



F.8L Falco Landing Gear Motor



6/19/2018

<u>No. 530-1</u>	Landing Gear Motor Assembly (7 Second)
<u>No. 530-7</u>	Idler Gear Assembly
<u>No. 530-8</u>	Change Gear Assembly
<u>No. 530-9</u>	Upper Housing
<u>No. 530-10</u>	Lower Housing
<u>No. 530-17</u>	Change Gear Pinion
<u>No. 530-19</u>	Shaft
<u>No. 530-1B</u>	Landing Gear Motor Assembly (13 Second)
<u>No. 530-2</u>	Engagement Unit Assembly
<u>No. 530-3</u>	Upper Housing Assembly
<u>No. 530-4</u>	Lower Housing Assembly
<u>No. 530-5</u>	Motor Assembly
<u>No. 530-6</u>	Gear & Spider Assembly
<u>No. 530-7B</u>	Change Gear Assembly
<u>No. 530-8B</u>	Change Gear Assembly
<u>No. 530-9B</u>	Upper Housing
<u>No. 530-10B</u>	Lower Housing
<u>No. 530-11</u>	Pinion Assembly

<u>No. 530-12</u>	Pinion
<u>No. 530-13</u>	Gear & Spider
<u>No. 530-14</u>	Engagement Knob
<u>No. 530-15</u>	Gear
<u>No. 530-16</u>	Spur Gear
<u>No. 530-17B</u>	Change Gear Pinion
<u>No. 530-18</u>	Shaft
<u>No. 530-19B</u>	Change Gear Pinion
<u>No. 530-20</u>	Bearing
<u>No. 530-21</u>	Bearing
<u>No. 530-22</u>	Bearing
<u>No. 530-23</u>	Motor
<u>No. 530-24</u>	Key



Model A Landing Gear Motor
7 Second

AN525-832R12
AN315-3R(2)
MS35338-43 (2)

P/N 530-8

P/N 530-2

P/N 530-7

P/N 530-4

P/N 530-5

NO. 530-1 LANDING GEAR MOTOR ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

for Model A (7 second)
1:7.031 ratio total

16:30 = 1.875
16:48 = 3.000
GEAR RATIO 5.625
40:50 1.250 X
7.031 7.031

AT INSTALLATION W/
P/N 520-1: AN3-17A (2)
AN96010L (2)
AS 21042-3(2)

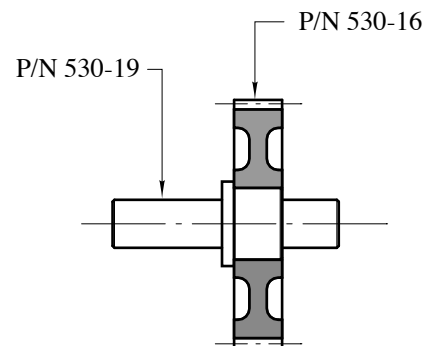
Sequoia Aircraft Corporation		
TITLE Landing Gear Motor Assembly		
DATE 7-8-84	SCALE FULL	DRAWING NUMBER 530-1

7 second)	
total	Game in Action

$16:30 = 1.875$
 $16:48 = 3.025 \times$
 SCARPA 01 $\underline{5.625}$ 5.625
 42:50 $1.250 \times$
 $\underline{7.035}$ 7.035

AT INSTALLATION W/
 PIN 520-1: AN3-17A (2)
 AN460 TOL (2)
 MS 21042-3 (2)

DATE 7-8-84	SCALE FULL	DRAWING NUMBER 530-1
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see drawing No. 530-1 for installation

