

	Advantages	Disadvantages
	Lift Trucks (LT) <ul style="list-style-type: none"> • Lower machine costs • Requires a smaller machine to give equivalent lift capacity • More maneuverable 	<ul style="list-style-type: none"> • Requires good underfoot ground conditions for operation • Cannot apply downward pressure • Less efficient with multiple attachment tools
	Wheel Loaders (WL) <ul style="list-style-type: none"> • Allows for operation in rougher terrain • Can apply downward pressure on the tire to break the bead from rim • More versatile if the machine is equipped with a Quick Coupler for various tools 	<ul style="list-style-type: none"> • Higher machine costs • Requires a heavier class machine to operate the same loads • Less maneuverable in confined spaces • Side Shift option a must
	Hybrid (Wheel Loader with Lift Front) <ul style="list-style-type: none"> • Allows for operation in rougher terrain • Increases the loader capacity by bringing in the load distance 	<ul style="list-style-type: none"> • Cannot apply downward pressure • Less efficient with multiple attachment tools • Less maneuverable in confined spaces

Contact CWS for other machine mounting options



TM10



TM30



TM20



TM35



CWS INDUSTRIES (MFG) CORP.

TIRE MANIPULATORS

Wheel Loaders & Forklifts



CWS INDUSTRIES (MFG) CORP.

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CWS INDUSTRIES (MFG) CORP.



CWS' Tire Manipulator is the safest and most efficient way to move, handle and install the tires required to run your business. Since 1994, CWS has designed and manufactured one of the most rugged Tire Manipulators, and will continue to develop the products to meet new industry needs.

Our engineers are focused on safety of our attachment users. Working closely with our customers, we identify new requirements and provide solutions to make the job safer, and more efficient. We utilize FEA analysis in our Tire Manipulator design to deliver a robust and durable product.

CWS' Tire Manipulators are used on all 6 continents and we can handle your tires from 2,000 lbs to 35,000 lbs.

"CWS attachments make your machine more machine"

WE HAVE THE OPTIONS . . . WHEEL LOADER & FORKLIFT TRUCK MODELS

Models:		TM 5 C	TM 10 W	TM 20 C	TM 20 P	TM 30 C	TM 30 P	TM 35 W
Recommended Machine Class (Reference Only)	WT	20 H120XL	50 H280XL	60 H400	60 H400	80 H620	80 H620	80 H650
	WL	150 CAT 924/936	400 CAT 950/966	600 CAT 980	600 CAT 980	700 CAT 988	700 CAT 988	900 CAT 992
Maximum Capacity (lbs)*		5,500	10,000	20,000	20,000	30,000	30,000	35,000
Reference Max Tire Size (Tire and Rim)	WL	35/65-33	45/65-51	55/80-R57	55/80-R57	63" Rim	63" Rim	63" Rim
	HT	27:00 R49	36:00 R51	50/90 R57	50/90 R57	57/80 R63	57/80 R63	70/70 R63
Dimensions:								
a. Max. Tire Opening (inches)**		110	135	160	160	175	175	183
b. Min. Tire Opening (inches)**		27	22	47.5	45	42.5	39	39.5
c. Minimum Rotation Clearance (inches)		60	70	78.5	79.5	100	100	100.25
Specifications:								
Body Rotation (degrees)		90	75	75	75	75	75	75
Pad Rotation (degrees)		120	360	180	360	180	360	360
Recommended Hydraulic Requirements ***	(GPM)	15-25	15-25	30	30	30	30	60
	(psi)	3000	3000	3000	3000	3000	3000	3000
Features:								
Roll Back Protection		STANDARD	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
Integral Side Shift		OPTION (+/- 6")	OPTION (+/- 6")	OPTION (+/- 6")	OPTION (+/- 6")	OPTION (+/- 8")	OPTION (+/- 8")	OPTION (+/- 8")
Rim Component Handling Pads****		N/A	OPTION	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
Controls	Proportional	N/A	N/A	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
	Non-Proportional	STANDARD	STANDARD	OPTION	OPTION	OPTION	OPTION	OPTION
Radio Controls		OPTION	OPTION	OPTION	OPTION	OPTION	OPTION	OPTION

* Capacity is based on stand alone TM provided machine is configured sufficiently
 *** Hydraulic settings are based on optimal setting

** Dimensions are based on standard tire grip pads
 **** With the Rim Handling Pad option, the opening and closing dimensions of the TM will be reduced

Special Features:



Fall Arrest Arm



Radio Control



Rim Handling Grips

Please note: Specifications & design are subject to change without notice.

MANIPULATOR FUNCTIONS

PAD ROTATE

Pad Rotation
 The tire Grip Pads are rotated to:

- Move the tire from vertical to horizontal
- Turn the tire over from face to face

For operator convenience, 360 ° continuous rotation is available

BODY ROTATE

Body Rotation
 The whole grip arm assembly is rotated on the longitudinal axis of the machine to:

- Align holes in the rim with mounting studs
- Seat tires on mounted rims

SIDESHIFT

Sideshift
 The whole grip arm assembly is moved side to side to:

- Facilitate horizontal alignment of the rim over the wheel hub or a tire over a mounted rim

The sideshift function is an option, but it is typically required on any machine type. Unless the machine is already equipped with such function, such as forklifts with side shift carriages, it is highly recommended.



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Please contact your CWS Representative if you have any questions or visit us at: www.cwsindustries.com

Big Demands, Smart Solutions

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