

**UNDERGROUND
ROCK DRILL**

'Narrow Vein Rock Tools'



Telescopic Air-Legs

SERVICE INSTRUCTIONS AND SPARE PARTS LIST

MODELS:

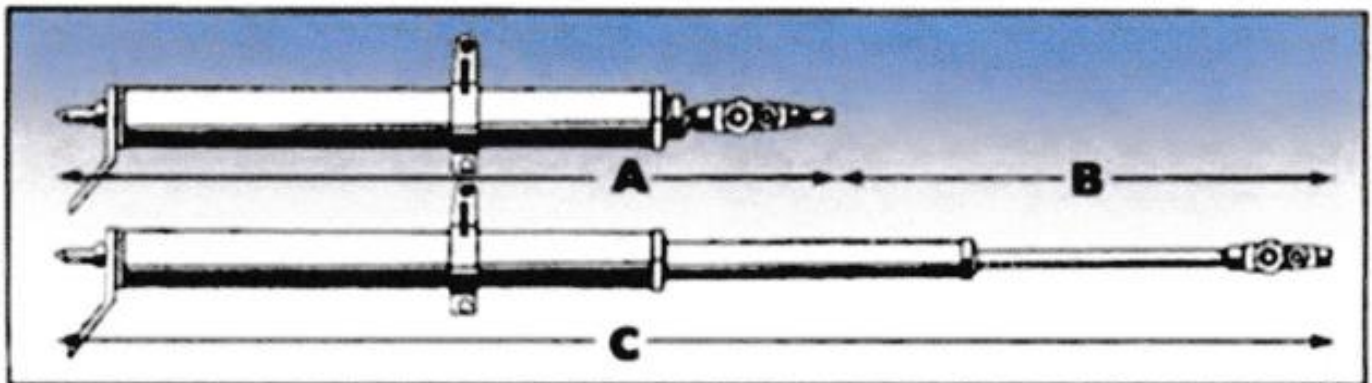
DT 50

DT 100

DT 140

DT 180

DT 200

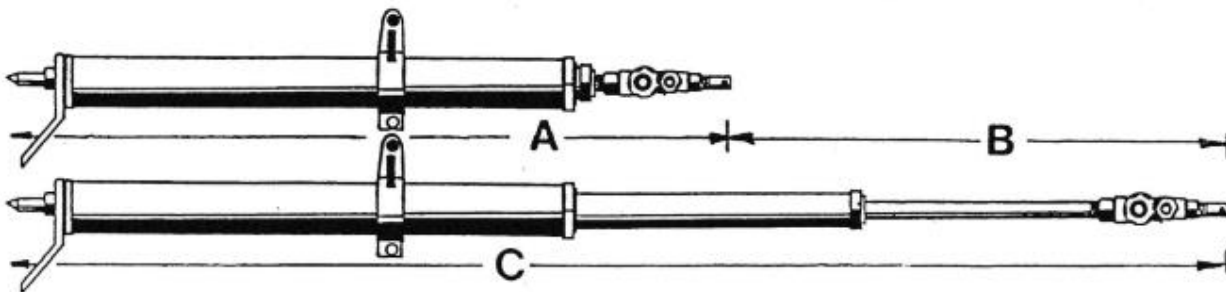


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DT 50
 DT 100
 DT 140
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 DT 200

Key points: Lightweight construction
 Independent controls - airleg mounted
 Double telescopic design
 Push button retraction - airleg mounted
 Easier handling
 Minimum repositioning during drilling



Type	Length Retracted (A)	Stroke (B)	Length Extended (C)	Weight	Piston Diameters
DT 50	875mm	545mm	1420mm	11.9kg	78/65mm
DT 100	1100mm	1040mm	2140mm	13.3kg	78/65mm
DT 140	1305mm	1440mm	2745mm	15.0kg	78/65mm
DT 180	1505mm	1840mm	3345mm	16.6kg	78/65mm
DT 200	1645mm	2100mm	3745mm	18.1kg	78/65mm

The double telescopic design characteristic incorporating independent control and push-button retraction gives added flexibility and manouverability in all conditions, minimising repositioning of the airleg during hole drilling.

The double telescopic extension allows for long hole drilling in one pass.

Safety Precautions

The Safety Precautions listed below and in maintenance instructions are intended to alert the operators and maintenance personnel to the possible physical dangers inherent in the various phases of operating and maintaining equipment of this kind.

