

Таблица выбора приемов устранения технических противоречий

ПРИЛОЖЕНИЕ 7

Что нужно изменить по условиям задачи	Что ухудшается при изменении	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
		Вес подвижного объекта	Вес неподвижного объекта	Длина подвижного объекта	Длина неподвижного объекта	Площадь подвижного объекта	Площадь неподвижного объекта	Объем подвижного объекта	Объем неподвижного объекта	Скорость	Сила	Напряжение, давление	Форма	Устойчивость состава объекта	Прочность	Время действия подвижного объекта	Время действия неподвижного объекта	Температура	Освещенность	Затраты энергии подвижным объектом	Затраты энергии неподвижным объектом	Мощность	Потери энергии	Потери вещества	Потери информации	Потери времени	Количество вещества	Надежность	Точность измерения	Точность изготовления	Вредные факторы, действующие на объект	Вредные факторы самого объекта	Удобство изготовления	Удобство эксплуатации	Удобство ремонта	Адаптация, универсальность	Сложность устройства	Сложность контроля и измерения	Степень автоматизации	Производительность	
01. Вес подвижного объекта		—	15, 8, 29, 34	—	29, 17, 38, 34	—	29, 2, 40, 28	—	2, 8, 15, 38	8, 10, 18, 37	10, 36, 37, 40	10, 14, 35, 40	1, 35, 39, 38	28, 27, 18, 40	5, 34, 31, 35	—	6, 29, 4, 38	19, 1, 32	35, 12, 34, 31	—	12, 36, 18, 31	6, 2, 34, 19	5, 35, 3, 31	10, 24, 35, 30	10, 35, 20, 28	3, 26, 18, 31	3, 11, 1, 27	28, 27, 26, 18	28, 35, 26, 18	22, 21, 18, 27	22, 35, 31, 39	27, 28, 1, 36	35, 3, 2, 24	2, 27, 28, 11	29, 5, 15, 8	26, 30, 36, 34	28, 29, 26, 32	26, 35, 18, 19	35, 3, 24, 37	1	
02. Вес неподвижного объекта		—	—	10, 1, 29, 35	—	35, 30, 13, 2	—	5, 35, 14, 2	—	8, 10, 19, 35	13, 29, 10, 18	13, 10, 29, 14	26, 39, 1, 40	28, 2, 10, 27	—	2, 27, 19, 6	28, 19, 32, 22	35, 19, 32	—	18, 19, 28, 1	15, 19, 18, 22	18, 19, 28, 15	5, 8, 13, 30	10, 15, 35	10, 20, 35, 26	19, 6, 18, 26	10, 28, 8, 3	18, 26, 28	10, 1, 35, 27	2, 19, 22, 37	35, 22, 1, 39	28, 1, 9, 6, 13	2, 27, 28, 11	19, 15, 29	1, 10, 26, 39	25, 28, 17, 15	2, 26, 18, 19	1, 28, 15, 35	2		
03. Длина подвижного объекта	8, 15, 29, 34	—	—	—	15, 17, 4	—	7, 17, 4, 35	—	13, 4, 8	17, 10, 4	1, 8, 35	1, 8, 10, 29	1, 8, 15, 34	8, 35, 29, 34	19	—	10, 15, 19	32	8, 35, 24	—	1, 35	7, 2, 35, 39	4, 29, 23, 10	1, 24	15, 2, 29	29, 35	10, 14, 29, 40	28, 32, 4	10, 28, 29, 37	1, 15, 17, 24	17, 15	1, 29, 17	15, 29, 35, 4	1, 28, 10	14, 15, 1, 16	1, 19, 26, 24	35, 1, 26, 24	17, 24, 26, 16	14, 4, 28, 29	3	
