	NUMBER ORIGINAL	NUMBER REPLICA	WEIGHT ORIGINAL	WEIGHT REPLICA	SUB TOTAL ORIGINAL	SUB TOTAL REPLICA	X ORIGINAL	X RELICA	Y ORIGINAL	Y REPLICA	REMARK	M-X ORIGINAL	M-X REPLICA	M-X ORIGINAL	M-Y REPLICA
FRONT SPAR	1	1	202.00	202.00	202.00	202.00	-0.10	-0.10	0.28	0.28		-20.20	-20.20	56.56	56.56
REARSPAR	1	1	95.00	95.00	95.00	95.00	1.21	1.21	0.21	0.21		114.95	114.95	19.95	19.95
RIBS	1	1	118.00	118.00	118.00	118.00	0.46	0.46	0.23	0.23		54.28	54.28	27.14	27.14
WING ASSEMBLY	1	1	98.00	98.00	98.00	98.00	0.41	0.41	0.23	0.23		40.18	40.18	22.54	22.54
COVERING	1	1	124.00	124.00	124.00	124.00	0.51	0.51	0.23	0.23		63.24	63.24	28.52	28.52
PROPELLOR	2	2	125.00	125.00	250.00	250.00	-1.84	-1.84	-0.12	-0.12		-460.00	-460.00	-30.00	-30.00
PROPELLOR REINFORCEMENTS	2	2	3.00	3.00	6.00	6.00	-1.79	-1.79	-0.12	-0.12		-10.74	-10.74	-0.72	-0.72
	2	2	472.50	430.00	945.00	860.00	-1.22	-1.32	-0.12	-0.12		-1152.90	-1135.20	-113.40	-103.20
STARTER ECLIPSE	2	2	13.00	13.00	26.00	26.00	-0.69	-0.79	-0.12	-0.12		-17.94	-20.54	-3.12	-3.12
INDUCTION SYSTEM	2	2	1.00	1.00	2.00	2.00	-1.14	-1.14	0.38	0.38		-2.28	-2.28	0.76	0.76
EXHAUST	1	1	86.00	64.50	86.00	64.50	-1.44	-1.44	-0.12	-0.12	DUMMY	-123.84	-92.88	-10.32	-7.74
EXHAUST R1340	0	2	25.00	25.00	0.00	50.00	-1.00	-1.00	-0.12	-0.12		0.00	-50.00	0.00	-6.00
FUEL TANKS	2	2	40.00	40.00	80.00	80.00	0.53	0.53	0.23	0.23		42.40	42.40	18.40	18.40
FUEL LINES	1	1	5.00	2.50	5.00	2.50	-0.49	-0.49	0.14	0.14		-2.45	-1.23	0.70	0.35
ENGINE DETAILS	1	1	33.00	16.50	33.00	16.50	-0.74	-0.74	0.23	0.23		-24.42	-12.21	7.59	3.80
OIL TANKS	2	2	7.00	7.00	14.00	14.00	-0.29	-0.29	0.23	0.23		-4.06	-4.06	3.22	3.22
OIL LINES	1	1	10.00	5.00	10.00	5.00	-0.69	-0.69	0.18	0.18		-6.90	-3.45	1.80	0.90
ENGINE FILTER	2	0	1.00	2.00	2.00	0.00	-0.49	-0.49	-0.12	-0.12		-0.98	0.00	-0.24	0.00
OIL COOLER	2	2	11.50	11.50	23.00	23.00	-0.76	-0.76	0.38	0.38		-17.48	-17.48	8.74	8.74
ENGINE MOUNTS	2	2	34.50	34.50	69.00	69.00	-0.59	-0.59	-0.12	-0.12		-40.71	-40.71	-8.28	-8.28
COWLING	2	2	23.00	23.00	46.00	46.00	-0.84	-0.84	-0.12	-0.12		-38.64	-38.64	-5.52	-5.52
COOLING GILLS	2	2	34.50	34.50	69.00	69.00	-0.87	-0.87	-0.12	-0.12		-60.03	-60.03	-8.28	-8.28
ENGINE WALL	2	2	8.50	8.50	17.00	17.00	-0.39	-0.39	-0.22	-0.22		-6.63	-6.63	-3.74	-3.74
FUSELAGE FRONT	1	1	30.00	30.00	30.00	30.00	-1.29	-1.29	0.14	0.14		-38.70	-38.70	4.20	4.20
FUSELAGE CENTER	1	1	110.00	110.00	110.00	110.00	0.56	0.56	0.28	0.28		61.60	61.60	30.80	30.80
													0.00		0.00
BOM DOORS	2	2	9.00	9.00	18.00	18.00	0.61	0.61	-0.42	-0.42		10.98	10.98	-7.56	-7.56
LANDING GEAR DOORS	4	4	5.75	5.75	23.00	23.00	0.41	0.41	-0.62	-0.62		9.43	9.43	-14.26	-14.26
TURNOVER FRAME	1	1	11.00	11.00	11.00	11.00	0.56	0.56	0.63	0.63		6.16	6.16	6.93	6.93
SEAT PILOOT	1	1	10.50	10.50	10.50	10.50	-0.39	-0.39	0.08	0.08		-4.10	-4.10	0.84	0.84
FLOOR COCKPIT	1	1	3.50	3.50	3.50	3.50	-0.89	-0.89	-0.17	-0.17		-3.12	-3.12	-0.60	-0.60
