

Gill 600 Interchangeable Closed-head Tong

使用说明书

Operating Instruction



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1. Summary

Gill 600 Interchangeable Closed-head Tongs are closed-faced with variable torque, hydraulic lift, Pressure oil bath lubrication, hardened internal gears, roller chain final drive and two-speed operation. Because they are closed-faced, Gill 600 Interchangeable Closed-head Tongs stay on the pipe all the way up. You save time because you don't have to remove and replace the tongs on the pipe after each joint is pulled. Every joint is gripped with a uniform, predetermined torque between 370 and 12000 ft. lbs (0.50~16.27kN.m), which is controlled by setting the pressure relief valve.

Double multiple hardened disc friction clutches drive the two-speed models and can be shifted from high to low gear without stopping or meshing teeth. Gill 600 Interchangeable Closed-head Tongs are available from stock to handle 1 5 / 16 " through 7 " O.D. tubing, drill pipe or casing.

2. Specification:

- a. Application Range: 1⁵/₁₆" ~7" (ϕ 33.3-177.8mm) tubing, drill pipe or casing
- b. Maximum passing diameter: 200mm (7 ⁷/₈")
- c. Torque: 370~12000ft.lbs (0.50~16.27 kN.m)
- d. High Gear Rated Torque: 1500 ft.lbs (2.03 kN.m)
- e. Low Gear Rated Torque: 12000 ft.lbs (16.27 kN.m)
- f. High Gear Rated Speed: 120 r/min (120 rpm)
Low Gear Rated Speed: 18 r/min (18 rpm)
- g. Total Length: 1580 mm (62 1/4")
Thickness of Master Tong: 253mm (9 29/32")
Height of Master Tong and Backup Tong: 464mm (18 1/4")
- h. Maximum dimension of glide elevator: 965mm (38")
- i. Versa dint of the knot tail rope: 1500kg (3300 lbs)
- j. Distance of between Tubing center and the knot tail rope: 1100mm (43 11/32")
- k. Weight: 962Kg (2120 lbs)
- l. Rated System Pressure: 14Mpa (2000 psi)
- m. Maximum Oil Supply: 148L/min (39 gpm)

3. Guarantee And After Service

For a period of six months after delivery, we guarantee to the original retail purchaser (owner) that all products manufactured by the company are free from defects in materials and workmanship that would impair the adequate function of such products under normal operating conditions as advertised in the current company catalog, except that:

(a) Any material not of the company's manufacture is covered only to the extent of any guarantee given to the company by the seller of said material and enforceable by the company against said seller;

(b) Any changes and/or additions to said products not made by the company are excluded.

The company's obligation under this guarantee shall be limited to the repair or change of any defective product or part thereof at its plant or at some other service facility as designated by the company. Replacement of expendable parts, such as outer disc, inner disc, drag plug, filter elements, hydraulic fluid, lubricants, tong jaw inserts and exterior finish are not included in this guarantee. The company shall not be liable for any indirect or consequential damages of any kind or character or due to any cause.

The owner must give the company prompt notice of any claimed defect in such products so that such products may be inspected by the company or one of its authorized dealers and confirmation of the defect made at that time and place.

THIS GUARANTEE IS EXPRESSLY IN LIEU OF ALL OTHER GUARANTEES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE.

Caution

Factory specifications for hydraulic fluids, lubricants, adjustments, and safety precautions are set forth for the mutual protection of the owner and company. Failure to adhere to these specifications can reduce the efficiency or life of the equipment.

4. Installation And Maintenance Instructions

Installing With Spring Cushioned Hydraulic Lift

(a) Move Tong to convenient position near well.

(b) Lift hydraulic cylinder, set in position on Tong, attach with pins, and connect hydraulic line from control valve to cylinder.

(c) Lift tong with line approximately 3 feet above well head. (Cylinder has 6 foot travel). The hydraulic lift is ready to operate by means of controls mounted on same side of tong as tong controls. The line supporting the tong should be located so the tong will hang over the center of the well.

(d) Well anchor bracket on right rear corner of rig approximately 4 feet from ground. Additional anchor brackets are available for use of tong on more than one rig.

(e) Attach the torque arm with the back of hydraulic power tong and well anchor bracket, and the torque arm is perpendicular to hydraulic power tong. The height of hydraulic power tong is 4 feet approximately. And the hanging height is that the tong be directed at oil coupling.

(f) Attach hoses from hydraulic power source. Be sure all self-sealing couplings are tight before starting engine. Tighten firmly by hand. Failure to do this will cause engine to run at full speed when tong is not in use.

(g) To level tong, use the leveling screws and compression spring nut. If tong is not leveling it will cause excess wear to tong inserts. (photo next page)

Jaw Arrangement

- (a) For breaking out joints, place jaws on pins with letter "B" up and long side of jaw against gear teeth.
- (b) For making up joints, place jaws on pins with letter "M" up and long side of jaw against gear teeth.
- (C) Inserts are reversible and should be turned around when they become worn or replaced if reversing fails to bring sharp teeth in contact with pipe.

Setting Hydraulics For Proper Operation

- (a) With clutch disengaged and all hoses connected, start engine.
- (b) Engage engine clutch.
- (c) Adjust tong relief valve .The relief valve on the tong operates in make-up direction only.

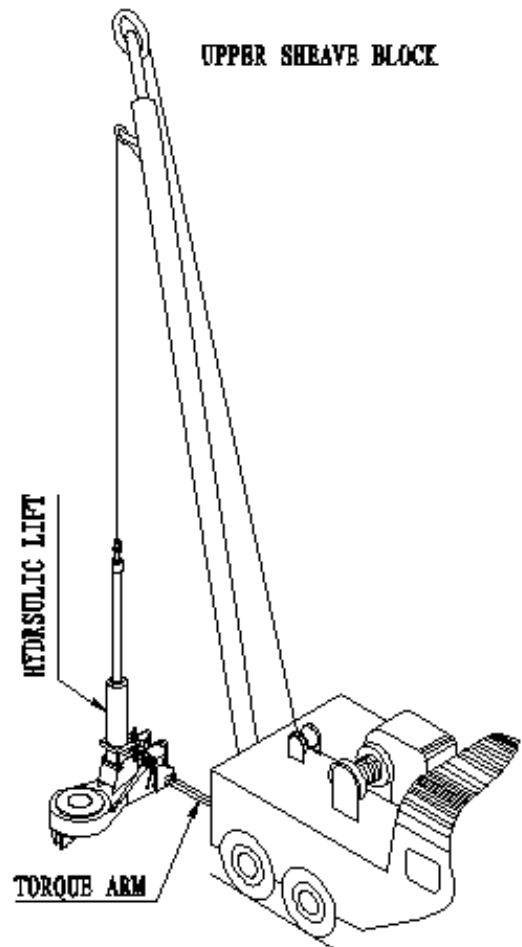
- I Turn relief valve adjusting screw to left to reduce pressure until tong reduces speed.
- II Place tong on tubing to be made up and gradually increase the pressure to reach make-up required.
- III Lock relief valve adjusting screw and make-up second joint checking torque where tong stalls. Make the system pressure to 2030PSI.
- IV Make minor corrections as necessary until torque readings are satisfactory.

NOTE: It Is Not Necessary To Change MAKE-UP Torque To BREAK-OUT.

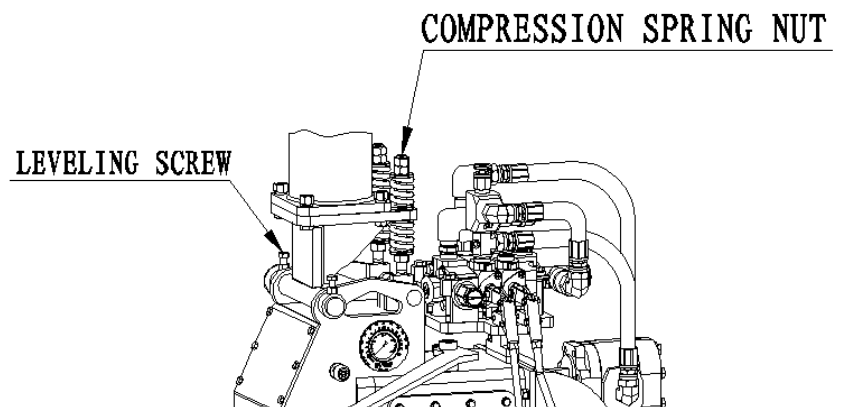
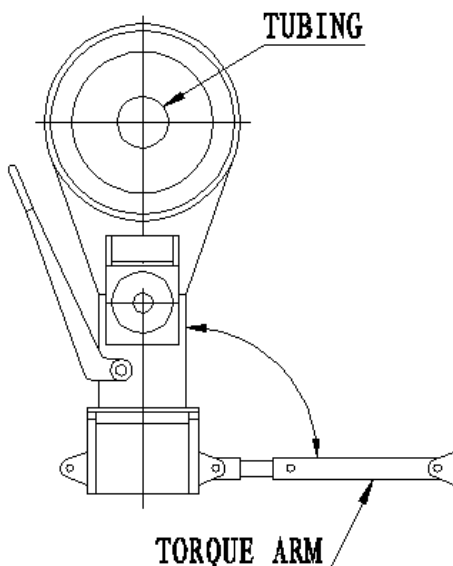
Tong operations at system pressure for break-up.

System pressure is controlled by relief valve set at

2030 PSI in Power Unit Tank. The max should not exceed 2500 PSI.



The illustration of the spring cushioned hydraulic lift installation



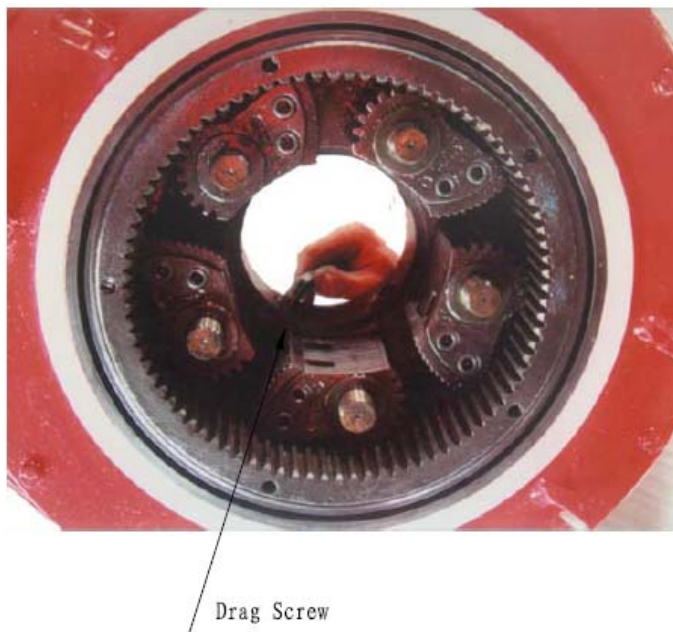
- (d) If pump fails to pick up oil after hoses have been disconnected or tong runs in surges, screw out relief valve all the way and let pressure back to tank. Circulate to remove air. Screw in pressure screw until tong operates. Repeat if necessary.
- (e) When the hydraulic power clamp is running, it is forbidden to adjust the position of the shift lever in the neutral position before the hydraulic motor is reversed. This can reduce the impact of hydraulic oil on the motor, improve the service life of hydraulic motors.

Steps To Dismantle

- (a) Raise tong to top of hydraulic lift travel.
- (b) Use line to lower tong and hydraulic lift to ground.
- (c) Shut off engine. Raise hydraulic lift lever to take hydraulic pressure off lift hose.
- (d) Disconnect hose and replace units for transporting.

Maintenance And Lubrication

- (a) Lubrication pressure fittings with soft gun lubricant daily.
- (b) Clean and grease tong head after every trip. Use kerosene or solvent and a wire brush for cleaning. (Sand and slag will cause excessive wear on jaws, pins, and gear ring.)
- (c) After cleaning, apply heavy coat of cup grease to jaws, pins and ring gear.
- (d) If tong grips and slips, increase pressure on drag by screwing in drag screws in drag gear. (photo this page)



- (e) Check transmission after every trip. If water or dirt is present, change oil.
- (f) Keep the mechanical jaws in the power jaw gear box clean, if dirty or water, drain the water or replace the new mechanical oil. The use of unclean mechanical oil will make the hydraulic clamp internal oil blockage, resulting in poor lubrication of the transmission parts, reducing the service life of hydraulic clamp.
- (g) Before using the hydraulic clamp, check whether the mechanical oil in the gearbox is in the specified position.

- (h) In the hydraulic clamp gear box should be used by the API certified N22-N32 mechanical oil, mechanical oil must be maintained in the liquid Pliers side of the oil level valve should be about 1 cm.
- (i) Steam cleaning tong head forces water by top seal in the tong head .Steam cleaning removes all the lubricant from the seal causing the seal to harden. If steam cleaning is used the guide bell should be in place. After steam cleaning check transmission for water presence of water. If water is present ,drain and replace oil. Keep top seal well packed with cup grease.
- (j) Hydraulic system oil should be drained and replaced when it becomes dirty.
- (k) Keep filter screen and magnet clean.

The company solemnly tips :

Factory specification for lubricants, adjustments, safely precautions are set forth for the mutual protection of the owner and the company .Failure to adhere to these specifications can reduce the efficiency or life of the tong.

5.Lubrication Instructions

(a) Oil Used When Shipped From Factory:

Transmission: 10 Quarts

Oil Tank: 0 Gallons

(b) Power Tongs Hydraulic System

Hydraulic Operated:

I . HV ISO VG46 low temperature anti-rust anti-wear hydraulic oil, suitable for ambient temperature -20 °C ~ +40 °C;

II . HM ISO VG46 anti-rust and anti-wear hydraulic oil, suitable for ambient temperature -10 °C ~ +40 °C;

III. HL ISO VG46 anti-rust type hydraulic oil, suitable for ambient temperature 0 °C ~ +40 °C.

NOTE:

When the temperature below 0 °C , you need to use the red hydraulic oil, this oil is suitable for minus 40 °C to zero 100 °C and can be used in the very low temperature conditions without preheating.

Transmission: Oil Meeting API Classification MS (SAE 20)

Grease Fittings: Any Soft Gun Lubricant

IMPORTANT:

- I . Check transmission after every trip. , If there is water or dirt, should be cleaned after oil lubrication.
- II . Keep the mechanical fluid in the hydraulic clamp gear box clean, if dirty or water, drain the water or replace the new mechanical oil.
- III. Before using the hydraulic clamp, check whether the mechanical oil in the gearbox is maintained at the specified oil level.

IV. Steam cleaning tong head forces water by top seal in the tong head .Steam cleaning removes all of the lubricant from the seal causing the seal to harden. If steam cleaning is used, the guide bell should be bolted in place. After steam cleaning, check transmission for presence of water. If water is present, drain and replace oil. Keep top seal well packed with cup grease.

V. Hydraulic system oil should be drained and replaced when it becomes dirty. Keep Filter Screen and Magnet clean.

6.Instructions For Reversing Backup Tool

- (a) To reverse Backup from Breakout to Makeup, pull pin and let Backup tool drop down, as shown in picture.
- (b) Handle will swivel to turn Backup Tool over.
- (c) Lift Backup Tool back into position and replace pin .



