



FOREST
LINE
2018

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ABOUT CIA OLSEN / TMO

Oswaldo Olsen, a visionary entrepreneur, started the activities of Cia Olsen/TMO in the year 1962 in the city of Caçador – SC, Brazil. Today, with more than 55 years of experience in the forestry market, the company is a market leader in the manufacture of forestry equipment that serves the small and medium producers and contractors of the field.

With a built area of approximately 20,000 m², the company has machines with high technology and skilled labor for the production of its equipment. In addition, all the materials used in the manufacture of each equipment are certified, and each manufactured part goes through a careful quality control to ensure the standard by which TMO is known in the forest market.

Cia Olsen/TMO offers a complete line of products for cutting, processing, loading, moving and transporting timber. There are more than 60 models of equipment to meet the daily challenges of the forest.

During all these years, the company has always sought to provide its customers with personalized service in their acquisition and technical support, investing in the development of new products for the forest exploitation, constantly investing in infrastructure in the factory park to meet the demands effectively and with quality.

Beyond the Brazilian territory, TMO's products are present in Latin America, Central America and Africa.



TECHNICAL SUPPORT

The TMO aftermarket is formed by highly qualified professionals, trained to clarify questions, promote training and carry out preventive and corrective maintenance throughout Brazil and abroad, contributing to an increase in equipment life.

Please contact our technical support when needed.

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The TMO service aims to solve doubts and problems with speed and quality, seeking the satisfaction of its customers.

TECHNICAL SERVICES AND USABILITY

- Technical assistance;
- Maintenance of TMO forestry equipment;
- Reform of TMO forest equipment;
- Development of special projects;
- Training and qualification for forestry operator in the premises of the factory or under consultation in the place indicated by the customer.

HARVESTER HEAD



555H





HARVESTER HEAD

The manufacturing quality and efficiency of Nisula equipment represent the standard by which the brand is worldwide known in the Harvester Head market and the main reason why TMO Forest has partnered to represent the brand in Brazil.

Nisula heads are extremely easy to maintain. All grease points of the heads can be handled with the implement in a single position. The angular movement of the cylinders is minimal, which reduces the risk of damage to the equipment hoses. All models use the NCU3 control system to accurately control the head. The control system menu has a simple structure to make it easier for operators to find the settings they need.



TECHNICAL FEATURES / MODELS

	MODELS			
TECHNICAL FEATURES	425C	500C	500H	555H
Weight without rotator (kg)	425	650	640	840
Cutting diameter (mm)	425	500	500	550
Delimbing diameter (mm)	300	320	430	430
Number of delimbing knives	2+1	3+1	5+1	5+1
Opening of front knives (mm)	430	500	500	500
Width in delimbing position open/close (mm)	1.100/940	1.350/980	1.200/980	1.350/1090
Height at felling position (mm)	880	1.120	1.120	1.350
Working pressure (bar)	210	210-230	210-230	200-240
Flow Rate (l/m)	120-150	140-180	140-180	150-200
Excavator	8 t	14-16 t	14-16 t	14-18 t

Model 425C - It is the Harvester Head with adequate size to perform the 1st thinning of trees with low operative cost. Developed to be installed in MINI forestry excavators, the implement is capable of making profit possible with the first thinning of the forestry.

Model 555H - Nisula 555H Harvester Head was developed to operate on trees up to 550 mm in diameter. Its main feature is the manufacture made entirely of Hardox steel, high strength metal with an unmatched combination of hardness and toughness, allowing greater power and lightness to the head. This equipment is the best option for the thinning and final cutting of younger trees.



DIRECTIONAL FELLER HEAD



DH-450

■ The TMO DH-450 Directional Feller Head is designed to facilitate thinning and clear cutting of trees up to 500 mm in diameter. The equipment is agile in the outreach of the tree due to the capacity of infinite positioning rotation. The forestry excavators with capacity between 16 and 20 tons are the ideal base machines to install the implement.

TECHNICAL FEATURES / MODELS

	MODEL
TECHNICAL FEATURES	DH-450
Max. cutting diameter (mm)	500
Min. cutting diameter (mm)	130
Max. grapple opening (mm)	750
Saw (pol)	40
Lubricating oil volume (liters)	18
Weight (kg)	1,550



OTHER FEATURES

Rotator with continuous 360° rotation.
Automatic tensioning of the chain.
Automatic saw return.
Automatic chain lubrication.

