

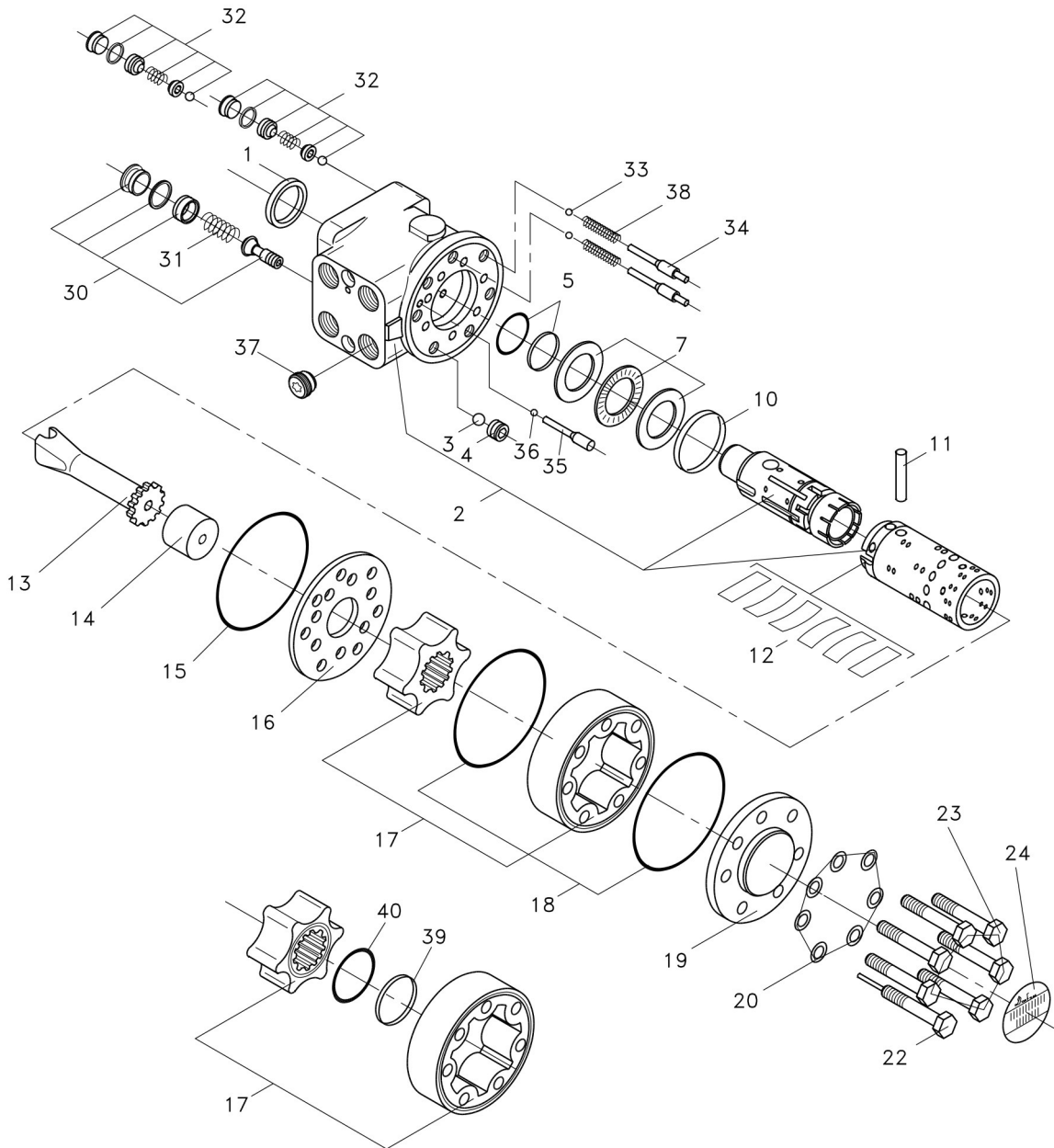


二、常见故障原因及排出方法

故障	发生原因	排除方法
转向器后盖，定子，隔盘和阀体之间的结合面漏油	后盖定子和阀体间的结合部位螺栓松动（或者力不均匀）或组合密封垫圈或结合面的 O 型圈损坏	间隔，均匀拧紧罗酸达到规定值，更换密封圈（专用）
转向器轴颈处漏油	转向器轴颈处密封圈磨损量过大或损坏	更换密封圈（专用）
慢转方向盘时轻，快转方向盘时沉	油泵对于转向器的供油不足	检查油泵工作是否正常（包含液面高度、油泵效率、管路通畅程度等）
油中有泡沫，发出不规则响声、方向盘转动而油缸时动时不动	转向系统中有空气	排出系统中的空气，检查吸油管路是否漏气或者回油管口是否已经在液面以下
转向沉重持续发生	油箱油液低于规定位置	加油至规定高度
	油液年度太大	使用规定油液
快转与满转方向盘均沉重，并且转向无压力	阀体内 P、T 油路件的单向阀失效	如钢球丢失，则装入钢球； 如钢球被脏污卡住，应进行清洗； 两种情况均需检查密封带的恢复有效性。
空负荷或者轻负荷转向轻，增加负荷转向重	系统的溢流阀压力低于转向要求压力值	调整溢流阀压力至规定值（但不得超过 16MPa）
	溢流阀被脏物卡住或者弹簧失效或者密封圈损坏	清洗溢流阀（需检查密封带的恢复有效性），或者更换弹簧或者密封圈
方向盘不能自动回中	弹簧片折断或者产生过量的永久变形	更换弹簧片（禁止使用替代品）
方向盘自传或者自动左右摆动	转子与联动轴相互位置装错	立即停机！ 经联动轴上带冲点的齿与转子内花键的齿槽（端面上看最薄弱处）对齐。
转向转不到极限位置	转向器安全阀压力低	适当提高安全法压力（最好在有压力表的条件下进行调节）
转向转到极限位置后，方向盘可轻松转动	双向缓冲阀压力低	适当提高缓冲阀压力
熄火转向时，方向盘转动而油缸不动	转子、定子的径向间隙或轴向间隙过大	更换转子和定子
车辆跑偏或者转动方向盘时油缸动作迟缓	油液粘度低	更换油液
	双向缓冲阀失灵（钢球被脏物卡住或弹簧失效，密封损坏）	清洗双向缓冲阀，更换弹簧或密封
转向系统的压力调不高或调不低	弹簧断裂	更换弹簧
	安全阀阀口密封不好，造成阀总是开启	配研安全阀芯和阀座或者更换零件
	阀芯因毛刺或者有无卡死	拆出、检查、修整
	阀芯动作不良	检查阀芯是否被有无卡住
	弹簧弯曲或者太软	更换弹簧
	油不清洁，阀芯阻尼孔堵塞	更换清洁油液，疏通阻尼孔

