

REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THE SPECIFICATION AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE L. THE SOLICITATION: MIL-R-7728

THIS SPECIFICATION IS APPROVED FOR USE BY THE NAVAL AIR SYSTEMS COMMAND, DEPARTMENT OF THE NAVY, AND IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

FORM APPROVED
OMB NO. 0704-0188

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.	INFL. PRESS. PSI RATED	BEAD WIDTH INCH MAX.	WEIGHT POUNDS MAX.	STATIC UNBAL. OZ-IN. MAX.	TREAD	MOLD SKID DEPTH MIN.	DEFLEC +3% -4%
24x7.7-10	20TL 1/	12,000	220		36.8	14	RIB	0.30	32%

METRIC: 643 x 210-254 (MM)

1/ TL - TUBELESS TIRE

TIRE DATA (INCH) (STATIC TEST TIRE)

INFLATED OUTSIDE DIAMETER		INFLATED SECTION WIDTH		INFLATED SHOULDER DIAMETER	INFLATED SHOULDER WIDTH
MIN.	MAX.	MIN.	MAX.	MAX.	MAX.
23.30	24.53	7.20	7.66	22.00	7.00

RIM DATA (INCH)

WIDTH BETWEEN FLANGES	FLANGE WIDTH	LEDGE DIAMETER	LEDGE WIDTH	FLANGE HEIGHT	HEEL RADIUS	FLANGE RADIUS	FLANGE EDGE
5.50	0.750	10.00	1.70	0.906	0.438	0.500	—

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.

THREE 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:

TEST INFLATION PRESSURE: THE TEST INFLATION PRESSURE FOR DYNAMIC TESTS SHALL BE 125 PSI AND ADJUSTED TO ENSURE TIRE DEFLECTION WITHIN DESIGN LIMITS.

PREPARING ACTIVITY: NAVY-AS CUSTODIANS: ARMY- AIR FORCE- REVIEW: USER: PROJECT NUMBER: 2620-N270	MILITARY SPECIFICATION SHEET TITLE: TIRE, PNEUMATIC, AIRCRAFT, REBUILT 24 x 7.7-10 (NAVY)	SPECIFICATION SHEET NUMBER MS14540(AS) 31 JULY 95
		SUPERSEDING
		AMSC - N/A FSC 2620
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TIRE 1:

DIMENSIONS - THE TIRE SHALL BE INFLATED TO 125 PSI AND ALLOWED TO STAND 4 HOURS MINIMUM AT ROOM TEMPERATURE AFTER WHICH TIME THE PRESSURE LOSS DUE TO GROWTH SHALL BE REPLACED. THE REBUILT TIRE DIMENSIONS AT 325 PSI SHALL BE WITHIN THE DIMENSIONAL LIMITS SPECIFIED ABOVE.

DYNAMIC TEST - THE TIRE SHALL WITHSTAND 50 CYCLES OF TEST A, 50 CYCLES OF TEST B, 8 CYCLES OF TEST C, 2 CYCLES OF TEST D AND 1 CYCLE OF TEST E WITHOUT FAILURE OR VISIBLE DETERIORATION OTHER THAN NORMAL EXPECTED TREAD WEAR.

DYNAMIC TESTS:

- TEST A - TAXI-TAKEOFF** - THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 35 MPH FOR 6160 FEET WITH 6,400 POUNDS LOAD. UPON COMPLETION OF THE TAXI ROLL, THE FLYWHEEL SHALL BE STOPPED, IMMEDIATELY ACCELERATED AT AN AVERAGE RATE OF 9.8 FT/SEC/SEC FROM 0 MPH TO 80 MPH, AND THEN AT 7.0 FT/SEC/SEC FROM 80 MPH TO 190 MPH. THE TIRE SHALL BE UNLANDED AFTER A TAKEOFF ROLL DISTANCE OF 5260 FEET HAS BEEN COVERED IN APPROXIMATELY 35 TO 36 SECONDS. THE INITIAL LOAD OF 6,400 POUNDS WILL BE DECREASED LINEARLY WITH TIME TO 4,600 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 155 MPH. THE AVERAGE DECELERATION RATE SHALL BE 7.6 FT/SEC/SEC FROM 155 MPH TO 0 MPH. THE LANDING ROLL DISTANCE OF 3410 FEET SHALL BE COVERED IN APPROXIMATELY 30 SECONDS. THE INITIAL TIRE LOAD SHALL BE 2,900 POUNDS INCREASING LINEARLY TO 5,000 POUNDS IN 16 SECONDS, AND INCREASING LINEARLY TO 5,600 POUNDS IN THE NEXT 14 SECONDS. IMMEDIATELY FOLLOWING THE LANDING, THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 35 MPH FOR 6,160 FEET WITH 6,400 POUNDS LOAD.
- TEST C - TOUCH AND GO** - THE TIRE SHALL BE LANDED AGAINST THE FLYWHEEL AT A PERIPHERAL SPEED OF 212 MPH AT A LOAD OF 5,500 POUNDS. THE SPEED SHALL BE LINEARLY DECREASED TO 190 MPH IN 13 SECONDS, AND THE TIRE UNLANDED.
- TEST D - NO FLAP LANDING** - THE TIRE SHALL BE LANDED AGAINST THE FLYWHEEL ROTATING AT A PERIPHERAL SPEED OF 212 MPH. THE AVERAGE DECELERATION RATE SHALL BE 3.4 FT/SEC/SEC FROM 212 MPH TO 143 MPH, THEN AT 14.0 FT/SEC/SEC FROM 143 MPH TO 0 MPH. THE LANDING ROLL DISTANCE OF 10,800 FEET SHALL BE COVERED IN APPROXIMATELY 45 SECONDS. THE INITIAL TIRE LOAD SHALL BE 6,000 POUNDS FOR 30 SECONDS, THEN LINEARLY DECREASED TO 5,500 POUNDS IN 15 SECONDS.
- TEST E - REJECTED TAKEOFF** - THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 35 MPH FOR 6160 FEET WITH 7,300 POUNDS LOAD. UPON COMPLETION OF THE TAXI ROLL, THE FLYWHEEL SHALL BE STOPPED, IMMEDIATELY ACCELERATED AT AN AVERAGE RATE OF 9.8 FT/SEC/SEC FROM 0 MPH TO 80 MPH, AND AT 7.0 FT/SEC/SEC FROM 80 MPH TO 170 MPH, THEN DECELERATED AT 10.0 FT/SEC/SEC FROM 170 MPH TO 0 MPH. THE INITIAL TIRE LOAD SHALL BE 7,300 POUNDS DECREASING LINEARLY TO 4,900 POUNDS IN 31 SECONDS, THEN INCREASING LINEARLY TO 6,400 POUNDS IN 25 SECONDS (56 SECONDS FROM START). THE TOTAL ROLL DISTANCE OF 6,850 FEET SHALL BE COVERED IN 56 SECONDS. IMMEDIATELY FOLLOWING THE ABOVE CYCLE, THE TIRE SHALL BE TAXIED ON THE FLYWHEEL AT 35 MPH FOR 6160 FEET WITH 6,400 POUNDS LOAD.

TIRE 2 AND 3: TIRES 2 AND 3 SHALL NOT BE SUBJECTED TO CONTRACTOR TESTING; HOWEVER, A HALF SECTION OF TIRE 2 AND THE COMPLETE TIRE 3, ALONG WITH A REPRESENTATIVE HALF SECTION OF TIRE 1 AFTER DYNAMIC TESTS SHALL BE SUBMITTED TO THE COGNIZANT GOVERNMENT LABORATORY AS SPECIFIED IN MS3377.

NOTES:

- IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
- REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DOISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

PREPARING ACTIVITY: NAVY-AS

CUSTODIANS: ARMY-

AIR FORCE-

REVIEW

USER:

PROJECT NUMBER: 2620-N270

MILITARY SPECIFICATION SHEET

TITLE:

TIRE, PNEUMATIC, AIRCRAFT, REBUILT
24 x 7.7-10 (NAVY)

SPECIFICATION SHEET NUMBER

MS14540(AS) 31 JULY 85

SUPERSEDING

AMSC - N/A

FSC 2620

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