The group G is isomorphic to the group labelled by [24, 5] in the Small Groups library.
Ordinary character table of $G \cong$ C4 x S3:

	$1a$	$2a$	$4a$	$2b$	$3a$	$4b$	$2c$	$4c$	$12a$	$6a$	$4d$	$12b$
χ_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
χ_3	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
χ_5	1	−1	$-E(4)$	−1	1	$E(4)$	1	$E(4)$	$-E(4)$	−1	$-E(4)$	$E(4)$
χ_6	1	−1	$E(4)$	−1	1	$-E(4)$	1	$-E(4)$	$E(4)$	−1	$E(4)$	$-E(4)$
χ_7	1	1	$-E(4)$	−1	1	$-E(4)$	−1	$E(4)$	$-E(4)$	−1	$E(4)$	$E(4)$
χ_8	1	1	$E(4)$	−1	1	$E(4)$	−1	$-E(4)$	$E(4)$	−1	$-E(4)$	$-E(4)$
χ_9	2	0	−2	2	−1	0	0	−2	1	−1	0	1
χ_{10}	2	0	2	2	−1	0	0	2	−1	−1	0	−1
χ_{11}	2	0	$-2*E(4)$	−2	−1	0	0	$2*E(4)$	$E(4)$	1	0	$-E(4)$
χ_{12}	2	0	$2*E(4)$	−2	−1	0	0	$-2*E(4)$	$-E(4)$	1	0	$E(4)$

Trivial source character table of $G \cong$ C4 x S3 at $p = 2$:

Normalisers N_i	N_1		N_2		N_3	N_4	N_5		N_6	N_7	N_8
p-subgroups of G up to conjugacy in G	P_1		P_2		P_3	P_4	P_5		P_6	P_7	P_8
Representatives $n_j \in N_i$	$1a$	$3a$	$1a$	$3a$	$1a$	$1a$	$1a$	$3a$	$1a$	$1a$	$1a$
$1\cdot\chi_1+1\cdot\chi_2+1\cdot\chi_3+1\cdot\chi_4+1\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	8	8	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+1\cdot\chi_{11}+1\cdot\chi_{12}$	8	−4	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+1\cdot\chi_2+1\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	4	4	4	4	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	4	−2	4	−2	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	4	4	0	0	4	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+1\cdot\chi_5+1\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	4	4	0	0	0	4	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	2	2	2	2	0	0	2	2	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	2	−1	2	−1	0	0	2	−1	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	2	2	2	2	2	2	0	0	2	0	0
$1\cdot\chi_1+1\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	2	2	2	2	0	0	0	0	0	2	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}+0\cdot\chi_{12}$	1	1	1	1	1	1	1	1	1	1	1

$P_1 = Group([()]) \cong 1$
$P_2 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24)]) \cong$ C2
$P_3 = Group([(1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23)]) \cong$ C2
$P_4 = Group([(1,7)(2,4)(3,13)(5,22)(6,9)(8,19)(10,24)(11,16)(12,15)(14,23)(17,21)(18,20)]) \cong$ C2
$P_5 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24)]) \cong$ C4
$P_6 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23)]) \cong$ C2 x C2
$P_7 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,6,4,13)(2,3,7,9)(5,21,11,24)(8,18,15,23)(10,22,17,16)(12,14,19,20)]) \cong$ C4
$P_8 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23)]) \cong$ C4 x C2

$N_1 = Group([(1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,5,12)(2,8,16)(3,10,18)(4,11,19)(6,14,21)(7,15,22)(9,17,23)(13,20,24)]) \cong$ C4 x S3
$N_2 = Group([(1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,5,12)(2,8,16)(3,10,18)(4,11,19)(6,14,21)(7,15,22)(9,17,23)(13,20,24)]) \cong$ C4 x S3
$N_3 = Group([(1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24)]) \cong$ C4 x C2
$N_4 = Group([(1,7)(2,4)(3,13)(5,22)(6,9)(8,19)(10,24)(11,16)(12,15)(14,23)(17,21)(18,20), (1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24)]) \cong$ C4 x C2
$N_5 = Group([(1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23), (1,5,12)(2,8,16)(3,10,18)(4,11,19)(6,14,21)(7,15,22)(9,17,23)(13,20,24)]) \cong$ C4 x S3
$N_6 = Group([(1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24)]) \cong$ C4 x C2
$N_7 = Group([(1,6,4,13)(2,3,7,9)(5,21,11,24)(8,18,15,23)(10,22,17,16)(12,14,19,20), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23)]) \cong$ C4 x C2
$N_8 = Group([(1,2)(3,6)(4,7)(5,16)(8,12)(9,13)(10,21)(11,22)(14,18)(15,19)(17,24)(20,23), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24)]) \cong$ C4 x C2