TECHNICAL MANUAL

ARMY AMMUNITION DATA SHEETS

FOR

GRENADES

HEADQUARTERS, DEPARTMENT OF THE ARMY

JUNE 1994

TECHNICAL MANUAL

No. 43-0001-29

HEADQUARTERS
DEPARTMENT OF THE ARMY
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Army Ammunition Data Sheets for Grenades

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028-2 (Recommended Changes to Equipment Technical Publications) located in the back of this manual directly to Commander, U.S. Army TACOM, Armament Research, Development and Engineering Center, ATTN: AMSTA-AR-WEL-S, Picatinny Arsenal, NJ 07806-5000. You may also send in your recommended changes via electronic mail or by fax. Our e-mail address is LSB@PICA.ARMY.MIL. Our fax number is DSN 880-4633, Commercial (973) 724-4633. A reply will be furnished to you.

*This manual supersedes TM 43-0001-29, 31 October 1977, including all changes.

CHAPTER 2. HAND GRENADES - Continued

CHAPTER 1
INTRODUCTION

1-1. PURPOSE

This manual is a reference handbook published as an aid in training, familiarization and identification of grenades and grenade fuzes.

1-2. SCOPE

a. For each item of materiel, there are illustrations and descriptions together with characteristics and related data. Included in the related data are weight, dimensions, performance data, packing, shipping and storage data, **Type Classification**, and logistics condition codes (LCC).

b. Information concerning supply, operation, and maintenance of the items will be found in the publications referenced for those items. A complete listing of these publications is maintained in DA Pam 310 series indexes.

c. Within this manual, items with the following type classifications are included:

(1) Standard (LCC-A, LCC-B)

(2) Contingency (CON)

(3) Limited Procurement (LP)

(4) Reclassified obsolete (OBS) for regular Army use, but used by National Guard or Reserve Units.

(5) Reclassified OBS for all Army use, but used by Marine Corps, Air Force, or Navy.

(6) Reclassified OBS, no users, but U.S. stocks remain.

d. Items with the following type classification are not included: Reclassified OBS for all U.S. use. No U.S. stocks remain. (Foreign use or stock may remain.)

e. Numerical values, such as weights, dimensions, candlepower, etc., are nominal values, except when specified as maximum or minimum. Actual items may vary slightly from these values. Allowable limits can be obtained from the drawings indicated in the data sheets.

1-3. QUANTITY-DISTANCE CLASSES AND STORAGE COMPATIBILITY GROUPS

Quantity-Distance (QD) classes and Storage Compatibility Groups (SCG) listed in this manual are changed. For conversion to new system see table 1-1.

Table 1-1. Quantity-Distance Classes and Storage Compatibility Groups

Quantity-distance hazard class [1/]		Storage compatibility group [1/3/]
Old	New [2/]	Typical - New
8	6.1	
7	1.1	D
6	1.2(18)	E
5	1.2(12)	
4	1.2(08)	F
3	1.2(04)	G
2	1.3	C
1	1.4	S

Notes:

[1/] New QD and SCG's are compatible with classes used by NATO nations.

[2/] Numbers in parentheses are minimum distances x 100 feet to protect against specific fragment hazards and vary with items and types of ammunition. (Refer to TM 9-1300-206.)

[3/] There is no simple conversion from old SCG's to new system. The SCG groups listed in this column are typical for the majority of items in the corresponding listed QD class but do not apply to every individual item in the class. For SCG of individual items refer to TM 9-1300-206.

1-4. METRIC CONVERSION CHART

For approximate conversions to/from metric measures, see table 1-2.

