LUCAS DISTRIBUTOR TEST CODE DATA

TESTING DISTRIBUTOR VACUUM UNIT

To test distributor vacuum units, the unit must be installed on a suitable distributor, which in turn must be connected to a synchronous spark tester. Vacuum units designed for external operation must be coupled to distributor by their respective timing levers. Run distributor at 100 RPM, this will simulate actual service operation and eliminate incorrect readings being registered. The unit should be connected to a variable vacuum supply and the degree of advance checked against an accurately calibrated mercury column. A test code (Example: 3/24/12). is stamped on the vacuum unit, and (except in the case of rising vacuum characteristics) this code is also the nominal figures for the advance characteristics, see below:

Example: 3/24/12
3 = Vacuum (In. of Hg.) at which unit begins to function.
24 = Vacuum (In. of Hg.) at which max. advance or retard occurs.
12 = Max. advance or retard degrees.

As it has already been stated, these are nominal figures only and each unit must be tested according to the specifications given in this section.

NOTE – The letter "R", when appearing with a test code, denotes that the vacuum unit is a retard type.

CAUTION – Except in the case of rising vacuum characteristics, the test code is stamped on the vacuum unit and unless stated otherwise, the test figures are given on a decreasing vacuum.

LUCAS DISTRIBUTOR VACUUM RETARD UNIT TEST CODE DATA

Test Code	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	In. of Hg. Below Which No Retard Must Occur
1/4/5 ①	4-6	8.0	.....	.....	.....	.....	4-6	12.0	0	.5	①
1/5/6 ①	5-7	8.0	.....	.....	.....	.....	5-7	12.0	0	.5	①
1/12/8 ①	7-9	12.0	.....	.....	.....	.....	7-9	13.0	0	.5	①
2/4/4	3-5	8.0	3-5	5.0	.....	.....	2½-5	4.0	½-3	3.0	1.0
2/5/5	4½-5½	12.0	4½-5½	5.0	.....	.....	3-5	4.0	½-3	3.0	1.0
2/7/8 ①	7-9	7.0	.....	.....	.....	.....	7-9	13.0	0	1.0	①
3/8/5	4-6	14.0	4-6	8.0	.....	.....	2-4	6.0	0-2	4.0	2.0
3/10/7 ①	6-8	14.0	5-8	10.0	3-6½	7.0	0-1	2.0	0	1.0	①
3/10/8	7-9	15.0	5-8	8.0	.....	.....	0-3	4.0	0-1	2.5	1.5
4/8/5	4-6	12.0	4-6	8.0	.....	.....	2-4	6.0	0-2½	5.0	3.0
4/8/6	5-7	15.0	4½-7	8.0	4-6	7.0	1-3½	5.5	0-1	4.0	2.0
4/12/9	8-10	16.0	7½-10	12.0	.....	.....	4-6½	9.0	0-2½	6.0	3.0
5/9/5											

① – Single Capsule, Double Acting Vacuum Unit.

LUCAS DISTRIBUTOR VACUUM ADVANCE UNIT TEST CODE DATA (Cont.)

