International Aerobatic Commission

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19 October 2018

To:

President and Delegates,
CIVA Meeting 2018

Known Analysis Working Group Report for 2019 Season

Following a request for proposals, sent to all Delegates earlier in the year, a total of 19 Free Known Programme compulsory figures proposals has been received. These break down as:

Yak52/Intermediate - 6 proposals.
Advanced - 7 proposals.
Unlimited - 6 proposals.

Copies of all the proposals are attached.

The consensus view of the Known Analysis Working Group ranks the following options as first, second and third choices in each category. CIVA Delegates are requested to bear these recommendations in mind when voting to choose the figure groups that will be mandatory in 2019.

Intermediate:
1. Free Known A - 2. Free Known C - 3. Free Known D.
Advanced:
1. Free Known C - 2. Free Known A - 3. Free Known G.
Unlimited:
1. Free Known A; 2. Free Known B - No agreement that any other figures proposal was suitable.

Delegates will hopefully have the opportunity to ask questions before voting.

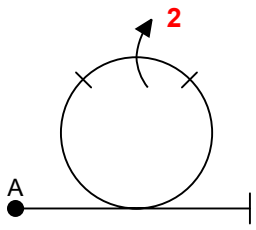
Yours sincerely

Alan Cassidy
Chairman, CIVA Known Analysis Working Group

Yak52/Intermediate Free Known A

Max Fig K	No Limit
Min Fig K	0
Total Fig K	107
Positioning	30
Harmony	

1A

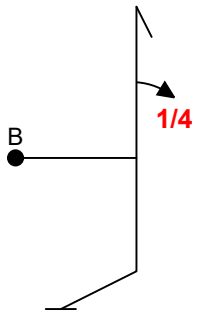


7.4.1.1 10
9.2.3.4 9

19

6F

2B

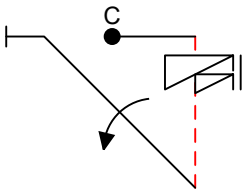


5.2.1.1 17
9.1.1.1 6

23

7G

3C

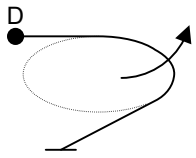


1.2.6.3 15
9.11.1.6 3
9.1.2.4 10

28

8H

4D

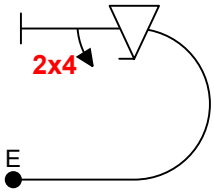


9.4.3.2 15

15

9I

5E



7.2.2.1 6
9.9.3.4 11
9.4.3.2 5

22

10J

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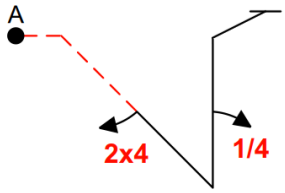
2019 | FIGURES

Yak52/Intermediate Free Known B

Max Fig K	No Limit
Min Fig K	0
Total Fig K	115
Positioning	30
Harmony	

1A

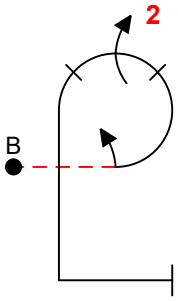
(corrected exit path)



1.2.4.4	13
9.4.4.2	5
9.1.1.1	6

24

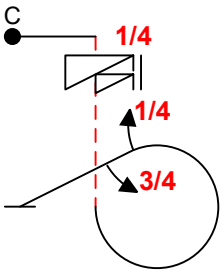
2B



8.6.7.2	12
9.1.3.2	4
9.2.3.4	9

25

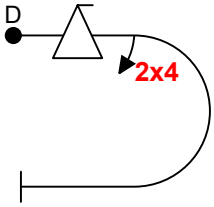
3C



8.6.4.3	13
9.11.1.5	4
9.1.3.1	2
9.1.3.3	6

25

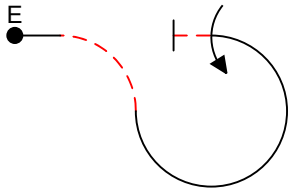
4D



7.2.3.3	6
9.9.3.4	11
9.4.3.2	5

22

5E



7.4.11.3	11
9.1.3.4	8

19

6F

7G

8H

9I

10J

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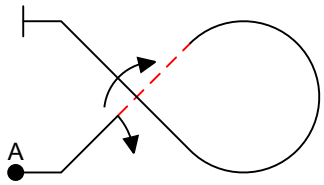
2019	FIGURES