NO. 530-7 IDLER GEAR ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

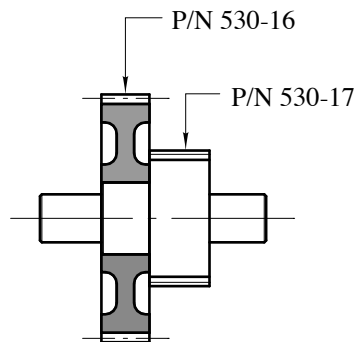
Sequoia Aircraft Corporation

TITLE
IDLER GEAR ASSEMBLY
FOR MODEL A

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-7



see drawing No. 530-1 for installation

NO. 530-8 CHANGE GEAR ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

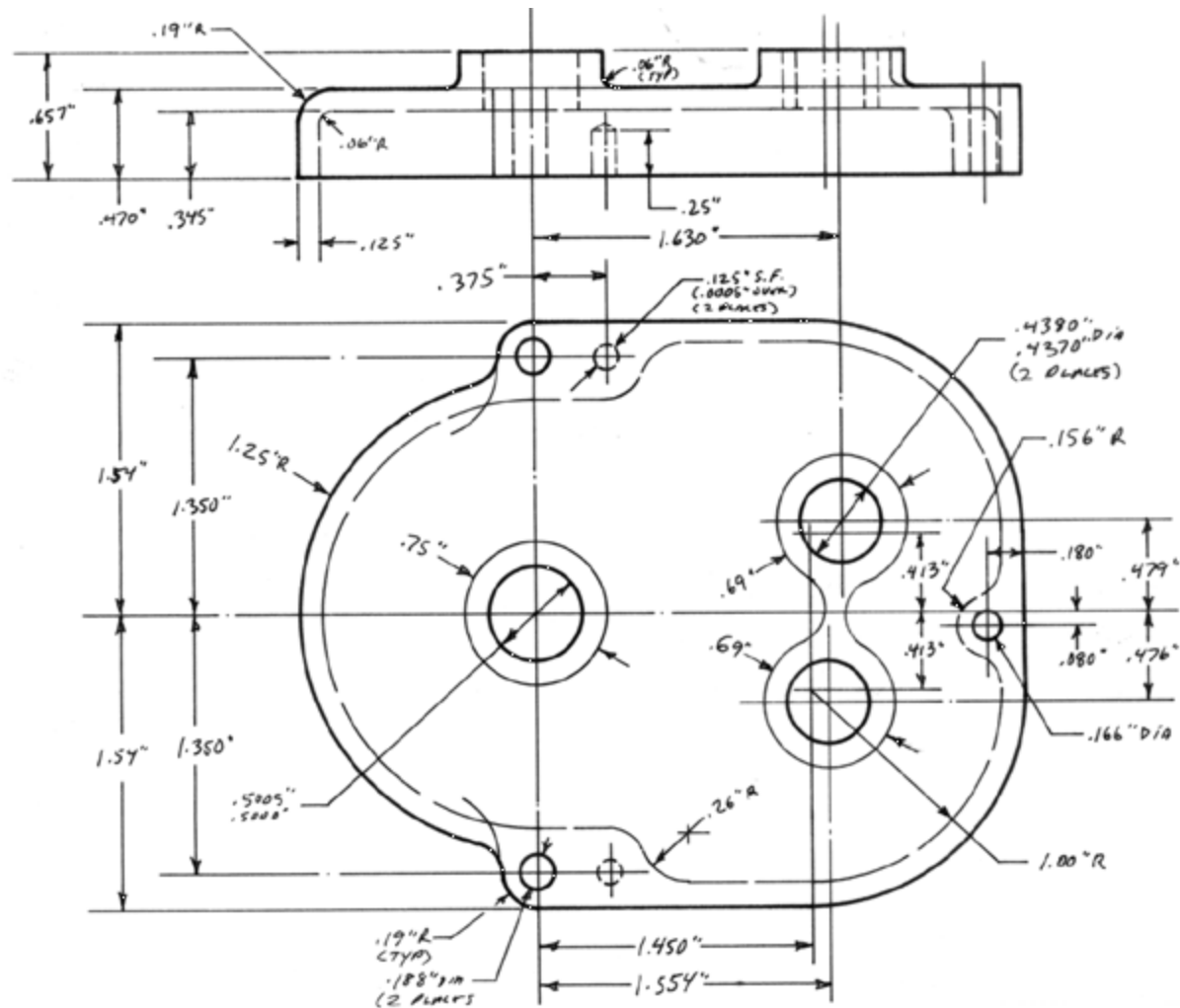
Sequoia Aircraft Corporation

TITLE
CHANGE GEAR ASSEMBLY
FOR MODEL A

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-8



material: 6061-T6 or 2024-T4 aluminum
alodine

see drawing No. 530-3 for installation

NO. 530-9 UPPER HOUSING
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

TITLE
UPPER HOUSING
FOR MODEL A

DATE
7-8-84

SCALE
FULL

DRAWING NUMBER
530-9

Boston Gear No. 37006 Pinion Wire

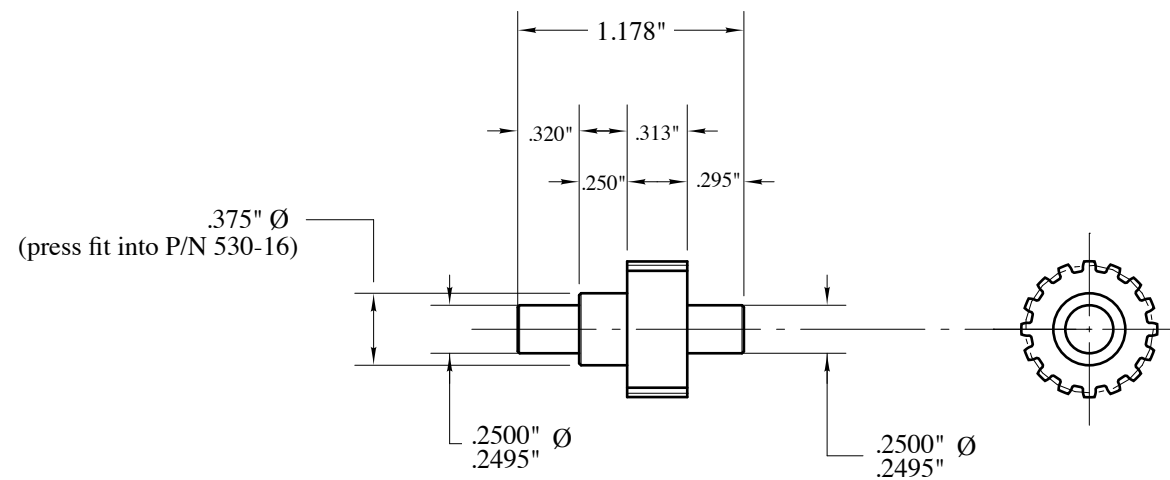
Pressure Angle 14-1/2°

Diametral Pitch 24

Material steel

Teeth 16

Pitch Diameter 0.667"



make from: Boston Gear No. 37006 pinion wire
see drawing No. 530-8 for installation

NO. 530-17 CHANGE GEAR PINION
ONE REQUIRED PER AIRCRAFT
FULL SCALE

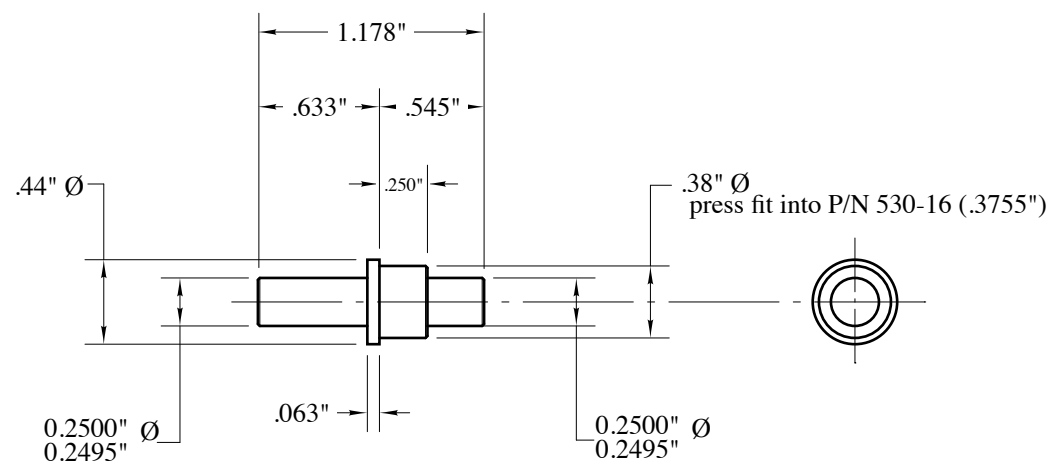
Sequoia Aircraft Corporation

TITLE
CHANGE GEAR PINION
FOR MODEL A & C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-17



material: 4130 or 4140 steel
 heat treat to 125,000 psi
 see drawing No. 530-7 for installation

NO. 530-19 SHAFT
 ONE REQUIRED PER AIRCRAFT
 FULL SCALE

Sequoia Aircraft Corporation

TITLE

SHAFT
 FOR MODEL A

DATE
 7-5-84

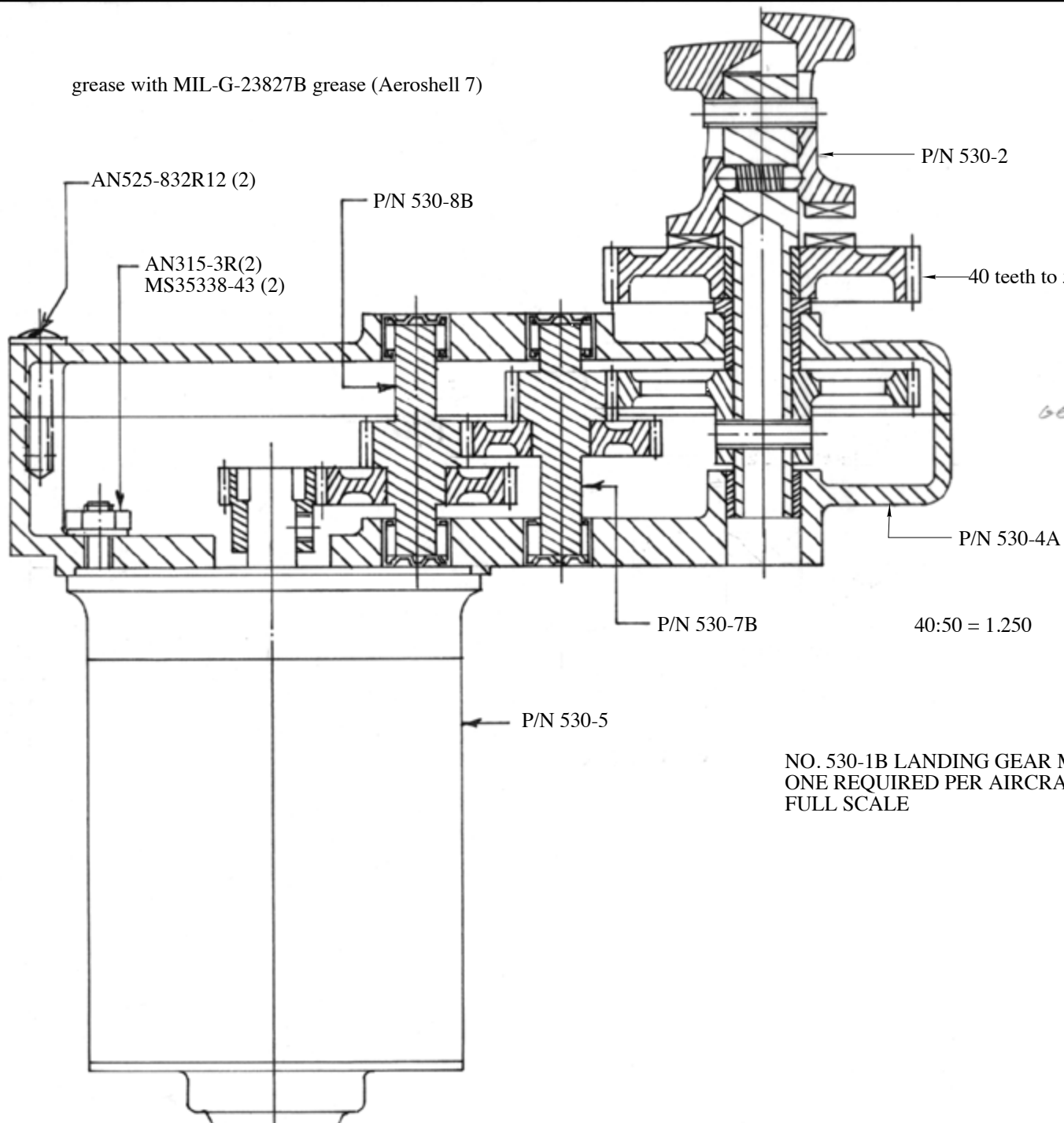
SCALE
 FULL

DRAWING NUMBER
 530-19



Model B Landing Gear Motor
13 Second

grease with MIL-G-23827B grease (Aeroshell 7)