Test Code	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	In. of Hg. Below Which No Advance Must Occur
1/3/4	3-5	8.0	3-5	3.0	½-3½	2.0	0-2	1.5	0-½	1.0	.....
1/4/5	4-6	8.0	4-6	4.0	3-5	3.0	½-3½	2.0	0-½	1.0	.....
1/4/6	5-7	10.0	4½-7	3.5	1-4	2.0	.....	.....	0-1½	1.0	0
1/5/8	7-9	10.0	6½-9	5.0	5-7½	4.0	.....	.....	½-3¼	2.0	.5
1/6/10	9-11	10.0	8½-11	6.0	4½-7½	3.5	1-4	2.0	0-1½	1.0	0
2/4/3	2-4	8.0	1-4	3.0	.....	.....	.....	.....	0-2½	2.0	1.0
2/4/4	3½-4½	12.0	3½-4½	5.0	2-4½	4.0	.....	.....	½-3	3.0	1.0
2/5/5	4-6	12.0	3-6	5.0	0-3	3.0	.....	.....	0-1½	2.0	1.0
2/5/7	6½-7½	12.0	6½-7½	6.0	2¾-6½	4.0	.....	.....	½-4½	3.0	1.0
2/5/8	1	1.5-2.5	.....	.....	.....	.....	.. ....	.....	6	3.0-4.5	Checked with rising vacuum
2/6/3	2-4	15.0	1½-3½	5.0	.....	.....	.....	.....	½-2½	3.5	1.0
2/7/10	9-11	12.0	6½-9	6.0	2-4½	4.0	.....	.....	0-2	2.5	1.0
2/10/12	11-13	16.0	9½-12½	9.0	6½-9½	6.0	3-6	4.0	0-2	2.0	1.0
2/11/7	6-8	18.0	5-8	11.0	3-5½	8.0	0-2½	4.0	0-½	2.0	1.0
3/5/5	0-½	2.0	0-3	3.5	3-6	5.0	.....	.....	4-6	18.0	Checked with rising vacuum
3/6/6	0-½	2.0	0-3	3.5	4-7	5.5	.....	.....	4-6	18.0	Checked with rising vacuum
3/7/8	7-9	12.0	6-9	6.0	3½-6½	5.0	1-4	4.0	0-1	2.5	1.5
3/7/8 Ⓒ	6½-8½	12.0	6-8½	6.0	3½-6½	5.0	1-4	4.0	0-1	2.5	1.5
3/7/8	6-8	12.0	5-8	7.0	3-6	5.0	½-3½	3.5	0-1	2.0	1.0
3/8/7	6-8	12.0	5-8	7.0	3-6	5.0	½-3½	3.5	0-1	2.0	1.0
3/8/8	2	3.5-4.5	4	4.0-5.5	.....	.....	.....	.....	6	5.5-7.0	Checked with rising vacuum
3/8/12	9-11	11.0	5-7	6.0	.....	.....	.....	.....	1-3	2.5	1.0
3/9/8	7-9	15.0	5-8½	7.0	0.4	4.0	.....	.....	0-½	2.5	1.0
3/9/9	8-10	15.0	5½-9	7.5	0.4	4.0	.....	.....	0-½	2.5	1.0
3/10/10	9-11	15.0	8½-11	8.0	5½-8½	6.0	1-4½	4.0	0-½	2.5	1.5
3/11/5	4-6	15.0	3½-5½	10.0	½-2½	5.5	.....	.....	0-½	2.5	1.5
3/11/12	11-13	22.0	9½-12	9.0	5½-8½	6.0	1-4½	4.0	0-½	2.0	1.5
3/12/5	1	3.0-5.0	.....	.....	.....	.....	.....	.....	5½	11.5-15.0	Checked with rising vacuum
3/13/12	11-13	18.0	10-12½	11.5	5½-9	7.5	0-4	4.0	0-½	2.5	1.0
3/15/9	8-10	22.0	7½-9½	12.5	4-6	8.5	½-2½	4.75	0-½	2.0	1.0
3/16/12	2	3.0-4.5	6	5.5-7.0	.....	.....	.....	.....	10	10.0-13.0	Checked with rising vacuum
3/18/7	6-8	25.0	5½-7½	15.0	3½-5½	10.0	½-2½	5.5	0-½	2.5	1.5
3/21/8	1	3.0-6.0	5	10.0-14.0	.....	.....	.....	.....	7½	17.0-22.0	Checked with rising vacuum

Ⓒ – Volvo Only.

LUCAS DISTRIBUTOR VACUUM ADVANCE UNIT TEST CODE DATA (Cont.)

