

ClarkeTM STRONG-ARM

ASSEMBLY & OPERATING INSTRUCTIONS FOR 1 TON CRANE MODEL CFC1000LR



ESSENTIAL INFORMATION FOR ALL USERS



Congratulations on the purchase of your new Clarke Hydraulic Crane.

Before attempting to assemble or operate the unit, please read this instruction booklet thoroughly, and follow all directions carefully, paying particular attention to the safety precautions. By doing so, you will ensure safe operation of the unit, and enjoy trouble free service from your Clarke hydraulic crane.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Your receipt is required as proof of purchase.

This guarantee is invalid if the product is found to have been abused in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee in no way effects your statutory rights.

SPECIFICATION

	Stage 1	Stage 2	Stage 3	Stage 4
Lifting Capacity (Kg)	1000	750	500	250
Max. Lift Height (mm)	1890	2050	2250	2430
Min. Lift Height (mm)	430	290	130	0

Overall Width 1040mm

Height of Legs 175mm

Weight 117Kg

Part No. 7610660

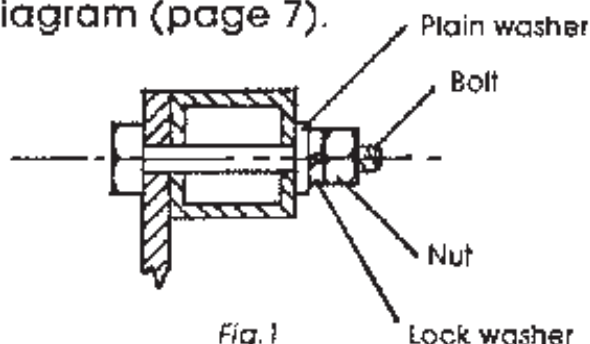
ASSEMBLY INSTRUCTIONS

Preparation

Using a clean flat level area, unpack, check and identify all components, including nuts, bolts, and washers, and lay out the main components roughly as shown in parts diagram (page 7).

During assembly, nuts and bolts should be finger tightened only, unless otherwise specified. Final tightening can be carried out on assembly completion.

Where 'bolts' are mentioned, it is assumed that the appropriate washers, lock washers and nuts are also fitted.



Assembly (Refer to Parts Diagram on page 7)

1. Locate each Front Leg (B) into the extensions provided on the Rear Support (A). Ensure leg extension clamping bolts (O) are on inside of legs.
2. Thread the front leg retaining bolt (N) through the hole in one end of the Support Bracket (H), and then through the hole in the front leg, (where the leg locates over the rear support bracket), thereby locking the leg to the rear support bracket. Ensure that the bolt (N) is passed through the leg from the INSIDE, so that when assembled, the support brackets (H) lie between the front legs.
3. Raise the Support Brackets (H) so that the Extension Support (C) may be placed over the front legs and secured with bolts (P).
4. Insert Rear Extension Legs (D) into the ends of the rear extension, and Front Extension Legs (E), into the ends of the front legs (ensure wheels are parallel to each other), set to required length, ensuring they are inserted by the same amount, (see operating instructions), and secure using bolts (O).

IMPORTANT. The Front and Rear Extension Legs should NEVER be extended beyond the 'STOP' mark, etched on their upper faces, (see operating instructions).

