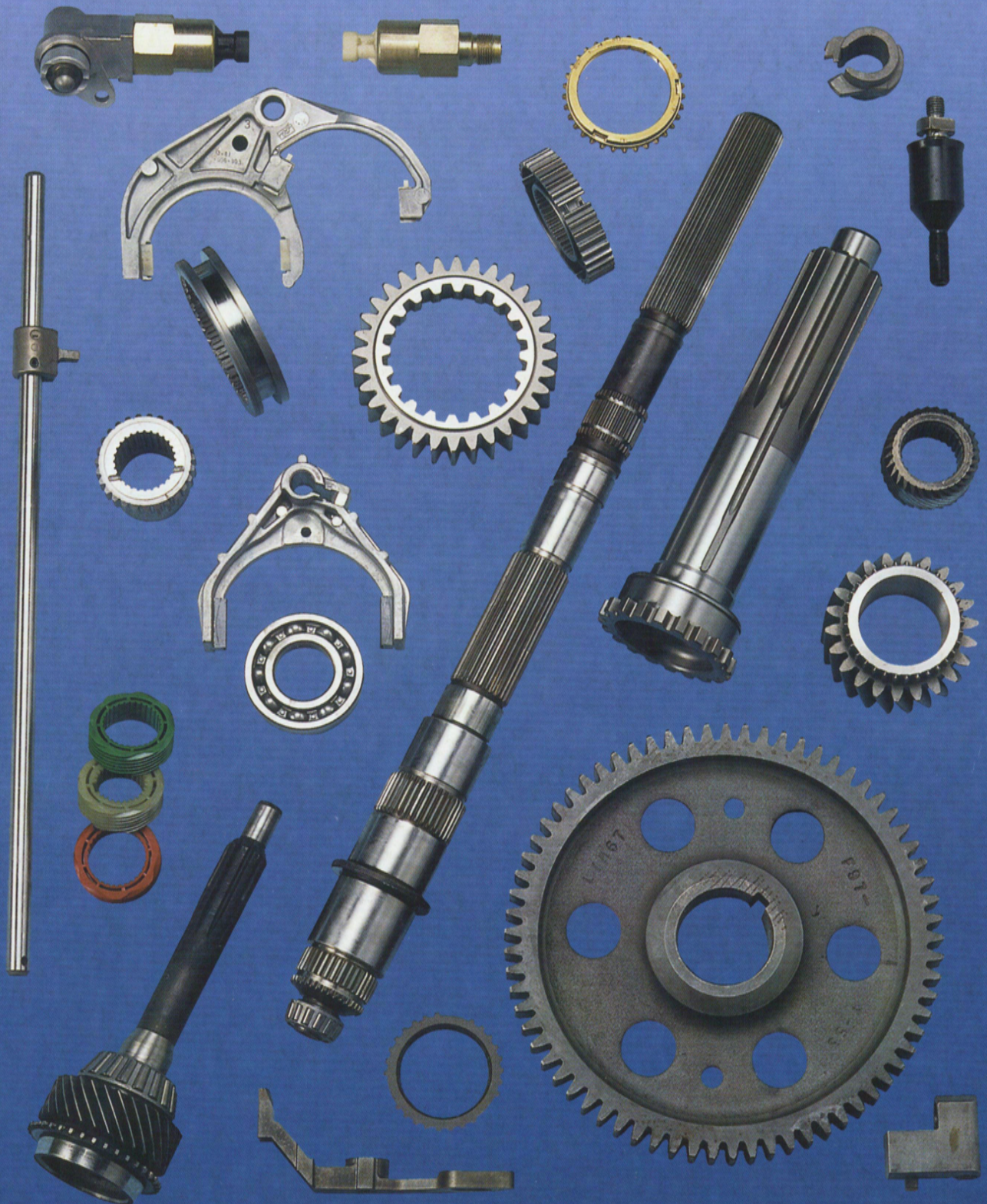


**AIR REPAIR PARTS
FOR SPICER
AIR CONTROLLED
TRANSMISSIONS**

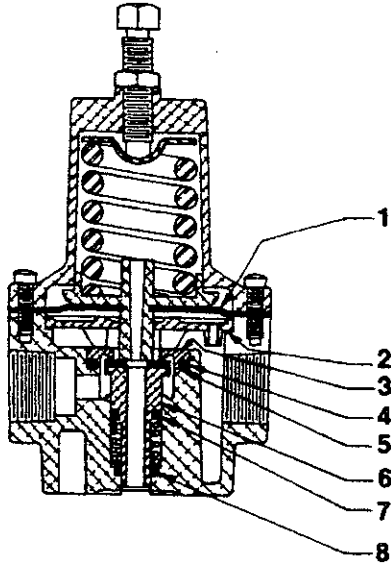


**SERVICE MANUAL
Form No. T240-3
Revised October 1977**



AIR CONTROL PARTS AND KITS

OLD DESIGN

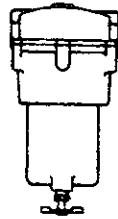


AIR REGULATORS

312592-50-55PSI—SUPERCEDED BY 313087X

312592-1-75-80PSI—SUPERCEDED BY 313088X

REPAIR KIT FOR REGULATOR 312592 AND
312592-1 is 312698X



AIR FILTER 312594 SUPERCEDED BY 313162X.

REPLACEMENT FILTER ELEMENT AND GASKET
FOR 312594 or 313056 is 312976.

NEW DESIGN



AIR FILTER-REGULATOR COMBINATION

313042—50-55PSI

313043—75-80PSI

REGULATOR SECTION IS NON-SERVICEABLE
REPLACEMENT, FILTER IS 313085,
ASSN. 1695139.

