Step 1

Clean and dry all parts thoroughly in a solvent tank or equivalent,

Step 2

Lay out and grease all seals from seal kit. It is very important to grease the seals to avoid tearing during installation.
Step 3

A) Install ram guide and seal on ram piston, install circlip.
B) Install wiper seal into ram stop sleeve, place compression spring over ram piston.
C) Compress whole assembly in an arbor press or equivalent and install retaining ring.

Step 4

Install piston ring onto low pressure piston, secure with circlip.
Step 5

a) Install O-ring seals onto main body
b) Install orange seal into the bottom of the main body, followed by the third stage seal cover, and o-ring plus accompanying flat ring seal.
c) Install wiper seals plus retaining washer and circlip into main bearing.

Step 6

a) Install o-ring seal on air cylinder head
b) Install o-rings on divider plate

c) Install seal on air piston (check seal breakdown included with seal kit to see orientation)

Step 7

![Images of the assembly process]

a) Install oil cylinder tube onto main body, taking care to position the filler hole 180 degrees from the oil pickup holes in the main body

b) Install spacer tube

c) Press divider plate onto assembly

Step 8
a) Place air spring onto piston rod assembly  
b) Place piston rod and spring assembly onto the main body assembly  
c) Compress the spring assembly and place Low pressure piston over the piston rod stud, followed by washer and locknut  
d) Tighten lock nut and hold the piston rod assembly with a hex wrench.

Step 9  

a) Place air cylinder tube over main body assembly  
b) Press by hand the air piston (make sure seal is well greased) into air cylinder tube  
c) Tighten lock nuts  

Step 10
a) Grease bottom seal on ram assembly and tap using a soft mallet into the High pressure cylinder
b) Tighten assembly into cylinder and replace the set screw (blue loctite recommended on setscrew)
c) Re-attach ram cap.

Step 11

a) Fill high pressure cylinder with **AW32 non-detergent oil**
b) Hold high pressure cylinder assembly in a SOFT jawed vice (wood or aluminum) and thread and tighten main body assembly onto high pressure cylinder.
c) Fill with AW32 non-detergent oil to the fill line.