Yak52/Intermediate Free Known C

Max Fig K	Min Fig K	Total Fig K
No Limit	0	101

Positioning	Harmony
30	

1A

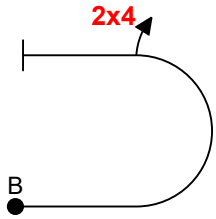


7.3.2.1 14
9.1.2.2 6
9.1.2.4 10

30

6F

2B

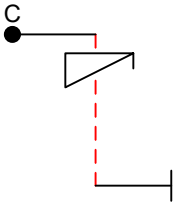


7.2.2.1 6
9.4.3.2 5

11

7G

3C

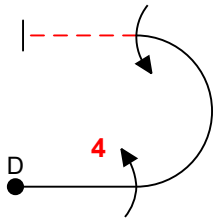


1.1.6.3 10
9.11.1.4 5

15

8H

4D

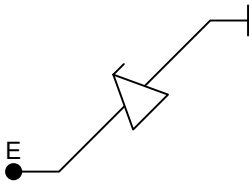


7.2.1.1 6
9.4.3.4 11
9.1.3.4 8

25

9I

5E



1.1.2.1 7
9.9.2.4 13

20

10J

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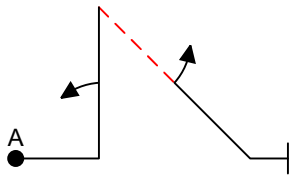
2019 | FIGURES

Yak52/Intermediate Free Known D

Max Fig K	No Limit
Min Fig K	0
Total Fig K	105
Positioning	30
Harmony	

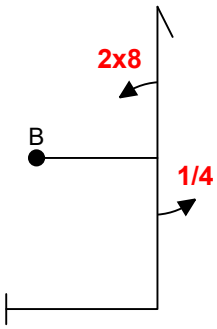
1A



1.2.7.1	13
9.1.1.2	8
9.1.4.2	4

25

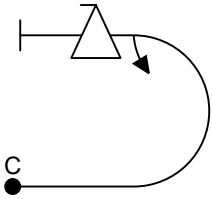
2B



5.2.1.1	17
9.8.1.1	7
9.1.5.1	2

26

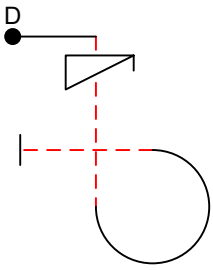
3C



7.2.2.1	6
9.1.3.2	4
9.9.3.4	11

21

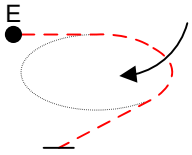
4D



8.6.3.3	13
9.11.1.4	5

18

5E



2.1.3.2	15

15

6F

7G

8H

9I

10J

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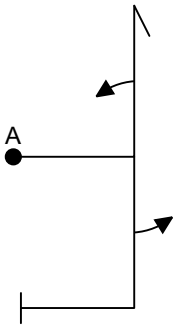
2019	FIGURES

