KE 750 B ÷ KE 18500 B

* included in the mainenance kit - ** included in the assembled bush



ned and built to facilitate cheking, decreasing/increasing pressure or pressurising self-contained cylinders or hosed systems. It consists of two units: Main (39DMCILA) and secondary (39DMCPVA).

Cod. 39DMCPVA

3 meters of high pressure hose, 1 female Cejn quick fit, 1 ON/OFF valve, 1 shut off valve and 1/2-20 UNF male coupling to connect to the nitrogen bottle.

Cod. **58CE03** for M6 thread Cod. 58CE05 for 1/8"G thread Hex T-key to remove charging hole plug and valve retaining screw.



cylinders. Few minutes and the Special Springs

www.specialsprings.com

GOLD side for 1/8"G hole

Cod.	39BMKE00750B
Cod.	39BMKE01000B
Cod.	39BMKE01800B
Cod.	39BMKE03000B
Cod.	39BMKE04700B
Cod.	39BMKE07500B
Cod.	39BMKE12000B
Cod.	39BMKE18500B

	X			nitrogen gas cylinders are regenerated as new one.	
Cod. 58EAR Retaining C-Ring removal too	ıl.	Cod. 58KNIPEX Multipurpose pliers with spouts.		Special Springs along with its own global net- work are pleased to help you anytime for the best result of your work.	
Cod 20DM02A	GRAA		1	Before starting any maintenance work, carefully check if the rod or the body of the cylinder are damage or wear. If yes, it is recommended to replace the cylinder immediatley and do not	
Table manual press for eas	у 🏲	Cod. 58EM06 Cod. 58EM08		procede with the maintenance operation.	
ponents.		I-handle to remove piston-rod + bushing.	V	Before starting any maintenance work carefully check the maintenance kit to correspond to the model of cylinder for which is required.	NITROGEN GAS CYLINDERS MAINTENANCE INSTRUCTIONS
Cod ESCDO1				Before starting any maintenance work carefully check this step-by-step manual to correspond to	
Torque wrench for one way	y 🚽	Special Springs gas detector for		the model of cylinder for which is requied.	KE 750 B KE 1000 B
		easy gas leakage.		Instructions and pictures of this step-by-step manual could slightly differ from practise.	KE 1800 B KE 3000 B KE 4700 B
			I	ROTECTE C	KE 7500 B KE 12000 B KE 18500 B
				All Special Springs step-by-step manuals	
				site: www.specialsprings.com	
Cod. 49TB014 (KE750B) Cod. 49TB017.5 (KE1000B) Cod. 49TB026.5 (KE1800B) Cod. 49TB035.5 (KE3000B)	Cod. 49TB048.5 (KE47 Cod. 49TB061.5 (KE75 Cod. 49TB081.5 (KE12 Cod. 49TB106.5 (KE18	700B) 500B) 2000B) 3500B)	ji ji	SGS PED 2014/68/EU	
Reassembly guiding tube for ning C-ring.	the bushing + reassen	nbly positioning tube for the retai-	-	9801C00602013 © All right reserved.	
Cod. 49TN023 (KE750B)	Cod. 49TN055 (KF470)	0B)		Special Springs S.r.I.	
Cod. 49TN027 (KE1000B)	Cod. 49TN070 (KE750)	0B) 00B)	49TN055	via ivardi, 124/A 36060 Romano d'Ezzelino (VI) ITALY	
Cod. 49TN045 (KE3000B)	Cod. 49TN120 (KE1850	00B)		Tel +39 0424 539181	
Anti scratch nylon tube to se	t the bushing into the c	vlinder body to release the retai-		Fax +39 0424 898230	
nina C-rina.				info@specialsprings.com	SPECIAL SPRINGS

I. SKUDO REMOVAL.

III. DISCHARGING + VALVE REMOVAL for self-contained cylinders.



1. Manually remove the protective cap SKUDO. Do not use tools. For certain models the operation will require a certain strain Preserve the protective cap SKUDO for further reassembly.



3. Remove the protective screw cap from the charging hole by using the appropriate tool. Preserve the the protective screw cap for further reassembly. 58CE05 for the 1/8 G port.

4. Thread DDS discharging device on the charging port then exhaust completely the pressure. Point away from the operator for maximum safety. 39DDS01A BLUE side for M6 hole GOLD side for 1/8"G hole 58CE03 M6/3 for the M6 port.

III. EXTRACTION OF THE RED SEAL

7. With the help of a press and the

appropriate positioning tube, re-insert

the bushing in the body of the cyl-

inder

Extract the red seal.

39PM02A manual press

49TN Positioning tube



5. Be sure the pressure is completley exhauted by pressing down the piston rod into the cylinder body.

from the discharging hole.

C. Make sure there is no more gas

inside the cylinders connected to the

system, by making the rods enter

IV. DISCHARGING non self-contained cylinders.

24.Insert the positioning tube in contact with the retaining C-ring , then by the manual press, press down the retaining C-ring into the groove. When Then unthread the discharging device the C-ring enter correctly into the groove you will hear a loud like "CLICK"

49TB... conical centring guide tube. 39PM02A manual press.

XII. CHARGING AND FORCE TEST for self-contained cylinders.



rectly assembled.

XI. REASSEMBLY OF

THE RED SEAL

26. Cut off with all components cor-27. Reposition the red seal on the groove



6. Hang and release the one way valve from the hole by using the appropriate tool. It would be normal some oil leak from the hole when upside down the cylinder. 58CD01 one way valve removingsetting dynamometric wrench.

V. RETAINING RING REMOVAL.



7. Position the anti scratch nylon removal tube on the cartridge then press down into the body for about 25 mm to set free the retaining C. 39PM02A manual press. 49TN... nylon removal tube.