FILTER-REGULATOR CONVERSION KITS

TO CONVERT AND SERVICE MODELS SHOWN BELOW TO NEW DESIGN

FILTER-REGULATOR COMBINATION USE 313087X

P8341
RP8516
1006

RP-8341
P-8716
1007

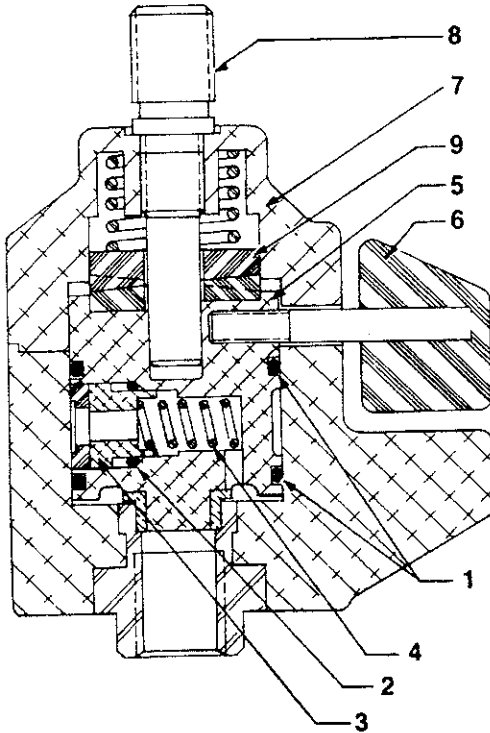
P-8516
RP-8716
1211

TO CONVERT AND SERVICE 1010 MODELS USE 313088X

TO CONVERT AND SERVICE 1020 MODELS USE 313128X

AIR CONTROL VALVES

MODELS P8516—P8716—P8341—RP8341
RP8516—RP8716—P1241—1010



AIR CONTROL VALVE

312490 Old Style Knob

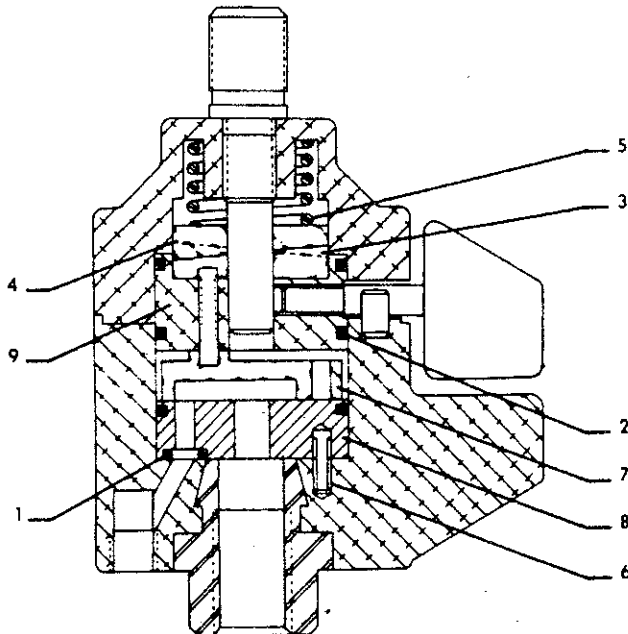
313179 New Style Flat Handle

313181 New Style Flat Handle

REPAIR KITS

Item	Qty.	Description
REPAIR KIT 312572-1X		
1	2	'O' Ring (1¼"O.D.)
2	1	'O' Ring (½"O.D.)
3	1	Exhaust Valve
4	1	Exhaust Valve Spring
—	2	Rubber Gasket (not shown)
ROTOR & HANDLE 312977		
5	1	Selector Valve Rotor
6	1	Selector Handle
VALVE BODY CAP & STUD 313118		
7	1	Valve Body (upper half)
8	1	Stud
MAJOR REPAIR KIT 312978		
Consists of items 1 thru 6		
and item 9 (two detent discs).		