GRAPPLE SAW



FG-100TRR





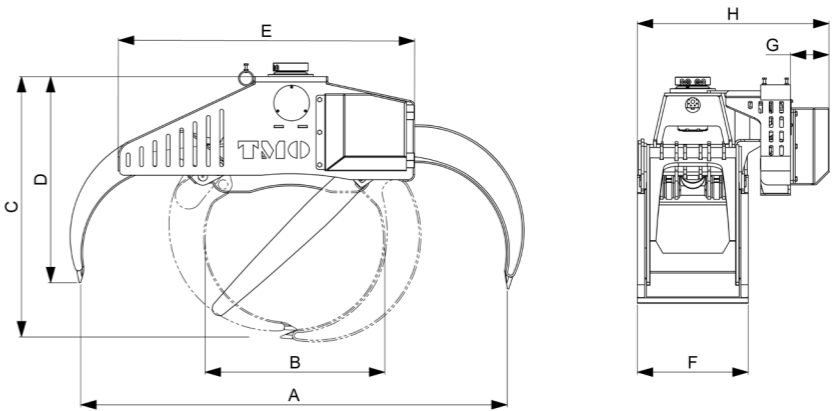
GRAPPLE SAW

TMO Forest provides the forestry market with a full line of high-productivity Grapples Saw in the tracing of trees. There are three models of Grapples: FG-60TRR, FG-80TRR and FG-100TRR to be installed on forestry excavators. The whole line is made of special steels that guarantee durability and resistance to the implement with reinforcements in the tweezers in special steel to ensure high wear resistance to the implement.



TECHNICAL FEATURES / MODELS

	MODELS		
TECHNICAL FEATURES	FG-60TRR	FG-80TRR	FG-100TRR
Measure "A" (mm)	2,214	2,495	2,870
Measure "B" (mm)	955	1,152	1,264
Measure "C" (mm)	1,492	1,574	1,793
Measure "D" (mm)	1,190	1,258	1,419
Measure "E" (mm)	1,819	1,819	1,997
Measure "F" (mm)	747	747	747
Measure "G" (mm)	295	295	295
Measure "H" (mm)	1,325	1,325	1,325
Cutting area (m²)	0.60	0.80	1.00
Cutting speed (m/s)	30	30	30
Working pressure (bar)	250	250	250
Required flow rate (l/min)	270-310	270-310	350-400
Weight of equipment (kg)	1,230	1,370	1,710
Base machine	Excavator 20-30 t	Excavator 25-35 t	Excavator 30-40 t



HEAVY GRAPPLE

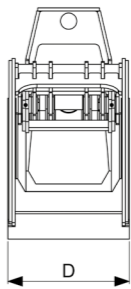
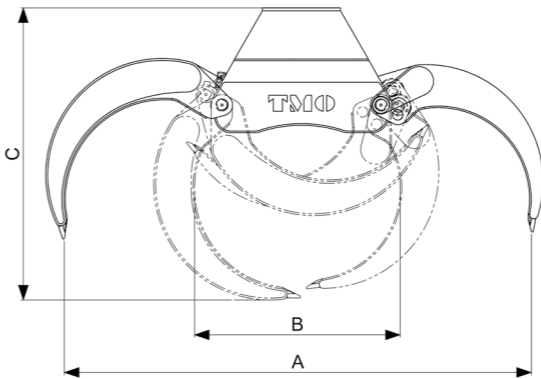


FG-80R

■ There are five models of Heavy Grapples that were developed by TMO Forest for the movement of wood logs in the forestry and industrial area in an agile and efficient way. Just like TMO Grapple Saw, these grapples are also manufactured with reinforcements in the tweezers in special steel to ensure high wear resistance to the implement.

TECHNICAL FEATURES / MODELS

	MODELS				
TECHNICAL FEATURES	FG-45R	FG-52R	FG-60R	FG-80R	FG-100R
Measure "A" (mm)	2,010	2,206	2,214	2,495	2,870
Measure "B" (mm)	850	905	955	1,157	1,264
Measure "C" (mm)	1,118	1,180	1,492	1,574	1,793
Measure "D" (mm)	747	747	747	747	747
Area (m²)	0.45	0.52	0.60	0.80	1.00
Weight (kg)	605	660	845	965	1,200
Excavator	10-16 t	12-18 t	14-20 t	18-30 t	25-36 t



