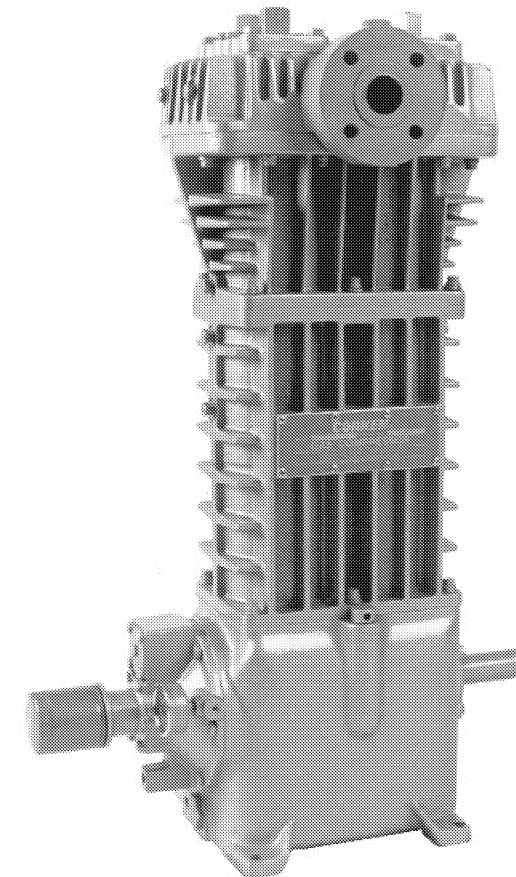


IMPORTANT INSTRUCTIONS

PACKING SET REPLACEMENT

PART NUMBERS 1452-1X3, 1452-2X3



Solutions beyond products...
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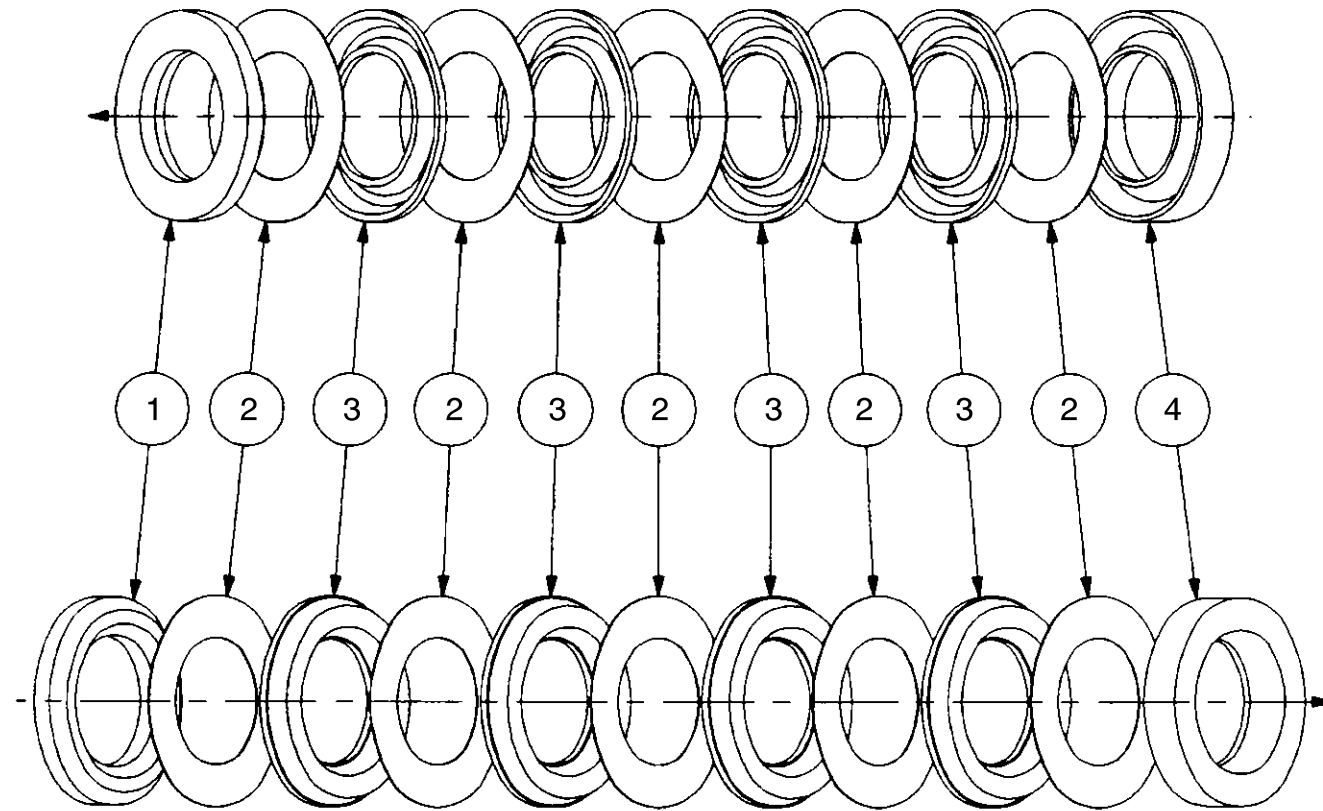
Warning: (1) Periodic inspection and maintenance of Corken products is essential. (2) Inspection, maintenance and installation of Corken products must be made only by experienced, trained and qualified personnel. (3) Maintenance, use and installation of Corken products must comply with Corken instructions, applicable laws and safety standards (such as NFPA Pamphlet 58 for LP-Gas and ANSI K61. 1-1972 for Anhydrous Ammonia). (4) Transfer of toxic, dangerous, flammable or explosive substances using Corken products is at user's risk and equipment should be operated only by qualified personnel according to applicable laws and safety standards.