TOP CAP AND SCREW REPAIR KIT 313250		
for 313181 Valve		
TOP CAP AND SCREW REPAIR KIT 313251		
for 313179 Valve		

MODELS 1020—1214



AIR CONTROL VALVE

313126 Old Style Knob

313180 New Style Flat Handle

REPAIR KITS

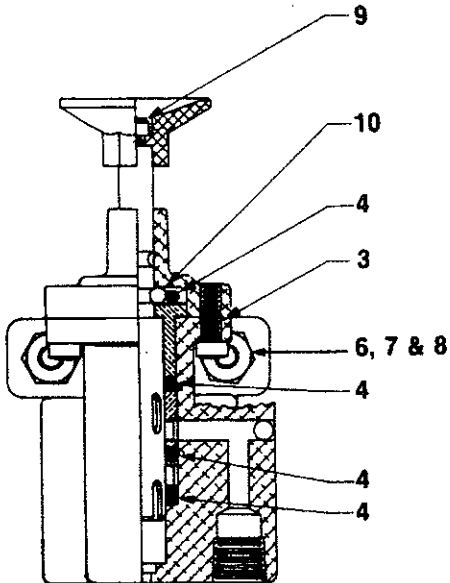
Item	Qty.	Description
MINOR REPAIR KIT 313135X		
1	4	"Quad" Ring
2	3	"O" Ring
3	1	Detent Ring
4	1	Detent Disc
6	1	Pin
ROTARY VALVE & SEAT 313136		
7	1	Rotary Valve
8	1	Valve Seat
ROTOR & HANDLE 313137		
9	1	Sub-Assy.
TOP CAP AND SCREW REPAIR KIT 313246		
for 313180 Valve		

TO CONVERT 1020 UNITS WITH INDIVIDUAL RANGE AND SPLITTER CONTROL VALVES TO SINGLE CONTROL VALVE USE CONVERSION KIT 313133X.

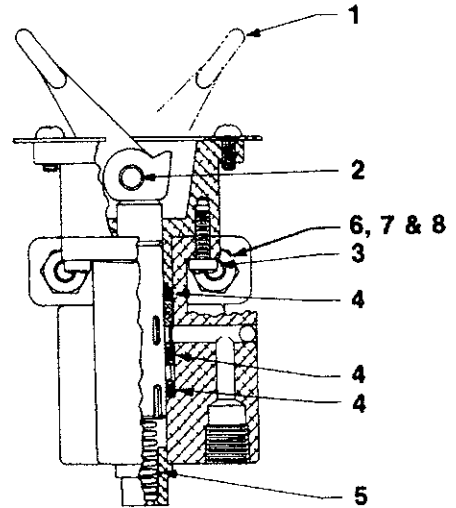
AIR CONTROL VALVES

OLD VERSION

RANGE CONTROL VALVE
312841 for 1006, 1007 & 1020



SPLITTER CONTROL VALVE
312904 for 1010-2A, 1020-2A & 1211-3A
312972 for 1010-3A & 1020-3A



TOGGLE & PIN KIT 313031X
(For Splitter Control Valve Only)

