

FED. SUP CLASS  
2620

THE TIRE SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF MIL-R-7726 EXCEPT AS SPECIFIED HEREIN.

SIZE	PLY RATING	STATIC LOAD RATING LBS.	VERT. LOAD LBS.	INFL. PRESS. PSI RATED	BEAD WIDTH INCH MAX.	WEIGHT POUNDS MAX.	STATIC UNBAL. OZ-IN. MAX.	TREAD	MOLD SKIN DEPTH MIN.	DEFLEC +3% -4%
37X11.5-16	28TL 1/	31,200	160,000	245	3.15	100	0	RIB 2/	.30	32%

1/ TL - TUBELESS TIRE

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

## TIRE DATA

INFLATED OUTSIDE DIAMETER (INCH)		INFLATED SECTION WIDTH (INCH)		INFLATED SHOULDER DIAMETER (INCH)		INFLATED SHOULDER WIDTH (INCH)	
MIN.	MAX.	MIN.	MAX.	MAX.		MAX.	
36.10	38.05	10.90	11.96	34.06		10.50	

## RIM DATA

WIDTH BETWEEN FLANGES (INCH)	FLANGE WIDTH INCH	LEDGE DIAMETER INCH	LEDGE WIDTH (INCH)	FLANGE HEIGHT INCH	HEEL RADIUS (INCH)	FLANGE RADIUS (INCH)	FLANGE EDGE RADIUS (INCH)
9.00	1.00	16	2.13	1.375	.250	.688	.125

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.

FOUR TIRES SHALL BE SUBMITTED BY THE CONTRACTOR. THE TIRES SHALL BE REBUILT USING THE SAME COMPOUNDS AND PROCESSING TECHNIQUES. TIRES SHALL BE EXAMINED AS SPECIFIED BELOW:

## TIRE 1:

**DIMENSIONS** - THE TIRE SHALL BE INFLATED TO 245 PSI AND ALLOWED TO STAND FOR 4 HOURS MINIMUM AT ROOM TEMPERATURE AFTER WHICH TIME THE PRESSURE DUE TO GROWTH SHALL BE REPLACED. THE REBUILT TIRE DIMENSIONS AT 350 PSI SHALL BE WITHIN THE DIMENSIONAL LIMITS SPECIFIED ABOVE.

**DYNAMIC TEST** - THE TIRE SHALL WITHSTAND 50 CYCLES OF TEST A, 44 CYCLES OF TEST B, 2 CYCLES OF TEST C, 1 CYCLE OF TEST D, 1 CYCLE OF TEST E, 1 CYCLE OF TEST F, AND 9 CYCLES OF TEST G WITHOUT FAILURE OR VISIBLE DETERIORATION OTHER THAN NORMAL EXPECTED TREAD WEAR.

## TIRE 2:

**DYNAMIC TEST** - THE TIRE SHALL WITHSTAND 20 CYCLES OF TEST H, AND 25 CYCLES OF TEST A WITHOUT EVIDENCE OF FAILURE.

## DYNAMIC TESTS:

**TEST A - TAXI-TAKEOFF** - THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 30 MPH FOR 10,000 FEET WITH 31,200 POUNDS LOAD. WITHIN 2 MINUTES OF THE TAXI ROLL, THE FLYWHEEL SHALL BE ACCELERATED AT AN AVERAGE RATE OF 7.8 FT./SEC./SEC. FROM 0 MPH TO A SPEED OF 146 MPH. THE TIRE SHALL BE UNLANDED AFTER A TAKEOFF ROLL DISTANCE OF 2,940 FEET HAS BEEN COVERED IN APPROXIMATELY 27 TO 28 SECONDS. THE INITIAL LOAD OF 31,200 POUNDS SHALL BE DECREASED LINEARLY WITH TIME TO 5,000 POUNDS AT 26 SECONDS AFTER THE START OF THE TAKEOFF ROLL AND DECREASED TO ZERO POUNDS AT THE TIME THE TIRE IS UNLANDED.

**TEST B - LANDING** - THE TIRE SHALL BE LANDED AGAINST A FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 156 MPH. THE FLYWHEEL SPEED SHALL THEN BE DECREASED UNTIL A ROLL DISTANCE OF APPROXIMATELY 3935 FEET HAS BEEN COVERED. THE AVERAGE DECELERATION RATE SHALL BE 3.5 FEET/SEC/SEC BETWEEN 156 AND 132 MPH, AND 9.7 FEET/SEC/SEC BETWEEN 132 AND 0 MPH. THE TIRE LOAD SHALL BE INCREASED TO 12,000 POUNDS IN 1.5 SECONDS AFTER LANDING, MAINTAINED AT 12,000 POUNDS FOR 8.5 SECONDS, INCREASED TO 22,600 POUNDS IN 3.5 SECONDS, AND MAINTAINED AT 22,600

(A) DENOTES CHANGES

P.A. NAVY - AS Other Cust	TITLE TIRE, PNEUMATIC, AIRCRAFT, REBUILT, 37 X 11.5 - 16, TYPE VII (NAVY)	MILITARY STANDARD MS14170(AS)
PROCUREMENT SPECIFICATION MIL-R-7726	SUPERSEDES:	SHEET 1 OF 2

APPROVED 16 JUN 76 REVISED (A) 23 JAN 78

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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POUNDS UNTIL THE TIRE IS UNLANDED AFTER A TOTAL TIME OF APPROXIMATELY 30 SECONDS. WITHIN 2 MINUTES OF THE ABOVE CYCLE, TAXI THE TIRE ON THE FLYWHEEL FOR 10,000 FEET UNDER 24,100 POUNDS AT 30 MPH.