OPTIONAL K-RING PACKING SETS

WARNING!

Do not use k-ring spacers in NH3 service.

Assemble k-ring packing using the illustration below and the packing replacement instructions enclosed.



Packing Sets
1452-1X, 1452-2X

No.	Part No.	Description
1	1453-1	Male Packing Ring
2	4274	Packing Ring Spacer
3	1454 or 1454-2	Packing Ring
4	1452-1	Female Packing Ring

Packing Sets
1725-2X

No.	Part No.	Description
1	1724	Male Packing Ring
2	4275	Packing Ring Spacer
3	1725-2	Packing Ring
4	1723	Female Packing Ring

NOTE: Quantity of packing rings and spacers will vary depending on compressor model and packing style.

The k-ring spacer is made of a thin film of an advanced, temperature resistant engineering polymer. A k-ring is placed between each v-ring mating surface. The new design uses one less v-ring than the standard design to accommodate the k-rings. The k-ring counteracts the tendency of the v-rings to stick together, especially on higher temperature applications which approach the 350° F (175° C) limit for Corken compressors. The spacing of the v-rings allows each v-ring to seal more tightly. The spacing also improves heat dissipation which extends packing life by lowering frictional wear.

PACKING REPLACEMENT INSTRUCTIONS GAS COMPRESSORS WITH DISTANCE PIECE PACKING SET 1452-1X3, 1452-2X3

CAUTION

Bleed all pressure from the compressor and piping before starting to install new piston rod packing. After repair, the unit should be pressure tested and checked for leaks at all joints and gasket surfaces. When the

compressor is being used with toxic, dangerous, flammable or explosive gases this pressure and leak testing should be done with air or a dry, inert gas such as nitrogen.

GENERAL INSTRUCTIONS

For simplicity, heads, pistons, and inspection plates are not shown. The illustrations are for general reference only; for specific construction details and actual part numbers consult your CORKEN Service Manual, Section E. Use instructions below which apply to the MODEL and SERIAL NUMBER of your compressor. Be careful to arrange packing sets in the proper order for your particular model; also, care should be taken that the inside area of the packing box is not scratched. Replace all gaskets and o-rings as they are not normally reusable.

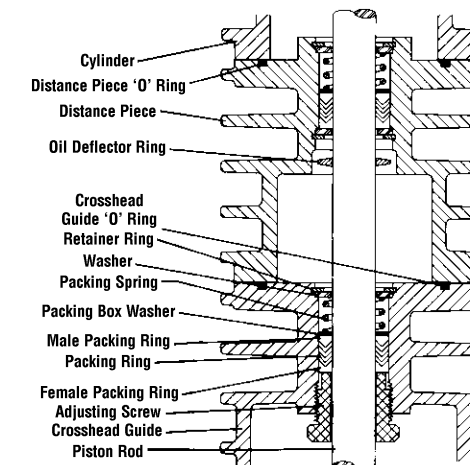
CLEANLINESS

Sealing a reciprocating piston rod is a very difficult task. Keep all parts, tools, and your hands clean during installation. Your new packing needs every chance it can get, so keep it clean.