(2090 rpm)

$$\begin{aligned}
 16:30 &= 1.875 \times \\
 16:30 &= 1.875 \times \\
 16:48 &= \frac{3.000}{10.587} \times \\
 40:50 &= \frac{1.250}{13.184} \times
 \end{aligned}$$

40:50 = 1.250

1:13.184 ratio

NO. 530-1B LANDING GEAR MOTOR ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

TITLE
LANDING GEAR MOTOR ASSY
FOR MODEL B (13 SECOND)

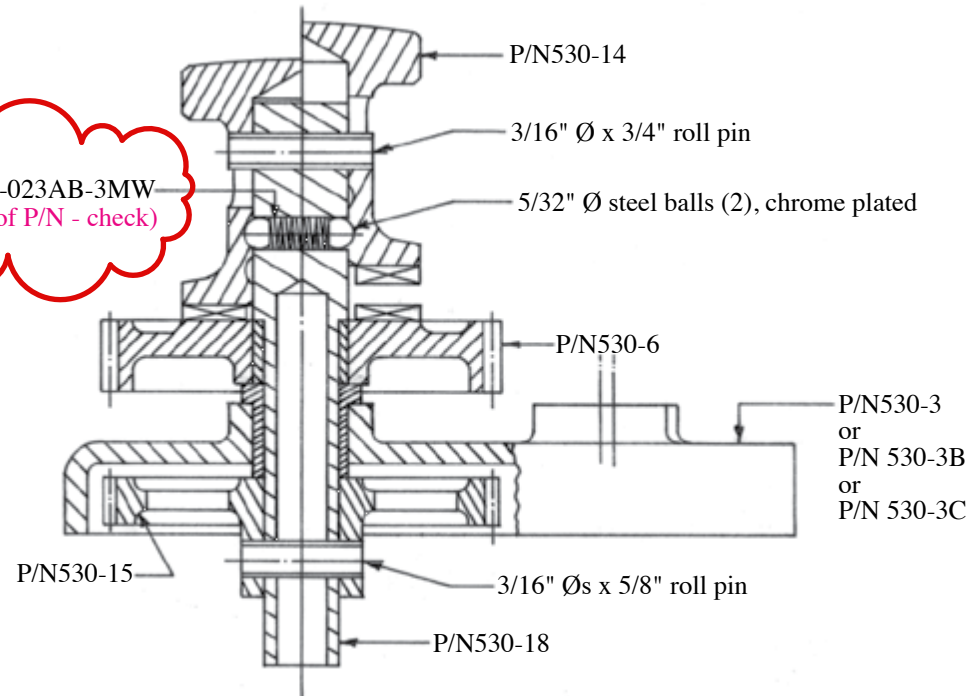
DATE
7-4-87

SCALE
FULL

DRAWING NUMBER
530-1B

LEE SPRING LC-023AB-3MW

Lee Spring LC-023AB-3MW
(not sure of P/N - check)



see drawing No. 530-1 for installation

NO. 530-2 ENGAGEMENT UNIT ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

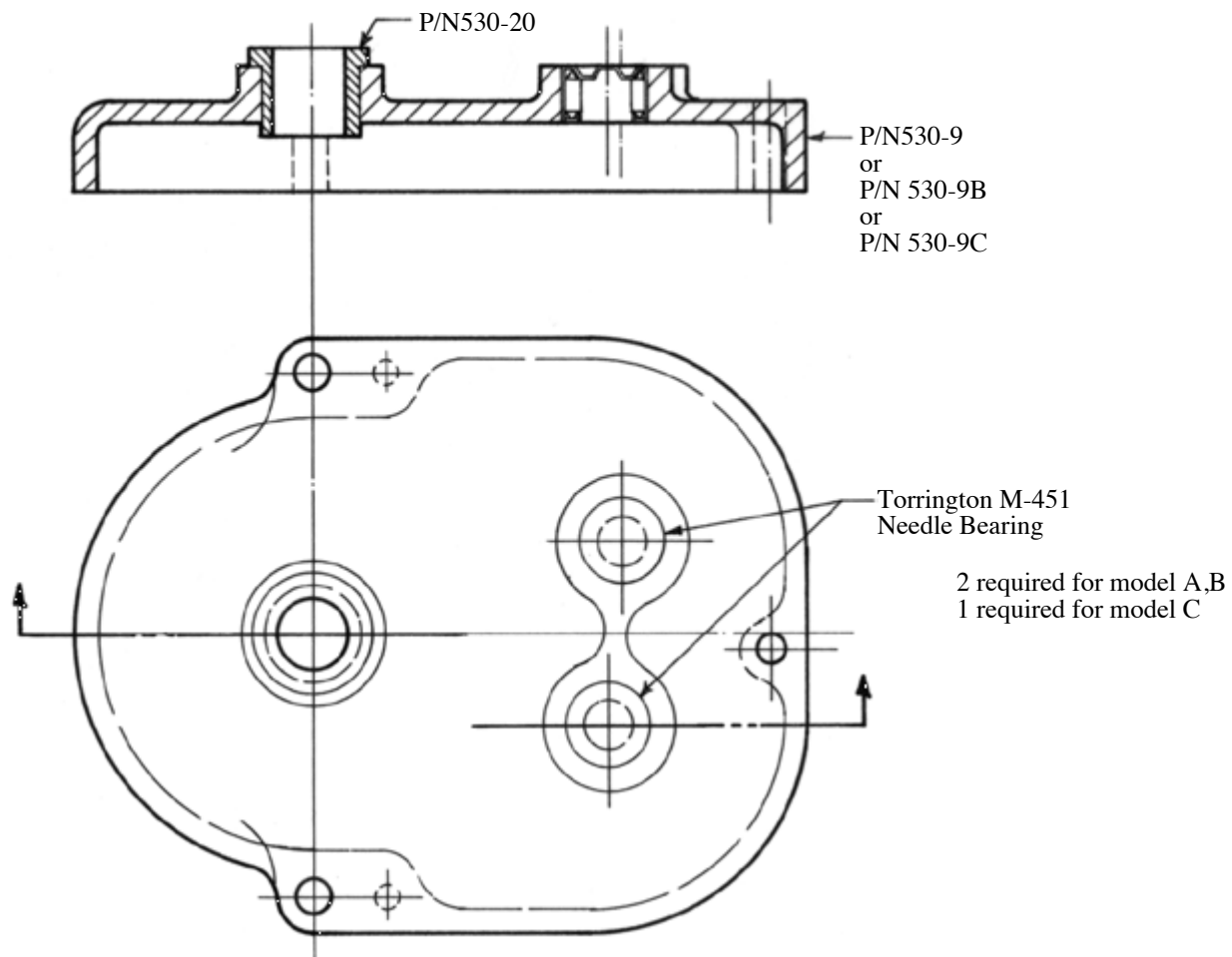
Sequoia Aircraft Corporation

TITLE
ENGAGEMENT UNIT ASSY
FOR MODEL A,B,C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-2



