

PARTS CATALOG

ZN490T

CHANGCHAI

ZN490T DIESEL ENGINE

4L40 SERIES



CHANGCHAI

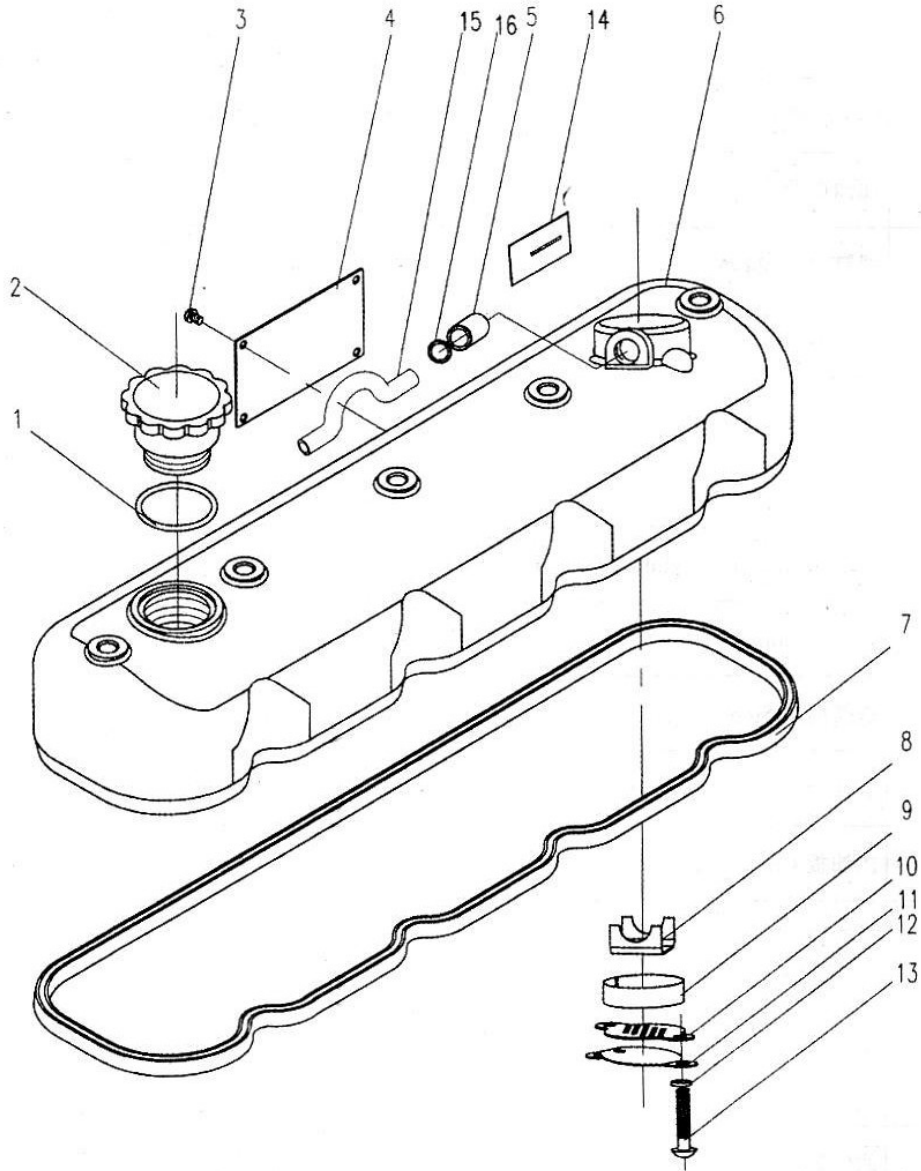


CHANGCHAI CO.,LTD.,CHINA

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Cylinder Head Cover Assembly(Fig.1)



### Cylinder Head Cover Assembly(Fig.1)

| Ref.No. | Name of Part               | Part No.       | Quantity |
|---------|----------------------------|----------------|----------|
| 1       | Seal ring 33.5×2.65        | GB/T3452.1-92  | 1        |
| 2       | Oil filling cover          | N85-01002      | 1        |
| 3       | Bolt M4×6                  | GB/T65-2000    | 4        |
| 4       | Name plate                 | ZN390TE-01009Y | 1        |
| 5       | Breather tube              | N85-01004      | 1        |
| 6       | Cylinder head cover        | 4L68-010003B   | 1        |
| 7       | Cylinder head cover seal   | N485-01001     | 1        |
| 8       | Retainer                   | N85-01005      | 1        |
| 9       | Steel wool screen          | N85-01008      | 1        |
| 10      | Multi-hole retaining plate | N85-01007      | 1        |
| 11      | Oil retainer               | N85-01006      | 1        |
| 12      | Washer 6                   | GB/T895-87     | 2        |
| 13      | Screw M6×12                | GB/T65-2000    | 2        |
| 14      | Emission label             |                | 1        |
| 15      | Breather pipe              | ZN390TE-09007  | 1        |
| 16      | Pipe clip Q676B25          | QC/T619-1999   | 2        |



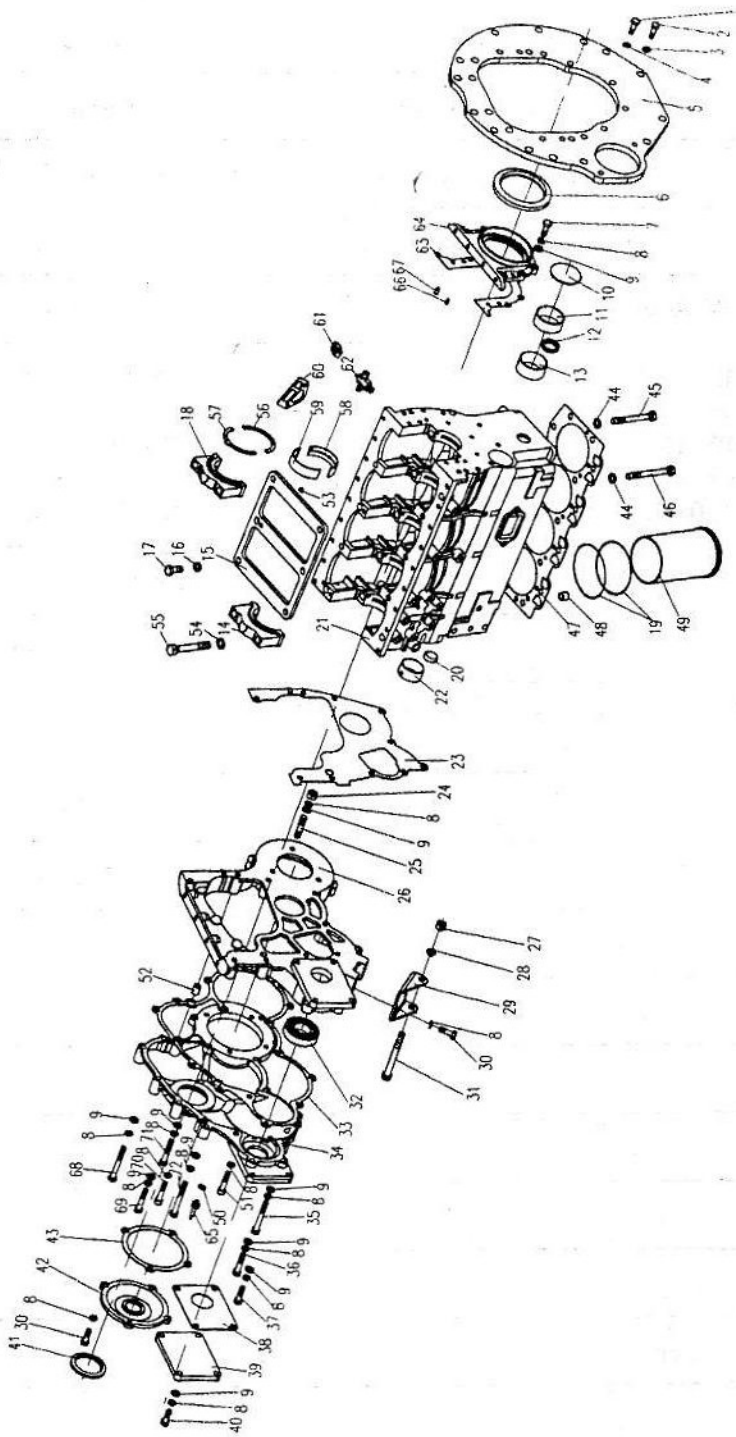
## Cylinder Head Assembly(Fig.2)

| Ref.No. | Name of Part            | Part No.      | Quantity |
|---------|-------------------------|---------------|----------|
| 1       | Sleeve                  | N85-02101A    | 4        |
| 2       | Bolt M8×20              | GB/T5782-2000 | 4        |
| 3       | Lifting eye             | N85-02004     | 2        |
| 4       | Exhaust manifold gasket | 4L68-020006   | 4        |
| 5       | Expansion plugØ26       | N85-02109     | 4        |
| 6       | Valve guide             | N85-02105     | 8        |
| 7       | Nut M8                  | GB/T923-88    | 5        |
| 8       | Bolt M10×30             | GB/T5783-2000 | 4        |
| 9       | Washer 10               | GB/T93-87     | 6        |
| 10      | Gasket                  | N85T-20001    | 1        |
| 11      | Stud M8×75              | GB/T899-88    | 8        |
| 12      | Nut M8                  | GB/T6170-2000 | 8        |
| 13      | Exhaust manifold        | N485T-10001   | 1        |
| 14      | Cylinder head           | 4B26-021008   | 1        |
| 15      | Injector clamping plate | 4L68-020009   | 4        |
| 16      | Bolt M10×50             | GB/T899-88    | 4        |
| 17      | Nut M10                 | GB/T6170-2000 | 4        |