All operators and maintenance personnel must read and thoroughly understand this manual before attempting to operate or perform maintenance on the product. In all situations "SAFETY FIRST" must be the primary consideration of all personnel while operating or maintaining equipment. Since these safety precautions cannot cover every possible situation, good judgement and common sense must be applied while operating, servicing or working near the product.

1. DURING OPERATION OF THE AIRLEG AND THE DRILL, SAFETY SHOES, SAFETY GLASSES, EAR PROTECTION AND SAFETY HELMET ARE TO BE WORN.
2. EXPOSURE TO EXCESSIVE NOISE CAN LEAD TO HEARING DEFICIENCY. APPROPRIATE EAR PROTECTION MUST ALWAYS BE WORN.
3. DISTRACTION INCREASES DANGER OF ACCIDENT.
4. ONLY ON ACTUAL OPERATION OF THE AIRLEG OR THE DRILL SHOULD THE OPERATING HANDLES BE TOUCHED.
5. WHILE AIRLEG IS IN OPERATION, SURE AND FIRM FOOTING IS NECESSARY.
6. NEVER OPERATE THE AIRLEG WHICH IS JAMMIN ON CYLINDERS OR PISTON ROD.
7. NEVER POINT THE DRILL AT CO-WORKERS OR YOURSELF.
8. THE DRILL SHOULD NEVER BE PUT INTO OPERATION IF IT IS LYING ON THE GROUND OR IF IT IS NOT HELD SECURELY IN WORKING POSITION.
9. COMPRESSED AIR IS DANGEROUS! NEVER POINT A CONNECTED COMPRESSED AIR HOSE AT CO-WORKERS OR YOURSELF. AVOID THE HABIT OF BLOWING YOUR CLOTHES FREE OF DUST WITH COMPRESSED AIR.
10. BE SURE THAT ALL HOSE CONNECTIONS ARE TIGHT AND SEALED. A LOOSE HOSE NOT ONLY CAUSES LOSS OF AIR; DANGER EXISTS THAT IT COMES COMPLETELY OFF THE DRILL, WHIPS AROUND INJURING THE OPERATORS AND OTHERS IN THE AREA. SECURE HOSES WITH SAFETY CABLES OR ROPES TO PREVENT DANGER OR INJURY IN CASE A HOSE IS BROKEN.
11. NEVER DISCONNECT A PRESSURIZED AIR HOSE; FIRST SHUT OFF AIR AT THE PRODUCT AND OILER BLEED THE DRILL.
12. THE DRILL AND THE AIRLEG SHOULD ONLY BE OPERATED WITH SPECIALLY SUITABLE INSERTED DRILL ROD. OPERATE WITH SUFFICIENT PRESSURE, AVOID RECOILS. WHEN THE MACHINE IS UNDER PRESSURE, OILERS MAY NOT BE FILLED UP AND TOOLS MAY NOT BE EXCHANGED.
13. THE DRILL SHOULD ALWAYS BE HELD WITH BOTH HANDS DURING OPERATION.
14. THE OPERATOR MUST HAVE A FIRM FOOTING. IF POSSIBLE, THE OPERATOR'S FEET SHOULD BE SO PLACED OUT OF THE FALLING RANGE OF THE DRILL, BUT WITHOUT THE DANGER OF LOSING BALANCE. IN THE CASE OF BREAKAGE OF DRILL ROD, THERE IS DANGER OF SUDDEN FALLING OF DRILL WITH PROTRUDING AND BROKEN DRILL ROD PART.
15. NEVER OPERATE DRILL ASTRIDE, I.E., WITH ONE LEG OVER THE HANDLE. IN THE CASE OF BREAKAGE OF THE INSERTED DRILL ROD, SERIOUS INJURIES CAN RESULT.
16. ENSURE THAT NO CABLES, PIPES AND THE LIKE ARE IN AREA OF DRILL OPERATION (ELECTRIC, GAS, WATER, TELEPHONE).
17. IN THE EVENT OF DRILL CONTACTING UNKNOWN OBJECTS DURING OPERATION, SWITCH OFF DRILL IMMEDIATELY. IDENTIFICATION OF OBJECT SHOULD BE CARRIED OUT BY CAREFUL UNCOVERING WITH SHOVEL, NOT THE DRILL.
18. IN CASE A CLEANING SOLVENT IS USED FOR CLEANING PARTS, MAKE SURE THAT THIS MEETS THE CURRENT SAFETY AND HEALTH REGULATIONS AND THAT IT IS USED IN A WELL-VENTILATED AREA. IN ADDITION, THE CURRENT REGULATIONS OF DISPOSAL ARE TO BE RESPECTED.