OPTIONAL

TMO Slasher Model MT65 with cutting adjustment



EXCAVATORS CUSTOMIZATION

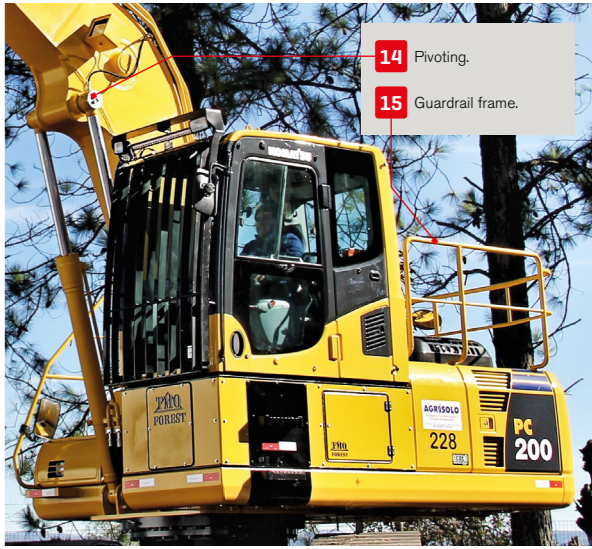
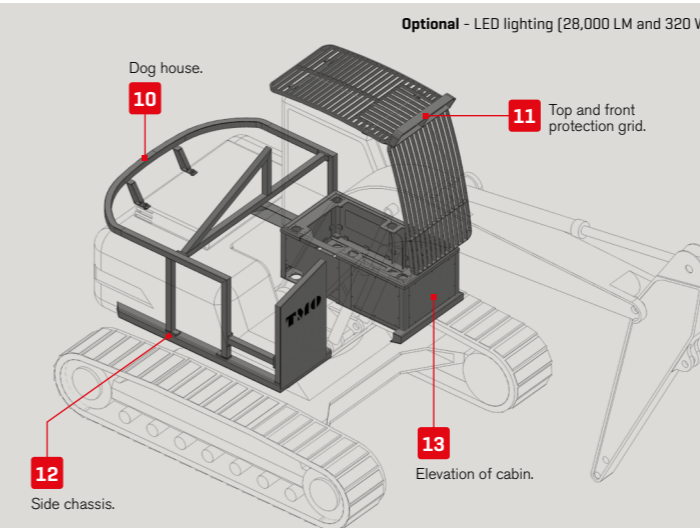
