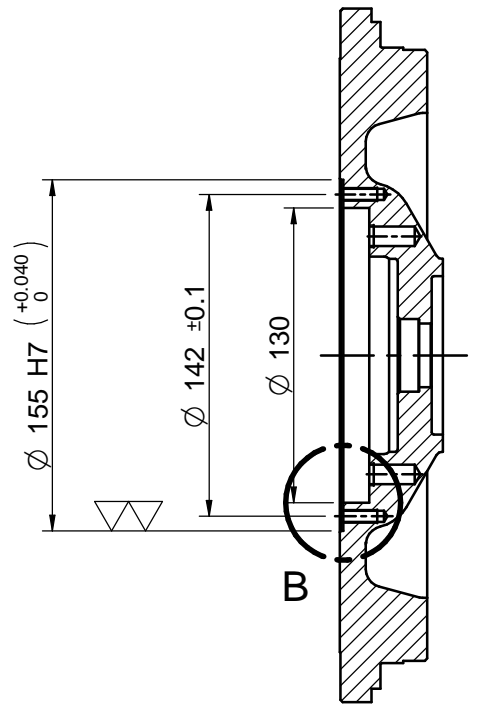


SOLE, S.A.

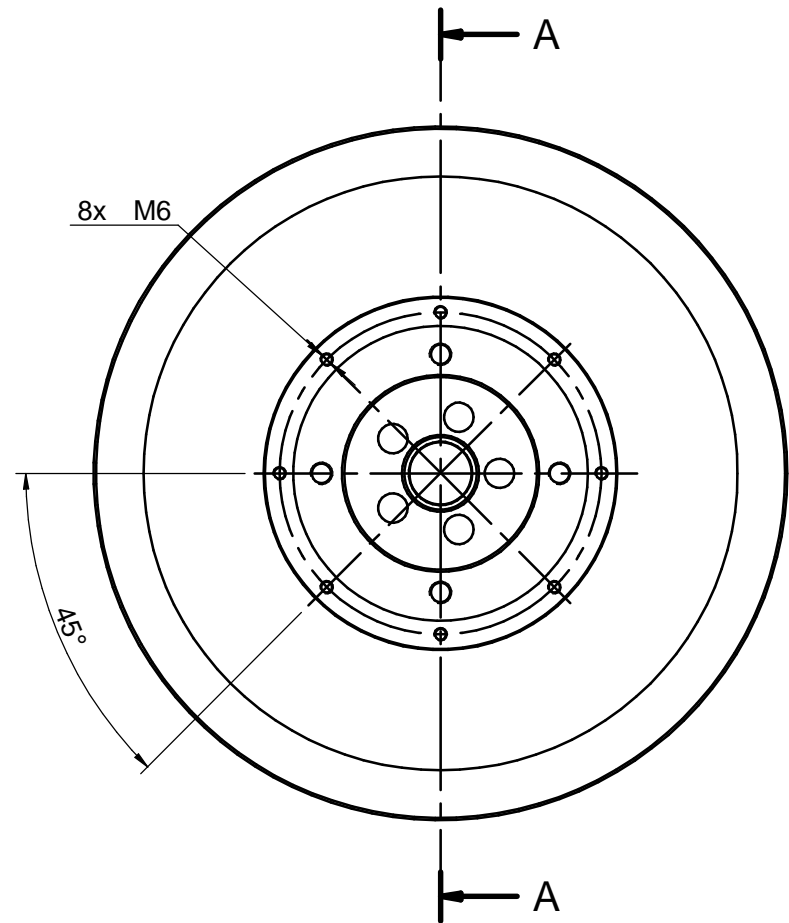
13210242



DETALLE B



CORTE A-A



|                             |   |                                      |            |                   |                |                 |
|-----------------------------|---|--------------------------------------|------------|-------------------|----------------|-----------------|
| Medidas Nominales (mm)      |   | VOLANTE MECANIZADO ENCAJE D.155      |            |                   |                |                 |
| 100                         | a | MEC. FLYWHEEL D.155 CENTERING GROOVE |            |                   |                |                 |
| 30                          | a | MATERIAL                             |            | ACABADO           | TRATAMIENTO    | PRESENTACIÓN    |
| 6                           | a |                                      |            |                   |                | ESCALA          |
| 0                           | a | DIBUJADO                             | VERIFICADO | GRADO PRECISIÓN   | FECHA CREACIÓN | ÚLTIMA REVISIÓN |
|                             |   | OSCARV                               | P.IGLESIAS | MEDIO             | 06/05/2021     | ---             |
| Grado de Precisión DIN-7168 |   |                                      |            | <b>SOLÉ, S.A.</b> |                |                 |
| Fino                        |   |                                      |            |                   |                |                 |
| Medio                       |   |                                      |            |                   |                |                 |
| Bastio                      |   |                                      |            |                   |                |                 |