see drawing No. 530-2 for installation

NO. 530-3 UPPER HOUSING ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

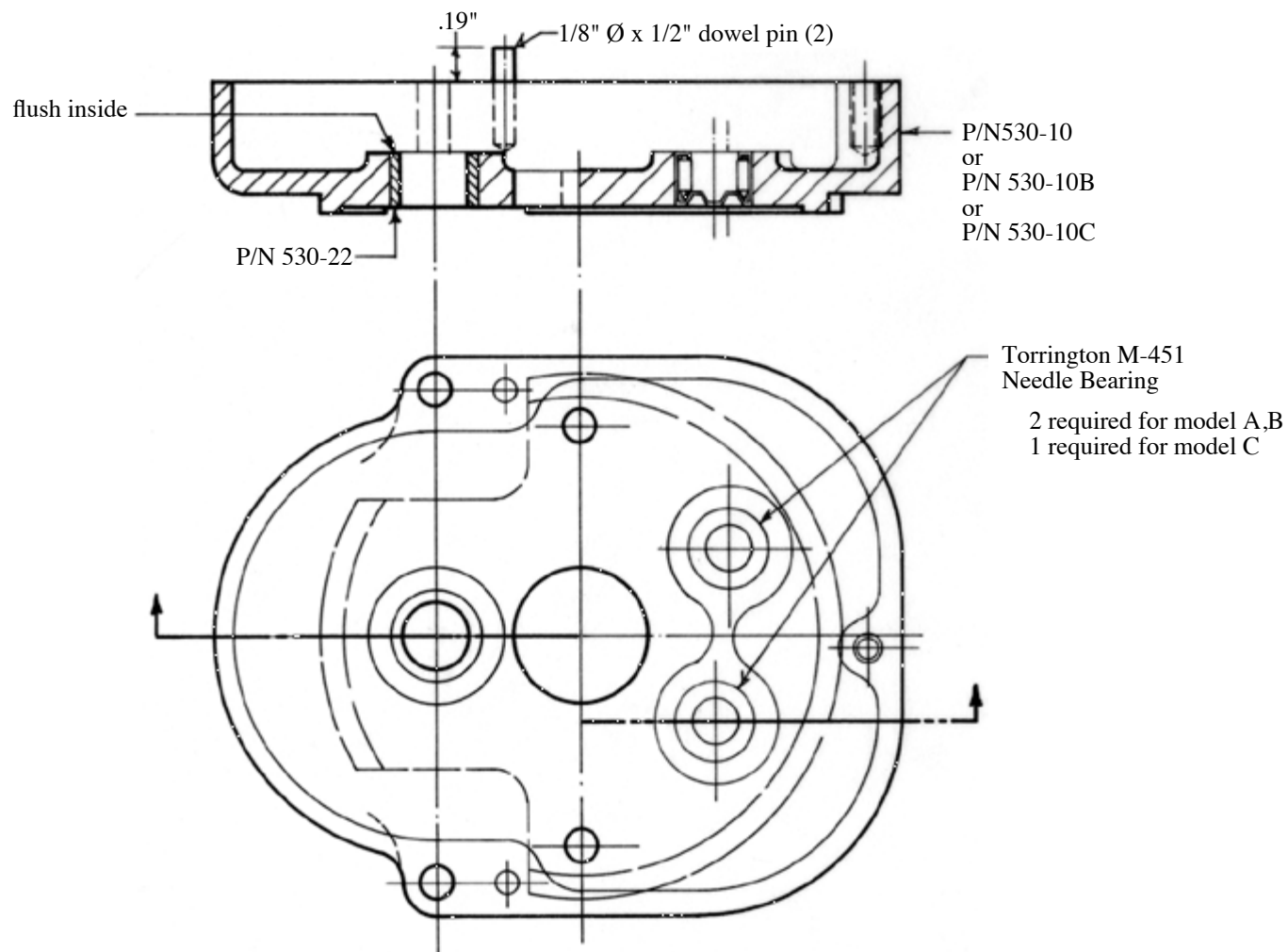
Sequoia Aircraft Corporation

TITLE
UPPER HOUSING ASSEMBLY
FOR MODEL: A, B, C

DATE
7-8-84

SCALE
FULL

DRAWING NUMBER
530-3



see drawing No. 530-1 for installation

NO. 530-4 LOWER HOUSING ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

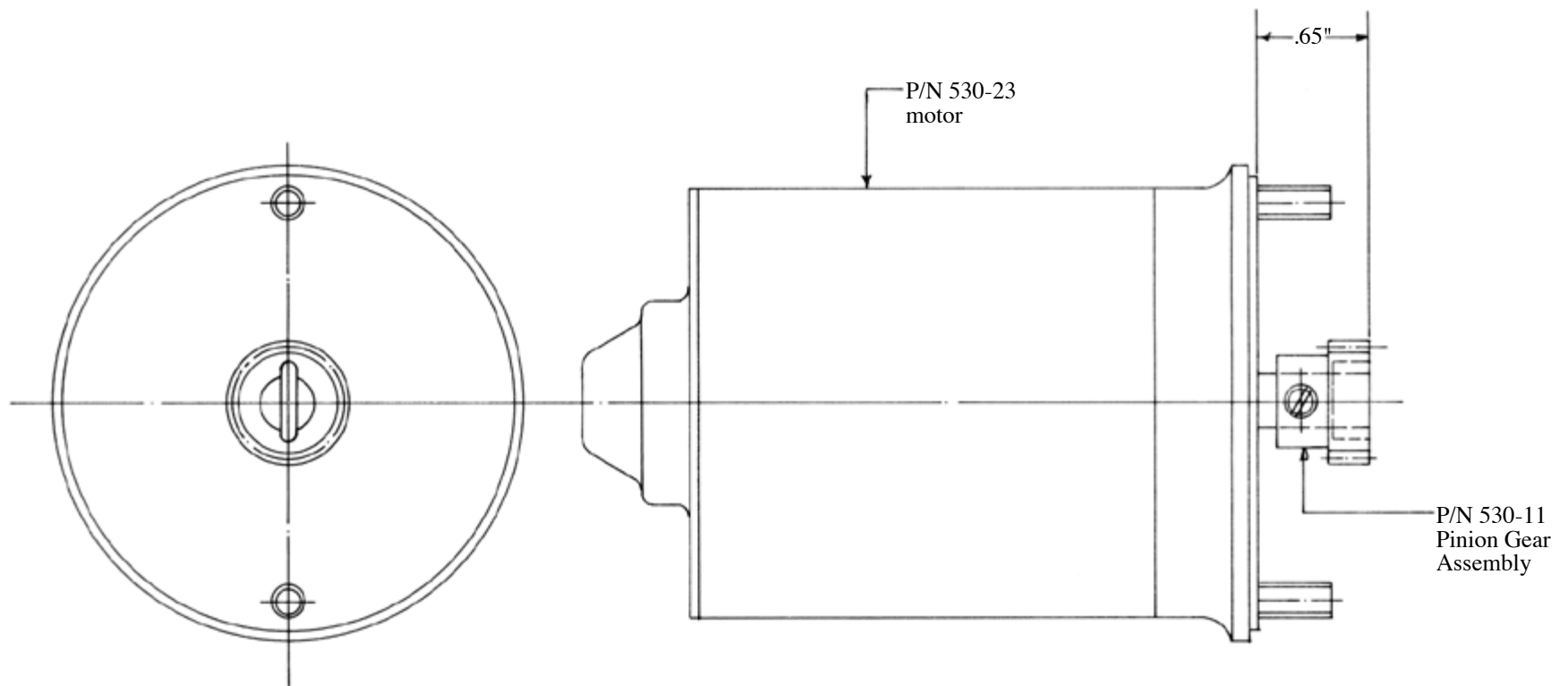
Sequoia Aircraft Corporation

TITLE
LOWER HOUSING ASSEMBLY
FOR MODEL A,B,C

DATE
7-8-84

SCALE
FULL

DRAWING NUMBER
730-4



see drawing No. 530-1 for installation

NO. 530-5 MOTOR ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

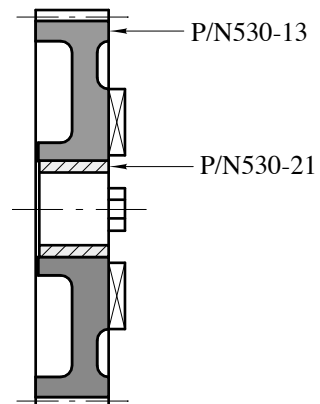
TITLE

MOTOR ASSEMBLY
FOR MODEL A,B, C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-5



