

# Massey Ferguson®

9690 / 9790  
ROTARY COMBINE

## WORKSHOP SERVICE MANUAL 4283065M1

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**Massey Ferguson®**

**9690 / 9790  
Combine**

**WORKSHOP SERVICE MANUAL  
4283065M1**

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# SAFETY

## SAFETY ALERT SYMBOL


**FIG. 1:** This is the safety alert symbol. This symbol stands for ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! Look for this symbol, both in this manual and on safety decals on the combine. This symbol will direct you to information that includes your personal safety and the personal safety of others.




FIG. 1

## SIGNAL WORDS

**FIG. 2:** The words **DANGER**, **WARNING**, or **CAUTION** are used with the safety alert symbol. Learn to know these safety alert symbols, and follow the given recommendations, precautions, and safe procedures.

 **DANGER:** Indicates an immediate hazardous situation that, if not avoided, will result in DEATH OR VERY SERIOUS INJURY.

 **WARNING:** Indicates a potentially hazardous situation that, if not avoided, can result in DEATH OR SERIOUS INJURY.

 **CAUTION:** Indicates a potentially hazardous situation that, if not avoided, can result in a MINOR INJURY.



FIG. 2

Replace any **DANGER**, **WARNING**, **CAUTION**, or instruction decal that can not be read or is missing. The location and part number of these decals is shown later in this section of the manual.

*IMPORTANT:* The word *IMPORTANT* is used to show special instructions or procedures which, if not followed can result in damage to, or destruction of the machine, process, or the surroundings.

*NOTE:* The word *NOTE* is used to indicate points of special interest for more efficient and easier repair or operation.

## Safety

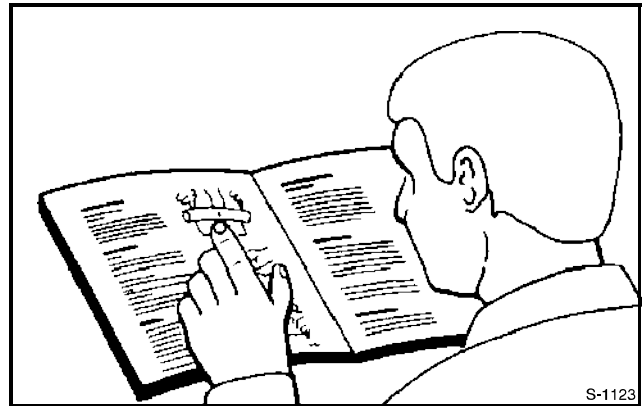
**FIG. 3:** Read and understand this manual and the manual for all attachments before operating the combine.

Learn how to operate the combine and how to use the controls properly.

Do not operate the combine without instruction and training.

For your personal safety and the personal safety of others, follow all safety precautions and instructions found in the manual and on decals fastened to the combine and the attachments.

Personal injury or death can result if these precautions are not followed.



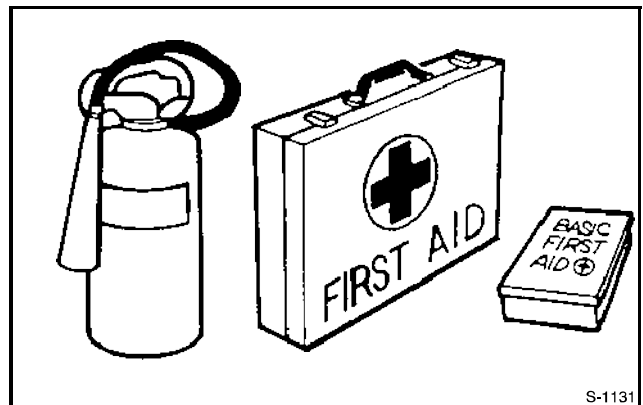
**FIG. 3**

**FIG. 4:** Be prepared for an emergency. Always carry one or more suitable fire extinguishers - ABC rating, dry chemical, 2.2 kg (5 lb). Check fire extinguishers regularly to make sure extinguishers are properly charged and in operating condition.

Mounting a fire extinguisher near the cab and a fire extinguisher near the engine compartment is a recommendation.

To reduce the risk of fire, frequently remove crop material from the combine and engine platform and check for components becoming too hot.

Keep a first aid kit close for treatment of minor cuts and scratches.

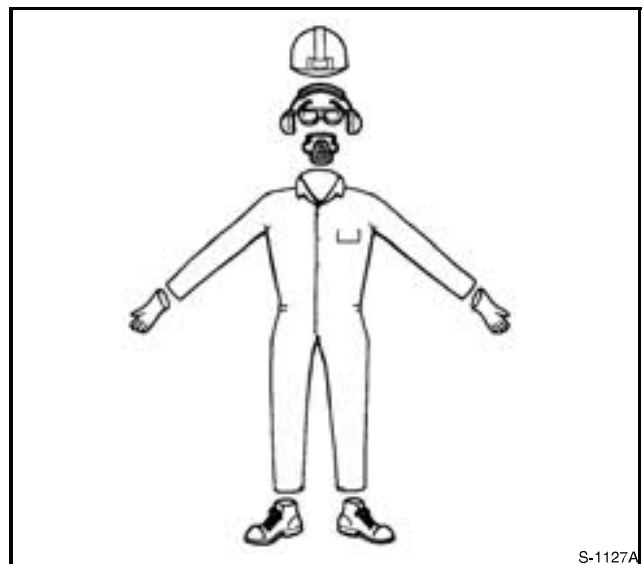


**FIG. 4**

**FIG. 5:** Wear close fitting clothing and personal protection equipment correct for operating or doing lubrication and maintenance on the combine. Tie up long hair to prevent the hair from becoming entangled in the moving parts.



**WARNING:** An operator must not use alcohol or drugs which can affect alertness or coordination. An operator taking prescription or over the counter drugs needs medical advice on whether or not the operator can properly operate machines.



**FIG. 5**

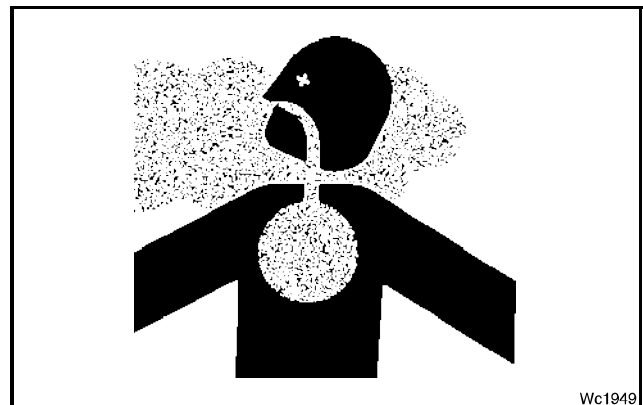
**FIG. 6:** Face the ladder and use the handrails when getting on or off the combine.



