

FED. SUP CLASS
2620

THE TIRE SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SPECIFICATION MIL-T-5041 EXCEPT AS SPECIFIED HEREIN

| SIZE | PLY RATING 1/ | STATIC LOAD RATING LBS. | VERT LOAD LBS. MIN | INFL PRESS. PSI RATED | BURST PRESS. PSI MIN 2/ | BEAD WIDTH INCH MAX | WEIGHT POUNDS MAX | STATIC UNBAL. OZ.-IN. MAX | TREAD 3/ | MOLD SKID DEPTH MIN | DEFLEC. +3% -4% |
|--------------|------------------|-------------------------|--------------------|-----------------------|-------------------------|---------------------|-------------------|---------------------------|----------|---------------------|-----------------|
| 22 x 6.75-10 | 18TL | 10,600 | 46,390 | 245 | 980 | 2.05 | 26.0 | 10 | RIB | .26 | 32% |

1/ TL - TUBELESS TIRE
2/ TESTED TIRE OR NEW

3/ AT LEAST FOUR, BUT NOT MORE THAN SEVEN CONTINUOUS RIBS. THE GROOVES SHALL BE SHAPED SUCH THAT FOREIGN OBJECTS WILL NOT BECOME TRAPPED BETWEEN THE RIBS.

TIRE DATA (INCH)

| INFLATED OUTSIDE DIAMETER | | INFLATED SECTION WIDTH | | INFLATED SHOULDER DIAMETER | | INFLATED SHOULDER WIDTH | |
|---------------------------|-------|------------------------|------|----------------------------|-----|-------------------------|-----|
| MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
| 21.35 | 22.00 | 6.35 | 6.75 | 19.85 | | 5.95 | |

RIM DATA (INCH)

| WIDTH BETWEEN FLANGES | FLANGE WIDTH | LEDGE DIAMETER | LEDGE WIDTH | FLANGE HEIGHT | HEEL RADIUS | FLANGE RADIUS |
|-----------------------|--------------|----------------|-------------|---------------|-------------|---------------|
| 5.50 | .75 | 10.00 | 2.05 | 1.00 | .50 | .625 |

THE TIRE COVERED BY THIS DRAWING SHALL BE SUITABLE FOR USE AND PROVIDE REASONABLE SERVICE LIFE DURING ALL NORMAL OPERATIONS AT TAKEOFF AND LANDING SPEEDS INDICATED HEREIN ON ALL TYPES OF RUNWAYS AND ON AIRCRAFT CARRIERS.

TEST TIRE NUMBER 1: SHALL CONSECUTIVELY WITHSTAND THE FOLLOWING TEST SPECTRUM IN ALPHABETICAL SEQUENCE FOLLOWED BY TEST F. MINIMUM BURST PRESSURE FOR TEST F SHALL BE 980 PSI:

| TEST CYCLES | A | B | C | D | E |
|-------------|----|----|---|----|----|
| | 60 | 60 | 1 | 15 | 20 |

TEST TIRE NUMBER 2: SHALL BE SUBJECTED TO TEST G FOLLOWED BY FIFTEEN CYCLES OF TEST A AND FIFTEEN CYCLES OF TEST B FOLLOWED BY TEST F. RESULTS OF TEST F SHALL BE INCLUDED IN THE QUALIFICATION TEST REPORT FOR INFORMATION.

TEST TIRE NUMBER 3: SHALL BE SUBJECTED TO TEST H.

TEST A TAXI-TAKEOFF - THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 23 MPH FOR 10,000 FEET WITH 4000 POUNDS LOAD. UPON COMPLETION OF THE TAXI ROLL, THE FLYWHEEL SHALL THEN IMMEDIATELY BE ACCELERATED AT AN AVERAGE RATE OF 12.7 FT/SEC/SEC FROM 23 MPH TO A SPEED OF 75 MPH AND THEN CONTINUED AT AN AVERAGE RATE OF 6.25 FT/SEC/SEC FROM 75 MPH TO A SPEED OF 201 MPH. THE TIRE SHALL BE UNLANDED AFTER A TAKE-OFF POLL DISTANCE OF 5750 FEET HAS BEEN COVERED IN APPROXIMATELY 35 TO 36 SECONDS. THE INITIAL LOAD OF 4000 POUNDS SHALL BE DECREASED LINEARLY WITH TIME TO 2200 POUNDS AT THE TIME THE TIRE IS UNLANDED.

TEST B LANDING-TAXI - THE TIRE SHALL BE LANDED AGAINST A FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 127 MPH. THE FLYWHEEL SPEED SHALL THEN BE DECREASED UNTIL A ROLL DISTANCE OF APPROXIMATELY 2960 FEET HAS BEEN COVERED. THE AVERAGE DECELERATION RATE SHALL BE 2.02 FT/SEC/SEC BETWEEN 127 MPH AND 116 MPH THEN CONTINUED AT AN AVERAGE DECELERATION RATE OF 8.97 FT/SEC/SEC BETWEEN 116 MPH AND 80 MPH THEN CONTINUED AT AN AVERAGE DECELERATION RATE OF 13.02 FT/SEC/SEC BETWEEN 80 MPH AND 0 MPH. THE TIRE LOAD SHALL BE INCREASED TO 2000 POUNDS IN 2 SECONDS AFTER LANDING AND THEN LINEARLY INCREASED TO 8800 POUNDS WHEN THE TIRE IS STOPPED AFTER A TOTAL TIME OF 24 SECONDS. IMMEDIATELY FOLLOWING THE LANDING CYCLE, THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 23 MPH FOR 10,000 FEET WITH 3700 POUNDS LOAD.

