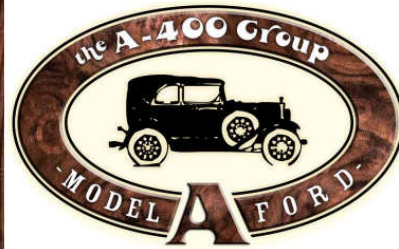


A400 Group News

March 2009 Edition

Bill & Sylvia Edstrom, Editors

In this issue you will find the most interesting and exciting article featuring nuts, bolts, screws & washers.



A400 Convertible Sedan
"The Aristocrat of Model A's"



You can't restore an A400 without these



Newsletter by Email

In the November 2008 Newsletter we asked that you consider receiving your A400 Group Newsletter by email in order to reduce the work that Sylvia and I have to do. I must say, the response was fantastic. We were pleasantly surprised and Sylvia and I thank you for your support. There were 75 members that agreed to receive the newsletter by email out of the 135 members that renewed their memberships. Thank you very much.

MARC 2009 National Meet

June 21-26 **Merrillville, Indiana**

We will have our **A400 Group Meeting** on **Friday, June 26, 8:00 AM—10:00 AM**

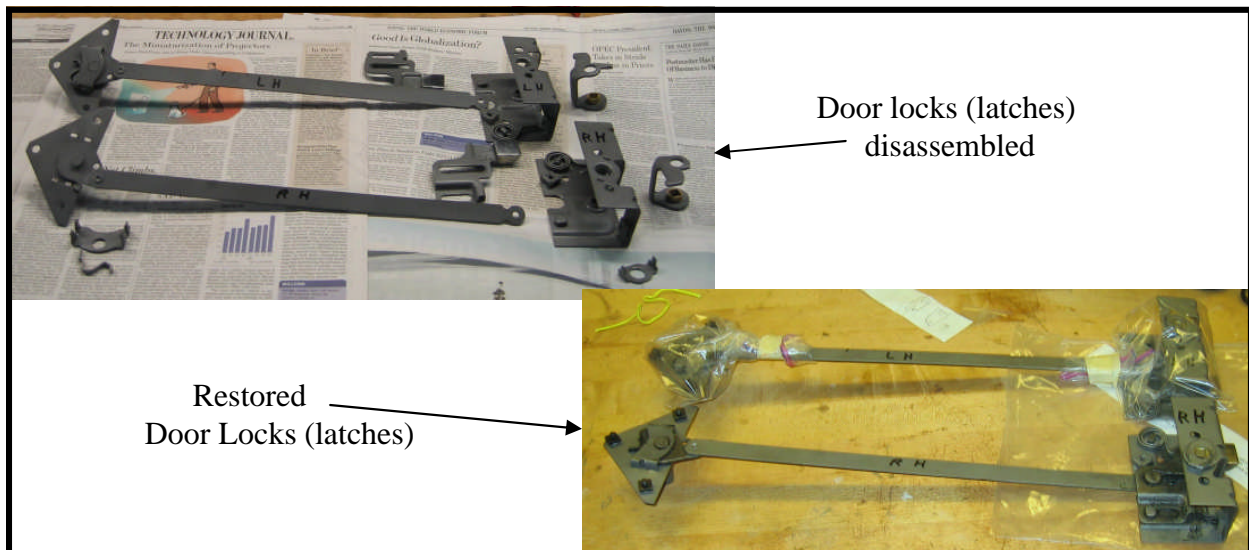
This year the seminar will be on the restoration of the door lock (latch) and remote control (see photos.)

Friday afternoon at 2:00 PM we will meet with our A400s on the parking lot for **photos** and more A400 talk. We will let you know the location at the A400 Meeting.

So, get your A400 shined up and drive or bring it to the National Meet. Last year in Dallas we had 14 A400s there. Let's aim for at least 20 this year.

We heard a lot of comments last year about the large number of A400s at the Meet.

Let's do even better this year.



Door locks (latches)
disassembled

Restored
Door Locks (latches)

Sad News

Gary Tatro passed away without warning on December 30, 2008 at the age of 64. Gary was a tool and die maker and was the retired owner of Detail Mold and Design, Inc. He had a lifelong love affair with the Model A and with aircraft. He was in the process of acquiring his pilot's license. Gary was an active member of the National and local Model A Clubs. We will all miss Gary and remember him for his passion to restore parts exactly as they were originally made. The A400 ashtrays that he was making were to be as perfect as possible. A labor of love for him.



We will all miss Gary and our heart goes out to Cheryl and his family.

Ashtray Checks

Cheryl Tatro wants all members that sent checks for ashtrays that Gary was making, to know that their checks will be returned. Please be patient as she has many things to take care of.

Ashtray Tooling

Cheryl would like for someone that has the experience to purchase the tooling that Gary has been making and finish manufacturing them. Practically all of the tooling has been finished. If you have the experience and access to shop equipment, please contact Cheryl:

Cheryl Tatro
3870 N. Hwy 183
Liberty Hill, TX 78642
512-515-5965

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Find That Missing A400

This winter proved very successful in finding cars. I received lots of help from members and non-members by hitting the web sites. I even found 3 cars right here in Arizona. The newly found car numbers are 203-233-465-1060-1461-1641-1751-2071-2222-2274-4296-4576-4707-4829. Numbers 1641 and 4707 were never listed on the roster. #203 is owned by Dana Diller (I had a hard time finding him in the past 2 years but with the help of a 68C friend and the Internet we did). His father restored the car in the sixties and Dana want to do it again. He told me that his daughter loves to drive this fine car. Additionally, #4285, #4355 and #1528 are sold and we do not know the new owners. Mr. Blaine McGillecuddy from WA just bought a nice one in Palm Desert, CA but this car has no tag. He is looking for help finding out were his car came from. Loy Clark's car #3458 is for sale. Another one for sale at Hyman Ltd Classic Cars, MO is Brewster Green , let me know if anyone has any info on this one.

When you sell your car please let me know who the new owner is, this is the life-line of our group.. And no excuses that you forgot their name.

We have 4 cars (maybe more) with the same number (2 with original and 2 with repro tags). We need to find a solution for this problem.

Being in Arizona gives one the opportunity/weather we need to drive daily. We went to a swap meet in Scottsdale with Larry Gilbert with his freshly restored A400 and we had an impromptu meeting of four 400-A owners: Larry & Alice Gilbert in car #738, Marlies & I in our new #1060, Howard Kreugel #1050 from Chula Vista, CA showed up, he was on a tour with his other A, then Bob Mather #4548 Boise, ID called saying he was in Phoenix to pick up a car and only 2 miles from us, so he quickly joined us. We had a great time catching up.
See photo.



Bob, Howard, Joop and Larry

There is a Brewster Green A400 being restored in Tempe, AZ. Can someone help me find the owner.

Also who knows Jack Miller in Fayetteville, GA, he is on a KOZAK ad for auto dry wash with his? A400. I think this is the Rex Reheis car #2731. Don Crum's former car #1746 is in MI any help on finding these cars would be greatly appreciated.

So please be vigilant and help me find those missing ones.

Joop Plaggenborg

Ford68C@aol.com

Ford400A@aol.com

Phone 508-361-1185

Joop's Story (cont.)



Dana Diller & Joop

On our trip thru California we met up with Tom and Barbara Moniz. They own 400-92. Tom is my counterpart as he is the Roster Keeper for the S/W Cabriolet 68C

Joop & Marlies' New Toy



For Sale

New/Old front floor mat for A400
This was made in the seventies and never used.
It is dark brown.
\$60.00 plus shipping cost.
Can email pictures.

Joop

Ford68C@aol.com or Ford400A@aol.com

Phone: 508-361-1185

Ultimate Barn Find: A400 4707 Found!!!

Like all Model A Ford Enthusiasts, I have always dreamed of finding that illusive car in the barn. My A400 interest began when I met Billy Berger of the Santa Barbara Chapter. I met Billy at the same time that I saw my first A400.

This story begins two summers ago when I attended the Central California Regional Group's Grand Tour. At the meet there were two A400's. I knew something of the model, the rarity and cost of such a vehicle was surely prohibitive to my situation.

Last summer, my wife, Kay, and I attended the World Meet in Dallas where there were an amazing number of A400's. At that time, I mentioned to Kay that I would like to someday own one. Upon returning home to our Local Chapter of MAFCA, the Santa Maria A's, I presented a meeting to tell the story of the National Meet. After the meeting, one of our members asked me if I knew anything about A400's. He told me that he had located one and wondered if I would be interested in purchasing it. We later met to talk about it and I made a commitment to buy it on the spot. With a hope and a prayer, I took the long trip to Mojave, Arizona to check it out and hopefully bring the car home. I was very excited when I first saw it and was very happy to have it secure on the trailer for the trip home.

The car, A400 4707, was purchased by Mr. David McCameron in 1960 in Santa Rosa, CA. He performed a restoration at the time and owned and enjoyed the car for 49 years. The car is very complete with very little rust due to the California/Arizona climate. I will be looking for various top parts etc in the future when the restoration job begins.

The moral of this story is—follow all leads, listen to people when they have a story to tell. You never know what may come of it.

Jay E. McCord
4532 Merridock Ct.
Santa Maria, CA. 93455
jemccord@aol.com
Phone 805-598-8133



Photo Gallery

Bob Collier, of Augusta, GA, writes that he is now the owner of two A400s. He purchased #3512 from Tommy Davis and #a3998 from Bill Slate. We welcome Bob to our Club. Here are photos of #3512 and #a3998.

Have fun driving “The Aristocrat of the Model A’s” Bob.

#3512

a3998



Phil & Judy Cullen of Pueblo, CO A400



Jerry Pilcher of Gurnee, IL A400

Fasteners for the A400 Convertible Sedan

One of the most time intensive jobs of restoring the A400 or any Model A is finding the correct nuts, bolts, screws and washers for assembling it. It can be really frustrating when you need a bolt or a nut and you don't have it. So collecting the correct fasteners and applying the correct finish ahead of time will save you a lot of time when you assemble your A400.

The first question that will be asked is-"Where can these parts be found?" Of course, if you are restoring a car to be a driver and you are not interested in having it judged, there are fasteners that are sold by the parts suppliers that you can use. But if you want a correct restoration to show or to drive, you will need to find original nuts, bolts, screws and washers or reproductions that are just like the originals. In this article I will do my best to help you find and to identify them.

The July 1, 1931 Ford Parts Price List, Ford Model A Standard Hardware by Mick Isbell and the Restoration Guidelines and Judging Standards were used to determine the correct parts. The list follows each area of the Judging Standards. I have tried to use terminology that is used in the Judging Standards and the 1931 Price List. I would suggest that if you do not have the referenced books, that you purchase them and use my list as a guide and verify the nuts, bolts, screws or washers using the above references if you are in doubt. These books are available from MARC, MAFCA or any of the parts suppliers.