Wc1940

**FIG. 6**

**FIG. 7:** Never operate the engine in a closed building unless exhaust is vented outside.



Wc1949

**FIG. 7**

**FIG. 8:** Make sure that all shields, guards, and access doors are in location and properly closed before starting the engine.

Start the engine from the operator seat only. Be sure that the transmission is in neutral and the header, separator, and unloader clutches are disengaged.

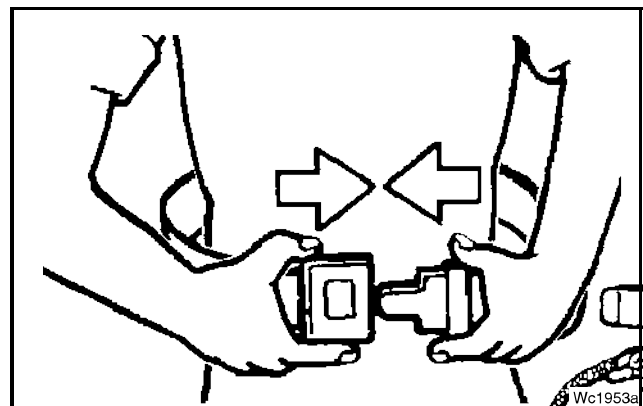
Be sure that every person is clear of the combine before starting the engine.



Wc1955

**FIG. 8**

**FIG. 9:** Always wear the seat belt when the combine is moving. If another person is riding in the instructor seat that person must wear the seat belt. Seat belts must be worn fitted snugly around the hips and not twisted.



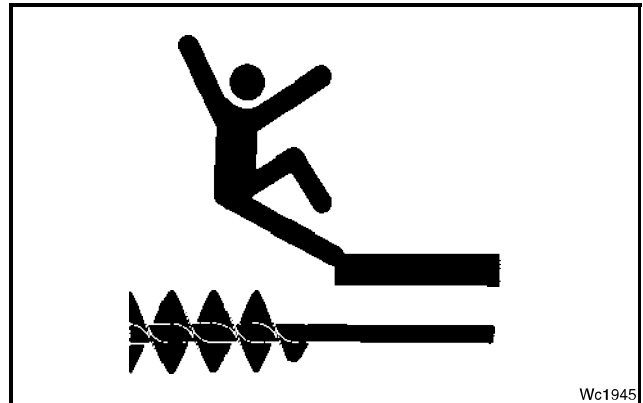
Wc1953a

**FIG. 9**

## Safety

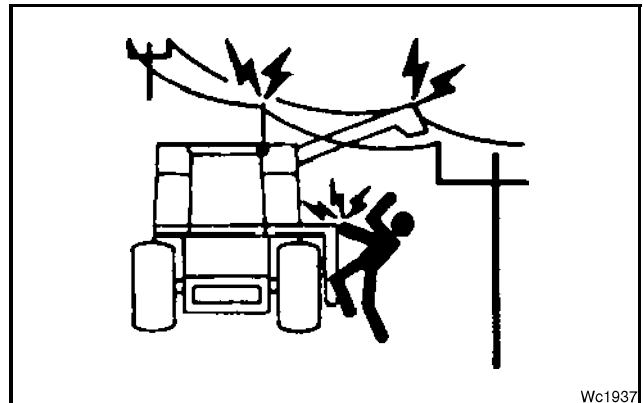
**FIG. 10:** Never permit any person to be on any part of the combine or the attachments except in the operator seat or the instructor seat when the engine is running.

Do not get on or off the combine while the combine is moving.



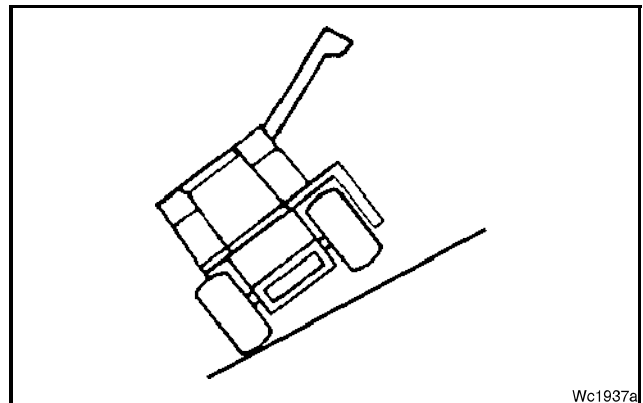
**FIG. 10**

**FIG. 11:** Prevent contact with electrical power lines. Always put the grain tank unloader tube in the transport position and lower radio antenna before moving the combine near electrical wires. Contact with electrical power lines can cause electrical shock, very serious injury, or death.



**FIG. 11**

**FIG. 12:** Use extra caution and reduce speed when operating on hill sides, near ditches or embankments especially with a full grain tank to prevent an over turn of the combine. Travel speed must be such that the machine has complete control and stability at all times. Shift to a lower gear before going down a steep hill.



**FIG. 12**

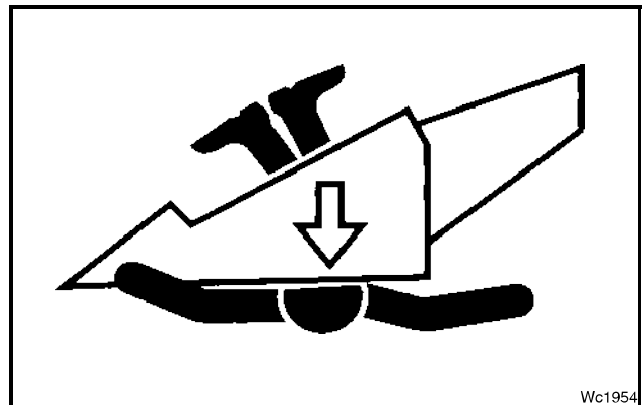
**FIG. 13:** Always turn off the engine, shift the transmission to neutral, set parking brake, and remove the start key before leaving the operator seat or before permitting a person to inspect, clean, lubricate, adjust, or repair any part of the combine or the attachments. Unless specifically given instruction different in this manual. Never leave the operator seat as long as the engine is operating.



**FIG. 13**



**FIG. 14:** Never work under the header or feeder house, unless the stop is properly engaged on the header lift cylinder, the engine is stopped, the parking brake is set, and the start key is removed from the start switch.

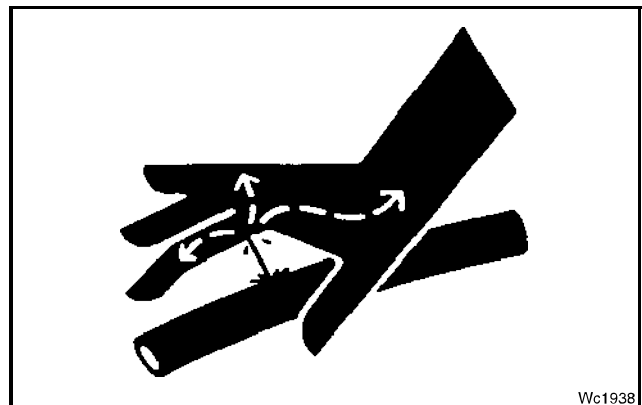


**FIG. 14**

Wc1954

**FIG. 15:** Fluid under high pressure can be almost invisible but can go into the skin causing serious injury.

See a doctor immediately if you sustain an injury from escaping fluids. Fluid injected into the skin must be surgically removed within a few hours or gangrene can result.