Yak52/Intermediate Free Known E

Max Fig K	Min Fig K	Total Fig K
No Limit	0	140

Positioning	Harmony
30	

1A

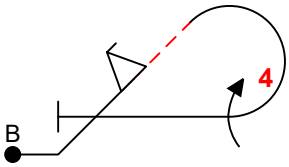


5.2.1.1	17
9.1.1.2	8
9.1.5.2	4

29

6F

2B

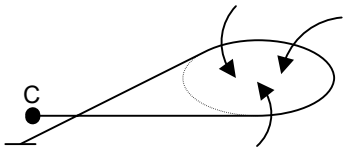


8.5.2.1	10
9.9.2.2	13
9.4.3.4	11

34

7G

3C

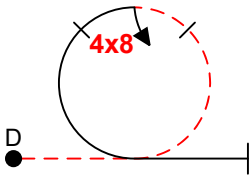


2.3.4.1	30

30

8H

4D

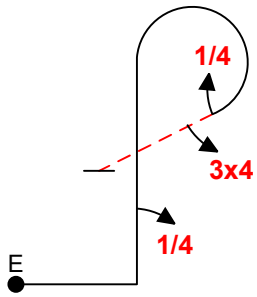


7.4.2.2	12
9.8.3.2	7

19

9I

5E



8.6.2.1	12
9.1.1.1	6
9.1.3.1	2
9.4.3.3	8

28

10J

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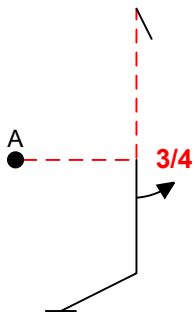
2019	FIGURES

Yak52/Intermediate Free Known F

Max Fig K	Min Fig K	Total Fig K
No Limit	0	131

Positioning	Harmony
30	

1A

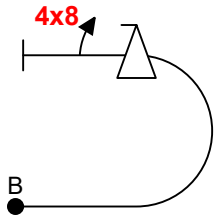


5.2.1.4 22
9.1.5.3 6

28

6F

2B

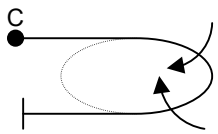


7.2.2.1 6
9.9.3.4 11
9.8.3.2 7

24

7G

3C

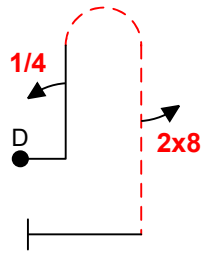


2.2.5.1 22

22

8H

4D

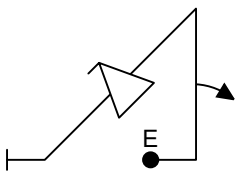


8.4.3.1 15
9.1.1.1 6
9.8.5.1 3

24

9I

5E



1.2.6.1 14
9.1.1.2 8
9.9.4.4 11

33

10J

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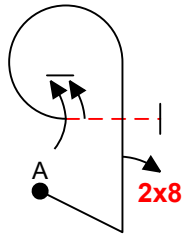
2019	FIGURES

Advanced Free Known A

Max Fig K	No Limit
Min Fig K	0
Total Fig K	164
Positioning	**30**
Harmony	

1A

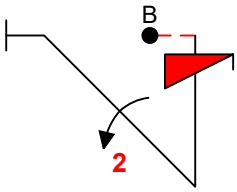


8.6.2.1	12
9.8.1.1	7
9.1.3.6	10

29

6F

2B

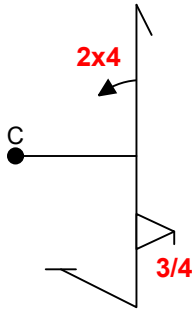


1.2.5.4	14
9.12.1.4	7
9.2.2.4	11

32

7G

3C

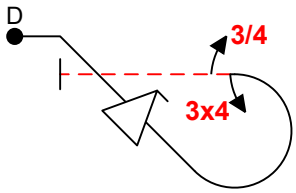


5.2.1.1	17
9.4.1.2	9
9.9.5.3	11

37

8H

4D

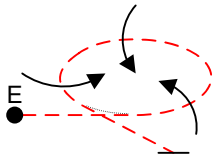


8.5.1.3	10
9.9.4.4	11
9.4.3.3	8
9.1.3.3	6

35

9I

5E



2.3.4.2	31

31

10J

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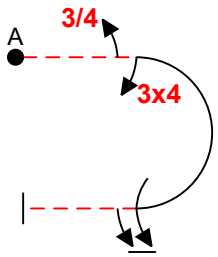
2019 | **FIGURES**