Test Code	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	In. of Hg. Below Which No Advance Must Occur
3/25/7	4½-6½	13.5	.....	.....	.....	.....	.....	.....	0-2	4.0	2.0
4/7/6	5-7	15.0	4-7	7.0	.....	.....	½-3½	5.0	0-½	3.5	2.0
4/7/6 ②	5-7	18.0	4-7	10.0	1-6	7.0	0-1	2.5	0-1	0	②
4/7/6.5	5½-7½	15.0	4-7	7.0	½-3½	5.0	.....	.....	0-½	3.5	2.0
4/7/7	6-8	12.0	6-8	8.0	2½-7	6.0	0-2	4.0	0-½	3.0	2.0
4/7/8	7-9	15.0	6-9	8.0	2½-7	6.0	0-2½	4.0	0-½	3.0	2.5
4/8/5	4-6	11.0	3-5	7.0	½-3	5.0	.....	.....	0-½	2.5	2.0
4/8/6	5-7	15.0	4½-7	8.0	4-6	7.0	1-3½	5.5	0-1	4.0	2.0
4/10/8	7-9	15.0	6½-8½	9.0	.....	.....	1-3½	5.5	0-½	4.0	3.0
4/11/7	6-8	18.0	5-7	9.5	.....	.....	½-2½	4.75	0-½	2.0	1.0
4/12/7	1	4.0-6.5	.....	.....	.....	.....	.....	.....	5½	8.5-11	With rising vacuum
4/12/8 ③	7-9	18.0	6½-9	11.0	3-6	7.5	0-3	5.0	0-½	3.0	③
4/12/8	1	4.0-6.0	.....	.....	.....	.....	.....	.....	7	10.0-13.0	With rising vacuum
4/12/9	8½-10½	18.0	8-10	11.0	4-6	7.0	½-3	5.0	0-½	3.5	2.0
4/13/6	5-7	18.0	5-7	12.5	2½-5	9.0	.....	.....	½-3	6.0	2.5
4/13/8	6-8	11.5	.....	.....	.....	.....	.....	.....	0-1	5.0	3.0
4/13/10	9-11	22.0	7-9	10.5	4-6	7.5	1-3	5.5	0-½	3.0	2.0
4/13/12	11-13	18.0	10-12½	12.0	6-8½	8.0	½-4	5.5	0-½	3.0	2.0
4/14/8	7-9	18.0	5-8	8.5	1-4	5.0	.....	.....	0-½	3.0	2.0
4/15/7	6-8	20.0	5-7	12.5	2½-4½	9.0	.....	.....	½-2½	6.0	1.5
4/15/8	7-9	20.0	6½-9	14.0	4-7	10.0	1-4	6.5	0-1	4.0	3.0
4/15/11	10-12	22.0	9-11	13.0	6-8½	9.75	1-3½	5.5	0-½	3.5	2.0
4/15/12	½	3.5-5.0	5½	6.5-8.0	.....	.....	.....	.....	9	9.0-12.5	With rising vacuum
4/17/6	5-7	28.0	4-6	14.25	3-5	11.5	.....	.....	0-2	6.25	2.75
4/17/10	1	4.0-6.0	.....	.....	.....	.....	.....	.....	7	10.0-13.0	With rising vacuum
4/17/15	14-16	22.0	12½-15	14.5	8-10½	9.5	½-4½	5.0	0-½	3.0	2.0
4/18/12	11-13	25.0	10-12	15.0	6-8½	9.75	1-3½	5.5	0-½	3.5	2.0
4/19/12	11-13	23.0	10½-12½	17.5	7½-9½	10.5	1-4	4.5	0-½	2.5	1.0
4/20/8	7-9	25.0	6½-8½	18.0	4-6	12.0	1-3	6.5	0-½	3.5	3.0
4/23/12	1	4.0-6.0	7	10.0-13.0	.....	.....	.....	.....	12	20.0-25.0	With rising vacuum
5/8/3	2-4	12.0	1-4	7.0	0-3	6.0	.....	.....	0-½	4.0	3.0
5/9/5	4-6	15.0	4-6	9.0	1-4	7.0	.....	.....	0-½	4.5	3.0
5/10/6 ②	5-7	18.0	5-7	10.0	4-6	9.0	1-4	7.0	0-½	4.5	②
5/11/6	0	4.0-6.0	2	5.0-7.5	4	6.5-9.0	.....	.....	5½	7.75-10.75	With rising vacuum
5/11/7	6-8	15.0	4½-6½	10.0	2¼-4¼	8.0	0-2	6.0	0-½	4.0	2.5
5/11/7 ②	6-8	15.0	3½-7½	10.0	1½-5	8.0	0-2½	6.0	0-½	0	②
5/11/8	7-9	15.0	6½-8½	11.0	1-3	6.5	.....	.....	0-½	4.0	3.0
5/11/13	10-12	20.0	8-10	11.5	.....	.....	.....	.....	0-½	5.0	3.0
5/12/6	5-7	18.0	4½-6½	11.0	2½-4½	8.5	½-3	6.5	0-½	3.0	2.0
5/12/8	7-9	15.0	6-9	12.0	0-3	6.0	.....	.....	0-½	4.0	2.5

② – Single Capsule, Double Acting Vacuum Unit Only.
③ – Units code stamped should be tested on a falling vacuum, units with only vacuum assembly number should be tested with rising vacuum.

LUCAS DISTRIBUTOR VACUUM ADVANCE UNIT TEST CODE DATA (Cont.)