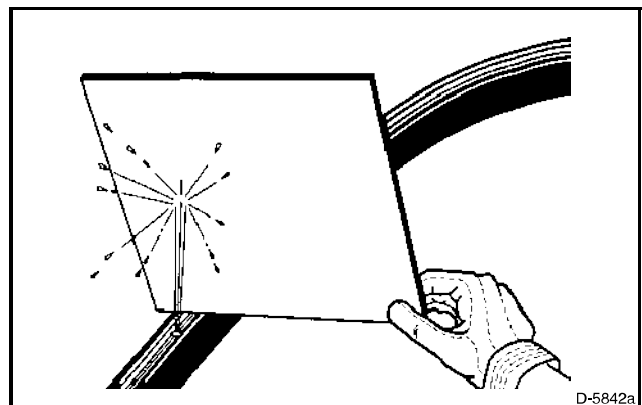


**FIG. 15**

Wc1938

**FIG. 16:** Use a piece of cardboard or wood to search for possible leaks. Never use your hands.

Relieve pressure from the hydraulic and fuel injection systems by lowering raised equipment, shutting off accumulator valve, and turning off the engine before loosening any part of the systems. Tighten all connections securely before applying pressure.

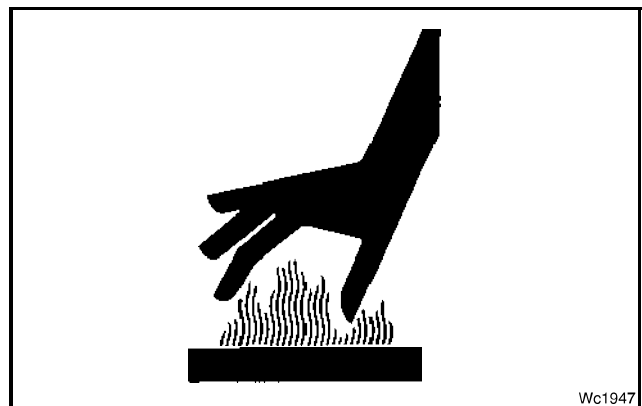


**FIG. 16**

D-5842a

**FIG. 17:** The surfaces in and around the engine compartment will be hot if the engine has been running, even for a short time.

Always permit parts that contain hot fluid to cool before handling or disconnecting.

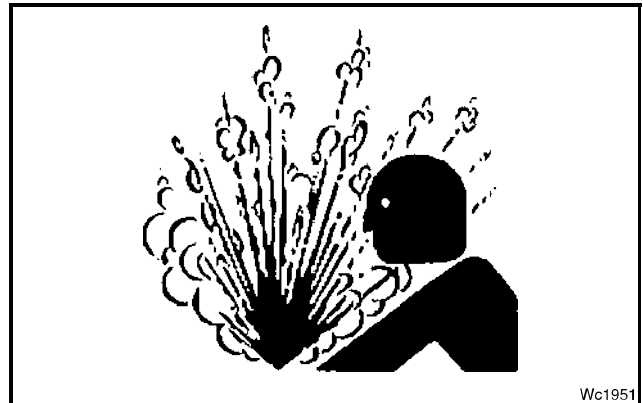


**FIG. 17**

Wc1947

## Safety

**FIG. 18:** Do not remove radiator cap if engine is hot. Only remove the cap when the cap is cool enough to touch with bare hands. Loosen cap slowly to first notch to relieve pressure, then remove cap.



**FIG. 18**

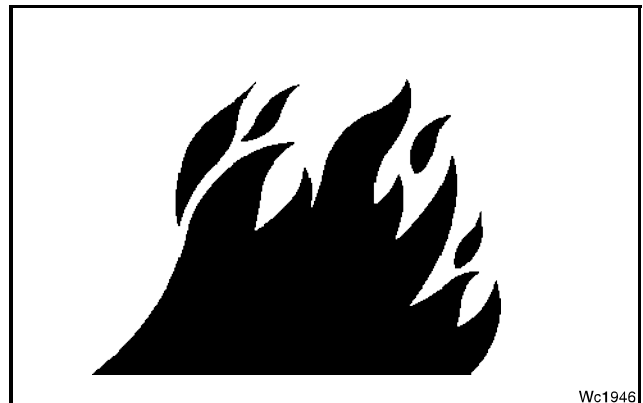
**FIG. 19:** Remove any spilled oil, antifreeze, or fuel immediately from operator ladder and platform and other access areas.

Keep all access areas clean and free of obstructions.



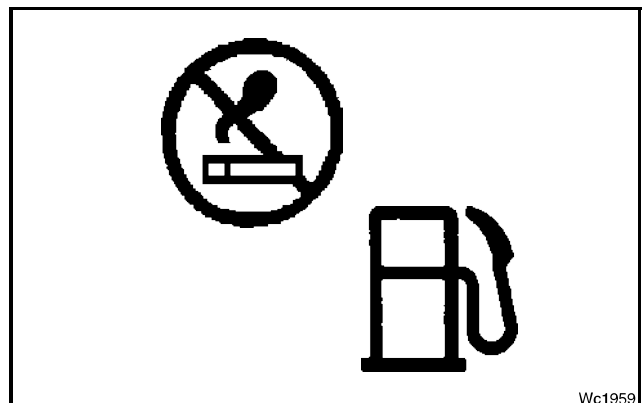
**FIG. 19**

**FIG. 20:** Never permit any flame cutting, welding, or arc welding to be done on or near the sound proofing upholstery used in the cab. This material is flame resistant to normal exposure to cigarettes or other smoking material. But will ignite and sustain combustion when exposed to the heat of gas or electrical welding. The build up of chaff and crop debris in the engine compartment, on the engine, and near moving parts is a fire hazard. Check and clean these areas frequently.



**FIG. 20**

**FIG. 21:** Always stop the combine engine before fueling. Do not smoke while fueling.

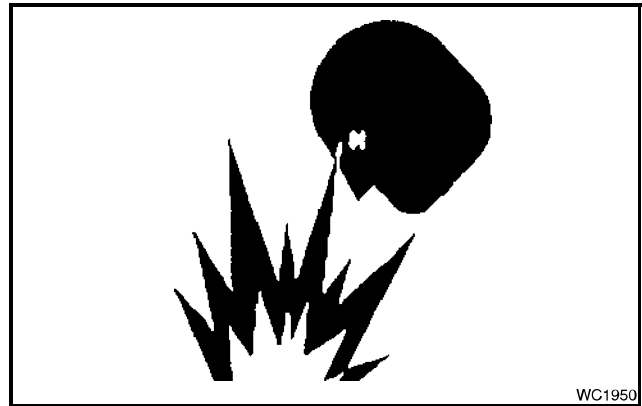


**FIG. 21**

**FIG. 22:** Electrical storage batteries give off highly flammable hydrogen gas. Keep smoking material, open flame, or electrical sparks away from the battery. Do not lay tools or other conductive materials on the battery.