Advanced Free Known B

Max Fig K	No Limit
Min Fig K	0
Total Fig K	148
Positioning	**30**
Harmony	

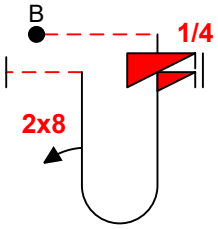
1A



7.2.2.4	7
9.1.3.3	6
9.4.3.3	8
9.1.3.6	10

31

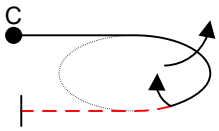
2B



8.4.1.4	13
9.12.1.5	6
9.8.1.1	7

26

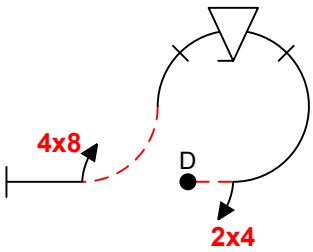
3C



2.2.4.3	27

27

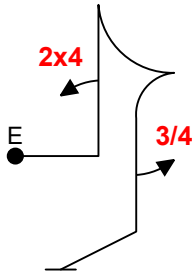
4D



7.4.10.2	11
9.4.3.2	5
9.9.3.4	11
9.8.3.2	7

34

5E



6.2.1.1	15
9.4.1.2	9
9.1.5.3	6

30

6F

7G

8H

9I

10J

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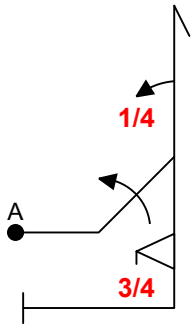
2019	FIGURES

Advanced Free Known C

Max Fig K	Min Fig K	Total Fig K
No Limit	0	160

Positioning	Harmony
30	

1A

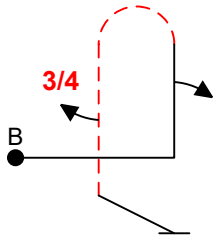


5.3.1.1	18
9.1.2.4	10
9.1.1.1	6
9.9.5.3	11

45

6F

2B

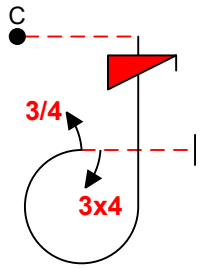


8.4.3.1	15
9.1.1.2	8
9.1.5.3	6

29

7G

3C

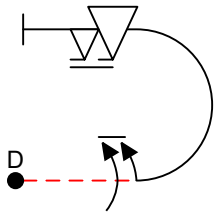


8.6.1.4	12
9.12.1.4	7
9.1.3.3	6
9.4.3.3	8

33

8H

4D

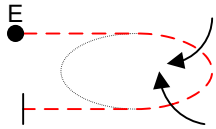


7.2.4.2	6
9.1.3.6	10
9.9.3.6	14

30

9I

5E



2.2.5.2	23

23

10J

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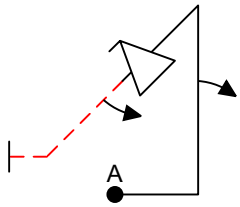
2019	FIGURES

Advanced Free Known D

Max Fig K
No Limit
Min Fig K
0
Total Fig K
163

Positioning
30
Harmony

1A

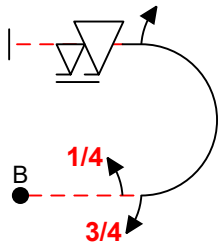


1.2.8.1	16
9.1.1.2	8
9.9.4.4	11
9.1.4.2	4

39

6F

2B

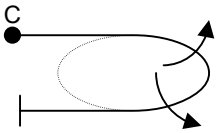


7.2.3.2	7
9.1.3.1	2
9.1.3.3	6
9.1.3.2	4
9.9.3.6	14

33

7G

3C

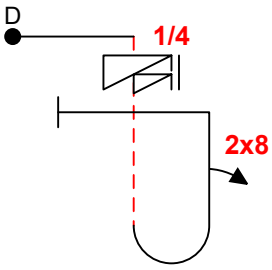


2.2.5.3	24

24

8H

4D

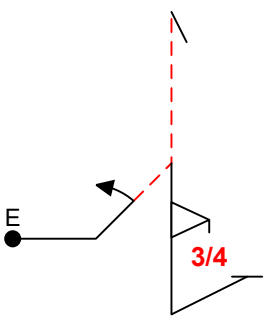


8.4.3.3	15
9.11.1.5	4
9.8.1.1	7

26

9I

5E



5.3.2.1	24
9.1.2.2	6
9.9.5.3	11

41

10J

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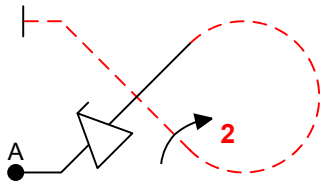
2019	FIGURES

