



全液压转向器安装使用注意事项

一、全液压转向器安装使用注意事项:

1、安装注意事项:

- (1) 转向器安装, 必须保证转向器与转向柱的同轴度要求, 同时轴向方向必须有1mm左右的间隙。
- (2) 紧固转向柱的螺旋旋入转向器连接螺纹孔深度 $\leq 15\text{mm}$ 。
- (3) 转向器安装后, 必须检查方向盘的回位, 确保回位的灵活性。
- (4) 连接管路: P油口接供油泵, T油口接回油箱, A、B油口分别接转向器的左、右油腔。

2、油流速注意事项:

- (1) 与P油口相连的供油回路, 管内油流速建议 $\leq 1.5\text{m/s}$ 。
- (2) 与A、B油口相连的油缸压力回路, 管内油流速建议 $\leq 4\text{--}5\text{m/s}$ 。

3、其他注意事项:

- (1) 方向盘直径不得超过500mm。
- (2) 在转向器的回油路中应安装过滤精度为 $30\ \mu\text{m}$ 的回油过滤器。转向系统的油箱位置一般高于转向器的安装位置, 并将回油管插入油面以下, 这样在人力转向时才可以补油, 同时可防止空气进入油路。
- (3) 转向器用油粘度为17cst-33cst, 建议采用低凝液压油。转向器允许正常工作油温为 $20^\circ\text{C} \sim 80^\circ\text{C}$, 许可极限工作油温范围为 $-30^\circ\text{C} \sim 100^\circ\text{C}$ 。提醒: 在非正常油温情况下, 转向性能将有所下降。
- (4) 转向系统装配后应试运转: 运转前清洗油箱, 并注入液压油到最高油面。将转向油缸螺纹接头松开, 使油泵低速运转进行放气, 直到流出的油中不含泡沫未知。拆除转向油缸活塞杆与转向轮的链接, 转动方向盘, 使活塞达到最左或最右的位置 (在两个极限位置不要停留), 再往油箱加油至规定油面。将所有螺纹链接处拧紧 (不要在有压力情况下拧紧), 连接活塞杆, 检查转向系统在各种工作条件下工作是否正常。
- (5) 必须保证油液清洁, 以防止脏污卡住转向器内部零件, 造成转向失灵。为此要经常检查滤清器滤芯和油液的情况, 必要时给予更换 (将液压油滴一滴到吸墨纸上, 如油迹油一黑色中心, 即应更换油液)。
- (6) 转向器在使用中如发现转向沉重或者失灵时, 应首先仔细查找原因, 不可用力硬扳方向盘, 更不要轻易拆开转向器, 以免损坏零件。严禁两人同时转动方向盘。

The installation and use of full hydraulic steering note

1, installation precautions:

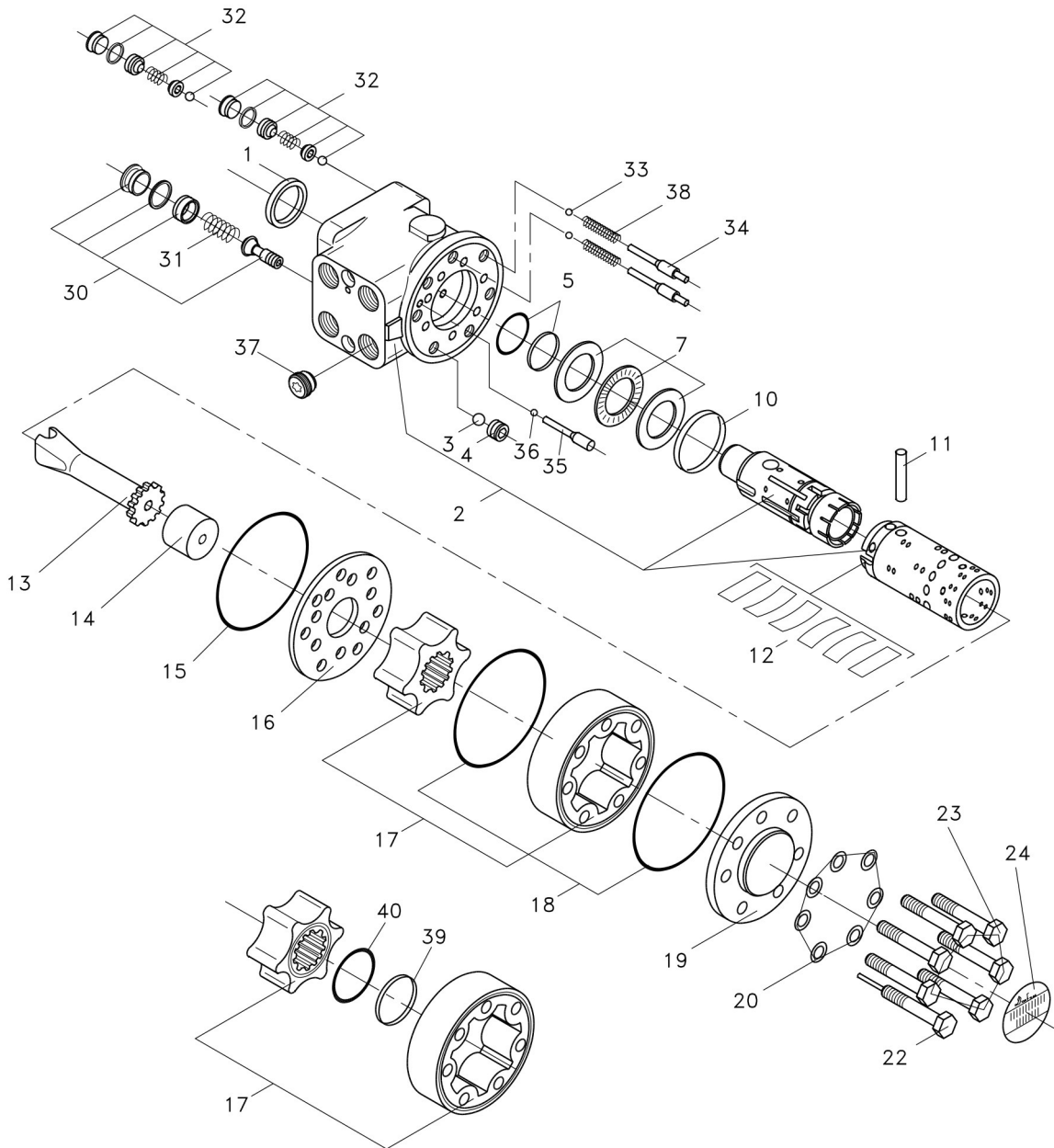
- (1) When installation steering gear must ensure coaxiality with column, must have a gap of 1 mm in the axial direction.
- (2) The depth of screw connection to the steering column tightening steering column is $\leq 15\text{mm}$.
- (3) After steering gear installed, must check steering wheel turns to ensure the flexibility of the return position.
- (4) Connection pipeline: P oil port connects to the oil supply pump, T oil port connects to the oil tank, and A and B oil ports respectively connect the left and right oil chambers of the steering gear.

2, oil flow rate considerations:

- (1) The oil supply circuit connected to the P oil port, the oil flow rate in the pipe is recommended to be $\leq 1.5\text{m/s}$.
- (2) The pressure circuit of the oil cylinder connected to the A and B ports is recommended. The oil flow rate in the pipe is recommended to be $\leq 4\text{--}5\text{m/s}$.

3, other matters needing attention:

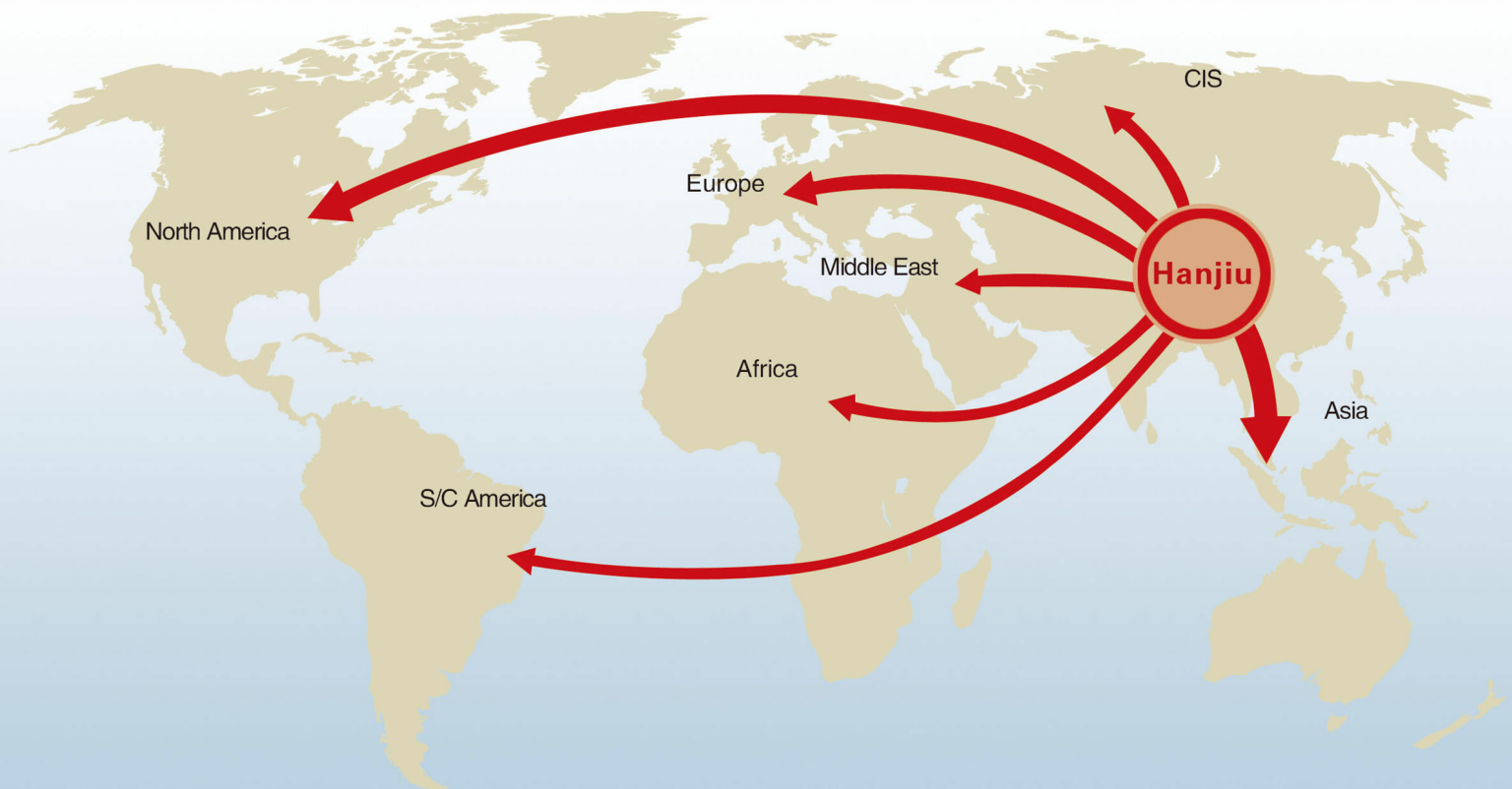
- (1) The diameter of the steering wheel must not exceed 500mm.
- (2) A return filter with a filter accuracy of $30\ \mu\text{m}$ should be installed in the return line of the steering gear. The position of tank is generally higher than installation position of steering gear, and return pipe is inserted below oil level, so oil can be filled only when the manpower is turned, and air can be prevented from entering the oil line.
- (3) The oil viscosity of steering gear is 17cst-33cst. It is recommended to use low-condensation hydraulic oil. Steering gear allows normal working oil temperature 20°C to 80°C , and the limit working oil temperature range is -30°C to 100°C . Reminder: In case of abnormal oil temperature, steering performance will decrease.
- (4) After steering system assembled, it shall be tested: clean oil tank before operation, inject hydraulic oil to the max oil level. Loosen cylinder nipple and allow pump to run at low speed until it is out of oil. Remove link, turn the steering wheel so that the piston reaches left or right position, and then fill the tank to specified level. Tighten all thread connections, connect the piston rod, and check if the steering system is working properly.
- (5) It must be ensured that the oil is clean to prevent the dirt to cause steering failure. Always check the condition of the filter element and the oil. If necessary, give a replacement.
- (6) If steering failure, must be carefully check the reason first. The steering wheel must not be pulled hard, and the steering gear should not be disassembled to avoid damage to parts. It is forbidden for two people to turn the steering wheel at the same time.



- | | | | | | |
|----|---|----|-------------------|----|------------------------|
| 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 | |

专业做液压-专注做精品

PROFESSIONAL ON HYDRAULIC- FOCUS ON HIGH QUALITY



石家庄寒九科技有限公司

地址：中国河北石家庄友谊北大街368号

电话：+86 (311) 68123061

传真：+86 (10) - 80115555-568844

邮编：050000

网址：www.hjhydraulic.com

邮箱：manager@sjzhjism.com

SHIJIAZHUANG HANJIU TECHNOLOGY CO.,LTD.

Add: No. 368 Youyi Street, Shijiazhuang, Hebei, China

Tel: +86 (311) 68123061

Fax: +86 (10) - 80115555-568844

Post code: 050000

Web: www.hjhydraulic.com

Email: manager@sjzhjism.com