

36972  
S Cam

-05014 ± 21.0 -037529.0

5 35.6

+68

46

2625 P.S.

+680395

-1301

37.486  
057  
1,543

1909.3

+68

46

18.89

1511.6

1.42  
20.31

37.40  
62  
402

20.5 1930.0

-7  
43  
20.

+0032 ±6.0 -054±4.0

7024

A054239

5

36.1 +23 16

5.5 +41.3

-23091

6.4 8.4  
9.0

6" (8.7 (4.5d)

opt 8" 14"

+044 -024 G

W348B

10.5 22"

6.724 1900.8 +23 15

42.39 1895.7

7024

-157  
567

2.93  
45.32

954104 354 518 +044-054 +41.3 -021+16 -237

-044 021004-002 -199 118 +32.9 +4 +38

-6 +44 +4

02

+41-19 0

025

-4 +43 +7

+41-16-1

-5 +43 +6

6223

+41-17 0

4054200

37013 5 33.4

6957

3449

26.062 1897.2

$$\frac{12}{183}$$

$$\frac{26.025}{0.53}$$

$$\frac{55.862}{30.1824}$$

$$\frac{26.016}{0.60}$$

$$\sqrt{687}$$

$$\begin{array}{r} -0023 \pm 4.0 \\ -00324 \\ \hline -081 \end{array}$$

$$+2 \downarrow 58$$

$$7.2 \text{ dF7}$$

$$7.6 \text{ dF6} + 25.2 \text{ d}$$

$$+21 \text{ 57 50.45} \quad 1884.7$$

$$4.96$$

$$\frac{5541}{22}$$

$$51.69$$

$$19340$$

$$\frac{140}{070}$$

$$\frac{070}{113}$$

$$34.8$$

$$55.862$$

$$30.1824$$

$$26.016$$

$$0.60$$

$$687$$

$$57.31$$

$$52.09 \quad 1529.57$$

$$122$$

$$53.31$$

$$-1.44$$

$$51.67$$

$$51.15$$

$$-3.85$$

$$408$$

$$32.0$$

$$47.3$$

$$113$$

$$51.56$$

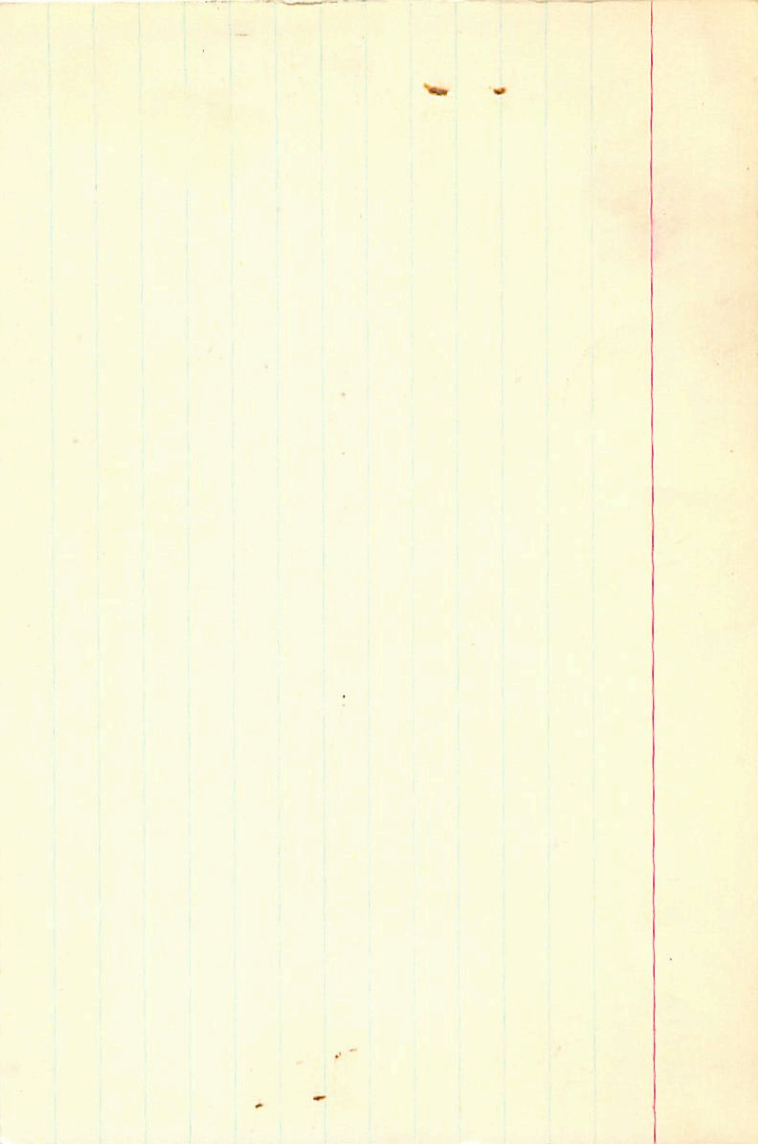
$$3.85$$

$$51.82$$

$$-3.85$$

$$50(34)$$

$$4266$$



1909

5

33.4

-83 07

5.76 + 112

Handy Roll II

+440

27152

606

268  
280

4.65

0289

032.5 + 109.5

10023 + 110 stop 157

~~10024 + 110~~

+030

5.77

+115



6614 3315 1141  
7800 9334 0050  
1.5

0190

3.73

62

37706 5 36.8 -46 OF +11.450.5

7.32 +0.77 G5V Capex

A=667048

B=667049

RSR Capex +13.9 Tr.

