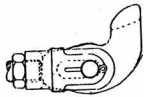
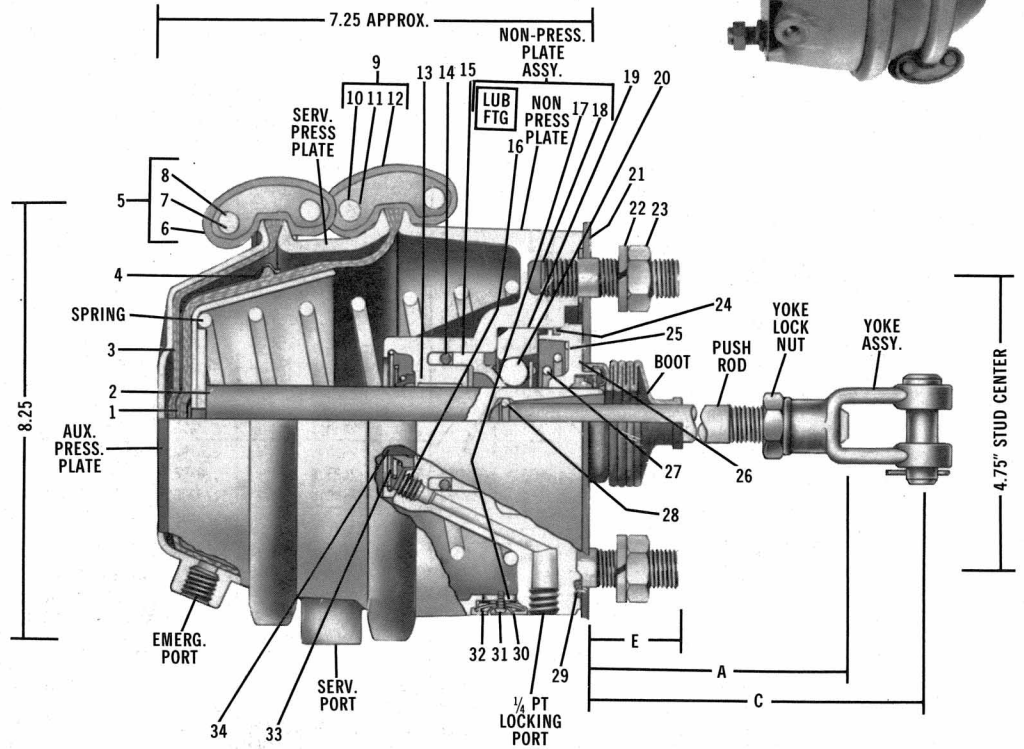
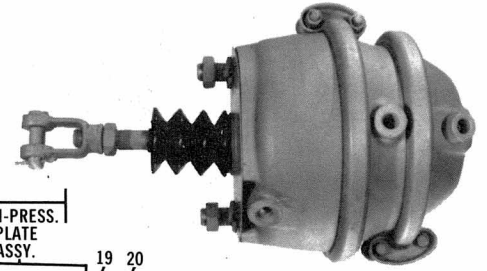


The DD3 is a double diaphragm air operated brake actuator with a shaft locking mechanism capable of locking on a brake application at any shaft extension. The locking mechanism is normally restrained in the non-locking position by air pressure. The double diaphragm permits the actuator to be operated by either of two sources of air pressure. The service diaphragm in the type 30 DD3 has 30 square inches effective area and the emergency diaphragm has 20 square inches. The type 24 has 24 square inches in the service diaphragm and 17 square inches in the emergency diaphragm.

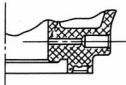
For installation and maintenance information, see Service Data Sheet SD-02-4.

Weight — 17 Lbs.