5. Place Main Support (G) on to the Extension Support (C), over the holes provided, so that the Hydraulic Ram Assy bracket on the main support is facing towards the front wheels. Secure using bolts (P)
6. Connect the support brackets (H), to their upper mountings at either side of the main support post, with bolts (T).
Fully tighten all nuts and bolts assembled thus far.
7. Place the Hydraulic Pump/Ram Assembly (L), (with Ram uppermost), into its mounting on the Main Support Post, and having lined up the hole in the bracket with that in the ram Assembly, insert bolt (R) and tighten fully, but be careful not to overtighten, and clamp pump/ram assembly.
Allow the Ram Assembly to rest against the support post.
8. Lift Boom (I) into position in its mounting on top of the main support post, and secure tightly with bolt (Q).
9. Raise the boom and manoeuvre the hydraulic ram assembly until the ram enters the bracket on the boom.
Line up the holes in the bracket and ram and insert bolt (R). It may be necessary to extend the ram by approx 2" to facilitate its location. To do this, ensure the valve on the side of the ram assembly is closed, by turning it firmly clockwise, using the notched end of the pump handle, then pump the handle until the ram extends by the required amount.
10. Raise the boom, using the hydraulic ram, to a horizontal position, and insert the Boom Extension (J) to the required length (see operating instructions), ensuring that the slot at one end of the extension is outermost and on its underside. Secure using bolt (R), being careful not to overtighten
11. Fit the chain and hook assembly (K) to the end of the boom extension, by sliding the end chain link into the slot provided, and threading the bolt (S) through the locating hole and chain link.
Finally check to ensure that all nuts are fully tightened, and the hydraulic ram assembly, wheels and castors, all operate freely.

DO NOT OVERTIGHTEN ANY SECTION WHICH MAY CAUSE DISTORTION.

SAFETY PRECAUTIONS

IMPORTANT

Before using your crane, it is in your own interest to read and comply with the following safety rules.

1. NEVER exceed the load capacities as specified on the jib arm for each jib extension position. These capacities are repeated as follows:

Model	Lifting capacity (kg)			
	stage 1	stage 2	stage 3	stage 4
CFC-1000LR	1000	750	500	250

2. Only use the crane on a solid flat level surface, which is capable of sustaining the weight of the load.
3. NEVER stand or work beneath a suspended load.
4. Position the load as close as possible to the ground before moving it.
5. Do not allow the load to swing or drop suddenly whilst moving or lowering.
6. Use only slings or chains with a capacity equal to, or greater than that of the crane.
7. Do not stand in the path of the boom, as loss of load may cause the boom to rise suddenly.
8. If the load capacity decal on the boom becomes worn or illegible, contact Clarke International Spares Division for a replacement.
9. Ensure the crane operator is skilled, and trained in both operation and safety aspects.
10. Do not use the crane to transport any load.
11. Inspect the crane before use to ensure it is in good condition.
Replace any damaged/worn parts.
12. When replacing parts, only use parts supplied by Clarke International:
as per enclosed parts list.

Note: Failure to comply with these rules and precautions, may result in loss of load, damage to, or failure of the equipment, or even personal injury.

FOLLOW THESE RULES AT ALL TIMES

Ensure that the crane is properly maintained and lubricated at all times, and that no rust is allowed to weaken any part of the crane.

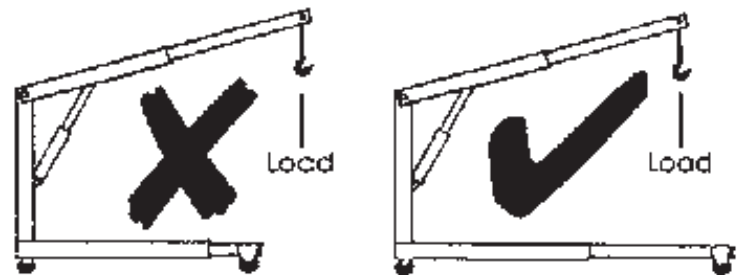
OPERATION

1. When removing an engine ensure vehicle is well supported and secure. All ancillary parts must be disconnected, i.e. exhaust system, speedo cable, electrics, etc. and only lifting points recommended by the vehicle manufacturer are used.

2. **IMPORTANT**

NEVER allow the legs to be shorter than the centreline of the load.

The legs should be extended as far as possible during use, in order to effect maximum stability, but must NEVER be extended further than the STOP mark, etched on the upper surface of the leg extension.