7.33 460/282 228 (1)  
460/244 244 (2)

+12.6

71289

-4601934

7.34 451 302 244 59  
+ -1364 -473.66  
0 -501.66

66709 5" 71495

-118 -471 Capex Return

-44 -14 -23 -046

-65 -17 -33 ,030

337(9)  
316(11)

2738



955 101 -721 643 -118 -471 +11.4 340 -8 -1.545

117-338-012 034 353 -1655 +29 +1 +8

+19-67-55 022  
-53-20-42

6100-27

5 324 +24 47

106-348 L →

01096 <sup>copy</sup> jmsw

106-323 MSW

3683 5609  
9287 8274

3475  
-1074  
-52

1208 (177) msw 04

jo p p s

+0006±5.1 -035±3.2  
+0004 -035

37603 5 37.4

19 6.7 gFom +2.1.16

3504

7071 26.900 1898.8 +15 19 29.84 1986.0

8710"  $\frac{-31}{869}$

26.881

$\frac{28}{909}$

2649

52.480

34.373

26.852

883

014

+1.387

26.958

27

683

9889

3498

1487

-1369

30.03

$\frac{18}{30.21}$

10.47

20.19

50.68

-2.25

30.43

30.44

30.04

$\frac{16}{30.20}$

1938.09

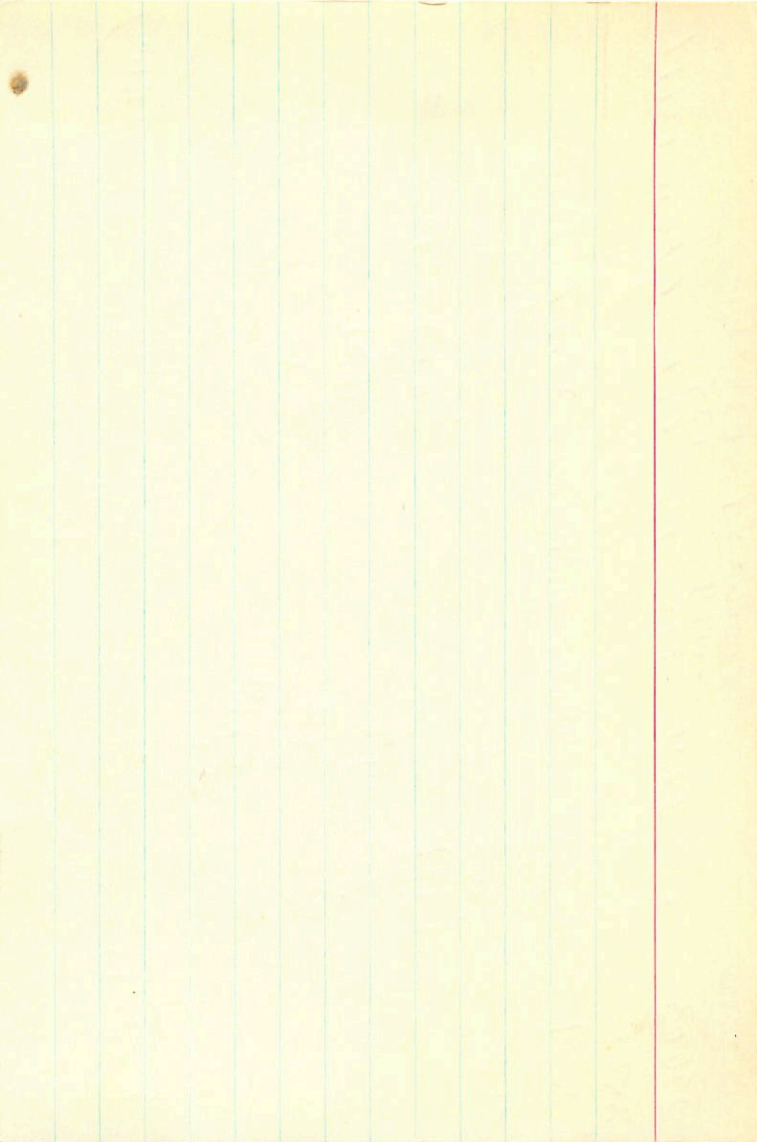
112.37

37.5

51.5

1940.08

1940.08



246128

5 37.6 +26 58 9.0 d62 +58.98<sup>3W</sup>

+260899

+025 -072 4 +634①

3506

$\frac{832}{-4}$   
 $\frac{-}{-076}$

26440

5 39.3

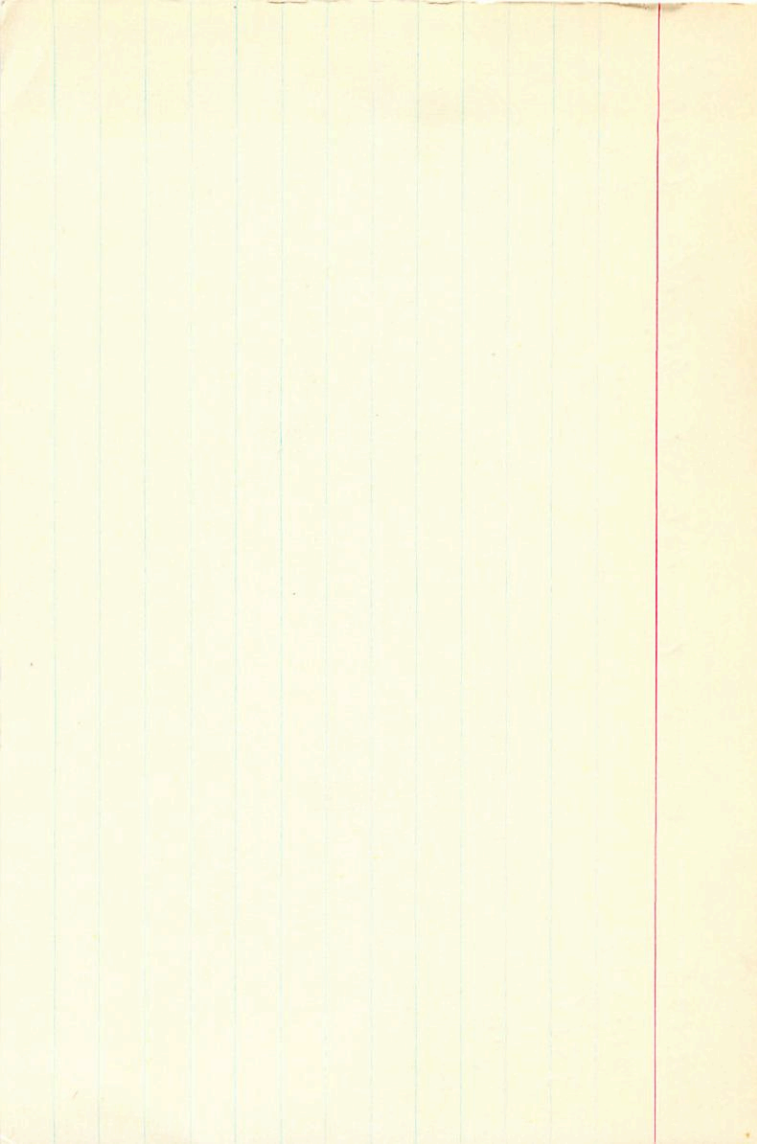
+26 54 8.9 d00 +57d<sup>503W</sup>

+260907

3532

+036 -091 7

$\frac{+7}{043}$   
 $\frac{-}{-091}$

