

NOTICE—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner limiting the holder or any other person or organization, or conveying any right or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

This standard has been approved by the Naval Air Systems Command Department of the Navy and is mandatory for use by that activity. All other military activities are required to employ this standard where suitable.

The Tire Shall Be In Accordance With the Applicable Requirements of Specification MIL-T-5041 Except As Specified Herein										FED SUP CLASS 2620	
Size	Ply Rating	Static Load Rating Lbs.	Vert. Load Lbs. Min.	Infl. Press Psi Rated	Burst Press Psi Min.	Bead Width Inch Max.	Weight Lbs. Max.	Static Unbal. Oz.-In. Max.	Tread	Mold Skid Depth	Deflec +2% -4%
13.5 x 6.00-4	12TL 1/	2,450	7,500	95	380 2/	0.75	6.00	5	Rib 3/	.20	33X
			1/ TL - Tubeless Tire								
			2/ Tested Tire or New								
			3/ At least four but not more than seven continuous circumferential ribs								
TIRE DATA											
A. Static Test Tire											
Inflated Outside Diameter (inch)		Inflated Section Width (inch)		Inflated Shoulder Diameter (inch)		Inflated Shoulder Width at Max. SH. DIA. Max. (inch)					
Min.	Max.	Min.	Max.	Max.		Max.					
13.20	13.75	5.75	6.10	12.00		5.40					
B. Dynamic Test Tire 4/											
Grown and Thrown Inflated Outside Diameter (inch)		Grown Inflated Section Width (inch)		Grown Inflated Shoulder Diameter (inch)		Grown Inflated Shoulder Width at Max. SH. DIA. Max. (inch)					
Max.		Max.		Max.		Max.					
14.25		6.35		12.40		5.60					
4/ Grown and thrown dimensions to be confirmed during cycles 15 of Test B and 20 of Test C.											
RIM DATA											
Width Between Flanges (inch)	Flange Width (inch)	Ledge Diameter (inch)	Flange Height (inch)	Heel Radius (inch)	Flange Radius (inch)	Ledge Width (inch)					
4.75	0.38	4.00	0.85	0.156	0.275	0.75					
The tire covered by this drawing shall be suitable for use and provide reasonable service life during all normal operations at take-off and landing speeds indicated herein on all types of runways and on aircraft carriers.											
Test Tires Number 1 and 2 shall consecutively withstand the following dynamic test spectrum in alphabetical sequence followed by Test J. Minimum burst pressure for Test J shall be 380 PSI.											
Test	A	B	C	D	E	F	G	H ₁	H ₂	J	
Cycles	15	15	20	18	30	1	1	25	25	1	
Test Tire Number 3 shall be subjected to Test I followed by 15 cycles of Test A and 15 cycles of Test E and then loaded against the 1-3/8 inch diameter plain round bar stock or cable until tire failure occurs.											
Test A Taxi-Take-Off - The tire shall be taxied on the flywheel at 40 MPH for 7500 feet with 2450 pounds load. Upon completion of the taxi roll, the flywheel shall be stopped. The flywheel shall then immediately be accelerated at an average rate of 14.7 ft/sec/sec from 0 MPH to a speed of 180 MPH. The tire shall be unlanded after a take-off roll distance of 2385 feet has been covered in approximately 18 - 19 seconds. The initial load of 2450 pounds shall be decreased linearly with time to 1050 pounds at the time the tire is unlanded.											
Test B Taxi-Take-Off - The tire shall be taxied on the flywheel at 40 MPH for 7500 feet with 1600 pounds load. Upon completion of the taxi roll, the flywheel shall then immediately be accelerated at an average rate of 15 ft/sec/sec from 0 MPH to a speed of 138 MPH and then continued at an average rate of 11.1 ft/sec/sec from 138 MPH to a speed of 188 MPH. The tire shall be unlanded after a take-off roll distance of 2945 feet has been covered in approximately 20 seconds. The initial load of 1600 pounds shall be decreased linearly with time to 1000 pounds at the time the tire is unlanded.											
Test C Taxi-Take-Off - The tire shall be taxied on the flywheel at 40 MPH for 7500 feet with 1500 pounds load. Upon completion of the taxi roll, the flywheel shall be stopped. The flywheel shall then immediately be accelerated at an average rate of 22.5 ft/sec/sec from 0 MPH to a speed of 92 MPH and then continued at an average rate of 16.6 ft/sec/sec from 92 MPH to a speed of 161 MPH. The tire shall be unlanded after a take-off roll distance of 1545 feet has been covered in approximately 12 seconds. The initial load of 1500 pounds shall be decreased linearly with time to 1000 pounds at 8 seconds after the start of the take-off roll and decreased to 0 pounds at the time the tire is unlanded.											
Test D Landing-Taxi - The tire shall be landed against a flywheel rotating at a peripheral speed of 58 MPH. The flywheel speed shall then be decreased until a roll distance of approximately 1020 feet has been covered. The average											
P.A. AS Other Cust		TITLE Tire - Aircraft, 13.5 x 6.00-4 (Navy)					MILITARY STANDARD				
							MS		14158(AS)		
PROCUREMENT SPECIFICATION MIL-T-5041		SUPERSEDES					SHEET		1 OF 2		