see drawing No. 530-2 for installation

NO. 530-6 GEAR & SPIDER ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

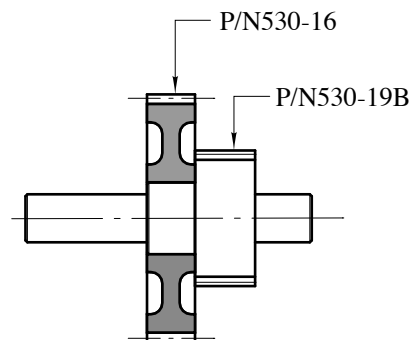
Sequoia Aircraft Corporation

TITLE
GEAR & SPIDER ASSEMBLY
FOR MODEL A,B,C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-6



see drawing No. 530-1B for installation

NO. 530-7B CHANGE GEAR ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

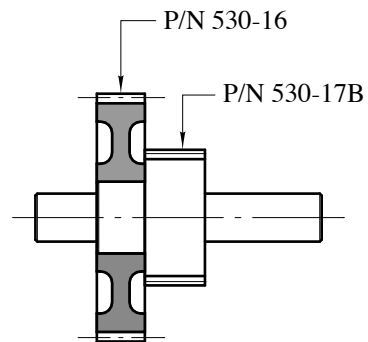
Sequoia Aircraft Corporation

TITLE
CHANGE GEAR ASSEMBLY
FOR MODEL B

DATE
7-5-87

SCALE
FULL

DRAWING NUMBER
530-7B



see drawing No. 530-1B for installation

NO. 530-8B CHANGE GEAR ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

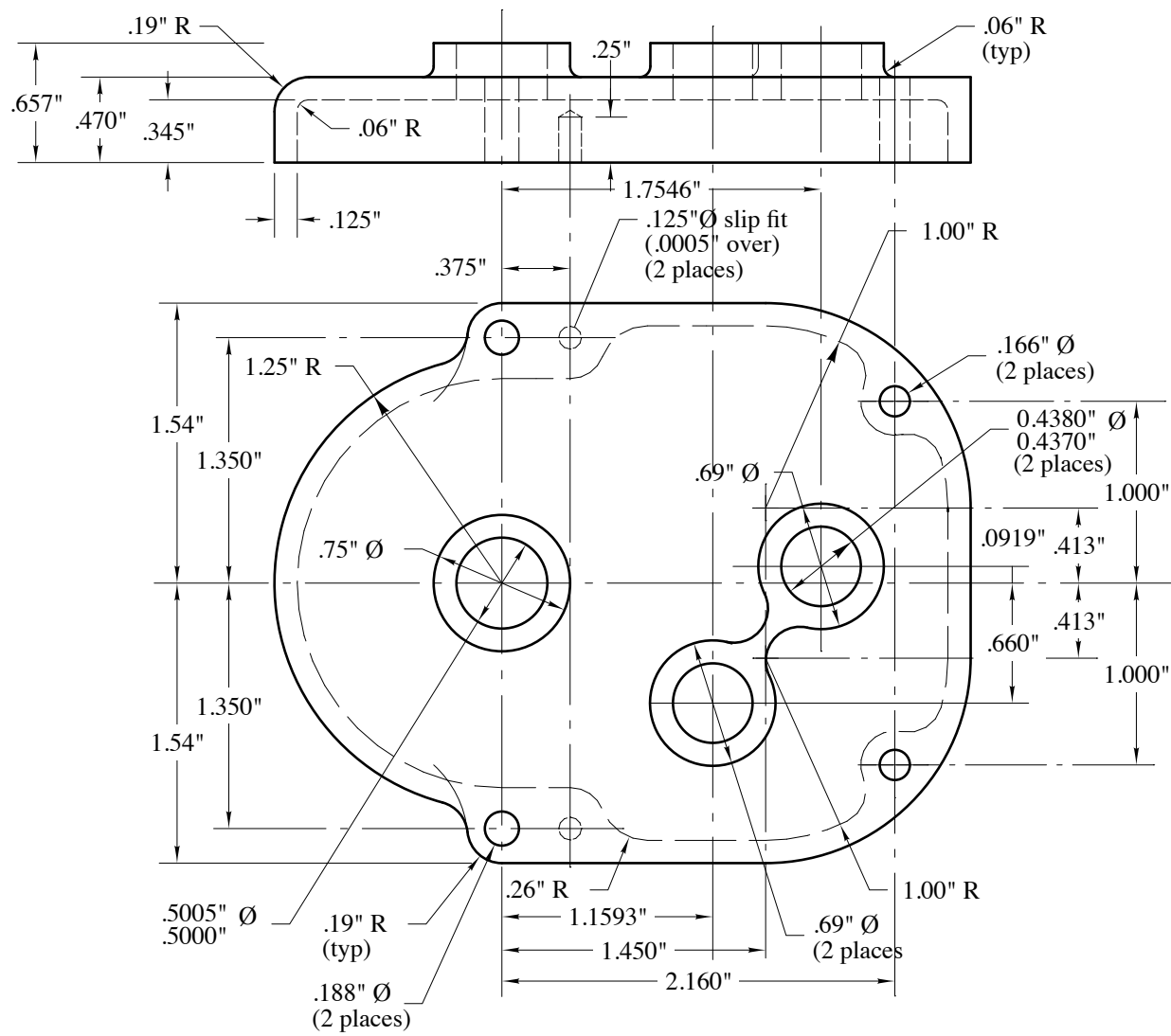
Sequoia Aircraft Corporation

TITLE
CHANGE GEAR ASSEMBLY
FOR MODEL B

DATE
7-5-87

SCALE
FULL

DRAWING NUMBER
530-8B



material: 6061-T6 or 2024-T4 aluminum
alodine

see Drawing No. 530-3 for installation

NO. 530-9B UPPER HOUSING
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

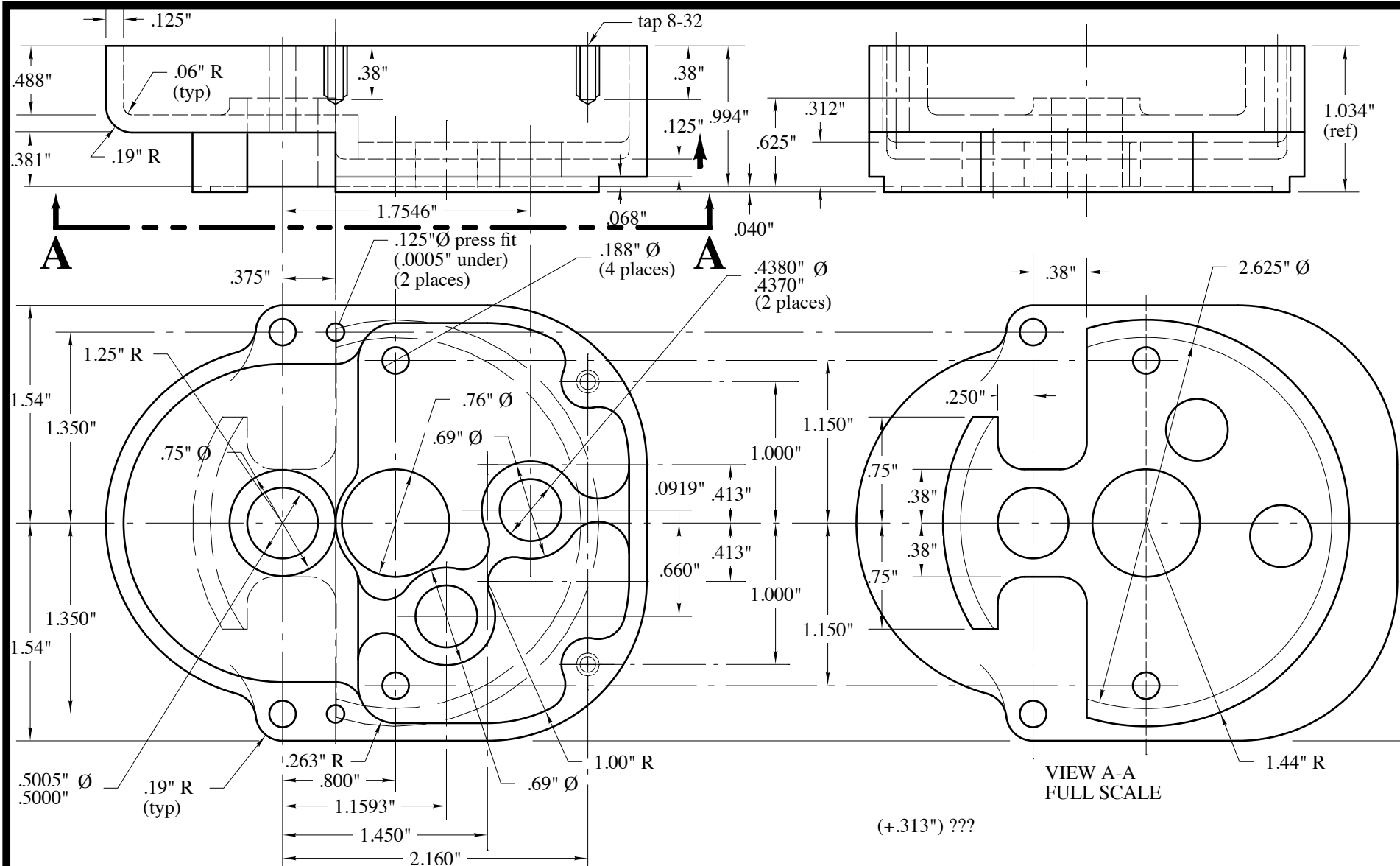
TITLE

UPPER HOUSING
FOR MODEL B

DATE