Compressed Air Supply

A supply of clean, lubricated air is essential for the flawless function of the DT Airlegs. Wet or dirty air causes heavy wear of moving parts, destruction of seals and/or seizing of the piston.

Operation

The compressed air SIG PLO and Ausminco 15 POB Line Oiler ranges are suitable for feeding both rock drills and Airlegs together.

Servicing

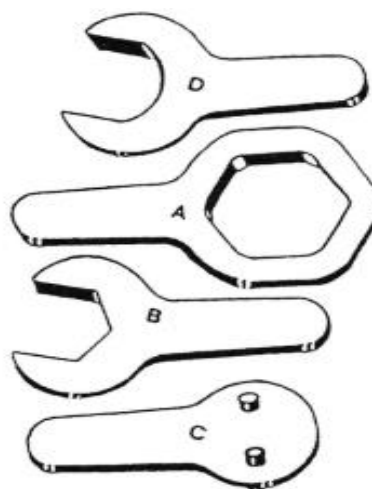
Under normal circumstances, the maintenance of the DT and DTC Airlegs is limited to checking and if necessary, replacement of worn seals, O-Rings and pistons. Over prolonged use, other components may have to be replaced as required.

Recommended Oils

Care should be taken to select the correct grade of oil depending on local conditions. They include MOBIL ALMO and SHELL TORCULA series.

Assembly Tools

Outer cap spanner	A 64 979 960
Inner front cap spanner	B 64 979 970
Rear outer cap spanner	C 64 979 980
Piston spanner	D 64 979 990

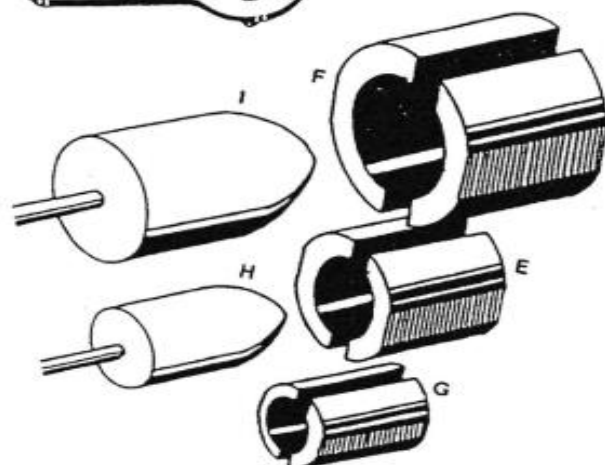


Hydraulic Press Airleg Assembly Tools

Inner cylinder clamp set	E
Outer cylinder clamp set	F
Piston rod clamp set	G

The following tools to repair damaged cylinders only available by special request

Inner cylinder dolly	H
Outer cylinder dolly	I



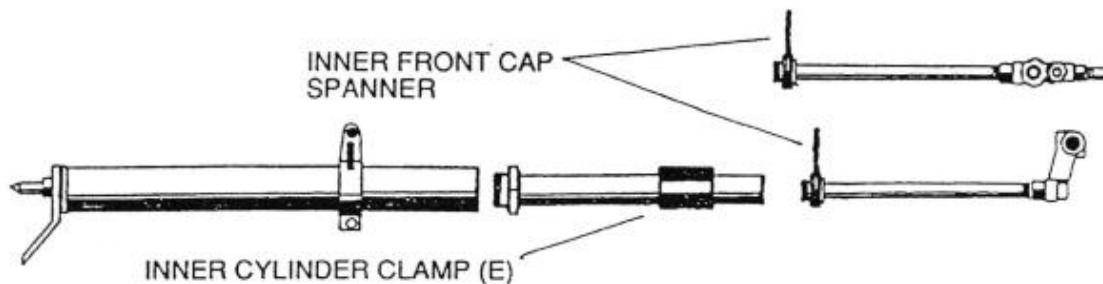
MAINTENANCE INSTRUCTIONS

WARNING !!