I did not have time to provide the fasteners for the top parts. I will provide them in a future newsletter. I am also missing screws for the internal woodwork. When you use this and find errors, please let me know so I can correct the list. I am sure that if you are restoring an A400 or if you are trying to make sure you have the correct nuts, bolts, screws and washers, you will find the list useful. Let me know if you find it helpful and if there are any changes that can make it easier to use.

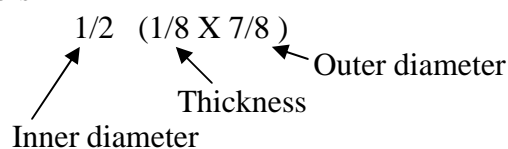
I am also providing you with charts so you can find the diameter of numbered screws, fraction to decimal, and for head configurations.

When you disassemble the car that you plan to restore, bag the nuts, bolts, screws and washers as you remove them from the car and label the bags so you will know where the parts are to be used. This is the best place to find them. When you attend swap meets, look for them in all parts of the vender's booth. Talk to other Model A owners and ask them if they have extra parts that you can search through for the part that you need. On Ebay I was able to purchase 150 pounds of bolts, nuts and washers that came from a restoration shop where they just threw the nuts, bolts and washers in a box and used new fasteners when they restored a Model A. They did this over a 20 year period.

In the list I have supplied you with the part number and the size of the fastener. Here is how to read the sizes:

1. Bolt or Screw $7/16-20 \times 1/2$
Thread diameter Number of threads per inch Length of bolt or screw
2. Nut $7/16-20 (7/16 \times 11/16)$
Thread diameter Number of threads per inch Thickness Distance across the flats

3. Washers



Some screws, nuts and washers are sized based upon numbers such as No. 12-24 screw. The following chart #1 will provide you with the nominal size for the numbered fasteners.

The parts list gives all dimensions of the fasteners in fractions so here is Chart #2 that you can use to convert the fractions to decimals.

CHART #1	
Screw Number	Nominal Screw Diameter
0	0.060
1	0.073
2	0.086
3	0.099
4	0.112
5	0.125
6	0.138
8	0.164
10	0.1900
12	0.216

Conversion Chart #2

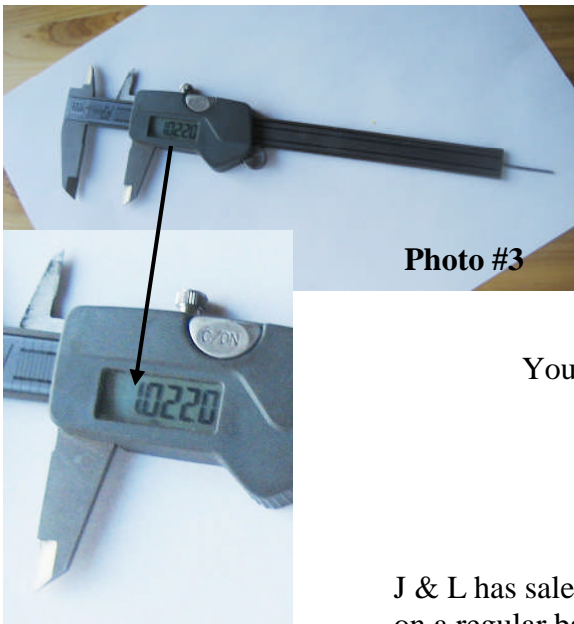
FRACTIONS – DECIMALS – MILLIMETERS					
	DECIMAL	MM			
1/64	.0156	0.396	33/64	.5156	13.096
1/32	.0312	0.793	17/32	.5312	13.493
3/64	.0468	1.190	35/64	.5468	13.890
1/16	.0625	1.587	9/16	.5625	14.287
5/64	.0781	1.984	37/64	.5781	14.684
3/32	.0937	2.381	19/32	.5937	15.081
7/64	.1093	2.778	39/64	.6093	15.478
1/8	.125	3.175	5/8	.625	15.875
9/64	.1406	3.571	41/64	.6406	16.271
5/32	.1562	3.968	21/32	.6562	16.668
11/64	.1718	4.365	43/64	.6718	17.065
3/16	.1875	4.762	11/16	.6875	17.462
13/64	.2031	5.159	45/64	.7031	17.859
7/32	.2187	5.556	23/32	.7187	18.256
15/64	.2343	5.953	47/64	.7343	18.653
1/4	.250	6.350	3/4	.750	19.050
17/64	.2656	6.746	49/64	.7656	19.446
9/32	.2812	7.143	25/32	.7812	19.843
19/64	.2968	7.540	51/64	.7968	20.240
5/16	.3125	7.937	13/16	.8125	20.637
21/64	.3281	8.334	53/64	.8281	21.034
11/32	.3437	8.731	27/32	.8437	21.431
23/64	.3593	9.128	55/64	.8593	21.828
3/8	.375	9.525	7/8	.875	22.225
25/64	.3906	9.921	57/64	.8906	22.621
13/32	.4062	10.318	29/32	.9062	23.018
27/64	.4218	10.715	59/64	.9218	23.415
7/16	.4375	11.112	15/16	.9375	23.812
29/64	.4531	11.509	61/64	.9531	24.209
15/32	.4687	11.906	31/32	.9687	24.606
31/64	.4843	12.303	63/64	.9843	25.003
1/2	.500	12.700	1	1.000	25.400

To properly identify the correct fastener I would suggest that you purchase the following tools:

1. Screw pitch gage. The photo below show the gage in photo #1 and how it is used in photo #2. I know in the Model A hobby members use the terms fine threads and course threads. But in each of these categories a fine thread could be a 20 to 40 threads peer inch. A course thread could be from 10 to 18 threads per inch. To identify the correct screw or nut you will need to measure the part.



2. To measure diameter thickness and distance across flats of a hex or of a square bolt and screw head, I recommend that you acquire a 0 to 6 inch electronic caliper (photo #3) and a 0 to 1 inch electronic micrometer (photo #4). These have an easy to read display.



You can purchase these items from:

MSC/J & L Metalworking
20921 Lakser Road
Southfield, MI 48033
800-521-9520

J & L has sales for these Calipers and Micrometers on a regular basis for about \$50 ea.

Of course they also have very expensive ones but I found these cheaper ones adequate.

The screw pitch gage that I purchased is P/N 01221043. This gage has 28 leaves and you can measure the number of threads from 4 threads per inch to 80 threads per inch. It sells for about \$20.

You may also want to check Ebay and other tool suppliers. Check with your friends for other sources.

In the list of parts I give you the head configuration of screws and bolts. Chart #3 below illustrates head configurations.

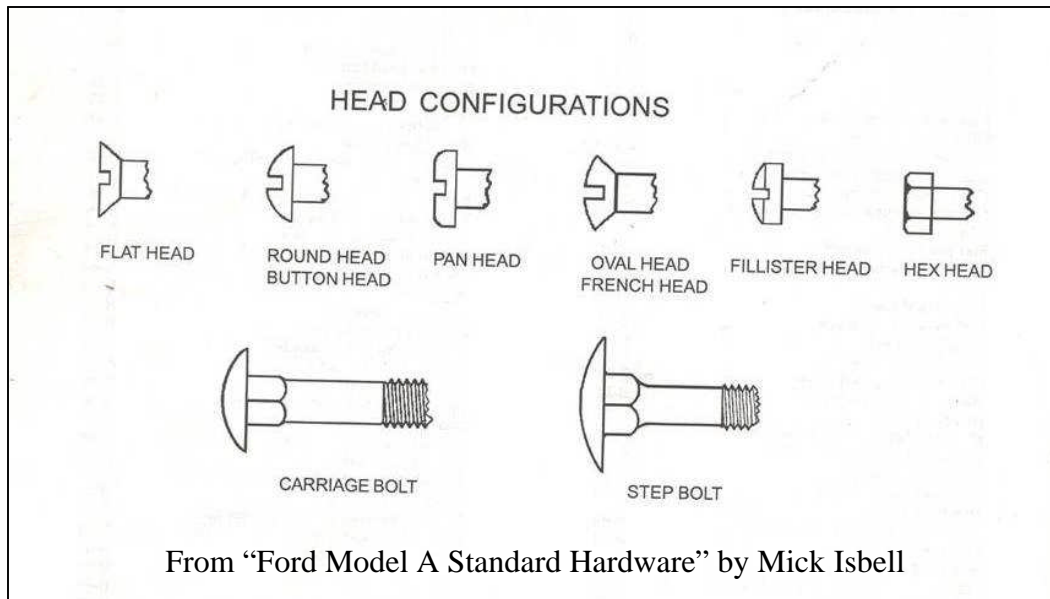


Chart #3

BOLTS, NUTS, SCREWS & WASHERS

Info gathered by Bill Edstrom

Note: Areas are based upon the Judging Standards

Area 1 Engine and Engine Compartment

Number Required

A. Hood Lacings

- | | | |
|----|------------------------------------------------------------|---------|
| 1. | Hood Lacing rivets | |
| | Split rivet A-22900 1/8 X 1/4 oval head | 24 req. |
| | Finish S-4 (black enamel steel) | |
| 2. | Radiator shell bolt | 4 req. |
| | Special flat head slotted bolt A-20401 No. 12-24 X 1/2 B53 | |
| | Finish S-2 (raven) | |
| 3. | Radiator shell bolt washer | 4 req. |
| | Lock washer A-22139 7/32 (1/16 X 27/64) W-34 | |
| | Finish S-3 (black enamel) | |
| 4. | Radiator shell bolt nut | 4 req. |
| | Square nut A-21632 No. 12-24 (3/16 X 1/2) N-14 | |
| | Finish S-7 (Cad plated) | |
| 5. | Cowl hood lacing screw (top) | 1 req. |
| | Binding head A20437 No. 12-24 X 3/4 | |
| | Finish S-7 (Cad plated) | |
| 6. | Cowl hood lacing screw (sides) | 2 req. |
| | Binding head A20439 No. 12-24 X 1 | |
| | Finish S-7 (Cad plated) | |

