BOB BROTHERTON

The SLOAN "CACO" BRAKE CYLINDER RELEASE VALVE

(AAR Certificate #1 of Conditional Approval

SLOAN VALVE COMPANY
4300 W. Lake Street
Chicago, Illinois 60624

MANUAL #502
April 22, 1963

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For earlier models of the "CACO" Brake Cylinder Release Valve, see Manual #501 (Orange cover—Copyright 1959)

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MANUAL #502

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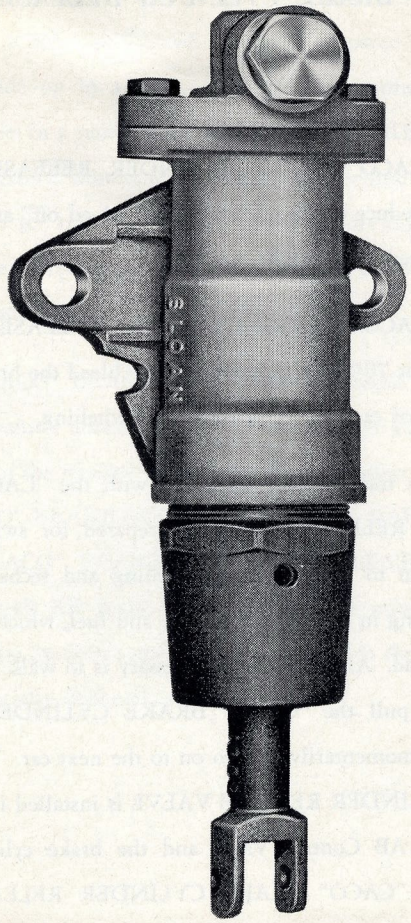


SLOAN-CACO
MODEL 1300-AB
BRAKE CYLINDER RELEASE VALVE

"CACO" BRAKE CYLINDER RELEASE VALVE

The "CACO" BRAKE CYLINDER RELEASE VALVE is designed to reduce the time required to "bleed off" and "recharge" the brake system of a freight car.

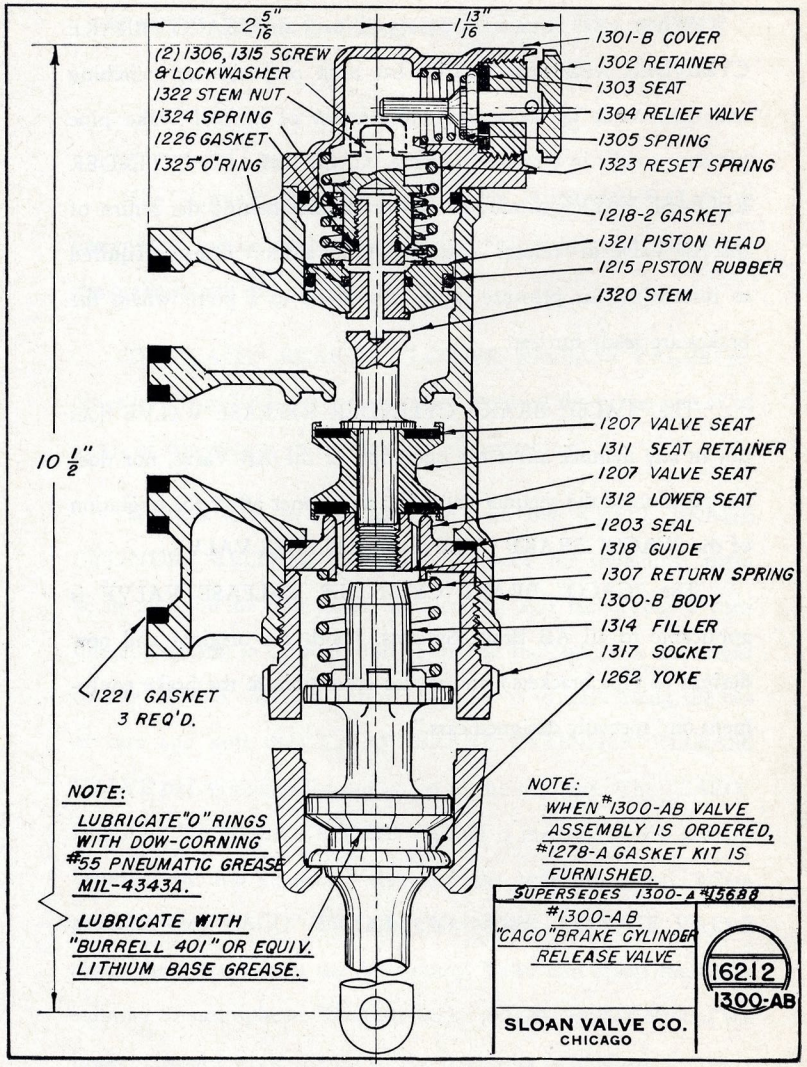
The "CACO" BRAKE CYLINDER RELEASE VALVE reduces by about 70% the time required to bleed the brake system of a car, or cut of cars, in preparation for switching.

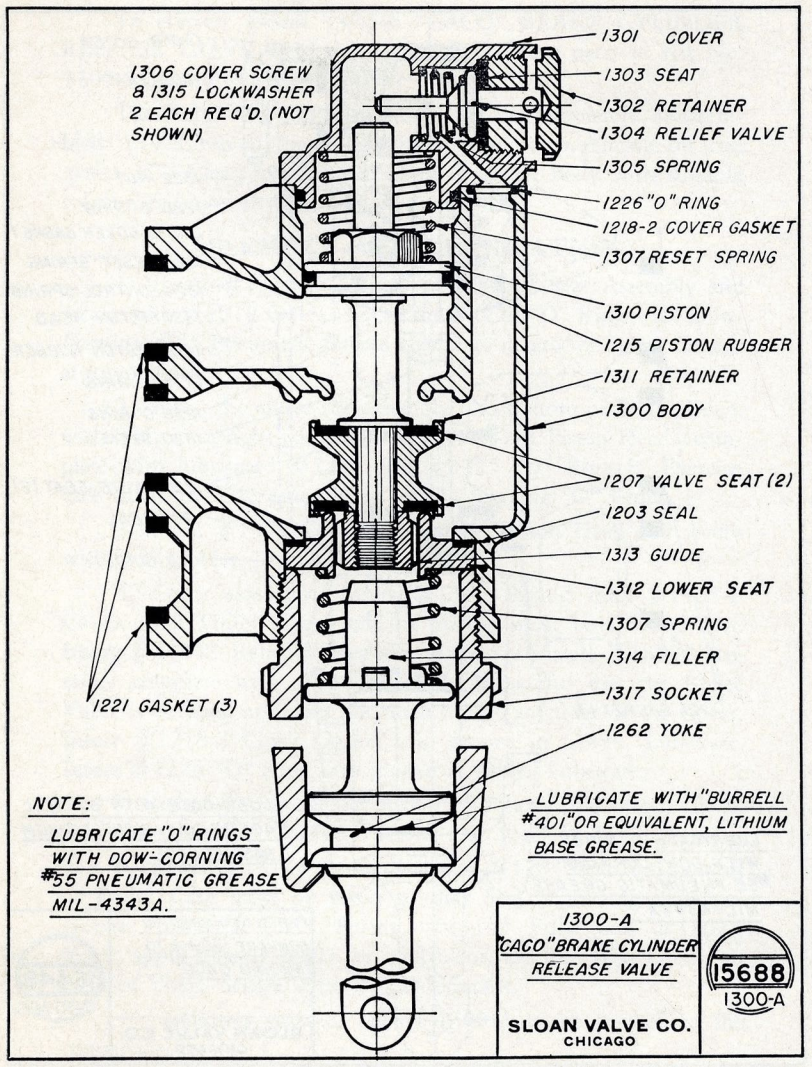
When a train of cars equipped with the "CACO" BRAKE CYLINDER RELEASE VALVE is prepared for switching, there is, in addition to time saved in bleeding and recharging a considerable saving in consumption of air and fuel, which is important on any railroad. All that is now necessary is to walk along the cut of cars and pull the "CACO" BRAKE CYLINDER RELEASE VALVE rod momentarily and go on to the next car. The "CACO" BRAKE CYLINDER RELEASE VALVE is installed in the passage between the AB Control Valve and the brake cylinder. When actuated the "CACO" BRAKE CYLINDER RELEASE VALVE closes the passage from the AB Control Valve and opens the brake cylinder to atmosphere. Thus the brake cylinder is bled off and the brakes released while the air in the reservoirs is retained.