WORKMANSHIP

Your Corken compressor is a precision piece of equipment with very close tolerances. Treat it as such. Never beat on it to get parts in or out. **NOTE:** Use packing installation cone #4005 before assembling packing sets onto piston rod. all models.

MODELS D90, D91 [PRIOR TO S.N. (UY60590)]



REPLACE PACKING

Clean, then lightly oil, packing area inside crosshead guide. See lower packing set in Table 1 or illustration. Thread in adjusting screw until locking device is engaged into first thread of packing cartridge. Install packing rings including male and female packing rings one at a time, pushing in each completely before adding the next ring. The quantity of packing rings required will vary due to tolerances; a good rule of thumb is to put in as many as are removed. Insert packing box washer, packing spring and washer into crosshead guide. Push down on washer and insert retainer ring. Follow arrangement in Table 1 or illustration to replace upper packing set in a similar manner.

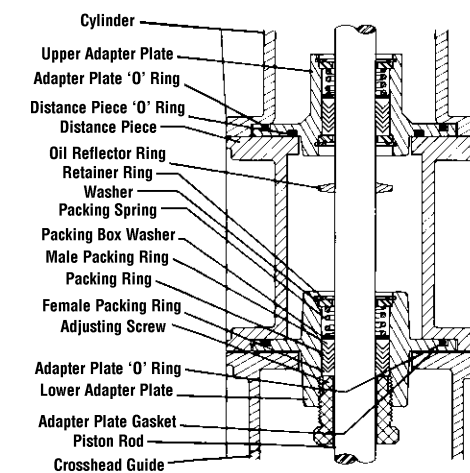
COMPLETING INSTALLATION

Oil piston rod. Install packing installation cone part number 4005 onto piston rod. Slip crosshead guide over piston rod gently; care should be taken that the lips of the packing rings are not damaged. Replace crosshead guide o-ring. Install oil deflector ring on piston rod. Install distance piece carefully. Replace distance piece o-ring, cylinder, pistons and head. Test compressor. Rock flywheel back and forth and listen for a leak. Tighten adjusting screw as necessary and replace inspection plate. After all leaks are found and corrected, repressurize the system.

DEPRESSURIZE AND OPEN COMPRESSOR

Remove head, pistons, cylinder, inspection plate' distance piece, oil deflector ring and crosshead guide. Loosen adjusting screw in crosshead guide. Remove retainer rings, washers, packing spring and old packing from crosshead guide and distance piece.

MODELS D191, D290, D291 (PRIOR TO SERIAL #SS55685) MODEL D390 (PRIOR TO SERIAL #YE32495) MODELS D490, D490-3 (PRIOR TO SERIAL #YE32495)



REPLACE PACKING

Clean, then lightly oil, packing area inside adapter plate. See lower packing set in Table 1 or illustration. Thread in adjusting screw until locking device is engaged into first thread of packing cartridge. Install packing rings, including male and female packing rings, one at a time, pushing in each completely before adding the next ring. The quantity of packing rings required will vary due to tolerances; a good rule of thumb is to put in as many as are removed. Insert packing box washer, packing spring and washer into adapter plate. Push down on washer and insert retainer ring. Follow arrangement in Table 1 or illustration to replace upper packing set in a similar manner.