Area 1 Engine and Engine Compartment

Number Required

B. Engine

1. Cylinder head nut
Hex head A21788 7/16-20 (7/16X11/16) N6 14 req.
Finish S-7 (cad)
2. Cylinder head studs
 - a.) A-24052 7/16-20 for nut end X 5 23/32 long 2 req.
7/16-14 block end
Finish S (unfinished) or S-2 (raven)
 - b.) A-24051-C same thread as for "a" above 3 1/16 long 1 req.
Finish same as "a"
 - c.) A-24050 thread same as "a" 3 1/2 long 9 req.
Finish same as "a"
3. Manifold stud nut
Hex head A21788 7/16-20 (7/16 X 11/16) N6 4 req.
Finish S-7 or S-8 (cad or zinc)
4. Manifold studs
A-24053 7/16-20 (nut end) X 2 3/16 long 4 req.
7/16-14 (block end)
Finish S or S-2 (unfinished or raven)
5. Timing cover to cylinder block-long (side)
Oval head screw A-21111 7/16-14 X 2 7/16 B38 1 req.
Finish S-2 (raven)
6. Timing cover to cylinder block—short (side)
Oval head screw A-21120 7/16-14 X 1 1/2 1 req.
Finish S-2 (raven)
7. Cylinder front cover
Oval head screw A-20902 3/8-16 X 1 1/8 B38 6 req.
Finish S-2 (raven)
8. Front cover lock washer 3/8 (3/32 X 21/32) W12 6 req.
Finish S (unfinished)
9. Timing pin A-6023 (square head) 1 req.
Finish S-2 (raven) no lock washer
10. Engine front support screw 2 req.
Hex head A-21240 1/2-13 X 1 1/8 B/29
Finish S (unfinished)
11. Engine front support screw lock washer 2 req.
Lock washer A-22330 1/2 (1/8 X 7/8) W-12
Finish S (unfinished)
12. Engine front support nut 1 req.
Castle nut A-21791 7/16-20 (29/64 X 5/8) N4
Finish S-3 (black paint)
13. Engine front support washer 1 req.
Plain washer A-22323 15/36 (3/32 X 1 3/16) W-20
Finish S (unfinished)
14. Engine front support stop 1 req.
Leather washer A6033 35/64 (1/8 X 1 3/8)
The 1 3/16 dia. was clipped 3/16
15. Engine front support cotter pin 3/32 X 3/4 1 req.
Finish S (unfinished)
16. Crankshaft front and center bearing bolts 4 req.
Special head A-21215 1/2—20 X 5-5/8 B55
Finish S (unfinished)
17. Crankshaft front & center bearing bolt nuts 4 req.
Castle nut A-21841 1/2—20(9/16 X 3/4) N4
Finish S (unfinished)
18. Crankshaft front & center bearing cotter 4 req.
3/32 X 3/4
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

<u>Area 1 Engine and Engine Compartment (cont.)</u>	<u>Number Required</u>
19. Oil pan to cylinder block Hex head A-20718 5/16—18 X 3/4 B39 Finish S (unfinished)	20 req.
20. Oil pan to cylinder block washer Lock washer A-22217 5/16 (1/16 X 37/64) W-12 Finish S (unfinished)	20 req.
21. Engine pan to frame bolt Hex head A20534 1/4 -28 X 1/2 B-22 Finish S-2 (raven)	6 req.
22. engine pan to frame nut Square head A-21666 1/4—28 (3/26 X 1/2) N14 Finish S (unfinished)	6 req.
23. Engine pan to frame washer Lock washer A22150 1/4 (3/64 X 29/64) W-12 Finish S (unfinished)	6 req.
24. Oil return pipe bolt Hex head A-20720 5/16 -18 X 1-3/8) B22 Finish S (unfinished)	2 req.
25. Oil return pipe washer Brass plain washer A-22220 5/16 (1/16 X 1/2) W2 Finish S (unfinished)	2 req.
26. Valve chamber cover bolt Hex head A-20718 5/16—18 X 3/4 B39 Finish S (unfinished)	10 req.
27. Valve chamber cover bolt washer Lock washer A-22217 5/16 (1/16 X 37/64) W-12 Finish S (unfinished)	10 req.
28. Flywheel housing shield bolt Hex head A-20534 1/4-28 X 1/2 B-22 Finish S-2 (raven)	3 req.
29. Flywheel housing shield washer Lock washer A-22150 1/4 (3/64 X 29/64) W-12 Finish S (unfinished)	3 req.
30. Flywheel to crankshaft bolt Hex head A-21113 7/16—20 X 27/32 B-28 Finish S (unfinished) (Hex head with hole for safety wire)	4 req.
31. Flywheel to cylinder block bolt Hex head A-21110 7/16—14 X 1 1/16 B-28 Finish S (unfinished) (Hex head with hole for safety wire)	4 req.
32. Flywheel housing bolt (throttle control linkage) Hex head A-21121 7/16—14 X 1 11/16 B27 Finish S (unfinished)	2 req.
33. Flywheel housing bolt washer Lock washer A22300 7/16 (1/8 X 3/16) W-12 Finish S (unfinished)	2 req.
34. Flywheel housing to rear engine support bolt Hex head A-21207 1/2 -13 X 1- 3/8 B24 Hex with hole for safety wire Finish S (unfinished)	4 req.
35. Flywheel housing to rear engine support bolt washer Lock washer A-22330 1/2 (1/8 X 7/8) W-12 Finish S (unfinished)	4 req.
36. Rear engine support to frame bolt Hex head A20740 5/16—24 X 1 3/8 B-23 Finish S-2 (raven)	6 req.

Bolts, Nuts, Screws & Washers (cont.)

Area 1 Engine and Engine Compartment (cont.)

B. Engine

- | | Number Required |
|------------------------------------------------------------------------------------------------------------------|-----------------|
| 37. Rear engine support to frame bolt nut
Castle nut A-21701 5/16 - 24 (21/64 X 1/2) N4
Finish S-2 (raven) | 6 req. |
| 38. Rear engine support to frame bolt cotter
1/16 x 1/2
Finish S (unfinished) | 6 req. |

C. Firewall

- | | |
|-----------------------------------------------------------------------------------------------------------|--------|
| Starter rod grommet cover rivet
Rivet A22976 9/64 X 1/4 oval head tubular
Finish S-3 (black enamel) | 3 req. |
|-----------------------------------------------------------------------------------------------------------|--------|

D. Fuel System

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1. Fuel valve nut
Hex head A-21665 1/4—24(1/8 X 1/2) N6
Finish S-8 (zinc plated) | 1 req. |
| 2. Fuel valve nut washer
Lock washer A-22150 1/4 (3/64 X 29/64) W-12
Finish S-1 (black enamel) | 1 req. |
| 3. Intake to exhaust manifold bolt
Hex head A-20718 5/16—18 X 3/4 B-27
Finish S (unfinished) | 2 req. |
| 4. Intake to exhaust manifold bolt washer
Lock washer A-22217 5/16 (3/32 X 37/64) W-12
Finish S (unfinished) | 2 req. |
| 5. Carburetor | |
| a. Carburetor to intake manifold screw
Hex head A-20718 5/16 - 18 X 3/4 B27
Finish S (unfinished) | 2 req. |
| b. Carburetor to intake manifold screw washer
Lock washer A-22217 5/16 (3/32 X 37/64) W-12
Finish S (unfinished) | 2 req. |
| c. Bowl to upper body screw
Hex head A-20933 3/8—24 X 3 1/16 B22
Head 1/4 thick by 9/16 across flats
Finish S-7 (cad plated) | 1 req. |
| d. Bowl to upper body screw washer
Lock washer A-22257 3/8 (1/16 X 41/64) W-12
Finish S-2 (raven) | 1 req. |
| e. Choke butterfly valve shaft nut
Hex nut A-21548 No. 8—36 (5/32 X 5/16) N-6
Finish S (unfinished) | 1 req. |
| f. Choke butterfly valve shaft nut washer
Shakeproof lock washer A-22062
5/32 (1/64 X 11/32) W-28
Finish S (unfinished) | 1 req. |
| g. Choke plate screw
Oval head A-20042 No. 5- 40 X 19/64 B18
Finish S-7 (cad plated) | 2 req. |
| h. Throttle lever stop screw
Fillister head A-20108 No. 8-36 X 7/16 B5
Finish S-7 (cad plated) | 1 req. |
| i. Throttle plate screw
Oval head A-20042 No. 5-40 X 19/64 B18
Finish S-7 (cad plated) | 2 req. |

Bolts, Nuts, Screws & Washers (cont.)

Area 1 Engine and Engine Compartment (cont.)

Number Required

D. Fuel System

5. Carburetor

- j. Choke adj. rod finishing washer 1 req.
Countersunk A22172 1/4 (7/64 X 3/4) W-3
Finish S-2 (raven)
- k. Choke adj. rod washer 1 req.
Leather 13/32 (3/32 X 1) W-17

E. Firewall

- a. Firewall vacuum nut 1 req.
Hex nut A-21836 1/2 - 20(3/16 X 3/4) N6
Finish S-7 (cad plated)
- b. Firewall data plate rivet 4 req.
Round head drive in rivets
Finish S-7 (cad plated)
- c. Firewall body style number plate screw 2 req.
Pan head sheet metal screw No. 8 X 1/2
Note: head 3/32 thick X 5/16 dia.
Finish S-8 (zinc plate)
- d. Speedometer cable dash inside clip bolt 1 req.
Round head A-20427 12--24 X 1/2 B39
Finish S-2 (raven)
- e. Speedometer cable dash clip bolt washer 1 req.
Lock washer A-22139 7/32 (1/16 X 27/64) W-12
Finish S (unfinished)

F. Radiator rods

- a. Rod nut rear 2 req.
Hex nut A-21741 3/8 - 24(21/64 X 9/16) N6
Finish S-2 (raven)
- b. Rod nut rear washer 2 req.
Lock washer A-22257 3/8 (1/16 X 41/64) W-12
Finish S-2 (raven)
- c. Rod rear cup washer 2 req.
Cup washer A-22321 7/16 (1/8 X 13/16) W-4
Finish S-2 (raven)
- d. Rod nut front 4 req.
Hex nut A-21702 5/16—24 (17/64 X 1/2) N6
Finish S-2 (raven)
- e. Rod nut front washer 4 req.
Lock washer A-22217 5/16 (1/16 X 37/64) W-12
Finish S-2 (raven)

Area 2 Electrical System

A. Starter

- 1.. End plate to flywheel housing screw 3 req.
Hex head A2094 3/8-16 X 1 B-27
Finish S (unfinished)
- 2. End plate to flywheel housing screw washer 3 req.
Lock washer A22245
3/8 (.401-.411) (3/32 X 21/32) W-12
Finish S (unfinished)
- 3. Cover band bolt 1 req.
Round head A-20310
No. 10-32 X 1 1/4 B-39
Finish S (unfinished) or S-1 (black paint)
- 4. Cover band bolt nut 1 req.
Square nut A-21578
No. 10-32 (1/8 X 3/8) N14
Finish S (unfinished) or S-1 (black paint)

Bolts, Nuts, Screws & Washers (cont.)