## Cylinder Head (Fig. 2)

| Ref.No. | Name of Part             | Part No.      | Quantity |
|---------|--------------------------|---------------|----------|
| 18      | Expansion plug $\phi$ 55 | N85-02104     | 1        |
| 19      | Expansion plug $\phi$ 20 | N85-02102     | 4        |
| 20      | Intake manifold          | N485T-09001   | 1        |
| 21      | Bolt M8 $\times$ 20      | GB/T5783-2000 | 4        |
| 22      | Washer8                  | GB/T97.1-2002 | 4        |
| 23      | Gasket                   | N485-09006    | 3        |
| 24      | Cover                    | N485-09005    | 2        |
| 25      | Intake manifold gasket   | ZN490QA-02005 | 1        |
| 26      | Intake valve seat        | 4L68-021007   | 4        |
| 27      | Exhaust valve seat       | 4L68-021006   | 4        |
| 28      | Bolt M8 $\times$ 16      | GB/T5783-2000 | 8        |
| 29      | Washer 8                 | QJ/MD05.01    | 5        |
| 30      | Bolt M10 $\times$ 50     | GB/T899-88    | 8        |
| 31      | Washer 8                 | GB/T859-87    | 29       |
| 32      | Bolt M8 $\times$ 28      | GB/T5782-2000 | 5        |
| 33      | Thermostat shell gasket  | N85Q-17004    | 1        |
| 34      | Heater plug              | 4B26-023000A  | 1        |
| 35      | Heater plug patch board  | 4B26-020010   | 1        |

Cylinder Block and Gear Case Assembly(Fig.3)





### Cylinder Block and Gear Gase Assembly(Fig.3)

| Ref.No. | Name of Part            | Part No.      | Quantity |
|---------|-------------------------|---------------|----------|
| 1       | Bolt M10×35             | GB/T5782-2000 | 10       |
| 2       | Bolt M12×40             | GB/T5782-2000 | 4        |
| 3       | Washer 12               | GB/T859-87    | 2        |
| 4       | Washer 10               | GB/T859-87    | 12       |
| 5       | Flywheel housing        | ZN485T-03012  | 1        |
| 6       | Oil seal DL85×110×12    | HG4-692-67    | 1        |
| 7       | Bolt M8×25              | GB/T5783-2000 | 7        |
| 8       | Washer 8                | GB/T859-87    | 46       |
| 9       | Washer 8                | GB/T848-85    | 42       |
| 10      | Expansion plug          | N85-03108     | 1        |
| 11      | Camshaft rear bushing   | N85-03109     | 1        |
| 12      | Expansion plug Ø30      | N85-03102     | 4        |
| 13      | Camshaft middle bushing | N85-03112     | 1        |
| 14      | Main shaft cover        | ZN490QA-03104 | 4        |
| 15      | Reinforce plate         | 4L40-03022    | 1        |
| 16      | Washer 12               | GB/T93-87     | 5        |
| 17      | Bolt M12×25             | GB/T5782-2000 | 5        |
| 18      | Rear main shaft cover   | ZN490QA-03107 | 1        |
| 19      | Water seal ring         | N90-03002     | 8        |
| 20      | Blocking plug Ø14       | N85-03111     | 4        |

## Cylinder Block + Gear Case (Fig. 3)

| 序号<br>Ref.No. | 名称<br>Name of Part                 | 零、部件号<br>Part No. | 数量<br>Quantity |
|---------------|------------------------------------|-------------------|----------------|
| 21            | 机体 Cylinder block                  | 4L40-03101        | 1              |
| 22            | 凸轮轴衬套 Camshaft bushing             | N85-03103         | 1              |
| 23            | 齿轮室垫片 Gear case gasket             | N85-12001         | 1              |
| 24            | 螺母 Nut M8                          | GB/T6170-86       | 3              |
| 25            | 螺栓 Bolt M8×35                      | GB/T899-88        | 3              |
| 26            | 齿轮室 Gear case                      | ZN485T-12002      | 1              |
| 27            | 螺母 Nut M10                         | GB/T6170-86       | 1              |
| 28            | 垫圈 Washer 10                       | GB/T93-87         | 1              |
| 29            | 发电机支架 Generator bracket            | N85T-12007        | 1              |
| 30            | 螺栓 Bolt M8×20                      | GB/T5782-2000     | 6              |
| 31            | 螺栓 Bolt M10×90                     | GB/T5782-2000     | 1              |
| 32            | 轴承 Bearing 107                     | GB/T276-82        | 2              |
| 33            | 齿轮室盖垫片 Gear case cover gasket      | N85-12003(A)      | 1              |
| 34            | 齿轮室盖 Gear case cover               | ZN485T-12004      | 1              |
| 35            | 螺栓 Bolt M8×65                      | GB/T5782-2000     | 3              |
| 36            | 螺栓 Bolt M8×40                      | GB/T5782-2000     | 1              |
| 37            | 螺栓 Bolt M8×30                      | GB/T5782-2000     | 2              |
| 38            | 液压泵盖垫片 Hydraulic pump cover gasket | N85T-12010        | 2              |
| 39            | 液压泵盖 Hydraulic pump cover          | N85T-12009        | 2              |
| 40            | 螺栓 Bolt M8×25                      | GB/T5782-2000     | 11             |

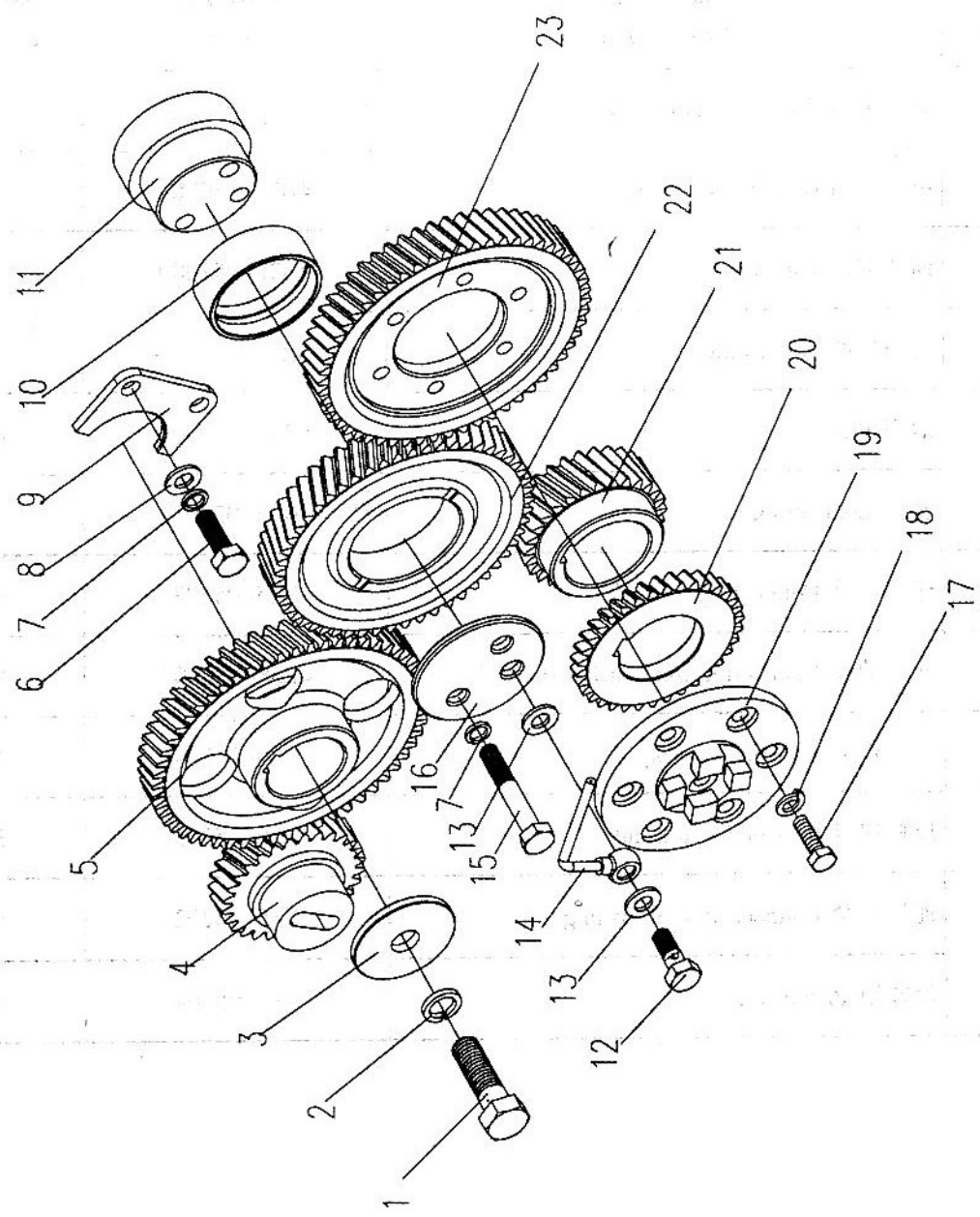
## Cylinder Block + Gear Case (Fig.3)

| Ref.No. | Name of Part                            | Part No.      | Quantity |
|---------|---|---------------|----------|
| 41      | Oil seal DR52×72×12                     | HG4-692-67    | 1        |
| 42      | Gear case front cover                   | N485T-12005   | 1        |
| 43      | Gear case front cover gasket            | N485T-12006   | 1        |
| 44      | Cylinder head bolt washer               | N85-03014     | 14       |
| 45      | Cylinder head shot bolt                 | N85-03016     | 4        |
| 46      | Cylinder head long bolt                 | N85-03015     | 14       |
| 47      | Cylinder head gasket                    | 4B26-030013   | 1        |
| 48      | Cylinder head locating sleeve           | N85-03017     | 2        |
| 49      | Cylinder liner                          | N90-03003     | 4        |
| 50      | Washer 6                                | GB/T859-87    | 1        |
| 51      | Inner hexagon cylindrical<br>bolt M8×20 | GB/T70.1-2000 | 3        |
| 52      | Gear case locating sleeve               | N85-03001     | 3        |
| 53      | Dowel pin                               | N85T-03110    | 2        |
| 54      | Main shaft cover bolt washer            | N85-03105     | 10       |
| 55      | Main shaft cover bolt                   | N90-03106     | 10       |
| 56      | Crankshaft thrust plate(lower)          | N85-03007     | 2        |
| 57      | Crankshaft thrust plate(upper)          | N85-03009     | 2        |
| 58      | Main bearing shell (lower)              | N85-03006     | 4        |
| 59      | Main bearing shell (upper)              | N85-03008     | 4        |
| 60      | Lubricating oil filter gasket           | N85-03020     | 1        |