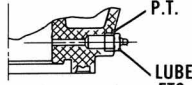
2.87" Max. Stroke



MECHANICAL RELEASE YOKE



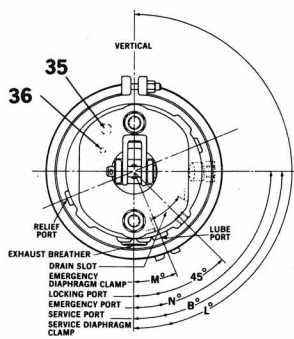
VIEW OF RELIEF PORT



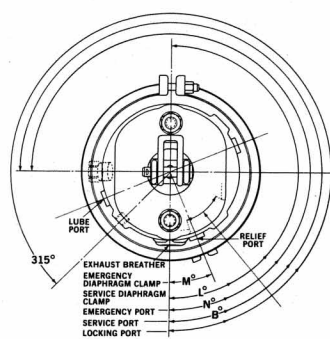
VIEW OF LUBE PORT

COMMON SERVICE PARTS

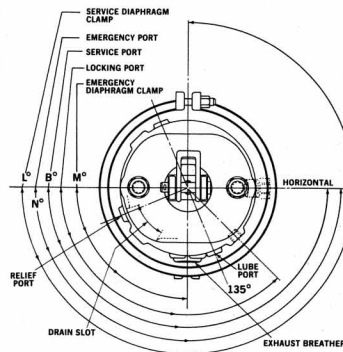
NO.	PC. NO.	QUAN.	DESCRIPTION	NO.	PC. NO.	QUAN.	DESCRIPTION	NO.	PC. NO.	QUAN.	DESCRIPTION
1	246371	1	SERVICE DIAPHRAGM	13	241997	1	NYLON BEARING	24	243682	1	O RING
2	277263	1	SHAFT	14	241999	1	O RING	25	242004	1	WASHER
3	246675	1	AUXILIARY DIAPHRAGM	15	242000	1	PISTON	26	282424	1	CAP COMPLETE
4	246363	1	DIAPHRAGM SEPARATOR	SEE SCHEDULE		1	NON-PRESS. PLATE ASSY.	27	242003	1	ROLLER SPRING
5	227745	1	CLAMP RING ASSY.	SEE SCHEDULE		1	LUB. FTG.	28	241993	1	RETAINING RING
6	237891	1	CLAMP RING	16	233008	1	PIPE PLUG, 1/16	29	246660	1	GASKET
7	237886	2	BOLT	SEE SCHEDULE		1	NON-PRESS. PLATE	30	246369	1	DIAPHRAGM WASHER
8	237887	2	NUT	17	246367	1	DIAPHRAGM RETAINER	31	246370	1	SCREW
9	227746	1	CLAMP RING ASSY.	18	240538	1	STUD, 5/8	32	246673	1	DIAPHRAGM
10	237886	2	BOLT	19	242001	1	COLLAR	33	246614	1	RETAINING RING
11	237887	2	NUT	20	242002	8	ROLLER	34	246612	1	ROD WIPER
12	237892	1	CLAMP RING	21	243570	1	SPLASH GUARD	35	241996	1	FELT BREATHER
				22	202986	2	LOCKWASHER	36	243023	4	MACH. SCREW
				23	204781	2	NUT				