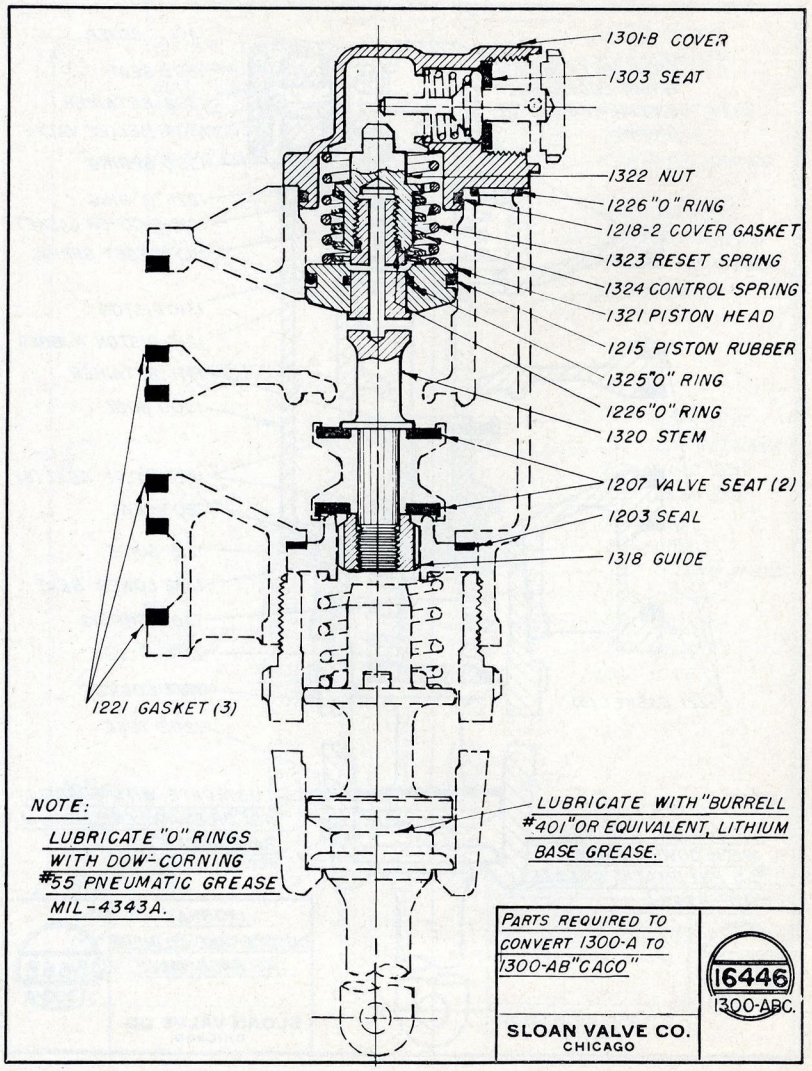
When a car in a train equipped with the "CACO" BRAKE CYLINDER RELEASE VALVE has been prepared for switching and then made up in a train, restoration of normal brake pipe pressure results in a resetting of the "CACO" BRAKE CYLINDER RELEASE VALVE simultaneously or slightly behind the return of the AB Valve to "release" position. Only a short time is required to restore the air pressure in the reservoirs to a point where the brakes are ready for test.

The "CACO" BRAKE CYLINDER RELEASE VALVE does not in any manner affect the operation of the AB Valve, nor does the position of the retainer valve in any manner affect the operation of the "CACO" BRAKE CYLINDER RELEASE VALVE.

The "CACO" BRAKE CYLINDER RELEASE VALVE is applicable to all AB Brake Systems, (both the original and new designs of pipe brackets) and is also applicable to the brake equipment on "specially designed cars."


2 5/16"
1 13/16"
10 1/2"
(2) 1306, 1315 SCREW & LOCKWASHER
1322 STEM NUT
1324 SPRING
1226 GASKET
1325 "O" RING
1221 GASKET 3 REQ'D.
1301-B COVER
1302 RETAINER
1303 SEAT
1304 RELIEF VALVE
1305 SPRING
1323 RESET SPRING
1218-2 GASKET
1321 PISTON HEAD
1215 PISTON RUBBER
1320 STEM
1207 VALVE SEAT
1311 SEAT RETAINER
1207 VALVE SEAT
1312 LOWER SEAT
1203 SEAL
1318 GUIDE
1307 RETURN SPRING
1300-B BODY
1314 FILLER
1317 SOCKET
1262 YOKE
NOTE:
LUBRICATE "O" RINGS WITH DOW-CORNING #55 PNEUMATIC GREASE MIL-4343A.
LUBRICATE WITH "BURRELL 401" OR EQUIV. LITHIUM BASE GREASE.
NOTE:
WHEN #1300-AB VALVE ASSEMBLY IS ORDERED, #1278-A GASKET KIT IS FURNISHED.
SUPERSEDES 1300-A #15688
#1300-AB
"CACO" BRAKE CYLINDER RELEASE VALVE
16212
1300-AB
SLOAN VALVE CO.
CHICAGO


1306 COVER SCREW & 1315 LOCKWASHER 2 EACH REQ'D. (NOT SHOWN)
1221 GASKET (3)
1301 COVER
1303 SEAT
1302 RETAINER
1304 RELIEF VALVE
1305 SPRING
1226 "O" RING
1218-2 COVER GASKET
1307 RESET SPRING
1310 PISTON
1215 PISTON RUBBER
1311 RETAINER
1300 BODY
1207 VALVE SEAT (2)
1203 SEAL
1313 GUIDE
1312 LOWER SEAT
1307 SPRING
1314 FILLER
1317 SOCKET
1262 YOKE
NOTE:
LUBRICATE "O" RINGS WITH DOW-CORNING #55 PNEUMATIC GREASE MIL-4343A.
LUBRICATE WITH "BURRELL #401" OR EQUIVALENT, LITHIUM BASE GREASE.
1300-A
"CACO" BRAKE CYLINDER RELEASE VALVE
15688
1300-A
SLOAN VALVE CO.
CHICAGO



To convert Model 1300-A "CACO" BRAKE CYLINDER RELEASE VALVE to Model 1300-AB, use new parts in Kit No. 1300-ABC and proceed as follows:

The Valve and sub-assemblies must be completely disassembled. (1) Clean all parts in suitable solvent to remove oil and grease (2) Clean interior and exterior of the body with suitable solvent, and blow dry with air jet.

ASSEMBLY AND LUBRICATION

1. Insert #1320 Stem into #1300-A* Seat Assembly and secure with #1318 Guide. Lubricate #1226 "O" Ring with Dow-Corning #55 Pneumatic Grease and place in groove below threads at top of stem.