Area 2 Electrical System

Number Required

B. Starter Switch

1. To starter motor screw 4 req.
Round head A-20217 No. 10-32 X 5/16 B-42
Finish S-2 (raven)
2. To starter motor screw washer 4 req.
Lock washer A-22088 3/16 (3/64 X 21/64) W-12
Finish S (unfinished)
3. Battery cable terminal nut 2 req.
Hex nut A-21742 3/8-16 (5/32 X 5/8) N-6
Finish S-5 (copper plated steel)
4. Battery cable terminal nut washer 1 req.
Shakeproof washer A-22451 No. 12 (3/8) W29
Finish S (unfinished)

C. Battery Cable and Ground Strap

1. Battery terminal bolt 2 req.
Square head A-20729 5/16—18 X 1 1/4 B-69
Finish S-16 (lead coated)
2. Battery terminal bolt nut
Hex nut A-21707 5/16-18 (1/4 X 1/2) N-6
Finish S-16 (lead coated)
3. Ground connector to frame bolt 1 req.
Hex head A-20970 3/8—24 X 3/4 B-22
Finish S-8 (zinc plated)
4. Ground connector to frame nut 1 req.
Hex nut A-21741 3/8-24(21/64 X 9/16) N-6
Finish S-8 (zinc plated)
5. Ground connector to frame washer 1 req.
Plain washer A-22259 3/8(1/16 X 3/4) W-26
Finish S-7 (cad plated)
6. Ground connector to frame lock washer 1 req.
Lock washer A-22245 3/8(.401-.411) (3/32 X 21/32) W-12
Finish S (unfinished)

D. Generator

1. Support mounting bolt 1 req.
Hex head A-21241 1/2-20 X 2 3/4 B-22
Finish S (unfinished)
2. Support mounting bolt nut 1 req.
Hex head A-21845 1/2-20 (7/16 x 3/4) N-6
Finish S (unfinished)
3. Support bolt nut washer 1 req.
Lock washer A-22330 1/2 (1/8 X 7/8) W-12
Finish S (unfinished)
4. Cover band screw 1 req.
Round head A-20310 No. 10-32 X 1 1/4 B-42
Finish S (unfinished) or S-1 (black paint)
5. Cover band nut 1 req.
Square nut A-21572 No. 10-32 (1/8 x 3/8) N14
Finish S (unfinished) or S-1 (black paint)
6. Pulley cap screw 1 req.
Hex head A-20532 1/4—28 X 7/16 B-32
Finish S (unfinished)
7. Pulley cap screw washer 1 req.
External Shakeproof A-22271 3/8 W-6
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

Area 2 Electrical System

E. Generator Cutout

	Number Required
1. Cutout to generator body screw Round head A-20235 No. 10-32 X 1/4 B-42 Finish S-2 (raven)	2 req.
2. Cutout to generator body screw washer Shakeproof A22450 No. 10-3/16 W-29 Finish S (unfinished)	2 req.
3. Battery terminal bolt Hex head A 10564 No. 10-32 X 3/8 Finish S (unfinished) or S-8 (zinc plated)	1 req.
4. Battery terminal washer Lock washer A-22112 3/16(3/64 X 5/16) W-13	1 req.
5. Generator connector screw Fillister head A-20288 No. 10-32 X 3/8 B-7 Finish S-8 (zinc plated)	1 req.
6. Generator connector screw washer Lock washer A22112 3/16(3/64 X 5/16) W-13 Finish S (unfinished)	1 req.
7. Generator terminal bolt nut Hex nut A-21570 No. 10-32 (1/8 X 7/16) N-6 Finish S-5 (copper plated) or S (unfinished)	2 req.
8. Generator terminal nut washer Shakeproof A-22450 No. 10-3/16) W-29 Finish S (unfinished)	2 req.

F. Terminal Box

1. Terminal box cover nut One sided wing nut with ball end A-21569 No. 10-32 N-12 Finish S (unfinished brass or unfinished zinc after May 1931)	2 req.
2. To inside dash screw Round head A-20280 No. 10-32 X 3/8 B-39 Finish S-2 (raven)	4 req.
3. To dash screw washer Lock washer A-22088 3/16 (3/64 X 7/32) W-12 Finish S (unfinished)	4 req.

G. Distributor

1. Set screw Special headless slotted set screw A-20924 3/8—24 X 11/16 B-58 Finish S-8 (zinc plated)	1 req.
2. Set screw nut Hex check nut A-21750 3/8—24 (1/4 X 9/16) N-5 Finish S-8 (zinc plated)	1 req.
3. Condenser to distributor base screw Round head A-20106 No. 8-32 X 7/32 B-35 Finish S-7 (cad plated)	1 req.
4. Condenser to distributor base washer Lock washer A-22056 5/32 (3/64 X 19/64) W-12 Finish S (unfinished)	1 req.
5. Condenser to lower distributor plate screw Round head A-20223 No. 10-32 X 7/32 B-39 Finish S-5 (copper plated)	1 req.
6. Condenser to lower plate washer Phenol fabric A-22094 3/16 (3/32 X 9/16) W-14 Finish S (unfinished)	1 req.

Bolts, Nuts, Screws & Washers (cont.)

Area 2 Electrical System (cont.)

Number Required

H. Ignition Coil

1. To dash screw 2 req.
Round head A-20535 1/4—20 X 1/2 B-39
Finish S-1 (black paint)
2. To dash washer 2 req.
Lock washer A-22150 1/4 (3/64 X 29/64) W-12
Finish S (unfinished)
3. Terminal nut 2 req.
Hex nut A21577 No. 10-32 (1/8 X 3/8) N-6
Finish S-2 (raven) or S-7 (cad plated)
4. Terminal nut washer 2 req.
Lock washer A-22156 1/4 (3/64 X 29/64) W-12
Finish S (unfinished)
5. Terminal nut washer 2 req.
Plain washer A22104 No. 10 (1/32 x 3/8) W-20
Finish S-7 (cad plated) or S-8 (zinc plated)

I. Terminal Box Conduit (woven loom)

1. Loom conduit clip to dash screw 1 req.
Round head A-20427 No. 12-24 X 1/2 B-39
Finish S-2 (raven)
2. Loom conduit clip to dash washer 1 req.
Lock washer A-22139 7/32 (1/16 X 27/64) W-34
Finish S (unfinished)
3. Loom conduit clip to water inlet screw 1 req.
Hex head A-20554 1/4—28 X 1/2 B-22
Finish S-2 (raven)
4. Loom conduit clip to water inlet washer 1 req.
Lock washer A-22150 1/4 (3/64 X 39/64) W-12
Finish S (unfinished)

J. Cowl-lamp Wiring

1. Cowl lamp crossover wiring side support nuts 2 req.
The side supports were mounted to the side cowl hood lacing
screw. Hex nuts A-21588 No. 10-32 (1/8 X 3/8) N-6
Finish S (unfinished) or S-2 (raven)
2. Cowl lamp crossover wiring support washer 2 req.
Lock washer A-2215 1/4(3/64 x 29/64) W-12
Finish S (unfinished)
3. Note the center crossover support was mounted using one of the
junction box screws (a top corner one)

K. Stop light switch

1. To frame bolt 2 req.
Hex head A-20562 1/4—20 X 1/2 B-22
Finish S-2 (raven)
2. To frame bolt nut 2 req.
Hex nut A-21663 1/4—20 (3/16 x 1/2) N-6
Finish S-2 (raven)
3. To frame washer 2 req.
Lock washer A-22151 1/4 (1//16 X 33/64) W-12
Finish S (unfinished)
4. Terminal screw 2 req.
Round head A-20116 No. 8-32 X 5/16 B-42
Finish S-8 (zinc plated)
5. Terminal screw washer 2 req.
Lock washer A-22056 No. 8 (3/64 X 3/16) W-34
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

Area 3 Cooling System

Number Required

A. Radiator

1. To frame mounting bolt 2 req.
Hex head A20975 3/8—24 X 2 B-23
Finish S (unfinished)
2. To frame mounting bolt nut 2 req.
Castle nut A-21745 3/8—24 (13/32 X 9/16) N-4
Finish S (unfinished)
3. To frame mounting bolt cotter 2 req.
Cotter A-23534 3/32 X 5/8
Finish S (unfinished)

B. Water Inlet Casting

1. Cylinder water inlet bolt 2 req.
Oval head (dome) A-21120 7/16—14 X 1 1/2 B-38
Finish S-2 (raven)
2. Cylinder water inlet bolt washer 2 req.
Lock washer A-22300 7/16 (1/8 X 3/16) W-12
Finish S (unfinished)

C. Water Pump & Fan

1. Water Pump stud nut 4 req.
Hex nut A-21741 3/8—24 (21/64 X 9/16) N-6
Finish S-8 (zinc plated)
2. Water Pump stud nut washer 4 req.
Lock washer A-22245 3/8 (.401.411) (3/32 X 21/32) W-12
Finish S (unfinished)
3. Fan to pump nut 1 req.
Castle nut A-21791 7/16-20 (29/64 X 5/8) N-4
Finish S-1 (black paint)
4. Fan to pump cotter 1 req.
A-23531 3/32 X 3/4
Finish S (unfinished)

D. Hose Clamps

1. Hose clamp screw 6 req.
Round head A-20220 No. 10-24 X 1 1/8 B-39
Finish S-7 (cad plated) or S-8 (zinc plated)
Note: use finish to match finish of clamps
2. Hose clamp screw nut 6 req.
Square nut A-21574 No. 10-24 (1/8 X 3/8) N-14
Finish S-7 (cad plated) or S-8 (zinc plated)
Note: use finish to match finish of clamps

Area 4 Undercarriage

A. Front Axle

See area 4 in the Judging Standards as the picture will provide you with the nut & bolt needs and finishes given on the last page of this section.

B. Front Spring

1. Tie bolt 1 req.
Square head A-20847 5/16-18 X 2 3/4 B-69
Finish S-1 (black paint)
2. Tie bolt nut 1 req.
Square nut A-21706 5/16 -18 (5/16 X 19/32) N-14
Finish S-1 (black paint)
3. Clip (U-bolt) nut 4 req.
Castle A-21839 1/2-20 (9/16 X 3/4) N-4
Finish S-1 (black paint)

Bolts, Nuts, Screws ^& Washers (cont.)