7、 To Adjust Tong Clutch

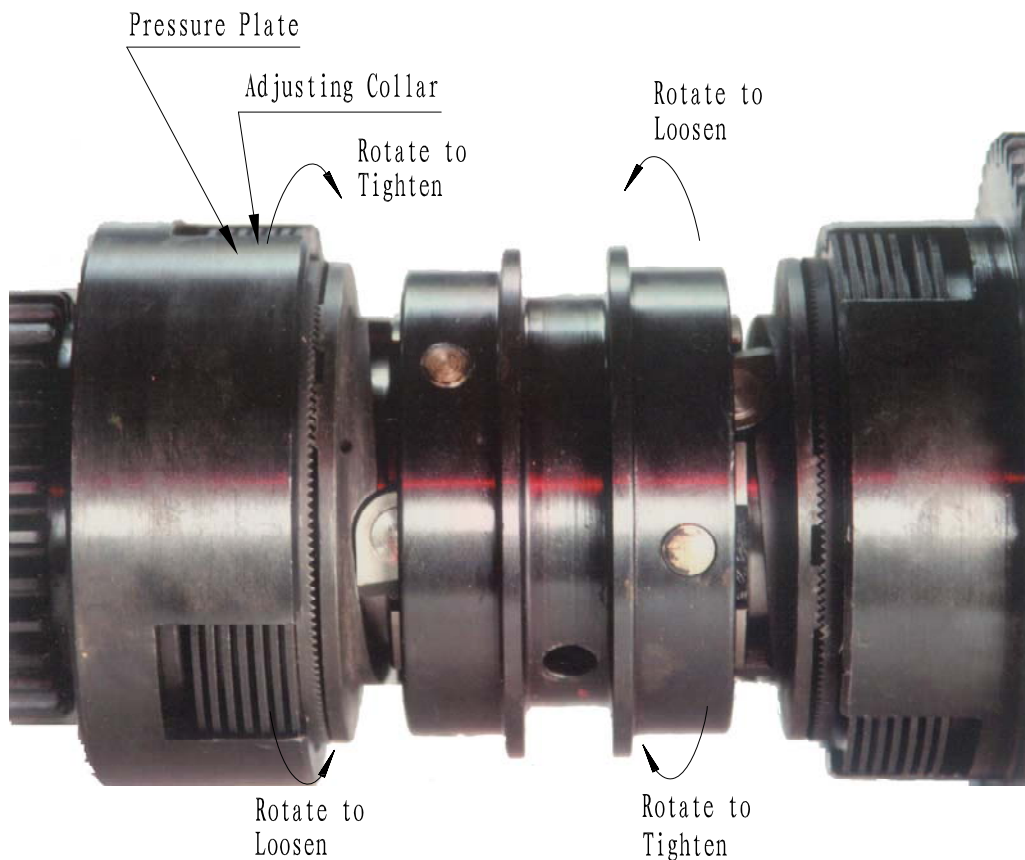
- (a)、 Remove side panel from operator's side of Tong
- (b)、 Be sure tong is in neutral position.
- (c)、 Rotate clutch with hand until slot in adjusting collar is facing toward the opening in tong..
- (d)、 Insert screwdriver or similar object in slot in the adjusting collar.
- (e)、 Pry the adjusting collar away from pressure plate so that the teeth are free from each other.
- (f)、 Rotate adjusting collar in the direction shown to adjust clutch.

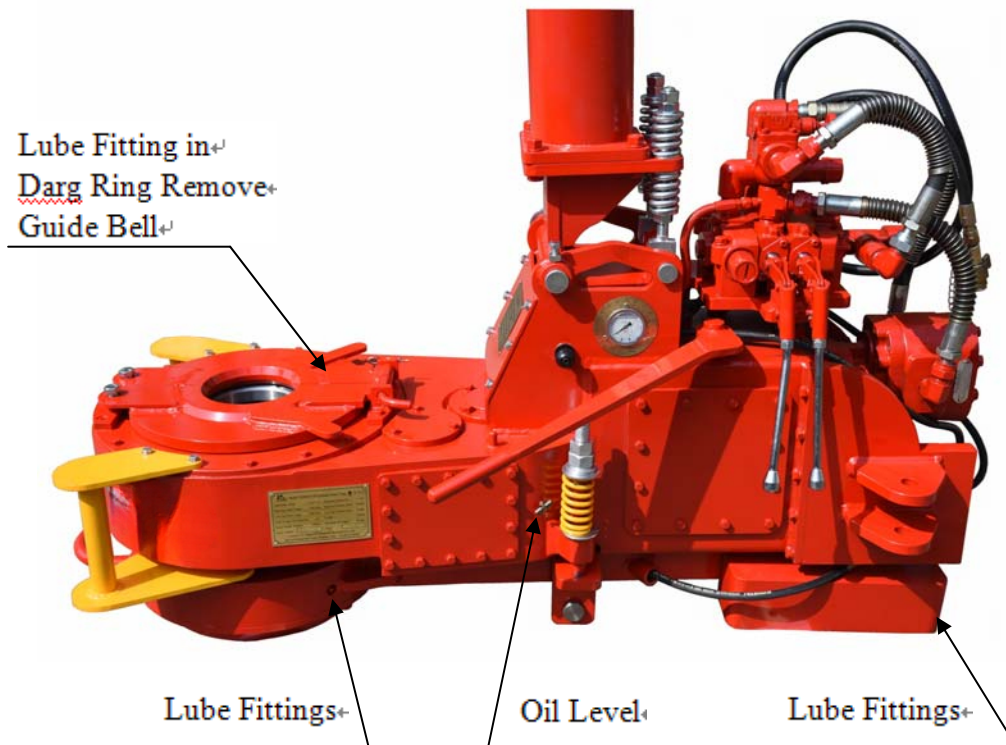
Follow the above procedure for both ends of the clutch.

Adjust left end of clutch for high gear.

Adjust right end of clutch for low gear.

If the clutch slips or the disc stack heats up, adjustment is required.





8. Operational Maintenance

Operation and maintenance instructions:

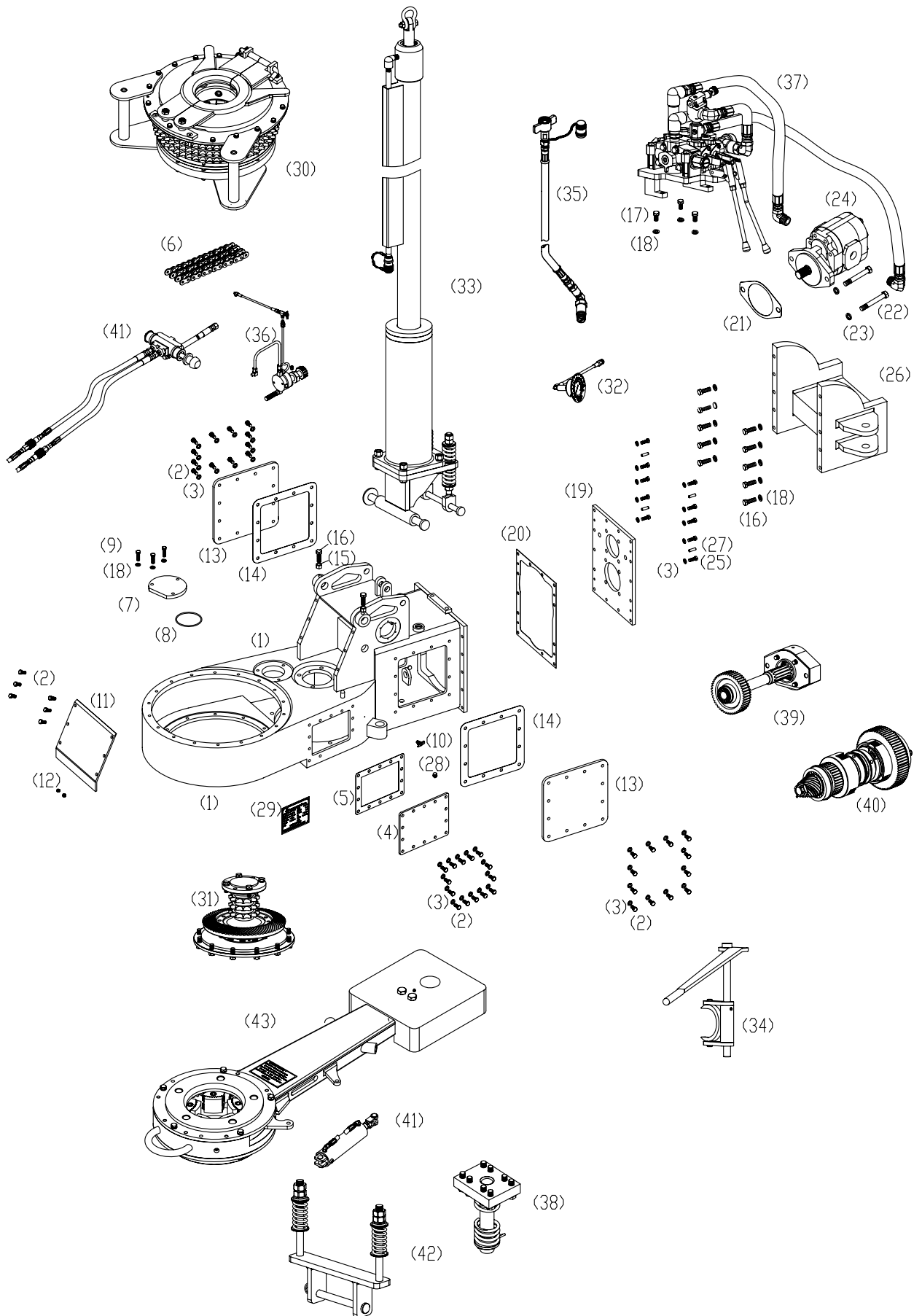
- a、 Must read this instruction manual carefully before the tong operation, and maintenance.
- b、 To lubricate the movement parts at least once every working day.
- c、 After each use, should check all moving parts are normal, and tighten loose bolts.
- d、 After each use, should clean the Fat booty on the tong and backup tong in time, keep the equipment clean.
- e、 It is dangerous to use steam cleaning of the hydraulic power tong, Water may get into the gear box through the cover sealing ring. It will also remove the lubricant of the movement parts, or make the lubrication part or lubricant deterioration failure。 After cleaning, should check whether each part is normal, or it should be handled in a timely manner.

Safety tips and warnings:

- a、 Warning: The operator's hand should be in a safe place when the hydraulic power tong operation, When to operate equipment operation. It should make the hydraulic power tong in the neutral position when the equipment operation.
- b、 Don't crawl or stand under tongs as hydraulic line could be cut or broken and tongs will fall.
- c、 Do not operate power tongs until the Anchor Arm is attached to the tong and Anchor post.
- d、 Power should be off before any size equipment change, maintenance, or any other work is done to this equipment.

9. Power Tong Attached Drawing And spare parts lists

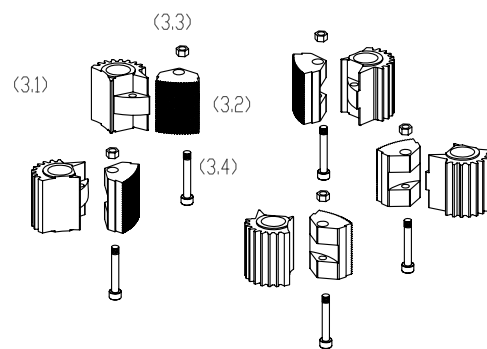
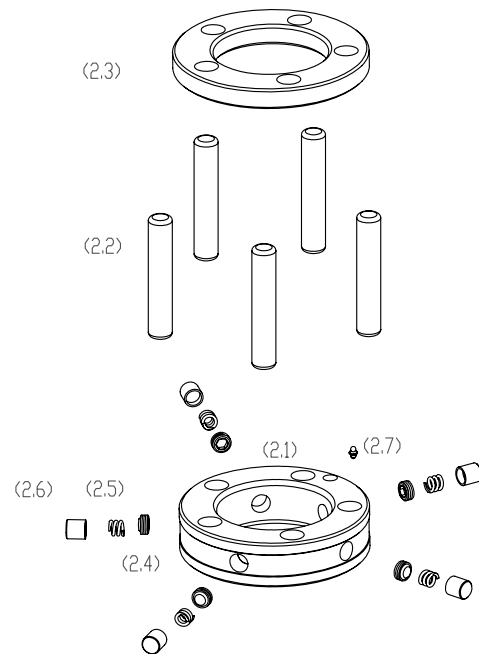
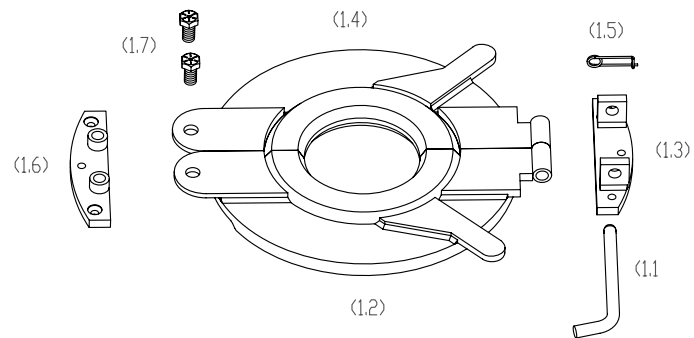
1. Gill 600 Interchangeable Closed-head Tong



序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	YQ16B-01	壳体	54-3-6	Transmission Case	1	
2	(GB/T 5783)	六角头螺栓 $\frac{3}{8}$ "-16UNC $\times\frac{3}{4}$ "		Cap Screw $\frac{3}{8}$ " $\times\frac{3}{4}$ "Hex	44	
3	(GB/T 93)	弹簧垫圈 $\frac{3}{8}$ "		Washer $\frac{3}{8}$ " Lock	55	
4	YQ16B-02	小罩板	97-295	Side Plate	1	
5	YQ16B-03	密封垫		Seal Washer	1	
6	GB/T 1243	滚子链 16A-3 $\times$ 70	59-13-1	Rooller Chain	1	
7	YQ16B-04	密封盖		Seal Cover	1	
8	GB/T 3452.1	O形密封圈 ϕ 88.5 $\times$ 3.55		O-ring 3.484" $\times$ 0.14"	1	
9	(GB/T 5783)	六角头螺栓 $\frac{3}{8}$ "-16UNC $\times$ 1 $\frac{1}{4}$ "		Cap Screw $\frac{3}{8}$ " $\times$ 1 $\frac{1}{4}$ " Hex. Hd.	3	
10	FFY-00	放油阀	11-299	Brain Cock	1	
11	YQ16B-05	挡板	N/A	Cuard Cover	1	
12	YQ2.5Y.9-04	螺塞		Whorl Stuff	2	
13	YQ16B-06	护板	55-295	Side Plate Assembly	2	
14	YQ16B-07	密封垫		Seal Washer	2	
15	(GB/T 6170)	螺母 $\frac{1}{2}$ "-13UNC		Nut $\frac{1}{2}$ "NC	2	
16	(GB/T 5783)	六角螺头栓 $\frac{1}{2}$ "-13UNC $\times$ 1 $\frac{1}{2}$ "		Cap Screw $\frac{1}{2}$ " $\times$ 1 $\frac{1}{2}$ " Hex. Hd.	12	
17	(GB/T 5783)	六角螺头栓 $\frac{1}{2}$ "-13UNC $\times$ 1 $\frac{1}{4}$ "		Cap Screw $\frac{1}{2}$ " $\times$ 1 $\frac{1}{4}$ " Hex. Hd.	3	
18	(GB/T 93)	弹簧垫圈 $\frac{1}{2}$ "		Washer $\frac{1}{2}$ " Lock	13	
19	YQ16B-08	后支承板	54-17-5	End Plate	1	
20	YQ16B-09	密封垫		Seal Washer	1	
21	YQ16B-10	马达密封垫片		The motor gasket	1	
22	(GB/T 5780)	六角头螺栓 $\frac{5}{8}$ "-11UNC $\times$ 1 $\frac{1}{4}$ "		Cap Screw $\frac{5}{8}$ " $\times$ 1 $\frac{1}{4}$ "Hex Head NC	2	螺纹长1"
23	(GB/T 93)	弹簧垫圈 $\frac{5}{8}$ "		Washer $\frac{5}{8}$ " lock	2	
24		液压马达 M3700A887AZHK22-6		Commercial Motor	1	
25	(GB/T 5783)	六角头螺栓 $\frac{3}{8}$ "-16UNC $\times$ 1"		Cap Screw $\frac{3}{8}$ " $\times$ 1"Hex	14	
26	YQ16B-11	配重组合	N/A	Levering Combination	1	
27	GB/T 119.2	圆柱销B8 $\times$ 27		Cylinder Pin	4	
28	YQ8Y-13	油塞	11-601	Pipe Plug $\frac{1}{2}$ " Skt. Head	1	
29	YQ16B-12	产品标牌		Label	1	
30	YQ16B.1-00	钳头总成		Final drive Assembly	1	
31	YQ16B.2-00	链轮轴总成		Ring Gear Hub & Sprocket Assembly	1	
32	YQ16B.3-00	扭矩显示器总成		HYD.Torque Gauge Assembly	1	