SEAT MARCONIST	1	1	5.50	5.50	5.50	5.50	0.91	0.91	0.03	0.03		5.01	5.01	0.16	0.16
FLOOR CABIN	1	1	8.50	8.50	8.50	8.50	0.46	0.46	-0.19	-0.19		3.91	3.91	-1.62	-1.62
WINDOWS AND DOORS	1	1	18.00	18.00	18.00	18.00	1.01	1.01	0.83	0.83		18.18	18.18	14.94	14.94
	1	1	15.50	15.50	15.50	15.50	2.61	2.61	-0.22	-0.22		40.46	40.46	-3.41	-3.41
COCKPIT DOORS	1	1	15.50	15.50	15.50	15.50	2.21	2.21	0.28	0.28		34.26	34.26	4.34	4.34
COCKPIT ROOF	1	1	15.00	15.00	15.00	15.00	0.41	0.41	0.83	0.83		6.15	6.15	12.45	12.45
COCKPT SKIN PANELS	1	1	30.00	30.00	30.00	30.00	-1.99	-1.99	-0.12	-0.12		-59.70	-59.70	-3.60	-3.60
AILERONS	2	2	12.50	12.50	25.00	25.00	1.21	1.21	0.58	0.58		30.25	30.25	14.50	14.50
ELEVATOR	1	1	28.00	28.00	28.00	28.00	7.66	7.66	0.18	0.18		214.48	214.48	5.04	5.04
HORIZONTAL STABILO	1	1	60.00	60.00	60.00	60.00	7.11	7.11	0.18	0.18		426.60	426.60	10.80	10.80
RUDDERS	2	2	6.75	6.75	13.50	13.50	7.81	7.81	0.76	0.76		105.44	105.44	10.26	10.26
VERTICAL STABILO	2	2	15.00	15.00	30.00	30.00	7.26	7.26	0.68	0.68		217.80	217.80	20.40	20.40
TAILBOOMS	2	2	47.50	47.50	95.00	95.00	4.11	4.11	-0.12	-0.12		390.45	390.45	-11.40	-11.40
FLAPS	1	1	43.50	43.50	43.50	43.50	1.81	1.81	0.28	0.28		78.74	78.74	12.18	12.18
STEERING SYSTEM COCKPIT	1	1	8.00	8.00	8.00	8.00	-0.95	-0.95	0.14	0.14		-7.60	-7.60	1.12	1.12
STEERING SYSTEM	1	1	37.00	37.00	37.00	37.00	3.41	3.41	-0.02	-0.02		126.17	126.17	-0.74	-0.74
	1	1	10.00	10.00	10.00	10.00	-1.19	2.41	-0.62	-0.02		-11.90	24.10	-6.20	-0.20
PARTS LANGINGGEAR	1	1	31.00	31.00	31.00	31.00	0.61	0.61	-0.29	-0.29		18.91	18.91	-8.99	-8.99
TAILWHEEL	1	1	17.00	25.00	17.00	25.00	7.16	7.16	-0.27	-0.27		121.72	179.00	-4.59	-6.75
INSTRUMENTS	1	1	24.00	30.00	24.00	30.00	-1.17	-1.17	0.48	0.48		-28.08	-35.10	11.52	14.40
HYDRAULIC SYSTEM	1	1	75.00	75.00	75.00	75.00	0.11	0.11	-0.22	-0.22		8.25	8.25	-16.50	-16.50
REAR GUN TURRET	1	1	20.00	20.00	20.00	20.00	3.21	3.21	0.28	0.28		64.20	64.20	5.60	5.60
INTERCOM FRONT	1	1	1.70	1.70	1.70	1.70	-0.95	-0.95	0.33	0.33		-1.62	-1.62	0.56	0.56
INTERCOM CENTRE	1	1	1.70	1.70	1.70	1.70	0.60	0.60	0.33	0.33		1.02	1.02	0.56	0.56
INTERCOM AFT	1	1	1.70	1.70	1.70	1.70	2.05	2.05	0.33	0.33		3.49	3.49	0.56	0.56
FLARE GUN	1	1	4.90	6.60	4.90	6.60	1.70	1.70	0.33	0.33		8.33	11.22	1.62	2.18
MAO HOLDER	1	1	1.00	1.00	1.00	1.00	2.10	2.10	0.33	0.33		2.10	2.10	0.33	0.33
OXYGEN MASK PILOT	1	1	8.00	2.00	8.00	2.00	0.10	0.10	0.18	0.18	DUMMY	0.80	0.20	1.44	0.36
OXYGEN MASK MARCONIST	1	1	8.00	2.00	8.00	2.00	-0.20	-0.20	0.18	0.18	DUMMY	-1.60	-0.40	1.44	0.36
OXYGEN MASK GUNNER	1	1	8.00	2.00	8.00	2.00	1.50	1.50	0.18	0.18	DUMMY	12.00	3.00	1.44	0.36
PARACHUTE PILOT	1	1	10.50	6.50	10.50	6.50	-0.30	-0.30	-0.37	-0.37		-3.15	-1.95	-3.89	-2.41
PARACHUTE MARCONIST	1	1	10.50	6.50	10.50	6.50	1.05	1.05	-0.37	-0.37		11.03	6.83	-3.89	-2.41