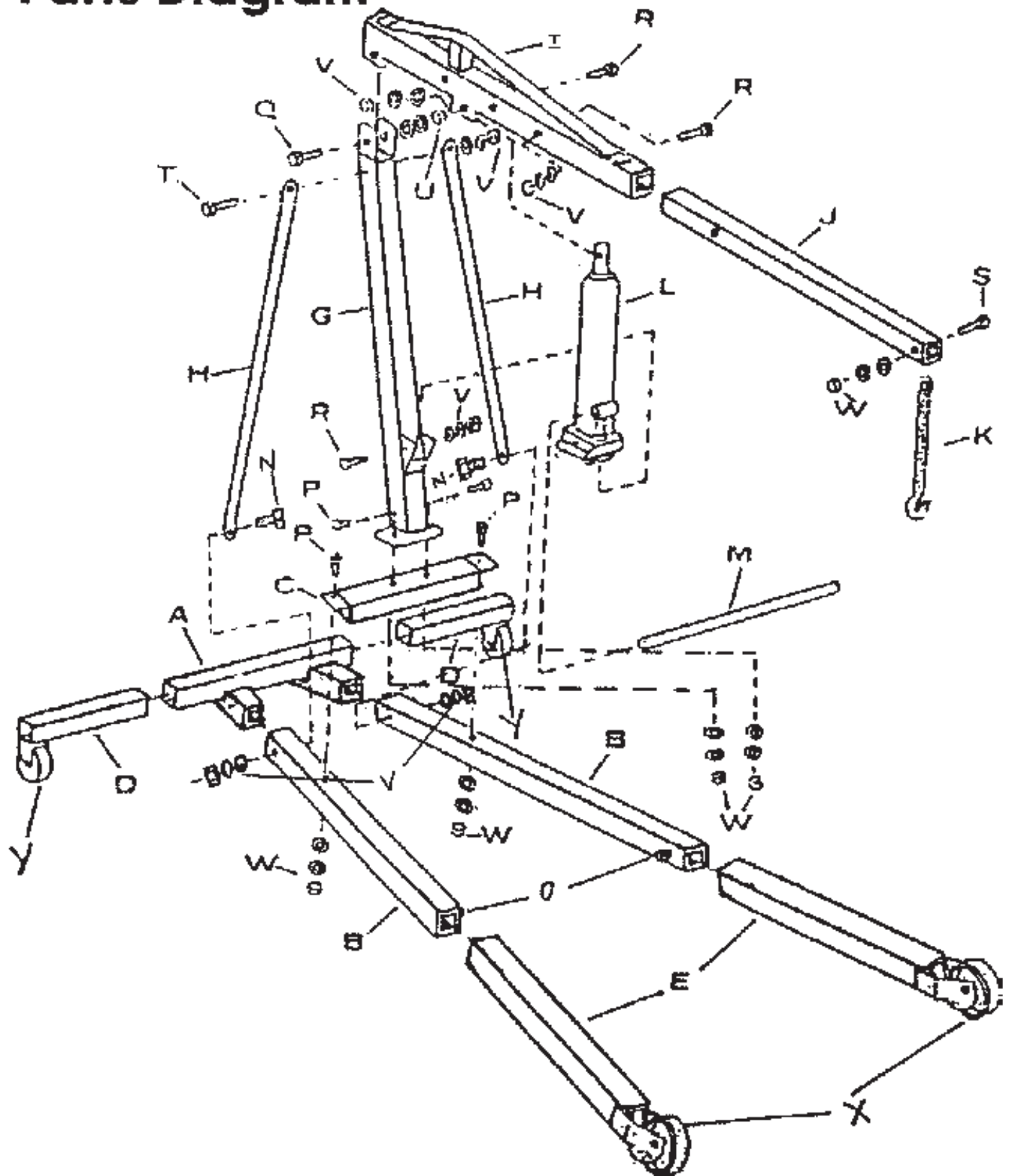


3. To raise the jib arm, or boom, firstly locate the slotted end of the pump handle on to the hydraulic pressure release nut at the base of the Ram assembly. Turn the nut clockwise until tight, then remove the handle and locate it in the pump collar. Pump the ram to raise the jib to the required height.
4. To lower the jib arm, locate the slotted end of the pump handle on to the pressure release nut, and very slowly turn in an anticlockwise direction. The jib will lower under its own weight, the more the valve is opened, the faster the load will lower. **EXERCISE GREAT CARE WHEN LOWERING HEAVY LOADS.**