Be careful when connecting booster cables to combine batteries. Electrical component damage or battery explosion can result if booster cables are not installed correctly.

Do not charge a frozen battery as the battery can explode. Warm battery to 16 degree C (60 degree F).



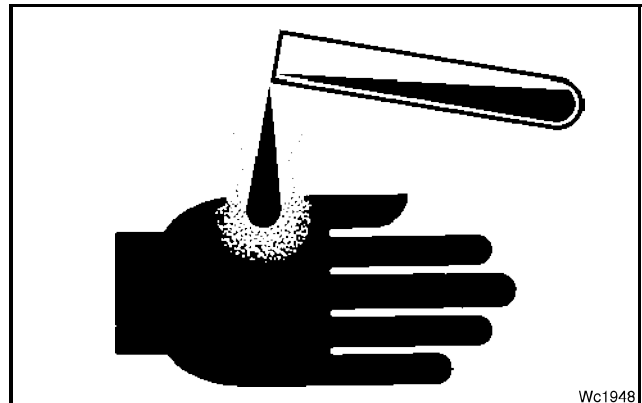
WC1950

**FIG. 22**

**FIG. 23:** Fluid in electrical storage batteries contains sulfuric acid. Avoid all contact of fluid with eyes, skin, or clothing. If contact does occur, flush off immediately with large amounts of water.



**WARNING:** In order to provide a better view, certain photographs and illustrations in this manual may show an assembly with the shield removed. Do not operate combine unless all shields are in place. Replace shields immediately upon completion of inspection, repairs, cleaning or adjustments and before operation begins or resumes.

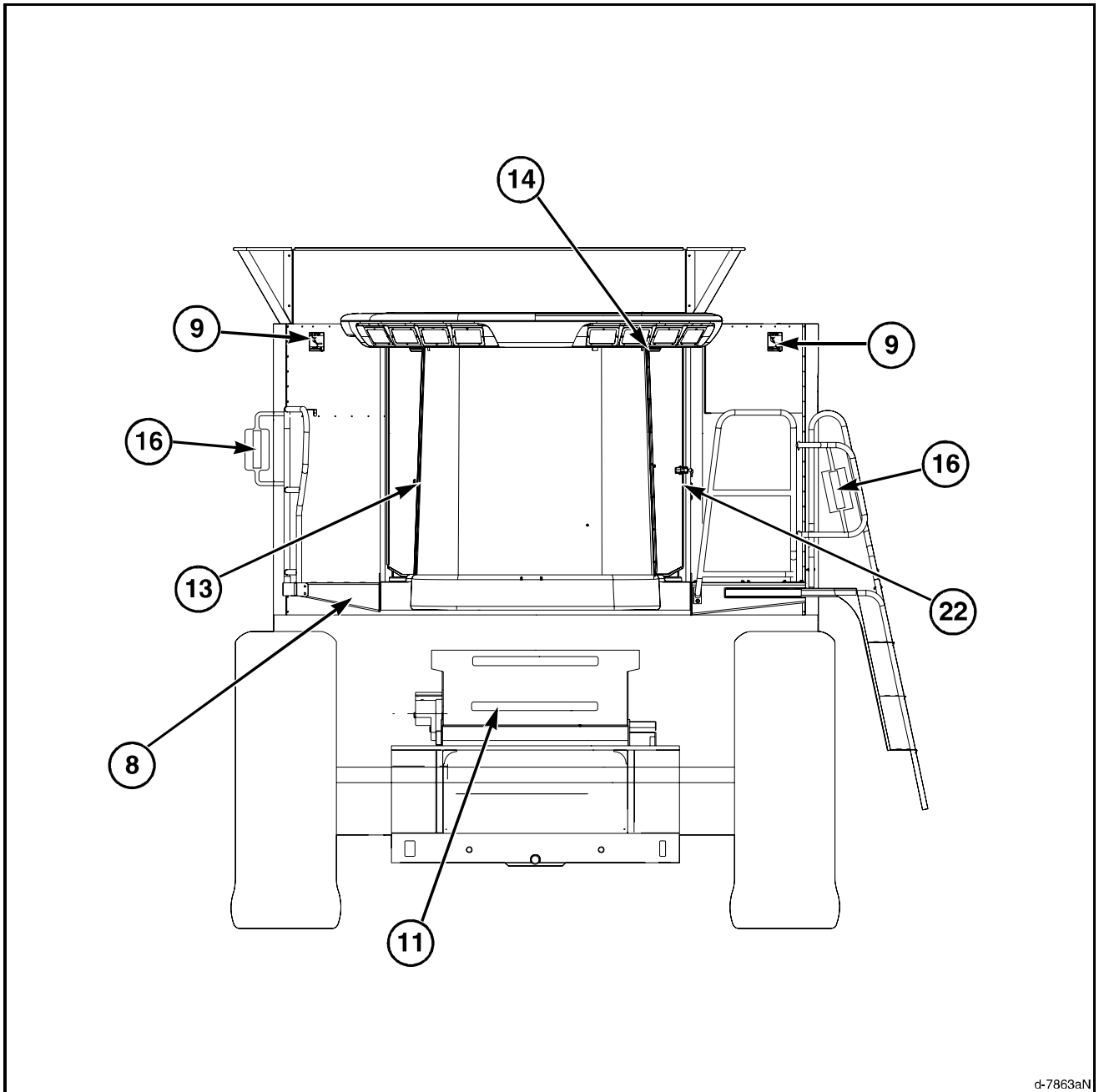


Wc1948

**FIG. 23**

# Safety

## SAFETY SIGNS



d-7863aN

FIG. 24

FIG. 24: Safety sign locations, Front View.