2. Insert the above sub-assembly into bottom of Body. Then, with Body in upright position, insert #1321-A Piston Head (complete with lubricated #1215 and #1325 "O" Rings). Exercise care when inserting assembly to avoid damaging "O" Rings.

3. Place #1324 Control Spring on Piston Head and secure with #1322 Nut.

4. Cover assembly. Insert #1305 Spring into #1301-B Cover. CAUTION! Large end of Spring must be inserted first. Insert #1304* Relief Valve, stem first, and install #1302* Retainer complete with #1303 Seat, being careful that the Relief Valve is centered and does not catch on the shoulder of the Cover. Insert #1218-2 Cover Gasket into groove in Cover. Lubricate. Insert #1226 "O" Ring into groove in Body. Lubricate.

5. Insert #1323 Reset Spring into Body and attach Cover Assembly with (2) #1306* Screws and #1315* Lock Washers.

6. Insert #1312* Lower Seat and #1203 Seal into bottom of Body. Care must be taken so that Seal is securely fixed in groove. Insert #1307* Spring, #1314* Filler and #1262* Yoke; apply Burrell #401, or equivalent, Lithium Base Grease to head of Yoke. Secure with #1317* Socket.

(*) Indicates parts of Model 1300-A to be re-used in the conversion.

OPERATION

FIGURE 1—Shows Model 1300-AB SLOAN-CACO BRAKE CYLINDER RELEASE VALVE in "running position"; that is, when the Brake Pipe is charged. Spring B holds Piston Assembly D against its Lower Seat H. This position permits communication between Ports K and L during a brake application.

When a brake application is made, either service or emergency, Chamber E is charged with reservoir air, through brake cylinder port of AB Valve. At the same time, air also flows through Port F, Passage S and Port U to Chamber A, thus exerting pressure downward helping to hold Piston Assembly D on its Lower Seat H.

FIGURE 2—Shows Model 1300-AB SLOAN-CACO BRAKE CYLINDER RELEASE VALVE in bleed position. Before a train is broken up and the cars are prepared for switching, the brakes on all cars are applied. To bleed off the brakes on a car equipped with a SLOAN-CACO BRAKE CYLINDER RELEASE VALVE the Release Rod, fastened to Yoke J is pulled momentarily. This quick action tilts Yoke J and moves Piston Assembly D to its Upper Seat G. As Piston Stem O moves upward, it contacts Relief Valve M moving same from Seat N, releasing air in Chamber A through Passage P and Ports R to atmosphere. Air pressure in the brake cylinder escapes through Ports I to atmosphere, thus releasing the car brakes.

If, at the time of actuation, the brake cylinder pressure is near 40 PSI or above, the force exerted on the bottom of Control Piston C will be sufficient to overcome the force of Springs B and T, moving the piston upward on Stem V, and sealing off Port F so that no pressure will escape to Chamber A.

When the car is coupled into a train, brake pipe pressure is restored and AB Valve is returned to release position. When this is done, air in Chamber E is exhausted through the AB valve brake cylinder release ports and Spring B returns Piston Assembly D to its Lower Seat H, restoring Brake Cylinder Release Valve to running position, as in Figure 1.

NOTE: Referring to Figure 3, the Control Spring T has a value of 35 PSI. Therefore, when pressure in Chamber E is less than 35 PSI (as would be the case if the train was operated on a grade with retainers or flat maintaining) and the Release Rod is pulled, Spring T holds Control Piston C against shoulder on Stem V, thus permitting reservoir air to escape through Port F, Passage S, Port U, Chamber A, Passage P and Ports R to atmosphere. This causes control valve to return to release position, allowing Spring B to move Piston Assembly D to its Lower Seat H.

The "CACO" BRAKE CYLINDER RELEASE VALVE body and all of its internal working parts, except springs, are made of high grade bronze and brass alloys. These metals, having similar expansion and contraction factors, permit the valve to operate in all temperatures (to meet AAR requirements) without binding or leaking.

The synthetic rubber parts used will retain their elasticity at all operational temperatures, and are not damaged by oil.

When the "CACO" BRAKE CYLINDER RELEASE VALVE is assembled at the time of manufacturing, the piston assembly is lubricated with Dow Corning #55 Pneumatic Grease.

SERVICE

In designing the "CACO" BRAKE CYLINDER RELEASE VALVE, careful consideration has been given to designing a unit that is easy to service and overhaul. No special tools are required. The valve can be disassembled, overhauled and reassembled with tools now used in the average air brake shop.

"CACO" BRAKE CYLINDER RELEASE VALVE LEGEND

A—Air Chamber above piston

B—Return Spring

C—Control Piston

D—Piston Assembly

E—Air Chamber below Piston

F—By-Pass Port

G—Upper Seat

H—Lower Seat

I—Exhaust Ports

J—Yoke

K—Valve Inlet Port

L—Valve Outlet Port

M—Relief Valve

N—Relief Valve Seat

O—Piston Stem

P—Exhaust Passage

R—Exhaust Ports

S—By-Pass Passage

T—Control Spring

U—Bleed Down Port

V—Piston Stem

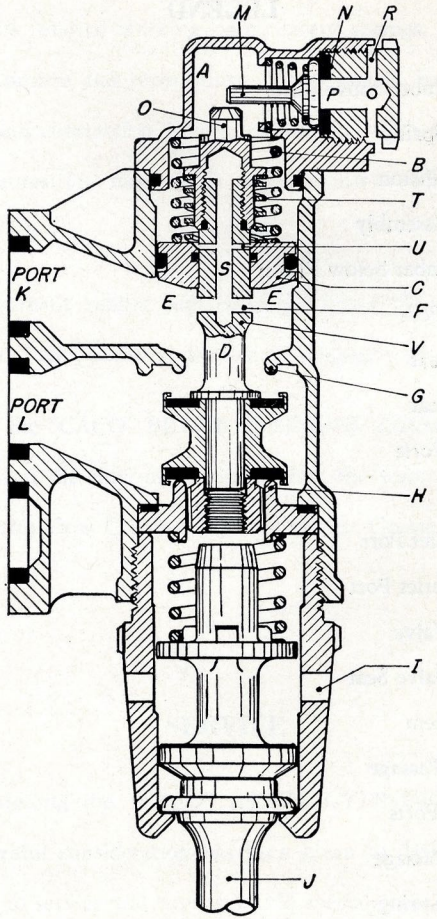

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Fig. 1

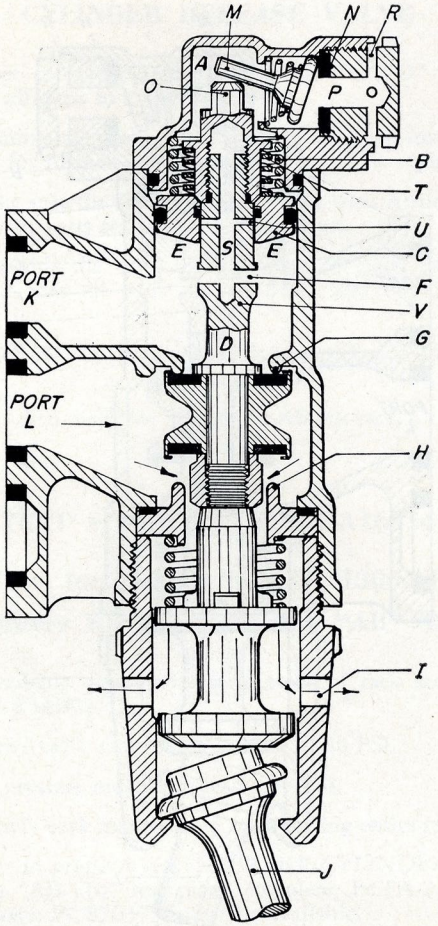
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Fig. 2