Table 1-2. Metric Conversion Chart

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in.	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
WEIGHT				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lbs)	0.9	tonnes	t
VOLUME				
tspl	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3

Symbol	When You Know	Subtract	Multiply by	To Find	Symbol
TEMPERATURE					
°F	Fahrenheit	32	0.55	Celsius	°C

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in.
cm	centimeters	0.4	inches	in.
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
WEIGHT				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic motels	35	cubic feet	f^3
m^3	cubic meters	1.3	cubic yards	yd^3

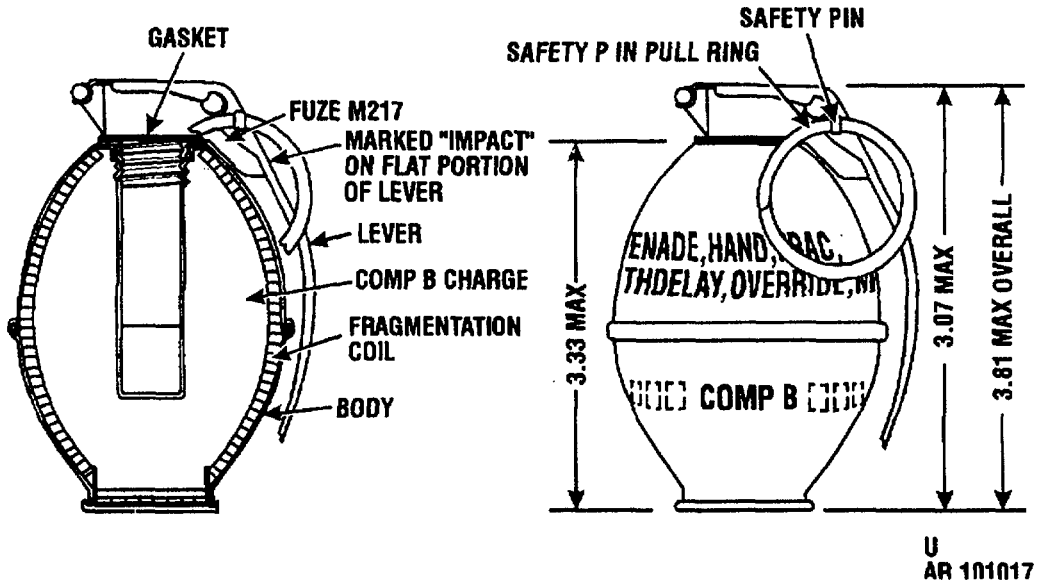
Symbol	When You Know	Subtract	Multiply by	To Find	Symbol
TEMPERATURE					
°C	Celsius	1.8	32	Fahrenheit	°F

CHAPTER 2

HAND GRENADES

Section I. FRAGMENTATION

GRENADE, HAND: FRAGMENTATION, IMPACT, M26A2



Type Classification:

Obs. MSR 10826016

Use:

The M26A2 impact fragmentation hand grenade is used to supplement small arms fire against the enemy in close combat. The grenade produces casualties by high velocity projection of fragments.

Description:

Hand grenade M26A2 is assembled with an electrical impact fuze M217 which incorporates a secondary pyrotechnic delay feature which detonates the grenade if it fails to detonate upon impact. The body of the grenade is constructed of two pieces of thin-wall sheet steel, has a notched fragmentation coil liner. Bodies contain a high explosive filler.

Fuze M217 is equipped with a safety pin, the split end of which is either spread or has a diamond crimp, and a pull ring. IMPACT is embossed on the safety lever. (Older models had red safety levers with or without IMPACT painted thereon in black). The major components are as follows: a bouchon assembly, a fuze body assembly (which contains a thermal power supply, an arming delay thermal switch, a delay-detonation terminal switch assembly, an impact switch assembly and an electric detonator), and a booster pellet. The bouchon assembly consists of a striker, striker spring, a striker hinge pin, safety lever and safety pin with pull ring. The fuze body is hermetically sealed.

Tabulated Data:

Grenade (with fuze):

Model(s)	M26A2
Body	Thin-wall sheet steel w/notched fragmentation coil
Weight	16 oz
Length (max)	3.9 in.
Diameter	2.25 in.
Color	Olive drab w/yellow markings

Filler:

Type	Comp B w/tetryl pellets

Weight:

Comp B	5.5 oz
Tetryl pellets	0.3 oz

Fuze:

Model(s)	M217
Type	Electrical impact w/overriding delay function feature
Primer	M42
Detonator	Lead azide, lead styphnate, PETN
Delay time	3 to 7 seconds
Weight	2.7 oz
Length	3.0 in.