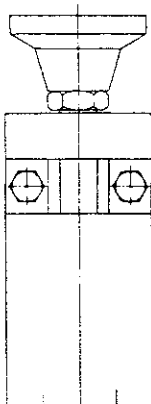
Item	Qty.	Description
1	1	Lever Toggle
2	1	Pin

REPAIR KIT 313039X
(For Splitter & Range Control Valves)

Item	Qty.	Description
3	2	Machine Screw
4	4	'O' Ring
5	1	Valve Spring (splitter valve only)
6	2	Nut
7	2	Lockwasher
8	2	Screw
9	1	Button Mounting Screw (range valve only)
10	3	Ball (range valve only)

AIR CONTROL VALVES

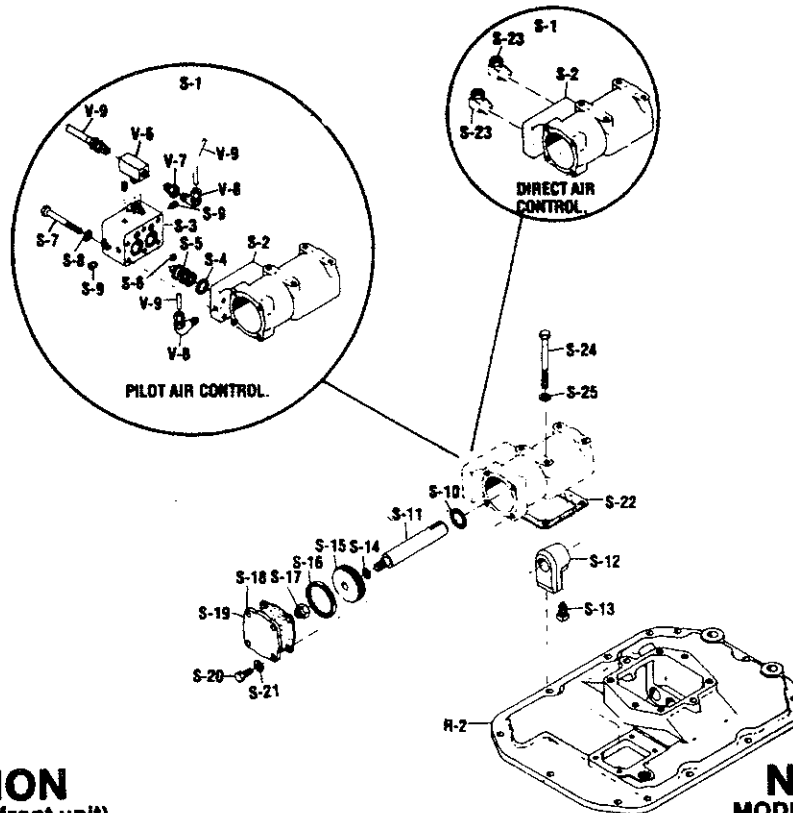
NEW VERSION



313252 FOR MODEL 1007, 1272, 1010
PUSH, PULL 4 WAY AIR VALVE FOR DIRECT AIR

O RING KIT FOR 313252 AIR VALVE 313270X.

AIR CONTROL PARTS SPLITTER



OLD VERSION MODELS 1010—1214 (front unit)