- A) NO AIRLEG SHOULD BE TESTED WITH COMPRESSED AIR WHEN CLAMPED IN VICE OR PRESS.
- B) ENSURE THAT THE AIRLEG IS FULLY EXTENDED BY HAND AND FREELY RETURNS TO THE COLLAPSED POSITION PRIOR TO CONNECTING THE COMPRESSED AIR FOR TEST
- C) WHEN TESTING THE LEG WITH COMPRESSED AIR, DO NOT STAND IN FRONT OF THE LEG, AND ENSURE THAT THE CONTROL IS TURNED TO "OFF" POSITION.
- D) ALWAYS STAND ASIDE!

Dismantling

1. Clamp the inner cylinder in a pipe vice approximately 150-200mm from the cap inner front, (Item 34), and remove the cylinder cap. This allows the rod assembly to be removed from the cylinder. By repeating the same method, the inner cylinder can be dismantled. The same procedure is applicable to both DT and DTC Airlegs.

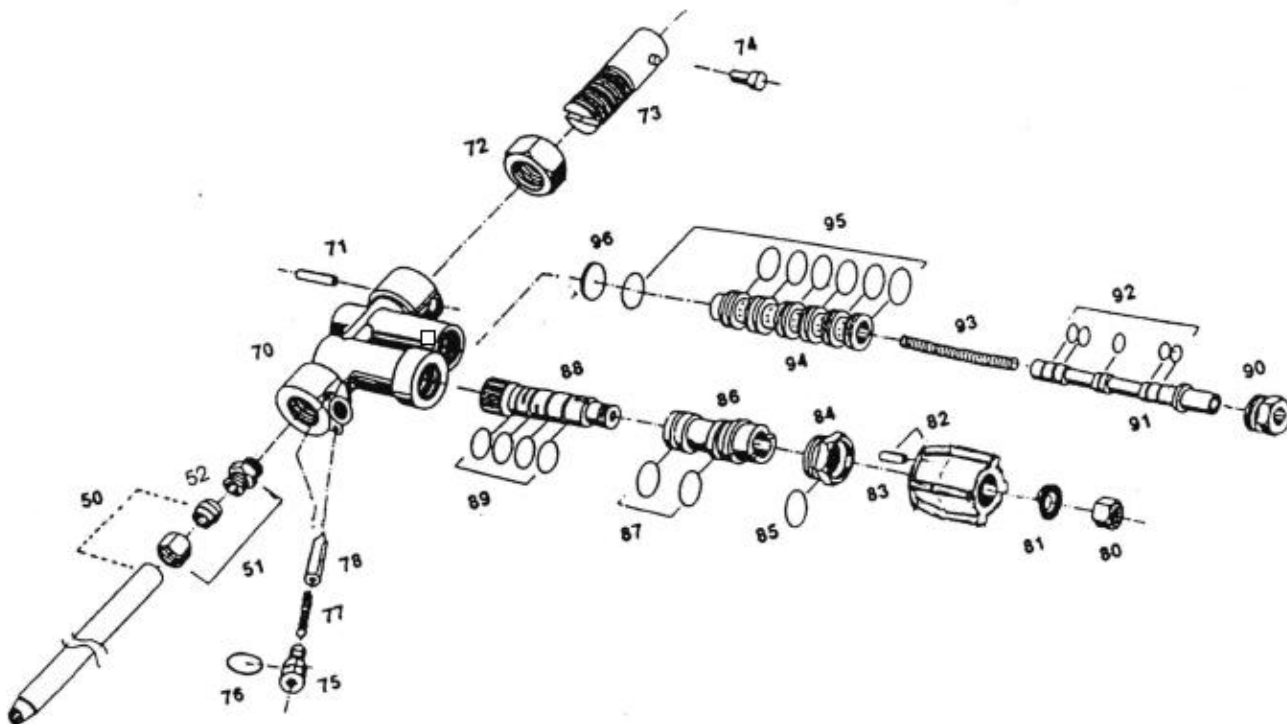


2. It is not recommended to remove the foot, (Item 4), the bolt, (Item 1/2), the cap rear outer, (Item 7), the O-Ring, (Item 8), unless for a specific reason; example, if the inner cylinder cannot be removed from the top end.
3. It is not recommended to dismantle the nylon tube assembly, (Item 50), and the piston rod, (Item 31), from either the DT Airleg housing control, (Item 70) or the DTC Airleg housing control, (Item 62), unless replacement parts are required, or if the components are clogged with dirt.
4. Attention should be given to all O-Rings, seals, pistons and bush, (Item 33). Care must be taken that all parts are firmly tightened with the correct tools, especially control lock nuts (Items 37 and 72), pistons, (Items 18 and 25), and foot stud, (Item 1).
5. Before assembling the Airlegs, parts should be thoroughly washed, cleaned and checked for wear. Worn or damaged parts should be replaced where necessary.