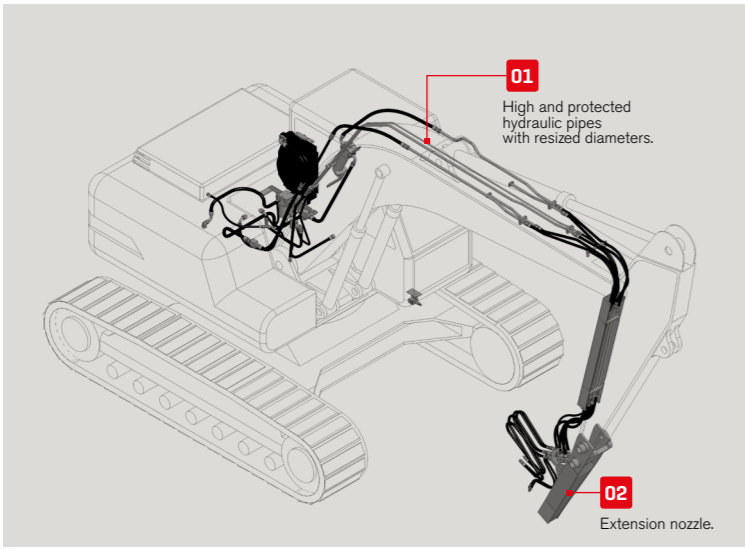
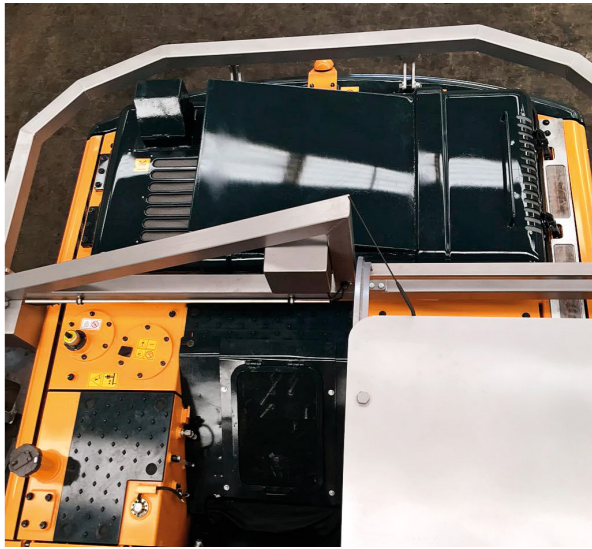
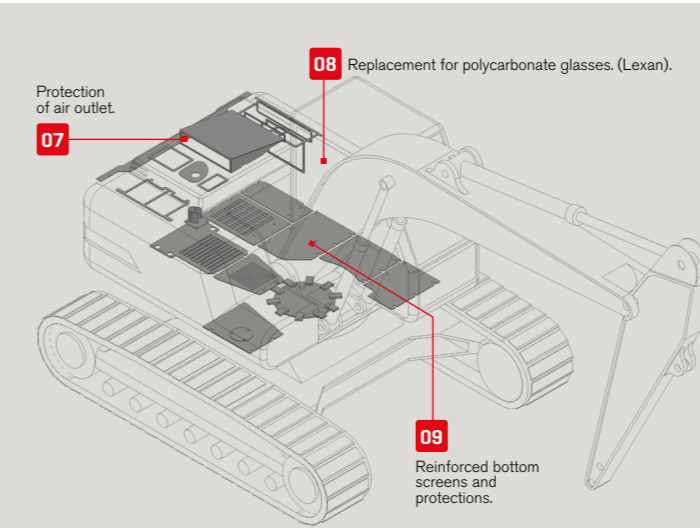
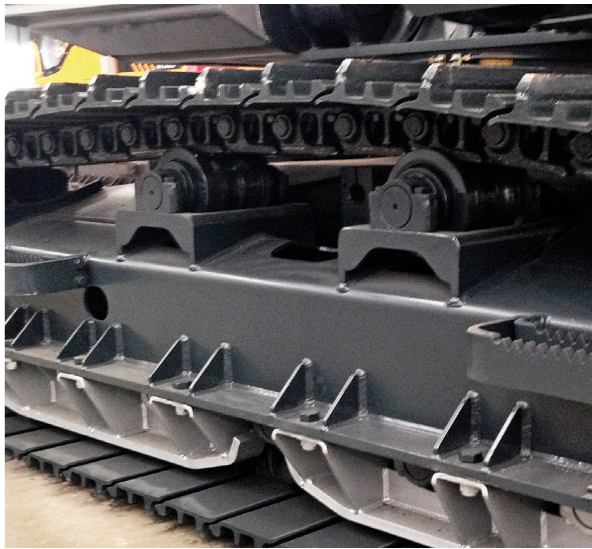
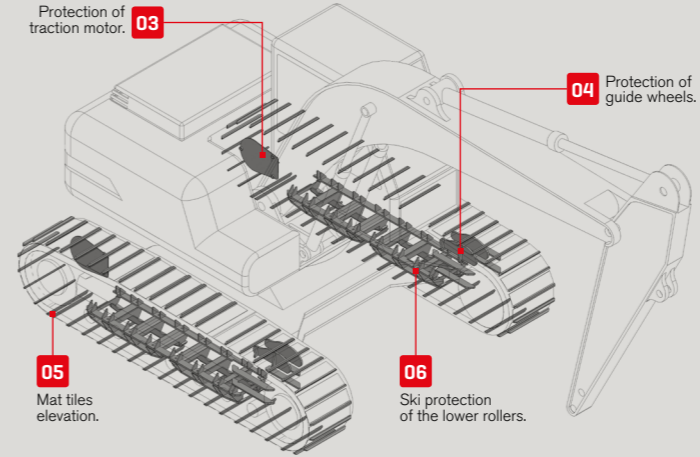




