

*H. R. Daniels*

AR SERIES ORGAN  
HARMARK FOR  
#11420 HAVEN LUTHERAN CHURCH, HAGERSTOWN, MARYLAND  
SPECIFICATIONS FOR A SERIES 70-9B ORGAN

2/13

GENERAL

(1) ORGAN

|               |                                    |
|---------------|------------------------------------|
| Great Organ   | Exposed Great - Provide enclosure  |
| Swell Organ   | Special design                     |
|               | Layout will be supplied            |
| Wood & Finish | Rift Sawn Oak to customer's sample |
| Action        | Electro-Pneumatic                  |
| Wind Pressure | See Pipe Analysis                  |
| Pitch         | A-440 @ 70°F                       |

(2) CONSOLE

|                |                                    |
|----------------|------------------------------------|
| Cabinet        | Standard design                    |
| Wood & Finish  | Rift Sawn Oak to customer's sample |
| Manuals        | Two and Pedal                      |
| Manual Compass | CC to C4, 61 notes                 |
| Pedal Compass  | CCC to G, 32 notes                 |
| Stop Controls  | Tilting Tablets                    |
| Action         | All Electric                       |

(3) BLOWER (located below swell organ)

|                       |                                          |
|-----------------------|------------------------------------------|
| Type                  | 2-P-2116 - 1/2 HP - 1750 RPM - 6" outlet |
| Wind                  | 480 C.F.M. @ 4"                          |
| Current Specification | 1 Ph - 60 Cy - 208 Volts - 3.6 Amperes   |
| Overall Size          | 2' - 5-3/4" x 1' - 10-3/8" x 2' - 6-1/4" |

(4) POWER UNIT (located in organ)

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Rating                | DC Output - 10-15 Volts - 30 Amperes            |
| Current Specification | AC Input: 1 Ph - 60 Cy - 120 Volts - 10 Amperes |
| Overall Size          | 14-1/2" x 10-3/4" x 7" high                     |

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CONSOLE AND ORGAN

GREAT ORGAN (Exposed)

|    |        |                                                                                                                                                   |           |
|----|--------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1  | 16     | Bourdon-----                                                                                                                                      | 97 pipes  |
| 2  | 8      | Principal -----                                                                                                                                   | 73 pipes  |
| 3  | 8      | Gedackt -----from #1                                                                                                                              | 61 notes  |
| 4  | 8      | Gemshorn -----from #13                                                                                                                            | 61 notes  |
| 5  | 4      | Octave -----from #2                                                                                                                               | 61 notes  |
| 6  | 4      | Gedackt-----from #1                                                                                                                               | 61 notes  |
| 7  | 2      | Flute -----from #1                                                                                                                                | 61 notes  |
| 8  | II     | Sesquialtera T.C.-----                                                                                                                            | 98 pipes  |
| 9  | III-IV | Mixture -----                                                                                                                                     | 183 pipes |
| 10 |        | Chimes---present Deagan 'M' tubes, provide new top F,<br>new electric actions, relays, transformer and volume<br>control, A to F, #22 to #42----- | 21 tubes  |
| 11 |        | Tremolo                                                                                                                                           |           |

SWELL ORGAN (Enclosed)

|    |       |                                                        |          |
|----|-------|--------------------------------------------------------|----------|
| 12 | 8     | Rohrflöte-----                                         | 73 pipes |
| 13 | 8     | Gemshorn -----                                         | 80 pipes |
| 14 | 8     | Gemshorn Celeste TC -----                              | 49 pipes |
| 15 | 4     | Spitzprincipal -----                                   | 73 pipes |
| 16 | 4     | Rohrflöte-----from #12-----                            | 61 notes |
| 17 | 2     | Spitzoctave -----from #15-----                         | 61 notes |
| 18 | 1-1/3 | Larigot -----from #13--(repeat 12 top notes)-----      | 61 notes |
| 19 | 1     | Klein Octave -----from #15--(repeat 12 top notes)----- | 61 notes |
| 20 | 16    | Contre Trompette -----                                 | 80 pipes |
| 21 | 8     | Trompette-----from #19-----                            | 61 notes |
| 22 | 4     | Clairon-----from #19--(repeat 5 top notes)-----        | 61 notes |
| 23 |       | Tremolo                                                |          |

PEDAL ORGAN

|    |    |                                         |          |
|----|----|-----------------------------------------|----------|
| 24 | 16 | Principal-----12 pipes, 20 from #2----- | 32 notes |
| 25 | 16 | Bourdon-----from #1-----                | 32 notes |
| 26 | 8  | Octave -----from #2-----                | 32 notes |
| 27 | 8  | Rohrflöte -----from #12-----            | 32 notes |
| 28 | 4  | Choralbass -----from #2 -----           | 32 notes |
| 29 | 4  | Gedackt-----from #1 -----               | 32 notes |
| 30 | 16 | Contre Trompette--from #20-----         | 32 notes |
| 31 | 4  | Clairon -----from #20-----              | 32 notes |