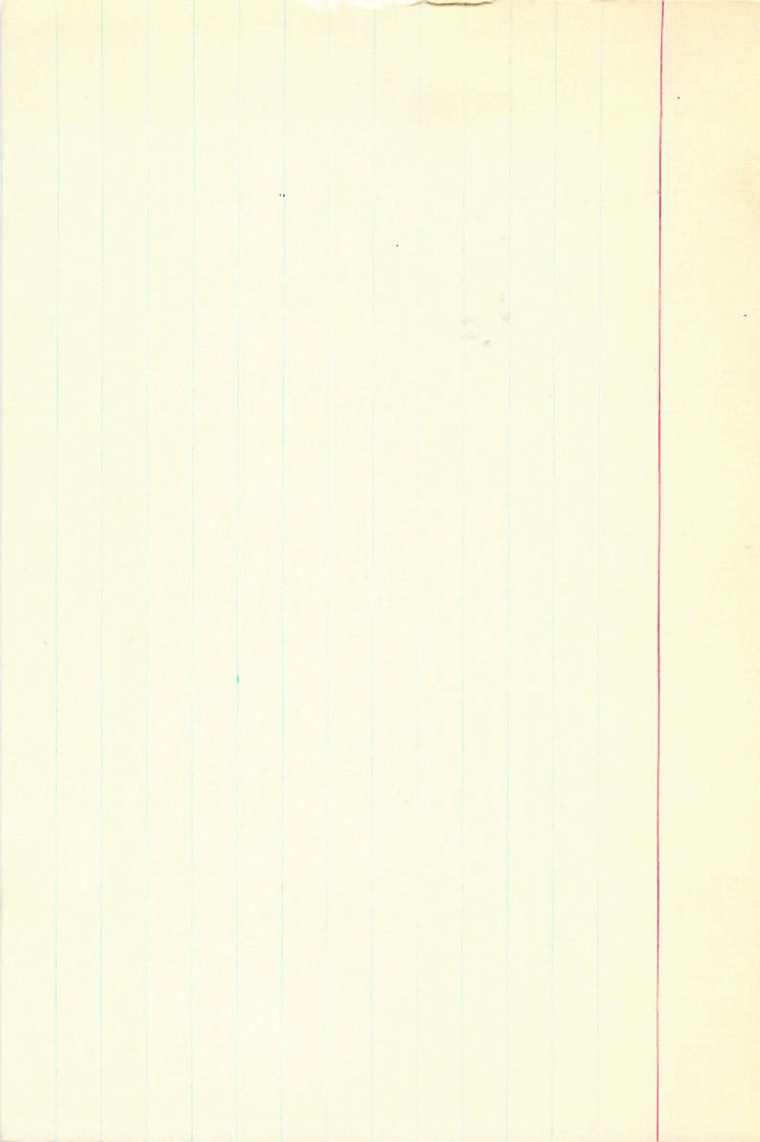


+26°09' 5 37.6 +26 58 9.0 d62 +58.9 6

+26°09' 5 39.3 +26 54 8.9 d60 +57d513

A +025 -072

B +036 -091





246m

37601 5 38.8 +56 33 29 69 -28.9 8 W(3)

3526

7105 6.2

30

+0027 +031

+0019 ±2.4 +030±77

W(+2.3) 29.26

(64) HR

+017±2 +030±2 66

+022 +031 130

+020 +030

956 092- 834 551 +020 +030 -28.9 025-24 055  
→ 20-025 002 002 -104 -105 -15.9 -1-16

-7 -22 -19 017

-29 -7 +1

232a  
 37638 5 39.5 +61 27 16.18 1892.3  
 3538  
 5000 ± 2.6 + 500 ± 2.2  
 -0016 + 505  
 6.4 905 -3.68

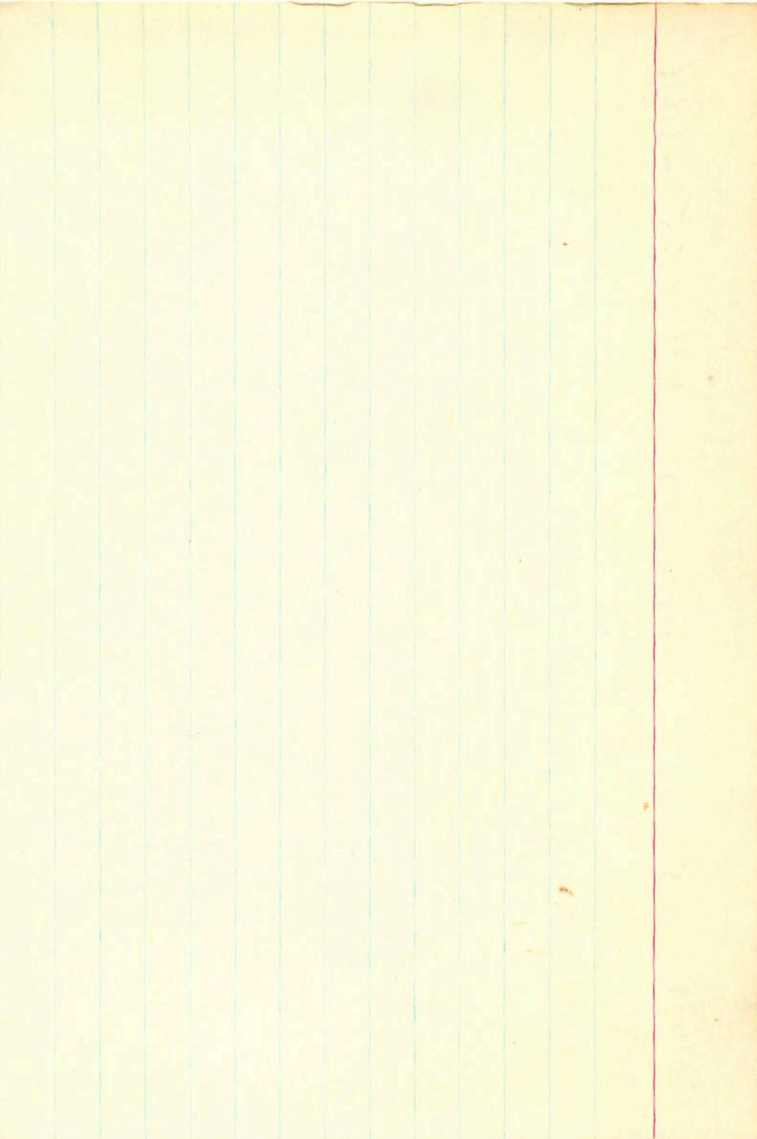
7124 32.435 - 1892.8 +61 27 16.18 1892.3