序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	(GB/T 5783)	六角头螺栓 $\frac{3}{8}$ "-16UNC×1"	11-196	Cap Screw $\frac{3}{8}$ "×1"Hex. Hd.	12	
2	(GB/T 5780)	六角头螺栓 $\frac{3}{8}$ "-16UNC×2 $\frac{1}{2}$ "	11-160	Cap Screw $\frac{3}{8}$ "×2 $\frac{1}{2}$ " Hex. Hd.	8	
3	(GB/T 93)	弹簧垫圈 $\frac{3}{8}$ "	11-196	Washer $\frac{3}{8}$ " lock	40	
4	GB/T 3452.1	O形密封圈 9×2.65		O-ring 0.354"×0.104"	12	
5	GB/T 3452.1	O形密封圈 $\varnothing$ 380×3.55		O-ring14.961"×0.14"	1	
6	HG4-338-660	J型油封310×350×20	58-47-1	Oil Seal 9594 L.P.D	2	
7	YQ16B.1-01	支承圈	93-25-1	Bearing Race	1	
8	YQ8Y.2-1	孔用挡圈	93-30	Seal Protector	1	
9	YQ8Y.2-3	支承盘	93-285	Drag Ring Sleeve	1	
10	YQ8Y.2.3-00	滚柱轴承总成	93-7	Roller Bearing	2	
11	YQ8Y.2-4	底盖	93-286-1	Bottom Cap	1	
12	YQ16B.1-02	钳头盖	93-2-1	Top Bearing Cap	1	
13	YQ16B.1-03	链轮	93-4-1	Final Drive Gear	1	
14	YQ16B.1-04	垫圈	93-13-1	Bace Ring	2	
15	YQ16B.1-05	垫片		Base Plank	1	
16	(GB/T 5783)	六角头螺栓 $\frac{3}{8}$ "-16UNC×1 $\frac{1}{4}$ "		Cap Screw $\frac{3}{8}$ "×1 $\frac{1}{4}$ "Hex. Hd.	8	
17	(GB/T 119.2)	圆柱销 8×20		Straight Pin $\frac{5}{16}$ "×2 $\frac{5}{32}$ "	1	
18	(GB/T 70.3)	内六角沉头 $\frac{3}{8}$ "-16UNC×1 $\frac{3}{4}$ "		Cap Screw $\frac{3}{8}$ "×1 $\frac{3}{4}$ "Hex. Hd.	2	
19	(GB/T 5780)	六角头螺栓 $\frac{3}{8}$ "-16UNC×1 $\frac{3}{4}$ "		Cap Screw $\frac{3}{8}$ "×1 $\frac{3}{4}$ "Hex. Hd.	4	
20	(GB/T 5780)	六角头螺栓 $\frac{3}{8}$ "-16UNC×1 $\frac{1}{2}$ "		Cap Screw $\frac{3}{8}$ "×1 $\frac{1}{2}$ "Hex. Hd.	4	
21	YQ16B.1.4-00	左扶手总成		Left arm assembly	1	
	YQ16B.1.4-01	左上扶手		Upper left arm	1	
	YQ16B.1.4-02	左下扶手		Lower left arm	1	
22	(GB/T 5780)	六角头螺栓 $\frac{3}{8}$ "-16UNC×2 $\frac{3}{4}$ "		Cap Screw $\frac{3}{8}$ "×2 $\frac{3}{4}$ "Hex. Hd.	4	
23	YQ16B.1.5-00	右扶手总成		Right arm assembly	1	
	YQ16B.1.5-01	右上扶手		Upper right arm	1	
	YQ16B.1.5-02	右下扶手		Lower right arm	1	
24				Jaw Set	1	

Jaw Set



序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
	适应管径: 1 $\frac{5}{16}$ "- 3 $\frac{1}{2}$ "		Adaptation Diameter: 1 $\frac{5}{16}$ "- 3 $\frac{1}{2}$ "			
1	YQ16B. 1. 3-0A	5 $\frac{1}{2}$ "分体式盖板总成		Guide Bell (5 $\frac{1}{2}$ "Bore)	1	
1.1	YQ16B. 1. 3-01A	插销		Bolt	1	
1.2	YQ16B. 1. 3-02A	左盖板 (5 $\frac{1}{2}$ ")		Guide Bell left (5 $\frac{1}{2}$ ")	1	
1.3	YQ16B. 1. 3-03A	托板 (1)		Plate	1	
1.4	YQ16B. 1. 3-04A	右盖板 (5 $\frac{1}{2}$ ")		Guide Bell right (5 $\frac{1}{2}$ ")	1	
1.5	TQ35. 12-03	弹簧夹		Spring clip	1	
1.6	YQ16B. 1. 3-05A	托板 (2)		Plate	1	
1.7	(GB/T 5783)	六角头螺栓 $\frac{5}{8}$ "X1 $\frac{3}{16}$ "		Cap Screw $\frac{5}{8}$ "X1 $\frac{3}{16}$ "Hex. Hd.	2	
2	YQ8Y. 2. 1-00	托架总成 (1 $\frac{5}{16}$ "- 3 $\frac{1}{2}$ ")		Drag Ring Assy 1 $\frac{5}{16}$ "- 3 $\frac{1}{2}$ "	1	
2.1	YQ8Y. 2. 1-1	底盘 5 "	50-15-2	Drag Ring (5" Bore)	1	
2.2	YQ8Y. 2. 1-2	芯轴 (1")	50-8-2	Jaw Pins	5	
2.3	YQ8Y. 2. 1-3	联接板 5 $\frac{1}{2}$ "	93-161	Cover Plate(5" Bore)	1	
2.4	YQ8Y. 2. 1-4	弹簧	50-57	Drag Springs	5	
2.5	YQ8Y. 2. 1-5	制动垫	50-58	Drag Plugs	5	
2.6	(GB/T 77)	内六角紧定螺钉1"X1"	11-147	Set Screws 1" x 1"	5	
2.7	(JB/T 7940. 1)	直通式油杯 $\frac{1}{4}$ "-28	Z503-3	Grease Fitting	1	
3A	YQ8Y. 2. 2-0A	行星爪总成 (1 $\frac{5}{16}$ "- 1. 9")		1 $\frac{5}{16}$ "- 1. 9" Jaw Assembly	5	
3.1	YQ8Y. 2. 2-1A	行星爪	50-149-6	Jaws	5	
3.2	YQ8Y. 1. 1-1A	牙块 (1)	H50-48-5	Inserts	10	
3.3	(GB/T 6170)	六角螺母 $\frac{3}{8}$ "-16UNC	50-49-2	Nut $\frac{3}{8}$ " NC	5	
3.4	(GB/T 70. 1)	内六角螺钉 $\frac{3}{8}$ "-16UNCX2 $\frac{3}{4}$ "		Insert Screws	5	
3B	YQ8Y. 2. 2-0B	行星爪总成 (1 $\frac{7}{8}$ "- 2 $\frac{3}{8}$ ")		1 $\frac{7}{8}$ "- 2 $\frac{3}{8}$ " Jaw Assembly	5	
3.1	YQ8Y. 2. 2-1B	行星爪	58-330	Jaws	5	
3.2	YQ8Y. 2. 2-2B	牙块	58-216	Inserts	10	
3.3	(GB/T 6170)	六角螺母 $\frac{3}{8}$ "-16UNC	50-49-2	Nut $\frac{3}{8}$ " NC	10	
3.4	(GB/T 70. 1)	内六角螺钉 $\frac{3}{8}$ "-16UNCX2 $\frac{3}{4}$ "		Insert Screws	10	
3C	YQ8Y. 2. 2-0C	行星爪总成 (2 $\frac{3}{8}$ "- 3 $\frac{3}{4}$ ")		2 $\frac{3}{8}$ "-3 $\frac{3}{4}$ "Jaw Assembly	5	
3.1	YQ8Y. 2. 2-1C	行星爪	50-22-7	Jaws	5	
3.2	YQ8Y. 1. 1-1B	牙块 (1)	50-48-1	Inserts	10	
3.3	(GB/T 6170)	六角螺母 $\frac{3}{8}$ "-16UNC	50-49-2	Nut $\frac{3}{8}$ " NC	10	
3.4	(GB/T 70. 1)	内六角螺钉 $\frac{3}{8}$ "-16UNCX2 $\frac{3}{4}$ "		Insert Screws	10	螺纹长9mm

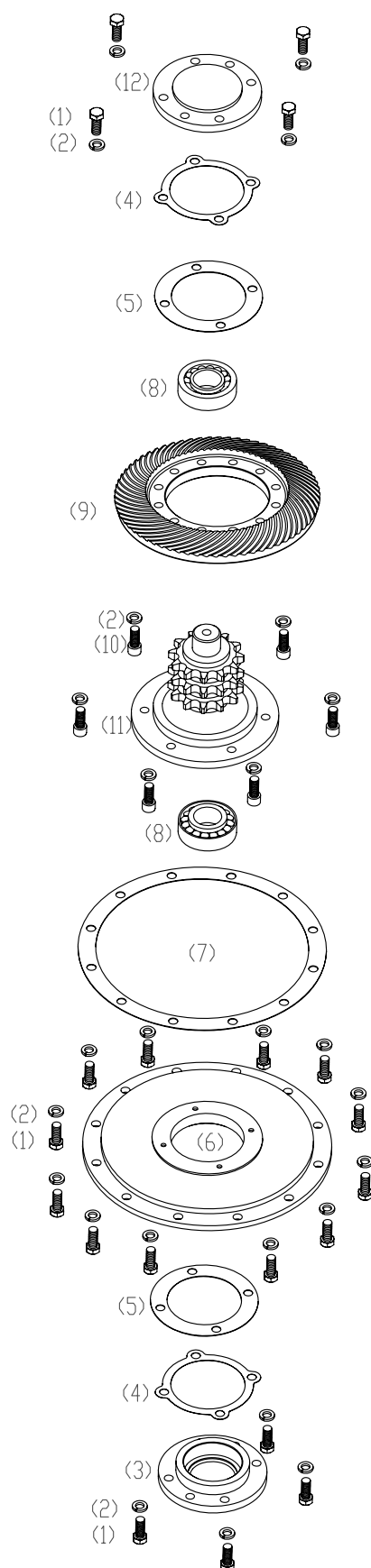
序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
3D	YQ8Y. 2. 2-0D	行星爪总成 (3 1/2")		3 1/2" Jaw Assembly	5	
3.1	YQ8Y. 2. 2-1D	行星爪 (内孔 ϕ 25.6)	J505-2	Jaws	5	
3.2	YQ8Y. 2. 2-2D	钳牙 (1)	N505-4	Inserts	5	
3.3	(GB/T 6170)	六角螺母 3/8"-16UNC	50-49-2	Nut 3/8" NC	5	
3.4	(GB/T 70.1)	内六角螺钉 3/8"-16UNC $\times$ 2 19/32"		Insert Screws	5	螺纹长11mm
	适应管径: 2 3/8"- 5"		Adaptation Diameter: 2 3/8"- 5"			
1	YQ16B. 1. 3-0B	6" 分体式盖板总成		Guide Bell (6"Bore)	1	
1.1	YQ16B. 1. 3-01A	插销		Bolt	1	
1.2	YQ16B. 1. 3-02B	左盖板 (6")		Guide Bell left (6")	1	
1.3	YQ16B. 1. 3-03A	托板 (1)		Plate	1	
1.4	YQ16B. 1. 3-04B	右盖板 (6")		Guide Bell right (6")	1	
1.5	TQ35. 12-03	弹簧夹		Spring clip	1	
1.6	YQ16B. 1. 3-05A	托板 (2)		Plate	1	
1.7	(GB/T 5783)	六角头螺栓 5/8" $\times$ 1 3/16"		Cap Screw 5/8" 1 3/16"Hex. Hd.	2	
2	YQ16B. 1. 1-0A	托架总成 (2 3/8" - 5")		Drag Ring Assy	1	
2.1	YQ16B. 1. 1-01A	底盘	D504-A	Drag Ring	1	
2.2	YQ16B. 1. 1-02A	芯轴 (1 1/4")	D508-3	Jaw Pins	5	
2.3	YQ16B. 1. 1-03A	联接板	R501-11	Cover Plate	1	
2.4	YQ16B. 1. 1-04A	制动螺钉	D505-1	Set Screw	5	
2.5	YQ8Y. 2. 1-04	弹簧	50-57	Drag Springs	5	
2.6	YQ8Y. 2. 1-05	制动垫	50-58	Drag Plugs	5	
2.7	(JB/T 7940.1)	直通式油杯 1/4"-28UNF	Z503-3	Grease Fitting	1	
3E	YQ16B. 1. 2-0A	行星爪总成 (2 3/8"- 2 7/8")		2 3/8"- 2 7/8" Jaw Assembly	5	
3.1	YQ16B. 1. 2-01A	行星爪	J503-1	Jaws	5	
3.2	YQ8Y. 1. 1-1B	牙块 (2)	N503	Inserts	10	
3.3	(GB/T 6170)	六角螺母 3/8"-16UNC	50-49-2	Nut 3/8" NC	10	
3.4	(GB/T 70.1)	内六角螺钉 3/8"-16UNC $\times$ 2 3/4"		Insert Screws	10	螺纹长9mm
3F	YQ16B. 1. 2-0B	行星爪总成 (2 7/8"- 3 1/2")		2 7/8"-3 1/2"Jaw Assembly	5	
3.1	YQ16B. 1. 2-01B	行星爪	J505-3	Jaws	5	
3.2	YQ8Y. 2. 2-2D	钳牙 (1)	N505-4	Inserts	5	
3.3	(GB/T 6170)	六角螺母 3/8"-16UNC	11-76	Nut 3/8" NC	5	

