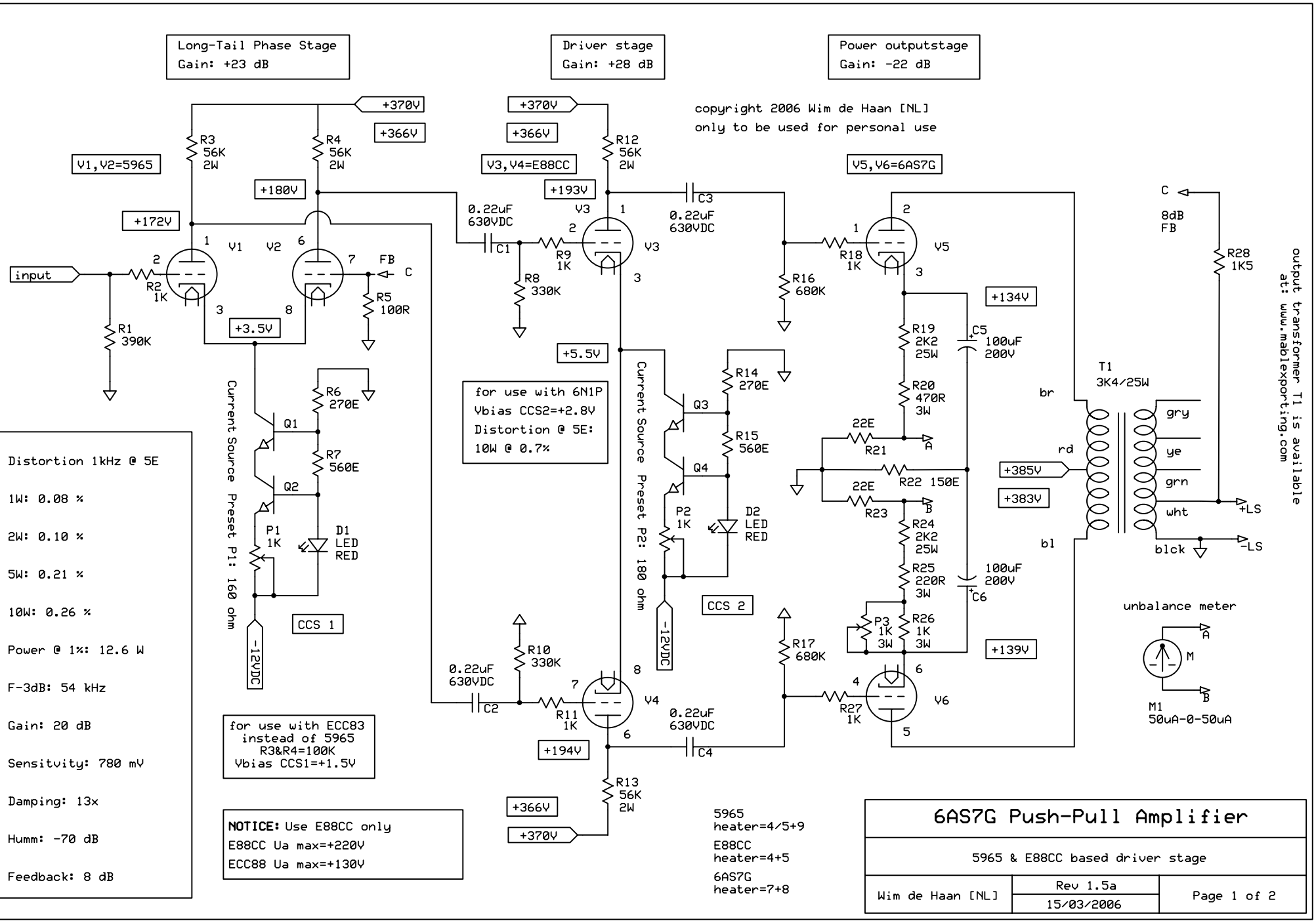
Long-Tail Phase Stage
Gain: +23 dB
Driver stage
Gain: +28 dB
Power outputstage
Gain: -22 dB
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output transformer T1 is available at: www.mablexporting.com
V1,V2=5965
V3,V4=E88CC
V5,V6=6AS7G
+370V
+366V
+180V
+172V
+3.5V
+193V
+5.5V
+134V
+385V
+383V
+139V
+194V
input
R1 390K
R2 1K
R3 56K 2W
R4 56K 2W
R5 100R
R6 270E
R7 560E
R8 330K
R9 1K
R10 330K
R11 1K
R12 56K 2W
R13 56K 2W
R14 270E
R15 560E
R16 680K
R17 680K
R18 1K
R19 2K2 25W
R20 470R 3W
R21 22E
R22 150E
R23 22E
R24 2K2 25W
R25 220R 3W
R26 1K 3W
R27 1K
R28 1K5
P1 1K
P2 1K
P3 1K 3W
C1 0.22uF 630VDC
C2 0.22uF 630VDC
C3 0.22uF 630VDC
C4 0.22uF 630VDC
C5 100uF 200V
C6 100uF 200V
Q1
Q2
Q3
Q4
D1 LED RED
D2 LED RED
V1
V2
V3
V4
V5
V6
FB
C
8dB FB
Current Source Preset P1: 160 ohm
Current Source Preset P2: 180 ohm
-12VDC
CCS 1
CCS 2
T1 3K4/25W
br
rd
bl
gry
ye
grn
wht
blck
+LS
-LS
unbalance meter
M
M1 50uA-0-50uA
for use with 6N1P
Vbias CCS2=+2.8V
Distortion @ 5E:
10W @ 0.7%
for use with ECC83 instead of 5965
R3&R4=100K
Vbias CCS1=+1.5V
Distortion 1kHz @ 5E
1W: 0.08 %
2W: 0.10 %
5W: 0.21 %
10W: 0.26 %
Power @ 1%: 12.6 W
F-3dB: 54 kHz
Gain: 20 dB
Sensitivity: 780 mV
Damping: 13x
Humm: -70 dB
Feedback: 8 dB
NOTICE: Use E88CC only
E88CC Ua max=+220V
ECC88 Ua max=+130V
5965 heater=4/5+9
E88CC heater=4+5
6AS7G heater=7+8
6AS7G Push-Pull Amplifier
5965 & E88CC based driver stage
Wim de Haan [NL]
Rev 1.5a
15/03/2006
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