$$\frac{-12}{16.06}$$

$$\begin{array}{r} 1440 \\ 12898 \\ \hline 32.299 \\ 34 \\ \hline 322 \\ 390 \\ \hline 366 \\ \hline 43.2 \\ \hline 28.7 \\ 49.68 \\ \hline 18.38 \\ -2.10 \\ \hline 15.33 \\ 16. \\ \hline 14.26 \\ \hline 7.20 \\ \hline 43.3 \end{array}$$

$$\begin{array}{r} 32.354 \\ 361 \\ \hline 366 \\ \hline 43.2 \\ \hline 16.18 \\ -24 \\ \hline 14.55 \\ 1945.13 \end{array}$$

$$\frac{16.18}{16.31}$$



$$\begin{array}{r} -0026 \pm 2.9 \\ -0032 \\ \hline \end{array}$$

$$\begin{array}{r} -012 \pm 2.5 \\ -012 \\ \hline \end{array}$$

37881 5 40.1 +14 09 29 161 762.78 (M)

35420

$$\begin{array}{r} +63228 \\ +65100 \\ \hline \end{array}$$

7142 6.9

W(12.0)

7.743 1903.3 +14 9 22.36 1896.4

$$\begin{array}{r} 121 \\ \hline 864 \end{array}$$

$$\frac{64}{}$$

$$\frac{864}{}$$

$$\begin{array}{r} -0388 \\ 00564 \end{array}$$

$$\begin{array}{r} 7.727 \\ 24 \\ \hline 1.761 \end{array}$$

$$\begin{array}{r} 23.00 \\ 1934.20 \\ \hline 22.47 \end{array}$$

$$\begin{array}{r} -0388 \\ 00564 \\ \hline -0388 \\ 0124564 \end{array}$$

$$\begin{array}{r} 1.761 \\ 133 \\ \hline 744 \end{array}$$

$$\begin{array}{r} 13 \\ \hline 22.60 \end{array}$$

$$\begin{array}{r} -0388 \\ 00564 \\ \hline -0388 \\ 0124564 \end{array}$$

$$\begin{array}{r} 7.720 \\ 26 \\ \hline 746 \end{array}$$

$$\begin{array}{r} 22.27 \\ +9 \\ \hline 22.36 \end{array}$$

$$\begin{array}{r} 1939.36 \\ \hline 113.64 \end{array}$$

$$\begin{array}{r} 746 \\ \hline 120 \end{array}$$

$$\begin{array}{r} 22.40 \\ \hline 22.36 \end{array}$$

$$\begin{array}{r} 379 \\ \hline 379 \end{array}$$

$$\begin{array}{r} 7.698 \\ 28 \\ \hline 72 \end{array}$$

$$\begin{array}{r} 22.49 \\ \hline 22.40 \end{array}$$

$$\begin{array}{r} 1940.06 \\ \hline 41.5 \end{array}$$

$$\begin{array}{r} 72 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 22.51 \\ \hline 22.51 \end{array}$$

$$\begin{array}{r} 41.5 \\ \hline 41.5 \end{array}$$

$$\begin{array}{r} -0.51 \\ \hline 22.51 \end{array}$$

956 087 . 244 570 -038-010 +62.7-002 +15-047 ✓  
036 002 -003 0 150 0 +60.8 +5 +61

+23 +61 +10 010

[+61-30-25]

W 3547  
1203809  
627151

\$ 40.5

-06 49 60 FT

-116 35  
SD

-0.008 +060 41  
+2  
-009 / 1062

+501 +6

-0003±6.4 +069±4.2  
+069

28.094 1894.8

-6 49 9.04 1901.4

<sup>014</sup>  
28.1170

-6002 +068

3.38  
12.39

↓

+0.35

10.15

28.105

10.50 1933.91

+ 2.24 + 34  
10.14

+ 15 / 120 145

120

00

15.223

1933.58

54.74  
14530

6 49

9.24  
10.14

-8.9 +10.4 + 2  
+5.4 +12.2 +18  
+3.5 +7.5 +11

29.100  
+066  
109

10.14

38170 5 40.5 -34 41<sup>100%</sup> 5.3 B9 +34.28  
-0012 ± 4.2 +051 ± 3.4  
± 0002 +042

3546 27.475 1906.8 -34 41 28.11 1902.1  
7150 052 -2.44

2804 526  
559 27.532  
1853 +0022

2804 526 536  
530-035 163 108 1 2.852  
+0001 +047

2804 526 536  
530-035 163 108 1 2.852  
+0001 +047  
+223  
29.33 138 69 940.5  
413