Advanced Free Known E

Max Fig K	Min Fig K	Total Fig K
No Limit	0	193

Positioning	Harmony
30	

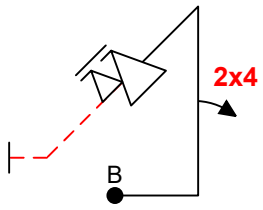
1A



7.3.1.1	16
9.9.2.4	13
9.2.2.4	11

40

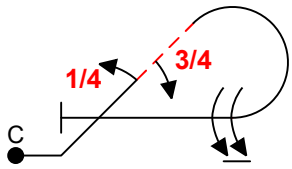
2B



1.2.8.1	16
9.4.1.2	9
9.9.4.6	14

39

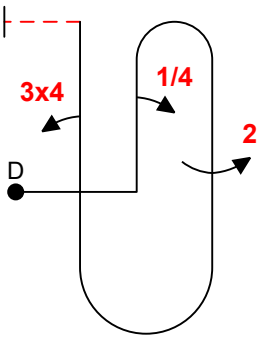
3C



8.5.2.1	10
9.1.2.1	4
9.1.2.3	8
9.1.3.8	12

34

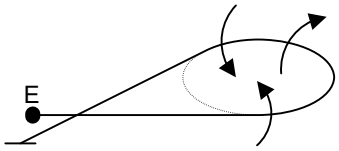
4D



8.8.1.1	18
9.1.1.1	6
9.2.5.4	9
9.4.1.3	12

45

5E



2.3.5.1	35

35

6F

7G

8H

9I

10J

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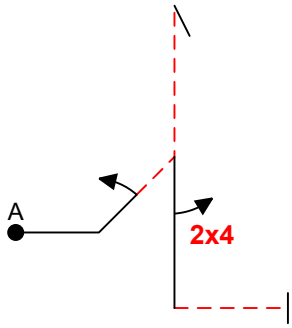
2019 | FIGURES

Advanced Free Known F

Max Fig K	No Limit
Min Fig K	0
Total Fig K	166

Positioning
30
Harmony

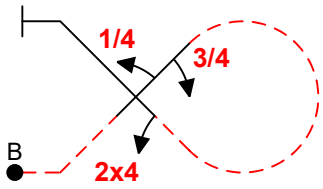
1A



5.3.2.3	25
9.1.2.2	6
9.4.5.2	5

36

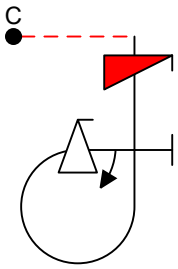
2B



7.3.4.2	20
9.1.2.1	4
9.1.2.3	8
9.4.2.2	7

39

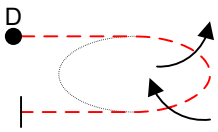
3C



8.6.2.4	12
9.12.1.4	7
9.9.3.4	11
9.1.3.2	4

34

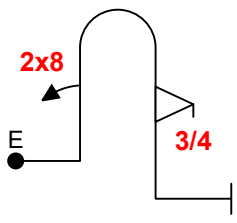
4D



2.2.6.4	26

26

5E



8.4.1.1	13
9.8.1.1	7
9.9.5.3	11

31

6F

7G

8H

9I

10J

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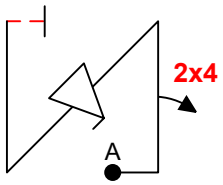
Advanced Free Known G