04. Длина неподвижного объекта	—	35, 28, 40, 29	—	—	—	17, 7, 10, 40	—	35, 8, 2, 14	—	28, 10	1, 14, 35	13, 14, 15, 7	39, 37, 35	15, 14, 28, 26	—	1, 40, 35	3, 35, 38, 18	3, 25	—	—	12, 8	6, 28	10, 28, 24, 35	24, 26	30, 29, 14	—	15, 29, 28	32, 28, 3	2, 32, 10	1, 18	—	15, 17, 27	2, 25	3	1, 35	1, 26	26	—	30, 14, 7, 26	4	
05. Площадь подвижного объекта	2, 17, 29, 4	—	14, 15, 18, 4	—	—	—	7, 14, 17, 4	—	29, 30, 4, 34	19, 30, 35, 2	10, 15, 36, 28	5, 34, 29, 4	11, 2, 13, 39	3, 15, 40, 14	6, 3	—	2, 15, 16	15, 32, 19, 13	19, 32	—	19, 10, 32, 18	15, 17, 30, 26	10, 35, 2, 39	30, 26	26, 4	29, 30, 6, 13	29, 9	26, 28, 32, 3	2, 32	22, 33, 28, 1	17, 2, 18, 39	13, 1, 26, 24	15, 17, 13, 16	15, 13, 10, 1	15, 30	14, 1, 13	2, 36, 26, 18	14, 30, 28, 23	10, 26, 34, 2	5	
06. Площадь неподвижного объекта	—	30, 2, 14, 18	—	26, 7, 9, 39	—	—	—	—	—	1, 18, 35, 36	10, 15, 36, 37	—	2, 38	40	—	2, 10, 19, 30	35, 39, 38	—	—	—	17, 32	17, 7, 30	10, 14, 18, 39	30, 16	10, 35, 4, 18	2, 18, 40, 4	32, 35, 4	26, 28, 32, 3	2, 29, 18, 36	27, 2, 39, 35	22, 1, 22, 1	40, 16	16, 4	16	15, 16	1, 18, 36	2, 35, 38	23	10, 15, 17, 7	6	
07. Объем подвижного объекта	2, 26, 29, 40	—	1, 7, 35, 4	1, 7, 4, 17	—	—	—	—	29, 4, 38, 34	15, 35, 36, 37	6, 35, 36, 37	1, 15, 29, 4	28, 10, 1, 39	9, 14, 15, 7	6, 35, 4	—	34, 39, 10, 18	10, 13, 2	35	—	35, 6, 13, 18	7, 15, 13, 16	36, 39, 34, 10	2, 22	2, 6, 34, 10	29, 30, 7	14, 1, 40, 11	25, 26, 28	25, 28, 2, 16	22, 21, 27, 35	17, 2, 40, 1	29, 1, 40	15, 13, 30, 12	10	15, 29	26, 1	29, 26, 4	35, 34, 16, 24	10, 6, 2, 34	7	
08. Объем неподвижного объекта	—	35, 10, 19, 14	19, 14	35, 8, 2, 14	—	—	—	—	—	2, 18, 37	24, 35	7, 2, 35	34, 28, 35, 40	9, 14, 17, 15	—	35, 34, 38	35, 6, 4	—	—	—	30, 6	—	10, 39, 35, 34	—	35, 16	35, 3	2, 35, 16	—	35, 10, 25	34, 39, 19, 27	30, 18, 35, 4	35	—	1	—	1, 31	2, 17, 26	—	35, 37, 10, 2	8	
09. Скорость	8, 28, 13, 38	—	13, 14, 8	—	29, 30, 34	—	7, 29, 34	—	—	13, 28, 15, 19	6, 18, 38, 40	35, 15, 18, 34	28, 33, 1, 18	8, 3, 26, 14	3, 19, 35, 5	—	28, 30, 36, 2	10, 13, 19	8, 15, 35, 38	—	19, 35, 38, 2	14, 20, 19, 35	10, 13, 28, 38	13, 26	—	10, 19, 29, 38	11, 35, 27, 28	28, 32, 1, 24	10, 28, 32, 35	1, 28, 35, 23	2, 24, 35, 21	35, 13, 8, 1	32, 28, 13, 12	34, 2, 28, 27	15, 10, 26	10, 28, 4, 34	3, 34, 27, 16	10, 18	—	9	
