

FED. SUP CLASS
2620

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

MS PART NO.	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%
MS26539-5	22 x 5.5	12TT	7100	37,500	235	1060	1.30	20.0	13	RIB	.19	32%
MS26539-6	22 x 5.5	12TL	7100	37,500	235	1060	1.45	24.0	13	RIB	.19	32%

1/ TT - TUBETYPE TIRE
TL - TUBELESS TIRE

2/ NEW TIRE

3/ AT LEAST THREE, BUT NOT MORE THAN SEVEN CONTINUOUS CIRCUMFERENTIAL RIBS.

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.

TIRE 1: THE TIRE SHALL WITHSTAND 50 CYCLES OF TEST A, 50 CYCLES OF TEST B, 15 CYCLES OF TEST C, 15 CYCLES EACH OF TESTS D₁ AND D₂, AND 15 CYCLES EACH OF TESTS E₁ AND E₂ WITHOUT FAILURE, THEN BE SUBJECTED TO TEST F.

TIRE 2: THE TIRE SHALL BE INFLATED TO 375 PSI AND VERTICALLY LOADED TO 37,500 POUNDS OVER A 1.375 INCH DIAMETER STEEL BAR IN TWO LOCATIONS 180° APART ON THE TIRE. THE TIRE SHALL THEN WITHSTAND 25 CYCLES OF TEST A AND 25 CYCLES OF TEST B WITHOUT FAILURE, THEN BE SUBJECTED TO TEST F.

TIRE 3: THE TIRE SHALL WITHSTAND A MINIMUM HYDROSTATIC BURST PRESSURE OF 1060 PSI UNLESS THE BURST PRESSURE OF TIRES 1 AND 2 PASSES TEST F. THE FAILING PRESSURE, DESCRIPTION OF FAILURES AND LOCATION SHALL BE REPORTED IN THE QUALIFICATION TEST REPORT.

TEST A TAXI-TAKEOFF - THE TIRE SHALL BE LOADED ON A STATIONARY FLYWHEEL AT 7100 POUNDS. THE FLYWHEEL SHALL BE ACCELERATED TO 30 MPH UNDER THE LOAD AND TAXIED AT THIS SPEED FOR 10,000 FEET. THE FLYWHEEL SHALL BE STOPPED UNDER THE 7100 POUND LOAD, THEN ACCELERATED AT AN AVERAGE RATE OF 10.12 FT/SEC/SEC FROM 0 TO 80 MPH, FROM 80 TO 195 MPH AT AN AVERAGE RATE OF 7.26 FT/SEC/SEC, THEN FROM 195 TO 201 MPH AT AN AVERAGE ACCELERATION OF 3.35 FT/SEC/SEC AT WHICH TIME THE TIRE IS UNLANDED. THE TAKEOFF ROLL DISTANCE OF 5950 FEET SHALL BE COVERED IN 37 TO 38 SECONDS. THE 7100 POUND LOAD SHALL BE DECREASED LINEARLY WITH TIME TO 3500 POUNDS AT 5 SECONDS, 2300 POUNDS AT 35 SECONDS AND TO ZERO LOAD 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 150 MPH. THE FLYWHEEL SHALL HAVE A DECELERATION RATE OF 4.40 FT/SEC/SEC FROM 150 MPH TO 135 MPH, FOLLOWED BY AN AVERAGE DECELERATION RATE OF 7.05 FT/SEC/SEC TO 0 MPH. THE TOTAL ROLL DISTANCE OF 3850 FEET SHALL BE COVERED IN 33 TO 34 SECONDS. THE LOAD SHALL INCREASE LINEARLY WITH TIME FROM 0 POUNDS TO 2400 POUNDS IN 5 SECONDS, TO 4400 POUNDS AFTER 15 SECONDS AND TO 5300 POUNDS IN 33 SECONDS. THE TIRE SHALL THEN BE TAXIED AT 30 MPH AND THE 5,300 POUND LOAD FOR 10,000 FEET.