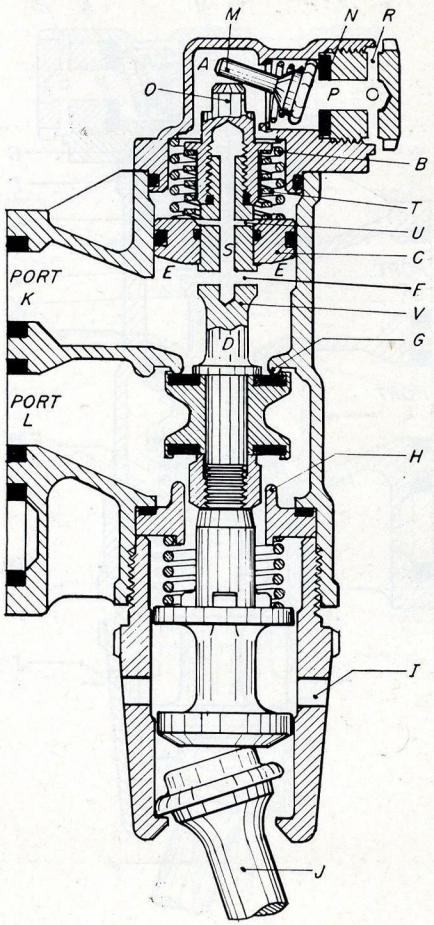


Fig. 3

REPAIR AND CLEANING OF "CACO" BRAKE CYLINDER RELEASE VALVE

1. After completely dismantling the "CACO" Valve at a bench, wash all parts in a cleaning fluid.

2. Examine all rubber seals and "O" rings to insure they are in condition for further use; if not, they should be replaced.

3. Make sure the springs have not lost their tension and carefully inspect all parts for damage of any kind.

4. Assemble the valve, making sure all parts go into place properly and that all seals are in place and not damaged in assembling.

5. Lubricate "O" rings with Dow Corning #55 Pneumatic Grease.

Valve is then ready for test on the AB test rack.

TEST SPECIFICATION T-A16314

Code of Tests for Testing "CACO" 1300-AB #16212 Brake Cylinder Release Valves on "AB" Test Rack.

Diagrammatic view and arrangement of rack are shown on drawing TA #16004.

Main feed valve must be set to close at 80 PSI.

Supply pressure must be at least 100 PSI.

The supply cock must remain open during entire tests.

In order to properly test the BRAKE CYLINDER RELEASE VALVE, the "AB-110" test plate, complete, Pc.TA-2495-D with 7/32" drill choke, PC.S78373, must be available.

In addition, three (3) Ring Gaskets #1221, must be used to seal the port connections in the valve bolting face. (Refer to "CACO" 1300-AB Print #16212.)

TEST NO. 1

OPERATION

Begin test with all cocks closed and valve "A" handle in position No. 8.

Secure brake cylinder release valve to test rack as shown on drawing TA #16004.

Open cock 16.

Move valve "A" handle to position No. 1. Pull the release valve handle to trip the valve, then move valve "A" handle to position No. 8 and reduce auxiliary reservoir pressure to at least 5 PSI. Repeat this operating cycle 4 times in order to properly seat the poppet valves, finally leave valve "A" handle in position No. 8.

TEST NO. 2

CAPACITY

Begin test with cock 16 and valve "A" handle in position No. 8.

(1) Charging

Close cock 16 and move valve "A" handle to position No. 1, then open cock 3.

Quickly open cock 16 and note Brake Cylinder Reservoir gage —0 to 80 PSI in not more than 7 sec.

(2) Release

Move valve "A" handle to position No. 7 and reduce auxiliary reservoir pressure to 40 PSI, then move handle to position No. 3.

Pull release valve handle and note:

B. C. Res. Gage—40 to 10 PSI in not more than 4 sec.

B. C. Res. Gage—Reduces to 0 PSI.

Aux. Res. Gage—Retained between 30 and 40 PSI.

TEST NO. 3

SEAT LEAKAGE AND FUNCTION

Begin test with cocks 3 and 16 open, and valve "A" handle in position No. 3.

(1) Upper Seat

Close cock 16 and note:

Aux. Res. Gage—No PSI drop in 10 sec.

Open cock 16. Move valve "A" handle to position No. 8 and reduce auxiliary reservoir pressure to at least 5 PSI, then move valve "A" handle partly to position No. 1 and charge auxiliary reservoir to 30 PSI, then move handle to position No. 3.

(2) By-Pass Valve and Reset Spring

Pull release valve handle and note:

Aux. Res. Gage—20 to 10 PSI in not more than 6 sec.

Aux. Res. Gage—Reset at not more than 11 PSI.

(3) Lower Seat (Low Pressure)

Move valve "A" handle to position No. 2 until 8 PSI is obtained in auxiliary reservoir, then move valve "A" handle to position No. 3.

Close cocks 3 and 16 and note:

Aux. Res. Gage—1 PSI max. drop in 10 sec.

(4) Lower Seat (High Pressure)

Open cock 16. Move valve "A" handle to position No. 1 and charge auxiliary and brake cylinder reservoirs to 80 PSI. Allow 5 seconds for temperature effect, then close cock 16, and note:

Aux. Res. Gage—No PSI drop in 10 sec.

(5) Cover Gaskets

Entire Valve—Soap Test—No Leakage

Move valve "A" handle to position No. 8, then open cocks 3, 16 and 12. After pressure has drained, close all cocks and remove the release valve.

TEST SPECIFICATION T-A15704

Code of Tests for Testing "CACO" 1300-A #15688 Brake Cylinder Release Valve on "AB" Test Rack.

Diagrammatic view and arrangement of rack are shown on drawing TA #16004.

Main feed valve must be set to close at 80 PSI.

The supply pressure must be at least 100 PSI.

The supply cock must remain open during entire tests.

In order to properly test the BRAKE CYLINDER RELEASE VALVE, the "AB-110" test plate, complete, Pc.TA-2495-D with 7/32" drill choke, Pc.S78373, must be available.

In addition, three (3) Ring Gaskets #1221, must be used to seal the port connections in the valve bolting face. (Refer to "CACO" 1300-A Print #15688).

MOUNTING THE VALVE ON TEST RACK

Attach the "AB-110" test plate to the test rack pipe bracket, then attach the valve to the test plate.

TEST NO. 1

OPERATION

Begin test with all numbered cocks closed and valve "A" handle in position No. 8.

Move valve "A" handle to position No. 1. Open cock 16 until 60 PSI is obtained on the brake cylinder gauge, then close cock 16. Pull the release valve yoke to trip the valve and note on the brake cylinder gauge that the pressure is reduced to zero. Move valve "A" handle to position No. 8 and open cock 16 to drain the pressure from the auxiliary reservoir, then close cock 16. Move valve "A" handle to position No. 1. Open cock 3 and *quickly* (snap action), open cock 16. The brake cylinder reservoir volume should charge to 80 PSI, and the release valve should not trip itself. Soap entire valve to detect casting and gasket leakage. None is permitted.

TEST NO. 2

RELEASE CAPACITY TEST

Begin test with cocks 3 and 16 open; all other numbered cocks closed, and valve "A" handle in position No. 1.

Pull the release valve yoke and note the time necessary to reduce the brake cylinder reservoir pressure from 80 PSI to 10 PSI. This should not exceed 8 seconds.

TEST NO. 3

RESET

Begin test with cocks 3 and 16 open; all other numbered cocks closed and valve "A" handle in position No. 1.