MAINTENANCE

1. Always inspect the crane before use for visible signs of damage, leaking hydraulic fluid, loose, worn or missing parts.
2. If the crane is subjected to any abnormal load or shock, it should be removed from service immediately and inspected by a local service agent or Clarke international Service Division.
3. Daily, a) check the tightness of all bolts, and pivoting joints for wear.
b) lubricate wheels and bearings and inspect for cracks or other possible damage.
c) inspect the hydraulic ram assembly for leaks, damage, scoring and wipe with oily rag to prevent corrosion.
4. When not in use, store the crane with the jib in its lowest position so that there is no load on the ram, and to prevent corrosion of the ram.
5. To fill hydraulic pump.
With ram fully retracted (in lowered position), remove rubber plug on side of cylinder (it may be necessary to disconnect ram from boom to access plug). Top up to level of hole with Clarke hydraulic oil (pt. no. 3050830). Replace plug and refit boom as assembly instruction 8.

Parts Diagram



Parts List

MODEL CFC1000LR. PART NO. 7610660

ITEM NO.	QTY	PART NO.	DESCRIPTION
A	1	HT100001	REAR SUPPORT
B	2	HT100002	FRONT LEG
C	1	HT100003	EXT. SUPPORT
D	2	HT100004	REAR EXT. LEG
E	2	HT100005	FRONT EXT. LEG
G	1	HT100006	MAIN SUPPORT POST
H	2	HT100007	SUPPORT BRACKET
I	1	HT100008	BOOM
J	1	HT100009	BOOM EXT.
K	1	HT100010	HOOK + CHAIN
L	1	HT100011	RAM
M	1	HT100012	HANDLE
N	2	3040569	BOLT M16 X 100
O	2	3040565	BOLT M14 X 30
P	4	3040567	BOLT M14 X 115
Q	1	3040571	BOLT M18 X 110
R	3	3040568	BOLT M16 X 90
S	1	3040566	BOLT M14 X 80
T	1	3040570	BOLT M16 X 110
U	1	3040596	WASHER M18
U	1	3040620	LOCKWASHER M18
U	1	3040618	NUT M18
V	6	3040579	WASHER M16
V	6	3040585	LOCKWASHER M16
V	6	3040604	NUT M16
W	5	3040572	WASHER M14
W	5	3040599	LOCKWASHER M14
W	5	3040616	NUT M14
X	2	HT100013	FRONT WHEEL ASSY.
Y	2	HT100014	CASTOR ASSY.
	1	HT100015	MODEL/SERIAL NO. LABEL
	1	HT100017	WEIGHT INDICATOR LABEL
	1	2001352	STRONG ARM LABEL

PARTS & SERVICE CONTACTS

For Spare Parts and Service, please contact your nearest dealer, or
CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400