EXCAVATORS CUSTOMIZATION

TMO Forest has used its experience to develop, for the timber market, a set of forestry adaptation for excavators that work with cutting, processing, loading and unloading of timber.

Forestry excavators are ideal for heavy duty work that requires volume production. For the adaptation of an excavator as base machine for a forestry implement, TMO Forest has developed some devices that guarantee robustness, safety and the necessary force to work on difficult terrain such as tilted and irregular ones. As a result, more reinforced sheets are added to the excavator structure, the treadmills are raised, the lower rollers are secured, the guide wheel of the machine is reinforced internally and externally, a steel chassis for protection and the cabin glasses are replaced by 12mm lexan (polycarbonate).



LOADERS ON TRACTOR



C760





LOADERS ON TRACTOR

[FORESTRY CRANES]

TMO Forest offers 4 sizes of Forestry Cranes for tractor installation for loading and unloading of wood in harvesting areas or industrial yards. The Crane column rotation system is manufactured in SAE 1045 steel and cast in one piece with solid chrome nickel steel axle supported on angular contact bearings. The rotation system bushings are made of centrifuged bronze, free of abrasive materials, and the racks are made in tempered nickel chrome steel, supported on bronze guides. The lubrication of the swivel box is in SAE 140 oil bath.

Electronic Joystick.



TECHNICAL FEATURES / MODELS

	MODELS			
TECHNICAL FEATURES	C560	C760	C770	C1070
Load capacity at 2 meters (kg)	2,500	3,500	3,500	5,000
Load capacity at 3 meters (kg)	1,660	2,330	2,330	3,300
Load capacity at 4 meters (kg)	1,200	1,750	1,750	2,500
Load capacity at 5 meters (kg)	1,000	1,400	1,400	2,000
Load capacity at 6 meters (kg)	850	1,160	1,160	1,650
Load capacity at 7 meters (kg)	-	-	1,000	1,400
Horizontal range (m)	6.0	6.5	7.0	7.0
Vertical range (m)	7.2	8.0	8.0	8.8
Max. rotation angle	380°	380°	380°	380°
Grapple	FG-25	FG-36	FG-36	FG-36
Indicated tractor	Above 110 cv	Above 120 cv	Above 120 cv	Above 145 cv

HYDRAULIC CONTROL

TMO Hydraulic Control [Standard] or Mechanical Joystick.

OPTIONAL

Electronic Joystick
Control Cabin
Protection for tractor
FG-40TR Grapple Saw



FORESTRY TRAILER

TECHNICAL FEATURES / MODELS



ETS 1250

■ The TMO Forestry Trailer makes the transportation and transport of wood simple and agile. It is supported by a central beam in rectangular format with oscillating shaft with adjustable position. The stringers, the tandem and the stanchions of the trailer are also adjustable, allowing the accommodation of loads with varied characteristics. With four-wheel brakes, the two Forestry Trailer models can be coupled to a forestry tractor or to a TMO Forestry Crane with a tractor mounted.

	MODELS	
TECHNICAL FEATURES	ETS1050	ETS1250
Trailer load capacity (kg)	10.000	12.000
Trailer load volume (m³)	17,0	17,0
Useful length of trailer (m)	5,6	5,6
Total length of trailer (m)	7,3	7,3
Height of trailer (m)	2,6	2,6
Number of stanchions	8	8
Tires	13.00 x 24	500/60 x 22.5
Indicated tractor	Above 125 cv	Above 125 cv

OPTIONAL

Side adjustment
and height adjustment
of the truckload

Tractor protection



ETS 1050

FORESTRY LOADER TRAILER



AC7612T





FORESTRY LOADER TRAILER

TMO Forest provides a complete line of wood buckets equipment for final cutting or wood thinning. There are 7 Forestry Loader Trailer models with load capacities ranging from 6-18 tons as required by the forestry producer. The truckload of all the models is supported by a central beam in rectangular format with oscillating shaft with adjustable position on the central beam. The stringers and tandem are made of folded, reinforced and adjustable plates on the central beam through studs.



TECHNICAL FEATURES / MODELS

	MODELS						
TECHNICAL FEATURES	AC5606	AC5610	AC5612	AC7610	AC7612	AC7612T	AC9718
Load capacity at 2 meters (kg)	2.500	2.500	2.500	3.500	3.500	3.500	4.500
Load capacity at 3 meters (kg)	1.660	1.660	1.660	2.330	2.330	2.330	3.000
Load capacity at 4 meters (kg)	1.200	1.200	1.200	1.750	1.750	1.750	2.250
Load capacity at 5 meters (kg)	1.000	1.000	1.000	1.400	1.400	1.400	1.800
Load capacity at 6 meters (kg)	850	850	850	1.160	1.160	1.160	1.300
Horizontal range (m)	6	6	6	6,2	6,2	6,2	7,2
Vertical range (m)	7	7	7	7	7	7	10
Max. rotation angle	320°	320°	320°	320°	320°	320°	380°
Tires	13.00 x 24	13.00 x 24	500/60-22.5	13.00 x 24	500/60-22.5	600/50-22.5	600/55-26.5
Load capacity (kg)	6.000	10.000	12.000	10.000	12.000	12.000	18.000
Load volume (m³)	13,7	17,2	17,2	17,2	17,2	20,6	28
Useful length of trailer (m)	4, 5	5,6	5,6	5,6	5,6	5,6	6,0
Total length of trailer (m)	6,2	7,3	7,3	7,3	7,3	7,5	8,3
Height of trailer (m)	2,6	2,6	2,6	2,6	2,6	2,9	3,4
Number of stanchions	6	8	8	8	8	8	10
Indicated tractor	Above 125 cv	Above 125 cv	Above 125 cv	Above 125 cv	Above 125 cv	Above 165 cv	Above 165 cv