## Cylinder Block + Gear Case (Fig. 3)

| Ref.No. | Name of Part                      | Part No.      | Quantity |
|---------|-----------------------------------|---------------|----------|
| 61      | Oil pressure sensor               | N85-03004     | 1        |
| 62      | Water draining cock               | ZN390TE-03200 | 1        |
| 63      | Rear oil seal cover gasket        | N85-03005     | 1        |
| 64      | Rear oil seal cover               | N85-03010     | 1        |
| 65      | T.D.C.pointer                     | N85T-12008    | 1        |
| 66      | Pin B8×16                         | GB/T119-2000  | 2        |
| 67      | Pin B10×22                        | GB/T119-2000  | 2        |
| 68      | Bolt M8×60                        | GB/T5782-2000 | 1        |
| 69      | Bolt M8×45                        | GB/T5782-2000 | 3        |
| 70      | Inner hexagon cylindrical<br>bolt | GB/T70.1-2000 | 1        |
| 71      | Bolt M8×50                        | GB/T5782-2000 | 2        |
| 72      | Bolt M8×75                        | GB/T5782-2000 | 1        |

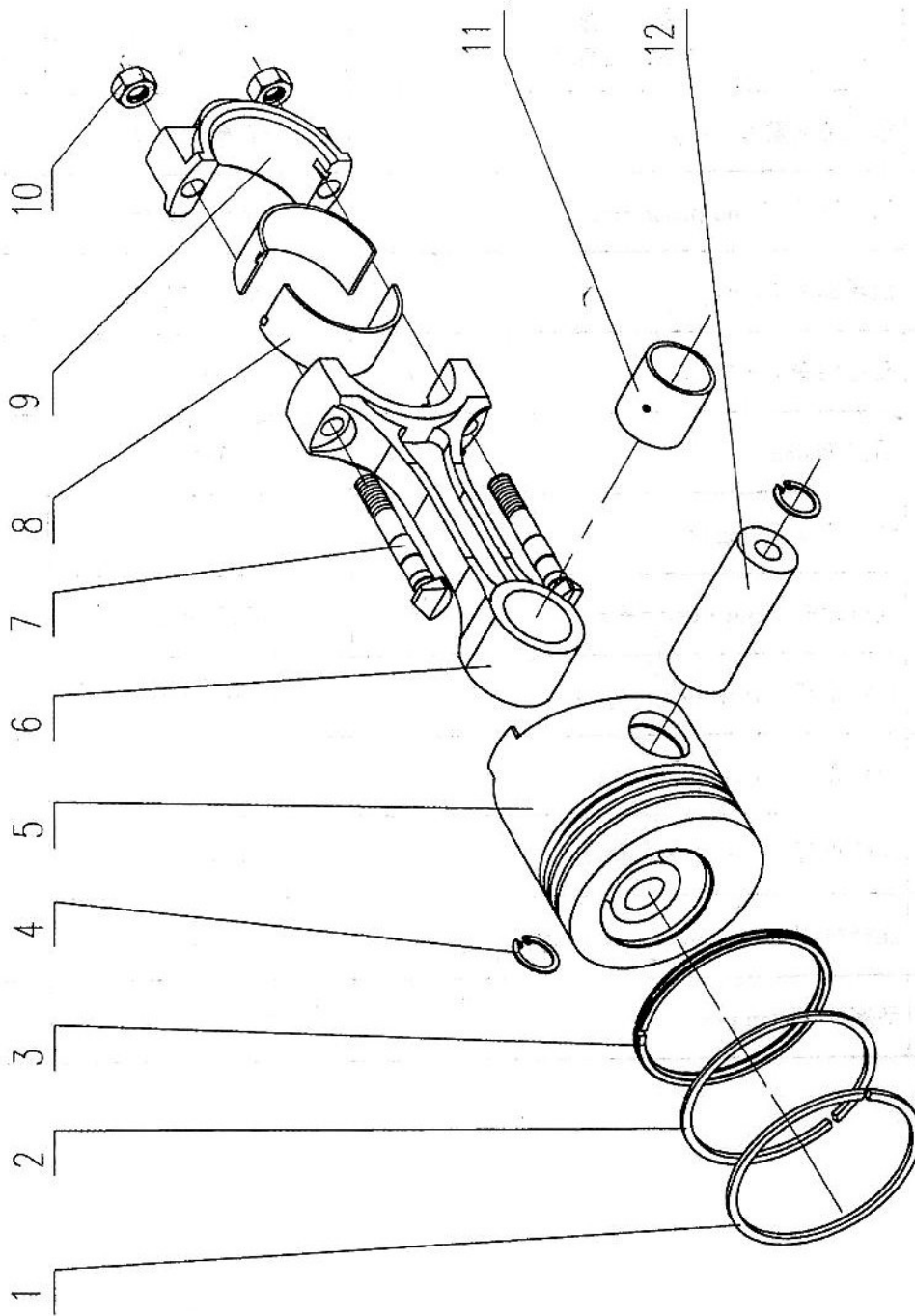
Timing Gear Train(Fig.4)



### Timing Gear Train(Fig.4)

| Ref.No. | Name of Part                      | Part No.       | Quantity |
|---------|-----------------------------------|----------------|----------|
| 1       | Bolt M12×30                       | GB/T5782-2000  | 1        |
| 2       | Washer 12                         | GB/T859-87     | 1        |
| 3       | Camshaft timing gear retainer     | N85-04009      | 1        |
| 4       | Hydraulic pump gear               | N85T-04011A    | 1        |
| 5       | Camshaft timing gear              | 4L68-040007    | 1        |
| 6       | Bolt M8×16                        | GB/T5782-2000  | 2        |
| 7       | Washer 8                          | GB/T859-87     | 4        |
| 8       | Washer 8                          | GB/T97.1-2002  | 2        |
| 9       | Camshaft retainer                 | N85-04008      | 1        |
| 10      | Timing idle gear bushing          | N85-04002      | 1        |
| 11      | Timing idle gear shaft            | N85T-04004     | 1        |
| 12      | Hollow bolt                       | N85T-04012     | 1        |
| 13      | Washer                            | 195-09001-1    | 2        |
| 14      | Oil pipe                          | N485T-04100    | 1        |
| 15      | Bolt M8×50                        | GB/T5782-2000  | 2        |
| 16      | Timing idle gear retainer         | N85T-04003     | 1        |
| 17      | Bolt M6×25                        | GB/T5783-2000  | 5        |
| 18      | Washer 6                          | GB/T859-87     | 6        |
| 19      | Adapter                           | N485T-32001(D) | 1        |
| 20      | Lubricating oil pump driving gear | 4L88-040010    | 1        |
| 21      | Crankshaft timing gear            | 4L68-040006    | 1        |
| 22      | Timing idle gear                  | 4L68-040005    | 1        |
| 23      | Injection pump timing gear        | N485T-04001(A) | 1        |

Piston and Connecting Rod Assembly(Fig.5)