REVISIONS
 APPROVED 16 Oct 1974

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The Tire Shall Be In Accordance With The Applicable Requirements of Specification MIL-T-5041 Except As Specified Herein		FFD SUP CLASS 2620
Test D continued	deceleration rate shall be 3.52 ft/sec/sec between 58 MPH and 0 MPH. The tire load shall be increased to 1200 pounds in 1 second after landing and remain constant until the end of the roll after a total time of approximately 24 seconds. Immediately following the landing cycle, the tire shall be taxied on the flywheel for 750 feet under 1200 pounds load at 12 MPH.	
Test E	<u>Landing-Taxi</u> - The tire shall be landed against a flywheel rotating at a peripheral speed of 115 MPH. The flywheel speed shall then be decreased until a roll distance of approximately 2160 feet has been covered. The average deceleration rate shall be 6.62 ft/sec/sec between 115 MPH and 0 MPH. The tire load shall be increased to 1000 pounds in 2 seconds after landing and increased linearly with time to 1450 pounds at approximately 26 seconds after landing. Immediately following the landing cycle, the tire shall be taxied on the flywheel for 2250 feet under 1450 pounds load at 12 MPH.	
Test F	<u>Landing-Taxi</u> - The tire shall be landed against a flywheel rotating at a peripheral speed of 195 MPH. The flywheel speed shall then be decreased until a roll distance of approximately 5,600 feet has been covered. The average deceleration rate shall be 7.25 ft/sec/sec between 195 MPH and 0 MPH. The tire load shall be increased to 1000 pounds in 8 seconds after landing, and then increased linearly with time to 1125 pounds at approximately 39 seconds after landing. Immediately following the landing cycle, the tire shall be taxied on the flywheel for 5250 feet under 1125 pounds load at 40 MPH.	
Test G	<u>Landing-Taxi</u> - The tire shall be landed against a flywheel rotating at a peripheral speed of 183 MPH. The flywheel speed shall then be decreased until a roll distance of approximately 6450 feet has been covered. The average deceleration rate shall be 5.6 ft/sec/sec between 183 MPH and 0 MPH. The tire load shall be increased to 1000 pounds in 15 seconds after landing and maintained until approximately 48 seconds after landing. Immediately following the landing cycle, the tire shall be taxied on the flywheel for 5250 feet under 1000 pounds load at 40 MPH.	
Test H ₁	<u>Turning-Taxi</u> - The tire shall be landed against a flywheel rotating at a peripheral speed of 23 MPH with 1015 pounds load for a distance of 450 feet with the plane of the tire yawed left to produce a side load of 300 pounds.	
Test H ₂	<u>Turning-Taxi</u> - The tire shall be landed against a flywheel rotating at a peripheral speed of 25 MPH with a 3900 pound axial load and no side load for a distance of 500 feet.	
Test I	<u>Bruise Test</u> - A tire inflated to 95 PSI shall be loaded against a 1-3/8 inch diameter length of plain round bar stock or arresting gear cable with a vertical load of 7500 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 J	<u>Burst Test</u> - The tire shall be subjected to a hydrostatic burst test. The pressure shall be increased until the tire fails and the failing pressure, description of failure, and location shall be reported in the qualification test report.	
<u>Wear Depth Indicators</u> - Tread wear indicators shall be provided to establish allowable wear to tread down to 1/32 inch from the bottom of the tread grooves. Oblong holes (7/16 x 1/8 inch) or round holes (7/16 inch) shall be located in the tread ribs. Indicators shall be located not more than 45 degrees apart.		
<u>Qualification Test Report</u> - 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 Figure 6 of specification MIL-T-5041. The report shall list the manufacturer's test number. Submit two (2) copies of the qualification test report, together with the data and material specified above and in MIL-T-5041 to the Naval Air Systems Command, Washington, DC 20361, Attention: AIR-530321.		
NOTES: - This document has been promulgated by the Department of Defense as the military standard to limit the selection of the item product, or design covered herein in engineering, design, and procurement. This document shall become effective not later than 90 days after the latest date of approval shown.		
Referenced documents shall be of the issue in effect on date of invitation for bid.		
APPROVED 16 Oct 1974 REVISED		
Project No. 2620-N076		
P.A. AS	TITLE	MILITARY STANDARD
Other Cust	TIRE - AIRCRAFT, 13.5 x 6.00-4 (Navy)	MS 14158 (AS)
PROCUREMENT SPECIFICATION MIL-T-5041	SUPERSEDES.	SHEET 2 OF 2

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DEPARTMENT OF THE NAVY
Naval Air Systems Command
Washington, D.C. 20361

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NAVAL AIR SYSTEMS COMMAND (AIR-52021)
Department of the Navy
Washington, D.C. 20361

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