HYDRAULIC CONTROL

TMO Hydraulic Control [Standard] or Mechanical Joystick.

GRAPPLE

FG-25 with area of 0.25 m²
FG-36 with area of 0.36 m²

OPTIONAL

Electronic joystick
Side adjustment and height adjustment of the truckload
Tractor protection

FORESTRY WINCHES



GO-51T

■ The TMO Winch has more than 50 years of history. It was the first forestry equipment developed by TMO Forest, and to this day it continues to be one of the main products marketed by TMO. The equipment was developed to meet the operations of reforestation or native wood extraction and for operations to support trucks and machinery used in harvesting areas.

TECHNICAL FEATURES / MODELS

	MODELS				
TECHNICAL FEATURES	GO-51T	G1-33T	G2-18T	G3-12T	G4-6T
Max. mechanical strength (kgf)	51.000	33.000	18.000	12.000	6.000
Recommended steel cable	1. 1/8" - 100 m	3/4" - 120 m 5/8" - 200 m	3/4" - 80 m 5/8" - 120 m 1/2" - 200 m	5/8" - 80 m 1/2" - 180 m	5/8" - 50 m 1/2" - 90 m
Coupling	Hydraulic	Hydraulic /Mechanic	Hydraulic /Mechanic	Hydraulic /Mechanic	Hydraulic /Mechanic
Anchor	Hydraulic	Hydraulic /Mechanic	Hydraulic /Mechanic	Hydraulic /Mechanic	Hydraulic /Mechanic
Brake	Hydraulic	Hydraulic /Mechanic	Hydraulic /Mechanic	Hydraulic /Mechanic	Hydraulic /Mechanic
Tractor	Above 165 cv	Above 90 cv	Above 60 cv	Above 60 cv	Above 45 cv
Optional	Tractor protection	Tractor protector / Protective rollers / Reverse / 2 velocities and reverse	Tractor protection / Protective rollers	Tractor protection / Protective rollers	Tractor protection / Protective rollers



G1-33T

WINCH/SKIDDER



GS33100

■ TMO Forest has verified the need to aggregate double machining in certain operations. Therefore, it designed the Winch exclusively with Skidder. The equipment is ideal for operations with entire trees, optimizing operation on sloping terrain and generating greater productivity, operational efficiency and economy for producers, as they are two TMOs installed on a single base machine.

TECHNICAL FEATURES / MODELS

	MODELS		
TECHNICAL FEATURES	GS1260	GS1880	GS33100
Max. mechanical strength (kgf)	12.000	18.000	33.000
Lifting capacity (kgf)	1.800	2.400	3.000
Lifting drag (kgf)	950	1.360	1.800
Tweezers area (m²)	0,60	0,80	1,00
Max. tweezers opening (mm)	1.030	1.230	1.320
Recommended tractor	Above 85 cv	Above 125 cv	Above 145 cv