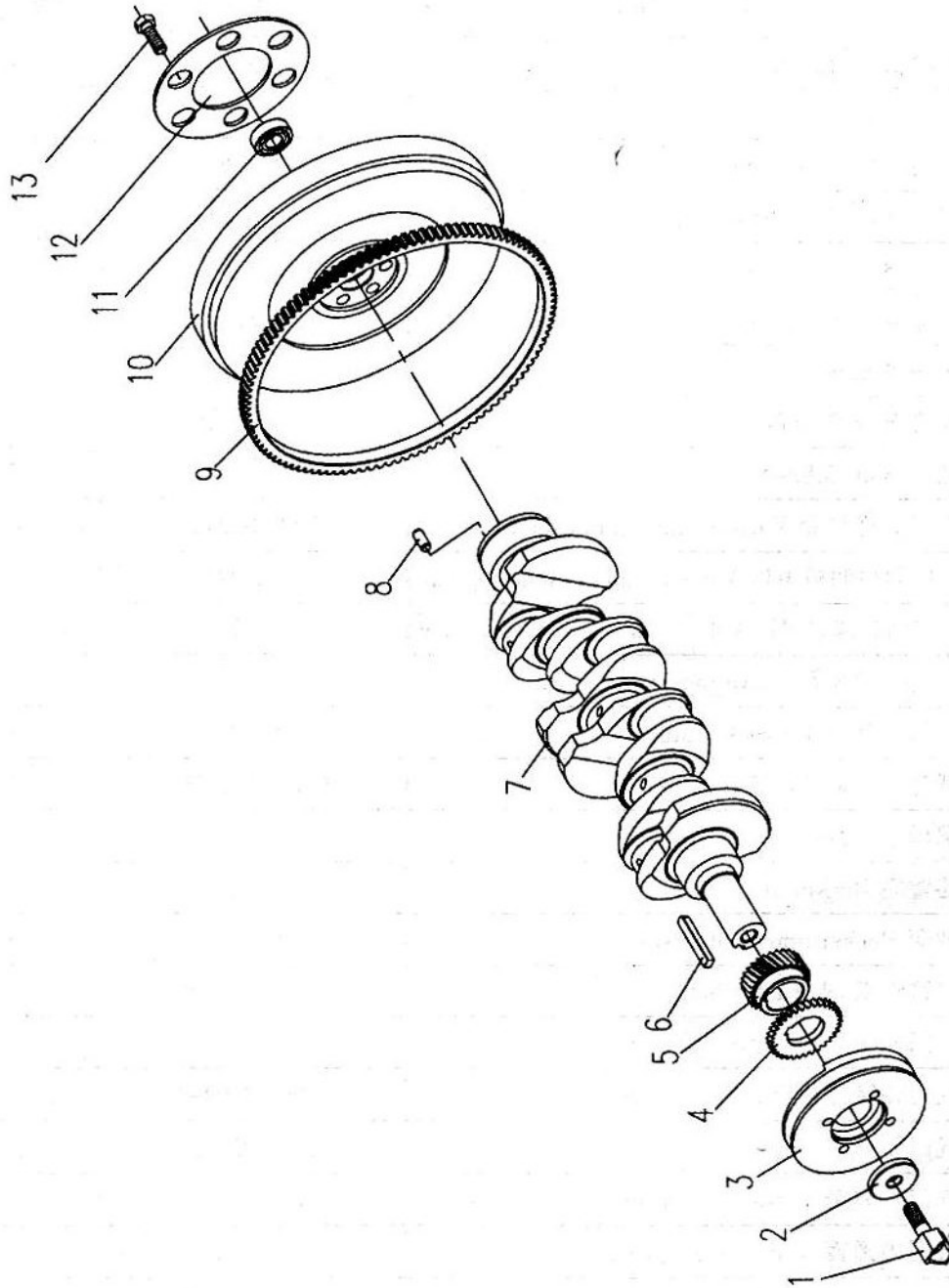


## Piston and Connecting Rod Assembly(Fig.5)

| 序号<br>Ref.No. | 名 称<br>Name of Part               | 零、部件号<br>Part No. | 数 量<br>Quantity |
|---------------|-----------------------------------|-------------------|-----------------|
| 1             | 第一道活塞环 1st piston ring            | 4B26-050002       | 4               |
| 2             | 第二道活塞 2nd piston ring             | 4B26-050003       | 4               |
| 3             | 油环部件 Oil ring                     | 4B26-051000       | 4               |
| 4             | 孔用挡圈 Circlip 28                   | GB/T893.2-86      | 8               |
| 5             | 活塞 Piston                         | 4B26-050001       | 4               |
| 6             | 连杆 Connecting rod                 | N85-05201         | 4               |
| 7             | 连杆螺栓 Connecting rod bolt          | N85-05203         | 8               |
| 8             | 连杆轴瓦 Connecting rod bearing shell | 4L68-050005       | 8               |
| 9             | 连杆盖 Connecting rod cap            | N85-05204         | 4               |
| 10            | 连杆螺母 Connecting rod nut           | N85-05205         | 8               |
| 11            | 连杆衬套 Connecting rod bushing       | N85-05202         | 4               |
| 12            | 活塞销 Piston pin                    | N85-05004         | 4               |



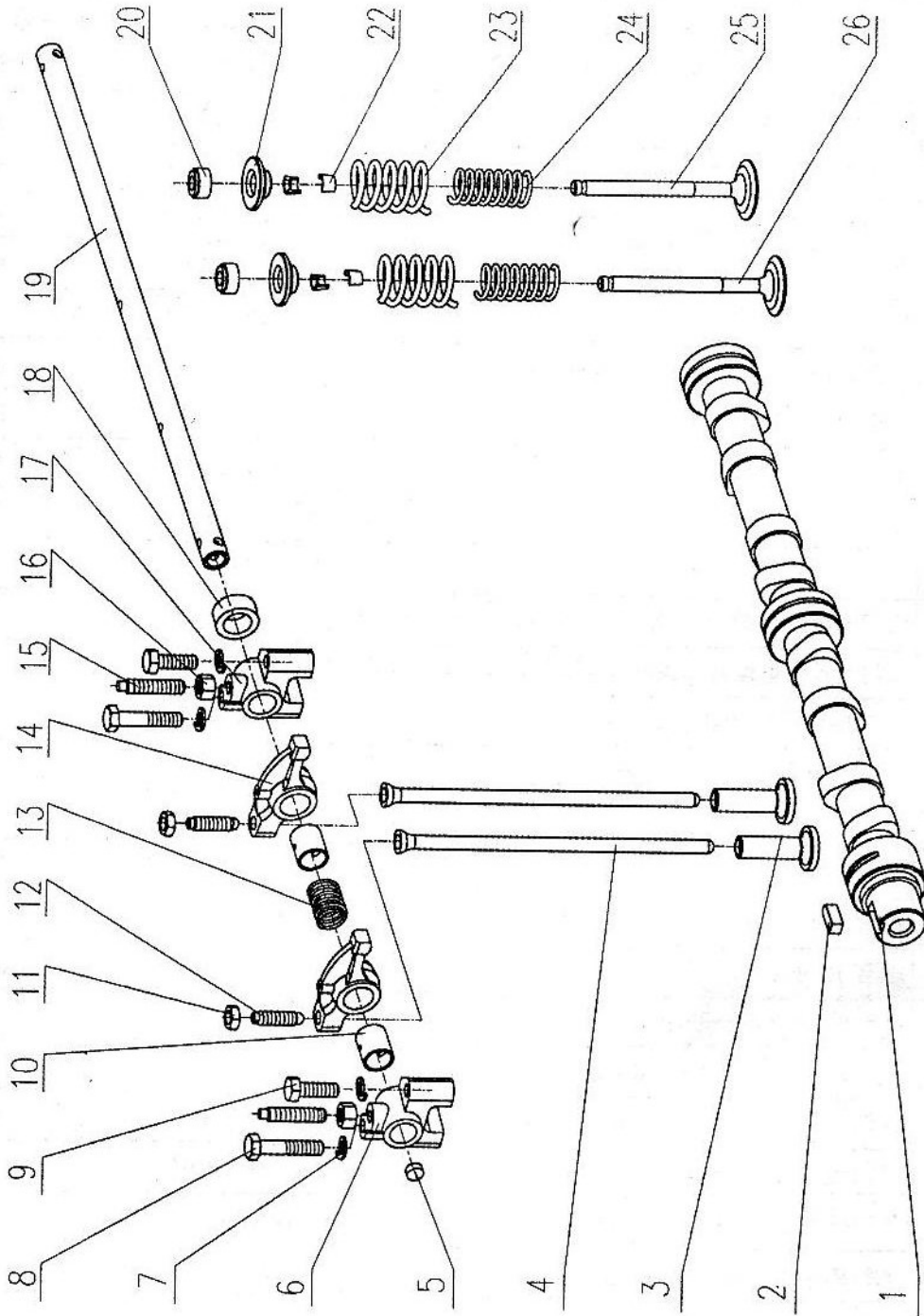
Crankshaft and Flywheel Assembly(Fig.6)



## Crankshaft and Flywheel Assembly(Fig.6)

| 序号<br>Ref.No. | 名 称<br>Name of Part                       | 零、部件号<br>Part No. | 数 量<br>Quantity |
|---------------|---|-------------------|-----------------|
| 1             | 曲轴皮带轮螺栓 Crankshaft pulley bolt            | N85Q-06007        | 1               |
| 2             | 起动爪垫圈 Starting jaw washer                 | N85-06002         | 1               |
| 3             | 曲轴皮带轮 Crankshaft pulley                   | ZN485T-06001      | 1               |
| 4             | 机油泵主动齿轮 Lubricating oil pump driving gear | N485-04010(A)     | 1               |
| 5             | 曲轴正时齿轮 Crankshaft timing gear             | 4L68-040006       | 1               |
| 6             | 键 Key C10x63                              | GB/T1096-2003     | 1               |
| 7             | 曲轴 Crankshaft                             | ZN490B-06004-1    | 1               |
| 8             | 销 Cylindrical pin B10x25h8                | GB/T119.1-2000    | 1               |
| 9             | 飞轮齿圈 Flywheel ring gear                   | N85-06102         | 1               |
| 10            | 飞轮 Flywheel                               | ZN485T-06101      | 1               |
| 11            | 轴承 Bearing 6004                           | GB/T276-94        | 1               |
| 12            | 飞轮螺栓垫片 Flywheel blot washer               | N85-06005(A)      | 1               |
| 13            | 飞轮螺栓 Flywheel bolt                        | N85-06006         | 6               |