10. Сила	8, 1, 37, 18	18, 13, 1, 28	17, 19, 9, 36	28, 10, 15	19, 10, 15	1, 18, 36, 37	15, 9, 12, 37	2, 36, 18, 37	13, 28, 15, 12	—	18, 21, 11	10, 35, 40, 34	35, 10, 14, 27	35, 10, 14, 27	19, 2	—	35, 10, 21	—	19, 17, 10, 37	1, 16, 36, 37	19, 35, 18, 37	14, 15, 40, 5	8, 35, 40, 5	—	10, 37, 36	14, 29, 18, 36	3, 35, 13, 21	35, 10, 23, 24	28, 29, 37, 36	1, 35, 40, 18	13, 3, 36, 24	15, 37, 18, 1	1, 28, 3, 25	15, 1, 11	15, 17, 18, 20	26, 35, 10, 18	36, 37, 10, 19	2, 35, 35, 37	3, 28, 35, 37	10	
11. Напряжение, давление	10, 36, 37, 40	13, 29, 10, 18	35, 10, 36, 10	35, 1, 14, 16	10, 15, 36, 28	10, 15, 36, 37	6, 35, 10	35, 24	6, 35	36, 35, 21	—	35, 3, 15, 10	2, 35, 33, 2, 40	9, 18, 3, 40	19, 3, 27	—	35, 39, 19, 2	—	14, 24, 10, 37	—	10, 35, 14	2, 36, 25	10, 36, 3, 37	—	37, 36, 4	10, 14, 36	6, 28, 19, 35	3, 35, 25	2, 2, 37	2, 23, 37	1, 35, 16	11	2, 2	35	19, 1, 35	2, 36, 37	35, 24, 10, 18	10, 14, 35, 37	11		
12. Форма	8, 10, 29, 40	15, 10, 26, 3	29, 34, 5, 4	13, 14, 10, 7	5, 34, 4, 10	—	14, 4, 15, 22	7, 2, 35	35, 15, 34, 18	35, 10, 37, 40	34, 15, 10, 14	—	33, 1, 18, 4	30, 14, 10, 40	14, 26, 9, 25	—	22, 14, 19, 32	13, 15, 32	2, 26, 34, 14	—	4, 6, 2	14	35, 29, 3, 5	—	14, 10, 34, 17	36, 22	10, 40, 16	28, 32, 1	32, 30, 40	22, 1, 2, 35	35, 1, 17, 28	1, 32, 17, 26	32, 15, 26	2, 13, 1, 29	1, 15, 29	16, 29, 1, 28	15, 13, 39	15, 1, 32	17, 26, 34, 10	12	
13. Устойчивость состава объекта	21, 35, 2, 39	26, 39, 1, 40	13, 15, 1, 28	37	2, 11, 13	39	28, 10, 19, 39	35, 40	33, 15, 28, 18	10, 35, 21, 16	2, 35, 40	22, 1, 18, 4	—	17, 9, 15	13, 27, 10, 35	39, 3, 35, 23	32, 1, 35	32, 3, 27, 15	13, 19	27, 4, 29, 18	32, 35, 27, 31	14, 2, 39, 6	2, 14, 30, 40	—	35, 27, 35	15, 32, 35	—	13	18	35, 24, 18, 30	35, 19, 32	2, 35, 10, 16	35, 30, 10, 16	35, 30, 10, 16	2, 35, 22, 26	35, 32, 22	35, 23	1, 8, 35, 40	13		
14. Прочность	1, 8, 40, 15	40, 26, 27, 1	1, 15, 8, 35	15, 14, 28, 26	3, 34, 40, 29	9, 40, 28	10, 15, 14, 7	9, 14, 17, 15	8, 13, 26, 14	10, 18, 3, 14	10, 3, 18, 40	10, 30, 35, 40	13, 17, 35	27, 3, 26	—	30, 10, 40	35, 19	19, 35, 10	35	10, 26, 35, 28	35	35, 28, 31, 40	—	29, 3, 28, 10	29, 10, 27	11, 3	3, 27, 16	3, 27	18, 35, 37, 1	15, 35, 22, 2	11, 3, 10, 32	32, 40, 28, 2	27, 11, 3	15, 3, 32	2, 13, 28	27, 3, 15, 40	15	29, 35, 10, 14	14		
15. Время действия подвижного объекта	19, 5, 34, 31	—	2, 19, 9	—	3, 17, 19	—	10, 2, 19, 30	—	3, 35, 5	19, 2, 16	19, 3, 27	14, 26, 28, 25	13, 3, 10	27, 3, 10	—	19, 35, 39	28, 6, 35, 18	—	—	—	19, 10, 35, 38	—	28, 27, 3, 18	10	20, 10, 28, 18	3, 35, 10, 40	11, 2, 13	3	3, 27, 16, 40	22, 15, 33, 28	21, 39, 16, 22	27, 1, 4, 12	29, 10, 27	1, 35, 13	10, 4, 18	19, 29, 39, 35	6, 10	35, 17, 19	15		