Test Code	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	In. of Hg. Below Which No Advance Must Occur
5/13/10	9-11	20.0	8½-10½	12.0	5½-8	9.0	1½-5	6.5	0-½	4.0	2.5
5/14/5	4-6	25.0	4-6	14.25	3-5	11.5	.....	.....	0-2	6.25	2.75
5/14/7	6-8	20.0	5-8	14.0	2-5	9.0	½-3½	7.0	0-½	4.0	2.0
5/14/9	8-10	16.0	6½-9½	12.0	2-5½	8.0	.....	.....	0-½	5.0	3.0
5/14/11	10-12	20.0	9½-11½	13.0	6-8½	9.5	1½-5	6.5	0-½	4.0	2.5
5/15/6	5-7	18.0	4-6½	12.0	3-5½	9.5	½-3	6.5	0-½	4.0	3.0
5/15/12	11-13	20.0	10-12½	12.0	6-10	9.0	1-6	6.5	0-½	4.0	2.5
5/16/12	11-13	20.0	9¾-11¾	13.0	6-8	9.5	1½-4	6.5	0-1	5.0	2.5
5/17/8	7-9	20.0	6-8	14.5	1-3	7.5	.....	.....	0-½	4.0	3.0
5/17/9	8-10	22.0	7-9	14.5	4½-6½	11.0	½-2½	6.5	0-½	4.0	3.0
5/17/10	9-11	22.0	9-11	15.5	6-8	10.5	1-3	6.5	0-½	4.5	3.0
5/17/12	11-13	20.0	9½-12½	13.0	6-8½	9.5	1½-5	6.5	0-½	4.0	2.5
5/18/8	7-9	25.0	6-8	15.5	3-5	10.0	½-2½	6.5	0-½	4.0	3.0
5/18/10	9-11	24.0	8-10½	16.0	4-7	10.0	1-4	6.5	0-½	4.5	3.0
5/18/11	10-12	22.0	10-12	16.0	6-8	10.5	1-3	6.5	0-½	4.5	3.0
5/20/12	11-13	25.0	10-12	17.5	6-8	11.0	0-3½	6.5	0-½	4.5	3.0
5/21/7	6-8	25.0	5-7	17.0	2-4	9.5	0-2	6.0	0-½	4.0	2.75
6/10/7	0	5.0-7.0	3	6.5-8.5	.....	.....	.....	.....	6	8.0-10.0	With rising vacuum
6/11/5 ③	4-6	15.0	4-6	11.0	.....	.....	0-2	7.0	0-½	5.0	3.0
6/11/5	Start	5.0-7.0	.....	.....	.....	.....	.....	.....	4-5½	11.0	With rising vacuum
6/11/9	8-10	18.0	8-10	13.0	5-10	10.0	3½-8½	9.0	1-5	7.5	5.0
6/11/10	9-11	18.0	9-11	11.0	5½-8½	9.0	1½-5½	7.5	0-1	6.0	4.5
6/11/12	11-13	18.0	11-13	13.0	7-10	10.0	3-6½	8.0	0-1	6.0	.....
6/12/7	6-8	18.0	6-8	13.0	4-6½	11.0	0-2	7.0	0-½	5.0	3.5
6/12/9	8-10	16.0	7-10	12.0	5-8	10.0	2-5½	8.0	0	4.0	.....
6/12/11	1	5.5-7.5	6	7.5-10.0	.....	.....	.....	.....	10	9.5-13.0	With rising vacuum
6/13/5	4-6	18.0	3½-5½	12.0	.....	.....	½-2½	7.0	0-½	5.0	3.0
6/13/6	0	5.0-7.0	3	8.0-10.5	.....	.....	.....	.....	5	10.5-12.75	With rising vacuum
6/13/7	6-8	20.0	6-8	12.0	3-5	8.25	½-3	6.5	0-½	5.0	3.5
6/14/8	7-9	20.0	3-8	12.0	2-5	8.0	0-3	6.5	0-½	5.0	3.5
6/15/9	8-10	22.0	7½-10	15.0	4-7	11.0	0-3	7.5	0-½	5.0	3.5
6/16/4	3-5	20.0	3-5	16.0	2-3½	12.0	.....	.....	0-1	7.0	4.0
6/16/8	7-9	20.0	7-9	16.0	5½-7½	12.0	0-2	7.0	0-½	5.5	4.0
6/16/12	11-13	25.0	10-12½	15.0	7-9½	11.5	1-3½	7.5	0-½	5.5	3.5
6/16/13	12-14	25.0	10-12½	15.0	7-9½	11.5	1-3½	7.5	0-½	5.5	3.5
6/17/7	6-8	25.0	6-8	17.0	3-5½	12.0	½-2½	8.0	0-1	5.5	3.5
6/17/9	8-10	20.0	6-8	12.0	3-5	8.25	½-3	6.5	0-½	5.0	3.5
6/18/9	8-10	25.0	7-9	15.0	4½-6½	11.0	½-2½	7.0	0-½	5.0	3.5
6/18/10	9-11	20.0	7½-11	17.0	5½-8½	14.0	1-4	8.5	0-2	6.0	4.0
6/20/7	6-8	25.0	6-8	20.0	5-7	16.0	2½-5	12.0	0-½	5.0	3.5

③ – Units code stamped should be tested on a falling vacuum, units with only vacuum assembly should be tested with rising vacuum.