ITEM	QTY.	PART NO.	DESCRIPTION
PILOT AIR CONTROL			
S-1	1	312955X	PISTON & VALVE HOUSING, SUB. ASSY., includes items S-2 thru S-9
S-2	1	97-501-8	HOUSING, splitter piston
S-3	1	97-501-11	HOUSING, splitter valve
S-4	2	97-463-7	"O" RING, valve housing
S-5	2	312833	VALVE, piston housing
S-6	2	97-463-11	"O" RING, valve housing
		97-463-6	For 1/16" counter bore
		97-463-6	For 7/16" counter bore
S-7	6	500397-23	SCREW, valve housing (.312-18 x 2.625)
S-8	6	500362-10	WASHER, starlock, valve housing screw
S-9			PLUG, valve housing (.062-27 N.P.T.)
	4	500131-3	(.250-18 threads)
	1	545022	"O" RING, piston rod
S-10	1	97-463-5	"O" RING, piston rod
S-11	1	97-65-1	ROD, splitter piston shift
S-12	1	97-6-1	FINGER, splitter piston shift
S-13	1	780-D	SCREW, set, shift finger (.437-20x.812)
S-14	1	183-463-6	"O" RING, piston rod
S-15	1	97-136-1	PISTON, splitter
S-16	1	97-463-4	"O" RING, piston
S-17	1	545045-1	NUT, piston rod (.438-20 threads)
S-18	1	97-223-5	GASKET, splitter piston housing cap
S-19	1	97-96-1	CAP, splitter housing
S-20	4	500397-10	SCREW, splitter piston housing cap (.312-18 x 1.000)
S-21	4	500357-10	WASHER, lock, splitter piston housing cap screw
S-22	1	97-223-4	GASKET, piston & valve housing
S-24	4	500397-26	SCREW, splitter piston housing (.312-18 x 3.000)
S-25	4	500357-10	WASHER, lock, piston housing screw
V-4	1	310731-8	HOSE, filter-regulator to piston assy.
V-6	1	500744-1	TEE, splitter valve body
V-7	1	330785	BUSHING, tee reducer
V-8	2	501199-1	ELBOW, splitter piston & valve body
V-9	1	80-420-7-3	TUBING, air line
		80-420-8-1	WRAP, tubing protective cover (.312 O.D. x 14 feet)
V-10	2	501198-1	CONNECTOR, valve & piston assy.
V-11	1	312904	VALVE, splitter control
V-12	2	330500	CLAMP, hose

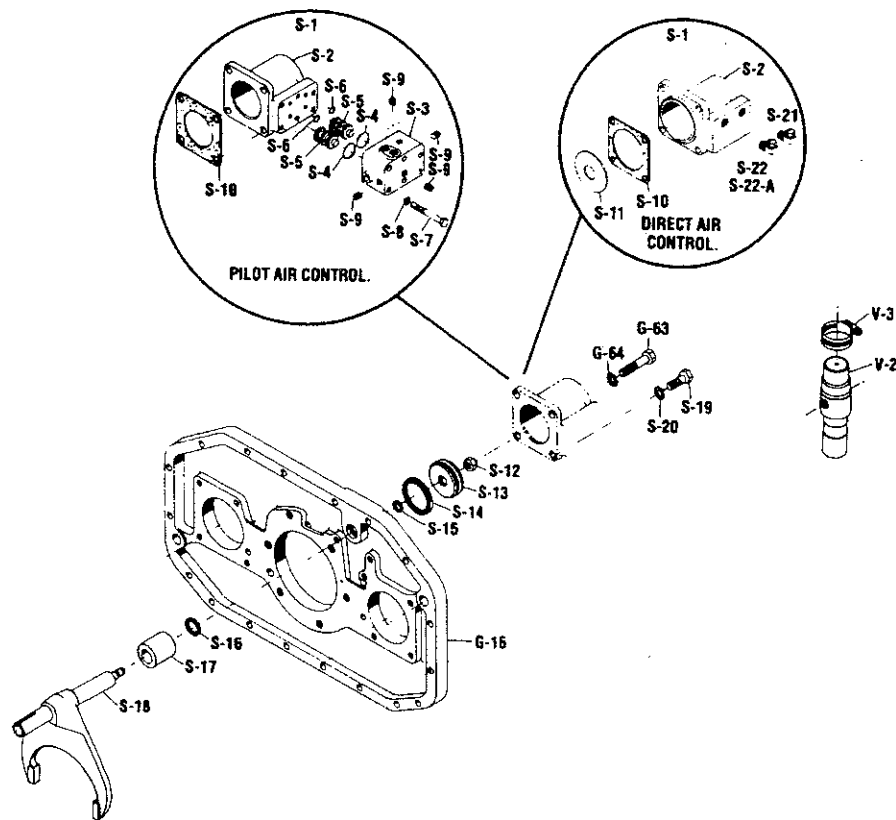
NEW VERSION MODELS 1010—1214 (front unit)