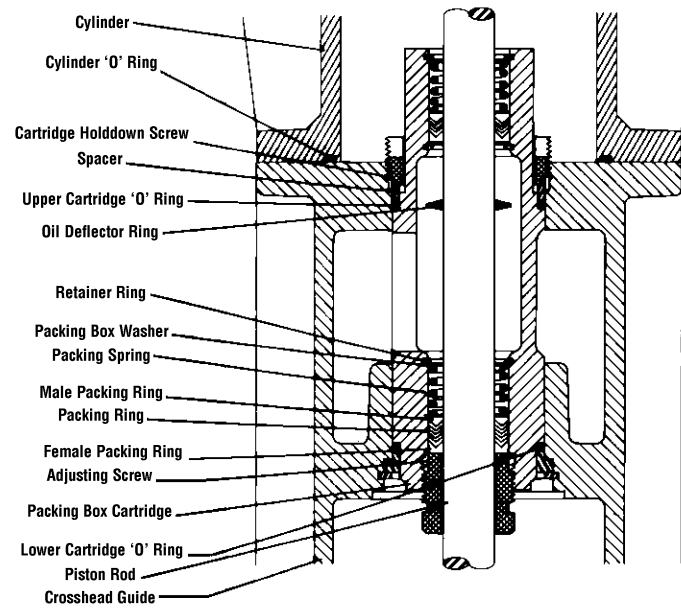
COMPLETING INSTALLATION

Oil piston rod and replace adapter plate gasket. Install packing installation cone part number 4005 onto piston rod. Slip lower adapter plate over piston rod gently; care should be taken that the lips of the packing rings are not damaged. Replace adapter plate o-ring. Install oil deflector ring on piston rod. Install distance piece. Replace distance piece o-ring, then install upper adapter plate carefully. Replace adapter plate o-ring, cylinder, pistons and head. Test compressor. Remove inspection plate to expose adjusting screws. Rock flywheel back and forth and listen for a leak. Tighten adjusting screws as necessary and replace inspection plate. After all leaks are found and corrected, repressurize the system.

DEPRESSURIZE AND OPEN COMPRESSOR

Remove head, pistons, cylinder, adapter plates, distance piece and oil deflector ring. Loosen adjusting screw in crosshead guide. Remove retainer rings, washers, packing spring and old packing from adapter plates.

MODEL D91 (SERIAL NO. UY60590 AND LATER)
MODEL D191 (SERIAL NO. SS55685 AND LATER)
MODEL D291 (SERIAL NO. SS55685 AND LATER)
MODEL D391 (SERIAL NO. YE32495 AND LATER)
MODELS D491, D491-3 (SERIAL NO. YE32495 AND LATER)



REPLACE PACKING

Clean, then lightly oil, packing area inside packing box cartridge. See lower packing set in Table 1 or illustration. Thread in adjusting screw until locking device is engaged into first thread of packing cartridge. Install packing rings including male and female packing rings one at a time, pushing in each completely before adding the next ring. The quantity of packing rings required will vary due to tolerances; a good rule of thumb is to put in as many as are removed. Insert packing box washer, packing spring and washer into packing box. Push down on washer and insert retainer ring. **Follow arrangement in Table 1 or illustration to replace upper packing set in a similar manner.**

COMPLETING INSTALLATION

Oil piston rod and replace lower cartridge o-ring. Install packing installation cone part number 4005 onto piston rod. Slip packing box cartridge over piston rod gently; care should be taken that the lips of the packing rings are not damaged. Install bottom oil deflector ring on piston rod, through opening in packing box cartridge, between the packing sets. Replace upper cartridge o-ring and spacer. Install and tighten cartridge holddown screw. Replace cylinder o-ring, cylinder, pistons and head. Test compressor. Remove inspection plate to expose adjusting screws. Rock flywheel back and forth and listen for a leak. Tighten adjusting screws as necessary and replace inspection plate. After all leaks are found and corrected, repressurize the system.

DEPRESSURIZE AND OPEN COMPRESSOR

Remove head, pistons, cylinder, inspection plate' distance piece, oil deflector ring and crosshead guide. Loosen adjusting screw in crosshead guide. Remove retainer rings, washers, packing spring and old packing from crosshead guide.

The position of the packing varies on these machines. Install as indicated in the table below.

TABLE 1

'D' Style Packing Specification		
	'A' (Shown also in illustrations)	'B'
UPPER PACKING SETS		
LOWER PACKING SETS		

The current packing specification is indicated by the first letter code following the basic model number.