7004 +046.5

0002 +029 536  
+1.009

27.531  
15  
544  
644  
+0015 +049

40.2  
5261  
-347  
#2  
+49

28.08 1955.24  
+10

27.98

47.0  
44.9

28.65

+1.90

27.516 27.20  
+17.33

644

27.516 27.20

555  
+34.2



0.847  
0.226  
-0.481  
25.186  
-14.642

-0.532  
0.383  
-0.756  
96.183  
-18.975

0.013  
0.896  
0.444  
158.713  
29.011

5.650  
-34.750  
-7.000  
45.000  
4.300  
72  
34.200

9

9



5.668  
-34.700  
2.000  
49.000  
5.550  
129  
34.200

0.011  
0.096  
0.444  
200.145  
42.010

-0.531  
0.382  
-0.757  
84.526  
-14.988

0.347  
0.228  
-0.488  
59.474  
-8.742





5.660

-34.660

5.000

46.500

5.500

126

34.200

B/

0.011

0.895

0.445

197.588

40.092

39.6

-0.531

1973  
38170  
7150

00050  
00400

5 40.5 -34 42  
5.28 -0.05 (-09) C

-030 129 1.123 2.860 1, 17, 17, 77

820  
-3466  
+5  
+46.5  
-75  
+34

1129  
240  
1369

-000 (004+046)

√6762 2867 0452  
√7367 9580 0044  
6.4

-0002 +049  
-00015

+350

-0018  
0002 +049

402 517  
783 6853  
000 110  
9599 12804  
0.5  
4.75

0512  
-0003  
-02  
Pc = 33.10872  
570

v = 0457 E = 0092 mod = 5.8

54

+008 +016

38211 5 40.6 -37 29 K1 III +

F0867 7.81 + 1.13 (2.08)

G07154

-0.0009 ± 100 +012 ± 8.7

37.794 1902.1 - 0.0004

043  
83

-0005

+019

50.55 1898

-62

5117

-0.12

897  
436

9405 192733

19017

46.544 833

51.2426

37.83 6

+ 442

37.81

015

82

-44.18

49.84

49.91

+ 1.0

49.81

50.8 1936

-14

50.94

50.38

+7



-0.41

-11.224

+44

P Oct 5 41.1 -86 25 64-13.2 km  
405-9

~~405-9~~

4055 +0058 +035 C#6  
-5039 + 2  
1019 +037 66

+46.2

+002 +039] 44 10.0  
+ 4 +039 ←

1

2

39192 40411008

41.7 415 03

+0003 ± 2.8  
-0002  
-017 ± 2.6  
-019

497.5 (8)

(A054323)