Color, safety lever.....Red handle w/IMPACT embossed, in lever; red lever w/or w/o IMPACT stenciled in black on lever.
Safety device(s).....Pull ring and safety pin

Federal Supply Code

NSN.....1330-00-782-5540
DODAC.....1330-G889
See DOD Consolidated Ammunition Catalog for additional information.

Unit of Issue:

Each packed.....1 per fiber container; 30 per wooden box.

Packing Data:

Packing box:
Weight (with contents) .....51 lb
Dimensions.....19-3/4 in. x 11-9/16 in. x 12-13/32 in.
Cube.....1.60 cu ft

Shipping and Storage Data:

Hazard class/division and storage compatibility group (04) 1.1F
UNO serial number 0292
UNO proper shipping name Grenades
DOT class.....Class A explosive
DOT marking .....HAND GRENADES

Functioning:

Removal of safety pin permits release of the safety lever. When the grenade is thrown, the striker assembly, through action of the striker spring, throws off the safety lever and impacts the percussion primer. The primer initiates the power supply, which causes the fuze to arm within one to two seconds; thereafter, the grenade is subject to detonation upon impact.

NOTE

At high temperature (+125°F), arming time may be as short as 1 second; at low temperature (-40°F), as long as 2 seconds. The secondary pyrotechnic delay feature functions within 3 to 7 seconds throughout the temperature range of -40°F to + 125°F

If the grenade does not detonate on impact (after proper arming time), the grenade will be detonated by the secondary pyrotechnic delay feature. If the fuze fails to function after release of the safety lever, the fuze power supply will become inactive within 30 seconds.

References:
TM 9-1330-200
TM 9-1330-200-12
TM 9-1330-200-34
FM 23-30
DOD Consolidated Ammo Catalog

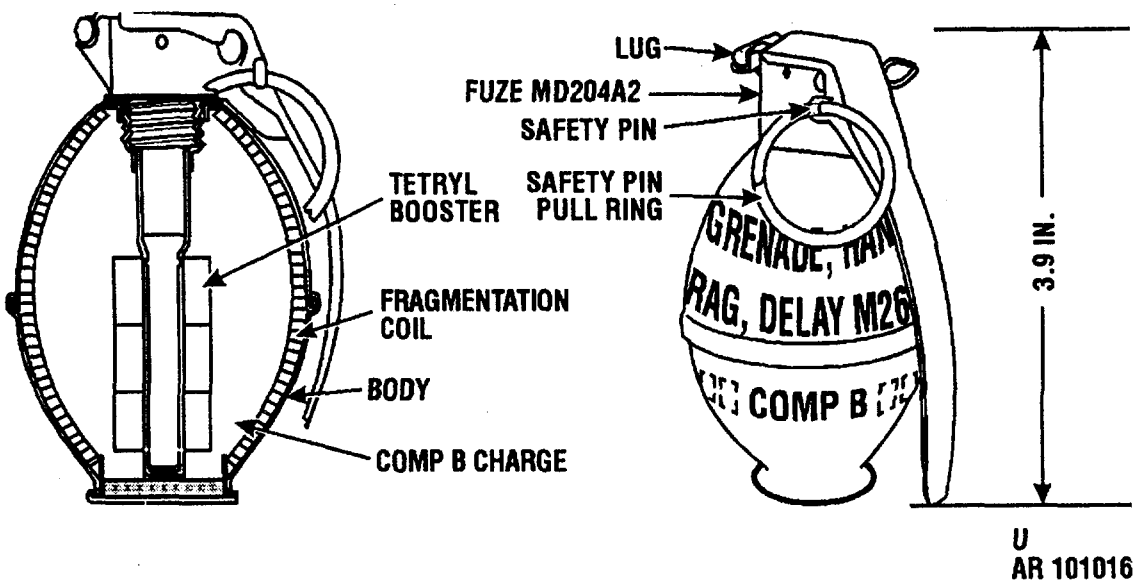
Remarks:
The M26A2 is the same as the M57 but without a safety clip The bodies of the M26, M26A1, and M61 contain booster pellets and are longer and narrower than those of the M26A2 and M57.

