The group G is isomorphic to the group labelled by [40, 8] in the Small Groups library.
Ordinary character table of $G \cong$ (C10 x C2) : C2:

	$1a$	$2a$	$2b$	$2c$	$5a$	$4a$	$10a$	$10b$	$5b$	$10c$	$10d$	$10e$	$10f$
χ_1	1	1	1	1	1	1	1	1	1	1	1	1	1
χ_2	1	−1	−1	1	1	1	−1	1	1	−1	−1	1	−1
χ_3	1	−1	1	1	1	−1	1	1	1	1	1	1	1
χ_4	1	1	−1	1	1	−1	−1	1	1	−1	−1	1	−1
χ_5	2	0	0	−2	2	0	0	−2	2	0	0	−2	0
χ_6	2	0	−2	2	$E(5)^2+E(5)^3$	0	$-E(5)^2-E(5)^3$	$E(5)^2+E(5)^3$	$E(5)+E(5)^4$	$-E(5)^2-E(5)^3$	$-E(5)-E(5)^4$	$E(5)+E(5)^4$	$-E(5)-E(5)^4$
χ_7	2	0	−2	2	$E(5)+E(5)^4$	0	$-E(5)-E(5)^4$	$E(5)+E(5)^4$	$E(5)^2+E(5)^3$	$-E(5)-E(5)^4$	$-E(5)^2-E(5)^3$	$E(5)^2+E(5)^3$	$-E(5)^2-E(5)^3$
χ_8	2	0	0	−2	$E(5)^2+E(5)^3$	0	$-E(5)^2+E(5)^3$	$-E(5)^2-E(5)^3$	$E(5)+E(5)^4$	$E(5)^2-E(5)^3$	$E(5)-E(5)^4$	$-E(5)-E(5)^4$	$-E(5)+E(5)^4$
χ_9	2	0	0	−2	$E(5)^2+E(5)^3$	0	$E(5)^2-E(5)^3$	$-E(5)^2+E(5)^3$	$E(5)+E(5)^4$	$-E(5)^2+E(5)^3$	$-E(5)+E(5)^4$	$-E(5)-E(5)^4$	$E(5)-E(5)^4$
χ_{10}	2	0	0	−2	$E(5)+E(5)^4$	0	$-E(5)+E(5)^4$	$-E(5)-E(5)^4$	$E(5)^2+E(5)^3$	$E(5)-E(5)^4$	$-E(5)^2+E(5)^3$	$-E(5)^2-E(5)^3$	$E(5)^2-E(5)^3$
χ_{11}	2	0	0	−2	$E(5)+E(5)^4$	0	$E(5)-E(5)^4$	$-E(5)-E(5)^4$	$E(5)^2+E(5)^3$	$-E(5)+E(5)^4$	$E(5)^2-E(5)^3$	$-E(5)^2-E(5)^3$	$-E(5)^2+E(5)^3$
χ_{12}	2	0	2	2	$E(5)^2+E(5)^3$	0	$E(5)^2+E(5)^3$	$E(5)+E(5)^4$	$E(5)^2+E(5)^3$	$E(5)+E(5)^4$	$E(5)+E(5)^4$	$E(5)+E(5)^4$	$E(5)+E(5)^4$
χ_{13}	2	0	2	2	$E(5)+E(5)^4$	0	$E(5)+E(5)^4$	$E(5)+E(5)^4$	$E(5)^2+E(5)^3$	$E(5)+E(5)^4$	$E(5)^2+E(5)^3$	$E(5)^2+E(5)^3$	$E(5)^2+E(5)^3$

Trivial source character table of $G \cong$ (C10 x C2) : C2 at $p = 5$:

Normalisers N_i	N_1					N_2				
p-subgroups of G up to conjugacy in G	P_1					P_2				
Representatives $n_j \in N_i$	$1a$	$2a$	$2b$	$2c$	$4a$	$1a$	$2b$	$2a$	$4a$	$2c$
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+1\cdot\chi_{12}+1\cdot\chi_{13}$	5	1	5	5	1	0	0	0	0	0
$0\cdot\chi_1+1\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	5	−1	−5	5	1	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+1\cdot\chi_{12}+1\cdot\chi_{13}$	5	−1	5	5	−1	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	5	1	−5	5	−1	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+1\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+1\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	10	0	0	−10	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	1	1	1	1	1	1	1	1	1	1
$0\cdot\chi_1+1\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	1	−1	−1	1	1	1	−1	−1	1	1
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	1	1	−1	1	−1	1	−1	1	−1	1
$0\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	1	−1	1	1	−1	1	1	−1	−1	1
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}+0\cdot\chi_{13}$	2	0	0	−2	0	2	0	0	0	−2

$P_1 = Group([()]) \cong 1$
$P_2 = Group([(1, 20, 5, 28, 12)(2, 24, 8, 32, 16)(3, 26, 10, 34, 18)(4, 27, 11, 35, 19)(6, 30, 14, 37, 22)(7, 31, 15, 38, 23)(9, 33, 17, 39, 25)(13, 36, 21, 40, 29)]) \cong$ C5

$N_1 = Group([(1, 2)(3, 13)(4, 7)(5, 32)(6, 9)(8, 28)(10, 40)(11, 38)(12, 24)(14, 39)(15, 35)(16, 20)(17, 37)(18, 36)(19, 31)(21, 34)(22, 33)(23, 27)(25, 30)(26, 29), (1, 3)(2, 6)(4, 9)(5, 10)(7, 13)(8, 14)(11, 17)(12, 18)(15, 21)(16, 22)(19, 25)(20, 26)(23, 29)(24, 30)(27, 33)(28, 34)(31, 36)(32, 37)(35, 39)(38, 40), (1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 21)(16, 23)(18, 25)(20, 27)(22, 29)(24, 31)(26, 33)(28, 35)(30, 36)(32, 38)(34, 39)(37, 40), (1, 5, 12, 20, 28)(2, 8, 16, 24, 32)(3, 10, 18, 26, 34)(4, 11, 19, 27, 35)(6, 14, 22, 30, 37)(7, 15, 23, 31, 38)(9, 17, 25, 33, 39)(13, 21, 29, 36, 40)]) \cong$ (C10 x C2) : C2
$N_2 = Group([(1, 20, 5, 28, 12)(2, 24, 8, 32, 16)(3, 26, 10, 34, 18)(4, 27, 11, 35, 19)(6, 30, 14, 37, 22)(7, 31, 15, 38, 23)(9, 33, 17, 39, 25)(13, 36, 21, 40, 29), (1, 2)(3, 13)(4, 7)(5, 32)(6, 9)(8, 28)(10, 40)(11, 38)(12, 24)(14, 39)(15, 35)(16, 20)(17, 37)(18, 36)(19, 31)(21, 34)(22, 33)(23, 27)(25, 30)(26, 29), (1, 3)(2, 6)(4, 9)(5, 10)(7, 13)(8, 14)(11, 17)(12, 18)(15, 21)(16, 22)(19, 25)(20, 26)(23, 29)(24, 30)(27, 33)(28, 34)(31, 36)(32, 37)(35, 39)(38, 40)]) \cong$ (C10 x C2) : C2