序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
3.4	(GB/T 70.1)	内六角螺钉 $\frac{3}{8}$ "-16UNCX66mm	N507	Insert Screws	5	螺纹长11mm
3G	YQ16B. 1. 2-0C	行星爪总成 (3 $\frac{1}{2}$ "- 4 $\frac{1}{2}$ ")		3 $\frac{1}{2}$ "-4 $\frac{1}{2}$ "Jaw Assembly	5	
3.1	YQ16B. 1. 2-01B	行星爪	J505-3	Jaws	5	
3.2	YQ8Y. 2. 2-1E	钳牙 (2)	N505	Inserts	5	
3.3	(GB/T 6170)	六角螺母 $\frac{3}{8}$ "-16UNC	50-49-2	Nut $\frac{3}{8}$ " NC	5	
3.4	(GB/T 70.1)	内六角螺钉 $\frac{3}{8}$ "-16UNCX66mm		Insert Screws	5	螺纹长11mm
3H	YQ16B. 1. 2-0D	行星爪总成 (4"-5")		4"-5" Jaw Assembly	5	
3.1	YQ16B. 1. 2-01B	行星爪	J505-3	Jaws	5	
3.2	YQ8Y. 2. 2-1F	钳牙 (3)	N505-1	Inserts	5	
3.3	(GB/T 6170)	六角螺母 $\frac{3}{8}$ "-16UNC	50-49-2	Nut $\frac{3}{8}$ " NC	5	
3.4	(GB/T 70.1)	内六角螺钉 $\frac{3}{8}$ "-16UNCX66mm		Insert Screws	5	螺纹长11mm
	适应管径: 3 $\frac{1}{2}$ "- 6 $\frac{1}{16}$ "		Adaptation Diameter: 3 $\frac{1}{2}$ "- 6 $\frac{1}{16}$ "			
1	YQ16B. 1. 3-0C	6 $\frac{1}{4}$ "分体式盖板总成		Guide Bell (6 $\frac{1}{4}$ "Bore)	1	
1.1	YQ16B. 1. 3-01A	插销		Bolt	1	
1.2	YQ16B. 1. 3-02C	左盖板 (6 $\frac{1}{4}$ ")		Guide Bell left (6 $\frac{1}{4}$ ")	1	
1.3	YQ16B. 1. 3-03A	托板 (1)		Plate	1	
1.4	YQ16B. 1. 3-04C	右盖板 (6 $\frac{1}{4}$ ")		Guide Bell right (6 $\frac{1}{4}$ ")	1	
1.5	TQ35. 12-03	弹簧夹		Spring clip	1	
1.6	YQ16B. 1. 3-05A	托板 (2)		Plate	1	
1.7	(GB/T 5783)	六角头螺栓 $\frac{5}{8}$ "X1 $\frac{3}{16}$ "		Cap Screw $\frac{5}{8}$ "X1 $\frac{3}{16}$ "Hex. Hd.	2	
2	YQ8Y. 2. 1-00A	托架总成 (3 $\frac{1}{2}$ "- 6 $\frac{1}{16}$ ")		Drag Ring Assy 3 $\frac{1}{2}$ "- 6 $\frac{1}{16}$ "	1	
2.1	YQ8Y. 2. 1-1A	底盘 6 $\frac{1}{4}$ "	58-160-2	Drag Ring (6 $\frac{1}{4}$ " Bore)	1	
2.2	YQ8Y. 2. 1-2	芯轴 (1")	50-8-2	Jaw Pins	5	
2.3	YQ8Y. 2. 1-3A	联接板 6 $\frac{1}{4}$ "	93-161-3	Cover Plate (6 $\frac{1}{4}$ " Bore)	1	
2.4	YQ8Y. 2. 1-4	弹簧	50-57	Drag Springs	5	
2.5	YQ8Y. 2. 1-5	制动垫	50-58	Drag Plugs	5	
2.6	(GB/T 77)	内六角紧定螺钉1" x $\frac{3}{4}$ "	11-583	Set Screws 1" x $\frac{3}{4}$ "	5	
2.7	(JB/T 7940.1)	直通式油杯 $\frac{1}{4}$ "-28	Z503-3	Grease Fitting	1	
3I	YQ8Y. 2. 2-0E	行星爪总成 (3 $\frac{1}{2}$ "-4 $\frac{1}{2}$ ")	50-22-11	3 $\frac{1}{2}$ "-4 $\frac{1}{2}$ " Jaw Assembly	5	
3.1	YQ8Y. 2. 2-1D	行星爪 (内孔 ϕ 25.6)	J505-2	Jaws (solid)	5	
3.2	YQ8Y. 2. 2-1E	钳牙 (2)	J505	Inserts	5	

序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
3.3	(GB/T 6170)	六角螺母 $\frac{3}{8}$ "-16UNC	50-49-2	Nut $\frac{3}{8}$ " NC	5	
3.4	(GB/T 70.1)	内六角螺钉 $\frac{3}{8}$ "-16UNC x2 $\frac{19}{32}$ "		Insert Screws	5	螺纹长11mm
3J	YQ8Y. 2. 2-0F	行星爪总成 (4"-5")	50-22-12	4"-5" Jaw Assembly	5	
3.1	YQ8Y. 2. 2-1D	行星爪 (内孔 ϕ 25.6)	J505-2	Jaws (solid)	5	
3.2	YQ8Y. 2. 2-1F	钳牙 (3)	J505-1	Inserts	5	
3.3	(GB/T 6170)	六角螺母 $\frac{3}{8}$ "-16UNC	50-49-2	Nut $\frac{3}{8}$ " NC	5	
3.4	(GB/T 70.1)	内六角螺钉 $\frac{3}{8}$ "-16UNCx2 $\frac{19}{32}$ "		Insert Screws	5	螺纹长11mm
3K	YQ8Y. 2. 2-1G	行星爪 (5"-6 $\frac{1}{16}$ ")	58-314	5"-6 $\frac{1}{16}$ " Jaw (Solid)	5	
	适应管径: 4"- 5 $\frac{1}{2}$ "		Adaptation Diameter: 4"- 5 $\frac{1}{2}$ "			
1	YQ16B. 1. 3-0D	7 $\frac{1}{4}$ "分体式盖板总成		Guide Bell (7 $\frac{1}{4}$ "Bore)	1	
1.1	YQ16B. 1. 3-01A	插销		Bolt	1	
1.2	YQ16B. 1. 3-02D	左盖板 (7 $\frac{1}{4}$ ")		Guide Bell left (7 $\frac{1}{4}$ ")	1	
1.3	YQ16B. 1. 3-03A	托板 (1)		Plate	1	
1.4	YQ16B. 1. 3-04D	右盖板 (7 $\frac{1}{4}$ ")		Guide Bell right (7 $\frac{1}{4}$ ")	1	
1.5	TQ35. 12-03	弹簧夹		Spring clip	1	
1.6	YQ16B. 1. 3-05A	托板 (2)		Plate	1	
1.7	(GB/T 5783)	六角头螺栓 $\frac{5}{8}$ "x1 $\frac{3}{16}$ "		Cap Screw $\frac{5}{8}$ " 1 $\frac{3}{16}$ "Hex. Hd.	2	
2	YQ16B. 1. 1-0B	托架总成 (4" -5 $\frac{1}{2}$ ")		Drag Ring Assy	1	
2.1	YQ16B. 1. 1-01B	底盘	D502-1-A	Drag Ring	1	
2.2	YQ16B. 1. 1-02B	芯轴 (3/4")	D508-1	Jaw Pins	5	
2.3	YQ16B. 1. 1-03B	联接板	R501-3-1	Cover Plate	1	
2.4	YQ16B. 1. 1-04A	制动螺钉	D505-1	Set Screw	5	
2.5	YQ16B. 1. 1-04B	弹簧	D506-1	Drag Springs	5	
2.6	YQ16B. 1. 1-05B	制动垫	FCC58-57	Drag Plugs	5	
2.7	(JB/T 7940.1)	直通式油杯 $\frac{1}{4}$ "-28UNF	Z503-3	Grease Fitting	1	
3L	YQ16B. 1. 2-0E	行星爪总成 (4"-4 $\frac{1}{2}$ ")		4"-4 $\frac{1}{2}$ " Jaw Assembly	5	
3.2	YQ16B. 1. 2-01E	牙块	N505-2	Inserts	5	
3.1	YQ16B. 1. 2-02E	行星爪	J506	Jaws	5	
3.3		锁紧螺母 $\frac{5}{16}$ "-18UNC		Nut $\frac{5}{16}$ " NC	5	
3.4	(GB/T 70.1)	内六角螺钉 $\frac{5}{16}$ "-18UNCx2 $\frac{9}{16}$ "	N507-1	Insert Screws	5	螺纹长 $\frac{5}{8}$ "
3M	YQ16B. 1. 2-0F	行星爪总成 (5"-5 $\frac{1}{2}$ ")		5"-5 $\frac{1}{2}$ " Jaw Assembly	5	

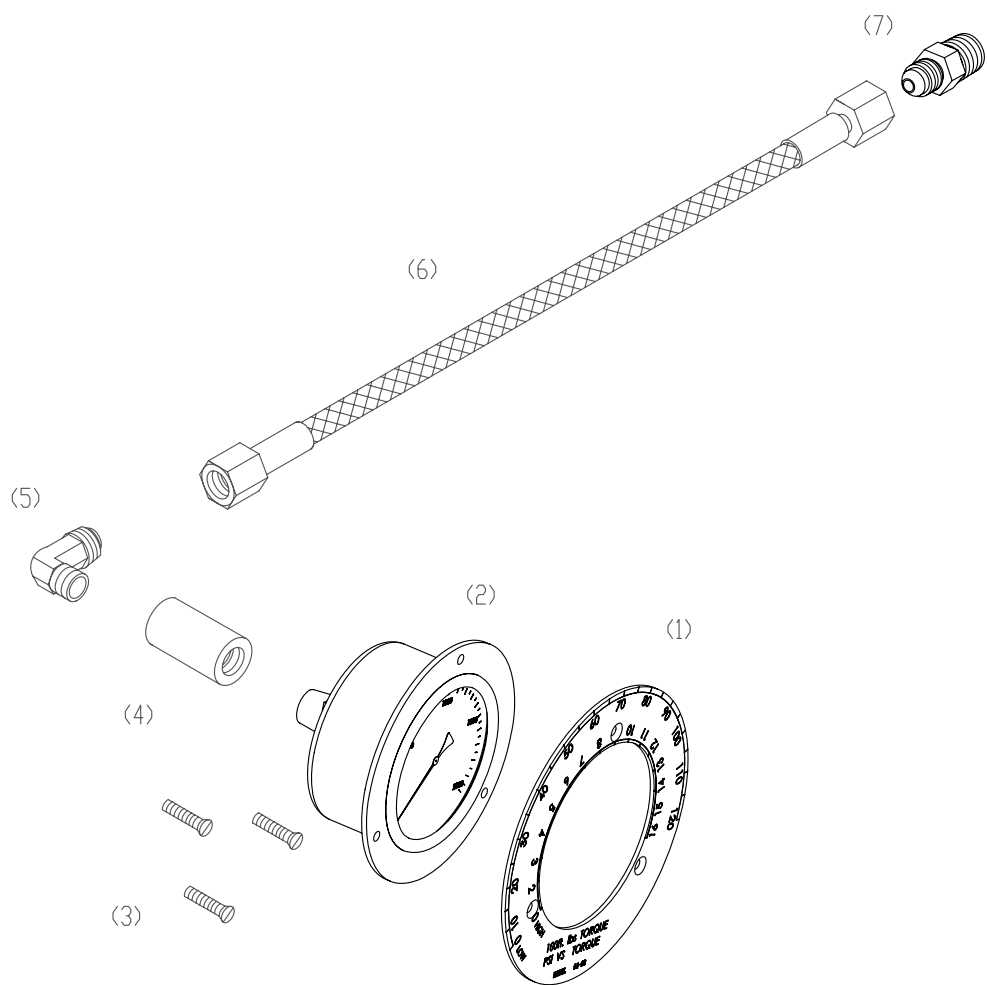
序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
3.1	YQ16B. 1. 2-02E	行星爪	J506	Jaws	5	
3.2	YQ16B. 1. 2-01F	牙块	N505-3	Inserts	5	
3.3		锁紧螺母 $\frac{5}{16}$ "-18UNC		Nut $\frac{5}{16}$ " NC	5	
3.4	(GB/T 70.1)	内六角螺钉 $\frac{5}{16}$ "-18UNC $\times 2\frac{9}{16}$ "	N507-1	Insert Screws	5	螺纹长 $\frac{5}{8}$ "
	适应管径: 6 $\frac{5}{8}$ "		Adaptation Diameter: 6 $\frac{5}{8}$ "			
1	YQ16B. 1. 3-0E	7 $\frac{7}{8}$ "分体式盖板总成		Guide Bell (7 $\frac{7}{8}$ "Bore)	1	
1.1	YQ16B. 1. 3-01A	插销		Bolt	1	
1.2	YQ16B. 1. 3-02E	左盖板 (7 $\frac{7}{8}$ ")		Guide Bell left (7 $\frac{7}{8}$ ")	1	
1.3	YQ16B. 1. 3-03A	托板 (1)		Plate	1	
1.4	YQ16B. 1. 3-04E	右盖板 (7 $\frac{7}{8}$ ")		Guide Bell right (7 $\frac{7}{8}$ ")	1	
1.5	TQ35. 12-03	弹簧夹		Spring clip	1	
1.6	YQ16B. 1. 3-05A	托板 (2)		Plate	1	
1.7	(GB/T 5783)	六角头螺栓 $\frac{5}{8}$ " $\times 1\frac{3}{16}$ "		Cap Screw $\frac{5}{8}$ " $\times 1\frac{3}{16}$ "Hex. Hd.	2	
2	YQ16B. 1. 1-0C	托架总成 (6 $\frac{5}{8}$ ")		Drag Ring Assy	1	
2.1	YQ16B. 1. 1-01C	底盘	D503-A	Drag Ring	1	
2.2	YQ16B. 1. 1-02C	芯轴 (5/8")	D104	Jaw Pins	10	
2.3	YQ16B. 1. 1-03C	联接板	R501-4	Cover Plate	1	
2.4	YQ16B. 1. 1-04A	制动螺钉	D505-1	Set Screw	5	
2.5	YQ16B. 1. 1-04B	弹簧	D506-1	Drag Springs	5	
2.6	YQ16B. 1. 1-04C	制动垫	D507-1	Drag Plugs	5	
2.7	(JB/T 7940.1)	直通式油杯 $\frac{1}{4}$ "-28UNF	Z503-3	Grease Fitting	1	
3N	YQ16B. 1. 2-01G	行星爪 (6 $\frac{5}{8}$ ")	J508	Jaw Assembly	10	