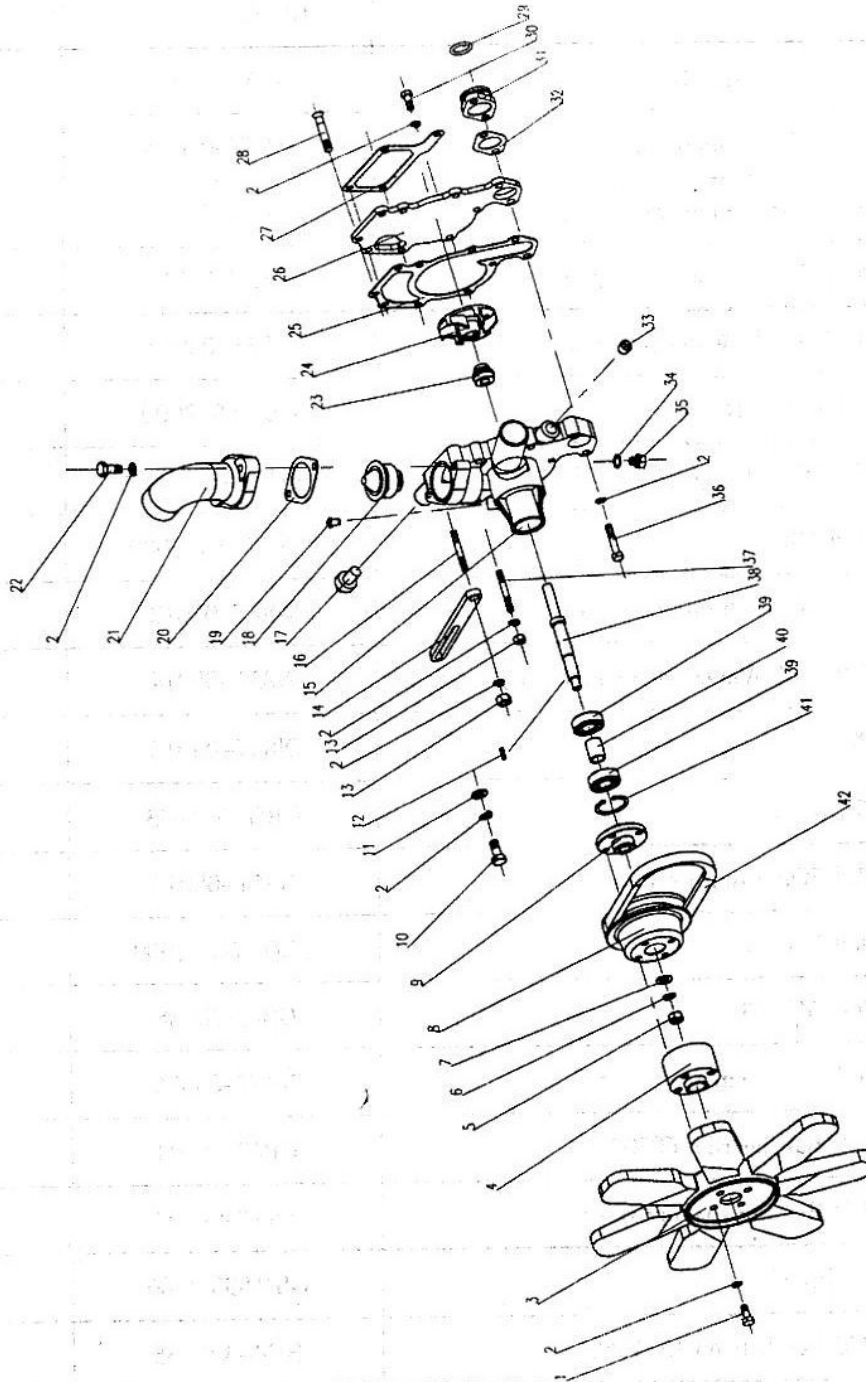
Valve Timing Mechanism(Fig.7)



## Valve Timing Mechanism(Fig.7)

| 序号<br>Ref.No. | 名 称<br>Name of Part                      | 零、部件号<br>Part No. | 数 量<br>Quantity |
|---------------|--|-------------------|-----------------|
| 1             | 凸轮轴 Camshaft                             | N485-07001        | 1               |
| 2             | 平键 Flat key C10×25                       | GB/T1096-2003     | 1               |
| 3             | 气门挺柱 Valve tappet                        | N485-07003        | 8               |
| 4             | 气门推杆 Valve push rod                      | N485-07002        | 8               |
| 5             | 堵塞 Blocking plug                         | N85-02208         | 2               |
| 6             | 前摇臂座 Front rocker arm support            | N85-022001        | 1               |
| 7             | 垫圈 Washer 8                              | GB/T859-87        | 10              |
| 8             | 螺栓 Bolt M8×60                            | GB/T5782-2000     | 5               |
| 9             | 螺栓 Bolt M8×45                            | GB/T5782-2000     | 5               |
| 10            | 气门摇臂衬套 Valve rocker arm bushing          | N85-02212         | 8               |
| 11            | 气门间隙调整螺母 Valve clearance adjusting nut   | N85-02203         | 8               |
| 12            | 气门间隙调整螺钉 Valve clearance adjusting screw | N85-02202         | 8               |
| 13            | 气门摇臂弹簧 Valve rocker arm spring           | N85-02205         | 4               |
| 14            | 气门摇臂 Valve rocker arm                    | N85-02211         | 8               |
| 15            | 螺钉 Screw M8×45                           | GB/T79-2000       | 5               |
| 16            | 螺母 Nut M8                                | GB/T6170-2000     | 5               |
| 17            | 摇臂座 Rocker arm support                   | N85-022004        | 4               |
| 18            | 轴套 Rocker arm shaft bushing              | N85-02206         | 3               |
| 19            | 摇臂轴 Rocker arm shaft                     | N485-02207        | 1               |
| 20            | 气门杆密封圈 Valve rod seal ring               | GB/T308-77        | 8               |
| 21            | 气门弹簧上座 Valve spring seat(upper)          | N85-02001-1       | 8               |
| 22            | 气门锁夹 Valve collet                        | N85-02002         | 16              |
| 23            | 气门外弹簧 Valve outer spring                 | N85-02003-1       | 8               |
| 24            | 气门内弹簧 Valve inner spring                 | N85-02003-2       | 8               |
| 25            | 排气门 Exhaust valve                        | 4B26-020007       | 4               |
| 26            | 进气门 Intake valve                         | 4B26-020008       | 4               |

Water Pump and Fan Assembly(Fig.8)



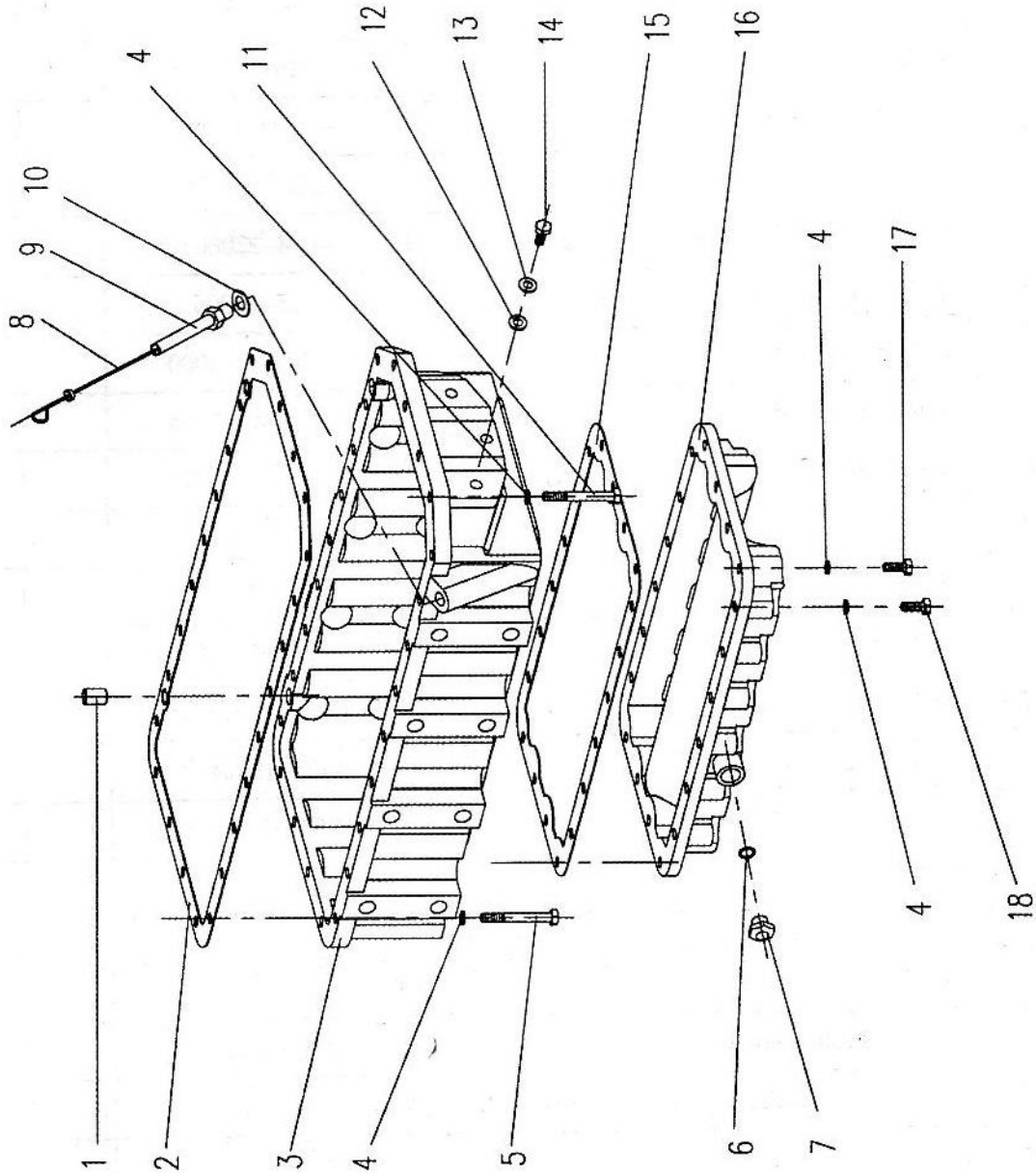
## Water Pump and Fan Assembly(Fig.8)