LUCAS DISTRIBUTOR VACUUM ADVANCE UNIT TEST CODE DATA (Cont.)

Test Code	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	Deg.	In. Hg.	In. of Hg. Below Which No Advance Must Occur
6/20/7 ②	6-8	25.0	6-8	20.0	2½-5	12.0	0-2½	8.0	0-½	0	②
6/20/10	1	6.0-8.0	.....	.....	.....	.....	.....	.....	8	14.0-17.0	With rising vacuum
6/25/12	0	5.0-7.0	6	11.5-14.0	.....	.....	.....	.....	10	18.0-21.5	With rising vacuum
7/12/6	5-7	18.0	3-5	10.0	.....	.....	0-3	8.0	0-½	6.0	4.5
7/12/8	0	6.0-8.0	3	7.5-9.5	.....	.....	.....	.....	6	9.0-11.5	With rising vacuum
7/13/5	4-6	18.0	4-6	13.0	.....	.....	1-3½	9.0	0-½	6.0	4.5
7/13/8	7-9	18.0	7-9	13.0	4½-7½	10.0	0-5	8.0	0-½	6.0	5.0
7/14/8	7-9	20.0	6-8½	13.0	2½-5½	9.0	0-3	7.5	0-½	6.0	4.5
7/14/10	9-11	20.0	8½-10½	13.5	4½-7½	10.0	0-5	8.0	0-½	6.0	5.0
7/15/9	7-10	22.0	6½-9½	14.0	3½-6½	11.0	0-3	8.0	0-½	5.5	3.5
7/15/10 ③	7-9	12.5	.....	.....	.....	.....	.....	.....	4-6	9.5	③
7/15/10	0	6.0-8.0	5	8.5-11.0	.....	.....	.....	.....	8	10.5-14.0	With rising vacuum
7/16/8	7-9	20.0	4½-7	12.0	.....	.....	1-3½	9.0	0-½	6.0	3.0
7/17/10	9-11	25.0	8-10	15.0	5-7	11.5	1-3½	8.5	0-½	6.0	4.5
7/18/8 ③	7-9	18.0	5-8	13.0	.....	.....	0-3	8.0	0-½	5.5	3.0
7/18/8	0	6.0-8.0	.....	.....	4	9.5-12.0	.....	.....	6	12.0-15.0	With rising vacuum
7/18/12 ③	11-13	25.0	9-12	15.5	6-9	11.5	0-4	8.0	0-½	6.0	5.0
7/18/12	6	0-.5	8	0-4.0	11½	6.0-9.0	15½	9.0-12.0	25	11.0-13.0	With rising vacuum
7/20/8	7-9	25.0	6-8½	18.0	4-7	14.0	½-3½	9.0	0-½	4.0	3.0
7/20/12	11-13	25.0	10½-12½	17.0	7-9½	12.0	0-5	8.0	0-½	6.0	5.0
8/14/6.5	5½-7½	20.0	5-7½	15.0	3-6	13.0	½-3	10.5	0-1½	9.0	7.0
8/18/7	6-8	25.0	4½-7½	14.0	.....	.....	1-4½	10.0	0-½	6.0	5.0
8/20/8 ④	7-9	25.0	7-9	20.0	6-8½	18.0	½-3½	10.0	0-1	7.0	6.0
8/20/8	7-9	25.0	7-9	20.0	5½-8½	18.0	3-5½	14.0	0-3	11.0	6.0
8/24/6 ②	6-8	25.0	5-7	16.0	2½-5	12.0	0-½	5.0	0-½	0	②
9/14/5	4-6	20.0	3-6	13.0	.....	.....	½-3	10.5	0-1½	9.0	7.0
9/20/9	8-10	25.0	6½-9	16.5	3-6	12.0	½-3½	10.0	0-½	8.0	7.0
9/24/8	1	9.25-11.25	4	13.0-16.0	.....	.....	.....	.....	6	16.0-20.0	With rising vacuum
10/15/5	4-6	20.0	4-6	15.0	1-3	12.0	.....	.....	0-½	9.5	7.5
11/16/6	½-3	12.0	2½-5	14.0	.....	.....	.....	.....	5-7½	25.0	With rising vacuum
13/19/8	7-9	25.0	7-9	19.0	5-8	17.5	.....	.....	1½-4½	15.0	11.0

② – Single Capsule, Double Acting Vacuum Unit Only.

③ – Units code stamped should be tested on a falling vacuum, units with only vacuum assembly should be tested with rising vacuum.

④ – Applies Only to Dist. 20D8.