ITEM	QTY.	PART NO.	DESCRIPTION
DIRECT AIR CONTROL			
S-1	1	97-501-17-1X	PISTON HOUSING, SUB. ASSY. includes items S-2 thru S-25
S-2	1	97-501-17	HOUSING, splitter piston
S-10	1	97-463-5	"O" RING, piston rod
S-11	1	97-65-1	ROD, splitter piston shift
S-12	1	97-6-1	FINGER, splitter piston shift
S-13	1	780-D	SCREW, set, shift finger (.437-20 x .817)
S-14	1	183-463-6	"O" RING, piston rod
S-15	1	97-136-1	PISTON, splitter
S-16	1	97-463-4	"O" RING, piston
S-17	1	545045-1	NUT, piston rod (.438-20 threads)
S-18	1	97-223-5	GASKET, splitter piston housing cap
S-19	1	97-96-1	CAP, splitter housing
S-20	4	500397-10	SCREW, splitter piston housing cap (.312-18 x 1.000)
S-21	4	500357-10	WASHER, lock splitter piston housing cap
S-22	1	97-223-4	GASKET, piston & valve housing
S-23	2	545025-1	ELBOW FITTING, piston housing
S-24	4	500397-26	SCREW, splitter piston housing (.312-18 x 3.000)
S-25	4	500357-10	WASHER LOCK, piston housing screw
V-4	1	85-420-1	HOSE, filter-regulator to control valve
V-9	1	85-420-1	TUBING, air line
	1	330716-1	TUBING, protective cover
V-10	6	312526	CONNECTOR, control valve
V-11	1	313180	VALVE, splitter & range control, for 1214
	1	313181	VALVE, splitter for 1010
	1	313252	VALVE, splitter for 1010 (Ford only)

CONVERSION OF PILOT AIR TO DIRECT AIR
313212-1X FOR 1020 AND 1214
313212-2X FOR 1010

'O' Ring And Gasket Repair Kit For Direct Air 313210X
'O' Ring And Gasket Repair Kit For Pilot Air 312971X

AIR CONTROL PARTS RANGE



OLD VERSION MODELS 1007, 1272, 1214 (rear unit)

ITEM	QTY.	PART NO.	DESCRIPTION
PILOT AIR CONTROLS			
S-1	1	312953X	PISTON & VALVE HOUSING, SUB. ASSY., includes items S-2 thru S-9
S-2	1	97-501-13	PISTON, housing
S-3	1	97-501-11	HOUSING, piston valve
S-4	2	97-463-7	"O" RING, valve housing
S-5	2	312833	VALVE, piston housing
S-6	2	97-463-11 97-463-6	"O" RING, valve housing for 1 1/16" counterbore for 7/16" counterbore
S-7	6	500397-23	SCREW, valve housing (.312-18 x 2.625)
S-8	6	500362-10	WASHER, starlock, valve housing screw
S-9	4	500131-3 545022	PLUG, valve housing (.062-27 N.P.T.) (.250-18 threads)
S-10	1	97-223-8	GASKET, piston housing
S-12	1	545045-1	NUT, piston rod (.438-20 threads)
S-13	1	97-136-1	PISTON, shift fork rod
S-14	1	97-463-4	"O" RING, piston
S-15	1	183-463-6	"O" RING, piston rod
S-16	1	97-463-5	"O" RING, cover
S-17	1	97-37-3	SPACER, shift fork stop
S-18	1	97-66-39-1X	SHIFT ROD & FORK, SUB. ASSY.
S-19	2	500398-13	SCREW, piston assy. (.375-16 x 1.375)
S-20	2	972-W	WASHER, lock, piston housing screw
V-2	1	313042	FILTER-REGULATOR ASSY.
V-3	1	330831	CLAMP, filter-regulator
V-4	1	310731-6	HOSE, filter-regulator to piston assy.
V-5	1	330775	CLAMP, hose piston assy.
V-6	1	500744-1	TEE, range valve body
V-6A	1	500745-1	TEE, range valve body
V-7	1	330785	BUSHING, tee reducer
V-8	2	501199-1	ELBOW, range piston & valve body
V-9	1	80-420-7-3 80-420-8-1	TUBING, air line WRAP, tubing protective cover (.312 O.D. by 14 feet)
V-10	2	501198-1	CONNECTOR, valve & piston assy.
V-11	1	312841	VALVE, range control

NEW VERSION MODELS 1007, 1272, 1214 (rear unit)