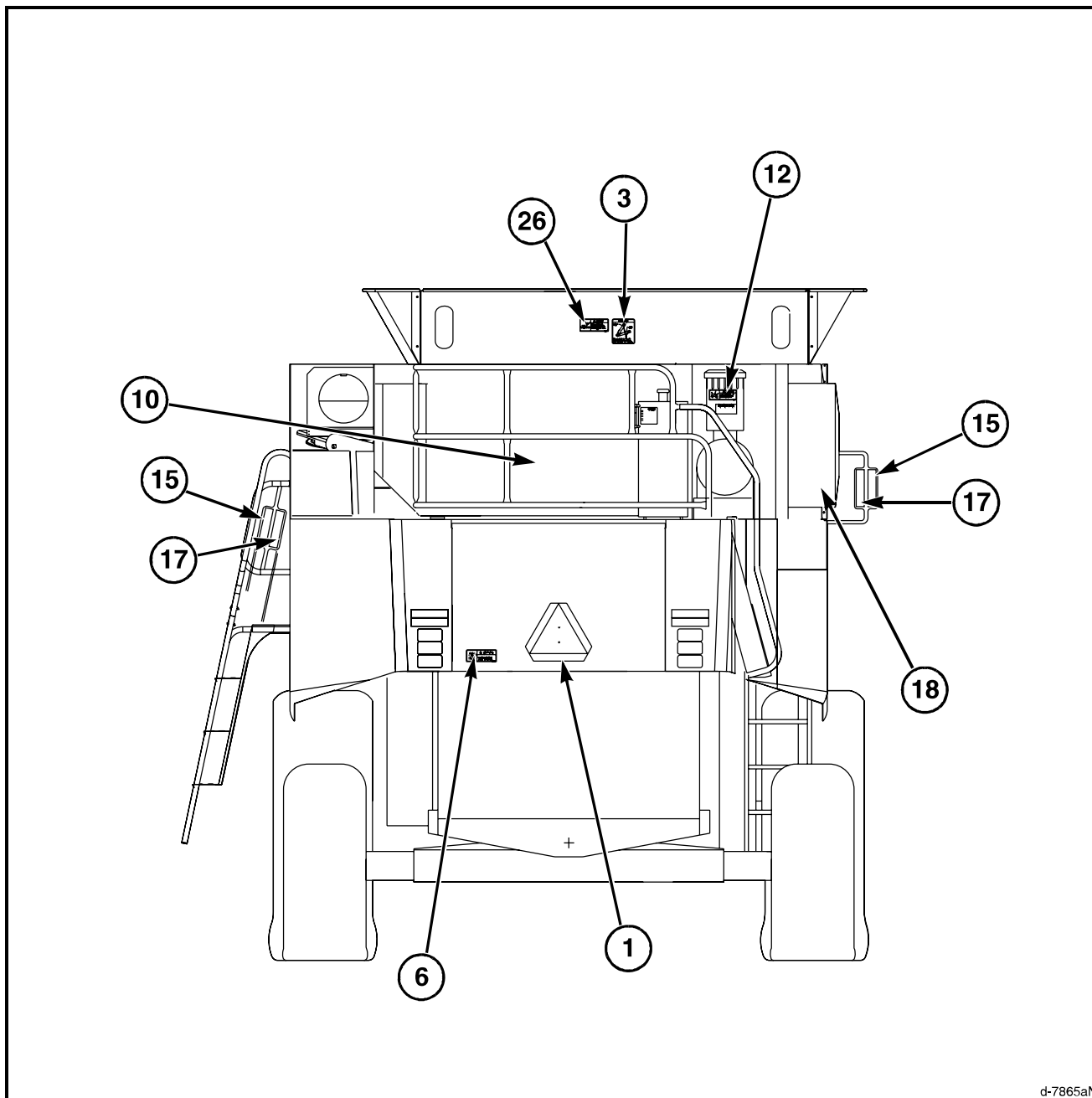
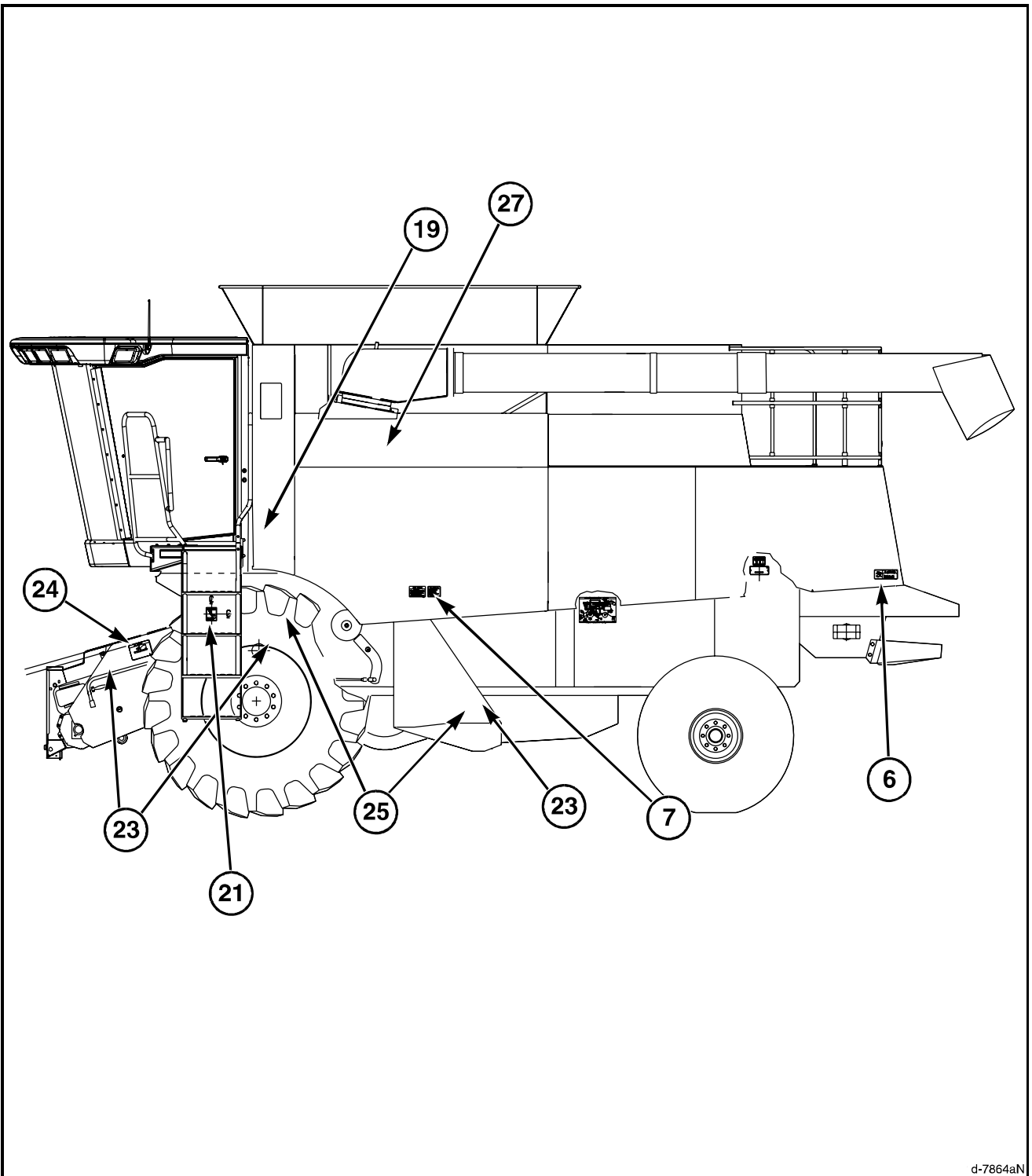