Area 4 Undercarriage

Number Required

B. Front Spring

- | | |
|----------------------------------------------------------------------------------------------------|--------|
| 4. Clip (U-bolt) cotter
Cotter 1/8 X 1
Finish S (unfinished) | 4 req. |
| 5. Hanger (shackle) nut
Castle nut A-21794 7/16-20 (29/64 X 11/16) N-4
Finish S (unfinished) | 4 req. |
| 6. Hanger (shackle) nut cotter
Cotter 3/3 X 3/4
Finish S (unfinished) | 4 req. |
| 7. Spring clamp rivet A 5332 1/4 X 2-1/4 | 2 req. |

C. Rear Spring

- | | |
|---------------------------------------------------------------------------------------------------|--------|
| 1. Tie bolt
Special square head A-20927 3/8-16 X 2 7/16 B-65
Finish S-1 (black paint) | 1 req. |
| 2. Tie bolt nut
Square nut A-21749 3/8-16 (3/8 X 9/16) N-13
Finish S-1 (black paint) | 1 req. |
| 3. Clip (U-bolt) nut
Castle nut A-21876 9/16-18 (31/64 X 7/8) N-4
Finish S (unfinished) | 4 req. |
| 4. Clip (U-bolt) cotter
Cotter 1/8 X 1
Finish S (unfinished) | 4 req. |
| 5. Hanger (shackle) nut
Castle nut A-21794 7/16-20(29/64 X 11/16) N-4
Finish S (unfinished) | 4 req. |
| 6. Hanger (shackle) cotter
Cotter 3/32 X 3/4
finish S (unfinished) | 4 req. |
| 7. Spring clamp rivet A5332 1/4 X 2-1-4 | 1 req. |

D. Battery Support Assembly

- | | |
|---------------------------------------------------------------------------------------------|--------|
| 1. Battery clamp nut
Hex nut A 21761 3/8-24 (3/16 X 5/8) N-10
Finish S-7 (cad plated) | 2 req. |
| 2. Battery support to frame | |
| a.) Hex bolt A-20705 5/16-24 X 11/16 B22
Finish S-1 (black paint) | 1 req. |
| b.) Hex nut A-21702 5/16 (17/64 X 1/2) N-6
Finish S-2 (raven) | 1 req. |
| c.) Lock washer A22217 5/16(1/16 X 37/64) W-12
Finish S (unfinished) | 1 req. |
| 3. Battery support rear | |
| a.) Hex nut A-21741 3/8-24(21/64 X 1/2) N-6
Finish S-2 (raven) | 1 req. |
| b.) Lock washer A-22245 3/8(3/32 X 21/32) W-12
Finish S (unfinished) | 1 req. |

Bolts, Nuts, Screws & Washers (cont.)

Area 4 Undercarriage

E. Clutch Housing

- | | Number Required |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 1. Clutch housing to flywheel housing screw
Hex head A-20904 3/8-16 X 1 B-27
Finish S (unfinished) | 11 req. |
| 2. Clutch housing to flywheel housing washer
Lock washer A-22245 3/8 (.401-.411)(3/32 X 21/32) W-12
Finish S (unfinished) | 11 req. |
| 3. Clutch housing to transmission case screw
Hex head A-21117 7/16-14 X 1 1/4 B-27
Finish S (unfinished) | 4 req. |
| 4. Clutch housing to transmission case washer
Lock washer A-22300 7/16 (1/8 X 3/16) W-12
Finish S (unfinished) | 4 req. |
| 5. Clutch housing hand hole cover screw
Round head A-20707 5/16 - 18 X 3/8 B-42
Finish S (unfinished) | 2 req. |

F. Transmission Case & Gear Shift

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1. Bearing retainer to transmission case screw-rear
Hex head A-21116 7/16-20 X 1 B-27
Finish S (unfinished) | 4 req. |
| 2. Bearing retainer to transmission case washer-rear
Lock washer A-22300 7/16(1/8 X 13/32) W-12
Finish S (unfinished) | 4 req. |
| 3. Bearing retainer to transmission case screw-front
Hex head A-20718 5/16-18 X 3/4 B-39
Finish S (unfinished) | 4 req. |
| 4. Bearing retainer to transmission case washer-front
Lock washer A-22217 5/16 (3/32 X 37/64) W-12
Finish S (unfinished) | 4 req. |
| 5. Transmission countershift & reverse idle shaft screw
Hex head A-20961 3/8-16 X 3/4 B-22
Finish S (unfinished) | 1 req. |
| 6. Transmission countershift & reverse idle shaft washer
Lock washer A-22245 3/8 (.401-.411)(3/32 X 21/32) W-12
Finish S (unfinished) | 4 req. |
| 7. Gear shift housing screw-short
Hex head A-20718 5/16-18 X 3/4 B-22
Finish S (unfinished) | 4 req. |
| 8. Gear shift housing screw-long
Hex head A-20720 5/16-18 X 1 3/8 B-22
Finish S (unfinished) | 4 req. |
| 9. Gear shift housing washer
Lock washer A-22217 5/16 (1/16 X 37/64) W-12
Finish S (unfinished) | 6 req. |

G. Front Fender Bracket

- | | |
|-------------------------------------------------------------------------------------------------------------|--------|
| 1. Fender bracket to frame bolt (short)
Hex head A-20932 3/8-24 X 15/16 B-22
Finish S-1 (black paint) | 4 req. |
| 2. Fender bracket to frame bolt (long)
Hex head A-20971 3/8-24 X 1 5/32
Finish S-1 (black paint) | 2 req. |
| 3. Fender bracket to frame nut
Hex nut A-21741 3/4-24 (21/64 X 9/16) N-6
Finish S-8 (zinc plated) | 6 req. |
| 4. Fender bracket to frame washer
Lock washer A-22215 3/8 (3/32 X 21/32) W-12
Finish S (unfinished) | 6 req. |

Nuts, Bolts, Screws & Washers (cont.)

Area 4 Undercarriage

G. Front Fender Bracket

- | | Number Required |
|-----------------------------------------------------------------------------------------------------|------------------------|
| 5. Fender to bracket bolt
Carriage bolt A-20556 1/4-20 X 3/4 B-3
Finish S-1 (black paint) | 2 req. |
| 6. Fender to bracket nut
Hex nut A-21668 1/4-20 (17/64 X 1/2) N-6
Finish S-2 (raven) | 2 req. |
| 7. Fender to bracket washer
Lock washer A-22151 1/4 (1/16 X 33/64) W-12
Finish S (unfinished) | 2 req. |

H. Rear Fender Bracket

- | | |
|-------------------------------------------------------------------------------------------------|--------|
| 1. Bracket to body
Hex bolts A-20753 5/16-24 X 1 B-22
Finish S-1 (black paint) | 6 req. |
| 2. Bracket to body washer
Lock washer A-22217 5/16(1/16 X 37/64) W-12
Finish S-2 (raven) | 6 req. |
| 3. Fender to bracket bolt
Carriage bolt A-20556 1/4-20 X 3/4 B-3
Finish S-1 (black paint) | 2 req. |
| 4. Fender to bracket nut
Hex nut A-21668 1/4-20(17/64 X 1/2) N-6
Finish S-2 (raven) | 2 req. |
| 5. Fender to bracket washer
Lock washer A-22151 1/4(1/16 X 33/64) W-12
Finish S-2 (raven) | 2 req. |

I. Bumper Arms Front

- | | |
|----------------------------------------------------------------------------------------------------|--------|
| 1. A-17766 Front bumper arm to splash shield stud (rear) short | 2 req. |
| 2. A-17767 Front bumper arm to splash shield stud (front) long | 2 req. |
| 3. Bumper arm to frame nut
Hex nut A-21845 1/2-20(17/32 X 3/4) N-6
Finish S (unfinished) | 4 req. |
| 4. Bumper arm to frame washer
Lock washer A-22330 1/2 (1/8 X 7/8) W-12
Finish S (unfinished) | 4 req. |

J. Bumper Arm Rear

- | | |
|------------------------------------------------------------------------------------------------------------------|--------|
| 1. Rear bumper arm to frame bolt
Hex bolt A-21127 7/16-20 X 1 1/32 B-22
Finish S-1 (black paint) | 2 req. |
| 2. Rear bumper arm to frame nut
Hex nut A-21793 7/16-20(3/8 X 11/16) N-6
Finish S-1 (black paint) | 2 req. |
| 3. Rear bumper arm to frame washer
Lock washer A-22300 7/16 (1/8 X 13/16) W-12
Finish S (unfinished) | 2 req. |
| 4. Rear bumper arm to cross member bolt
Hex bolt A-20905 3/8-24 X 1 B-22
Finish S (unfinished) | 4 req. |
| 5. Rear bumper arm to cross member nut
Hex nut A-21741 3/8-24(21/64 X 9/16) N-6
Finish S-1 (black paint) | 4 req. |
| 6. Rear bumper arm to cross member washer
Lock washer A-22245 3/8(3/32 X 21/32) W-12
Finish S (unfinished) | 4 req. |
| 7. Rear bumper arm to body bolt
Carriage bolt A-20725 5/16-18 X 2 1/2 B-3
Finish S (unfinished) | 4 req. |

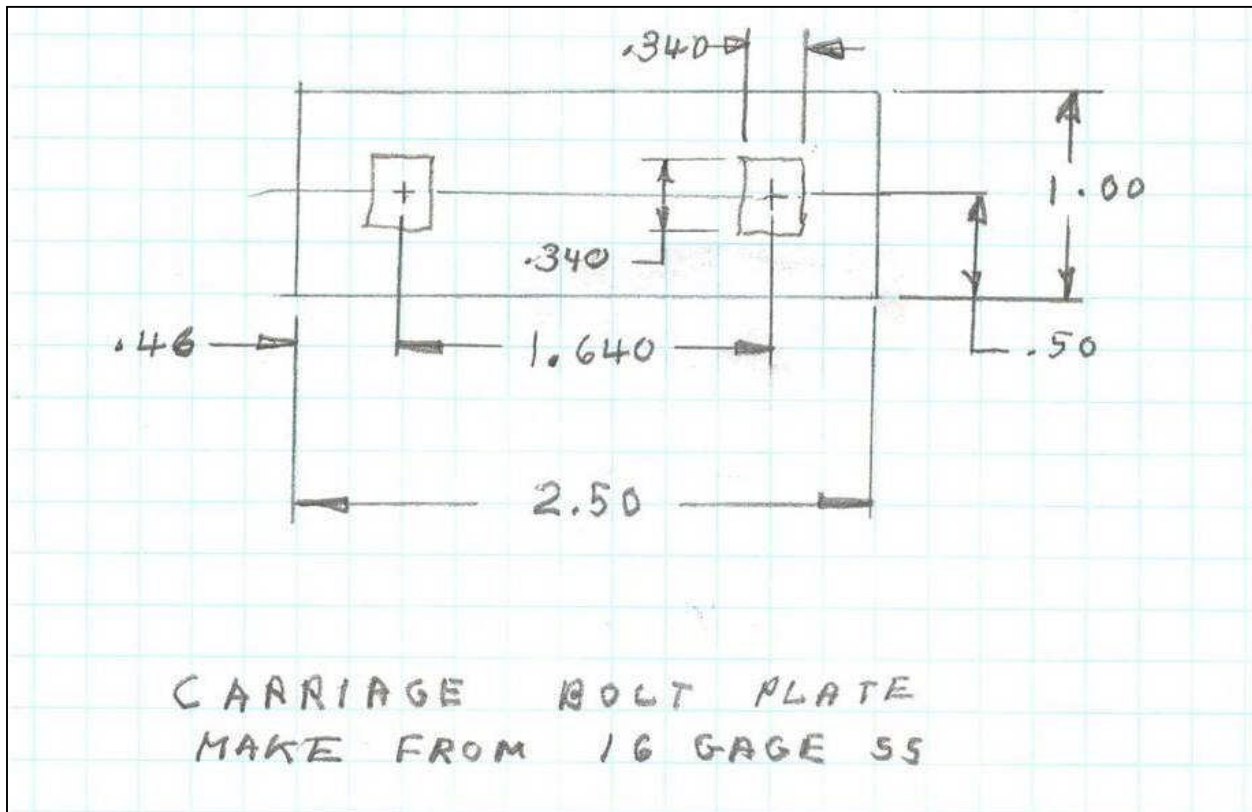
Bolts, Nuts, Screws & Washers (cont)

Area 4 Undercarriage

Number Required

J. Rear Bumper Arm (cont.)

- | | |
|------------------------------------------------------------------------------------------------|--------|
| 8. Rear bumper arm to body nut
Hex nut A-21707 5/16-18(1/4 X 1/2) N-6
Finish S-2 (raven) | 4 req. |
| 9. Rear bumper arm to body washer
Lock washer A-22217 5/16 X 37/64
Finish S (unfinished) | 4 req. |
| * 10. Carriage bolt straps (see sketch below) | 2 req. |



Bolts, Nuts, Screws & Washers (cont.)