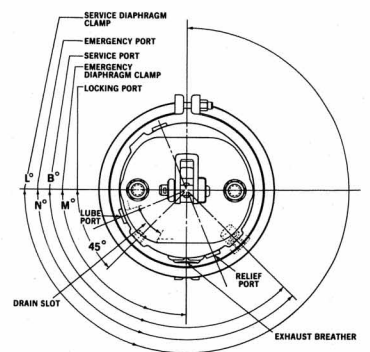
Vertical - Left hand



Vertical - Right hand



Horizontal - Left hand



Horizontal - Right hand

SUB ASSY AND DETAIL REFERENCE

DD3 SAFETY ACT. (TYPE 30) PC. NO.	AUX. PRESS. PLATE	SERV. PRESS. PLATE	NON-PRESS. PLATE	BOOT	SPRING	PUSH ROD	YOKE NUT	YOKE OR MECH. REL. YOKE ASSY.*	A ROD END TO PLATE	B DEG.	C YOKE PIN TO PLATE	E STUD END TO PLATE	L DEG.	M DEG.	N DEG.
VERTICAL — LEFT HAND															
284363	282432	242018	285110	242013	242413	243016	204781	228790	10.53	90	11.75	1.25	180	0	90
284423	282432	242018	285110	242013	242413	248101	204781	279200*	12.91	90	14.25	1.25	180	0	90
284655	282432	242018	285110	242013	242413	243016	204781	279200*	10.53	90	11.75	1.25	180	0	90
284995	282432	242018	285110	242013	242413	241992	204781	228790	10.41	90	11.50	1.25	180	0	90
284996	282432	242018	285807	242013	242413	243017	204781	277850	1.53	90	2.62	1.50	180	0	90
284997	282432	242018	285110	242013	242413	243017	204781	277850	1.53	90	2.62	1.25	180	0	90
284998	282432	242018	285110	242013	242413	243016	204781	228790	10.53	90	11.75	1.25	180	0	140
284999	282432	247022	285116	242013	242413	243050	235420	277850	1.88	90	3.00	1.25	180	0	90
285000	282432	247018	285110	242013	242413	242398	204781	228798	1.66	90	2.88	1.25	180	0	90
285002	282432	242018	285110	242013	242413	243017	204781	277850	1.53	120	2.62	1.25	315	0	90
285003	282432	242018	285110	242013	242413	243017	204781	278449	1.53	90	2.62	1.25	180	0	90
285006	282432	242018	285110	242013	242413	244359	204781	228790	2.41	90	3.50	1.25	180	0	90
285029	282432	242018	285126	243727	242413	YOKE & P.R. ASSY.		278857	—	115	1.50	1.25	180	0	115
285058	282432	242018	285110	242013	242413	246707	204781	279200*	10.41	90	11.75	1.25	180	0	140
285060	282432	242018	285110	242013	242413	246707	204781	279200*	10.41	90	11.75	1.25	180	0	90
285474	282432	242018	285126	243727	242413	YOKE & P.R. ASSY.		278688	—	115	1.50	1.25	180	0	90
A287185	287174	290943	285110	243013	242413	243016	204781	279200*	10.53	115	11.75	1.25	180	0	115
A287326	287174	290943	285110	242013	241994	243016	204781	279200*	10.53	65	11.75	1.25	180	0	65
287328	287174	290943	285110	242013	242413	248101	204781	279200*	12.91	90	14.25	1.25	180	0	90
287460	287174	290943	285110	242013	242413	243017	204781	277850	1.53	90	2.62	1.25	180	0	90
287461	287174	290943	285110	242013	242413	243016	204781	228790	10.53	90	11.75	1.25	180	0	140
287463	287174	290943	285110	242013	242413	242398	204781	228798	1.66	90	2.88	1.25	180	0	90
A288641	287174	290943	285110	242013	241994	243016	204781	279200*	10.53	115	11.75	1.25	180	0	115
VERTICAL — RIGHT HAND															
284364	282432	242018	285111	242013	242413	243016	204781	228790	10.53	270	11.75	1.25	180	0	270
284424	282432	242018	285111	242013	242413	248101	204781	279200*	12.91	270	14.25	1.25	180	0	270
284656	282432	242018	285111	242013	242413	243016	204781	279200*	10.53	270	11.75	1.25	180	0	270