39.751 1885.8  
21.019  
2.9  
0.8 732

860 442.9 (8)  
1883.4  
+15 2.3603 1004  
+1.13  
+007 -017 G  
37.16 -015 Y

705494 209 4469.691  
28  
719

36.13 19 33.8 39  
36.31

35.687  
31  
719  
-012

36.12 1939.97 11.385  
410

WJ

39.696  
27  
723

56.22  
35.68  
16  
35.86

52.2



0.000\*

5.000\*

41.100\*

-86.000\*

-25.000\*

0.000\*

0.039\*

10.000\*

1000.000

46.000

0.167

-0.428

147.495

-0.05



38104 1971

420

495 48

8.03 11

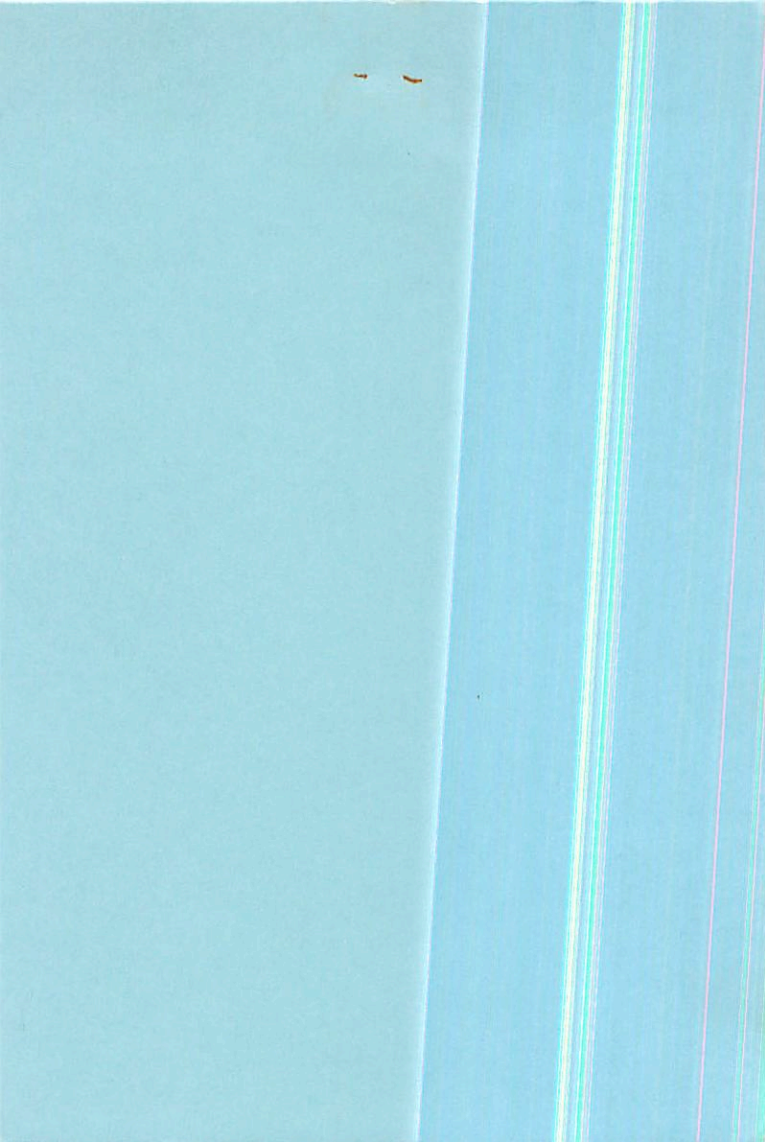
2010/08/06

010 177 1-18 2857

8019	5359	8468	0110
		1009	8008
			111

4019

4443



1985 60 5 43.4 +15 45 +15.0 +16.2

4880

416.20

4780

26 → 66

+00001 +0054

+00098 +0036

+00083 +0053

+012

[+012 +007] 2.1

;

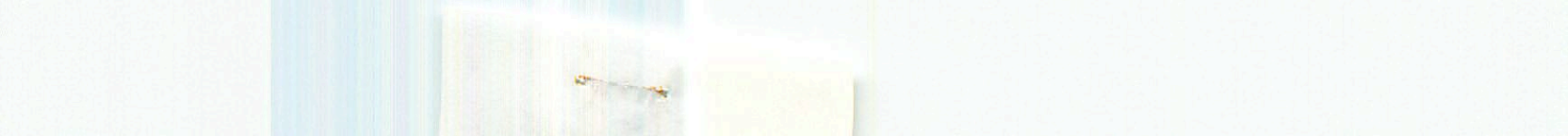


52.50 1909.1

+1006 719 -007 715

16.79 1903.5

20





$+109.9 \pm 2.1$   
 $+110$   
 $+104.1 \pm 5.4$   
 $+004 - 0.25 \pm 0.2$   
 $+032 \pm 0.2$

$+0003 \pm 2.4$   
 $+0002$   
 $-0.25 \pm 2.2$   
 $-0.19$   
 $-32$   
 $19$   
 $5.13$   
 $-0.29$   
 $5.17 - 0.28 - 1.06 \pm 1.85$   
 $-0.07$   
 $-0.32 \pm 0.2$   
 $0.00$   
 $-0.28$

Mol  
 LR996  
 HD3566

$+112.8$   
 $+109.8 (10)$

$1906.1$   
 $-32$   
 $19$   
 $27.47$   
 $1906.4$   
 $+1.04$   
 $\frac{26.38}{26.38}$