For DT Airlegs

6. It is not necessary to dismantle the housing control, (Item 70), unless maintenance is required to control valve, (Item 86), to maintain high performance. If excessive air bypasses the control spool, (Item 88), and the sleeve control valve, (Item 86), then the sleeve control valve is due for replacement.
7. Attention must be given to ensure that both ratchets, (Item 78), are engaged correctly to maintain the fine adjustment of the Airlegs.
8. The retract button assembly should be checked for air leakage which indicates that Items 92, the O-Rings, are due for replacement. It also may be necessary to replace the distributor, (Item 94), spool, (Item 91), and nut, (Item 90).
9. Spigot pin, (Item 74), should be checked for wear and replaced if necessary. To replace, grind away the flare and use a pin punch 8mm dia to remove the pin. The new pin should be flared and dressed from the back after the new item is installed.
10. To avoid damage on the control spool, (Item 88), and handle control, (Item 82), make sure that nyloc nut, (Item 80), is tightened adequately and that heavy duty spring washer, (Item 81) is in place.

DT AIRLEG CONTROL



SPARE PARTS LIST: DT AIRLEGS

COMPLETE UNIT	SIG.au DT 50	64 980 000 01
	SIG.au DT 100	64 979 011 01
	SIG. au DT 140	64 979 010 06
	SIG.au DT 180	64 979 010 01
	SIG.au DT 200	64 979 012 01

ITEM	QTY	DESCRIPTION	ORDER NUMBER
1	1	FOOT STUD	64 979 654
3	1	ROLL PIN	64 979 380
4	1	FOOT CLAW (2 PRONG)	64 979 740
7	1	CAP – REAR OUTER	64 979 051
8	1	ORING	64 979 060
14	1	CYLINDER – OUTER	DT 50 64 980 020
			DT 100 64 979 670
			DT 140 64 979 920
			DT 180 64 979 130
			DT 200 64 979 780
15	1	CARRY HANDLE	64 979 160
16	1	BOLT – CARRY HANDLE	64 979 580
17	1	NUT – CARRY HANDLE	64 979 570
18	1	PISTON – OUTER	64 979 091
19	1	SEAL – PRESSURE (LARGE)	64 979 071
20	1	CYLINDER – INNER	DT 50 64 980 010
			DT 100 64 979 680
			DT 140 64 979 910
			DT 180 64 979 140
			DT 200 64 979 790
21	1	O’RING	64 979 110
22	1	CAP – OUTER FRONT	64 979 210
23	1	O’RING	64 979 060
24	1	SEAL – WIPER (LARGE)	64 979 220
25	1	PISTON – INNER	64 979 081
26	1	COTTER PIN	64 979 490
27	2	SEAL – PRESSURE (SMALL)	64 979 101
28	1	SPACER	64 979 122
30	2	SEAL	64 979 510
31	1	PISTON ROD – COMPLETE	
			DT 50 64 980 032
			DT 100 64 979 703
			DT 140 64 979 901
			DT 180 64 979 595
			DT 200 64 979 813