285008	282432	242018	285111	242013	242413	241992	204781	228790	10.41	270	11.50	1.25	180	0	270
285009	282432	242018	285111	242013	242413	243017	204781	277850	1.53	270	2.62	1.25	180	0	270
285010	282432	242018	285010	242013	242413	243016	204781	228790	10.53	270	11.75	1.25	180	0	220
285011	282432	242018	285808	242013	242413	243017	204781	277850	1.53	270	2.62	1.50	180	0	270
285012	282432	242018	285116	242013	242413	243050	235420	277850	1.88	270	3.00	1.25	180	0	270
285013	282432	242018	285111	242013	242413	242398	204781	228798	1.66	270	2.88	1.25	180	0	270
285015	282432	242018	285111	242013	242413	243017	204781	277850	1.53	240	2.62	1.25	45	0	270
285018	282432	242022	285116	242013	242413	243342	204781	228790	2.66	270	3.88	1.25	225	180	0
285019	282432	242018	285111	242013	242413	243017	204781	278449	1.53	270	2.62	1.25	180	0	270
285021	282432	242018	285111	242013	242413	244359	204781	228790	2.41	270	3.50	1.25	180	0	270
285026	282432	242018	285111	242013	242413	243342	204781	228790	2.66	270	3.88	1.25	225	180	0
285028	282432	242018	285126	243727	242413	YOKE & P.R. ASSY.		278857	—	245	1.50	1.25	45	0	180
285059	282432	242018	285111	242013	242413	246707	204781	279200*	10.41	270	11.75	1.25	180	0	220
A285186	282432	242018	285808	242013	242413	243823	204781	228790	3.29	270	4.38	1.50	150	180	270
285475	282432	242018	285126	243721	242413	YOKE & P.R. ASSY.		278688	—	245	1.50	1.25	180	0	245
A287327	287174	290943	285111	242013	241994	243016	204781	279200*	10.53	295	11.75	1.25	180	0	295
287329	287174	290943	285111	242013	242413	248101	204781	279200*	12.91	270	14.25	1.25	180	0	270
287442	287174	290943	285111	242013	242413	243017	204781	277850	1.53	270	2.62	1.25	180	0	270
287450	287174	291372	285116	242013	242413	243342	204781	228790	2.66	270	3.88	1.25	225	180	0
A288642	287174	290943	285111	242013	241994	243016	204781	279200*	10.53	245	11.75	1.25	180	0	245
HORIZONTAL — LEFT HAND															
282684	282432	242018	282440	242013	242413	241992	204781	228790	10.41	180	11.50	1.25	270	90	180
284993	282432	247022	285117	242013	242413	243342	204781	228790	2.66	180	3.88	1.25	225	270	90
285022	282432	242018	285112	242013	242413	241992	204781	228790	10.41	180	11.50	1.25	270	90	180
285027	282432	242018	285112	242013	242413	243342	204781	228790	2.66	180	3.88	1.25	225	270	90
287479	287174	291372	285117	242013	242413	243342	204781	228790	2.66	180	3.88	1.25	225	270	90
HORIZONTAL — RIGHT HAND															
282693	282432	242018	282440	242013	242413	241992	204781	228790	10.41	180	11.50	1.25	270	90	180
284994	282432	247022	285118	242013	242413	243342	204781	228790	2.66	0	3.88	1.25	315	270	90
285024	282432	242018	285113	242013	242413	241992	204781	228790	10.41	0	11.50	1.25	270	90	0
285025	282432	242018	285113	242013	242413	246689	204781	—	2.53	0	—	1.25	270	90	0
286503	282432	242018	285113	242013	242413	243017	204781	277850	1.53	90	2.62	1.25	135	45	90
287475	287174	291372	285113	242013	242413	243342	204781	228790	2.66	0	3.88	12.69	315	270	90