Area 4 Undercarriage

Number Required

K. Body bolts (see sketch Judging Standards pg. 4-8 for locations)

1. Position #1
 - a) Hex head bolt 3/8-24 X 1 1/4
Finish S-1 (black paint) 2 req.
 - b) Hex head nut 3/8-24
Finish S-2 (raven) 2 req.
 - c) Lock washer 3/8
Finish S-1 (unfinished) 2 req.
2. Position #2 and #3
 - a) Carriage bolt 3/8-24 X 2 1/4
Finish S-1 (black paint) 4 req.
 - b) Hex head nut 3/8-24
Finish S-2 (raven) 4 req.
 - c) Plain washer 13/32 (1/16 X 3/4)
Finish S-2 (raven) 4 req.
 - d) Lock washer 3/8
Finish S (unfinished) 4 req.
3. Positions 4, 6 and 8
 - a) Hex head bolt 7/16-20 X 2 1/4
Finish S (black paint) 6 req.
 - b) Hex head nut 7/16-20
Finish S-2 (raven) 6 req.
 - c) Plain D washer 15/32 (1/2 X 1 23/32)
Finish S-2 (raven) 6 req.
 - d) Lock washer 7/16
Finish S (unfinished) 6 req.
4. Position #9
 - a) Hex head bolt 7/16-20 X 3
Finish S-1 (black paint) 2 req.
 - b) Hex head nut 7/16
Finish S-2 (raven) 2 req.
 - c) Plain D washer 15/32 (1/8 X 1 23/32)
Finish S-2 (raven) 2 req.
 - d) Lock washer 7/16
Finish S (unfinished) 2 req.

Area 5 Exhaust System

1. Muffler inlet pipe bolt 2 req.
Hex head A-20955 3/8-16 X 1 15/16 B-22
Finish S (unfinished)
2. Muffler inlet pipe nut 2 req.
Hex head brass nut A-21752 3/8-16(3/8 X 9/16)
Finish S (unfinished)
3. Muffler outlet pipe bracket bolt 1 req.
Hex head A-20953 3/8-24 X 1-7/32 B-23
Finish S (unfinished)
4. Muffler outlet pipe bracket nut 1 req.
Castle nut A-21745 3/8-24(13/32 X 9/16) N-4
Finish S (unfinished)
5. Muffler Outlet pipe bracket cotter 1 req.
Cotter 3/32 X 5/8
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

Area #6 Instrument & Controls

Number Required

A. Instrument Panel

1. Oval head screw No. 10-32 X 1/2 with a No. 12 oval head
(These are the two top instrument screws)
Finish S-6 (bright nickel plated) 2 req.
2. Oval head screw No. 10-32 X 1/2
(These are the bottom two screws)
Finish S-6 (bright nickel plated) 2 req.

B. Ammeter

1. Ammeter insulated nut 2 req.
Special A-21550 No. 8-32 N-12
Finish S (unfinished)
2. Ammeter terminal bolt washer 2 req.
Lock washer A-22056 5/32(3/64 X 19/64) W-12
Finish S (unfinished)

C. Speedometer

1. Speedometer clamp to instrument panel bolt 2 req.
Round head bolt A-20535 1/4-20 X 1/2 B-39
Finish S-2 (raven)
2. Speedometer clamp to instrument panel 2 req.
Square nut A-21661 1/4-20(3/16 X 1/2) N-14
Finish S (unfinished)
3. Speedometer clamp to instrument panel 2 req.
Lock washer A-22150 1/4(3/64 X 29/64)
Finish S (unfinished)
4. Speedometer cable to frame bolt 1 req.
Hex head A-20705 5/16-24 X 11/16 B-22
Finish S-1 (black paint)
5. Speedometer cable to frame nut 1 req.
Hex nut A-21702 5/16-24 (17/64 X 1/2) N-6
Finish S-2 (raven)
6. Speedometer cable to frame washer 1 req.
Lock washer A-22217 5/16 (1/16 X 17/64) W-12
Finish S (unfinished)
7. Speedometer drive cap screw 2 req.
Hex head A-20530 1/4-28 X 1 B-27
Finish S-2 (raven)
8. Speedometer drive cap washer 2 req.
Lock washer A-22150 1/4 (3/64 X 29/64) W-12
Finish S (unfinished)

D. Instrument Panel Lamp

1. Instrument Panel lamp screw 1 req.
Oval head A-20541 1/4-20 X 11/16 B-34
Finish S-6 (bright nickel plated)
2. Instrument Panel lamp nut 1 req.
Square nut A-21663 1/4-20 (3/16 X 1/2) N-14
Finish S (unfinished)
3. Instrument Panel lamp washer 1 req.
Lock washer A-22151 1/4 (1/16 X 33/64) W-12
Finish S (unfinished)

E. Hand (emergency) Brake Lever

1. Hand brake sector bolt 1 req.
Hex head A-20962 3/8-24 X 1-3/16 B-62
Finish S-7 (cad plated)
2. Hand brake sector nut 1 req.
Castle nut A-21750 3/8-24 (13/32 X 9/16) N-4
Finish S (unfinished)
3. Hand brake sector cotter 1 req.
Cotter 3/32 X 5/8
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

Area 6 Instruments & Controls (cont.)

Number Required

E. Hand (emergency) Brake Lever

- | | |
|--------------------------------------------------------------------------------------------------------------------|--------|
| 4. Hand brake to gear shift housing screw
Hex head A-20961 3/8-16 X 3/4 B-22
Finish S (unfinished) | 2 req. |
| 5. Hand brake to gear shift housing washer
Lock washer A-22245 3/8 (3/32 X 21/32) W-12
Finish S (unfinished) | 2 req. |

Area 7 Brake System

A. Service Brake Cross Shaft

- | | |
|-----------------------------------------------------------------------------------------------------------|--------|
| 1. Cross shaft to frame bracket bolt
Hex head A-20747 5/16-24 X 23/32 B-23
Finish S-2 (raven) | 4 req. |
| 2. Cross shaft to frame bracket nut
Castle nut A-21701 5/16-24 (21/64 X 1/2) N-4
Finish S-2 (raven) | 4 req. |
| 3. Cross shaft to frame bracket cotter
Cotter 3/32 X 3/4
Finish S (unfinished) | 4 req. |

B. Service Front Brake Shaft-Assembly (see page 7-3 of the Judging Standards)

- | | |
|-------------------------------------------------------------------------------------------------------|--------|
| 1. Brake shaft housing nut
Hex nut A-21793 7/16-20 (3/8 X 11/16) N-6
Finish S-1 (black paint) | 2 req. |
| 2. Brake shaft housing washer
Lock washer A-22300 7/16 (1/8 X 13/16) W-12
Finish S (unfinished) | 2 req. |

C. Brake Housing Plate Assembly (Backing plates)

- | | |
|-----------------------------------------------------------------------------------------------------------------|--------|
| 1. Front brake housing plate bolt
Hex head A-20949 3/8-24 X 13/16 B-23
Finish S (unfinished) | 8 req. |
| 2. Front brake housing plate nut
Castle nut A-21745 3/8-24 (13/32 X 9/16) N-4
Finish S (unfinished) | 8 req. |
| 3. Front brake housing cotter
Cotter 3/32 X 5/8
Finish S (unfinished) | 8 req. |
| 4. Rear brake housing plate bolt-short
Hex head A-21151 7/16 X 1-7/32 B-40
Finish S-1 (black paint) | 4 req. |
| 5. Rear brake housing plate bolt-long
Hex head A-21152 7/16-20 X 1-7/8 B-50
Finish S-1 (black paint) | 4 req. |
| 6. Rear brake housing plate nut
Special castle nut A-21801 7/16-20(43/64 X 5/8) N-9
Finish S (unfinished) | 8 req. |
| 7. Rear brake housing plate cotter
Cotter 3/32 X 3/4
Finish S (unfinished) | 8 req. |

D. Service Brake Operating Wedge

- | | |
|-------------------------------------------------------------------------------------------------|--------|
| 1. Operating wedge nut
Castle nut A-21889 1/2-20(9/64 X 3/4) N-4
Finish S-1 (black paint) | 2 req. |
| 2. Operating wedge cotter
Cotter 1/8 X 3/4
Finish S (unfinished) | 2 req. |

Note: The stud for the operating wedge was cad plated

Bolts, Nuts, Screws & Washers (cont.)

Area 7 Brake System (cont.)