7-5-87

SCALE
FULL

DRAWING NUMBER
530-9B



VIEW A-A
FULL SCALE

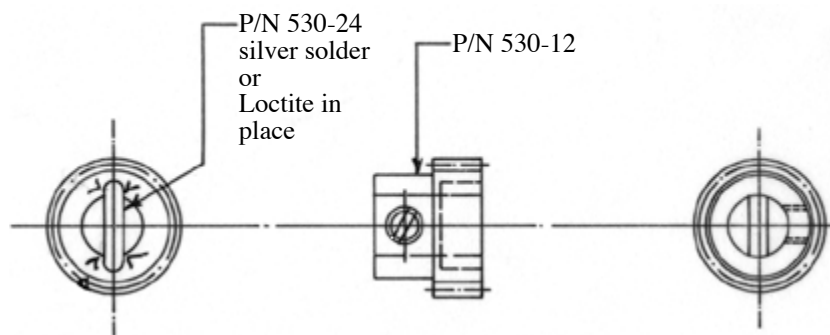
(+.313") ???

material: 6061-T6 or 2024-T4 aluminum
alodine

see Drawing No. 530-4 for installation

NO. 530-10B LOWER HOUSING
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation		
TITLE LOWER HOUSING FOR MODEL B		
DATE 7-4-87	SCALE FULL	DRAWING NUMBER 530-10B



see drawing No. 530-5 for installation

NO. 530-11 PINION ASSEMBLY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

TITLE

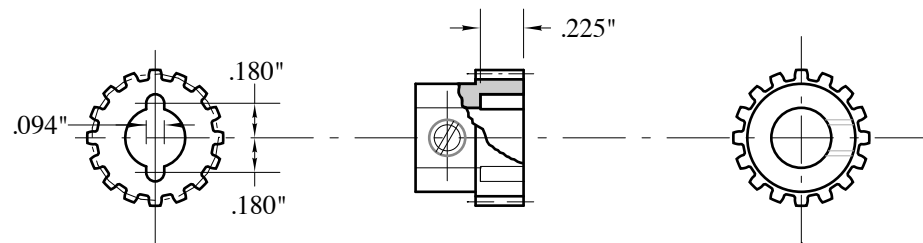
PINION ASSEMBLY
FOR MODEL A,B,C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-11

Boston Gear No. 09602
 Pressure Angle 14-1/2°
 Diametral Pitch 24
 Face 1/4"
 Material steel
 Teeth 16
 Pitch Diameter 0.667"
 Bore 5/16"
 Hub 35/64" Ø
 Hub Projection 5/16"

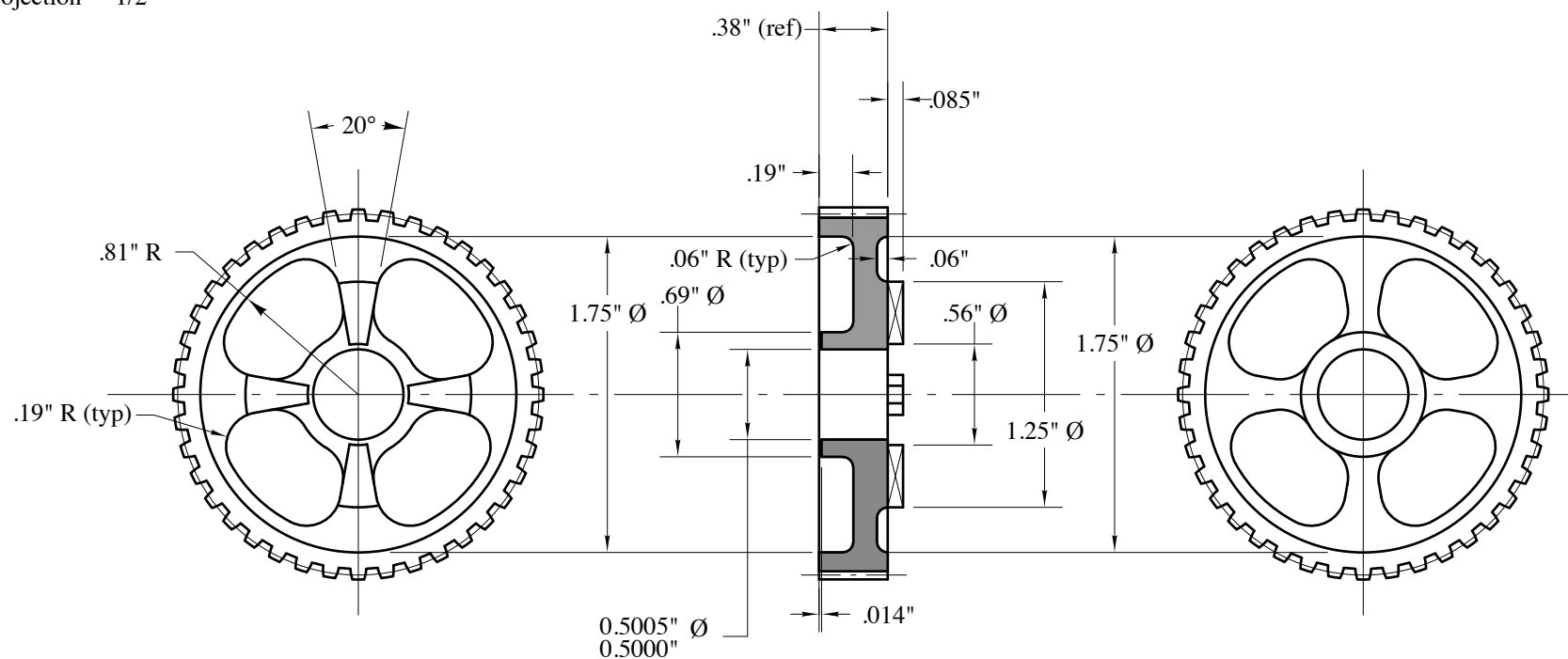


make from: Boston Gear No. 09602
 see drawing No. 530-11 for installation

NO. 530-12 PINION
 ONE REQUIRED PER AIRCRAFT
 FULL SCALE

Sequoia Aircraft Corporation		
TITLE		
PINION FOR MODEL A, B, C		
DATE	SCALE	DRAWING NUMBER
7-5-84	FULL	530-12