2, common causes and troubleshooting

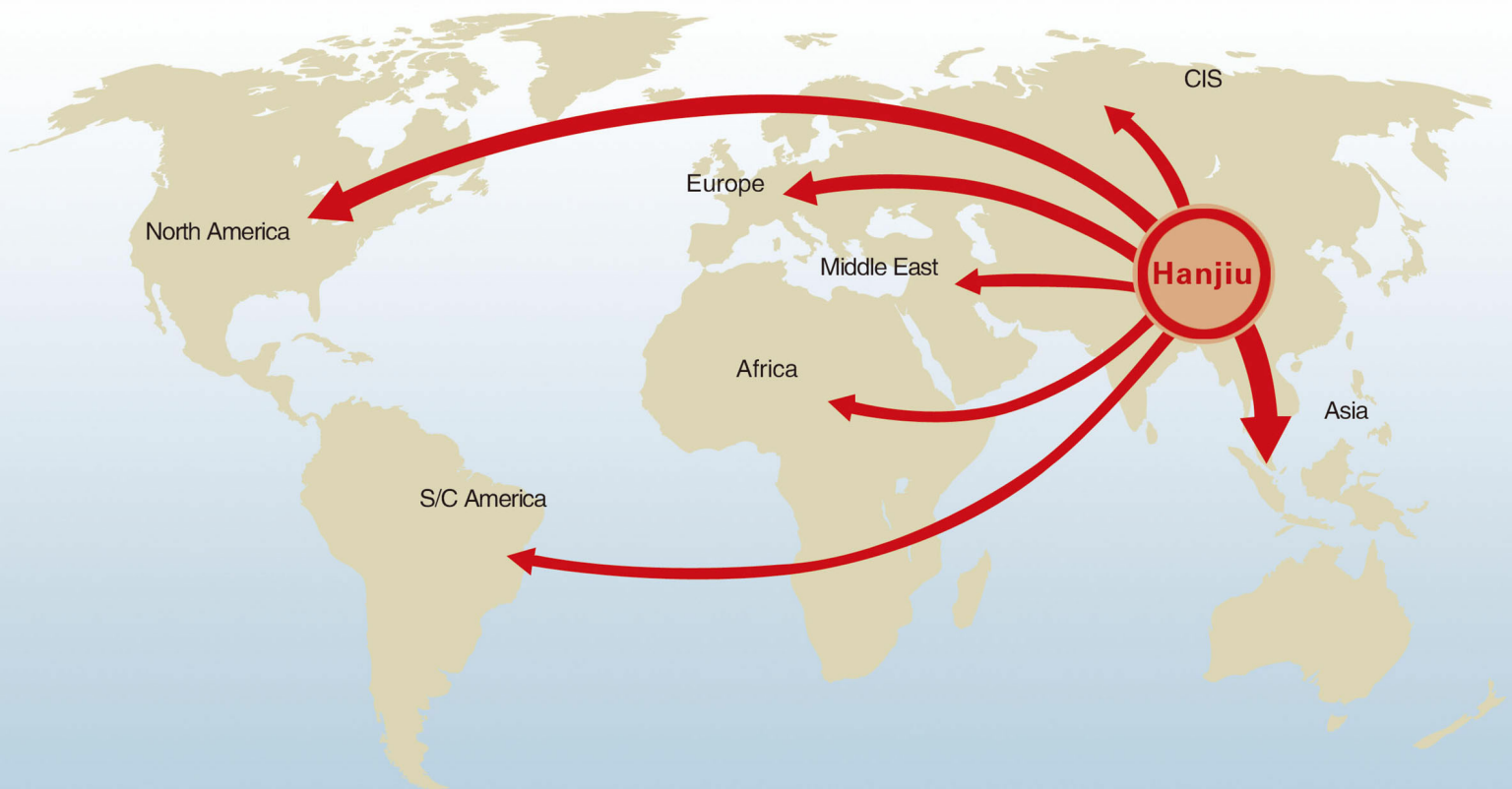
Matter	Causes	Troubleshooting
Oil leakage between back cover, stator and valves	rear cover stator bolt looseness (or uneven force), or O-rings damaged	Evenly tighten the bolt to the specified value, replace the seal (special)
Oil leakage at steering shaft	shaft seal ring excessive wear or damage	Replace the seal (dedicated)
feels light when turn the steering wheel slowly, feels heavy when turn the steering wheel quickly	steering pump oil supply not enough	Check whether oil pump is working properly, (Including liquid level, pump efficiency, pipeline patency, etc.)
There is foam in the oil, irregular sound, the steering wheel turns and the cylinder does not move	There is air in the steering system	Eliminating the air in the system, Check the suction pipe leaks or not, Or if the return nozzle is below the liquid level
Heavy steering continues to occur	Tank fluid is below the specified position	Add oil to prescribed height
	Heavy oil viscosity	Use oil as required
Feel heavy when turn fast and slow, stressless	Check valve between P,T failure	Check the ball. If the steel ball is missing, then insert the steel ball; If the ball gets stuck dirty, it should be cleaned; In both cases, it is necessary to check the effectiveness of the sealing tape recovery.
Turns light when the load is light, turns heavier when increases the load	relief valve pressure lower than steering requirement	Adjust relief valve pressure to specified value (no more than 16MPa)
	Relief valve stuck by dirt, Or spring failure, Or seal is damaged	Clean relief valve (required to check the effectiveness of seal tape recovery), or replace the spring or seal
steering wheel can't auto back to middle position	Spring broken or deformation	Replacement spring
Steering wheel rotate automatic swing to left or right	Rotor and linkage axes are not positioned correctly	Stop immediately! Align the teeth of the linkage shaft with rotor splines