A — SUBSTITUTE DIAPHRAGM 292711 FOR ITEM 1. OMIT ITEM 4. (DIAPHRAGM SEPARATOR)

NON-PRESS. PLATE ASSY.	NON-PRESS. PLATE	LUB. FTG.
282440	246665	NONE
285110	249245	214649
285111	249246	214649
285112	249247	214649
285113	249248	214649
285116	249249	214649

NON-PRESS. PLATE ASSY.	NON-PRESS. PLATE	LUB. FTG.
285117	249250	214649
A285118	249250	214649
285126	249252	214649
B285807	249245	249824
B285808	249246	249824

PRESS. PLATE	EMERG. PORT P.T.
282432	1/4
287174	3/8

SERVICE PRESS. PLATE	SERVICE PORT P.T.
242018	1/4
290943	3/8
291372	3/8

A — ADD PIPE PLUG, 232999 (1/8")

B — SUBSTITUTE STUD, 212964 FOR 18.

DD3 SAFETY ACTUATORS (TYPE 30)

DD3 CONVERSION/INTERCHANGE LISTING

The DD3 Safety Actuator has had three (3) design changes (revisions) since its introduction. Refer to the listing below for current Pc. No.

DD3 REV. 0 PC. NO.	REV. 1	REV. 2	REV. 3
277261	282630	284995	287458
277690	282656	285008	287441
277691	282684	285022	287478
277692	282693	—	—
277703	282631	—	—
277704	282632	—	—
277705	282633	284996	287459
277813	282634	284997	287460
277814	282657	285009	287442
277815	282658	285010	287443
277816	282635	284998	287461
277852	282659	285011	287444
277930	282638	285000	287643
277931	282663	285013	287446
278422	282639	285001	287464
278423	282664	285014	287447
278477	282686	—	—
278495	282640	285002	287465
278497	282641	—	—
278498	282667	—	—
278633	282642	285003	287466
278634	282668	285016	287449
278636	282643	284363	287193
278637	282669	284364	287194
278862	282644	—	—
278863	282670	—	—
278865	—	—	—
278866	—	—	—
278871	—	—	—
278872	—	—	—
278873	—	—	—
278892	—	—	—
278893	282671	—	—
278894	—	—	—
278970	—	—	—
278971	—	—	—
278974	—	—	—
278975	—	—	—
279523	282646	—	—
279524	282672	—	—
279724	282688	285018	287450
279788	282647	—	—
279789	282674	—	—
279832	282648	—	—
279833	282675	—	—
279834	282689	—	—
279835	282696	—	—
280290	282649	—	—
280291	282676	—	—
280292	282701	285059	287558

DD3 REV. 0 PC. NO.	REV. 1	REV. 2	REV. 3
280293	282700	285058	287553
280294	282702	285060	287554
280295	282703	285061	287559
280690	282650	—	—
280691	282677	—	—
280752	282704	—	—
280753	282705	—	—
280841	282735	—	—
280842	282736	—	—
281319	282690	—	—
281320	282697	—	—
281364	282706	—	—
281365	282707	—	—
281465	282651	285005	287467
281466	282678	285019	287451
281621	282652	—	—
281642	282679	285020	287452
281816	282653	285006	287468
281817	282680	285021	287453
281893	282708	285062	287555
281894	282709	285063	287560
282001	—	—	—
282002	—	—	—
282016	282654	287007	287469
282017	282681	285145	287456
282146	282655	—	—
282147	282682	—	—
282344	282692	—	—
282345	—	—	—
282450	282699	284994	287475
282630	—	284995	287458
282631	—	—	—
282632	—	—	—
282633	—	284996	287459
282634	—	284997	287460
282635	—	284998	287461
282636	—	—	—
282637	—	—	—
282638	—	285000	287463
282639	—	285001	287464
282640	—	285002	287465
282641	—	—	—
282642	—	285003	287466
282643	—	284363	287193
282644	—	—	—
282645	—	—	—
282646	—	—	—
282647	—	—	—
282648	—	—	—
282649	—	—	—

DD3 REV. 0 PC. NO.	REV. 1	REV. 2	REV. 3
282650	—	—	—
282651	—	285005	287467
282652	—	—	—
282653	—	285006	287468
282654	—	285007	287469
282655	—	—	—
282656	—	285008	287441
282657	—	285009	287442
282658	—	285010	287443
282659	—	285011	287444
282660	—	—	—
282661	—	—	—
282662	—	—	—
282663	—	285013	287446
282664	—	285014	287447
282665	—	—	—
282666	—	285015	287448
282667	—	—	—
282668	—	285016	287449
282669	—	284364	287194
282670	—	—	—
282671	—	—	—
282672	—	—	—
282673	—	285018	287450
282674	—	—	—
282675	—	—	—
282676	—	—	—
282677	—	—	—
282678	—	285019	287451
282679	—	285020	287452
282680	—	285021	287453
282681	—	285145	287456
282682	—	—	—
282683	—	—	—
282684	—	285022	287478
282685	—	—	—
282686	—	—	—
282687	—	—	—
282688	—	—	—
282689	—	—	—
282690	—	—	—
282691	—	—	—
282692	—	—	—
282693	—	—	—
282694	—	—	—
282695	—	—	—
282696	—	—	—
282697	—	—	—
282698	—	—	—
282699	—	284994	287475

DD3 CONVERSION/INTERCHANGE LISTING

The DD3 Safety Actuator has had three (3) design changes (revisions) since its introduction. Refer to the listing below for current Pc. No.

