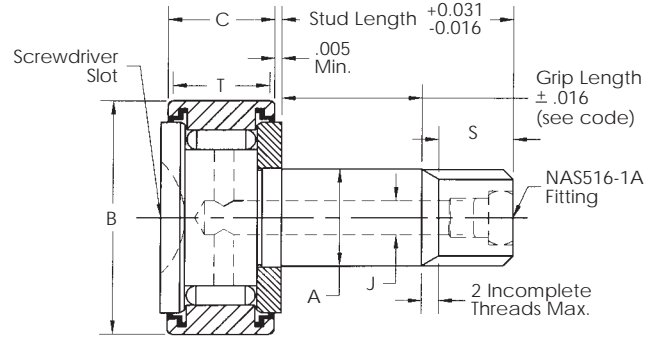


**MS21432 (HRS SERIES)**

**NAS 562**

**Integral Stud Type**



**General Information**

The **HRS Series Integral Stud Type** airframe bearings are manufactured in accordance with **MS21432** standards. The bearings consist of an inner stud, outer race, needle rollers, end washer and if required, seals. Relubrication holes and fittings are optional as shown below. For corrosion protection the outer race is hard-chrome plated while all other exposed surfaces are cadmium or zinc-nickel plated. Consult our Engineering Department for special variations.

**Coding Example:**

**NAS562-8FEE20 AG** = Cam Follower needle bearing 1.125" roller, 0.500" stud, sealed bearing, lubricator in flanged end of stud, 1.2500 grip length 1.672 stud length without cotter pin hole, with Mil-G-23827 grease.

(MS21432)

G = Mil-G-81322 grease; no code = Mil-G-23827 grease.

A = No cotter pin hole (Not required for types T or TEE) Omit for cotter pin hole.

Grip length in .0625 inch increments.

- F = unsealed with lubricator in flanged end of stud.
- T = unsealed with lubricator in threaded end of stud, no cotter pin hole.
- "-" = unsealed without lubricator.
- Bearing FEE = sealed with lubricator in flanged end of stud.
- TEE = sealed with lubricator in threaded end of stud, no cotter pin hole.
- R = sealed bearing without lubrication.

Stud diameter in 0.0625" increments.

Document number.

**Dimensional Data (inches)**

| SMITH Bearing® Number | MS Bearing Number | NAS562 Number | A Stud Dia. +.0000 -0.0015 | B Roller O.D. +.0010 -0.0005 | C Roller Width +.000 -0.005 | D Min | S Thread Length | Thread Size | P Cotter Pin Hole Dia. | T Track Contact Length (Min) | J Dia. (Ref) | Track Capacity 40HRC (lbf) | Limit Load Rating (lbf) | Load Rating As A Track Roller (lbf) | Housing Bore Diameter For Stud |        |
|-----------------------|-------------------|---------------|----------------------------|------------------------------|-----------------------------|-------|-----------------|-------------|------------------------|------------------------------|--------------|----------------------------|-------------------------|-------------------------------------|--------------------------------|--------|
|                       |                   |               |                            |                              |                             |       |                 |             |                        |                              |              |                            |                         |                                     | Max                            | Min    |
| HRS1                  | MS21432-3         | NAS562-3      | 0.1900                     | 0.5000                       | 0.281                       | 0.211 | 0.344           | 10-32       | 0.070                  | 0.230                        | N/A          | 385                        | 790                     | 395                                 | 0.1905                         | 0.1900 |
| HRS2                  | MS21432-4         | NAS562-4      | 0.2500                     | 0.6875                       | 0.281                       | 0.224 | 0.344           | 1/4-28      | 0.076                  | 0.232                        | 0.076        | 525                        | 940                     | 470                                 | 0.2505                         | 0.2500 |
| HRS3                  | MS21432-5         | NAS562-5      | 0.3125                     | 0.7500                       | 0.344                       | 0.234 | 0.359           | 5/16-24     | 0.076                  | 0.290                        | 0.076        | 725                        | 1,660                   | 830                                 | 0.3125                         | 0.3120 |
| HRS4                  | MS21432-6         | NAS562-6      | 0.3750                     | 0.8750                       | 0.469                       | 0.265 | 0.359           | 3/8-24      | 0.106                  | 0.380                        | 0.106        | 1,100                      | 2,720                   | 1,360                               | 0.3755                         | 0.3750 |
| HRS5                  | MS21432-7         | NAS562-7      | 0.4375                     | 1.0000                       | 0.531                       | 0.283 | 0.422           | 7/16-20     | 0.106                  | 0.430                        | 0.106        | 1,425                      | 3,860                   | 1,930                               | 0.4375                         | 0.4370 |
| HRS6                  | MS21432-8         | NAS562-8      | 0.5000                     | 1.1250                       | 0.656                       | 0.314 | 0.422           | 1/2-20      | 0.106                  | 0.530                        | 0.106        | 1,975                      | 6,080                   | 3,040                               | 0.5005                         | 0.5000 |