- TEST C - HIGH SPEED LANDING - TAXI - THE TIRE SHALL BE LANDED AGAINST A FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 218 MPH. THE FLYWHEEL SPEED SHALL THEN BE DECREASED UNTIL A ROLL DISTANCE OF APPROXIMATELY 7995 FEET HAS BEEN COVERED. THE AVERAGE DECELERATION RATE SHALL BE 3.26 FT/SEC/SEC BETWEEN 218 AND 198 MPH AND 8.06 FT/SEC/SEC BETWEEN 198 AND 0 MPH. THE TIRE LOAD SHALL BE INCREASED TO 12,000 POUNDS IN 2 SECONDS AFTER LANDING, MAINTAINED AT 12,000 POUNDS FOR 7 SECONDS, INCREASED TO 24,000 POUNDS IN 2 SECONDS, THEN DECREASED LINEARLY WITH TIME TO 19,500 POUNDS AT 45 SECONDS AFTER THE START OF THE LANDING ROLL. WITHIN TWO (2) MINUTES OF THE ABOVE CYCLE, TAXI THE TIRE ON THE FLYWHEEL FOR 10,000 FEET UNDER 20,900 POUNDS AT 30 MPH.
- TEST D - REJECTED TAKEOFF - THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 30 MPH FOR 20,000 FEET WITH 31,200 POUNDS LOAD. WITHIN TWO (2) MINUTES OF THE TAXI ROLL, THE FLYWHEEL SHALL BE ACCELERATED AT AN AVERAGE RATE OF 10.3 FT/SEC/SEC FROM 0 MPH TO A SPEED OF 155 MPH, THEN DECELERATED AT AN AVERAGE RATE OF 11.95 FT/SEC/SEC FROM 155 MPH TO 0 MPH. THE TIRE SHALL BE UNLANDED AFTER A TAKEOFF ROLL DISTANCE OF 4620 FEET HAS BEEN COVERED IN APPROXIMATELY 41 SECONDS. THE INITIAL LOAD OF 31,200 POUNDS SHALL BE MAINTAINED FOR 5 SECONDS, DECREASED TO 15,000 POUNDS WITHIN 15 SECONDS (20 SECONDS FROM START), INCREASED TO 27,500 POUNDS WITHIN 2 SECONDS (22 SECONDS FROM START), AND MAINTAINED AT 27,500 POUNDS FOR 19 SECONDS (41 SECONDS FROM START) AT WHICH TIME THE TIRE IS UNLANDED.
- TEST E - CAMBER - ONE CYCLE OF TEST E SHALL CONSIST OF 24 CYCLES OF E<sub>1</sub> AND 24 CYCLES OF TEST E<sub>2</sub>.
- E<sub>1</sub> - THE TIRE SHALL BE LANDED AGAINST A FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 30 MPH WITH 39,200 POUNDS LOAD FOR A DISTANCE OF 500 FEET WITH THE PLANE OF THE TIRE INCLINED INBOARD AT AN ANGLE OF 9 DEGREES.
- E<sub>2</sub> - THE TIRE SHALL BE LANDED AGAINST A FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 30 MPH WITH 39,200 POUNDS LOAD FOR A DISTANCE OF 2000 FEET WITH THE PLANE OF THE TIRE INCLINED INBOARD AT AN ANGLE OF 5 DEGREES.
- TEST F - CAMBER - PERFORM THE TEST E SPECTRUM WITH THE PLANE OF THE TIRE INCLINED OUTBOARD.
- TEST G - LONG TAXI - THE TIRE SHALL BE LANDED ON THE FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 30 MPH FOR 30,000 FEET WITH 31,200 POUNDS LOAD.
- TEST H - CATAPULT CONDITION - ACCELERATE THE FLYWHEEL AT AN AVERAGE RATE OF 24 FT/SEC/SEC FROM 0 MPH TO 82 MPH. THE TIRE SHALL BE UNLANDED AFTER A ROLL DISTANCE OF 300 FEET HAS BEEN COVERED IN 5 SECONDS. THE INITIAL LOAD OF 60,000 POUNDS SHALL BE DECREASED LINEARLY WITH TIME TO 48,000 POUNDS IN 4.5 SECONDS AND DECREASED TO ZERO POUNDS AT THE TIME THE TIRE IS UNLANDED. THE TIRE INFLATION PRESSURE SHALL BE 350 PSI, CORRECTED FOR THE FLYWHEEL DIAMETER.
- TIRES 3 AND 4: TIRES 3 AND 4 SHALL NOT BE SUBJECTED TO CONTRACTOR TESTING; HOWEVER, A HALF SECTION OF TIRE 3 AND THE COMPLETE TIRE 4, ALONG WITH A REPRESENTATIVE HALF SECTION OF TIRES 1 AND 2 AFTER DYNAMIC TESTS SHALL BE SUBMITTED TO THE COGNIZANT GOVERNMENT LABORATORY AS SPECIFIED IN MS3377.

(A)

## NOTES:

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

APPROVED 16 JUN 76 REVISED (A) FOR CHANGES SEE SHEET 2

P.A. NAVY - AS Other Cust	TITLE TIRE, PNEUMATIC, AIRCRAFT, REBUILT, 37 X 11.5 - 16, TYPE VII (NAVY)	MILITARY STANDARD <b>MS14170(AS)</b>
PROCUREMENT SPECIFICATION MIL-R-7726	SUPERSEDES:	SHEET 2 OF 2