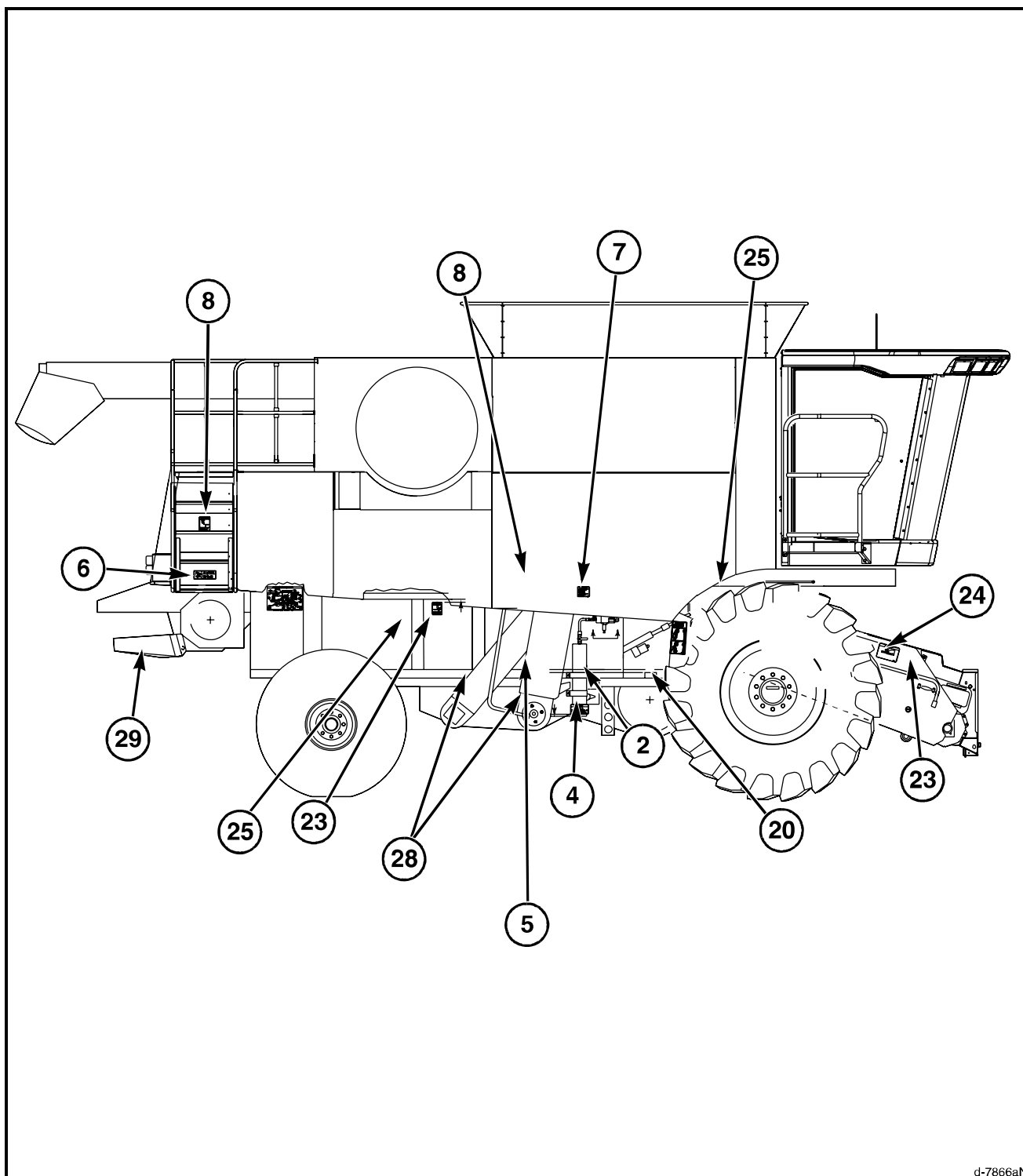
FIG. 25  
FIG. 25: Safety sign locations, Rear View.

# Safety



d-7864aN

**FIG. 26**  
**FIG. 26:** Safety sign locations, Left Side View.



**FIG. 27**  
**FIG. 27:** Safety sign locations, Right Side View.

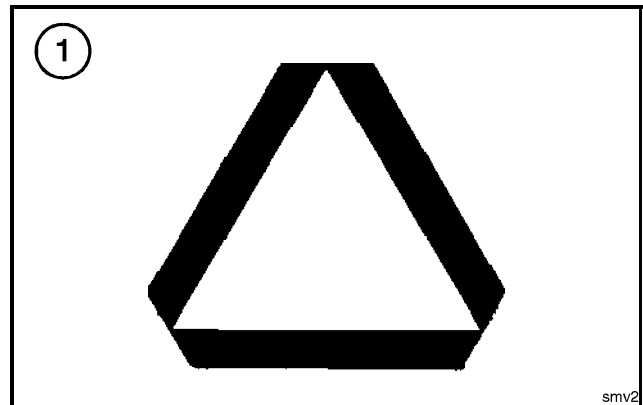
d-7866aN

## Safety

Item	Part Number	Description	Quantity
1	7020589	SMV Emblem	1
2	71348560	Accumulator	1
3	71368074	Bin Loader	1
4	71371720	Ram Stop	1
5	71379126	Fluid Pressure	1
6	71379127	Stand Clear	3
7	71379128	Shields in Place	2
8	71379129	Falling off	3
9	71379130	Grain Tank	2
10	71379132	Belt, Fan Hot	2
11	71379134	Hands out	2
12	71387749	Starting Fluid	1
13	71389158	Emergency Exit	1
14	71395762	Operation	1
15	700717402	Red Reflector	4
16	700717403	Amber Reflector	2
17	700717404	Orange Fluorescent	4
18	700720605	Radiator Cap	1
19	700728751	Tire Usage	1
20	700720727	Belt/Chain	1
21	700721781	Keep Off	1
22	700725670	Instructor Seat	1
23	111091W1	Shield Missing	5
24	111095W1	Header Falling	4
25	111670W1	Belt/Chain	3
26	111736W2	Stop Engine	1
27	111741W1	Cleanout	1
28	111743W1	Hands Away	2
29	111737W1	Stop Engine (One on each side of chopper, if equipped)	2