Move valve "A" handle to position No. 6 and note that the release valve resets at a pressure as shown on the auxiliary reservoir gauge of not more than 32 PSI. At the completion of test close cock 3 and move valve "A" handle to position No. 8.

TEST NO. 4

LEAKAGE

Begin test with cock 16 open; all other numbered cocks closed and valve "A" handle in position No. 8.

SECTION "A" UPPER VALVE SEAT

Move valve "A" to position No. 2 until 40 PSI is obtained on the brake cylinder gauge, then move valve "A" handle to position No. 3 (lap). *Quickly* trip the valve by pulling the release valve yoke, noting that brake cylinder pressure is reduced to zero. Note also that the valve does not reset itself and after waiting 10 seconds for temperature effect, note that the pressure on the auxiliary reservoir gauge does not decrease more than 3 PSI for one (1) minute. Failure to do so will be due to leakage past the upper valve seat. None is permitted.

SECTION "B" LOWER VALVE SEAT

Begin test with cock 16 open and valve "A" handle in position No. 8 to drain pressure shown on the auxiliary reservoir gauge.

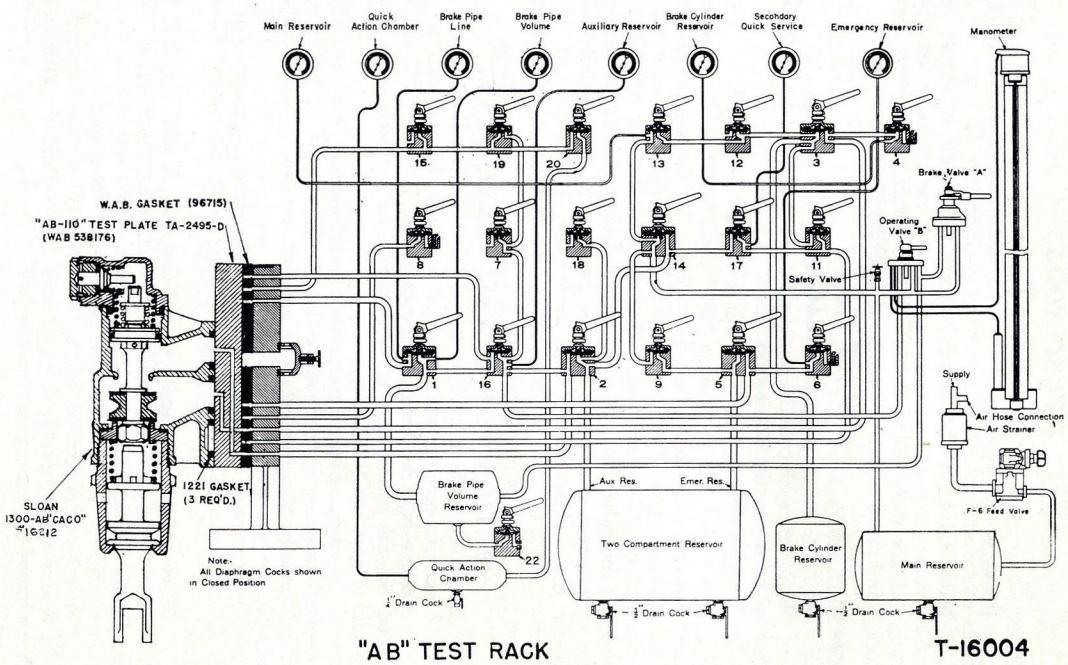
Move valve "A" handle to position No. 2 until 8 PSI is obtained on the auxiliary reservoir gauge, then move valve "A" handle to position No. 3 (lap).

Soap entire cover of valve to detect leakage. Note that this pressure does not decrease more than 1 PSI in one (1) minute. If the pressure drop exceeds this amount, the lower valve seat is at fault.

Open cock 3 and move valve "A" handle to position No. 8 to drain pressure shown on the auxiliary reservoir gauge. Close cock 3.

Move valve "A" handle to position No. 2 until 30 PSI is obtained on the auxiliary reservoir gauge, then move valve "A" handle to position No. 3 (lap). *Quickly* pull the release valve yoke to trip the valve and note that the valve resets itself.

At the completion of test, move valve "A" handle to position No. 8 and open cocks 1, 6, 9, 11 and 12 to drain the test rack, then remove the valve from the test rack.

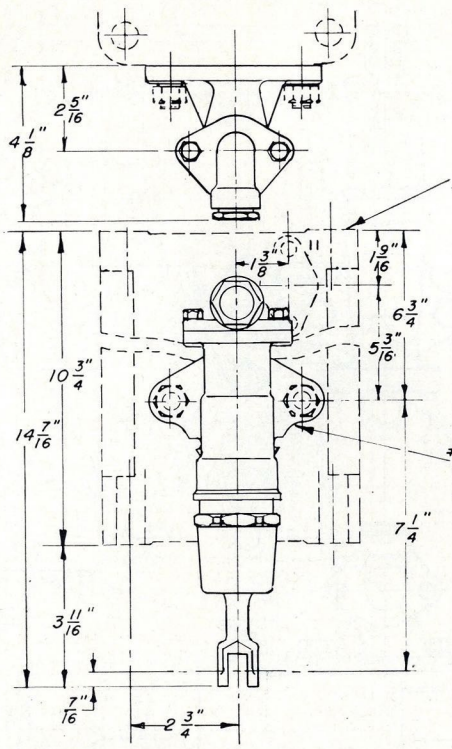


"AB" TEST RACK

T-16004

NOTE:
FURNISH #1278-A GASKET KIT.

CHANGES
① REVISED EGN 260 1-15-63 R.E.C.

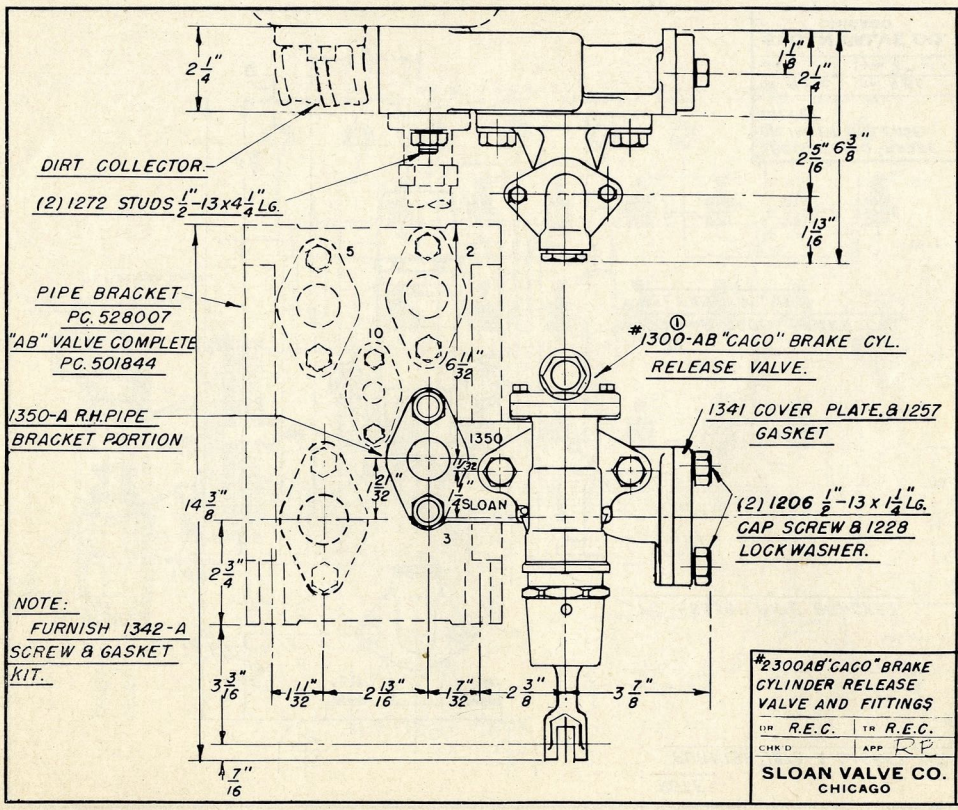


#2200AB "CACO" BRAKE CYLINDER RELEASE VALVE.