SPARE PARTS LIST: DT AIRLEGS

ITEM	QTY	DESCRIPTION	ORDER NUMBER
32	1	SEAL – PISTON ROD	64 979 171
33	1	BUSH	64 979 180
34	1	CAP – INNER FRONT	64 979 190
35	1	O’RING	64 979 200
36	1	SEAL – WIPER (SMALL)	64 979 240M
37	1	NUT – LOCK (PISTON ROD)	64 979 330
50	1	TUBE – NYLON (INCLUDES OLIVE ONLY OF ITEM 52)	
		DT 50	64 980 041
		DT 100	64 979 711
		DT 140	64 979 930
		DT 180	64 979 251
		DT 200	64 979 801
51	1	TUBE FITTING	64 979 340
52	1	OLIVE	64 977 160
70	1	HOUSING – CONTROL	64 979 350
71	1	ROLL PIN	64 979 380
72	1	NUT – LOCK (SPIGOT)	64 979 390
73	1	SPIGOT	64 979 400
74	1	SPIGOT PIN	64 979 730
75	2	CAPSCREW	64 979 530
76	2	O’RING	64 979 540
77	2	SPRING	64 979 550
78	2	RATCHET PIN	64 979 560
80	1	NUT – NYLOC	64 992 920
81	1	WASHER – SPRING	64 979 261
82	1	HANDLE – CONTROL INCLUDES ROLL PIN 83	64 979 600
83	1	ROLL PIN	64 979 270
84	1	NUT – CONTROL (LARGE)	64 979 280
85	1	O’RING	64 979 290
86	1	SLEEVE CONTROL VALVE, INCLUDES 2X O’RINGS, ITEM 87	64 979 040
87	2	O’RING	64 979 300
88	1	CONTROL SPOOL, INCLUDES 4X O’RINGS, ITEM 89	64 979 610
89	4	O’RING	64 979 310
90	1	NUT – BUTTON	64 979 440
91	1	SPOOL, INCLUDES 5X O’RINGS, ITEM 92	64 979 621
92	5	O’RING	64 979 520
93	1	SPRING	64 979 360
94	1	DISTRIBUTOR	64 979 410
95	7	O’RING	64 979 420
96	1	DISC	64 979 370
		OPTIONS	
2	1	BOLT – USE WITH THE FOLLOWING	64 979 030
5	1	FOOT CLAW (4 PRONG)	64 979 022
6	1	FOOT CLAW (3 PRONG)	64 979 860