GS1880



MINI SKIDDER

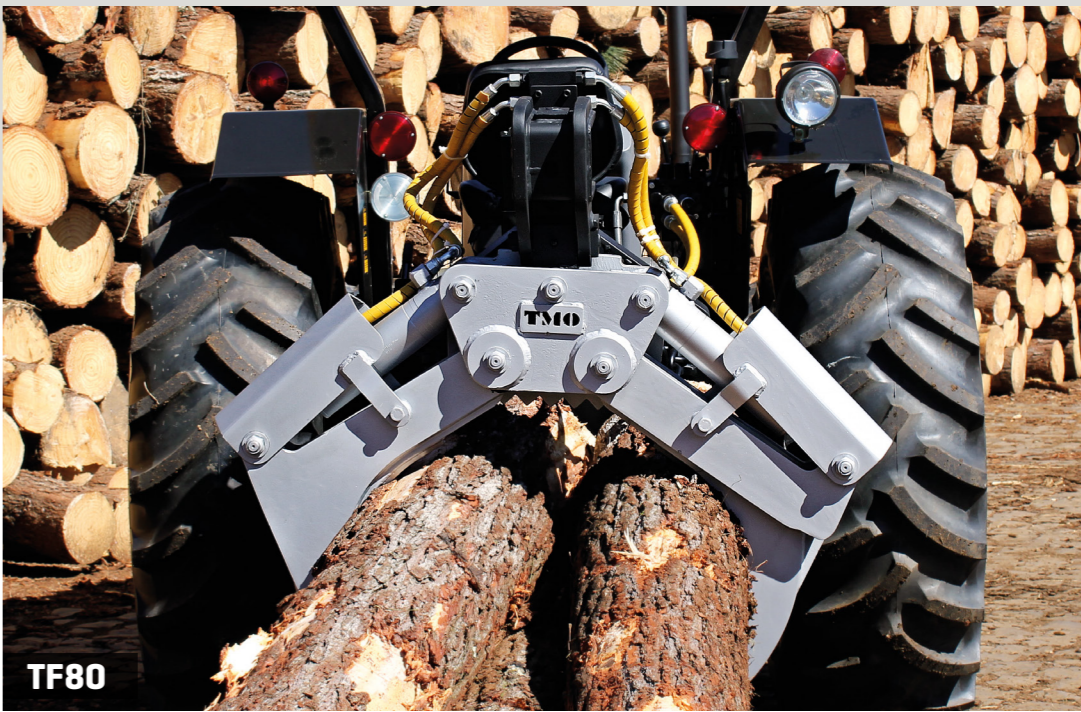


TF120

■ TMO Mini Skidder makes the dragging and stacking of trees in a simple and agile way. The equipment is made of high quality steel with high strength steel reinforcements on its support and blade. Its installation is made in the third point of the tractor, allowing it to be used for other purposes when not coupled to the Mini Skidder.

TECHNICAL FEATURES / MODELS

	MODELS			
TECHNICAL FEATURES	TF60	TF80	TF100	TF120
Lifting capacity (kgf)	1.800	2.400	3.000	3.600
Lifting drag (kgf)	950	1.360	1.800	2.300
Tweezers area (m²)	0,60	0,80	1,00	1,20
Assembly weight (kg)	520	650	760	880
Max. tweezers opening (mm)	1.030	1.230	1.320	1.500
Recommended tractor	Above 65 cv	Above 95 cv	Above 125 cv	Above 160 cv
Installation	3rd point of the tractor	3rd point of the tractor	3rd point of the tractor	3rd point of the tractor



TF80

SLASHER

TECHNICAL FEATURES / MODELS



MT36 / C770

■ For the cutting of logs in selection, TMO Forest offers the MT36 Slasher that performs the tracing of logs in different settings. The two main features of this implement are: the productivity obtained in volume, since the wood is ready to be loaded; and the standard cutting of the logs. The operation is very simple: with the TMO Forestry Loader, the operator holds the logs and places them on the Tracing table that makes the cutting.

	MODELS
TECHNICAL FEATURES	MT36
Cutting area (m²)	0,36
Cutting regulation (m)	1,00 – 1,10 – 2,20
Work pressure (bar)	180
Weight of equipment (kg)	2.300
Base machine	Tractor with TMO loader



MT36

TRUCK LOADERS





TRUCK LOADERS

[CRANES ON TRUCK]

There are 4 models of Forestry Cranes for truck installation with 2 seat options for the operator: Bench in Column or Elevation Cabin.

The truck's crane column rotation system is the same as for tractor cranes: manufactured in SAE 1045 steel and cast in one piece with solid chrome nickel steel axle supported on angular contact bearings. The rotation system bushings are made of centrifuged bronze, free of abrasive materials, and the racks are made in tempered nickel chrome steel, supported on bronze guides. The lubrication of the swivel box is in SAE 140 oil bath.