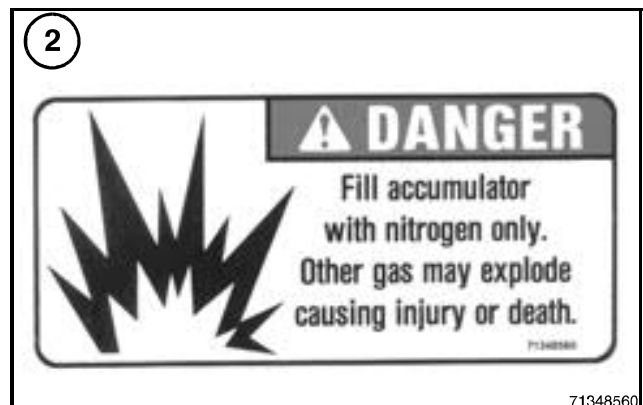


**FIG. 28:** Safety sign (1).  
Slow Moving Vehicle Emblem.



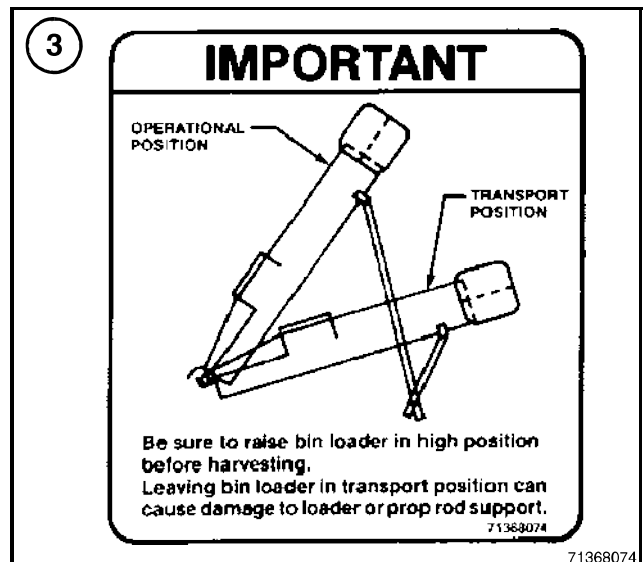
**FIG. 28**

**FIG. 29:** Safety sign (2).



**FIG. 29**

**FIG. 30:** Important (3).



**FIG. 30**

# Safety

FIG. 31: Safety sign (4).



FIG. 31

FIG. 32: Safety sign (5).



FIG. 32

FIG. 33: Safety sign (6).

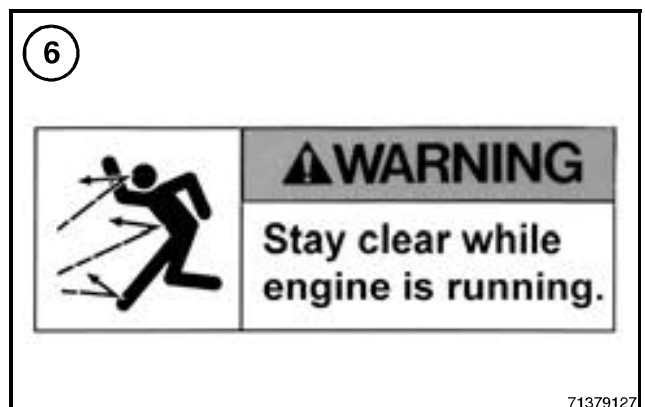


FIG. 33

FIG. 34: Safety sign (7).

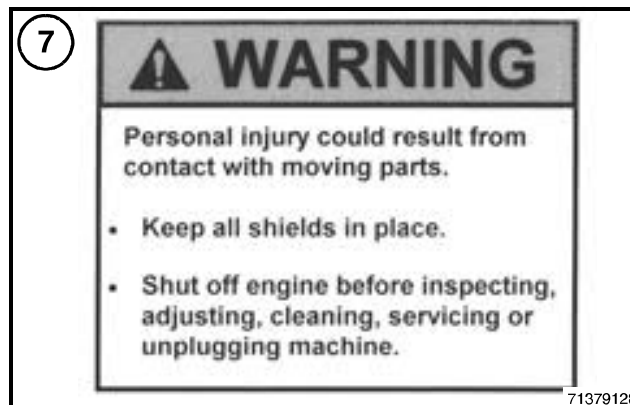


FIG. 34

FIG. 35: Safety sign (8).



FIG. 35

FIG. 36: Safety sign (9).



FIG. 36

**Thank you very much for  
your reading. Please Click  
Here. Then Get COMPLETE  
MANUAL. NO WAITING**



**NOTE:**

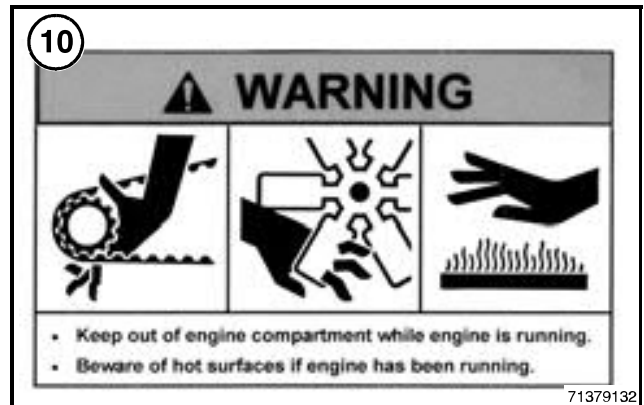
**If there is no response to  
click on the link above,  
please download the PDF  
document first and then  
click on it.**

## Safety

**FIG. 37:** Safety sign (10).

1 - Rear Engine Cover

1 - Under Side of Engine Cover



**FIG. 37**

**FIG. 38:** Safety sign (11).

One used on each access panel on feeder house.

On fan shroud.



**FIG. 38**

**FIG. 39:** Safety sign (12).



**FIG. 39**

**FIG. 40:** Safety sign (13).

Emergency Exit. Pull pin and push window open.



**FIG. 40**

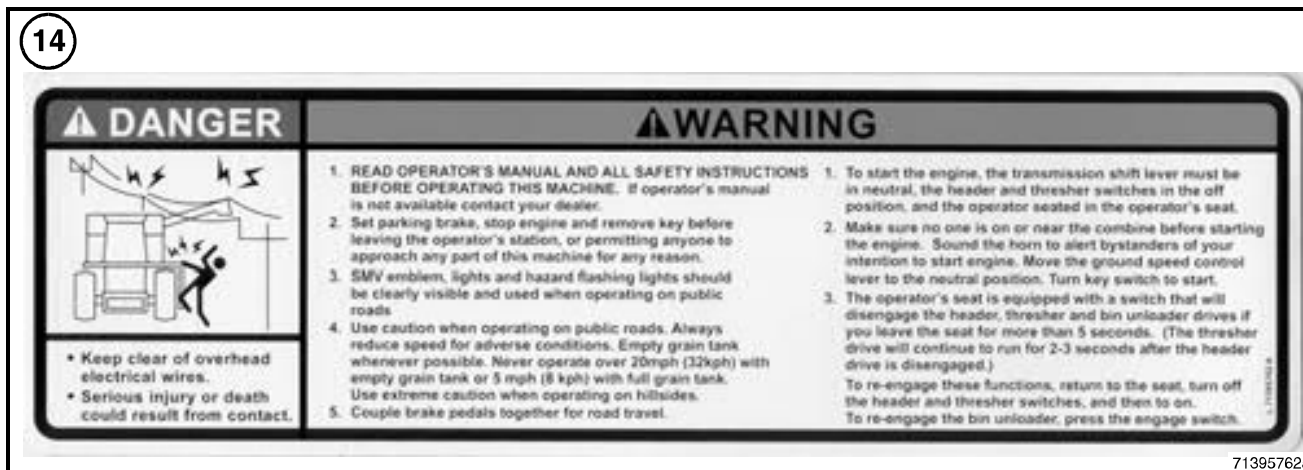


FIG. 41

FIG. 41: Safety sign (14).