PARACHUTE GUNNER	1	1	10.50	6.50	10.50	6.50	2.55	2.55	-0.37	-0.37		26.78	16.58	-3.89	-2.41
FIRE EXSTINGUISHER MARCONIST	1	1	3.00	3.90	3.00	3.90	1.25	1.25	0.08	0.08		3.75	4.88	0.24	0.31
FIRE EXSTINGUISHER GUNNER	1	1	3.00	3.90	3.00	3.90	2.45	2.45	0.08	0.08		7.35	9.56	0.24	0.31
FIRE EXTINGUISHER ENGINES	1	1	7.00	7.00	7.00	7.00	-0.29	-0.29	-0.22	-0.22		-2.03	-2.03	-1.54	-1.54
BATTERY	1	1	37.00	40.00	37.00	40.00	-0.54	-0.54	-0.37	-0.37		-19.98	-21.60	-13.69	-14.80
TUBING ELECTRA	1	1	41.00	41.00	41.00	41.00	0.21	0.21	0.03	0.03		8.61	8.61	1.23	1.23
PARTS ELECTRA	1	1	13.00	13.00	13.00	13.00	-0.29	-0.29	0.14	0.14		-3.77	-3.77	1.82	1.82
NAVIGATION LIGHTS	1	1	5.00	5.00	5.00	5.00	0.41	0.41	0.55	0.55		2.05	2.05	2.75	2.75
GENERATORS	2	1	15.00	12.00	30.00	12.00	-0.79	-0.79	0.04	0.04		-23.70	-9.48	1.20	0.48
PARTS RADIO EQUIPMENT	1	1	69.00	10.00	69.00	10.00	0.18	0.18	0.58	0.58	DUMMY	12.42	1.80	40.02	5.80
BROWNING MACHINEGUNS	8	2	12.00	1.00	96.00	2.00	-1.69	-1.79	0.14	0.14	DUMMY	-162.24	-3.58	13.44	0.28
MACHINEGUN MOUNTING	1	0	95.00	95.00	95.00	0.00	-1.69	-1.69	0.14	0.14		-160.55	0.00	13.30	0.00
DUMMY LOAD		1		180.00		180.00		-2.13		0.14			-382.50		25.20
MACHINE GUN FIRING SYSTEM	1	0	40.00	40.00	40.00	0.00	-1.79	-1.79	-0.07	-0.07		-71.60	0.00	-2.80	0.00
MACHINE GUN REAR	1	1	10.00	3.00	10.00	3.00	2.86	2.86	0.08	0.08	DUMMY	28.60	8.58	0.80	0.24
	1	1	16.00	16.00	16.00	16.00	2.86	2.86	0.08	0.08		45.76	45.76	1.28	1.28
	1	1	7.00	1.00	7.00	1.00	2.86	2.86	0.68	0.68	DUMMY	20.02	2.86	4.76	0.68
BOMBS RACK	1	0	30.00	30.00	30.00	0.00	0.41	0.41	-0.22	-0.22		12.30	0.00	-6.60	0.00
BOMB RELEASE MECHANISM	1	0	15.00	15.00	15.00	0.00	1.89	1.89	0.23	0.23		28.35	0.00	3.45	0.00
BOMB SIGHT	1	0	10.00	10.00	10.00	0.00	1.98	1.98	-0.07	-0.07		19.80	0.00	-0.70	0.00
MAIN WHEEL	2	2	41.50	41.50	83.00	83.00									
MAIN WHEEL STRUT	2	2	42.50	48.50	85.00	97.00									
BRACE STRUT FWD	2	2	5.00	5.00	10.00	10.00									
BRACE STRUT AFT	2	2	15.00	15.00	30.00	30.00									
EMPTY WEIGHT					**3953**	**3679**						**-24.90**	**-27.44**	**154.42**	**129.72**
PILOT	1	1	80.00	100.00	80.00	100.00	-0.30	-0.30	2.26	2.26		-24.00	-30.00	180.80	226.00
MARCONIST	1	1	80.00	100.00	80.00	100.00	1.05	1.05	2.26	2.26		84.00	105.00	180.80	226.00
GUNNER	1	1	80.00	100.00	80.00	100.00	2.55	2.55	2.26	2.26		204.00	255.00	180.80	226.00
OIL	55	60	0.91	0.91	50.05	54.60	-0.29	-0.29	2.25	2.25		-14.51	-15.83	112.61	122.85
FUEL	664	400	0.73	0.73	485.00	292.00	0.53	0.53	2.20	2.20		257.05	154.76	1067.00	642.40
AMMUNITION FRONT	4000	0	0.028	0.028	112.00	0.00	0.53	0.53	2.20	2.20		59.36	0.00	246.40	0.00
AMMUNITION REAR	6	6	3.50	5.00	21.00	30.00	0.53	0.53	2.20	2.20	DUMMY	11.13	15.90	46.20	66.00
BOMBS	0	0	0.00	0.00	0.00	0.00	0.53	0.53	2.20	2.20		0.00	0.00	0.00	0.00
					ORIG.	REPLICA						ORIG.	REPLICA	ORIG.	REPLICA
TOTAL WEIGHT					**4861**	**4355**						**552.12**	**457.39**	**2169.03**	**1638.97**