Number Required

E. Emergency Brake Cross Shaft

1. Cross shaft bracket bolt 4 req.
Hex head A-20705 5/16-24 X 11/16 B-22
Finish S-1 (black paint)
2. Cross shaft bracket nut 4 req.
Hex nut A-21702 5/16-24 (17/64 X 1/2) N-6
Finish S-2 (raven)
3. Cross shaft bracket washer 4 req.
Lock washer A-22217 5/16(3/32 X 37/64) W-12
Finish S (unfinished)
4. Brake cross shaft support bolt 1 req.
Hex head A-20705 5/16-24 X 11/16 B-22
Finish S-1 (black paint)
5. Brake cross shaft support nut 1 req.
Hex nut A-21702 5/16-24(17/64 X 1/2) N-6
Finish S-2 (raven)
6. Brake cross shaft support washer 1 req.
Lock washer A-22217 5/16(3/32 X 37/64) W-12
Finish S (unfinished)

F. Brake Rod check nuts

- Hex check nut A-21700 5/16-24(3/16 X 1/2) N-5 6 req.
Finish S (unfinished)

G. Brake rod return springs

1. Return spring bolt 4 req.
Hex head A-20705 5/16-24 X 11/16 B-22
Finish S-1 (black paint)
2. Return spring nut 4 req.
Hex nut A-21702 5/16-24 (17/64 X 1/2) N-6
Finish S-2 (raven)
3. Return spring washer 4 req.
Lock washer A-22217 5/16(1/16 X 37/64) W-12
Finish S (unfinished)

Area 8 Steering Column

A. Housing to frame

1. Bolt 2 req.
Hex head A-21122 7/16-20 X 1 5/32 B-23
Finish S (unfinished)
2. Nut 2 req.
Castle nut A-21791 7/16-20(29/64 X 5/8) N-4
Finish S-3 (black paint)
3. Cotter 3/32 X 3/4 2 req.
Finish S (unfinished)

B. Steering Column Clamp

1. Bolt 1 req.
Hex head A-20782 5/16-24 X 1 7/8 B-22
Finish S-2 (raven)
2. Nut 1 req.
Hex nut A-21702 5/16-24(17/64 X 1/2) N-6
Finish S-2 (raven)
3. Washer 1 req.
Lock washer A-22217 5/16(3/32 X 37/64) W-12
Finish S (unfinished)

C. Steering Column Support

1. Screw 2 req.
Fillister head A-20703 5/16-24 X 13/16 B-7
Finish S-7 (cad plated) or body color
2. Washer 2 req.
Lock washer A-22215 5/16(1/16 X 7/16) W-12
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

Area 11 Carpets and Mats

Number Required

A. Floor Boards

1. Screw 12 req.
Flat head No. 12-24 X 1 1/8 B-16
Finish S-2 (raven) or S-8 (zinc plated)
2. Washer
Special countersunk

B. Floor Plates

1. Screw 2 req.
Oval head No. 12-24 X 1/2 with a No. 10 head
Finish S-2 (raven) or S-6 (nickel)
2. Washer 2 req.
Countersunk
Finish S-2 (raven) or S-6 (nickel)
3. Wood screw 1 req.
Oval head No. 6 X 3/4
Finish S-2 (raven) or S-6 (nickel)
4. Washer 1 req.
Countersunk A-34867 No. 6
Finish S-2 (raven) or S-6 (nickel)

C. Accelerator Foot Rest

1. Foot rest lock nut 1 req.
Hex head A-21741 3/8—24(21/64 X 9/16) N-6
Finish S-8 (zinc plated)
2. Foot rest floor plate screws 3 req.
Wood oval head A-22541 #6 X 3/4 WS-2
Finish S (unfinished)

D. Door Sills

- Oval head escutcheon nails
Finish S-6 (nickel plated)

Area 12 Interior Trim

Note: In this section I will provide all the fasteners that I used which will include things like floor pan screw, window regulator, etc. I don't know if they will match the screws that were originally used. They are the screws that I removed when I disassembled my A400 and by checking those used on my driver A-400.

A. Door window walnut finished frame

1. Oval head screw No. 8-32 X 3/4 8 req.
Finish S-6 (bright nickel)
2. Oval head screw No. 6-32 X 3/8 12 req.
Finish S-6 (bright nickel)
3. Tube nuts No. 6-32 12 req.
Finish S-6 (bright nickel)
4. Oval head wood screw No. 12 X 1 1/4 8 req.
Finish S-6 (bright nickel)

B. Door Opening Header (windlace retainer)

- Oval head screw No. 8-32 X 3/8 12 req.
Finish S-6 (bright nickel)

C. Quarter window walnut finished frame

1. Oval head woodscrew No. 10 X 1 14 req.
Finish S-6 (bright nickel)
2. Oval head woodscrew No. 10 X 1 1/4 6 req.
Finish S-6 (bright nickel)

D. Ashtray inserted box

- Flat head woodscrew No. 10 X 3/4 4 req.
Finish S-6 (bright nickel)

Bolts, Nuts, Screws & Washers (cont.)

Area 12 Interior Trim

Number Required

E. Windshield header (walnut finish) trim

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1. Oval head screw A-20221 No. 10-32 X 1/2
Finish S-6 (bright nickel) | 6 req. |
| 2. Mirror bracket mounting screw
Oval head No. 12-24 X 5/8 with a No. 10 head
Finish S-6 (bright nickel) | 2 req. |
| 3. Windshield pillar (walnut finish) trim screw
Truss head screw No. 10-32 X 3/8
* Has a head dia. of 7/16
Truss is similar to a pan head but the
pan head 7/16 has a head dia. of 3/8 | 6 req. |

F. Dash rail (walnut finish)

- | | |
|----------------------------------------------------------------------------------------------------------|--------|
| Oval head screw 1/4-20 X 1/2
Finish S-6 (bright nickel) | 5 req. |
| * Note: For Instrument Panel light screw see Area G.
This is the Dash Rail center screw, nut & washer | |

G. Door window regulator

- | | |
|--------------------------------------|---------|
| 1. Flat head screw 1/4-20 X 1/2 | 12 req. |
| 2. Shakeproof countersunk washer 1/4 | 12 req. |

H. Quarter window regulator

- | | |
|-----------------------------------------------|--------|
| 1. Flat head screw 1/4-20 X 1/2 | 6 req. |
| 2. Flat head screw 1/4-20 X 5/8 | 2 req. |
| 3. Special countersunk washer 1/4(.043 X .90) | 8 req. |

I. Floor pans

- | | |
|-------------------------------------------------------------------------|---------|
| 1. Floor pan rear and rear seat
Flat head wood screws No. 10-3/4 | 20 req. |
| 2. Rear seat pan hump screws
Flat head sheet metal screw No. 7 X 3/4 | 10 req. |
| 3. Front floor pan
Flat head wood screw No. 10-3/4 | 10 req. |

Area 13 Sheet Metal

A. Front Fender to Frame at Front Splash Shield

- | | |
|---------------------------------------------------------------------------|--------|
| 1. Oval head screw A-20560 1/4-20 X 7/8 B-34
Finish S-3 (black paint) | 4 req. |
| 2. Hex nut A-21668 1/4-20(3/16 X 1/2) N-6
Finish S-2 (raven) | 4 req. |
| 3. Lock washer A-22151 1/4(1/16 X 33/64) W-12
Finish S-3 (black paint) | 4 req. |

B. Front Fender to Running Board

- | | |
|----------------------------------------------------------------------|--------|
| 1. Hex bolt A-20718 5/16-18 X 3/4 B-22
Finish S-2 (raven) | 4 req. |
| 2. Hex nut A-21707 5/16-18(1/4 X 1/2) N-6
Finish S-2 (raven) | 4 req. |
| 3. Lock washer A-22217 5/16(1/16 X 37/64) W-12
Finish S-2 (raven) | 4 req. |
| 4. Plain washer A-22223 5/16(1/16 X 3/4) W-20
Finish S-2 (raven) | 4 req. |

Bolts, Nuts, Screws & Washers (cont.)

Area 13 Sheet Metal

Number Required

C. Front Fender to Running Board Shield

1. Hex bolt A-20718 5/16—18 X 3/4 B-22 12 req.
Finish S-2 (raven)
2. Hex nut A-21708 5/16-18(1/4 X 1/2) N-6 12 req.
Finish S-2 (raven)
3. Lock Washer A-22217 5/16(1/16 X 37/64) W-12 12 req.
Finish S-2 (raven)
4. Plain washer A-22223 5/16 (1/16 X 3/4) W-20 24 req.
Finish S-2 (raven)

D. Rear Fender to Body

1. Hex nut A-21707 5/16-18(1/4 X 1/2) N-6 6 req.
Finish S-2 (raven)
2. Lock washer A-22217 5/16(1/16 X 37/64) W-12 6 req.
Finish S-2 (raven)
3. Plain washer A-22223 5/16(1/16 X 3/4) W-20 6 req.
Finish S-2 (raven)

E. Rear Fender to Running Board Shield

1. Hex head bolt A-20718 5/16-18 X 3/4 B-22 4 req.
Finish S-2 (raven)
2. Hex nut A-21707 5/16-18(1/4 X 1/2) N-6 4 req.
Finish S-2 (raven)
3. Lock washer A-22217 5/16(1/16 X 37/64) W-12 4 req.
Finish S-2 (raven)
4. Plain washer A-22223 5/16 (1/16 X 3/4) W-20 4 req.
Finish S-2 (raven)

F. Rear Fender to Running Board

1. Carriage bolt A-20711 5/16-18 X 3/4 B-3 4 req.
Finish S-2 (raven)
2. Hex nut A-21707 5/16-18(1/4 X 1/2) N-6 4 req.
Finish S-2 (raven)
3. Lock washer A-22217 5/16(1/16 X 37/64) W-12 4 req.
Finish S-2 (raven)
4. Plain washer A-22223 5/16(1/16 X 3/4) W-20
Finish S-2 (raven)

G. Running Board to Running Board Bracket

1. Special head bolt A-20761 5/16-18 X 3/4 B-55 8 req.
Finish S-2 (raven)
2. Hex nut A-21707 5/16-18(1/4 X 1/2) N-6 8 req.
Finish S-2 (raven)
3. Lock washer A-22217 5/16(1/16 X 37/64) 8 req.
Finish S-2 (raven)

H. Fender Tail Lamp Bracket

1. Carriage bolt A-20606 1/4-20 X 9/16 B-3 3 req.
Note: Head dia. 9/16 Finish S-1 (black paint)
2. Square carriage nut A-21664 1/4-20(1/4 X 1/2) N-3 3 req.
Finish S-2 (raven)
3. Lock washer A-22151 1/4(1/16 X 33/64) W-12 3 req.

I. Front Splash Shield to Bumper Arm

1. Round head screw A-20646 1/4-28 X 1/2 B-42 4 req.
Finish S-1 (black paint)
2. Lock washer A-28150 1/4(3/64 X 29/64) W-12 4 req.

Bolts, Nuts, Screws & Washers (cont.)

Area 13 Sheet Metal (cont.)