VI. PISTON ROD + CARTRIDGE REMOVAL.

8. Cylinder section with piston/rod

and cartridge completely pressed into the body. The retaining C-ring result free



A. Repeat the procedure as above

B. To exhaust pressure of hosed

cilynders open the discharging valve

indicated at points 1

on the control panel.

9. Position and clamp the cylinder into a self - centring chuck or a wise.

10. Remove the retaining C-ring by using the appropriate removal tool and pincer. Preserve the retaining C-ring for further reassembly. 58EAR C-ring removal tool. 58KNIPEX pincer.

VII. CLEANING AND INSPECTION.



11. Manually extract together piston/ **12.** Slide off the cartridge from the rod/cartridge from the cylinder body.



rod and remove seal and guide from cylinder body. If the body show any

13. Carefully check and clean the

wear or damage do not use it again

and replace it with a new one.

14. Carefully check and clean the piston-rod. If the piston rod shows any damage, wear or scratch do not use it

again and replace it with a new one.





pressure, for an easy and safety work carefully follow the instructions supplied with the charging unit. 39DMA charging unit.

the charging unit. **39DMCPVA** charging unit.







35. More precise force control can be carried out by using the digital force testing rigs. FT... Digital force tester **IPCDIG** Digital force tester



58CE05 for 1/8G charging port.

58CE03 for M6 charging port.



the charging hole by using the appro-

25. Manually extract the assembly

piston-rod/cartridge completely.

58EM04 T-handle M4.

58EM06 T-handle M6.

58EM08 T-handle M8

31. With the appropriate anti-scratch nylon tube, reposition correctly the 49 TB... anti-scratch nylon tube 39PM02A manual press

red seal

completely inside the body. **D.** Disconnect all the cylinders from the system and repeat the procedure as outlined in point 6





29. Adjust the required maximum pressure trought the regulation valve. The gauge on the right will indicate the maximum allowed pressure to charge the cylinder. 39R... pressure regulation valve.

30 . Select and assemble the desired charging adapter and thread it on the charging port. For an easy and safety





33. When directly charging throught the adapter and desired pressure is reached shut off the hose and bottle valves and disconnect the the quick fit coupling. For an easy and safety work carefully follow the instructions supplied with

39QDFV... adapter for direct charging.

check leaks on the upper side of the







priate tool.







It would be required some strain for the piston. certain models. Discard all of them. 58EM04 T-handle M4 thread. 58EM06 T-handle M6 thread. 58EM08 T-handle M8 thread.

VIII. VALVE REASSEMBLY.



15. Carefully clean the lodging hole of the valve with an airgun and then position the new one way valve supplied along with the maintenance kit. Be care on the right position of it.



19. Lubrificate inside the cylinder body with the specific Special Springs oil supplied with the repair kit. Be care to the quantity as indicated for each cylinder model.



16. Position and thread the one way valve into the hole by using the appropriate special dynamometric tool already calibrated. Torque force required maximum 0,6 Nm. Do not exceed the maximum torque force indicated to not damage the one way valve. 58CD01 dynamometric wrench.



17. Assemble in the correct places on the piston, the new seal and back up ring Pay maximum attention to the correct positioning of the seal and not to damage it.

۲.

OIL

1,5 ml

2 ml

3 ml 4 ml

IX. REASSEMBLY OF PISTON ROD + CARTRIDGE.

18. Adequately grease the inside of the bushing with the lubricant provided with the maintenance kit. Manually insert the bushing on the piston rod till. Pay attention to the correct orientation of the bushing.



check leaks on the charging port after

the maintenance work and before

cylinders after the maintenance work and before re-using the cylinders by using the special gas detector. 39RFG Special Springs gas detector.

XIII. CHARGING AND FORCE TEST for non self-contained cylinders.



A. After positioning and hosing all the cylinders, proceed through the quick fit device trough the control panel for charging all the cylinders. **39DMCPVA** control panel charging unit.



B. Adjust the required pressure on the regulation valve on the bottle. The gauge on the right will indicate the maximum allowed pressure to charge the cylinders.



D. It is advised to always double check the ideal fit of the connections, by using the appropriate leakage detector spray directly on the fittings

39RFG leakage detector spray

XIV. SKUDO REASSEMBLY.

male quick fit on the panel and open

the gas tap. For an easy and safety

work carefully follow the instructions

supplied with the charging unit.

39DMCPVA control panel

charging unit.



KE 4700 B 5 ml KE 7500 B 8 ml KE 12000 B 15 ml KE 18500 B 30 ml NOTE: Each oil dispenser contains a

volume of 5 ml.

Model

X. REASSEMBLY OF THE RETAINING C-RING.



20. Grease all over around the cartridge, the guide and the seal with the special grease supplied with the kit.



21. Position the conical centring guide tube on the top side of the cylinder body, then position the piston/rod/cartridge into the tube and assure to keep all perpendicular to the tube itself and the cylinder body. 49TB... conical centring guide tube.



22. Insert the positioning tube over the rod in contact with the upper side of the cartridge, then by the manual press, press down into the cylinder body all the assembled parts. 49TB... conical centring guide tube.

23. Position the retaining C-ring into

the conical centring guide tube.

39PM02A manual press.

E. It is always recommended to check

leaks on the upper side of the cylinders by using the special gas detector. 39RFG Special Springs gas detector.



38. It is advisable to always double check the correct assembly of the red seal.



39. Manually reassembly the protective cap SKUDO on the proper groove on the top of the rod. It would be required a light pressure to correctly position it. When the protective cup SKUDO enter correctly into the groove you will hear a loud like "CLICK"