WEIGHT DIFFERENCE	**-9.27%**

CENTRE OF GRAVITY

GEAR UP	X =	0.127	METER
GEAR DOWN	X =	0.095	METER

GEAR UP PERCENTAGE	23.26%	MAXIMUM 23.5 %
GEAR DOWN PERCENTAGE	21.90%	MINIMUM 17.0 %

	GEAR UP				GEAR DOWN				
	X	Y	Mx	My	X	Y		Mx	My
MAIN WHEEL	0.704	-0.220	58.43	-18.26	-0.375	-1.174		-31.13	-97.44
MAIN WHEEL STRUT	0.105	-0.425	10.19	-41.23	-0.375	-1.104		-36.38	-107.09
BRACE STRUT FWD	0.287	0.081	2.87	0.81	-0.014	-1.124		-0.14	-11.24
BRACE STRUT AFT	0.745	0.126	22.35	3.78	0.736	-0.580		22.08	-17.40
			93.84	**-54.90**				**-45.56**	**-233.17**

REPLICA

CENTRE OF GRAVITY

GEAR UP	X =	0.133	
GEAR DOWN	X =	0.105	

GEAR UP PERCENTAGE	23.52%	MAXIMUM 23.5 %
GEAR DOWN PERCENTAGE	22.35%	MINIMUM 17.0 %

	GEAR UP				GEAR DOWN				
	X	Y	Mx	My	X	Y		Mx	My
MAIN WHEEL	0.704	-0.220	58.43	-18.26	-0.375	-1.174		-31.13	-97.44
MAIN WHEEL STRUT	0.105	-0.425	8.93	-36.13	-0.375	-1.104		-31.88	-93.84
BRACE STRUT FWD	0.287	0.081	2.87	0.81	-0.014	-1.124		-0.14	-11.24
BRACE STRUT AFT	0.745	0.126	22.35	3.78	0.736	-0.580		22.08	-17.40
			92.58	**-49.80**				**-41.06**	**-219.92**

ORIGINAL