| Ref.No. | Name of Part                       | Part No.        | Quantity |
|---------|------------------------------------|-----------------|----------|
| 1       | Bolt M8×60                         | GB/T5783-2000   | 4        |
| 2       | Washer 8                           | GB/T859-87      | 15       |
| 3       | Cooling fan                        | N485-08001      | 1        |
| 4       | Fan pad                            | N390T-08019     | 1        |
| 5       | Nut M10                            | GB/T6170-2000   | 1        |
| 6       | Washer 10                          | GB/T859-87      | 1        |
| 7       | Washer 10                          | GB/T97.1-2002   | 1        |
| 8       | Water pump pulley                  | N85Q-08011(1)   | 1        |
| 9       | Water pump pulley housing          | N485T-08012     | 1        |
| 10      | Bolt M8×25                         | GB/T5783-2000   | 1        |
| 11      | Washer 8                           | GB/T97.1-2002   | 1        |
| 12      | Key 4×36                           | GB/T1099.1-2003 | 1        |
| 13      | Nut M8                             | GB/T6170-2000   | 4        |
| 14      | Bracing                            | N85T-08018      | 1        |
| 15      | Water pump housing                 | N85T-08004      | 1        |
| 16      | Stud M8×50                         | GB/T898-88      | 1        |
| 17      | Water temperature sensor model 306 | N485Q-17008     | 1        |
| 18      | Thermostat (Model 155B)            | N85Q-17003      | 1        |
| 19      | Oil cup M8×1                       | GB/T1152-79     | 1        |
| 20      | Thermostat housing gasket          | N85T-08008      | 1        |
| 21      | Thermostat housing                 | N85T-08007      | 1        |

## Water Pump & Fan Assembly (Fig. 8)

| Ref.No. | Name of Part                 | Part No.        | Quantity |
|---------|------------------------------|-----------------|----------|
| 22      | Bolt M8×30                   | GB/T5783-2000   | 2        |
| 23      | Water seal ring IF-12        | N85T-08003      | 1        |
| 24      | Water pump impeller          | N85T-08005      | 1        |
| 25      | Water pump gasket            | N85T-08009      | 1        |
| 26      | Water pump adapter           | N85T-08010      | 1        |
| 27      | Water pump adapter gasket    | N85T-08017      | 1        |
| 28      | Screw M8×16                  | GB/T68-2000     | 2        |
| 29      | Seal ring 34.5×3.55          | GB/T3452.1-2005 | 1        |
| 30      | Bolt M8×20                   | GB/T5783-2000   | 2        |
| 31      | Water drain connector        | N85T-08013      | 1        |
| 32      | Water drain connector gasket | N85T-08014      | 1        |
| 33      | Plug                         | N85T-08016      | 1        |
| 34      | Washer 12                    | GB/T3541-83     | 1        |
| 35      | Water drain screw            | N85T-08015      | 1        |
| 36      | Bolt M8×45                   | GB/T5780-2000   | 2        |
| 37      | Stud M8×45                   | GB/T898-88      | 3        |
| 38      | Water pump shaft             | N85T-08006      | 1        |
| 39      | Ball bearing 60202           | GB/T276-94      | 2        |
| 40      | Bearing spacing sleeve       | N85T-08002      | 1        |
| 41      | Circlip 35                   | GB/T893.2-86    | 1        |
| 42      | Fan belt AV15×1060           | HC4-401-66      | 1        |

Oil Sump Assembly(Fig.9)

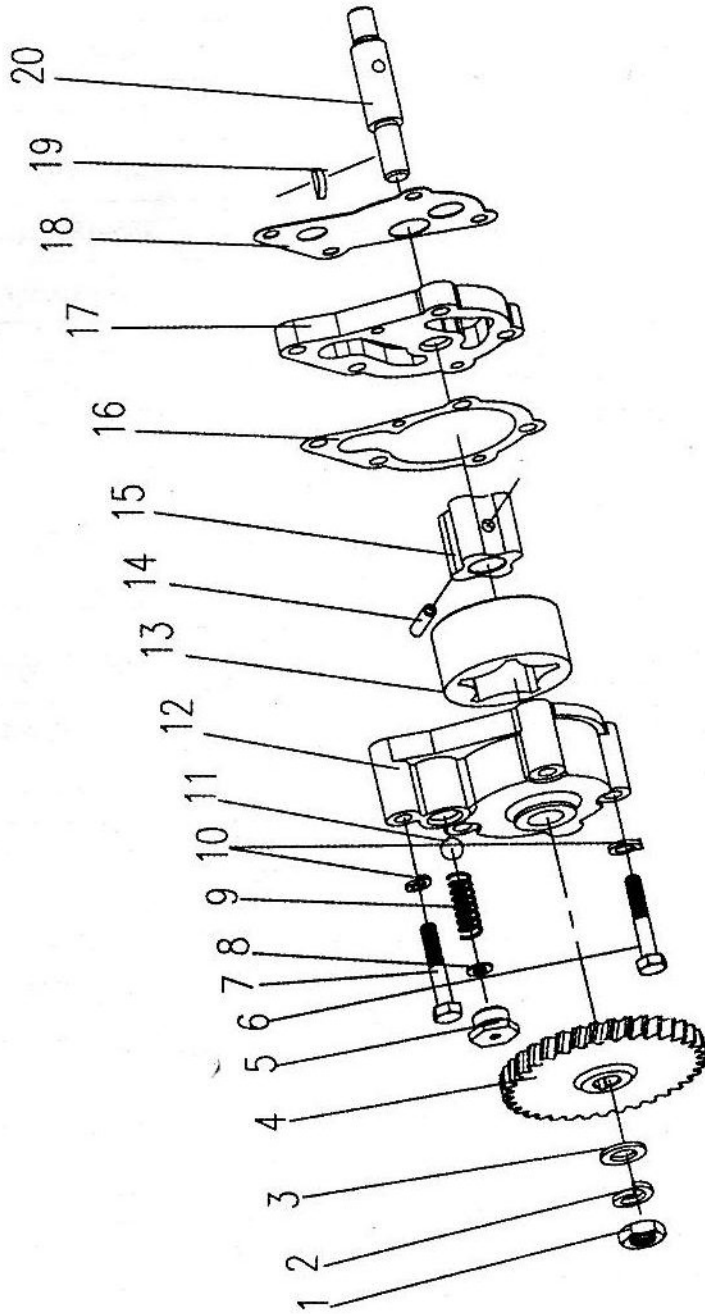




### Oil Sump Assembly(Fig.9)

| 序号<br>Ref.No. | 名称<br>Name of Part               | 零、部件号<br>Part No. | 数量<br>Quantity |
|---------------|----------------------------------|-------------------|----------------|
| 1             | 定位销 Dowel pin                    | N485T-03110       | 2              |
| 2             | 油底壳垫片 Oil sump gasket            | ZN485T-11001      | 1              |
| 3             | 油底壳 Oil sump                     | ZN485T-11004      | 1              |
| 4             | 垫圈 Washer 8                      | GB/T93-87         | 46             |
| 5             | 螺栓 Bolt M8×55                    | GB/T5782-2000     | 1              |
| 6             | O形密封圈 Seal ring 11.2×2.65        | GB/T3452.1-2005   | 2              |
| 7             | 闷头 Plug                          | 195-01026         | 2              |
| 8             | 机油尺 Oil dipstick                 | ZN485T-11007      | 1              |
| 9             | 机油尺管焊接件 Oil dipstick pipe body   | CZ475Q-032200     | 1              |
| 10            | 组合垫圈 fit together Washer 12      | QJ/MD05.01        | 1              |
| 11            | 螺栓 Bolt M8×30                    | GB/T5783-2000     | 25             |
| 12            | 垫圈 Washer 10                     | GB/T93-87         | 3              |
| 13            | 垫圈 Washer 10-100HV               | GB/T95-2002       | 3              |
| 14            | 螺栓 Bolt M10×30                   | GB/T5783-2000     | 3              |
| 15            | 副油底壳垫片 Auxiliary oil sump gasket | ZN485T-11005      | 1              |
| 16            | 副油底壳 Auxiliary oil sump          | ZN485T-11006      | 1              |
| 17            | 螺栓 Bolt M8×45                    | GB/T5783-2000     | 8              |
| 18            | 螺栓 Bolt M8×25                    | GB/T5783-2000     | 11             |