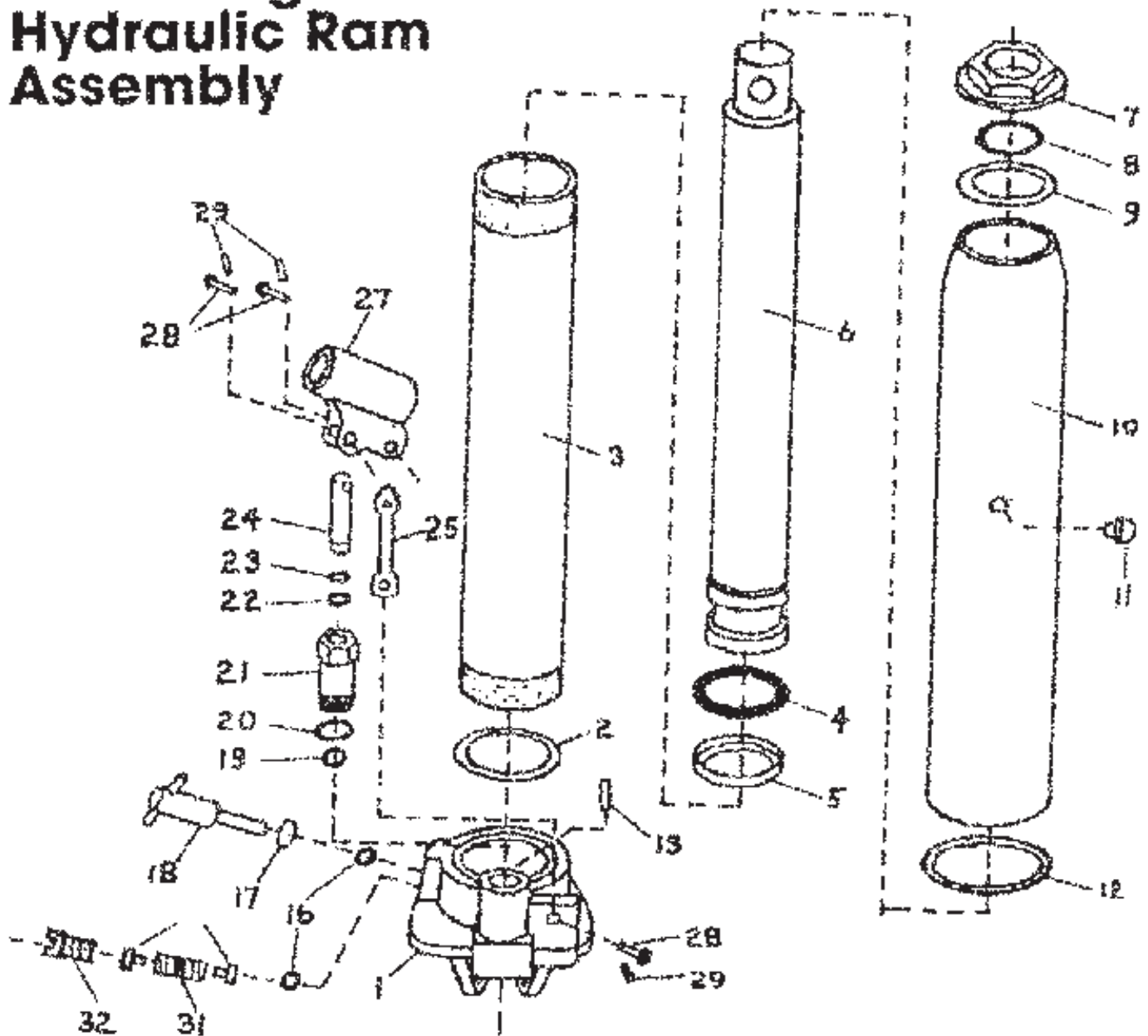
PARTS & SERVICE FAX: 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com

Parts Diagram & List Hydraulic Ram Assembly



ITEM	DESCRIPTION	QTY	PART NO.	ITEM	DESCRIPTION	QTY	PART NO.
1	VALVE BODY	1	HT10001101	17	SEAL RING	1	HT10001115
2	COPPER WASHER	1	HT10001102	18	RELEASE VALVE	1	HT10001116
3	CYLINDER	1	HT10001103	19	STEEL BALL	1	HT10001117
4	O-RING	1	HT10001104	20	COPPER WASHER	1	HT10001118
5	O-RING RETAINER	1	HT10001105	21	PUMP CYLINDER	1	HT10001119
6	RAM	1	HT10001106	22	O-RING	1	HT10001120
7	TOP NUT	1	HT10001107	23	BACK-UP RING	1	HT10001121
8	O-RING	1	HT10001108	24	PLUNGER	1	HT10001122
9	SEALING GASKET	1	HT10001109	25	LINK PIN	1	HT10001123
10	OIL CHAMBER	1	HT10001110	27	HANDLE SOCKET	1	HT10001124
11	OIL PLUG	1	HT10001111	28	CONNECTING PIN	3	HT10001125
12	SEAL RING	1	HT10001112	29	CUTTER PIN	3	HT10001126
13	TUBE	1	HT10001113	30	STOP BLOCK	2	HT10001127
16	STEEL BALL	2	HT10001114	31	SPRING	1	HT10001128
				32	SCREW	1	HT10001129