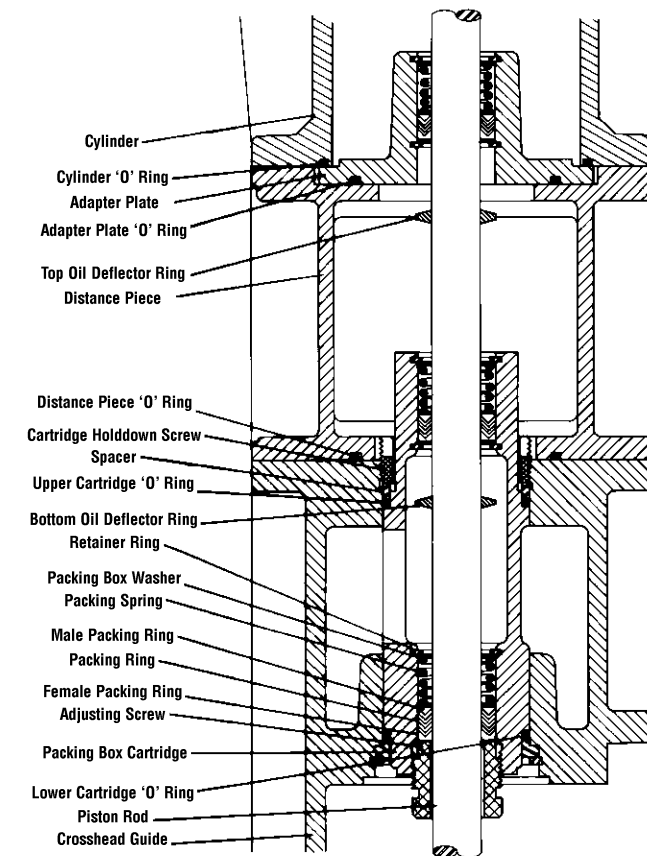
Example:

FD491**A**M4FBANSNN whereas **A** is the packing specification.

GAS COMPRESSORS ('T' STYLE)
DOUBLE DISTANCE PIECE PACKING SET 1452-1X3, 1452-2X3

MODEL T91, T191, T291, T391, T491

Installation arrangement of upper, middle and lower packing sets for specific models is given in Table 2.



DEPRESSURIZE AND OPEN COMPRESSOR

Remove head, pistons, cylinder, adapter plate, top oil deflector ring and distance piece. Then remove cartridge holddown screw, spacer, packing box cartridge and oil deflector ring. Loosen adjusting screw at bottom of packing box cartridge. Remove retainer rings, washers, packing springs and old packing from packing box cartridge and adapter plate.

REPLACE PACKING

Clean, then lightly oil, packing area inside packing box cartridge. See lower packing set in Table 2 or illustration. Install retainer ring, a packing box washer, packing spring and another packing box washer. Install packing rings including male and female packing rings, one at a time, pushing in each completely before adding the next ring. The quantity of packing rings required will vary due to tolerances; a good rule of thumb is to put in as many as are removed. Thread in adjusting screw. **Follow arrangement in Table 2 or illustration to replace middle and upper packing sets in a similar manner.**

COMPLETING INSTALLATION

Oil piston rod and replace lower cartridge o-ring. Install packing installation cone part number 4005 onto piston rod. Slip packing box cartridge over piston rod gently; care should be taken that the lips of the packing rings are not damaged. Install bottom oil deflector ring on piston rod, through opening in packing box cartridge, between the packing sets. Replace upper cartridge o-ring and spacer. Install and tighten cartridge holddown screw. Replace distance piece o-ring, distance piece and top oil deflector ring. Replace adapter plate o-ring, then install adapter plate carefully. Replace cylinder o-ring, cylinder, pistons and head. Test compressor. Remove inspection plate to expose adjusting screws. Rock flywheel back and forth and listen for a leak. Tighten adjusting screws as necessary and replace inspection plate. After all leaks are found and corrected, repressurize the system.

The position of the packing varies on these machines. Install as indicated in the table below.

TABLE 2

'T' STYLE PACKING SPECIFICATION		
	'G' (Shown also in illustrations)	'H'
UPPER PACKING SETS		
MIDDLE PACKING SETS		
LOWER PACKING SETS		

The current packing specification is indicated by the first letter code following the basic model number.

Example:

FD491**H**M4FBANSNN whereas **H** is the packing specification.

Caution: Adjustments made to the lower packing set should be made in very small increments. Excessive tightening of the adjustment screw can lead to premature packing failure.