DD3 REV. 0 PC. NO.	REV. 1	REV. 2	REV. 3
282700	—	285058	287553
282701	—	285059	287558
282702	—	285060	287554
282703	—	285061	287559
282704	—	—	—
282705	—	—	—
282706	—	—	—
282707	—	—	—
282708	—	285062	287555
282709	—	285063	287560
282858	—	285026	287454
282859	—	285027	—
282907	—	—	—
283175	—	284423	287328
283176	—	284424	287329
283342	—	285028	287148
283343	—	285029	287149
283603	—	285030	287455
283604	—	285031	287470
284079	—	285066	287556
284080	—	285067	287561
284363	—	—	287193
284364	—	—	287194
284423	—	—	287328
284424	—	—	287329
284655	—	—	287185
284656	—	—	287186
284993	—	—	287479
284994	—	—	287475
284995	—	—	287458
284996	—	—	287459
284997	—	—	287460
284998	—	—	287461
284999	—	—	287462
285000	—	—	287463
285001	—	—	287464
285002	—	—	287465
285003	—	—	287466
285005	—	—	287467
285006	—	—	287468
285007	—	—	287469
285008	—	—	287441
285009	—	—	287442
285010	—	—	287443
285011	—	—	287444
285012	—	—	287445
285013	—	—	287446
285014	—	—	287447
285015	—	—	287448
285016	—	—	287449
285018	—	—	287450

DD3 REV. 0 PC. NO.	REV. 1	REV. 2	REV. 3
285019	—	—	287451
285020	—	—	287452
285021	—	—	287453
285022	—	—	287478
285023	—	—	287480
285024	—	—	287473
285025	—	—	287424
285026	—	—	287454
285027	—	—	—
285028	—	—	287148
285029	—	—	287149
285030	—	—	287455
285031	—	—	287470
285032	—	—	287557
285033	—	—	287562
285058	—	—	287553
285059	—	—	287558
285060	—	—	287554
285061	—	—	287559
285062	—	—	287555
285063	—	—	287560
285066	—	—	287556
285067	—	—	287561
285145	—	—	287456
285185	—	—	287471
285186	—	—	—
285474	—	—	287161
285475	—	—	287162
285811	—	—	287472
286166	—	—	287326
286167	—	—	287327
286503	—	—	287476
286776	—	—	287482
286777	—	—	287477
287148	—	285028	—
287149	—	285029	—
287161	—	285474	—
287162	—	285475	—
287185	—	284655	—
287186	—	284656	—
287193	—	284363	—
287194	—	284364	—
287326	—	286166	—
287327	—	286167	—
287328	—	284423	—
287329	—	284424	—
287441	—	285008	—
287442	—	285009	—
287443	—	285010	—
287444	—	285011	—

DD3 REV. 0 PC. NO.	REV. 1	REV. 2	REV. 3
287445	—	285012	—
287446	—	285013	—
287447	—	285014	—
287448	—	285015	—
287449	—	285016	—
287450	—	285018	—
287451	—	285019	—
287452	—	285020	—
287453	—	285021	—
287454	—	285026	—
287455	—	285030	—
287456	—	285145	—
287457	—	285126	—
287458	—	284995	—
287459	—	284996	—
287460	—	284997	—
287461	—	284998	—
287462	—	284999	—
287463	—	285000	—
287464	—	285001	—
287465	—	285002	—
287466	—	285003	—
287467	—	285005	—
287468	—	285006	—
287469	—	285007	—
287470	—	285031	—
287471	—	285185	—
287472	—	285811	—
287473	—	285024	—
287474	—	285025	—
287475	—	284994	—
287476	—	286503	—
287477	—	286777	—
287478	—	285022	—
287479	—	284993	—
287480	—	285023	—
287481	—	—	—
287482	—	286776	—
287553	—	285058	—
287554	—	285060	—
287555	—	285062	—
287556	—	285066	—
287557	—	285032	—
287557	—	285059	—
287559	—	285061	—
287560	—	285063	—
287561	—	285067	—
287562	—	285033	—
288641	—	—	—
288642	—	—	—