Max Fig K	No Limit
Min Fig K	0
Total Fig K	171
Positioning	30
Harmony	

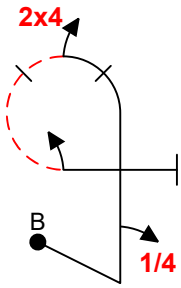
1A



1.3.14.1	22
9.4.1.2	9
9.9.4.4	11

42

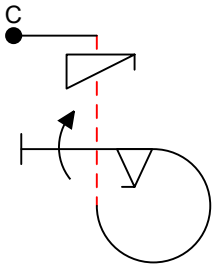
2B



8.6.18.1	13
9.1.1.1	6
9.4.3.2	5
9.1.3.2	4

28

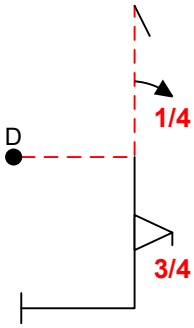
3C



8.6.4.3	13
9.11.1.4	5
9.9.3.2	11
9.1.3.4	8

37

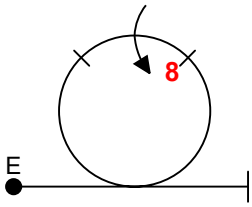
4D



5.2.1.4	22
9.1.1.1	6
9.9.5.3	11

39

5E



7.4.1.1	10
9.8.3.4	15

25

6F

7G

8H

9I

10J

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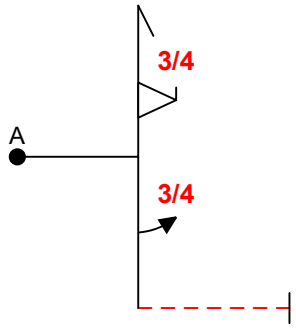
Unlimited Free Known A

Max Fig K	No Limit
Min Fig K	0
Total Fig K	227

Positioning
40
Harmony

1A

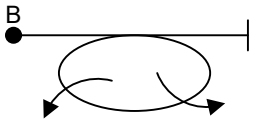


5.2.1.3	18
9.9.1.3	15
9.1.5.3	6

39

6F

2B

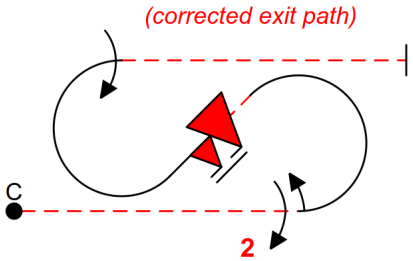


2.4.3.3	46

46

7G

3C

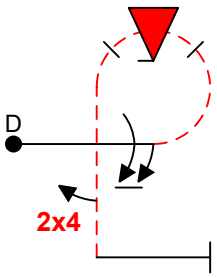


7.5.5.2	15
9.2.3.4	9
9.1.3.2	4
9.10.4.6	16
9.1.3.4	8

52

8H

4D

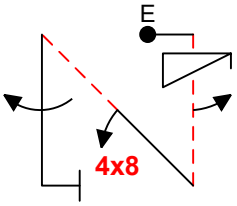


8.6.8.1	15
9.1.3.6	10
9.10.3.4	13
9.4.5.2	5

43

9I

5E



1.3.16.3	21
9.11.1.4	5
9.1.5.2	4
9.8.2.2	9
9.1.5.4	8

47

10J

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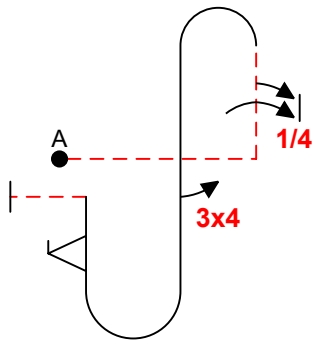
Unlimited Free Known B