4. YQ16B.2-00 Ring Gear Hub & Sprocket Asscmbly (链轮轴总成)



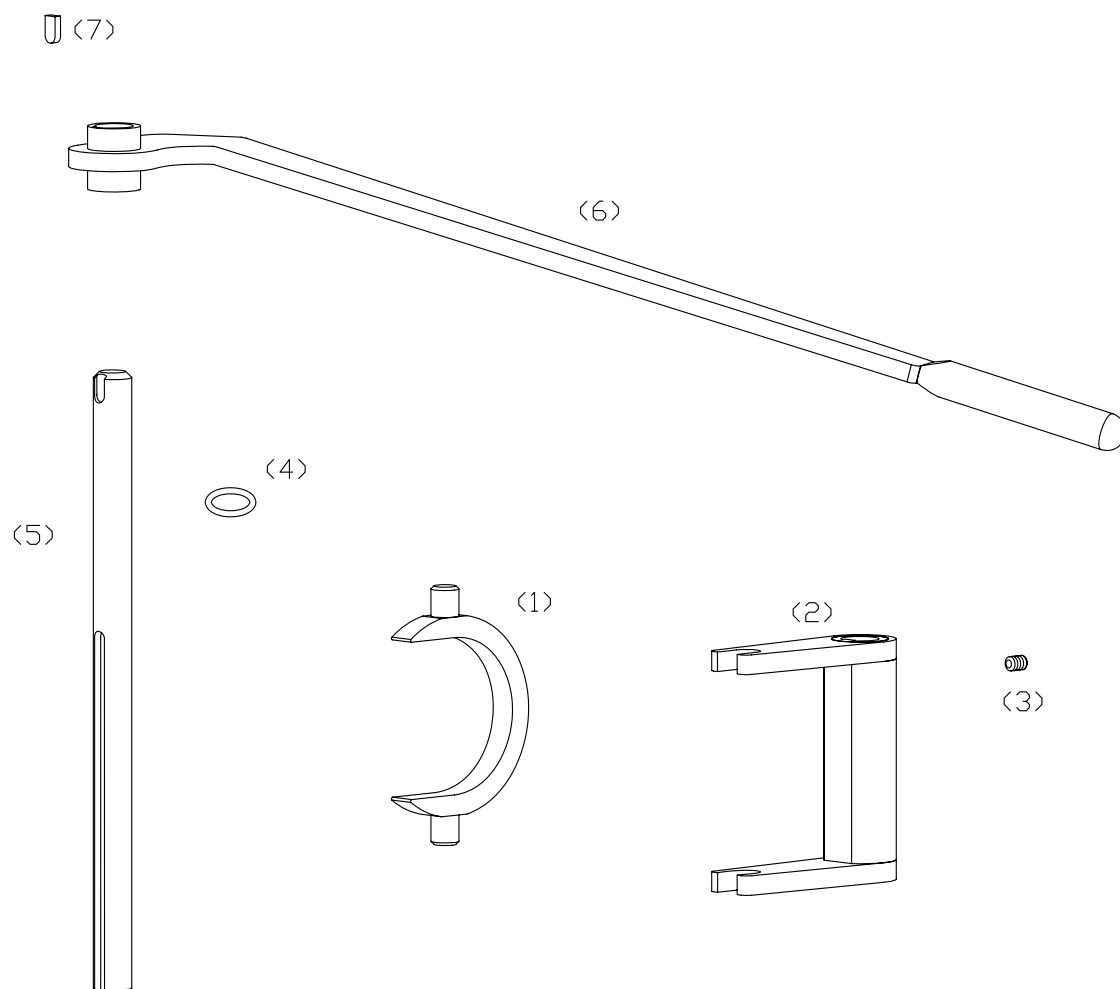
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6. YQ16B. 3-00 Hydraulic Torque Gauge Ascmby (扭矩显示器总成)



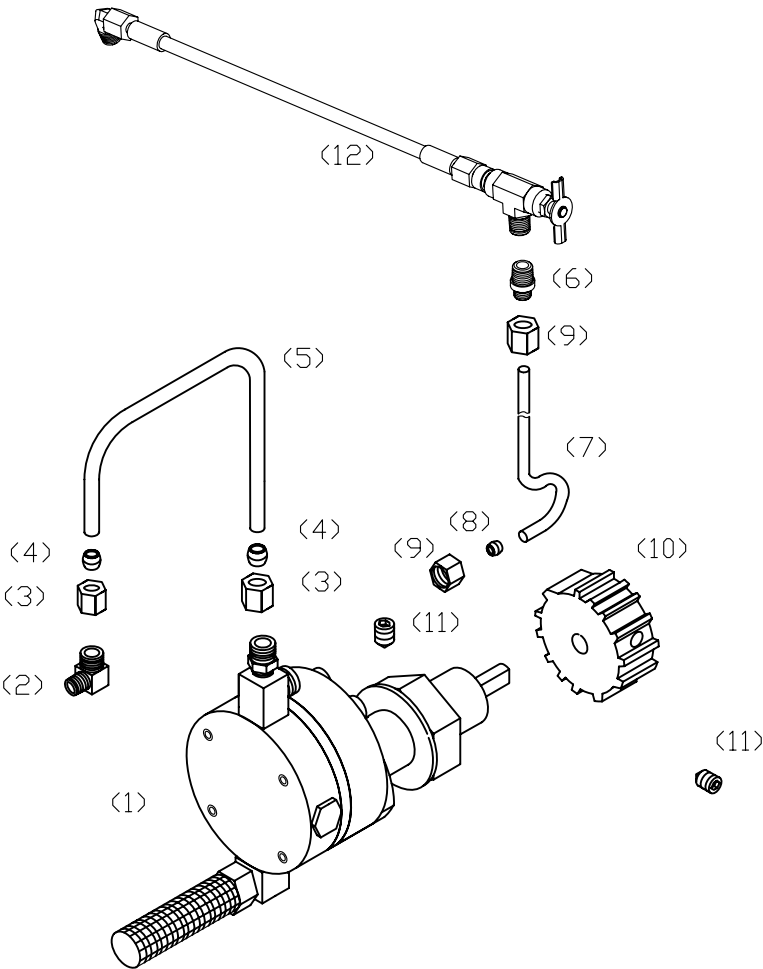
序 号			FOSTER (600)		数量 Qty	备 注 remarks
	代 号	名称及规格	Part	Part name and spec.		
1	YQ16B. 3-01	扭矩表盘	236-8	Engraved Dial Face	1	
2	(GB/T 1226)	扭矩表-III $\phi 60-16\text{Mpa}$	236-2	Pressure Gauge 2 1/2"-2000 Psi	1	
3	(GB/T 68)	沉头螺钉NO. 6-32UNC $\times \frac{5}{8}"$	11-1580	Flat Hd. Screw Machined NO. 6-32UNC $\times \frac{5}{8}"$	3	
4	YQ8Y. 5-2	接箍	11-323	Collar 1/4" Std. Blk	1	
5	TY 0217	90° 弯头	11-162	El 1 1/4" Flare To 1/4" Pipe 90°	1	
6	TY 0120-300	钢编管	12-249	Hose 1/4" $\times$ 10" Stainless	1	
7	TY 0312	直接头		Straight Connection	1	

8. YQ16B.4-00 Gear Engaging Asscmbly (挂档机构总成)



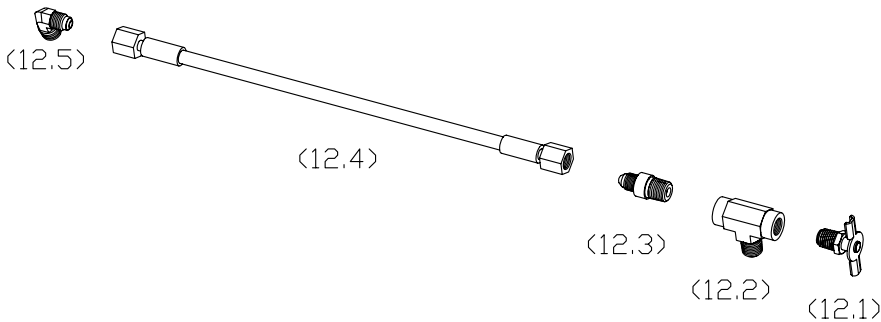
序号	代号	名称及规格	FOSTER (600)		数量 Qty	备注 remarks
			Part	Part name and spec.		
1	YQ16B.4-01	拨环	54-193	Shifting Yoke	1	
2	YQ16B.4-02	拨叉	54-28-3	Shifting Fork	1	
3	(GB/T 77)	内六角紧定螺钉 $\frac{3}{8}$ "-16UNC $\times\frac{1}{2}$ "		Set Screw $\frac{3}{8}$ " $\times\frac{1}{2}$ " NC	1	
4	GB/T 3452.1	O形密封圈 $\phi 25.4 \times 3.55$	11-349	O-ring 1" $\times$ 0.14"	1	
5	YQ16B.4-03	拨叉轴	N/A	Clutch Lever	1	
6	YQ8Y.7-4	手柄				
7	YQ8Y.7-5	平键				

9. YQ16B.5-00 Oil Pump Discharge Ascmby (润滑系统总成)



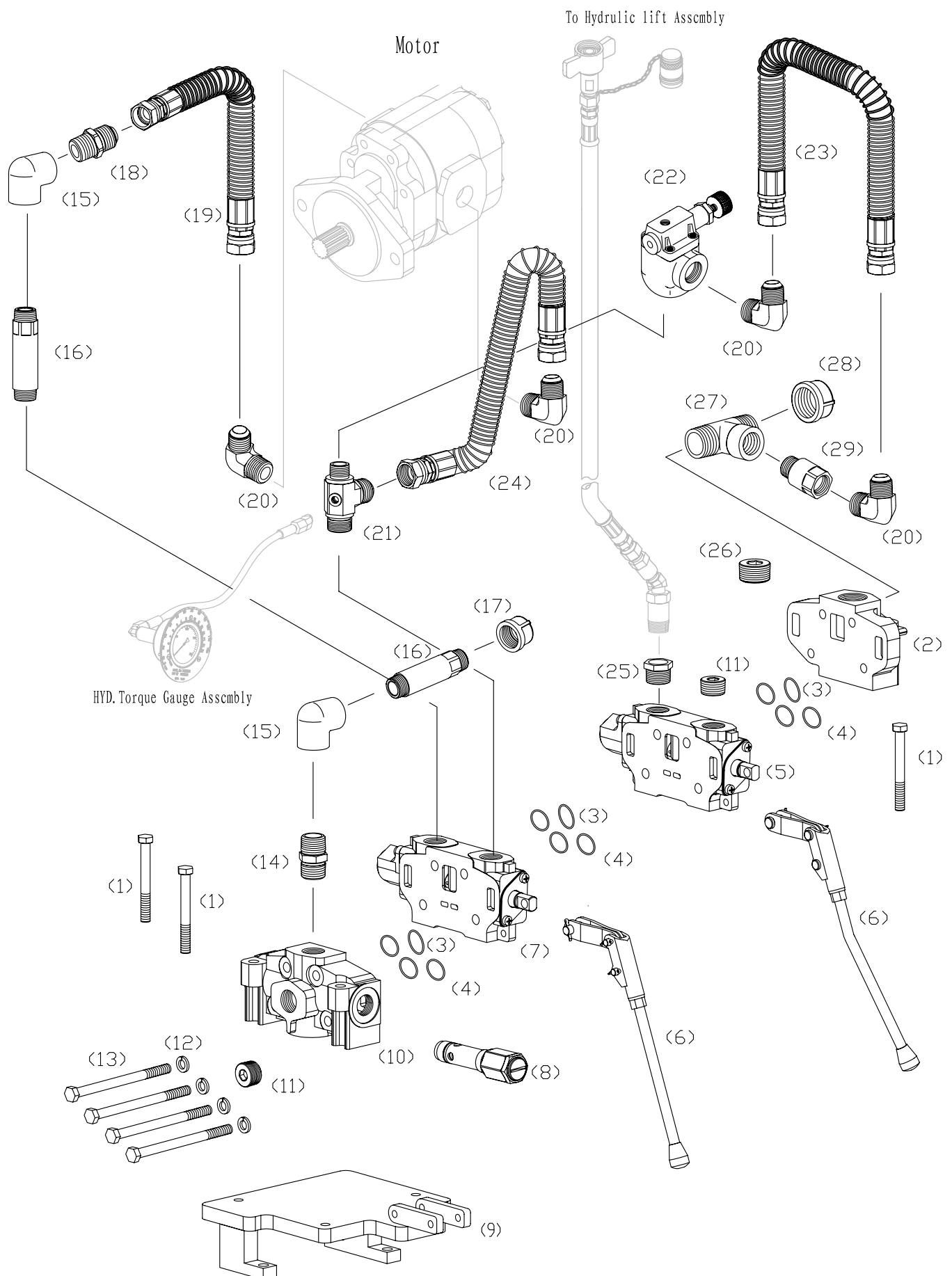
序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	BZ0.35-00	齿轮泵	119-202	Oil Pump Assembly	1	
2	YQ8Y.8-1	接头	11-436	Tie-in	1	
3	YQ8Y.8-2	螺母		Nut	2	
4	YQ8Y.8-3	球形垫		Ring Washer	2	
5	YQ16B.5-1	油道管		Oil Line	1	
6	TY 0341	直接头		Straight Connection	1	
7	YQ16B.5-2	油管		Oil Line	1	
8	YQ8Y.8-6	球形垫		Ring Washer	1	
9	YQ8Y.8-7	紧固螺母		Tight Nut	1	
10	YQ8Y.8-8	油泵齿轮	58-143-1	Oil Pump Gear	1	
11	(GB/T 78)	内六角紧定螺钉 $\frac{5}{16}$ "-18UNC $\times\frac{5}{16}$ "	11-595	Set Screw $\frac{5}{16}$ " $\times\frac{5}{16}$ " NC	2	
12	YQ16B.5.1-00	马达座润滑总成		Motor lubrication assembly	1	

YQ16B. 5. 1-00 Motor lubrication assembl (马达座润滑总成)



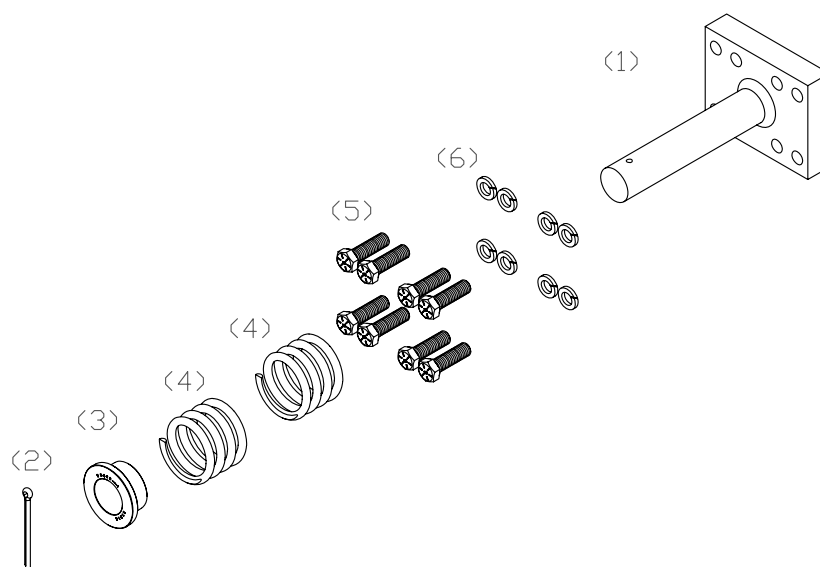
序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
12.1	FFYA-00	放油阀		Fuel outlet valve	1	
12.2	TY 0241	三通		Tee Restruction	1	
12.3	TY 0312	直接头		Straight Connection	1	
12.4	TY 0120-300	钢编管	12-249	Hose Assembly	1	
12.5	TY 0221	90° 弯头		90° elbow	1	

