

FED. SUP CLASS
2620

The Tire Shall Be In Accordance With The Applicable Requirements of Specification MIL-T-5041 Except As Specified Herein

Size	Fly Rating	Static Load Rating Lbs.	Vert. Load Lbs.	Infl Press. PSI Rated	Burst Press. PSI Min.	Bead Width Inch Max.	Weight Pounds Max.	Static Unbal. OZ-IN. Max.	Tread	Hold Skin Depth Min.	Deflec + 3% -4.5
37x11.5-1628TL	1/	31,200	160,000	245	980	3.15	95	17	Rib 3/	.30	32%

- 1/ TL - Tubeless Tire
- 2/ New Tire
- 3/ 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.	Min.	Max.	Min.	Max.
36.10	37.00	10.90	11.50	33.20		10.10	

RIM DATA

Width Between Flanges (Inch)	Flange Width Inch	Ledge Diameter Inch	Ledge Width (Inch)	Flange Height Inch	Beel 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.

Test tire, Number 1, shall withstand 50 cycles of Test A, 44 cycles of Test B, 2 cycles of Test C, 1 cycle of Test D, 24 cycles of Test E, 24 cycles of Test F, and 9 cycles of Test G without failure or visible deterioration other than normal expected tread wear. The tire shall then be used for Test J. The minimum burst pressure shall be 980 psi.

Test tire Number 2 shall withstand 20 cycles of Test H, withstand Test I, and then 25 cycles of Test A without failure. The tire shall then be used for Test J.

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 - Taxi - 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 2935 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 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 - The tire shall be landed against a flywheel rotating at a peripheral speed of 30 MPH with 36,200 pounds load for a distance of 500 feet with the plane of the tire inclined inboard at an angle of 9 degrees and for a distance of 2000 feet with the plane of the tire inclined inboard at an angle of 5 degrees.

REVISED AND REDRAWN

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.

23 JAN 78
REVISED (A)
APPROVED 1 OCT. 73

P.A. NAVY - AS	TITLE	MILITARY STANDARD
Other Cust	TIRE, PNEUMATIC, AIRCRAFT, 37 x 11.5 - 16, TYPE VII (NAVY)	MS14152(AS)
PROCUREMENT SPECIFICATION MIL-T-5041	SUPERSEDES:	SHEET 1 OF 2

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- 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.
- Test I - Bruise Test - A tire inflated to 350 psi (corrected for flywheel diameter) 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 160 000 pounds. After release of this load the tire shall be subjected to the same loading condition at a location 180 degrees from the initial point of loading.
- Test J - Burst Test - 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.

Air Retention - The tire shall be inflated to a pressure of 350 psi 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 construction details of the qualification test sample in the general form shown in Figure 6 of Specification MIL-T-5041 with dimensions listed at rated inflation and at 350 psi. A sketch of the tire profile at rated and 350 psi shall be included in the report. The report shall list the manufacturer's test number. Submit two 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, D.C. 20361 Attention: AIR-530321A.

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 1 Oct 1973 REVISED (A) For changes see sheets 1 & 2

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PROCUREMENT SPECIFICATION MIL-T-5041	SUPERSEDES.	SHEET 2 OF 2

DD FORM 1 MAR 72 672-1 (Limited coordination)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

PLATE NO. 23071