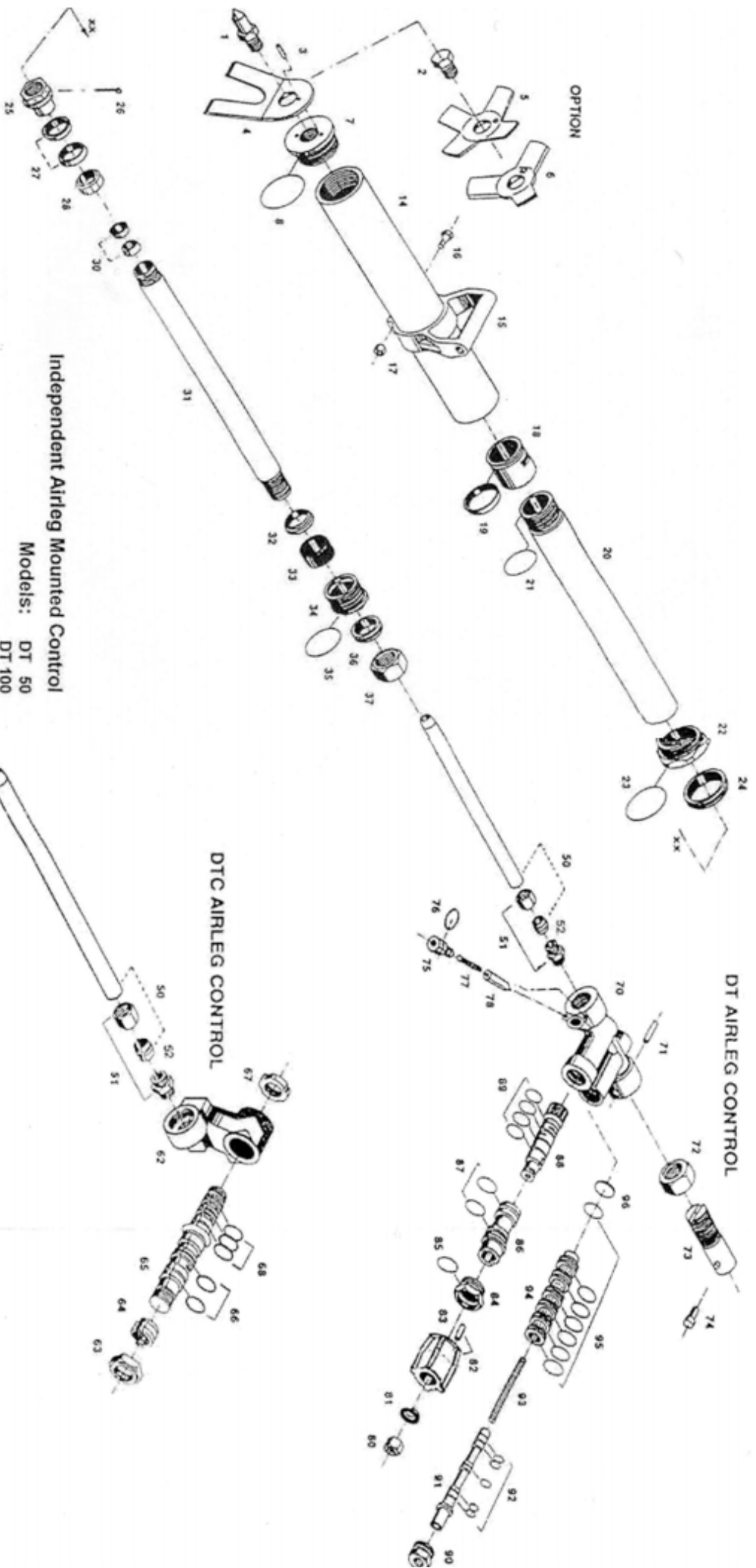
SPARE PARTS LIST: DTC AIRLEGS

COMPLETE UNIT	DTC 50	64 980 010-01
	DTC 100	64 979 014-01
	DTC 140	64 979 010-07
	DTC 180	64 979 013-01
	DTC 200	64 979 015-01

ITEM	QTY	DESCRIPTION	ORDER NUMBER
1	1	FOOT STUD	64 979 654
3	1	ROLL PIN	64 979 380
4	1	FOOT CLAW (2 PRONG)	64 979 740
7	1	CAP – REAR OUTER	64 979 051
8	1	ORING	64 979 060
14	1	CYLINDER – OUTER	DTC 50 64 980 020
			DTC 100 64 979 670
			DTC 140 64 979 920
			DTC 180 64 979 130
			DTC 200 64 979 780
15	1	CARRY HANDLE	64 979 160
16	1	BOLT – CARRY HANDLE	64 979 580
17	1	NUT – CARRY HANDLE	64 979 570
18	1	PISTON – OUTER	64 979 091
19	1	SEAL – PRESSURE (LARGE)	64 979 071
20	1	CYLINDER – INNER	DTC 50 64 980 010
			DTC 100 64 979 680
			DTC 140 64 979 910
			DTC 180 64 979 140
			DTC 200 64 979 790
21	1	O’RING	64 979 110
22	1	CAP – OUTER FRONT	64 979 210
23	1	O’RING	64 979 060
24	1	SEAL – WIPER (LARGE)	64 979 220
25	1	PISTON – INNER	64 979 081
26	1	COTTER PIN	64 979 490
27	2	SEAL – PRESSURE (SMALL)	64 979 101
28	1	SPACER	64 979 122
30	2	SEAL	64 979 510
31	1	PISTON ROD – COMPLETE	
			DTC 50 64 980 032
			DTC 100 64 979 703
			DTC 140 64 979 901
			DTC 180 64 979 595
			DTC 200 64 979 813
32	1	SEAL – PISTON ROD	64 979 171
33	1	BUSH	64 979 180
34	1	CAP – INNER FRONT	64 979 190
35	1	O’RING	64 979 200

SPARE PARTS LIST: DTC AIRLEGS

ITEM	QTY	DESCRIPTION	ORDER NUMBER
36	1	SEAL – WIPER (SMALL)	64 979 240M
37	1	NUT – LOCK (PISTON ROD)	64 979 330
50	1	TUBE – NYLON (INCLUDES OLIVE, ITEM 52)	
		DTC 50	64 980 041
		DTC 100	64 979 711
		DTC 140	64 979 931
		DTC 180	64 979 251
		DTC 200	64 979 801
51	1	TUBE FITTING	64 979 340
52	1	OLIVE	64 977 160
62	1	MOUNTING YOKE	64 979 831
63	1	STOP NUT	64 992 850
64	1	SPRING	64 915 410
65	1	STUD	64 914 381
66	2	ORING	64 996 090
67	1	RING NUT	64 992 170
68	3	O’RING	64 996 220
		OPTIONS	
2	1	BOLT – USE WITH THE FOLLOWING	64 979 030
5	1	FOOT CLAW (4 PRONG)	64 979 022
6	1	FOOT CLAW (3 PRONG)	64 979 860



Independent Airleg Mounted Control

- Models:
- DT 50
 - DT 100
 - DT 140
 - DT 180
 - DT 200

Centralised Drill Mounted Control

- Models:
- DTC 50
 - DTC 100
 - DTC 140
 - DTC 180
 - DTC 200

Telescopic Air-Legs