10. YQ16B.6-00 Commercial Hydraulics Asscmbly (液压控制机构总成)

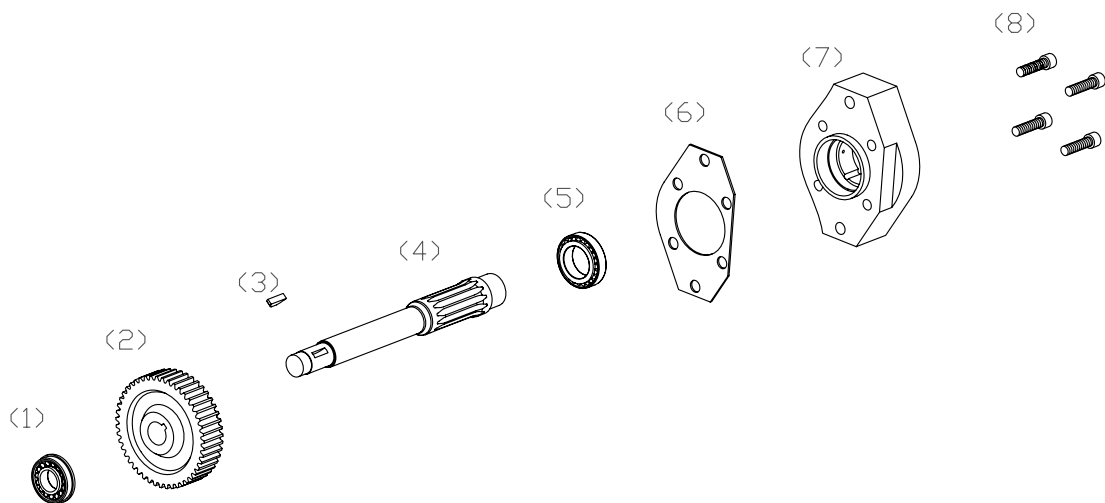


序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	(GB/T 5780)	六角螺栓 $\frac{1}{2}$ "-13UNC $\times$ 4 $\frac{1}{2}$ "		Cap Screw $\frac{1}{2}$ " $\times$ 4 $\frac{1}{2}$ " Hex. Hd.	3	
2	YQ16B. 6-01	出油口联接板		Oil-returning Connecting Plate	1	
3	GB/T 3452.1	O形密封圈42.5 $\times$ 2.65		O-ring 1.673" $\times$ 0.104"	3	
4	GB/T 3452.1	O形密封圈37 $\times$ 2.65		O-ring 1.5" $\times$ 0.104"	9	
5	YQ16B. 6.1-00	升降阀总成		Elevator Valve Assembly	1	
6	YQ16B. 6.2-00	操纵机构		Handle ,Commercial V1526K-8	2	
	YQ8Y. 9.2-1/-1A	操纵杆	867-23	Controlling Pole	各1	
	SHA-11	手柄		Handleber	2	
	(GB/T 6170)	六角螺母 $\frac{1}{2}$ "-13UNC		Nut $\frac{1}{2}$ " Lock	2	
	(GB/T 93)	弹簧垫圈 $\frac{1}{2}$ "		Lock Washer $\frac{1}{2}$ "	2	
	YQ8Y. 9.2-2	拨叉		Shifting Fork	2	
	YQ8Y. 9.2-3	销轴	11-1401	Yoke Pin $\frac{3}{8}$ " $\times$ 1"	4	
	(GB/T 91)	开口销 ϕ 3.2 $\times$ 20	11-809	Cotter Pin $\frac{1}{8}$ " $\times$ $\frac{7}{8}$ "	4	
	YQ16B. 6.2-01	联接板	54-117-1	Linkage Board	4	
	YQ16B. 6.2-02	销轴		Yoke Pin $\frac{1}{2}$ " $\times$ 1.1"	2	
	(GB/T 91)	开口销 ϕ 4 $\times$ 25		Cotter Pin $\frac{5}{32}$ " $\times$ 1"	2	
7	YQ16B. 6.3-00	换向阀总成		Steering Valve Assembly	1	
8	YQ16B. 6.4-00	安全阀		Commercial Valve Assembly	1	
9	YQ16B. 6-02	阀组底板	N/A	Valve Plate	1	
10	YQ16B. 6-03	进油口联接板		Oil-comming Connection Plate	1	
11	YQ8Y. 9-10	螺塞	V500-3	Whorl Stuff 1"	2	
12	(GB/T 93)	弹簧垫圈 $\frac{1}{2}$ "		Lock Washer $\frac{1}{2}$ "	4	
13	(GB/T 5780)	六角螺栓 $\frac{1}{2}$ "-13UNC $\times$ 7"		Cap Screw $\frac{1}{2}$ " $\times$ 7" Hex. Hd.	4	
14	YQ8Y. 9-4	进油管接头体	11-333	Nipple. 1" $\times$ 2 $\frac{1}{2}$ " H. P	1	
15	TY 0216	90° 弯头	11-165	El1, 1" $\times$ 90° H. P	2	
16	YQ8Y. 9-6	进油管	11-337	Nipple. 1" $\times$ 6" H. P.	2	
17	YQ9YA. 4.3-01	防尘帽		Dust cap	1	
18	TY 0342	直接头		Straight Connection	1	
19	TY 0135-590	钢编管 (L=590mm)		Hose Assembly	1	
20	TY 0243	90° 弯头		90° elbow	4	
21	TY 0242	三通		Tee Restruction	1	
22	YF-20L-00	溢流阀		Elevator Valve Assembly	1	

11. YQ16B.7-00 Back Guide Rod Assembly (后导杆总成)

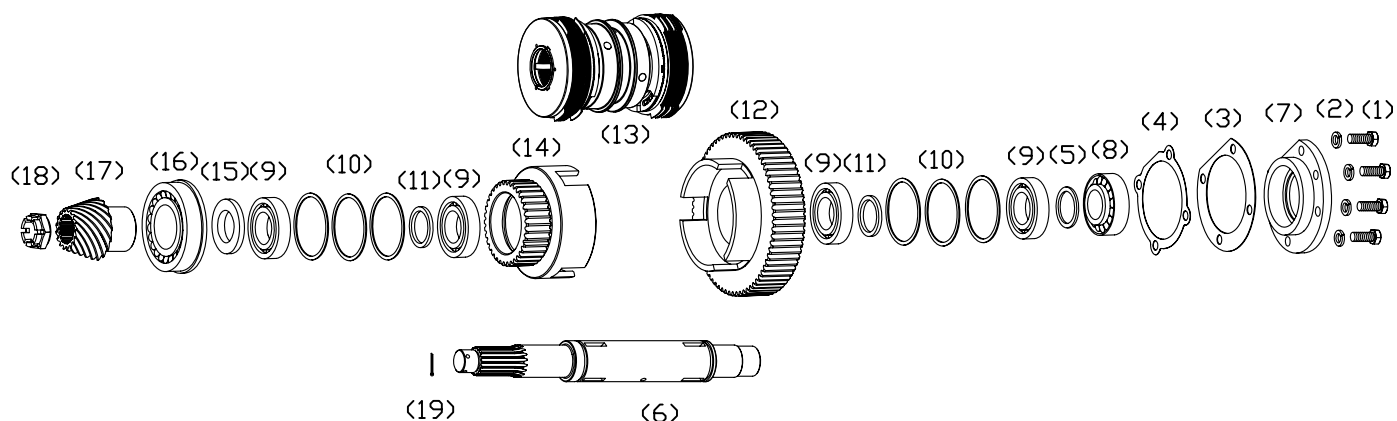
[illegible]

11. YQ16B.8-00 Wheel Gear Shaft Asccmbly (齿轮轴总成)



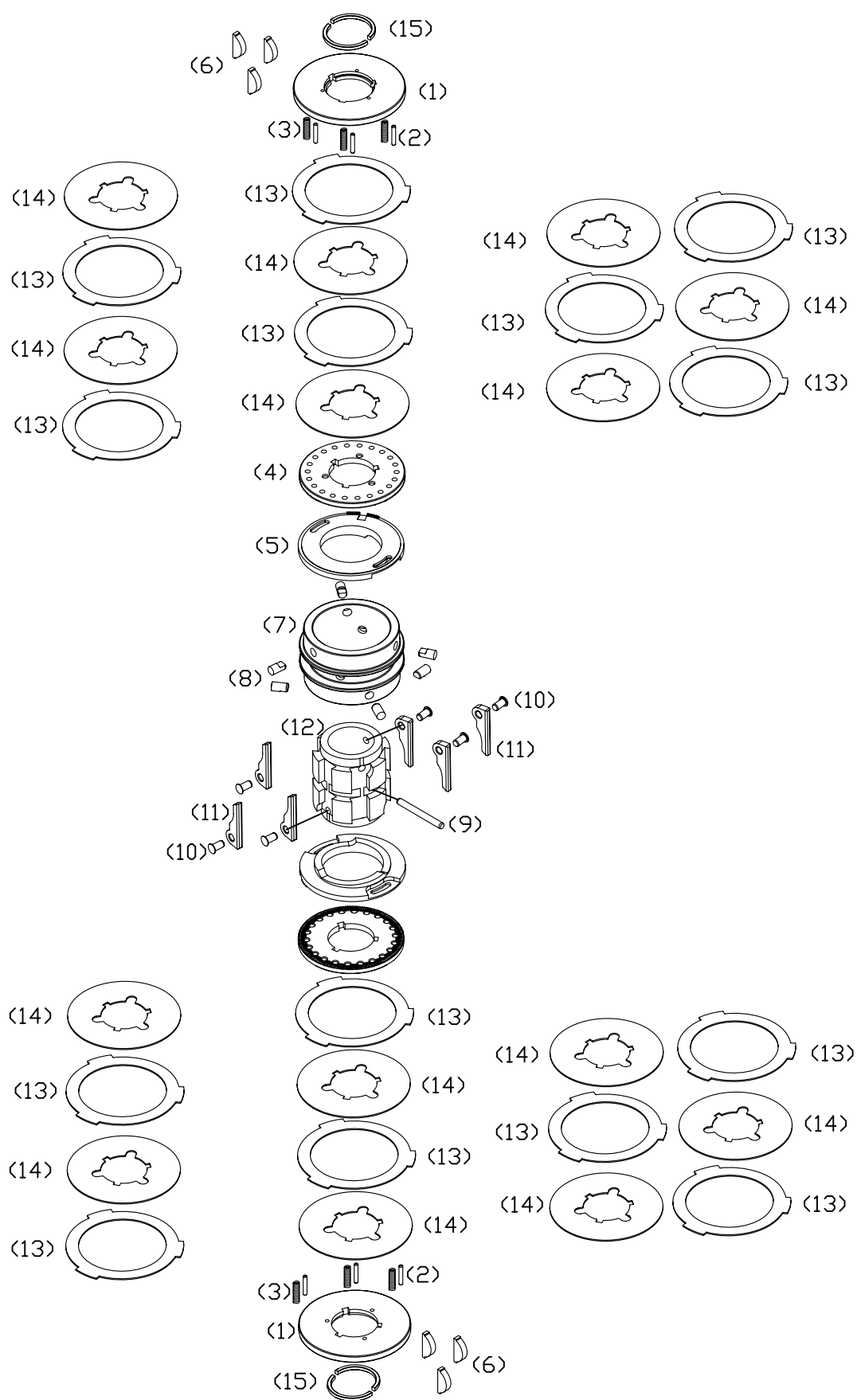
序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1		轴承17119-17244B	93-183	Bearing 17119-17244B	1	
2	YQ16B.8-01	齿轮	54-10	Wheel Gaer	1	
3	YQ16B.8-02	半圆键	11-176	No. C Hy Pro Key	1	
4	YQ16B.8-03	齿轮轴	93-11	Drive Shaft	1	
5		轴承 L102849-L102810	54-72	Bearing L102849-L102810	1	
6	YQ16B.8-04	调整垫		Adjusting Spacer		
7	YQ16B.8-05	液压马达座	54-86-3	Motor Adaptor	1	
8	(GB/T 70.1)	内六角螺钉 $\frac{1}{2}$ "-13UNC×2"		Cap Screw $\frac{1}{2}$ "×2" Skt.Head.NC	4	

12. YQ16B.9-00 Clutch Shaft Assembly (离合器轴总成)

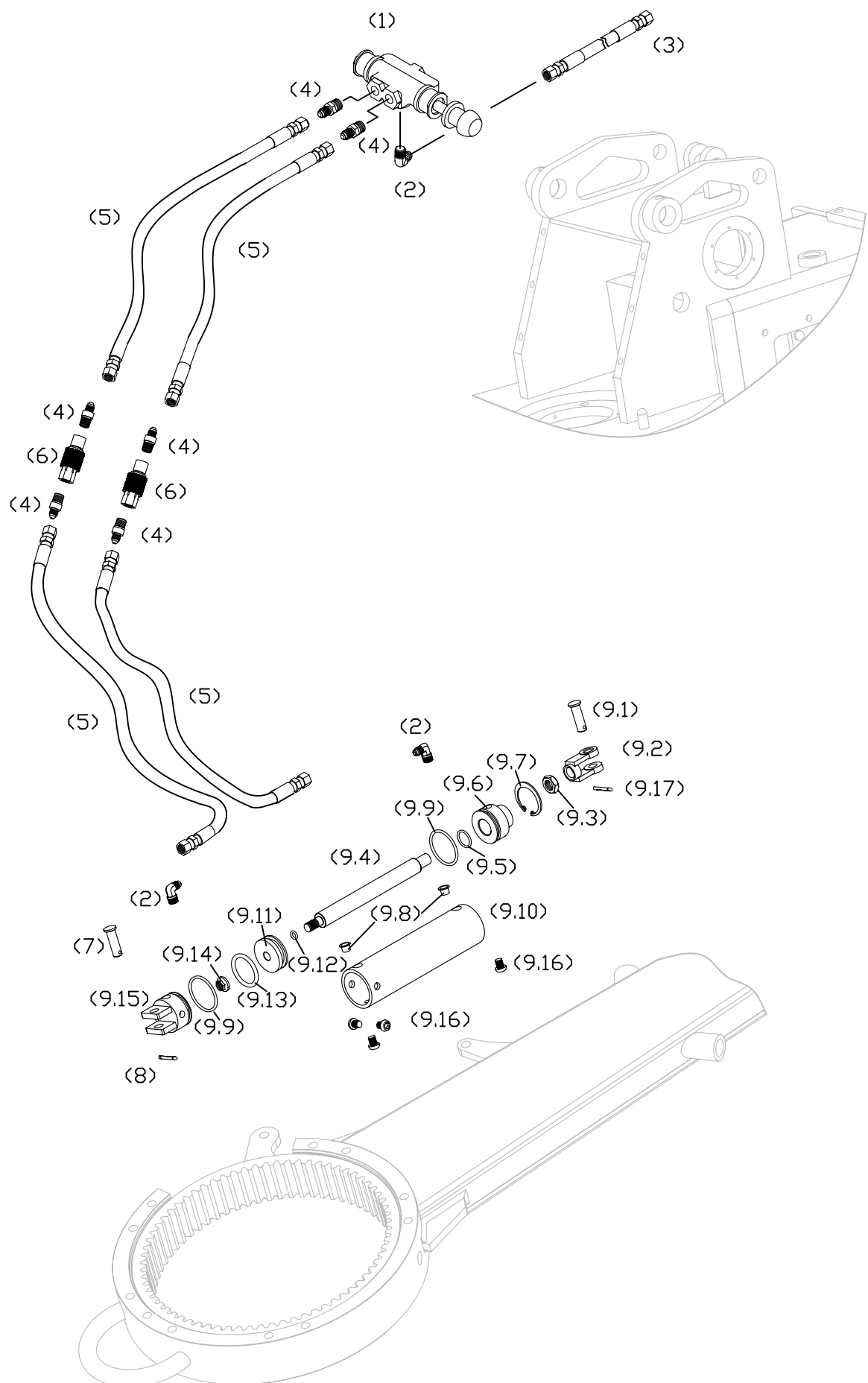


序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	(GB/T 5783)	六角螺栓 $\frac{1}{2}$ "-13UNC X $1\frac{1}{4}$ "		Cap Screw $\frac{1}{2}$ " X $1\frac{1}{4}$ " Hex	4	
2	(GB/T 93)	弹簧垫圈 $\frac{1}{2}$ "	11-806	Washer $\frac{1}{2}$ " lock	4	
3	YQ16B.9-01	密封垫圈		Seal Washer	1	
4	YQ16B.9-02	调整垫圈		Adjusting Spacer		
5	YQ16B.9-03	离合轴调整垫片	54-44-3	Bearing Spacer	1	
6	YQ16B.9-04	离合器轴	54-14-5	Clutch Shaft	1	
7	YQ16B.9-05	轴承座	N/A	Bearing Cap	1	
8		轴承TIMKEN 3877/3820	54-24	Bearing 3877/3820	1	
9		轴承 6209	54-25-1	Bearing 6209	4	
10	孔用双层螺旋挡圈 93.55X1.55		11-901	Spirolox Ring	6	
11	YQ16B.9-06	离合齿轮轴承垫片	54-45-3	Bearing Spacer	2	
12	YQ16B.9-07	离合大齿轮	57-12-1	Low Clutch Gear	1	
13		离合器总成	50-13-2	Clutch Assembly	1	
14	YQ16B.9-18	离合小齿轮	54-9-2	Bearing Spacer	1	
15	YQ16B.9-19	锥齿轮垫圈	54-137-1	Pinion Spacer	1	
16		轴承 554/552-B	54-40	Bearing 554/552-B	1	
17	YQ16B.9-20	小弧齿锥齿轮	54-20-1	Ring Gear & Pinion	1	
18	YQ16B.9-21	锁紧螺母	54-50-3	Lock nut	1	
19	(GB/T 91)	开口销 5 X 55	11-1132	Cotter Pin $\frac{3}{16}$ " X $1\frac{5}{32}$ "	1	