Max Fig K	Min Fig K	Total Fig K
No Limit	0	223

Positioning	Harmony
40	

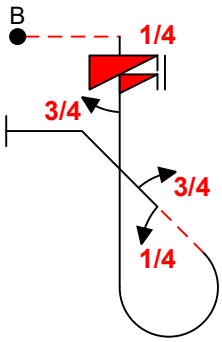
1A



8.8.8.2	20
9.1.1.5	14
9.4.5.3	8
9.9.1.2	15

57

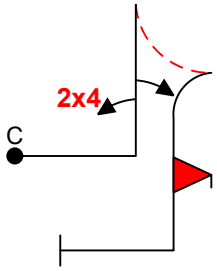
2B



8.5.18.4	15
9.12.1.5	6
9.1.5.3	6
9.1.2.1	4
9.1.2.3	8

39

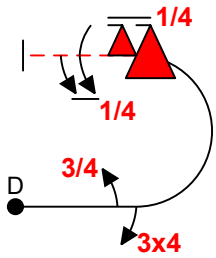
3C



6.2.2.1	15
9.4.1.2	9
9.1.1.2	8
9.10.5.2	13

45

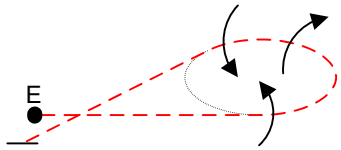
4D



7.2.1.1	6
9.1.3.3	6
9.4.3.3	8
9.10.8.5	17
9.1.3.5	9

46

5E



2.3.5.2	36

36

6F

7G

8H

9I

10J

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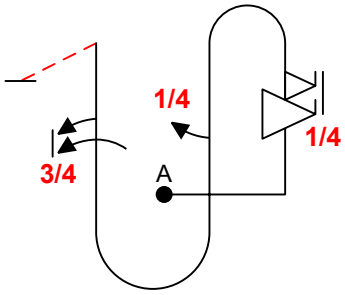
2019	FIGURES

Unlimited Free Known C

Max Fig K	Min Fig K	Total Fig K
No Limit	0	225

Positioning	Harmony
40	

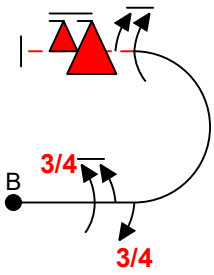
1A



8.8.1.1	18
9.9.1.5	17
9.1.5.1	2
9.1.1.7	17

54

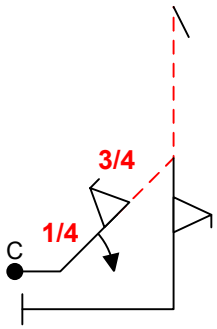
2B



7.2.1.1	6
9.1.3.7	11
9.1.3.3	6
9.1.3.6	10
9.10.8.6	19

52

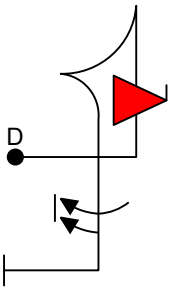
3C



5.3.2.1	24
9.1.2.1	4
9.9.2.3	13
9.9.5.2	11

52

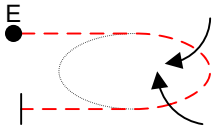
4D



6.2.1.1	15
9.10.6.4	19
9.1.5.6	10

44

5E



2.2.5.2	23

23

6F

7G

8H

9I

10J

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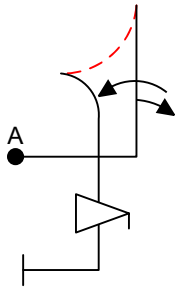
2019	FIGURES