No end point	Low pressure on relief valve	Appropriately increase relief valve pressure
Steering wheel rotates after turning to the end position	Low pressure on shock valves	Appropriately increase shock valves pressure
when machine is off, turn the wheel, cylinder not move	radial clearance or axial clearance is too large between radial and stator	Replace rotor and stator
	Low viscosity of oil	Change oil
Vehicle deviation Or the cylinder is slow when turning the steering wheel	shock valves failure (ball caught by dirty, or spring failure, or seal damage)	Clean shock valves, replace spring or seal
pressure of Steering system is able to adjust	Spring broken	Change spring
	not good seals at safety valve make the valve always open	replace parts
	Valve core stuck due to burr or oil stain	Remove, inspect, repair
	Poor spool operation	Check if the spool is stuck by dirty
	Spring bent or too soft	Change spring
	Oil is not clean, valve plug orifice is blocked	Replace the cleaning fluid and unblock the orifice



- | | | | | | |
|----|---|----|-------------------|----|------------------------|
| 1 | Dust seal ring | 14 | Spacer | 24 | Name plate |
| 2 | Housing, spool and sleeve.
Check valve and the seats for relief
and shock valves are locktited. | 13 | Cardan shaft | 30 | Complete relief valve |
| 3 | Ball 8.5 mm [0.33 in] | 12 | Set of springs | 31 | Spring wire |
| 4 | Thread bushing | 15 | O-ring | 32 | Complete shock valve |
| 5 | O-ring used with kin-ring (item 6) | 16 | Distributor plate | 33 | Ball $\frac{3}{16}$ in |
| 6 | Kin-ring | 17 | Gearwheel set | 34 | Spring |
| 7 | Bearing assembly | 18 | O-ring | 35 | Roller pin |
| 10 | Ring | 19 | End cover | 36 | Bushing |
| 11 | Cross pin | 20 | Washer | 37 | Ball |
| | | 22 | Special screw | 38 | Kin ring |
| | | 23 | Screw | 39 | O-ring |
| | | | | 40 | |

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