12.1. 54-13-2 Clutch Assembly (离合器总成)

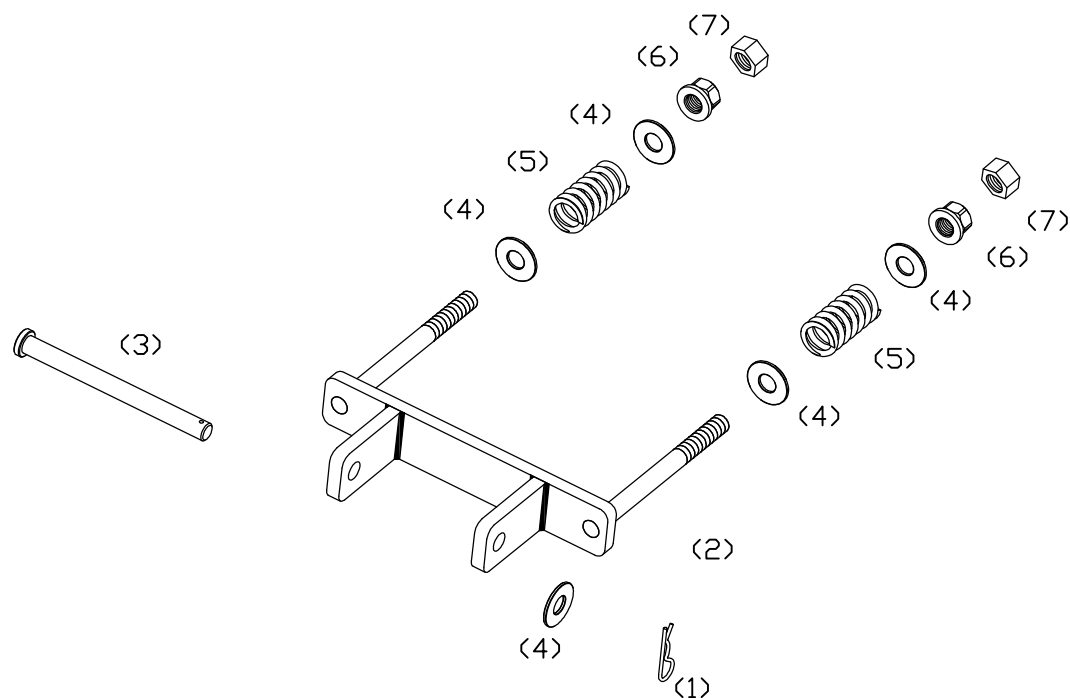


13、Pneumatic Device Assembly (气动装置总成)



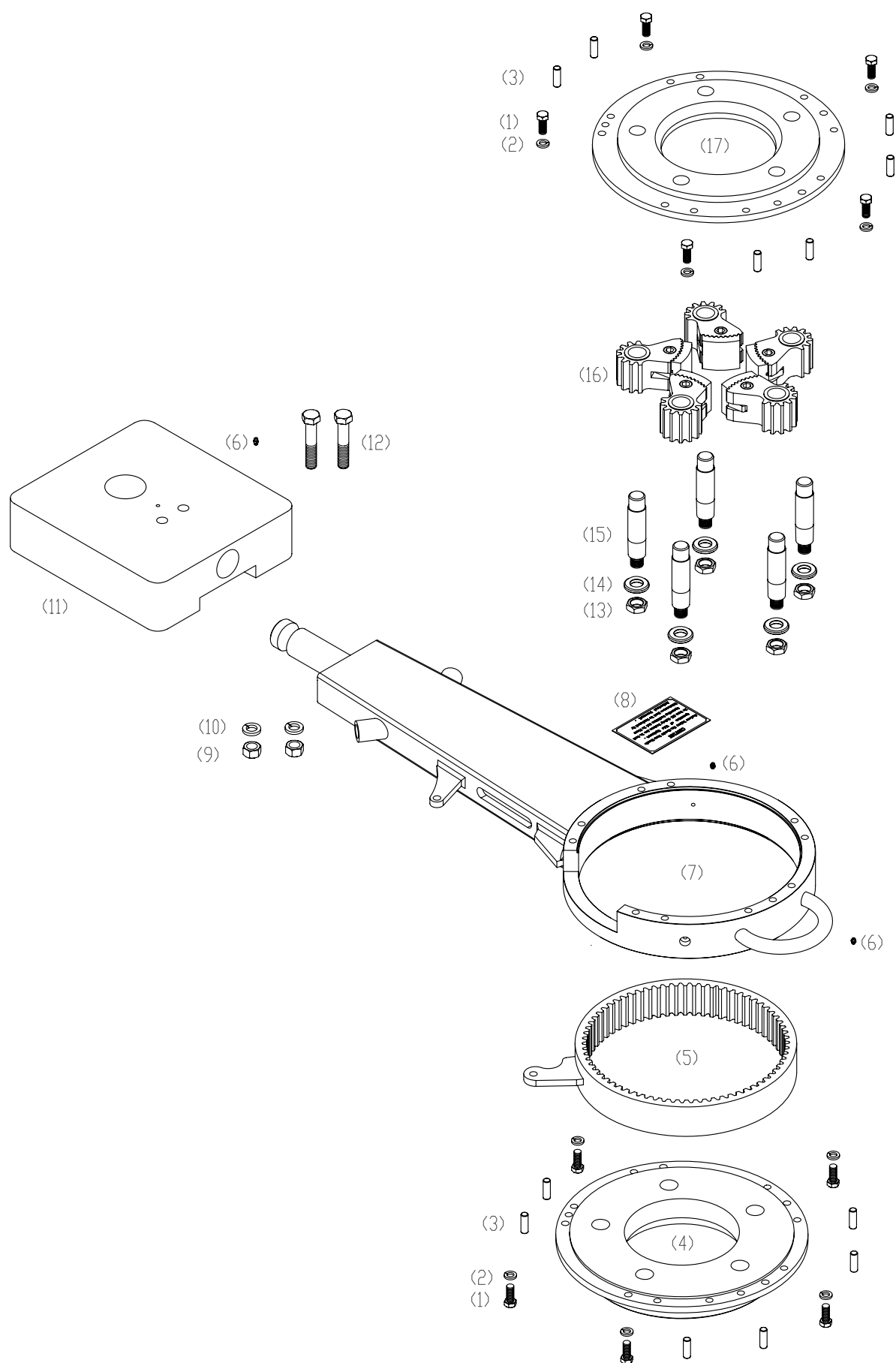
序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	QF8Y.1-00	气阀总成		Air Valve Assembly	1	
2	TY 0217	90° 弯头	11-162	Elbow	3	
3	TY0118-525	钢编管 (L=525)		Hose (L=525)	1	
4	TY 0312	直接头		Connection	6	
5	TY0118-1150	钢编管 (L=1150)	H523	Hose (L=1150)	4	H523
6		美式M型快速接头 1/4-18NPT	Q500-31	Model M Quick connector	2	Q500-31
7	QG.1-01	销轴		Pin Roll	1	
8		开口销 5/32"×1 3/16 "		Cotter	1	
9	QG.5-00	气缸总成	214/217	Cylinder Assembly	1	214/217
9.1	QG.1-01	销轴		Pull pin	1	
9.2	QG.1-02	端叉		End yoke	1	
9.3	(GB/T 6173)	六角薄螺母5/8 "-18UNF		Nut	1	
9.4	QG.5-01	芯轴		Jaw Pins	1	
9.5	(GB/T 3452.1)	O型密封圈22×2.65		O-ring 0.866"×0.104"	1	
9.6	QG.5-02	气缸盖		Sylinder head	1	
9.7	(GB/T 893.2)	孔用挡圈2"		Seal protector	1	
9.8	QG.1-05	防尘堵头		Dustproof plug	2	
9.9	(GB/T 3452.1)	O型密封圈45×3.55		O-ring 1.771"×0.139"	2	
9.10	QG.5-03	气缸		Air Cylinder	1	
9.11	QG.1-07	活塞		Piston	1	
9.12	(GB/T 3452.1)	O型密封圈 8×2.65		O-ring 0.315"×0.104"	1	
9.13	(GB/T 3452.1)	O型密封圈41.2×5.3		O-ring 1.622"×0.209"	1	
9.14	YQ2.5Y.10-04	锁紧螺母1/2"-20UNF		Lock nut	1	
9.15	QG.5-04	后端盖		Rear end cover	1	
9.16	(ISO 7389)	内六角盘头螺钉 1/8" -16UNC×1 5/32"		Set screws	4	ASME B18.3
9.17	(GB/T 91)	开口销5/32"×1 3/16"		Cotter 5/32"×1 3/16"	1	

11. YQ16B.11-00 Front Guide Rod Assembly (前导杆总成)

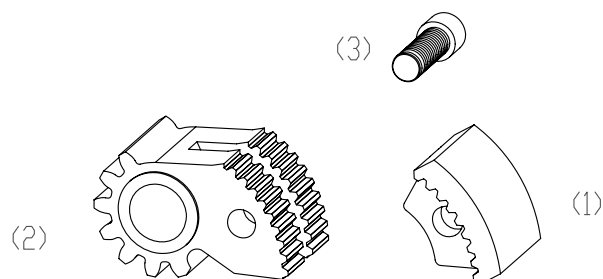


序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	HYQ. 1A-01	卡簧	11-117	Safety Din (3-1/4")	1	
2	YQ16B. 11-01	前导杆	180-17-4	Front Tool Stirrup	1	
3	YQ16B. 11-02	销轴	Bu623	Pull Pin	1	
4	YQ16B. 11-03	平垫圈	11-577	Flat Washer (1")	5	
5	YQ16B. 11-04	弹簧	BU615	Stirrup spring	2	
6	YQ16B. 11-05	螺母	147-13	Adjusting Nut for stirrup	2	
7	GB/T 6170	螺母1" -8UNC		Adjusting Nut for stirrup	2	

2. YQ16B.12-00 Backup Tong Assembly (背钳总成)

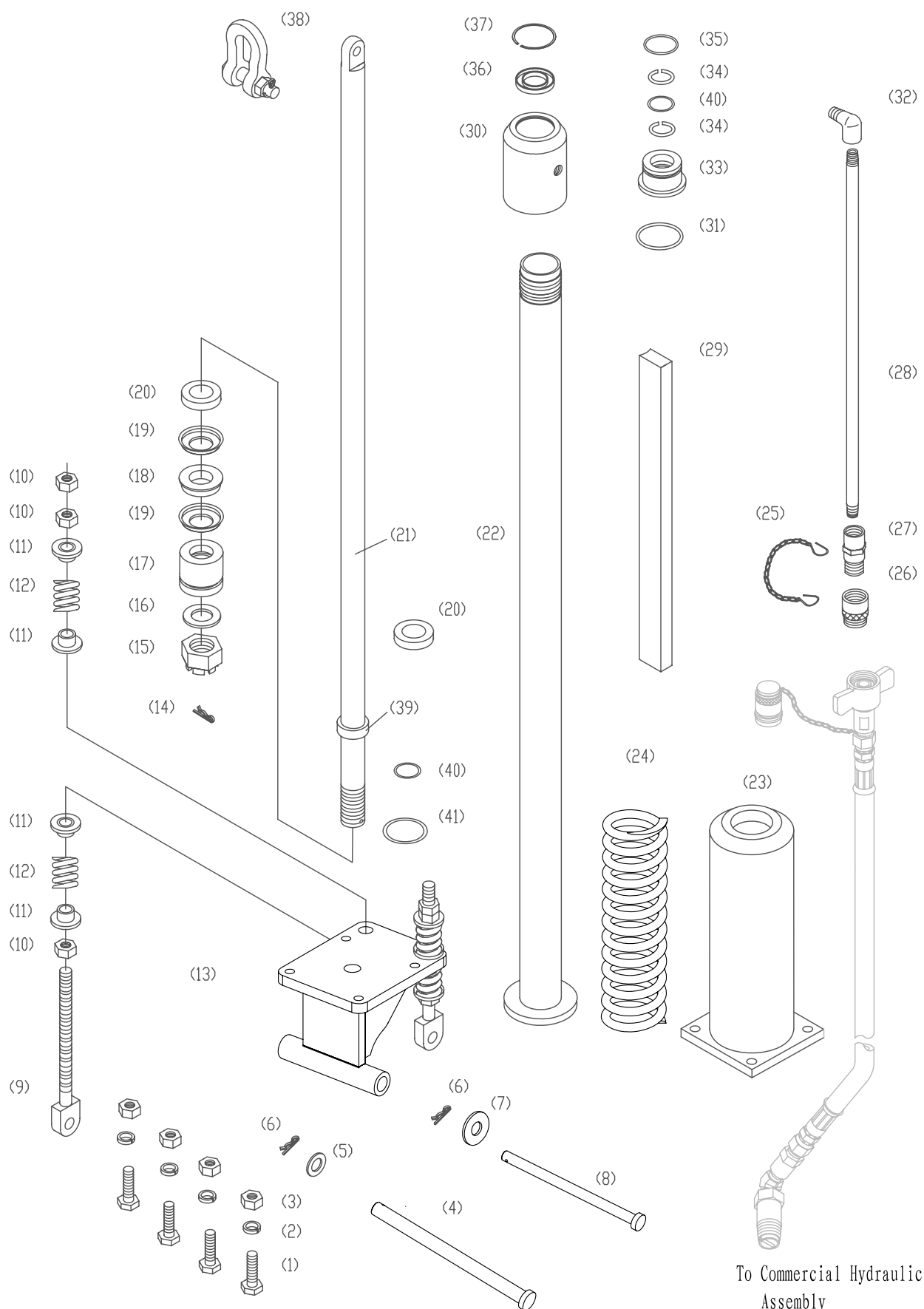


YQ16B. 12.1-0A/0B/0C Backup Tong Planetary Jaw Assembly (背钳行星爪总成)