DR. REC	TR. REC
CHK'D	APP.

SLOAN VALVE CO.
CHICAGO

15845
2200AB
DATE 4-26-62



CHANGES
REVISED 7-31-62
REVISED 9-26-62
① REVISED ECN 260 1-15-63 R.E.C.

#2300AB "CACO" BRAKE CYLINDER RELEASE VALVE AND FITTINGS

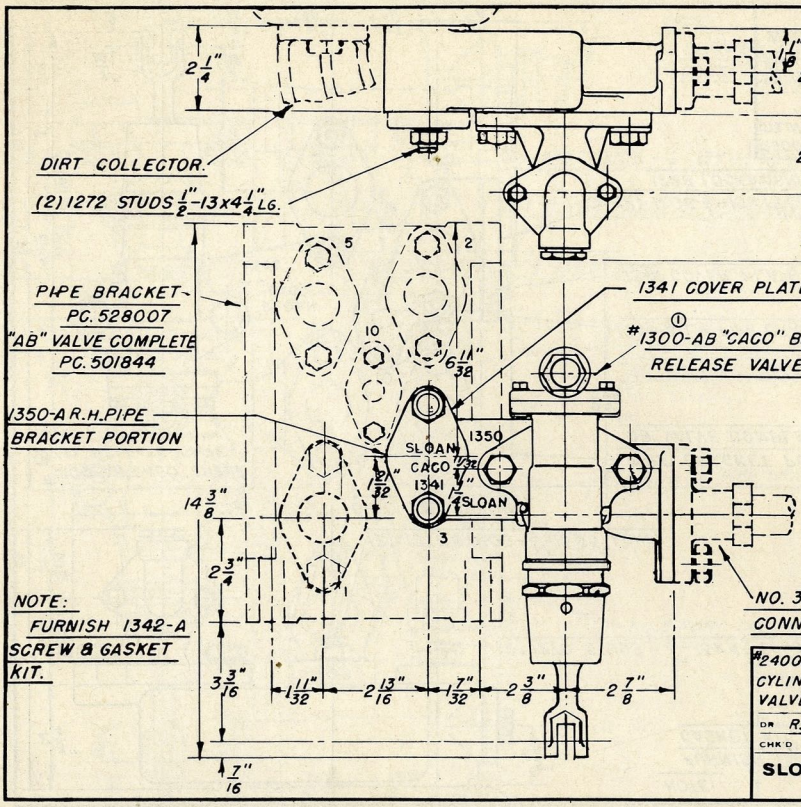
DR R.E.C.	TR R.E.C.
CHK'D	APP R.P.

SLOAN VALVE CO. CHICAGO

15846 2300AB

DATE 4-25-62

Same as RV-506



CHANGES
REVISED 9-26-62
① REVISED ECN 260 1-15-63 R.E.C.

#2400AB "CACO" BRAKE CYLINDER RELEASE VALVE AND FITTINGS

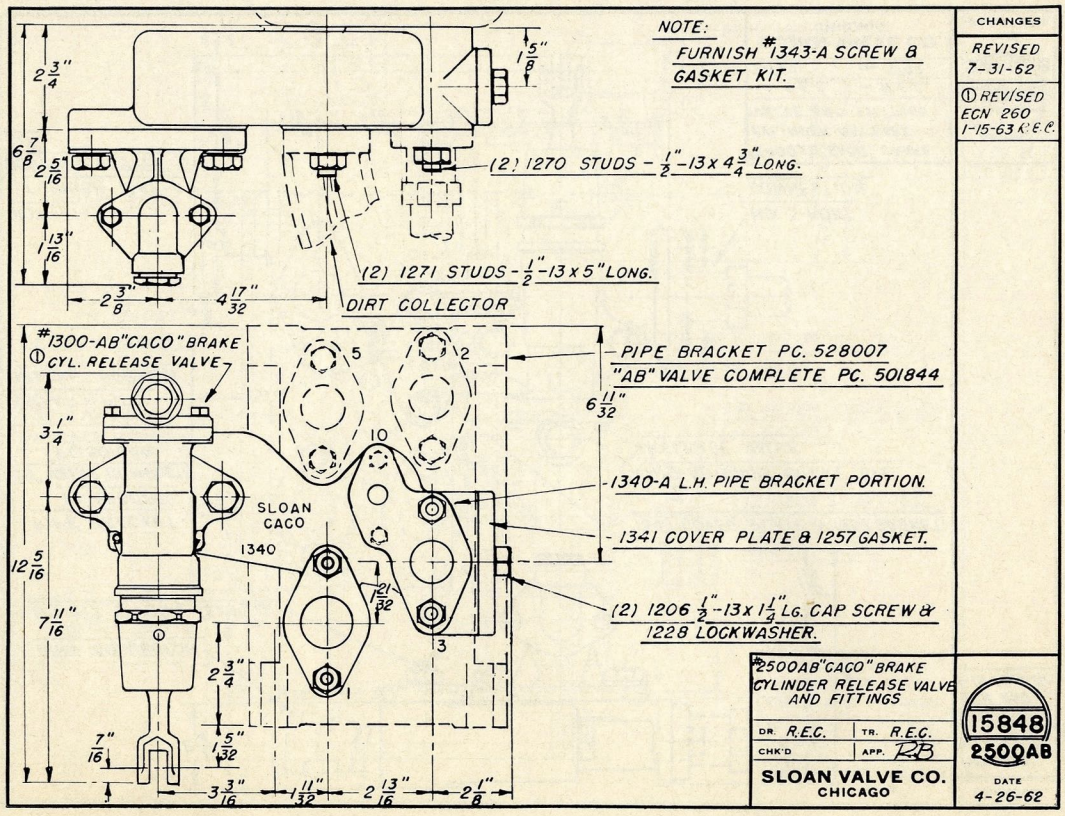
DR R.E.C.	TR R.E.C.
CHK'D	APP R.B.