Boston Gear No. 09694
 Pressure Angle 14-1/2°
 Diametral Pitch 20
 Face 3/8"
 Material steel
 Teeth 40
 Pitch Diameter 2.000"
 Bore 3/8"
 Hub 1-23/32" Ø
 Hub Projection 1/2"



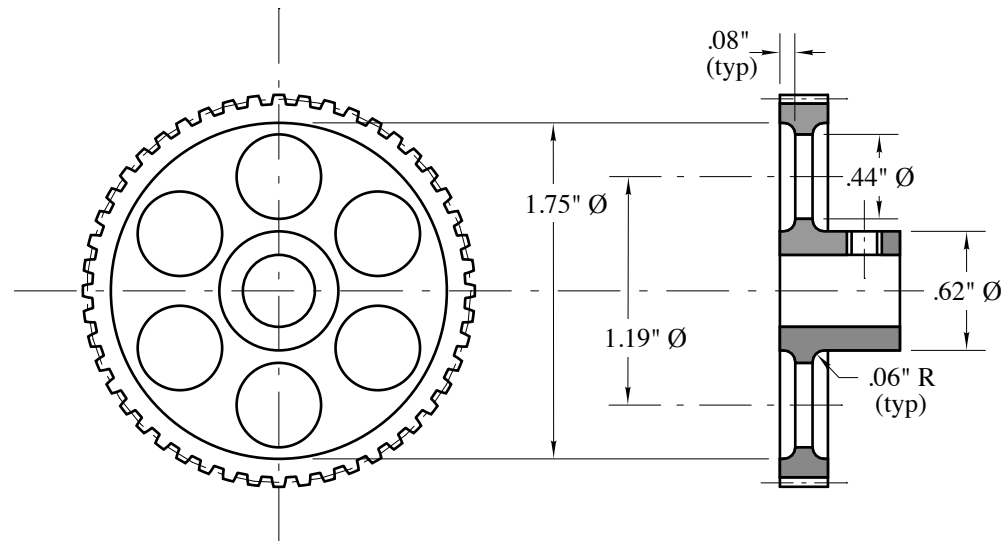
make from: Boston Gear No. 09694
 see drawing No. 530-6 for installation
 cadmium chromate plate

NO. 530-13 GEAR & SPIDER
 ONE REQUIRED PER AIRCRAFT
 FULL SCALE

Sequoia Aircraft Corporation

TITLE		
GEAR & SPIDER FOR MODEL A, B, C		
DATE 7-2-84	SCALE FULL	DRAWING NUMBER 530-13

Boston Gear No. 09618
 Pressure Angle 14-1/2°
 Diametral Pitch 24
 Face 1/4"
 Material steel
 Teeth 48
 Pitch Diameter 2.000"
 Bore 3/8"
 Hub 1-1/4" Ø
 Hub Projection 3/8"



make from: Boston Gear No. 09618
 see drawing No. 530-2 for installation

NO. 530-15 GEAR
 ONE REQUIRED PER AIRCRAFT
 FULL SCALE

Sequoia Aircraft Corporation

TITLE

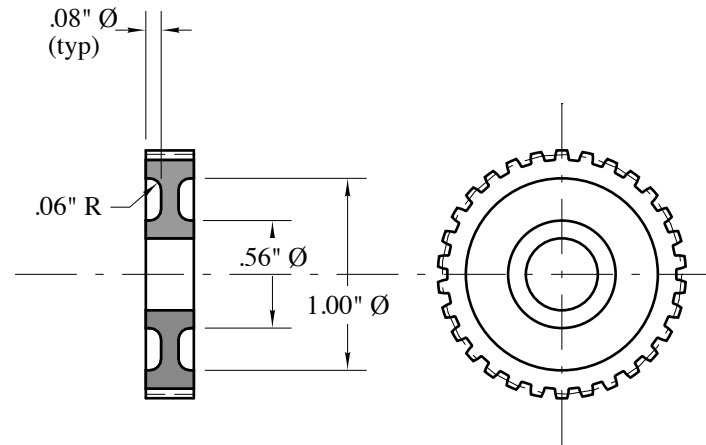
GEAR
 FOR MODEL A, B, C

DATE
 7-5-84

SCALE
 FULL

DRAWING NUMBER
 530-15

Boston Gear No. 09612
 Pressure Angle 14-1/2°
 Diametral Pitch 24
 Face 1/4"
 Material steel
 Teeth 30
 Pitch Diameter 1.250"
 Bore 3/8"
 Hub 1" Ø
 Hub Projection 3/8"



make from: Boston Gear No. 09612
 see drawing No. 530-7 & 530-8 for installation

NO. 530-16 SPUR GEAR
 2 REQUIRED PER AIRCRAFT
 FULL SCALE

Sequoia Aircraft Corporation

TITLE

SPUR GEAR
 FOR MODEL A, B

DATE
 7-5-84

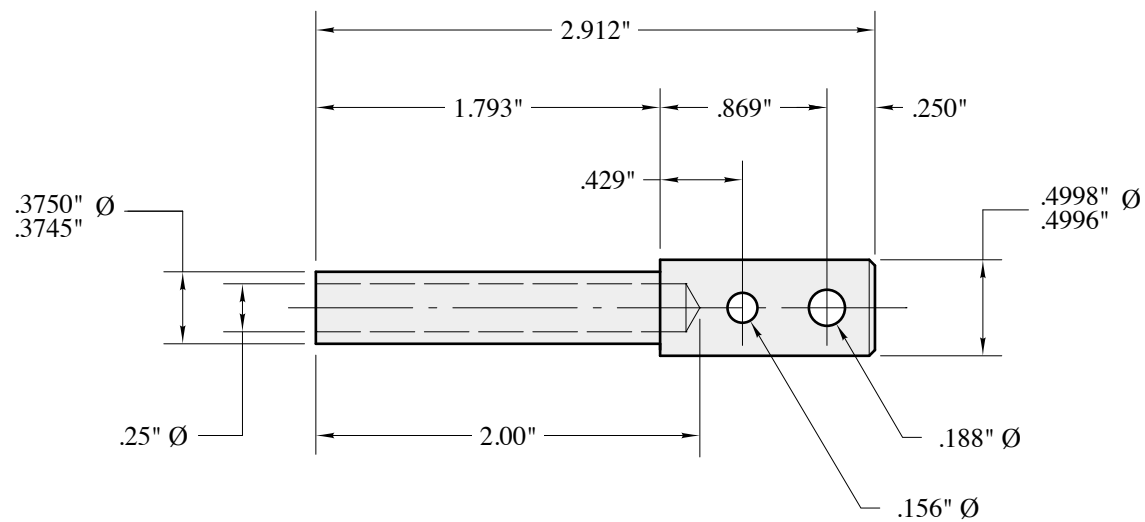
SCALE
 FULL

DRAWING NUMBER
 530-16

Pitch Diameter 0.667"