序号	代 号 名称及规格		FOSTER (600)		数量 Qty	备 注 remarks
			Part	Part name and spec.		
	2 3/8"- 3 1/16"油管行星爪配置		2 3/8"OD Thru 3 1/16"OD Tubing Jaw Set			
1	YQ16B. 12.1-02A	牙块	BU601	Insert W/Coarse Teeth 2 3/8" To 3 1/16"	5	
2	YQ16B. 12.1-01A	背钳行星爪	J600	Jaw 2 3/8" Thru 3 1/16" Hex.	5	
3	(GB/T 70.1)	内六角螺钉 5/8"-11UNC X 1 3/4"	N801	Insert Screw 5/8"N.C.X 1 3/4"Skt. Hd.	5	
	3 1/2"-4 3/4"油管行星爪配置		3 1/2"OD Thru 4 3/4"OD Tubing Jaw Set			
1	YQ16B. 12.1-02B	牙块	BU602	Insert W/Coarse Teeth 3 1/2"to 4 3/4"	5	
2	YQ16B. 12.1-01B	背钳行星爪	J601	Jaw 3 1/2" Thru 4 3/4" Hex.	5	
3	(GB/T 70.1)	内六角螺钉 5/8"-11UNC X 1 3/4"	N801	Insert Screw 5/8"N.C.X 1 3/4"Skt. Hd.	5	
	4 3/4" -6 1/16"油管行星爪配置		4 3/4"OD Thru 6 1/16"OD Tubing Jaw Set			
1	YQ16B. 12.1-02C	牙块	BU603	Insert W/Coarse Teeth 4 3/4"to 6 1/16"	5	
2	YQ16B. 12.1-01C	背钳行星爪	J602	Jaw 4 3/4" Thru 6 1/16" Hex.	5	
3	(GB/T 70.1)	内六角螺钉 5/8"-11UNC X 1 3/4"	N801	Insert Screw 5/8"N.C.X 1 3/4"Skt. Hd.	5	

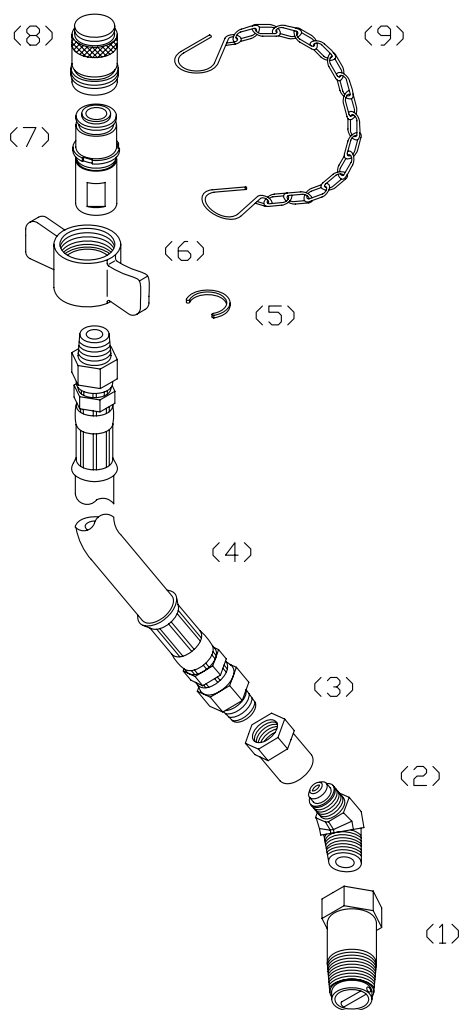
5. YXDQ-00 Hydraulic Lift Assembly (液压悬吊器总成)



To Commercial Hydraulic
Assembly

序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	(GB/T 5782)	六角头螺栓 $\frac{5}{8}$ "-11UNC×2 $\frac{1}{4}$ "	11-1293	Cap Screw $\frac{5}{8}$ "×2 $\frac{1}{4}$ "Hex	4	
2	(GB/T 93)	弹簧垫圈 5/8"	11-145	Washer 5/8" lock	4	
3	(GB/T 6175)	六角螺母 $\frac{5}{8}$ "-11UNC		Nut $\frac{5}{8}$ "NC	4	
4	YXDQ-01	销轴 (1)	54-307	Pull Pin $\frac{7}{8}$ "×8 $\frac{1}{2}$ "	1	
5	YQ16B. 11-03	平垫圈	11-577	Washer, $\frac{7}{8}$ " Flat	1	
6	(GB/T 91)	开口销4×30	11-920	Cotter Pin $\frac{5}{32}$ "×1 $\frac{1}{4}$ "	2	
7	YQ8Y. 4-3	平垫圈	11-255	Washer, $\frac{3}{4}$ " Flat	1	
8	YXDQ-02	销轴 (2)	54-307	Pull Pin $\frac{3}{4}$ "×8 $\frac{1}{2}$ "	1	
9	YQ8Y. 4-5	弹簧杆	58-91-1	Compression Spring Bolt	2	
10	(GB/T 6175)	六角螺母 $\frac{3}{4}$ "-10UNC	11-803	Nut $\frac{3}{4}$ " Send-finish NC	6	
11	YQ8Y. 4-6	弹簧座	74-73	Spring Guide	8	
12	YQ8Y. 4-7	调整弹簧	58-71	Compression Spring	4	
13	YXDQ-03	悬吊座	L606-1	Bottom End	1	
14	(GB/T 91)	开口销6×50	11-1153	Cotter Pin $\frac{1}{4}$ "×3"	1	
15	YQ8Y. 4-9	六角开槽螺母	11-1076	Nut 1 $\frac{1}{2}$ " NF Castle Cad Plate	1	
16	YQ8Y. 4-10	平垫圈	11-18	Machine Repair Bushing	1	
17	YQ8Y. 4-11	活塞	123-9	Piston	1	
18	YQ8Y. 4-12	隔套 (1)	123-4-1	Cup Retainer	1	
19	YQ8Y. 4-13	蝶形夹植物橡胶密封圈	123-5-1	Cup	2	
20	YQ8Y. 4-14	隔套 (2)	123-4	Cup Retainer	2	
21	YQ8Y. 4-15	悬吊杆	123-3-1	Operating Rod	1	
22	YQ8Y. 4-16	油缸	123-2-1	Working Barrel	1	
23	YQ8Y. 4-17	悬吊筒	136-8-1	Spring Housing	1	
24	YXDQ-04	主弹簧	126-7-1	Cushion Spring	1	
25	YQ8Y. 4-19	铁链	11-849	Chain	1	
26	YQ8Y. 4-20	防尘盖		Dust Cap	1	
27	YQ8Y. 4-21	接头	11-947	Coupling Half (Male End) 5100-S2-8B	1	
28	YQ8Y. 4-22	油管	123-14	Hydraulic Pipe $\frac{3}{8}$ "×39" Long	1	
29	YQ8Y. 4-23	护罩	123-17	Hydraulic Line Cover	1	
30	YQ8Y. 4-24	油缸盖	123-1-1	Top Cap	1	
31	(GB/T 3452.1)	O形密封圈 75×5.3	11-353	O-ring 2.953"×0.209"	1	
32	YQ8Y. 4-25	角接头	11-317	E11 $\frac{3}{8}$ " HP Street	1	

7. YQ8Y.6-00 Hydraulic Lift Hose Asscmbly (液压悬吊器油管总成)



序号			FOSTER (600)		数量 Qty	备注 remarks
	代号	名称及规格	Part	Part name and spec.		
1	YQ8Y. 6.1-00	节流阀总成	181-24-1	Check Valve Assembly	1	
2	YQ8Y. 6-1	角接头	11-1563	El1 $\frac{3}{8}$ " Flare To $\frac{3}{8}$ " Pipe	1	
3	YQ8Y. 6-2	接头		Tie-in	1	
4	YQ8Y. 6.2-00	钢编管总成	12-130	Hose Assembly	1	
5	YQ8Y. 6-3	夹紧挡圈		Clamp Circle	1	
6	YQ8Y. 6-4	蝶形螺母	11-850	Papilionaceous nut	1	
7	YQ8Y. 6.3-00	弹性接头总成	11-946	Elasticity Tie-in Assembly	1	
8	YQ8Y. 6-5	防尘盖		Dustproof Top	1	
9	YQ8Y. 4-19	铁链		Chain	1	

10. Spare parts list for one year normal use (Is for reference only)

序号			Foster (600)		数量 Qty	备 注 remarks
	代 号	名 称 及 规 格	Part number	Part name and spec		
1	YQ16B. 12-04	背钳齿圈	180-1-1	Ring Gear	1	
2	YQ16B. 12-05	芯轴	180-6-5	Jaw Ping	5	
3	YQ16B. 12. 1-01A	背钳行星爪	J600	Jaw 2 3/8" Thru 3 11/16" OD	15	
4	YQ16B. 12. 1-01B	背钳行星爪	J601	Jaw 3 1/2" Thru 4 3/4" OD	15	
5	YQ16B. 12. 1-01C	背钳行星爪	J602	Jaw 4 3/4" Thru 6 1/16" OD	15	
6	YQ16B. 12. 1-02A	牙块	BU601	Insert W/Coarse Teeth 2 3/8" to 3 11/16"		
7	YQ16B. 12. 1-02B	牙块	BU602	Insert W/Coarse Teeth 3 1/2" to 4 3/4"		
8	YQ16B. 12. 1-02C	牙块	BU603	Insert W/Coarse Teeth 4 3/4" to 6 1/16"		
9	YQ16B. 12-02	背钳上盖	180-2-7	Housing Adaptor	1	
10	YQ8Y. 2-1	孔用挡圈	93-30	Seal Protector	1	
11	YQ8Y. 2-3	支承盘	93-285	Dearing Race	1	
12	YQ8Y. 2. 1-1	底盘 5"	50-15-2	Drag Ring	1	
13	YQ8Y. 2. 1-1A	底盘 6 1/4"	58-160-2	Drag Ring	1	
14	YQ16B. 1. 1-01AA	底盘 6"	D504-A	Drag Ring	1	
15	YQ16B. 1. 1-01B	底盘 7 1/4"	D502-1-A	Drag Ring	1	
16	YQ16B. 1. 1-01C	底盘 7 7/8"	D503-A	Drag Ring	1	
17	YQ8Y. 2. 1-2	芯轴	50-8-2	Jaw Pins	5	
18	YQ16B. 1. 1-02A	芯轴	D508-3	Jaw Pins	5	
19	YQ16B. 1. 1-02B	芯轴	D508-1	Jaw Pins	5	
20	YQ16B. 1. 1-02C	芯轴	D104	Jaw Pins	5	
21	YQ8Y. 2. 1-4	弹簧	50-57	Drag Spring	15	
22	YQ16B. 1. 1-04B	弹簧	D506-1	Drag Spring	10	
23	YQ8Y. 2. 1-5	制动垫	50-58	Drag Ring	60	
24	YQ16B. 1. 1-05B	制动垫	FCC58-57	Drag Ring	20	
25	YQ16B. 1. 1-04C	制动垫	D507-1	Drag Ring	20	
26	GB/T 77	内六角紧定螺钉 1"×1"	11-147	Set Screw 1"×1"	10	
27	GB/T 77	内六角紧定螺钉 1"×3/4"	11-147	Set Screw 1"×3/4"	10	
28	YQ16B. 1. 1-04A	制动螺钉	D505-1	Set Screw 1"×1/2"	30	
29	YQ8Y. 2. 2-1C	主钳行星爪	50-22-7	Jaw 2 3/8" Thru 3 3/4" OD	15	
30	YQ8Y. 2. 2-1D1	主钳行星爪	J505-2	Jaw 3 1/2" Thru 4 1/2" OD	10	
31	YQ8Y. 2. 2-1D1	主钳行星爪	J505-2	Jaw 3 1/2" Thru 4 1/2" OD	10	
32	YQ16B. 1. 2-01A	主钳行星爪	J503-1	Jaw 2 3/8" Thru 2 7/8" OD	10	
33	YQ16B. 1. 2-01B	主钳行星爪	J505-3	Jaw 2 7/8" Thru 5" OD	30	
34	YQ16B. 1. 2-02E	主钳行星爪	J506	Jaw 4" Thru 5 1/2" OD	20	
35	YQ16B. 1. 2-01G	主钳行星爪	J101-1	Jaw 6 5/8" OD	20	

36	YQ8Y. 2. 2-1E	钳牙 (2)	J505	Insert W/Coarse Teeth 3 1/2" to 4 1/2"	200	
37	YQ8Y. 1. 1-1B	钳牙 (2)	N503	Insert W/Coarse Teeth 2 3/8" to 2 7/8"	100	
38	YQ8Y. 2. 2-2D	钳牙 (1)	N505-4	Insert W/Coarse Teeth 2 7/8" to 3 1/2"	100	
39	YQ8Y. 2. 2-1F	钳牙 (3)	N505-1	Insert W/Coarse Teeth 4" to 5"	100	
40	YQ16B. 1. 2-01E	钳牙	N505-2	Insert W/Coarse Teeth 4" to 4 1/2"	100	
41	YQ8Y. 2. 3-00	滚柱轴承总成	93-7	Roller bearing	6	
42	YQ16B. 2-06	大弧齿锥齿轮	54-20-1	Ring Gear & Pinion	1	
43	YQ16B. 9-20	小弧齿锥齿轮			2	
44	YQ16B. 2-07	链轮轴	54-21-1	Ring Gear Hub & Sprocket	1	
45	YQ16B. 4-01	拨环	54-193	Shifting Yoke	1	
46	BZ0. 35-00	齿轮泵	119-202	Oil Pump Assembly	1	
47	YQ8Y. 8-8	油泵齿轮	58-143-1	Oil Pump Gear	1	
48	YQ16B. 6. 1-00	升降阀总成		Elevator Valve Assembly	1	
49	YQ16B. 6. 2-00	操纵机构组合		Handle, Commercial V1526K-8	2	
50	YQ16B. 6. 4-00	安全阀		Commercial Valve Assembly	1	
51	YQ16B. 6. 3-00	换向阀总成		Steering Valve Assembly	1	
52	YF-20L-00	溢流阀	183-5	Elevator Valve Assembly	1	
53	YQ16B. 8-01	齿轮	93-183	Wheel Gaer	1	
54	YQ16B. 8-02	半圆键	11-176	No. C Hy Pro Key	2	
55	YQ16B. 8-03	齿轮轴	93-11	Drive Shaft	1	
56	YQ16B. 9-04	离合器轴	54-14-5	Clutch Shaft	1	
57	YQ16B. 9-07	离合大齿轮	57-12-1	Low Clutch Gear	1	
58	YQ16B. 9-14	销轴	820-2	Anchor pin	2	
59	YQ16B. 9-15	从动摩擦片	820-9	Outer Disc	36	
60	YQ16B. 9-16	主动摩擦片	820-14	Inner Disc	32	
61	YQ16B. 9-18	离合小齿轮	54-9-2	High Clutch Gear	1	
62		离合器总成	54-13-2	Clutch Assembly	1	
63	YQ16B. 9-21	锁紧螺母	54-50-3	Nut	1	
64	GB/T 1243	滚子链 16A-3×70	59-13-1	Rooller Chain	1	
65		马达 M37×98BAIL17-71	54-164-1	Commercial Motor	1	
66	GB/T 3452. 1	O 型密封圈 $\phi 9 \times 2.65$		O-ring 0.354" $\times$ 0.104"	24	
67	GB/T 3452. 1	O 型密封圈 $\phi 380 \times 3.55$		O-ring 14.961" $\times$ 0.14"	2	
68	FFYA-00	放油阀		Brain Cock	1	
69	YQ16B. 3-00	扭矩显示器总成	236-54-93	HYD. Torque Gauge Assembly	1	
70	YQ8Y. 6-00	液压悬吊器油管总成	12-130	Hydraulic Lift Hose Assembly	1	
71	JB/T 7940. 1	直通式油杯 1/4" -28	11-131	Crease Fitting 1/4" -28 Straight	12	
72	HG4-338-660	J 型油封 310×350×20	58-47	Oil Seal 9594 L. P. D	6	
73	GB/T 70. 1	内六角螺钉 3/8" -16UNC×2 3/4"	50-49-2A	Insert Screw 3/8" N.C. $\times$ 2 3/4" Skt. Hd	100	
74	GB/T 70. 1	内六角螺钉 3/8" -16UNC×66mm	N507	Insert Screw 3/8" N.C. $\times$ 66mm Skt. Hd	50	