Number Required

J. Hood

1. Hood bumper bracket to frame
 - a) Hex head bolt A-20579 1/4-20 X 3/4 B-22
Finish S-1 (black paint) 2 req.
 - b) Hex nut A-21668 1/4-20(3/16 X 7/16) N-6
Finish S-2 (raven) 2 req.
 - c) Lock washer A-22151 1/4(1/16 X 33/64) W-12
Finish S (unfinished) 2 req.
2. Hood latches (clips) assembly
 - a) Latch to frame (front)
 - (1) Round head bolt A-20240 No. 10-32 X 3/4 B-39
Finish S-1 (black paint) 4 req.
 - (2) Square nut A-21572 No. 10-32(1/8 X 3/8) N-14
Finish S (unfinished) 4 req.
 - (3) Lock washer A-22088 3/16(3/64 X 21/64) W-12
Finish S (unfinished) 4 req.
 - b) Latch to support (rear)
 - (1) Round head bolt A-20276 10-32 X 5/8 B-39
Finish S-1 (black paint) 4 req.
 - (2) Square nut A-21572 No. 10-32(1/8 X 3/8) N-14
Finish S (unfinished) 4 req.
 - (3) Plain washer A-22095 3/16(1/32 X 7/16) W-20
Finish A (unfinished) 4 req.
3. Rear hinge rod retainer screw
Flat head screw A-20408 No. 12-24 X 5/8 B-15 2 req.
Finish S-7 (cad plated) or body color

K. Door

1. Door latch screws
 - a) Latch 6 req.
 - (1) Round head screw No. 12-24 X 7/16
Finish body color
 - (2) Countersunk shakeproof washer No. 8
Finish S-8 (zinc plated) 6 req.
 - b) Inside remote door latch
 - (1) Flat head screw No. 10-32 X 3/8
Finish S (unfinished) 6 req.
 - (2) Square nut No. 10-32(1/8 X 3/8)
Finish S (unfinished) 6 req.
 - (3) Lock washer 3/16 (1/16 X 7/16) W-12
Finish S (unfinished) 6 req.
2. Door male dovetail screw 4 req.
Oval head screw No. 10-32 X 3/8
Finish S-2 (nickel plated)

L. Rear Splash Apron

1. Apron to rear fender
 - a) Hex head bolt A-20595 1/4-20 X 3/4
Finish S-7 (cad plated) 6 req.
 - b) Hex nut A-21668 1/4-20(3/16 X 1/2) N-6
Finish S-2 (raven) 6 req.
 - c) Lock washer A-22151 1/4(1/16 X 33/64) W-12
Finish S (unfinished) 6 req.
 - d) Plain washer A-22154 1/4(1/16 X 3/4) W-10
Finish S-2 (raven) 12 req.

Note: These fasteners and finishes are from
"Model A Standard Hardware" book by Mick Isbell
2. Apron to body
 - a) Round head 12-24 X 9/16 B-39
Finish S-2 (raven) 8 req.
 - b) Plain washer 1/4 (1/16 X 9/16) 8 req.

Bolts, Nuts, Screws & Washers (cont.)

Area 13 Sheet Metal (cont.)

Number Required

M. Gas Tank & Cowl

1. Gas tank to firewall
 - a) Pan head screw No. 12-24 X 19/32
Finish (body color) 10 req.
 - b) Shakeproof internal lockwasher #12
Finish (body color) 10 req.
2. Gas tank to inside rail
 - a) Hex head bolt 5/16-24 X 25/32
Finish (body color) 8 req.
 - b) Lock washer 5/16
Finish (body color) 8 req.

N. Rear Fender Well Screw.

There are 3 wood screws that attach the bottom of the fender well to the wood sub-frame on each side.

Flat head screw No. 10 X 3/4

6 req.

Area 15 Exterior Plating

A. Bumper bar end

1. Special head bolt A-21141 7/16-20 X 5 1/2 B-55
Finish S-3 (black paint) 4 req.
2. Hex nut A-21798 7/16-20(1/4 X 5/8) N-6 4 req.
* Note: The hex nut is 5/8 across the flats. If you go to the 1931 parts book on page 53 and look up P/N A-21798 it gives this dimension. There is an error in Mick Isbell's Standard Hardware book.
Finish S-1 (black paint)
3. Lock washer A-22300 7/16(1/8 X 13/16) W-12 4 req.
Finish S (unfinished)

B. Bumper Clamp

1. Bumper bar bolt nut 4 req.
Hex nut A-21877 9/16-18(31/64 X 7/8) N-6
Finish S-1 (black paint)
2. Bumper bar lock washer 4 req.
Lock washer A-22355 9/16(5/32 X 29/32) W-12
Finish S-1 (black paint)
Note: This washer is hard to find because it is thicker than others this size.

C. Center Bumper Clamp

1. Center clamp nut 2 req.
Hex nut A-21740 3/8-16(9/32 X 11/16) N-6
Finish S-2 (raven)
2. Center clamp washer 2 req.
Lock washer A-22217 5/16(1/16 X 37/64) W-12
Finish S-2 (raven)

D. Outside Door Handle Screws

- Oval head screw No. 10-24 X 1/2 4 req.
Finish S-13 (chrome plated) or (polished stainless screws)

Bolts, Nuts, Screws & Washers (cont.)

Area 18 Lamps

Number Required

A. Head Lamps

1. Focusing screw
Oval head A-20528 3/16-32 X 45/64 B-32 2 req.
Finish S-13 (chrome plated)
2. Headlamp swivel bolt nut 2 req.
Hex nut A-21845 1/2-20(7/16 X 3/4) N-6
Finish S-2 (raven)
3. Headlamp swivel bolt washer 1 req.
Lock washer A-22330 1/2 (1/8 X 7/8) W-12
Finish S-1 (black paint)

B. Headlamp Support Bar

1. Support bar to fender bracket bolt 4 req.
Carriage bolt A-20972 3/8-16 X 1 3/4 B-3
Finish S-1 (black paint)
2. Support bar to fender bracket nut 4 req.
Hex head A-21740 3/8-16(9/32 X 11/16) N-6
Finish S-1 (black paint)
3. Support bar to fender bracket washer 4 req.
Lock washer A-22245 3/8(.401-.411)(3/32 X 21/32) W-12
Finish S (unfinished)

C. Front License Plate Clip

1. Clip bolt 2 req.
Hex head A-20604 1/4-20 X 1 3/8 B-22
Finish S (unfinished)
2. Clip nut 2 req.
Hex nut A-21618 1/4(3/16 X 33/64) N-6
Finish S-2 (raven)
3. Clip washer 2 req.
Lock washer A-22151 1/4(1/16 X 33/64) W-12
Finish S (unfinished)
4. Clip washer 2 req.
Plain washer A-22166 1/4 (1/16 X 3/4) W-20
Finish S-7 (cad plated)

D. Rear (Tail) Lamp

1. Rear lamp door to lamp body screw 2 req.
Round head screw A-20100 No. 8-32 X 1/2 B-41
Finish S-13 (chrome plated)
2. White license lens retainer screw 2 req.
Round head screw A-20058 No. 6-32 X 9/32 B-4
Finish S-7 (cad plated) (head dia. 1/4)
3. Rear lamp to bracket screw 2 req.
Round head screw A-20614 1/4-28 X 5/8 B-42
Finish S-4 (black paint)
4. Rear lamp to bracket washer 2 req.
Lock washer A-22150 1/4(3/64 X 29/64) W-12
Finish S (unfinished)

E. Cowl Lamp Bracket

1. Cowl lamp bracket screw 2 req.
Hex head A-21242 1/2-20 X 1 B-22
Finish S (unfinished)
2. Cowl lamp to bracket washer 2 req.
Plain fiber washer A-22341 1/2(1/32 X 7/8) W-26
3. Cowl lamp to bracket washer 2 req.
Lock washer A-22330 1/2(1/8 X 7/8) W-12
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

Area 18 Lamps (cont.)

Number Required

F. Cowl Lamps

1. Cowl lamp to lamp bracket (arms)
 - a) Screw
Oval head screw A-20309 No. 10-32 X 3/8 B-35
Finish S-6 (nickel plated) 6 req.
 - b) Washer
Countersunk washer A-22075 No. 8 W-27
Finish S-8 (zinc plated) 6 req.
 - c) Cowl lamp door to lamp body screws 4 req.
Round head screw A-20075 No. 6-32 X 3/8 B-4
Finish S-6 (nickel plate) or S-9 (cad plated)
 - d) Cowl lamp was assembled with a rivet through
rear of the shell 2 req.
Finish S-7 (cad plated) or S-8 (zinc plated)

Area 20 Windshield Wiper

A. Mounting Nut

- Hex nut 5/16-32 (7/32 X 7/16) N-6 1 req.
Finish S-13 (chrome plated)

B. Mounting Nut Washer

- Plain washer 5/16(1/64 X 3/4) 1 req.
Finish S-13 (chrome plated)

*I measured the nut and washer on my original windshield wiper.

C. Flat Rubber Washer

- Mounted between nut washer and windshield frame. 1 req.

Area 22 Wheels

A. Lug nuts

- Acorn nut A-21837 1/2-20 (11/16 X 1 1/16) N-12 23 req.
Finish S-7 (cad plated)

B. Spare Tire Support

1. Castle nut A-21894 5/8-18 (23/32 X 15/16) N-4 1 req.
Finish S (unfinished)
2. Plain washer A-22370 5/8(1/8 X 1 3/4) W-20 1 req.
Finish S (unfinished)
3. Cotter 1/8 X 1 1/4 1 req.
Finish S (unfinished)

C. Valve Stem

- Consult the Judging Standards Pages 22-3 through 22-9

Area 23 Shocks & Shackles

A. Shock Absorber

1. Bolt
Special D head bolt A-21140 7/16-20 X 1 1/8 B-55 8 req.
Finish S (unfinished)
Head diameter is 7/8 and the head was sheared to form
the D head. There will be burrs on original parts.
(Leave burrs on the part.)
2. Hex nut A-21793 7/16-20(3/8 X 11/16) N-6 8 req.
Finish S-1 (black paint)
3. Lock washer A-22300 7/16(1/8 X 13/16) W-12 8 req.
Finish S (unfinished)

Bolts, Nuts, Screws & Washers (cont.)

Area 23 Shocks & Shackles

Number Required

B. Shock Arms

- | | |
|------------------------------------------------------------------------------------------------|--------|
| 1. Shock arm clamp bolt
Hex head A-20916 3/8-24 X 1 7/8 B-23
Finish S (unfinished) | 4 req. |
| 2. Shock arm clamp nut
Castle nut A-21745 3/8-24(13/32 X 9/16) N-4
Finish S (unfinished) | 4 req. |
| 3. Shock arm clamp cotter
Cotter 3/32 X 58
Finish S (unfinished) | 4 req. |

C. Shock Absorber Link Plug Cotter

- | | |
|---------------------------------------------|--------|
| Cotter 1/8 X 1 1/4
Finish S (unfinished) | 4 req. |
|---------------------------------------------|--------|

D. Spring Hangers (shackles)

See Area 3 under springs for nuts & cotters.

Bolts, Screw, Nuts and Washers



**Good Luck as you go looking for the correct part as you restore your A400
Have Fun!!!!**