ITEM	QTY.	PART NO.	DESCRIPTION
DIRECT AIR CONTROLS			
S-1	1	97-501-18-1X	PISTON HOUSING, SUB-ASSY., includes items S-2 thru S-21
S-2	1	97-501-18	PISTON, housing
S-10	1	97-223-8	GASKET, piston housing
S-11	1	330889	WASHER, Belleville
S-12	1	545045-1	NUT, piston rod (.438-20 threads)
S-13	1	97-136-1	PISTON, shift fork rod
S-14	1	97-463-4	"O" RING, piston
S-15	1	183-463-6	"O" RING, piston rod
S-16	1	97-463-5	"O" RING, cover
S-17	1	97-37-3	SPACER, shift fork stop
S-18	1	97-66-39-1X	SHIFT ROD & FORK, SUB-ASSY.
S-19	2	545002-6	SCREW, piston assy. (.375-16 x 1.375) self locking patch
S-21	1	545025-1	ELBOW, fitting, piston housing
S-22	1	545052	NIPPLE, piston housing
S-22A	1	330900	CHECK VALVE, w/orifice
V-2	1	313042	FILTER-REGULATOR assy.
V-3	1	330831	CLAMP, filter-regulator assy.
V-4	1	85-420-1	HOSE, filter-regulator to control valve
V-9	1	85-420-1	TUBING, air line
V-10	6	312526	CONNECTOR, control valve
V-11	1	313180	VALVE, splitter & range, control for 1214
	1	313252	VALVE, range for 1007,1272

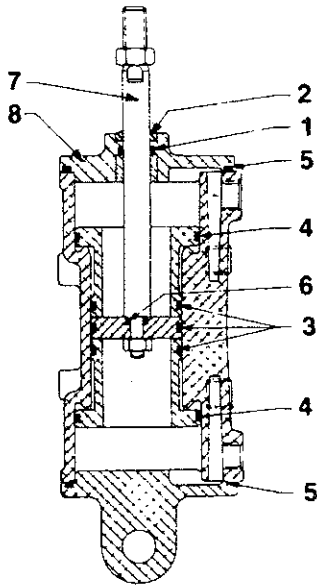
'O' Ring And Gasket Repair Kit For Direct Air 313210X

'O' Ring And Gasket Repair Kit For Pilot Air 312971X

AIR CONTROL CYLINDERS & HOUSINGS

OLD VERSION AIR CYLINDER 312489

MODEL P8341, RP8341, Before Serial 1871919
P8516, RP8516, P8716 & RP8716 before Serial 1849893



REPAIR KIT 312573X

Item	Qty.	Description
1	1	Seal Ring (11/16" O.D.)
2	1	Piston Rod Wiper (Consists of 2 brass rings & a 3/4" O.D. rubber ring)
3	3	'O' Ring (1 1/2" O.D.)
4	2	'O' Ring (2 1/4" O.D.)
5	2	Quad Ring (2 5/8" O.D.)
6	1	'O' Ring (3/4" O.D.)