$8.350$   
 $-0.12$   
 $\frac{8.23}{8.23}$

7230

$95.11$   
 $47.6$

$1939.51$   
 $27.44$   
 $+2.3$   
 $\frac{27.21}{27.21}$

$8.345$   
 $-0.4$   
 $\frac{7.94}{7.94}$

F0003  
 -0.22

$41.2$

$1955.60$   
 $27.25$   
 $+1.4$   
 $\frac{27.04}{27.04}$

$8.327$   
 $2.29$   
 $\frac{6.03}{6.03}$

130  
 F0003  
 -0.22

$1955.60$   
 $27.15$   
 $-0.77$

$27.04$   
 $-0.77$

$28.5$   
 $344$   
 $\frac{344}{344}$

100  
 45  
 -0.22

998 070 -534 845 100 -028 +110 015 -59 -114

0 -015 0 001 0 -071 +93 +7 +93

+7 +90 -65

02

+50 -86 -51

+7 +70 -97

003

+18 -100 -62

3 Sep

HR1998

5 44.7 -14 50

3.54 +0.12 A3E

3.52 +0.05 +0.03

E=0.04  
1.2<sup>+1.3</sup>

2.2 ✓

-0.16 -0.04 GC

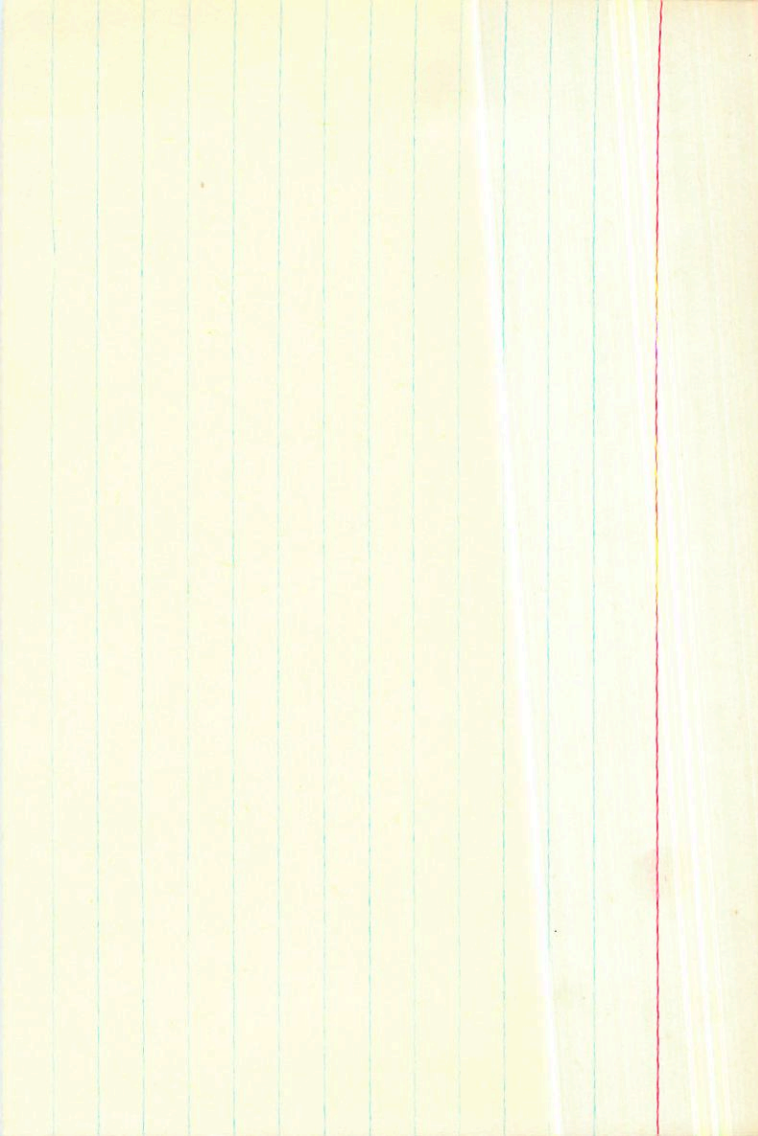
-0.12 +0.01 NSD

-0.16 -0.05 FRJ

-0.15 -0.003

654 188 996 2875 H163(4)

+20e



8 Jan

5 44.7 -65-45 -30

HR2015

4.34 +0.22 47E<sup>w</sup> -031 +007<sup>r</sup>

41.0

-030 +00400

174 184 954 2740

-023 +004030

-028 +005



155

998 065 - 912 411 - 028 1005 - 3 - 005 + 2.7 010

028 005 - 002 1800 133 074 - 1.2

S Col  
-3102732  
W 3597

5 45.1 -31 43 M6 +73A W(2)

+69 -14 -76 .00 2

"  
-0.026 ± 004 t. 0.12.54  
bannum

D = 2.745

8 45.1 -10 33

26 Orbit  
-45 Orbit

V1031hr

38735 / 6.32 0.75 171 1.083 Sec

602 0.75 175 1109 cmw

HR 2007

6.43 0.94 175 1094

Dim -0.04  
-0.18 -0.04  
-0.24 ± 8.7

6.0

5.842 2.4 1004  
101 1006

5.8.09 99.8 5.75  
1.20  
56.89  
-10.55

1

5.590 6.796

-10

-0005 -0.22

59.11

-23

-00086 -0.22

74

6.0

70.96

1

-0.22

59.64

6.579

-0.10 -0.23

2.16  
6.0

74  
59.60

34

Handwritten scribbles or marks at the top of the page.

2.750	:	R.A.
-18.550	:	DEC.
-18.000	:	PM. R.A.
-23.000	:	PM. DEC.
6.000	:	DISTANCE
158	:	MODULUS
-1.000	:	RAD. VEL.

-0.010	:	p1 (U)
0.030	:	p2 (U)
0.772	:	p3 (U)
-28.841	:	q1
-11.882	:	q2

-0.251	:	p1 (V)
0.252	:	p2 (V)
-0.248	:	p3 (V)
-47.192	:	q1
-8.833	:	q2

0.853	:	p1 (W)
0.408	:	p2 (W)
-0.322	:	p3 (W)
-84.209	:	q1
-13.021	:	q2



R.A. : 5.750  
DEC. : -10.550  
PM. R.A. : -10.000  
PM. DEC. : -23.000  
DISTANCE : 6.000  
MODULUS : 158  
RAD. VEL. : -1.000

q1 (U) : -0.010  
q2 (U) : 0.636  
q3 (U) : 0.772  
dU : -68.841  
U : -11.682

q1 (V) : -0.521  
q2 (V) : 0.656  
q3 (V) : -0.546  
dV : -47.192  
V : -6.933

q1 (W) : 0.853  
q2 (W) : 0.408  
q3 (W) : -0.325  
dW : -84.206  
W : -13.021

38989 5 45.9 -41 36 MS III -185065(5)

MS III

6.80+1.56 2.42

-2.2 ①

680 + 1.60 + 1.75 ②

5.48 + 1.12 ③

-0.0006 -0.10 N30  
-0.0006 -0.23 GC →

5.10

5.34 107

3.94

MS III

8.29

-0.0006 -0.016

-0.007 -0.185

-0.00

619 -0.19

85



28 Am ✓

38604

5

45.4

+39

3/

6.9

3604

7265

18

+0008

-019

N30

+0002 ± 2.4 - 021 ± 1.8 CC → N30