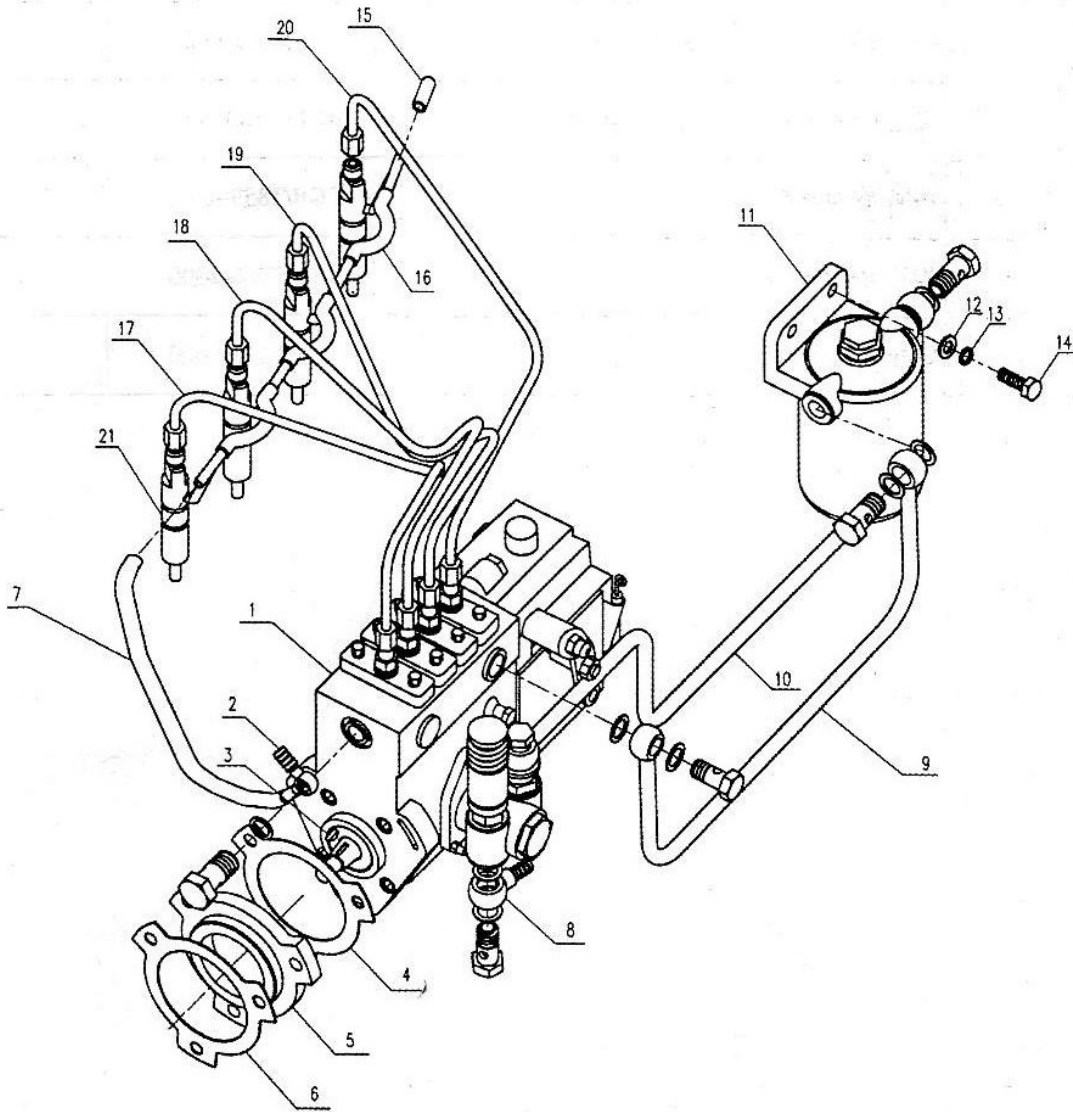
Lubricating Oil Pump Assembly(Fig.10)



## Lubricating Oil Pump Assembly(Fig.10)

| 序号<br>Ref.No. | 名 称<br>Name of Part                              | 零、部件号<br>Part No. | 数 量<br>Quantity |
|---------------|--|-------------------|-----------------|
| 1             | 螺母 Nut M10×1                                     | GB/T6173-2000     | 1               |
| 2             | 垫圈 Washer10                                      | GB/T859-87        | 1               |
| 3             | 垫圈 Washer10                                      | GB/T859-85        | 1               |
| 4             | 机油泵齿轮 Lubricating Oil pump gear                  | 4L88-130007       | 1               |
| 5             | 限压阀塞 Pressure-limiting plug                      | N85-13006         | 1               |
| 6             | 螺栓 Bolt M6×50                                    | GB/T5782-2000     | 3               |
| 7             | 螺栓 Bolt M6×55                                    | GB/T5782-2000     | 1               |
| 8             | 垫圈 Washer 4                                      | GB/T97.1-2002     | 1               |
| 9             | 限压弹簧 Pressure-limiting spring                    | N85-13005         | 1               |
| 10            | 垫圈 Washer 6                                      | GB/T859-87        | 1               |
| 11            | 钢球 Steel ballØ10                                 | GB/T308-89        | 1               |
| 12            | 机油泵体 Oil pump body                               | N485-13001-A      | 1               |
| 13            | 外转子 Out rotor                                    | N485-13004-A      | 1               |
| 14            | 圆柱销 Cylindrical pin                              | N85-13103-A       | 1               |
| 15            | 内转子 Inner rotor                                  | N485-13102-A      | 1               |
| 16            | 机油泵调整垫片 Lubricating oil pump Adjusting shimδ0.08 | N85-13008-A       | 1               |
| 17            | 机油泵盖 Lubricating Oil pump cover                  | N485-13002-A      | 1               |
| 18            | 机油泵垫片 Lubricating Oil pump gasketδ0.5            | 4188-130003       | 1               |
| 19            | 键 key 3×5×13                                     | GB/T1099.1-2003   | 1               |
| 20            | 机油泵轴 Lubricating Oil pump shaft                  | N485-13101-A      | 1               |

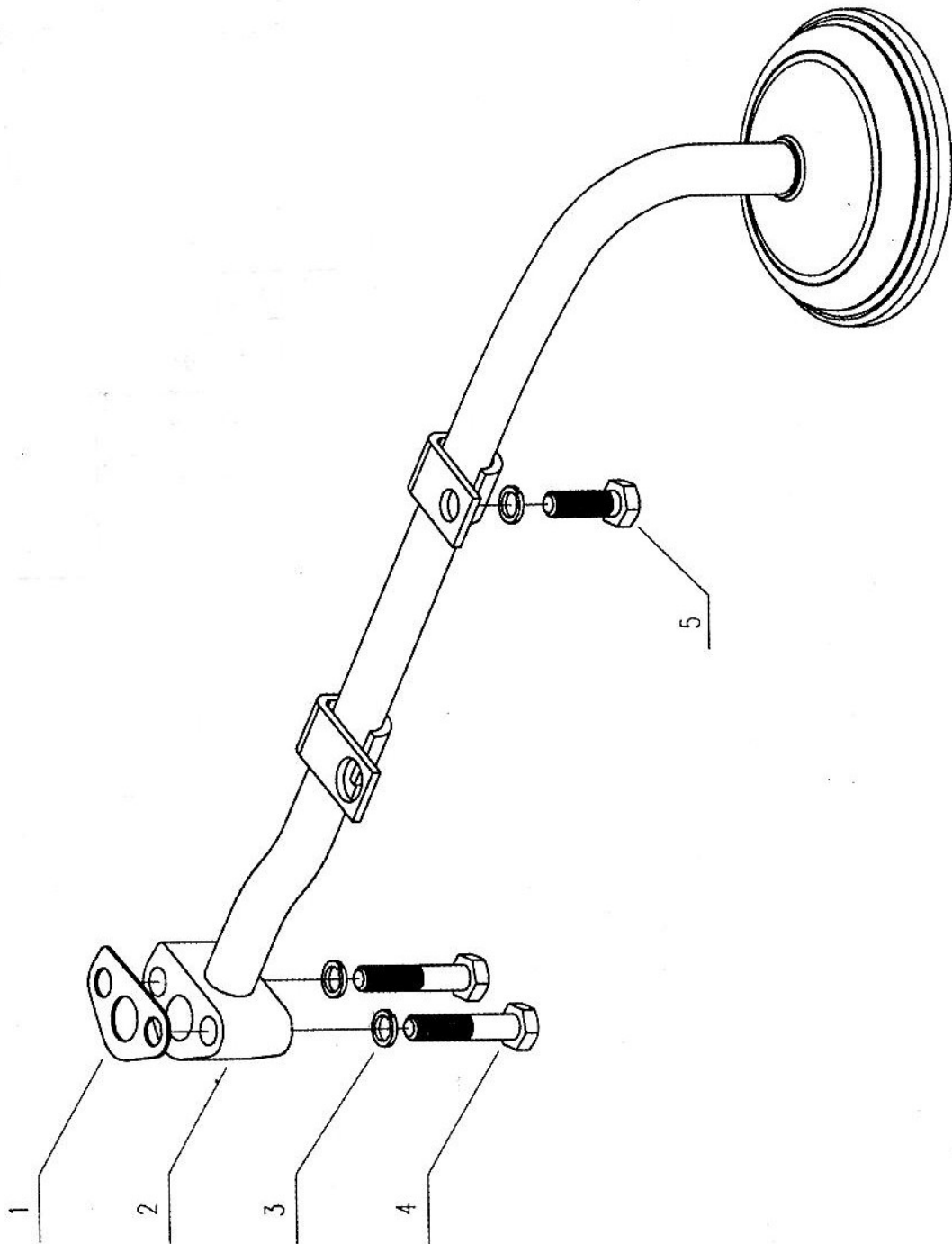
Fuel System(Fig.11)



## Fuel System(Fig.11)

| Ref.No. | Name of Part  | Part No.      | Quantity |
|---------|---|---------------|----------|
| 1       | Injection pump                                      | 4L40-18001    | 1        |
| 2       | Injector fuel return pipe part                      | 4L68-151000-1 | 1        |
| 3       | Woodruff 3×16                                       | GB/T1099-79   | 1        |
| 4       | Fuel pump flange gasket                             | N85-18002(A)  | 1        |
| 5       | Injection pump end cover                            | N85-18003(A)  | 1        |
| 6       | Injection pump end gasket                           | N85-18004     | 1        |
| 7       | Fuel return main pipe                               | 4L68-150003   | 1        |
| 8       | Fuel feed pump inlet<br>pipe part                   | N85-15500(A)  | 1        |
| 9       | Fuel filter outlet pipe                             | N485-15300    | 1        |
| 10      | Fuel feed pump outlet pipe                          | N485-15400    | 1        |
| 11      | Fuel filter   | N485-28000(B) | 1        |
| 12      | Washer 8  | GB/T848-85    | 2        |
| 13      | Washer 8  | GB/T859-87    | 2        |
| 14      | Bolt M8×25  | GB/T5782-2000 | 2        |
| 15      | Injector fuel return cover                          | 4L68-150001-3 | 1        |
| 16      | Fuel return pipe                                    | 4L68-150002   | 3        |
| 17      | 1 <sup>st</sup> cylinder high pressure<br>fuel pipe | 4B26-141000   | 1        |
| 18      | 2 <sup>nd</sup> cylinder high pressure<br>fuel pipe | 4B26-142000   | 1        |
| 19      | 3 <sup>rd</sup> cylinder high pressure<br>fuel pipe | 4B26-143000   | 1        |
| 20      | 4 <sup>th</sup> cylinder high pressure<br>fuel pipe | 4B26-144000   | 1        |
| 21      | Injector  | 4L40-25000    | 4        |