16. Время действия неподвижного объекта	—	6, 27, 19, 16	—	1, 40, 35	—	—	—	—	—	—	—	—	—	—	—	—	19, 18, 36, 40	—	—	—	16	—	27, 16, 18, 38	10	28, 20, 10, 16	3, 35, 31	34, 27, 6, 40	10, 26, 24	—	17, 1, 40, 33	22	35, 10	1	1	2	—	25, 34, 6, 35	1	20, 10, 16, 38	16	
17. Температура	36, 22, 6, 38	22, 35, 32	15, 19, 9	15, 19, 9	3, 35, 39, 18	35, 38, 40, 18	34, 39, 40, 18	35, 6, 4	2, 28, 36, 30	35, 10, 3, 21	35, 39, 19, 2	14, 22, 19, 32	1, 35, 32, 32	10, 30, 22, 40	19, 13, 39	19, 18, 36, 40	—	32, 30, 21, 16	19, 15, 3, 17	—	2, 14, 17, 25	21, 17, 35, 38	21, 36, 39, 31	—	35, 28, 21, 18	3, 17, 30, 39	19, 35, 3, 10	32, 19, 24	24	22, 33, 35, 2	22, 35, 2, 24	26, 27, 34, 4	26, 27, 10, 16	4, 10, 16	2, 18, 27	2, 17, 16	3, 27, 35, 31	26, 2, 19, 16	15, 28, 35	17	
18. Освещенность	19, 1, 32	2, 35, 32	19, 32, 16	—	19, 32, 26	—	2, 13, 10	—	10, 13, 19	25, 19, 6	—	32, 30, 32	35, 19, 32	2, 19, 6	—	—	32, 35, 19	—	32, 1, 19	32, 35, 1, 15	32	19, 16, 1, 6	13, 1	1, 6	19, 1, 26, 17	1, 19	—	11, 15, 32	3, 32	15, 19, 32	35, 19, 32, 39	19, 35, 28, 26	28, 26, 19	15, 17, 13, 16	15, 1, 19	6, 32, 13	32, 15, 10	2, 26, 16	2, 25, 16	18	
19. Затраты энергии подвижным объектом	12, 18, 28, 31	—	12, 28	—	15, 19, 25	—	35, 13, 18	—	8, 15, 35	16, 26, 21, 2	23, 14, 25	12, 2, 29	19, 13, 17, 24	5, 19, 9, 35	28, 35, 6, 18	—	19, 24, 3, 14	2, 15, 19	—	—	6, 19, 37, 18	12, 22, 15, 24	35, 24, 18, 5	—	35, 38, 19, 18	34, 23, 16, 18	19, 21, 11, 27	3, 1, 32	—	1, 35, 6, 27	2, 35, 6, 30	19, 35	1, 15, 17, 28	15, 17, 13, 16	2, 29, 27, 28	35, 38	32, 2	12, 28, 35	19		
20. Затраты энергии неподвижным объектом	—	19, 9, 6, 27	—	—	—	—	—	—	—	—	36, 37	—	—	27, 4, 29, 18	35	—	—	19, 2, 35, 32	—	—	—	—	28, 27, 18, 31	—	—	—	3, 35, 31	10, 26, 23	—	10, 2, 22, 37	19, 22, 18	1, 4	—	—	—	—	—	19, 35, 16, 25	—	1, 6	20
21. Мощность	8, 36, 38, 31	19, 26, 17, 27	1, 10, 35, 37	—	19, 38	17, 32, 13, 38	35, 6, 38	30, 6, 25	15, 35, 2	26, 2, 36, 35	22, 10, 35	29, 14, 3, 40	35, 32, 15, 31	26, 10, 10, 38	19, 35, 10, 38	16	2, 14, 17, 25	16, 6, 19, 37	16, 6, 19, 37	—	—	10, 35, 38	28, 37, 18, 38	10, 19	35, 20, 10, 6	4, 34, 19	19, 24, 26, 31	32, 15, 2	19, 22, 31, 2	2, 35, 18	26, 10, 34	26, 35, 10	35, 2, 10, 34	19, 17, 34	20, 19, 30, 34	19, 35, 16	28, 2, 17	28, 35, 34	21		
22. Потери энергии	15, 6, 19, 28	19, 6, 18, 9	7, 2, 6, 13	6, 38, 7	15, 26, 17, 30	17, 7, 13, 38	7, 18, 23	7	16, 35, 38	36,																															