The bodies of the M26A2 and M57 do not contain booster pellets.

The M56 was the M26A2 with fuze M215.

The body of the M26A2 (M57 without a safety clip) is identical with the M61, M26A1, and M26, except the fuze thread is different.

GRENADE, HAND: FRAGMENTATION, DELAY, M26A1 AND M26



Type Classification:

Obs. MSR 11756003 (M26)
Std. LCC-A, AMCTC 5666 (M26A1)

Use:

The M26A1 and M26 fragmentation hand grenade is used to supplement small arms fire against the enemy in close combat. The grenade produces casualties by high velocity projection of fragments.

Description:

The M26A1 is the M26 with preformed tetryl pellets around the fuze well line. Each grenade is assembled with a fuze that initiates the explosive charge. These grenades detonate 4 to 5 seconds after release of the safety lever.

Bodies of the M26A1 and M26 are identical. The body is constructed of two pieces of thin-wall sheet steel and has a notched fragmentation coil liner.

The fuzes M204A1 and M204A2 are pyrotechnic delay-detonating fuzes. They differ only in body construction. The body contains a primer and a pyrotechnic delay column. Assembled to the body are a striker, striker spring, safety lever, safety pin with pull ring, and a detonator assembly. The split end of the safety pin has an angular spread or diamond crimp.

Difference Between Models:

Same as M61 but without safety clip.

Tabulated Data:

Grenade (with fuze):

Model(s)	M26A1, M26
Body	Thin-wall sheet steel w/inner fragmentation coil
Weight	16 oz
Length (max)	3.9 in.
Diameter	2.25 in.
Color	Olive drab w/yellow markings

Explosive filler:

Comp B (main charge)	M26, M26A1

Weight:

M26:	
Comp B	5.8 oz
M26A1:	
Comp B	5.5 oz
Tetryl pellets (burster)	0.3 oz

Fuze:

Model(s)	M204A1, M204A2
Type	Pyrotechnic delay-detonating
Primer (percussion)	M42
Detonator	Lead azide, lead styphnate, and RDX

Delay time .....4 to 5 seconds
Weight.....2.6 oz
Length .....4 in.
Color, safety lever.....Olive drab w/black markings
Safety device(s)..... Pull ring and safety pin

Federal Supply Code

NSN.....(M26A1) 1330-00-926-1857
(M26) 1330-00-028-5839
DODAC.....1330-G890

See DOD Consolidated Ammunition Catalog for additional information.

Unit of Issue:

Each packed .....1 per fiber container; 30 per wooden box.

Packing Data:

Packing box:
Weight (with contents) ..... 52.0 lb
Dimensions.....18-15/16 in. x 11-1/4 in. x 11-1/16 in.
Cube.....1.37 cu ft

Shipping and Storage Data:

Hazard class/division and storage compatibility group .....(04) 1.1F
UNO serial number 0292
UNO proper shipping name .....Grenades
DOT class.....Class A explosive
DOT marking .....HAND GRENADES

Functioning:

Removal of the safety pin permits release of the safety lever. When the safety lever is released, it is forced away from the grenade body by a striker acting under the force of a striker spring. The striker rotates on its axis and strikes the percussion primer. The primer emits a small, intense spit of flame, igniting the delay element. The delay element burns for 4 to 5 seconds, then sets off the detonator. The detonator explodes, thus initiating the explosive charge. The explosive charge explodes, rupturing the body and projecting fragments.

References:

TM 9-1330-200
TM 9-1330-200-12
TM 9-1300-200-34
FM 23-30
DOD Consolidated Ammo Catalog

Drawings:

Complete assembly M26A1.....9212181
Complete assembly M26 82-0-190
Fuze (M204A1) 82-1-87
Fuze (M204A2) 7548570
Packing M26 and M26A1 (inner).....7548339
Packing M26 and M26A1 (outer).....7548340