

FROM FORD NEWS BUREAU  
John W. Thompson, Director  
Ford Rotunda  
Dearborn, Michigan

Meet the armor-plated mule, the latest mechanized warfare development of the Ford Motor Company and Harry Ferguson, Inc.

It's a small, compact, highly-maneuverable industrial "mule", designed primarily to pull and haul material aboard aircraft carriers, on beach-heads and at Navy airfields scattered throughout the globe.

Actually, it is an offspring of the Ford tractor developed by engineers of the Harry Ferguson, Inc., organization at the Rouge plant in response to a Navy request for a compact mechanical mule. They called it the "Moto-Tug" and made the front and rear bumpers of armor plate so that its brute strength could be used to buck and push at either end.

Tooling up for the Motor-Tug was completed and the new contribution to the war effort put into production in 60 days. Today it is in use in shipyards, docks, airfields and on aircraft carriers.

To develop the Moto-Tug, Ford-Ferguson engineers took a standard tractor and built it narrower and lower so that it could make shorter turns and scoot under an airplane wing.

Special weights were added to provide more traction in sand, ice, snow and mud.

During the experimental testing, the engineers learned that their original unit was too light to handle all the jobs that might be assigned to it in wartime so they developed a heavier model, too. The light unit weighs 3,600 pounds and has a draw bar pull of 2,500 pounds, while its big brother is 2,100 pounds heavier and has a draw bar pull of 1,500 more pounds.

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The units are equipped with either solid rubber or pneumatic tires. Two types of transmission are used. With the pneumatic tires a standard tractor transmission is utilized but with the solid tires engineers found that a "kerosene" transmission with a low creeping speed was necessary.

A safety pintle hook is mounted on the rear bumper, designed so that it can be uncoupled from the driver's seat. The standard tractor muffler was replaced with a spark arrestor type mounted under the right rear fender. The old style steel tractor seat was discarded in favor of a new comfort seat of cushion padded coil spring construction with a back rest padded with curled hair.

Although originally designed for the Navy, Ford found so many uses for the new "mule" while testing it that the company prevailed upon the Navy to divert a few to the Willow Run bomber plant where they are helping Ford cut production time in getting the giant four-motored B-24 Liberator bombers to the fighting fronts.

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Form 175

## DEPARTMENTAL COMMUNICATION

To John Thompson Dept. Public Relations Date June 14 1943

Subject: Trip to Wright Field, Dayton, Ohio.

1. Arrived in Dayton at 4:30 June 10, too late to proceed to Wright Field that day. Called Col. Merritt, however, and made arrangements to meet him after dinner. That evening phoned a number of officers and learned that Col. Jim Earley, formerly of Wright Field, was now chief of staff for the Air Service Command, and was in charge of all buying for the Air Service Command. Had known Jim at Wright.

2. On Friday proceeded to Wright Field to pick up Merritt's priority slip. Phoned Col. Earley from Wright and gave him our story on the tractors. He said for me to see Col. H. Paul Dellenger, who was chief of the equipment branch and that he would tell Dellenger "I was coming. Also learned that Dellenger was a classmate of Col. Spike Eckert and had Spike call him and grease the way. Called Dellenger and made an appointment for 2 p.m.

3. At 2 p.m. met Dellenger. He called in a board composed of himself, a major and two civilian experts. Presented our story. Learned that the Moto-Tug had been demonstrated to the Air Service Command and that the major was thoroughly familiar with the tug and had the specs on it at the meeting. (more)

Signed \_\_\_\_\_ Dept. \_\_\_\_\_

## DEPARTMENTAL COMMUNICATION

To \_\_\_\_\_ Dept. \_\_\_\_\_ Date \_\_\_\_\_ 194 \_\_\_\_\_

Air Service Command is using another type of tug in both heavy and light weights. They told us that they were not getting as many tugs as desired and in many cases took an "in between" weight tug rather than go without any. Had no surplus on hand. Deliveries were not on schedule.

They were agreed that our tug met the specifications for the light weight tug and were willing to take it provided that sufficient were ordered at one time to guarantee a sufficient amount of spare parts be on hand at depots for replacements.

HOWEVER, THE MAJOR EXPLAINED, UNDER NEW REGULATIONS THE QUARTERMASTER CORPS WAS NOW FURNISHING THE AIR SERVICE COMMAND WITH ALL TUGS AND KINDRED EQUIPMENT. THEREFORE AIR SERVICE COMMAND COULD NOT CONTRACT FOR THEM.

4. Was told that quartermaster corps bought for all the arms and services and that an estimate of what would be needed for 1944 had just been sent to QM at Washington by all arms and services.

5. Schoup phoned Mr. Keyes at Dearborn and told him the story and Keyes was to notify the Ferguson Washington man immediately to hop over to QM.

6. Regret we could not come away with an order but believe we accomplished as much as could be accomplished under the circumstances.