SLOAN VALVE CO. CHICAGO

15847 2400AB

DATE 4-26-62

Same as RV-504



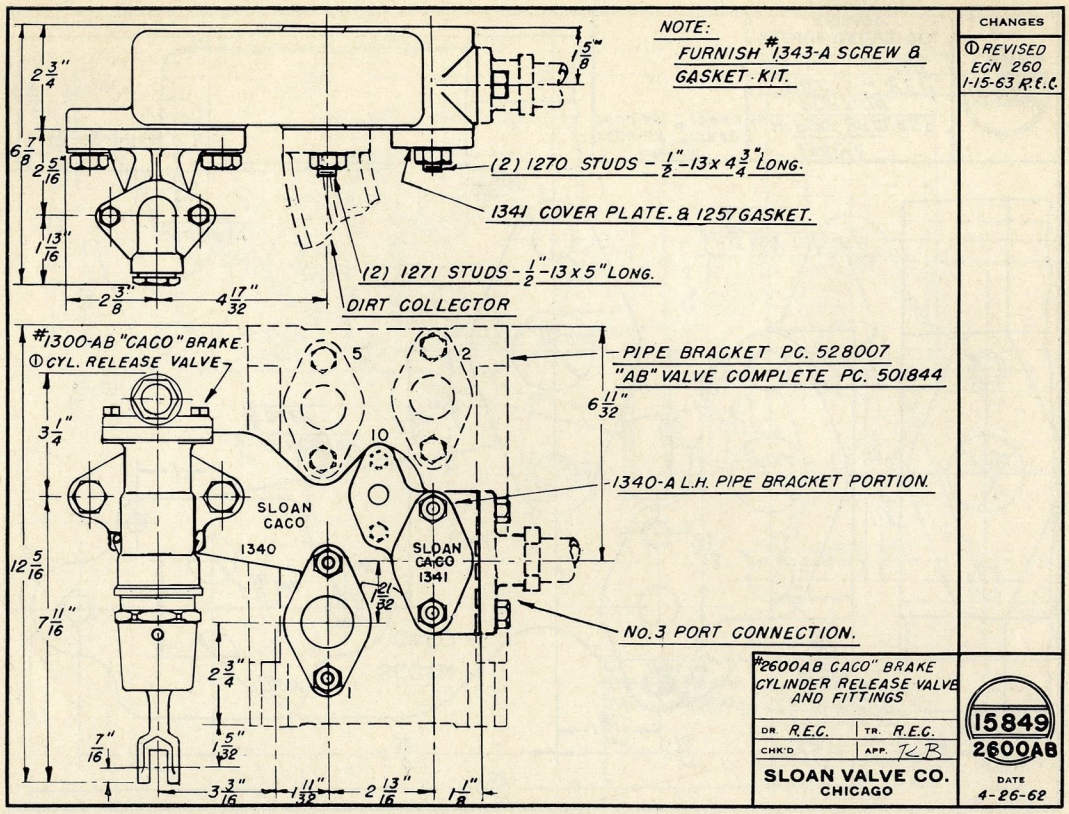
CHANGES
REVISED 7-31-62
① REVISED ECN 260 1-15-63 R.E.C.

#2500AB "CACO" BRAKE CYLINDER RELEASE VALVE AND FITTINGS

DR. R.E.C.	TR. R.E.C.
CHK'D	APP. RB

SLOAN VALVE CO. CHICAGO

15848
2500AB
DATE 4-26-62



CHANGES
① REVISED ECN 260 1-15-63 R.E.C.

#2600AB CACO" BRAKE CYLINDER RELEASE VALVE AND FITTINGS

DR. R.E.C.	TR. R.E.C.
CHK'D	APP. RB

SLOAN VALVE CO. CHICAGO

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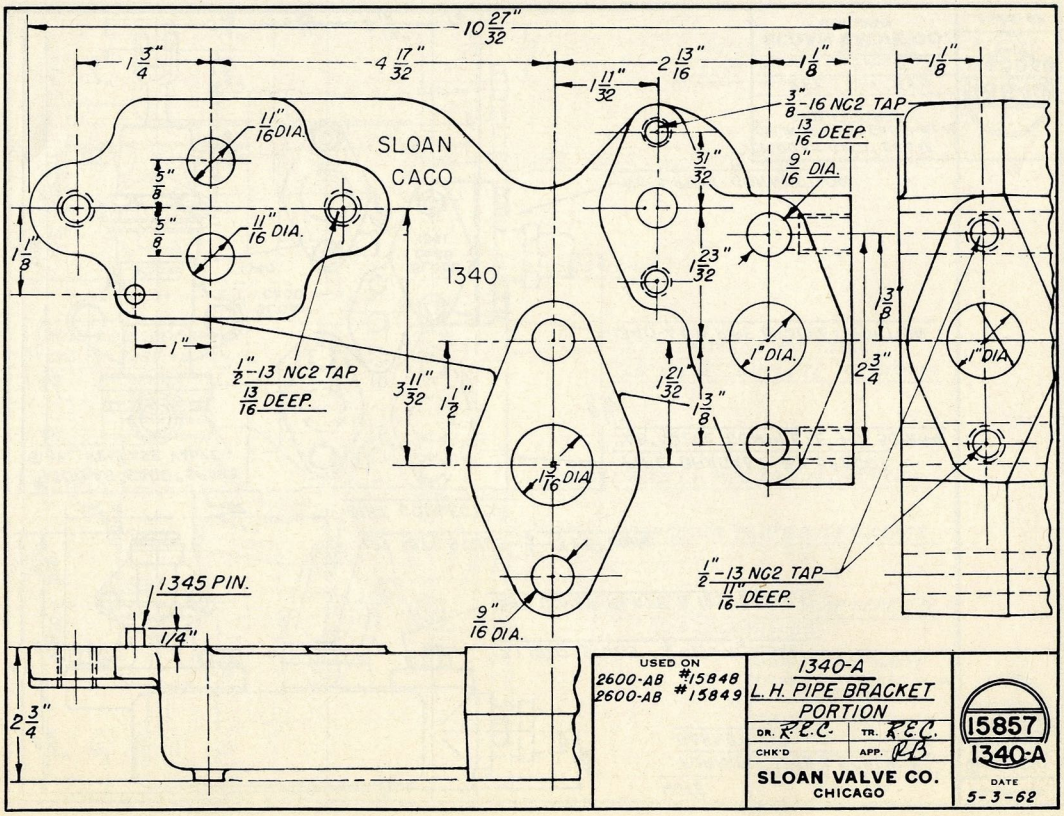
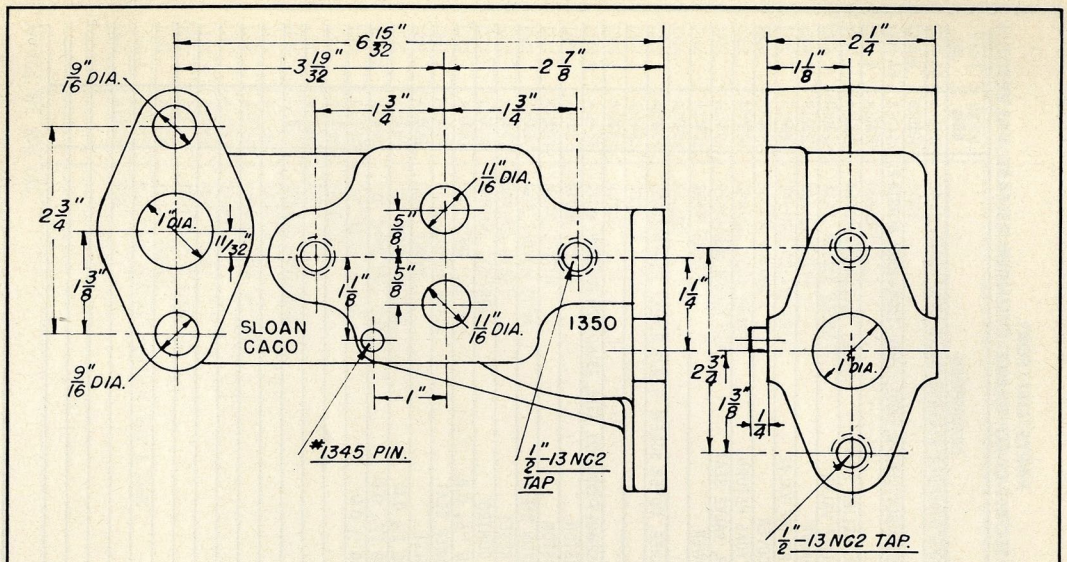
DATE 4-26-62