DRAWING NUMBER
530-17B



material: 4130 or 4140 steel
heat treat to 125,000 psi

see Drawing No. 530-2 for installation

NO. 530-18 SHAFT
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

TITLE

SHAFT
FOR MODEL A, B, C

DATE
7-5-84

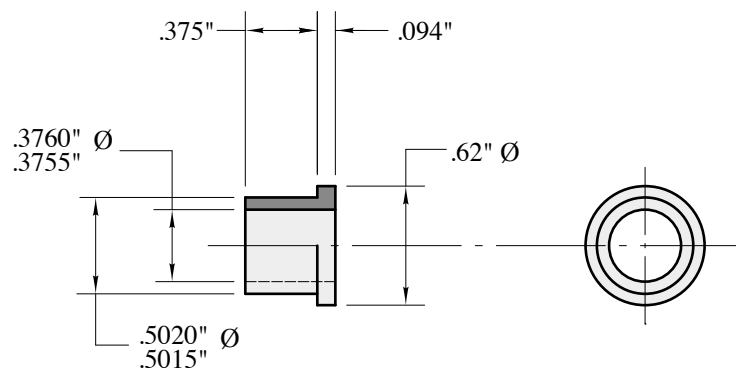
SCALE
FULL

DRAWING NUMBER
530-18

Pitch Diameter 0.667"



Sequoia Aircraft Corporation		
TITLE CHANGE GEAR PINION FOR MODEL B		
DATE 7-5-87	SCALE FULL	DRAWING NUMBER 530-19B



material: SAE 660 bronze
cadmium plate

see Drawing No. 530-3 for installation

NO. 530-20 BEARING
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

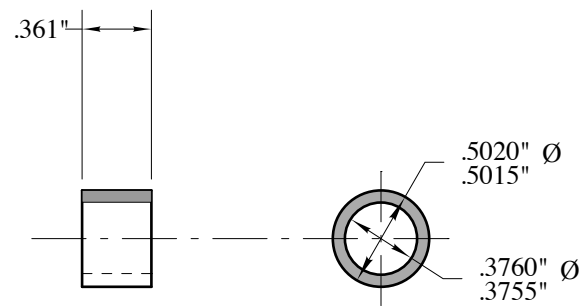
TITLE

BEARING
FOR MODEL A, B, C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-20



material: SAE 660 bronze
cadmium plate

see Drawing No. 530-6 for installation

NO. 530-21 BEARING
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

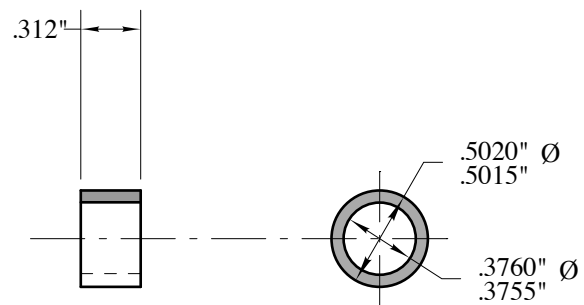
TITLE

BEARING
FOR MODEL A, B, C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-21



material: SAE 660 bronze
cadmium plate

see Drawing No. 530-4 for installation

NO. 530-22 BEARING
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

TITLE

BEARING
FOR MODEL A, B, C

DATE
7-5-84

SCALE
FULL

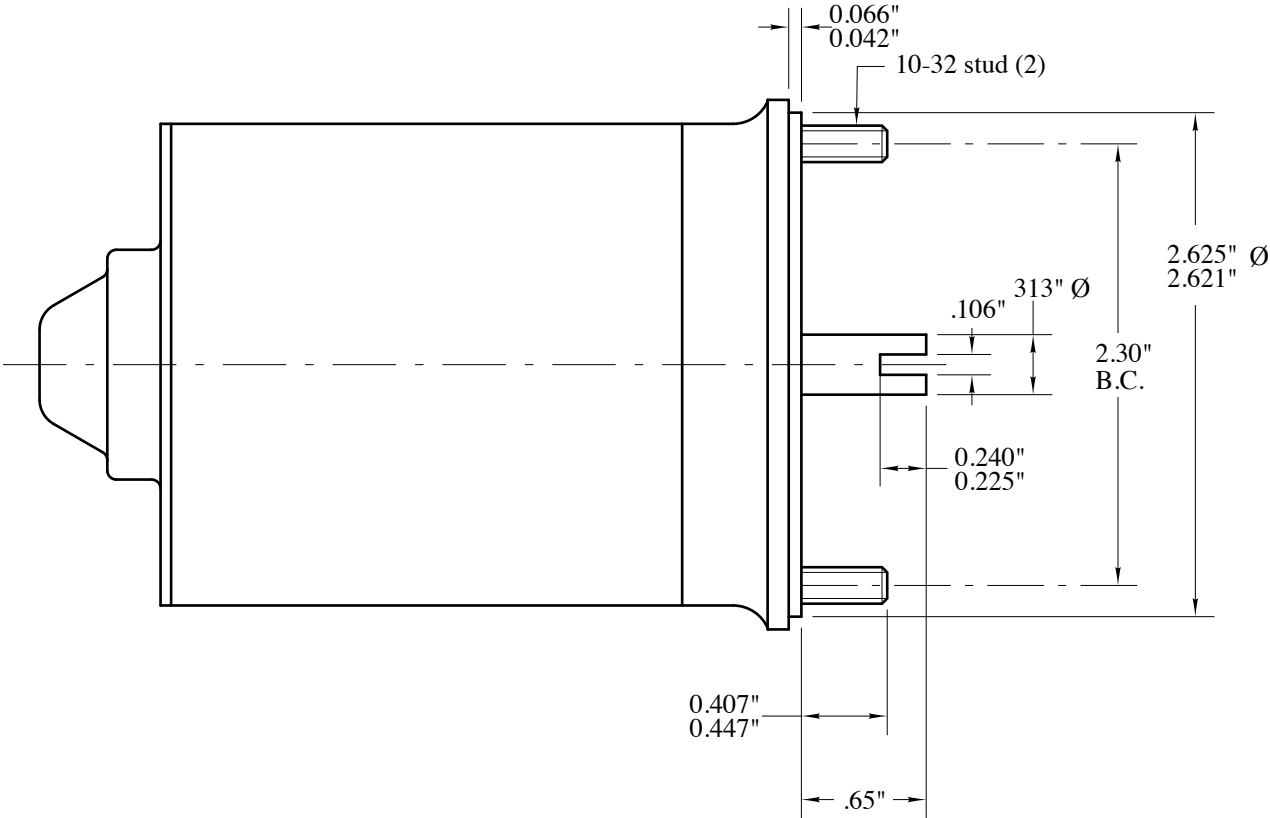
DRAWING NUMBER
530-22

American Bosch P/N MO66137A motor

motor specs:

- .225 hp, peak
- intermittent duty cycle
- dual rotation
- permanent magnet
- operation: 35 oz. in.
- 14.6 amps
- 4260 rpm
- locked rotor: 172 oz. in
- 61 amps
- no load: 2.7 amps
- 5350 rpm
- 12 volt motor

available from
Commercial Aircraft Products

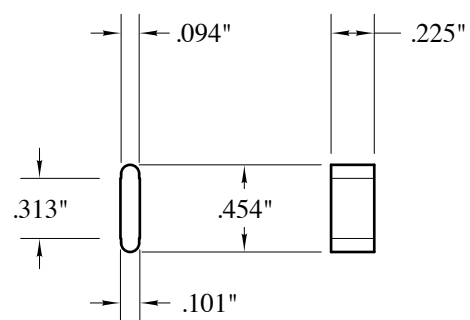


motor: American Bosch P/N MO66137A
see Drawing No. 530-5 for installation

NO. 530-23 MOTOR
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

TITLE		
MOTOR FOR MODEL A, B, C		
DATE	SCALE	DRAWING NUMBER
7-3-87	FULL	530-23



material: steel

see Drawing No. 530-11 for installation

NO. 530-24 KEY
ONE REQUIRED PER AIRCRAFT
FULL SCALE

Sequoia Aircraft Corporation

TITLE

KEY
FOR MODEL A, B, C

DATE
7-5-84

SCALE
FULL

DRAWING NUMBER
530-24