FIG. 42: Red Reflector (15).

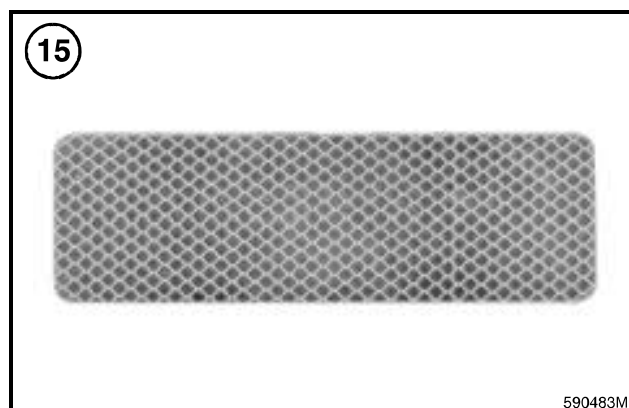


FIG. 42

FIG. 43: Amber Reflector (16).

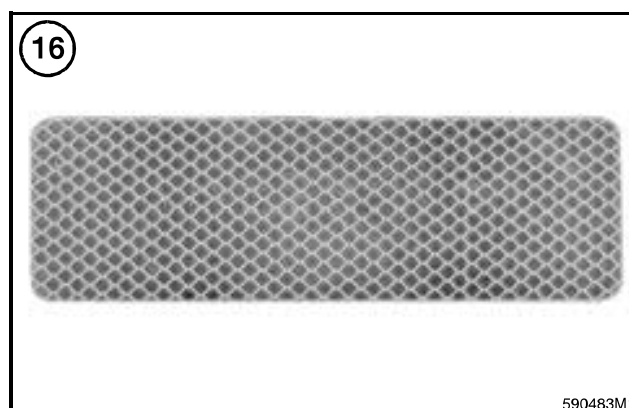


FIG. 43

# Safety

FIG. 44: Orange Fluorescent (17).

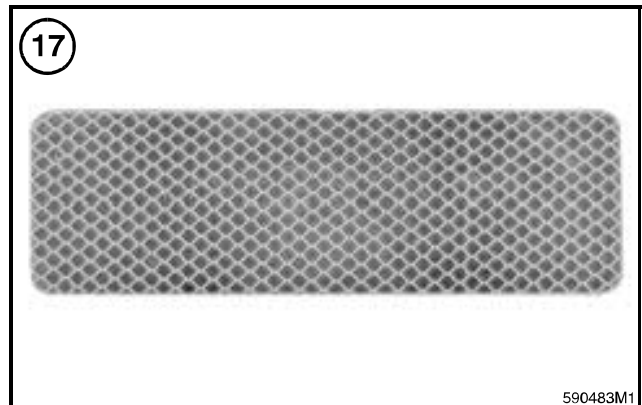


FIG. 44

FIG. 45: Safety sign (18).  
On top of radiator.

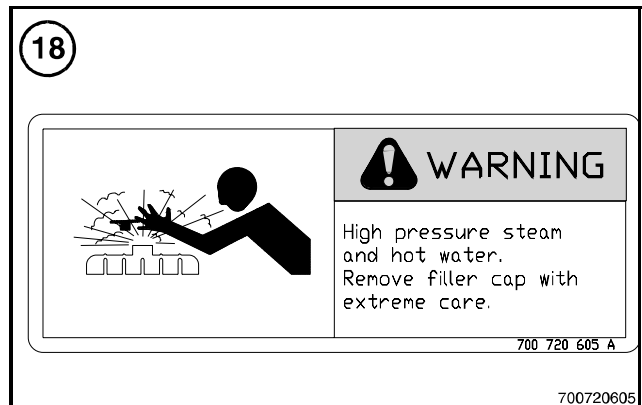


FIG. 45

FIG. 46: Safety sign (19).

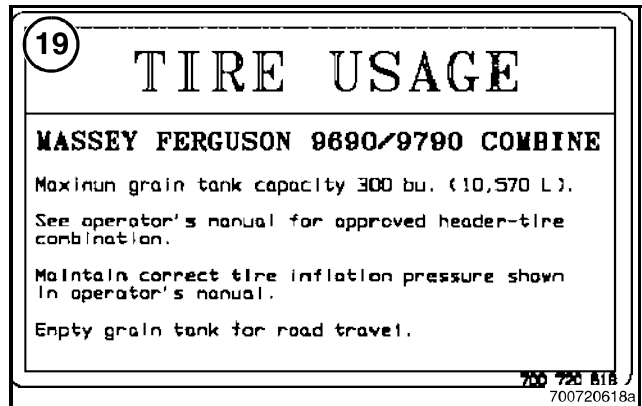


FIG. 46

FIG. 47: Safety sign (20).

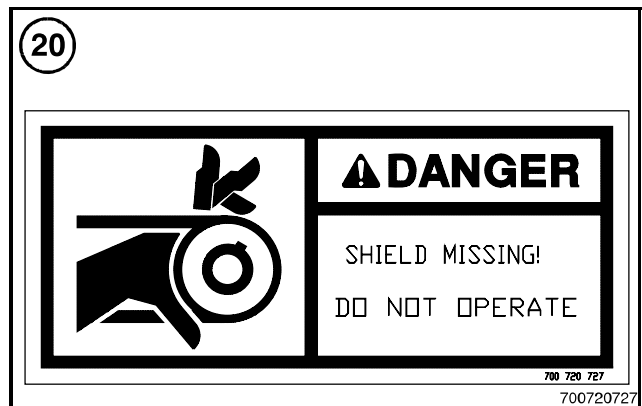


FIG. 47

FIG. 48: Safety sign (21).



FIG. 48

FIG. 49: Safety sign (22).



FIG. 49

FIG. 50: Safety sign (23)  
Behind Grain Elevator Drive Shield.  
Behind left-hand Feeder House Shield.  
Behind Lower Mud Shield.



FIG. 50

FIG. 51: Safety sign (24).  
One on right-hand feeder shield.  
One on right-hand feeder side.



FIG. 51