COUPLERS

|    |                |
|----|----------------|
| 32 | Great to Pedal |
| 33 | Swell to Pedal |
| 34 | Swell to Great |

ADJUSTABLE COMBINATIONS

Pistons No. 1-2-3-4-5-6  
General Cancel

Affecting Full Organ

PEDAL MOVEMENTS

Balanced Expression Pedal - Swell Organ (8 contacts, make to close)  
Balanced Crescendo Pedal with indicator light (green jewel)

ACCESSORIES

Motor and power unit on-off switch (lock type) with indicator light (amber jewel)  
Concave, radiating pedal clavier  
Organ bench with music shelf  
Music rack  
Music rack light  
Pedal light

PIPE ANALYSIS

|  | PITCH | PIPES | SCALE | HALVING | MOUTH | METAL | WIND PRESSURE |
|--|-------|-------|-------|---------|-------|-------|---------------|
|--|-------|-------|-------|---------|-------|-------|---------------|

GREAT ORGAN

|                 |        |     |                                                                                                                                              |     |              |  |        |
|-----------------|--------|-----|----------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------|--|--------|
| Bourdon         | 16     | 97  | CCC to BBB Reg. Manual Bourdon<br><del>CC to BB Reg. Artiste Taper Bass</del><br>TC 68 C 78 21-1/2 2/9 <del>17</del> Wood<br>CC 56 Zinc C.M. |     |              |  | 3-1/2" |
| Principal       | 8      | 73  | 48 18-1/2                                                                                                                                    | 1/4 | 19 Zinc S.M. |  | 3-1/2" |
| Mixture         | III-IV | 183 | See Formula Below                                                                                                                            |     |              |  | 3-1/2" |
| Sesquialtera TC | II     | 98  | See Formula Below                                                                                                                            |     |              |  | 3-1/2" |

SWELL ORGAN

|                  |    |    |                                                              |     |                                            |  |        |
|------------------|----|----|--------------------------------------------------------------|-----|--------------------------------------------|--|--------|
| Flute            | 8  | 73 | 56 21-1/2                                                    | 2/9 | Sm. O.S. Chimneys<br>19-62<br>18 Zinc C.M. |  | 3-1/2" |
| Shorn            | 8  | 80 | CC 56 19-1/2 2/9<br>C 68-1/2 19-1/2 2/9<br>#56 98 17-1/2 1/6 |     | 17 Zinc S.M.                               |  | 3-1/2" |
| Shorn Celeste TC | 8  | 49 | 56-1/2 @ 8' CC 19-1/2 2/9                                    |     | 5 Zinc S.M.                                |  | 3-1/2" |
| Principal        | 4  | 73 | 60-2/3 18-1/2                                                | 1/4 | 7 Zinc C.M.                                |  | 3-1/2" |
| Tre Trompette    | 16 | 80 | 3" CCC to FF half length<br>FF# up full length               |     | D(F) Eschallots<br>Zinc & S.M.             |  | 3-1/2" |

PEDAL ORGAN

|           |    |    |           |     |      |  |        |
|-----------|----|----|-----------|-----|------|--|--------|
| Principal | 16 | 12 | 36 18-1/2 | 1/4 | Zinc |  | 3-1/2" |
|-----------|----|----|-----------|-----|------|--|--------|

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## GREAT III-IV MIXTURE FORMULA

|    |    |    |    |    |
|----|----|----|----|----|
| 15 | 12 | 12 | 12 | 12 |
| 19 | 15 | 15 | 15 |    |
| 22 | 19 | 19 |    |    |
|    | 22 |    |    |    |

|      |       |       |       |       |
|------|-------|-------|-------|-------|
| 1-37 | 38-49 | 50-54 | 55-56 | 57-61 |
|------|-------|-------|-------|-------|

|        |        |        |           |      |
|--------|--------|--------|-----------|------|
| Unison | 47 Sc. | 17-1/2 | 1/4 mouth | S.M. |
| Quint  | 49 Sc. | 17-1/2 | 1/4 mouth | S.M. |

## GREAT II SESQUIALTERA TC FORMULA

|    |    |
|----|----|
| 12 | 10 |
| 17 | 12 |

|       |       |
|-------|-------|
| 13-56 | 57-61 |
|-------|-------|

|       |              |        |           |                                                       |
|-------|--------------|--------|-----------|-------------------------------------------------------|
| 2-2/3 | 74 Sc. @ #13 | 17-1/2 | 2/9 mouth | S.M. (Pull in 6 scales between 50-61)                 |
| 1-3/5 | 82 Sc. @ #13 | 17-1/2 | 1/5 mouth | S.M. (Pull in 6 scales between 45-56)<br>break at 57) |