Unlimited Free Known D

Max Fig K	Min Fig K	Total Fig K
No Limit	0	240

Positioning	Harmony
40	

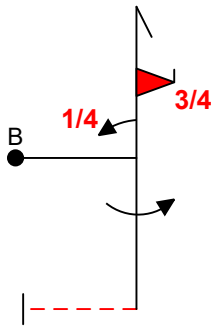
1A



6.2.2.1	15
9.1.1.2	8
9.1.1.4	12
9.9.5.4	11

46

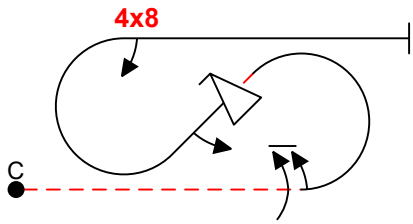
2B



5.2.1.3	18
9.1.1.1	6
9.10.1.3	17
9.1.5.4	8

49

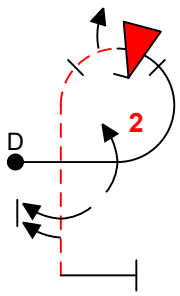
3C



7.5.8.2	15
9.1.3.6	10
9.9.9.4	13
9.1.4.2	4
9.8.3.2	7

49

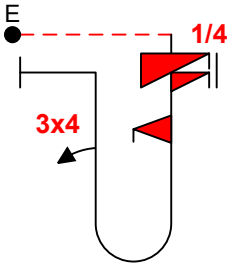
4D



8.6.22.1	13
9.2.3.4	9
9.10.8.4	15
9.1.3.2	4
9.1.5.6	10

51

5E



8.4.2.4	14
9.12.1.5	6
9.10.5.2	13
9.4.1.3	12

45

6F

7G

8H

9I

10J

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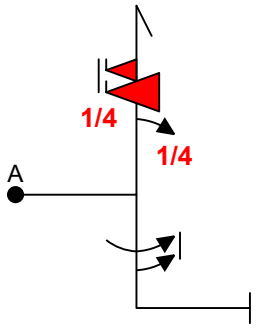
2019	FIGURES

Unlimited Free Known E

Max Fig K	Min Fig K	Total Fig K
No Limit	0	235

Positioning	Harmony
40	

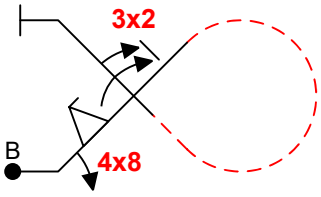
1A



5.2.1.1	17
9.1.1.1	6
9.10.1.5	20
9.1.5.6	10

53

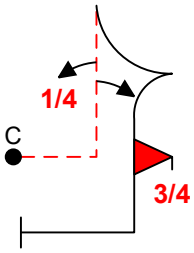
2B



7.3.3.1	17
9.8.2.2	9
9.9.7.2	15
9.2.2.6	14

55

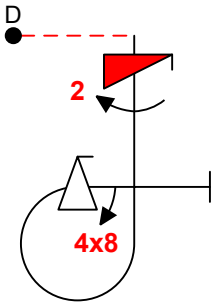
3C



6.2.1.4	17
9.1.1.2	8
9.1.1.1	6
9.10.5.3	13

44

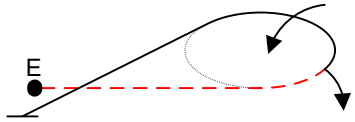
4D



8.6.2.4	12
9.12.1.4	7
9.2.5.4	9
9.9.3.4	11
9.8.3.2	7

46

5E



2.3.6.4	37

37

6F

7G

8H

9I

10J

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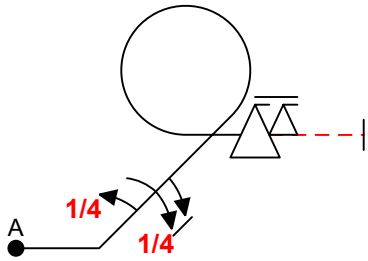
2019	FIGURES

Unlimited Free Known F

Max Fig K	Min Fig K	Total Fig K
No Limit	0	229

Positioning	Harmony
40	

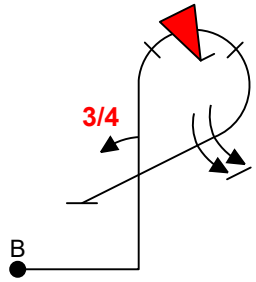
1A



8.7.3.1	12
9.1.2.1	4
9.1.2.5	11
9.9.3.6	14

41

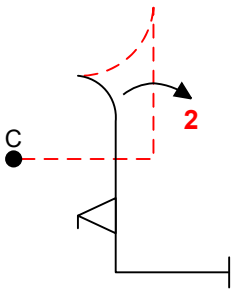
2B



8.6.1.1	11
9.1.1.3	10
9.10.8.4	15
9.1.3.8	12

48

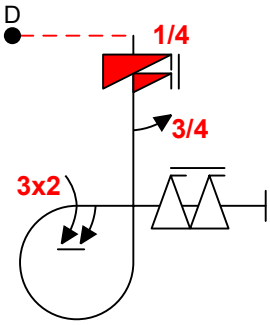
3C



6.2.2.4	17
9.2.1.4	13
9.9.5.2	11

41

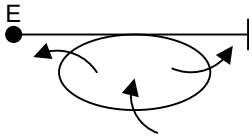
4D



8.6.2.4	12
9.12.1.5	6
9.1.5.3	6
9.2.3.6	12
9.9.3.8	17

53

5E



2.4.6.3	46

46

6F

7G

8H

9I

10J

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