TEST C CATAPULT TAKEOFF - THE TIRE SHALL BE LANDED AT A LOAD OF 18,750 POUNDS AGAINST THE FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 34.5 MPH AND UNLANDED AFTER A DISTANCE OF 300 FEET HAS BEEN COVERED. AN INFLATION PRESSURE OF 375 PSI ADJUSTED FOR FLYWHEEL CURVATURE SHALL BE USED.

TEST D TAKEOFF CAMBER

- D₁ PERFORM THE TEST A SPECTRUM WITH THE PLANE OF THE TIRE INCLINED INBOARD AT AN ANGLE OF 5 DEGREES.
- D₂ PERFORM THE TEST A SPECTRUM WITH THE PLANE OF THE TIRE INCLINED OUTBOARD AT AN ANGLE OF 5 DEGREES.

TEST E LANDING CAMBER

- E₁ PERFORM THE TEST B SPECTRUM WITH THE PLANE OF THE TIRE INCLINED INBOARD AT AN ANGLE OF 5 DEGREES.
- E₂ PERFORM THE TEST B SPECTRUM WITH THE PLANE OF THE TIRE INCLINED OUTBOARD AT AN ANGLE OF 5 DEGREES.

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 REPORT.

Ⓒ ENTIRE STANDARD REVISED

P.A. NAVY - AS Other Cust ARMY - AV USAF - 99	TITLE	MILITARY STANDARD	
	TIRE, PNEUMATIC, AIRCRAFT, 22 x 5.5, TYPE VII (NAVY)	MS26539	
PROCUREMENT SPECIFICATION MIL-T-5041	SUPERSEDES:	SHEET 1	OF 2

REVISED Ⓒ 23 AUG 85
APPROVED 13 NOV 1956

USER SYMBOLS

REVIEWER SYMBOLS

"Review/issue information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current DODISS."

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NOTE - WHEN THE CONSTRUCTION OF THE CONVENTIONAL AND TUBELESS TIRES IS IDENTICAL, EXCEPT FOR THE TUBELESS TIRE INNER LINER, ONLY THE TUBELESS TIRE NEED BE QUALIFIED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS DRAWING.

AIR RETENTION - THE TUBELESS TIRE SHALL BE INFLATED TO A PRESSURE OF 350 PSI FOR 12 PR AND ALLOWED TO STAND FOR A PERIOD OF 24 HOURS AT WHICH TIME THE PRESSURE DROP DUE TO GROWTH SHALL BE REPLACED. THE TIRE SHALL THEN STAND FOR AN ADDITIONAL 24 HOURS AT WHICH TIME THE PRESSURE SHALL BE MEASURED AND THE TIRE INSPECTED. THE AIR PRESSURE LOSS SHALL NOT EXCEED 5 PERCENT AND THE TIRE SHALL NOT REVEAL ANY APPEARANCE AND PERFORMANCE DEFECTS SUCH AS SIDEWALL BLISTERS, TREAD SEPARATION, ETC.

QUALIFICATION TEST REPORT - THE QUALIFICATION TEST REPORT SHALL LIST THE RESULTS OF ALL QUALIFICATION TESTS AND THE CONSTRUCTION DETAILS OF THE QUALIFICATION TEST SAMPLE IN THE GENERAL FORM SHOWN IN FIGURES 2 AND 3 OF MIL-T-5041. IN ADDITION, IT SHALL ALSO LIST THE ACTUAL DIMENSIONS WHEN THE TIRE IS INFLATED TO 265 PSI FOR 12 PR. THE REPORT SHALL INDICATE THE MANUFACTURER'S TEST NUMBER. TWO (2) COPIES OF THE QUALIFICATION TEST REPORT, TOGETHER WITH THE DATA AND MATERIAL SPECIFIED ABOVE, AND IN MIL-T-5041, SHALL BE SUBMITTED TO THE NAVAL AIR SYSTEMS COMMAND, WASHINGTON, DC, 20361 ATTENTION: 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.

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