USED ON 2600-AB #15848 2600-AB #15849	1340-A L.H. PIPE BRACKET PORTION DR. R.E.C. TR. R.E.C. CHK'D APP. RB SLOAN VALVE CO. CHICAGO	15857 1340-A DATE 5-3-62



USED ON 2300-AB *15846 2400-AB *15847	1350-A R.H. PIPE BRACKET PORTION DR. R.E.C. TR. R.E.C. CHK'D APP. RB SLOAN VALVE CO. CHICAGO	15863 1350-A DATE 5-3-62

PARTS LIST FOR
MODEL 2200-AB SLOAN-CACO BRAKE CYLINDER RELEASE VALVE

PART NO.	DRWG. NO.	DESCRIPTION	REQ.	
1300-AB	A16212	CACO BRAKE CYLINDER RELEASE VALVE COMPLETE		
1300-B	B16398	BODY	1	
1301-AB	A16445	COVER ASSEMBLY (1301-B, 1302, 1303, 1304, 1305 & 1218-2)		
1301-B	A16435	COVER	1	
1302	A15691	RETAINER, RELIEF VALVE	1	
1303	A15692	SEAT, RELIEF VALVE	1	
1304	A15693	RELIEF VALVE	1	
1305	A15694	SPRING, RELIEF VALVE	1	
1306	A15695	SCREW, COVER	2	
1307	A15696	SPRING, YOKE RETURN	1	
1311	A15700	RETAINER, VALVE SEAT	1	
1312	A15701	SEAT, LOWER	1	
1314	A15703	FILLER	1	
1315	A15704	LOCKWASHER, COVER SCREW	2	
1317	A15683	SOCKET	1	
1318	A16254	GUIDE	1	
1320-A	A16438	STEM ASSEMBLY (1207 (2), 1311, 1318, 1320 & 1226)		
1320	A16437	STEM, PISTON	1	
1321	A16439	HEAD, PISTON	1	
1322	A16440	NUT, PISTON STEM	1	
1323	A16441	SPRING, RESET	1	
1324	A16442	SPRING, CONTROL	1	
1325	A16443	"O" RING 1 1/16 O.D.	1	
1203	A11074	SEAL, LOWER SEAT	1	
1207	A11059	SEAT, VALVE	2	
1215	A11068	"O" RING 1½ O.D.	1	
1218-2	A12685	"O" RING 1 9/16 O.D.	1	
1226	A12690	"O" RING ½ O.D.	1	
1262	A14746	YOKE	1	
1278-A	A15505	KIT		
1221	A11940	GASKET	3	

APPROX. WT. 7¼ LBS.

PARTS LIST FOR
MODELS 2300-AB & 2400-AB SLOAN-CACO BRAKE CYLINDER RELEASE VALVE

PART NO.	DRWG. NO.	DESCRIPTION	REQ.	
1300-AB	A16212	CACO BRAKE CYLINDER RELEASE VALVE COMPLETE		
1300-B	B16398	BODY	1	
1301-AB	A16445	COVER ASSEMBLY (1301-B, 1302, 1303, 1304, 1305 & 1218-2)		
1301-B	A16435	COVER	1	
1302	A15691	RETAINER, RELIEF VALVE	1	
1303	A15692	SEAT, RELIEF VALVE	1	
1304	A15693	RELIEF VALVE	1	
1305	A15694	SPRING, RELIEF VALVE	1	
1306	A15695	SCREW, COVER	2	
1307	A15696	SPRING, YOKE RETURN	1	
1311	A15700	RETAINER, VALVE SEAT	1	
1312	A15701	SEAT, LOWER	1	
1314	A15703	FILLER	1	
1315	A15704	LOCKWASHER, COVER SCREW	2	
1317	A15683	SOCKET	1	
1318	A16254	GUIDE	1	
1320-A	A16438	STEM ASSEMBLY (1207 (2), 1311, 1318, 1320 & 1226)		
1320	A16437	STEM, PISTON	1	
1321	A16439	HEAD, PISTON	1	
1322	A16440	NUT, PISTON STEM	1	
1323	A16441	SPRING, RESET	1	
1324	A16442	SPRING, CONTROL	1	
1325	A16443	"O" RING 1 1/16 O.D.	1	
1203	A11074	SEAL, LOWER SEAT	1	
1207	A11059	SEAT, VALVE	2	
1215	A11068	"O" RING 1½ O.D.	1	
1218-2	A12685	"O" RING 1 9/16 O.D.	1	
1226	A12690	"O" RING ½ O.D.	1	
1262	A14746	YOKE	1	
1342-A	A15853	KIT		
1206	A11943	SCREW, MOUNTING	4	
1221	A11940	GASKET	3	
1228	A12756	LOCKWASHER ½" SIZE	6	
1257	A11061	GASKET	2	
1259	A14406	NUT ½"-13	2	
1272	A15456	STUD ½"-13 X 4¼ LG.	2	
1341	A15826	PLATE, COVER	1	
1350-A	A15863	R.H. PIPE BRACKET PORTION (1350 & 1345)		
1345	A15864	PIN	1	

APPROX. WT. 15½ LBS.

PARTS LIST FOR
MODELS 2500-AB & 2600-AB SLOAN-CACO BRAKE CYLINDER RELEASE VALVE

PART NO.	DRWG. NO.	DESCRIPTION	REQ.	
1300-AB	A16212	CACO BRAKE CYLINDER RELEASE VALVE COMPLETE		
1300-B	B16398	BODY	1	
1301-AB	A16445	COVER ASSEMBLY (1301-B, 1302, 1303, 1304, 1305 & 1218-2)		
1301-B	A16435	COVER	1	
1302	A15691	RETAINER, RELIEF VALVE	1	
1303	A15692	SEAT, RELIEF VALVE	1	
1304	A15693	RELIEF VALVE	1	
1305	A15694	SPRING, RELIEF VALVE	1	
1306	A15695	SCREW, COVER	2	
1307	A15696	SPRING, YOKE RETURN	1	
1311	A15700	RETAINER, VALVE SEAT	1	
1312	A15701	SEAT, LOWER	1	
1314	A15703	FILLER	1	
1315	A15704	LOCKWASHER, COVER SCREW	2	
1317	A15683	SOCKET	1	
1318	A16254	GUIDE	1	
1320-A	A16438	STEM ASSEMBLY (1207 (2), 1311, 1318, 1320 & 1226)		
1320	A16437	STEM, PISTON	1	
1321	A16439	HEAD, PISTON	1	
1322	A16440	NUT, PISTON STEM	1	
1323	A16441	SPRING, RESET	1	
1324	A16442	SPRING, CONTROL	1	
1325	A16443	"O" RING 1 1/16 O.D.	1	
1203	A11074	SEAL, LOWER SEAT	1	
1207	A11059	SEAT, VALVE	2	
1215	A11068	"O" RING 1½ O.D.	1	
1218-2	A12685	"O" RING 1 9/16 O.D.	1	
1226	A12690	"O" RING ½ O.D.	1	
1262	A14746	YOKE	1	
1343-A	A15854	KIT		
1206	A11943	SCREW, MOUNTING	4	
1209	A11941	GASKET	1	
1221	A11940	GASKET	3	
1228	A12756	LOCKWASHER ½" SIZE	8	
1254	A11080	GASKET	1	
1257	A11061	GASKET	2	
1259	A14406	NUT ½"-13	4	
1270	A15444	STUD ½"-13 X 4¾ LG.	2	
1271	A15445	STUD ½"-13 X 5 LG.	2	
1341	A15826	PLATE, COVER	1	
1340-A	A15857	L.H. PIPE BRACKET PORTION (1340 & 1345)		
1345	A15864	PIN	1	

APPROX. WT. 21 LBS.