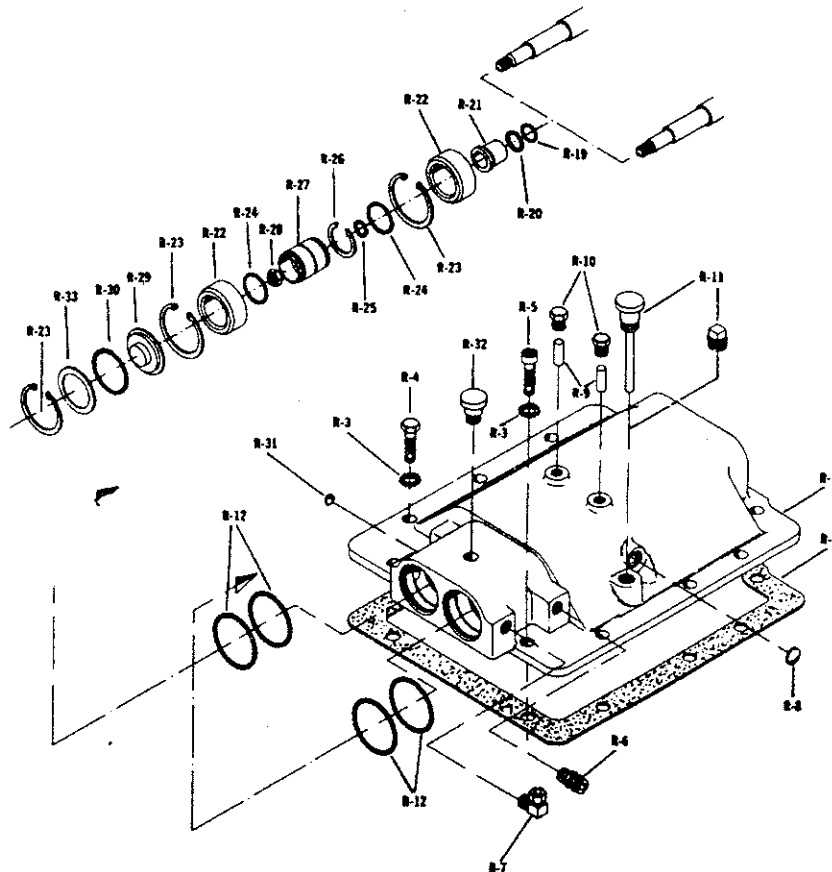
CAP & PISTON ROD KIT 313038X

7	1	Piston Rod
8	1	Cap & Bushing

BOOT KIT 312855X (not shown)

NEW VERSION SHIFTER HOUSING

MODEL RP8341 after Serial 1871919
RP8516 & RP8716 after Serial 1849893
P1241



'O' Ring Service Kit 313097X
Major Field Repair Kit 313160X

Part numbers listed on page 7.

SHIFTER HOUSING PARTS

ITEM	QTY.	PART NUMBER	PART DESCRIPTION
R-1	1	70-16-14	HOUSING, shifter
R-2	1	70-155-4/	GASKET, shifter housing
R-3	10	330547	LOCK-WASHER, screw & stud
R-4	9	545028	SCREW, shifter housing (hexhead 0.438" - 14 x 1.250")
R-5	1	545040	SCREW, left front shifter housing (sockethead 0.438" - 14 x 1.250")
R-6	2	312526-1	CONNECTOR
R-7	2	545025-1	CONNECTOR, elbow
R-8	1	500166-8*	PLUG, welch
R-9	2	70-438-1	PIN, shift rod stop
R-10	2	59-3	PLUG, stop pin (0.500" - 20)
R-11	1	312876	BREATHER, sub-assy. (RP8516 only)
R-11	1	500113	PLUG, breather hole (RP8341 & P1241)
R-12	4	70-463-3* ✓	"O" RING, outer piston
R-19	2	70-463-6* ✓	"O" RING, piston rod bushing (internal)
R-20	2	97-463-7* ✓	"O" RING, piston rod (bushing)
R-21	2	70-24-2, /	BUSHING, piston rod
R-22	4	70-136-1	PISTON, external
R-23	6	80-381-7, /	RING, cylinder snap
R-24	4	70-463-7* ✓	"O" RING, inner piston
R-25	2	70-463-4* ✓	"O" RING, piston rod (piston)
R-26	2	70-381-9 ✓	RING, piston snap (internal)
R-27	2	70-136-3 ✓	PISTON, internal
R-28	2	545045-1 ✓	NUT, piston rod (0.438" - 20)
R-29	2	70-463-1* ✓	"O" RING, end cap
R-30	2	70-96-2	CAP, piston cylinder
R-31	1	500166-5	PLUG, welch
R-32	1	312268	BREATHER
R-33	1	330868	WASHER

*Parts included in "O" Ring Kit 313097X

✓Parts included in Field Repair Kit 313160X

CONNECTORS & TUBING

MODELS

8516, 8716, 8341,
1241, 1020 & 1214
1006, 1007 & 1010

TUBING

85-420-1 1/4" x 50'
85-420-1-1 1/4" x 100'
80-420-7 1/8" x 30'

CONNECTORS

MODELS

8516, 8716, 8341
1241, 1020 & 1214
1006, 1007 & 1010

STRAIGHT	SIZE	ELL	SIZE
312526	1/4 x 1/4 NPT	545025-1	1/4 x 1/4 NPT
312526-1	1/4 x 1/16 NPT	545025-2	1/4 x 1/8 NPT
501198-1	1/8 x 1/8 NPT	501199-1	1/8 x 1/8 NPT

MODELS

8516, 8716, 8341
1241, 1020 & 1214

FERRULES

313045-2X 1/4" 100pc
313045-1X 1/4" 200pc



14700 Helm Court
Plymouth, MI 48170
(800) 401-9866 or (734) 456-3770
Fax: (734) 456-3739
www.ttcautomotive.com