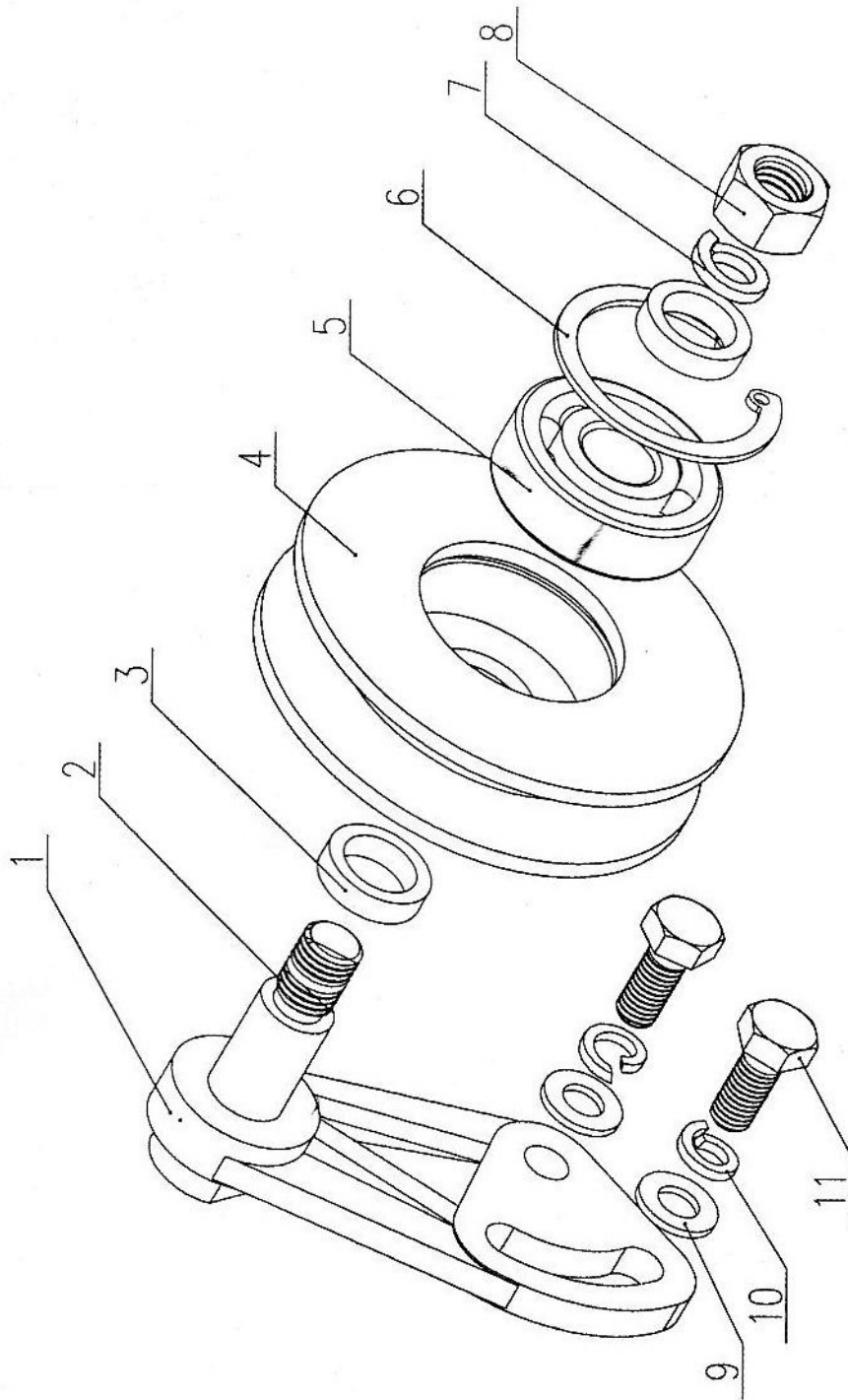
Oil Suction Strainer Assembly(Fig.12)



## Oil Suction Strainer Assembly(Fig.12)

| 序号<br>Ref.No. | 名 称<br>Name of Part           | 零、部件号<br>Part No. | 数 量<br>Quantity |
|---------------|-------------------------------|-------------------|-----------------|
| 1             | 集滤器垫片 Suction strainer Gasket | 4L88-160002       | 1               |
| 2             | 机油集滤器总成 Oil suction strainer  | 4L88-160000A      | 1               |
| 3             | 垫圈 Washer 8                   | GB/T859-87        | 3               |
| 4             | 螺栓 Bolt M8×40                 | GB/T5782-2000     | 2               |
| 5             | 螺栓 Bolt M8×25                 | GB/T5782-2000     | 1               |

Tension Pulley Assembly(Fig.13)

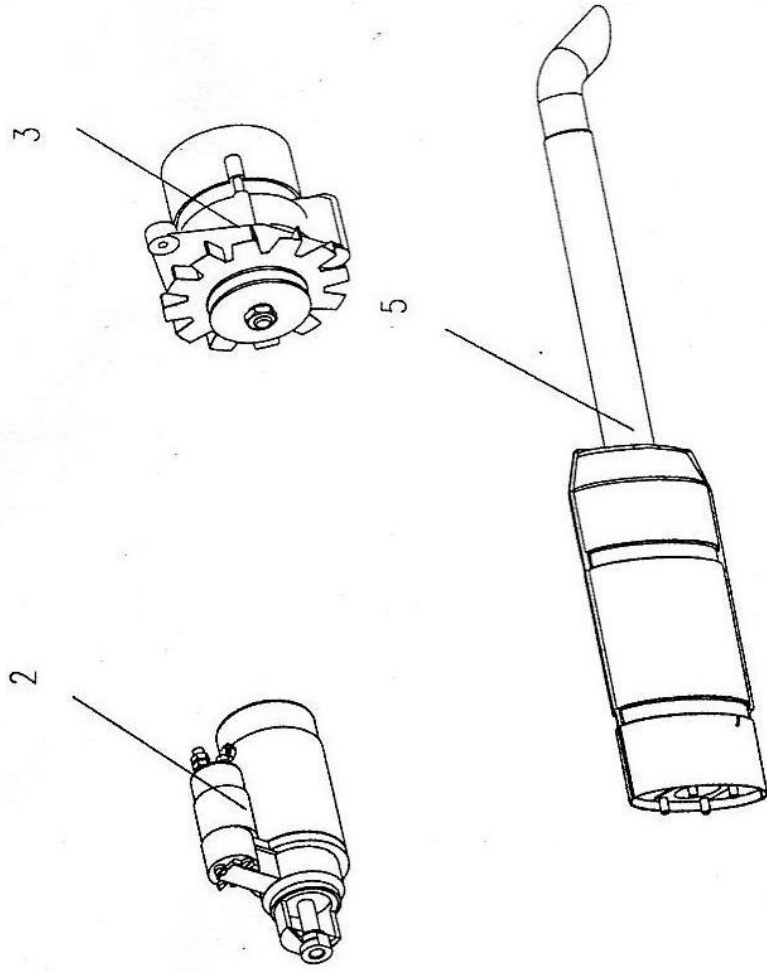




### Tension Pulley Assembly(Fig.13)

| 序号<br>Ref.No. | 名 称<br>Name of Part          | 零、部件号<br>Part No. | 数 量<br>Quantity |
|---------------|------------------------------|-------------------|-----------------|
| 1             | 张紧轮支架 Tension pulley bracket | N390T-21002       | 1               |
| 2             | 张紧轮轴 Tension pulley shaft    | N390T-21004       | 1               |
| 3             | 套圈 Bush ring                 | N390T-21003       | 2               |
| 4             | 张紧轮 Tension pulley           | N390T-21001       | 1               |
| 5             | 轴承 Bearing 6302E-2RS         | GB/T276-94        | 1               |
| 6             | 挡圈 Thrust ring 42            | GB/T893.1-86      | 1               |
| 7             | 垫圈 Washer 12                 | GB/T93-87         | 2               |
| 8             | 螺母 Nut M12                   | GB/T6170-2000     | 1               |
| 9             | 垫圈 Washer 8                  | GB/T97.1-85       | 2               |
| 10            | 垫圈 Washer 8                  | GB/T93-87         | 2               |
| 11            | 螺栓 Bolt M8×20                | GB/T5783-2000     | 2               |

Oil Filter/Air Filter/Generator/Starting Motor/Silencer(Fig.14)



Generator/Starting Motor/Silencer(Fig.14)

| Ref.No. | Name of Part           | Part No.       | Quantity |
|---------|------------------------|----------------|----------|
| 1       | Lubricating oil filter | N485Q-26000B   | 1        |
| 2       | Starting motor         | N485Q-30000(B) | 1        |
| 3       | Charging generator     | N85Q-29000     | 1        |