Signed \_\_\_\_\_

Patterson

Dept. \_\_\_\_\_

News Bureau

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1943 MAY 7 AM 11:32

CHARLES E CARLL

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FORDNEWS BUREAU

DBN

HAVE PRESENTED STORY ON NAVY MOTO-TUG TO ENSIGN MANYA GARBAT, BUREAU  
OF PUBLIC RELATIONS NAVY DEPT WHO ADVISES NECESSARY SUBMIT STORY TO  
BUREAU OF YARDS AND DOCKS FOR SECURITY REASONS. EXPECT TO HAVE  
FINAL DECISION ON PUBLICATION THIS STORY TOMORROW MAY 8TH. WILL WIRE  
SOON AS NAVY ADVISES OF ITS DECISION

DILLON WASH

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1943 MAY 6 PM 5:05

CHARLES E CARLL

FORD NEWS BUREAU

DBN

REFERRING YOUR LETTER OF MAY 5 ENCLOSING TWO STORIES REGARDING DIRECTORS BEING MANUFACTURED AT ROUGE PLANT, THIS IS TO ADVISE THAT CAPT J T PARKER, BUREAU OF PUBLIC RELATIONS, WAR DEPARTMENT HAS AUTHORIZED THE RELEASE WITHOUT ANY CORRECTIONS OF THE STORY DEALING WITH THE EXPEDITION OF SIR HUBERT WILKINS. SAME IS BEING RETURNED TO YOU BY AIR MAIL SPECIAL DELIVERY TODAY. ARRANGEMENTS ARE BEING MADE WITH COMMANDER SAY OF THE NAVY DEPT FOR THE REVIEW OF THE OTHER STORY DEALING WITH THE FORD TRACTOR WHICH IS CALLED THE "MOTO-TUG". AS SOON AS THIS STORY IS RELASED FOR PUBLICATION YOU WILL BE ADVISED

DILLON WASH

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# Ford Motor Company

FACTORY AND GENERAL OFFICES  
DEARBORN, MICH.

WASHINGTON, D. C.

May 8, 1943

Mr. Charles E. Carll  
Ford News Bureau  
Rotunda  
Ford Motor Company  
Dearborn, Michigan

Dear Mr. Carll:

Inclosed herewith are approved copies of the proposed Press Release concerning the Ford built "Moto-Tug".

The release has been approved for Publication by the Office of Public Relations, Navy Department, Ensign Manya Garbat, acting for Lt. Commander H. B. Say.

Very truly yours,

*J. A. Dillon*  
J. A. Dillon  
Ford-Washington

To develop the Moto-Tug, Ford-Ferguson engineers took a standard tractor and built it narrower and lower so that it could make shorter turns and scoot under an airplane wing.

Special weights were added to provide more traction in sand, ice, snow and mud.

During the experimental testing, the engineers learned that their original unit was too light to handle all the jobs that might be assigned to it in wartime so they developed a heavier model, too. The light unit weighs 3,600 pounds and has a draw

VIA AIR MAIL  
SPECIAL DELIVERY

*Ford Motor Company*

FACTORY AND GENERAL OFFICES  
DEARBORN, MICH.

WASHINGTON, D.C.

Mr Charles E Carll  
Ford News Bureau  
Administration Building  
Ford Motor Company  
Dearborn, Michigan

May 6 1943

Dear Mr Carll:

As advised in our wire of this date, we enclose herewith approved copy of release concerning the expedition of Sir Hubert Wilkins.

This story has been approved for publication by Capt J T Parker, Bureau of Public Relations, War Department.

As stated in our wire, the second story, dealing with the Ford Tractor which is called the "moto-tug" will be submitted to the Navy Department and you will be advised as soon as the story is released for publication.

Very truly yours,  
FORD MOTOR COMPANY

*J A Dillon*  
J. A. Dillon

JAD:hs  
Enc.

a group of Air Forces officers in a secret conference. They were all very close-mouthed and told me only such details as I had to know.

"They laid out their problem. They wanted a lightweight tractor equipped with a hydraulically operated angle dozer - that's a contrivance like a snow plow - to be used to level runways and plow snow. The tractor also was to be equipped with a yard dig and carry scraper, a large crawler truck and on the rear was to be mounted a 200-ampere arc welder drawing its power from a takeoff shaft through a V-belt.



FROM FORD NEWS BUREAU  
John W. Thompson, Director  
Ford Rotunda  
Dearborn, Michigan

NO OBJECTION TO PUBLICATION ON GROUNDS OF  
MILITARY SECURITY

Director of Public Relations,  
War Department, Washington

MAY 6 1943

Somewhere in the Arctic hardy explorers headed by Sir Hubert Wilkins are pioneering a secret war mission.

But, wherever they are, a Ford tractor of special design accompanies them. The tractor is designed for work at 40 below zero temperatures.

Even D. C. Heitshu, executive engineer of the Harry Ferguson, Inc., organization at Ford's giant Rouge plant, does not know the details of the mystery mission - and he spent all afternoon with Sir Hubert while the mission was being outfitted.

"The Army Air Forces phoned me from Wright Field at Dayton, Ohio, one day last fall and asked me to get down there in a hurry," Heitshu said.

"I arrived the next day and was closeted with Sir Hubert and a group of Air Forces officers in a secret conference. They were all very close-mouthed and told me only such details as I had to know.

"They laid out their problem. They wanted a lightweight tractor equipped with a hydraulically operated angle dozer - that's a contrivance like a snow plow - to be used to level runways and plow snow. The tractor also was to be equipped with a yard dig and carry scraper, a large crawler truck and on the rear was to be mounted a 200-ampere arc welder drawing its power from a takeoff shaft through a V-belt.

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"Sir Hubert and the Army wanted the tractor in 24 hours, so great was their hurry and the importance of their mission. I promised four weeks, because I knew we would be delayed in getting the hydraulic equipment.

"Designing the tractor for Arctic operation was simple. We added ventilator equipment, that is, we ventilated the crankcase to get rid of water and the condensation of vapors, and we raised the spark plugs a half inch, ran the plugs out of the cylinder on a riser so they could contact the cylinder through a small hole and not foul. Then we added special oil and the tractor was ready."

Sir Hubert only took one of the special tractors with him. It was shipped to a secret Army base after Sir Hubert had inspected it and pronounced it o.k.

"He stopped only just long enough to let us take a photo of it," Heitshu said.