TEST C OVERLOAD LANDING-TAXI - TIME, ACCELERATION, VELOCITY AND DISTANCES SAME AS TEST B. HOWEVER, THE TIRE LOAD SHALL BE INCREASED TO 2000 POUNDS IN 2 SECONDS AFTER LANDING AND THEN LINEARLY INCREASED TO 12,000 POUNDS WHEN THE TIRE IS STOPPED AFTER A TOTAL TIME OF 24 SECONDS. IMMEDIATELY FOLLOWING THE LANDING CYCLE, THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 23 MPH FOR 10,000 FEET WITH 5,500 POUNDS LOAD.

TEST D CATAPULT TAKEOFF - THE TIRE SHALL BE LANDED AGAINST A FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 106 MPH WITH 17,500 POUNDS LOAD FOR 300 FEET AND THEN UNLANDED. 320 PSI FLAT PLATE INFLATION PRESSURE SHALL BE USED FOR THIS TEST.

(A) ENTIRE STANDARD REVISED

REVISED (A) 17 JAN 66

APPROVED 25 NOV 1974

| | | | |
|---|---|-------------------|------|
| P.A. NAVY - AS Other Cust | TITLE | MILITARY STANDARD | |
| | TIRE, PNEUMATIC, AIRCRAFT 22 x 6.75-10 (NAVY) | MS14161 (AS) | |
| PROCUREMENT SPECIFICATION MIL-T-5041 | SUPERSEDES: | SHEET 1 | OF 2 |

This military standard is approved by NAVAL AIR SYSTEMS COMMAND Department of the Navy and shall be used by that activity. All other military activities are required to employ this standard where suitable

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TEST E YAWED LANDING TEST - THE TIRE SHALL BE SUBJECTED TO 10 CYCLES OF TEST E₁ AND 10 CYCLES OF TEST E₂ FOR A TOTAL OF 20 CYCLES.

TEST E₁ (10 CYCLES) - THE TIRE SHALL BE LANDED AGAINST A FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 120 MPH WITH A PRE-SELECTED 5 DEGREE TIRE YAW ANGLE RELATIVE TO THE DYNAMOMETER. THE TIRE LANDING LOAD SHALL THEN BE INCREASED TO 8000 POUNDS. THE 8000 POUND LOAD SHALL BE MAINTAINED FOR A MINIMUM ROLL DISTANCE OF 200 FEET AT 120 MPH AFTER WHICH TIME THE TIRE SHALL BE UNLANDED.

TEST E₂ (10 CYCLES) - SAME AS E₁, EXCEPT THE 5 DEGREE YAW ANGLE SHALL BE APPLIED IN THE OPPOSITE DIRECTION.

TEST F BURST TEST - THE TIRE SHALL BE SUBJECTED TO A HYDROSTATIC BURST TEST. THE PRESSURE SHALL BE INCREASED UNTIL THE TIRE FAILS. THE FAILING PRESSURE, DESCRIPTION OF FAILURE AND LOCATION OF FAILURE SHALL BE REPORTED IN THE QUALIFICATION TEST REPORT.

TEST G BRUISE TEST - A TIRE INFLATED TO 320 PSI SHALL BE LOADED AGAINST A 1-3/8 DIAMETER LENGTH OF PLAIN ROUND BAR STOCK OR ARRESTING GEAR CABLE WITH A VERTICAL LOAD OF 46,390 POUNDS. IMMEDIATELY FOLLOWING THE RELEASE OF THIS LOAD, THE TIRE SHALL BE SUBJECTED TO THE SAME LOADING CONDITION AT A LOCATION 180 DEGREES IN ROTATION FROM THE INITIAL POINT OF LOADING.

TEST H COMBINED LOAD TEST - A TIRE INFLATED TO 320 PSI SHALL BE SIMULTANEOUSLY STATIC LOADED WITH A COMBINATION 17,600 POUND VERTICAL LOAD AND 8,000 POUND SIDE LOAD AND HELD FOR 3 SECONDS MINIMUM. THERE SHALL BE NO SLIPPAGE, LOSS, BEAD UNSEATING OR TIRE FAILURE.

QUALIFICATION TEST REPORT - THE QUALIFICATION TEST REPORT SHALL LIST THE RESULTS OF ALL QUALIFICATION TESTS AND CONSTRUCTION DETAILS OF THE QUALIFICATION TEST SAMPLE IN THE GENERAL FORM SHOWN IN FIGURES 2 AND 3 OF MIL-T-5041. THE REPORT SHALL LIST THE MANUFACTURER'S TEST NUMBER. SUBMIT 2 COPIES OF THE QUALIFICATION TEST REPORT, TOGETHER WITH THE DATA AND MATERIAL SPECIFIED ABOVE AND IN MIL-T-5041, ALONG WITH INFLATED TIRE PROFILES AT 245 AND 320 PSI. TO THE NAVAL AIR SYSTEMS COMMAND, WASHINGTON, DC 20361, ATTN: AIR 53032.

NOTES:

1. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BIDS, OR REQUEST FOR PROPOSAL EXCEPT THAT REFERENCE ADOPTED INDUSTRY STANDARDS SHALL GIVE THE DATE OF THE ISSUE ADOPTED.
2. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.

APPROVED 25 NOV 1974 REVISED (A) FOR CHANGES SEE SHEETS 1 AND 2

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|---|---|--------------------------|
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| | TIRE, PNEUMATIC, AIRCRAFT 22 x 6.75-10 (NAVY) | MS 14161 (AS) |
| PROCUREMENT SPECIFICATION MIL-T-5041 | SUPERSEDES. | SHEET 2 OF 2 |