TECHNICAL FEATURES / MODELS

	MODELS			
TECHNICAL FEATURES	C560	C770	C780	C1070
Load capacity at 2 meters (kg)	2.500	3.500	3.500	5.000
Load capacity at 3 meters (kg)	1.660	2.330	2.330	3.300
Load capacity at 4 meters (kg)	1.200	1.750	1.750	2.500
Load capacity at 5 meters (kg)	1.000	1.400	1.400	2.000
Load capacity at 6 meters (kg)	850	1.160	1.160	1.650
Load capacity at 7 meters (kg)	-	1.000	1.000	1.400
Horizontal range (m)	6,0	7,0	8,0	7,0
Vertical range (m)	7,2	8,0	9,8	8,8
Max. rotation angle	380°	380°	380°	380°
Grapple	FG-25	FG-36	FG-36	FG-36/FG-45

HYDRAULIC CONTROL

TMO Hydraulic Control [Standard]
or Mechanic Joystick.

OPTIONAL

Electronic joystick
Control cabin
FG-40TR Grapple Saw

IMPORTANT

The National Transit Department granted the TMO CAT CERTIFICATES (Certificate of Adequacy to Traffic Law): TRANSPORTATION OF LOGS OPERATIONAL MECHANISM AND TRANSPORTATION OF LOGS / OPERACIONAL MECHANISM / EXTENDED CABIN.

STATIONARY LOADERS

[STATIONARY CRANES]

TECHNICAL FEATURES / MODELS



C1070

■ Stationary loaders are equipment specifically designed for the handling of wood in an industrial yard. They are applied in the feeding of boilers, log conveyor belts, pickers, loading and unloading of wood. The manufacturing features of the equipment are the same as those of tractor cranes: crane column rotation made of SAE 1045 steel cast in one piece with solid shaft in chrome nickel steel supported on angular contact bearings with bushes made of centrifuged bronze and racks in chrome nickel tempered steel supported on bronze guides. The lubrication is also in SAE 140 oil bath.

	MODELS		
TECHNICAL FEATURES	C560	C770	C1070
Load capacity at 2 meters (kg)	2,500	3,500	5,000
Load capacity at 3 meters (kg)	1,660	2,330	3,300
Load capacity at 4 meters (kg)	1,200	1,750	2,500
Load capacity at 5 meters (kg)	1,000	1,400	2,000
Load capacity at 6 meters (kg)	850	1,160	1,650
Load capacity at 7 meters (kg)	-	1,000	1,400
Horizontal range (m)	6.0	7.0	7.0
Vertical range (m)	7.2	8.0	8.8
Max. rotation angle	380°	380°	380°
Grapple	FG-25	FG-36	FG-45/FG-60

HYDRAULIC CONTROL

TMO hydraulic control [Standard] or Mechanic Joystick.

OPTIONAL

Electronic joystick
Swing Damper
Oil cooler
Control cabin

FRONT LOADER

[PINE]



FR100

■ TMO Front Loader is the ideal equipment for the movement of logs in an industrial patio in a fast and safe way. The implement can be used for loading and unloading of trucks and in the feeding of production. The installation is made on a wheel loader over 10 tons according to the size of the Grapple with quick coupling to facilitate the exchange of the implement to shell, pallet fork or other implement that also uses the wheel loader as base machine.

TECHNICAL FEATURES / MODELS

	MODELS		
TECHNICAL FEATURES	FR80	FR100	FR120
Load capacity (kg)	2,500	3,000	3,600
Grapple	FG-80	FG-100	FG-120
Grapple area (m²)	0.80	1.00	1.20
Rotation	360°	360°	360°
Max. work pressure (bar)	175	175	175
Indicated wheel loader	Above 10t	Above 10t	Above 14t

OPTIONAL

Quick coupling
Shell transformation
3rd and 4th functions



HORIZONTAL LOADER

TECHNICAL FEATURES / MODELS



CH-80

■ With TMO Horizontal Loader, coal kilns feeding will be quickly and efficiently. TMO Forest offers two sizes of equipment to assist in this activity: CH-45 for feeding kilns with logs up to 5.5 meters in length and CH-80 for feeding kilns with logs up to 3.0 meters in length. The installation is made on wheel loaders with the option of quick coupling to facilitate the exchange of implement in the base machine.

	MODELS	
TECHNICAL FEATURES	CH-45	CH-80
Load capacity (kg)	2.000	2.000
Grapple	FG-45	FG-80
Grapple area (m²)	0,45	0,80
Rotation	380°	380°
Max. work pressure (bar)	175	175
Indicated wheel loader	Above 9t	Above 9t

OPTIONAL

Quick coupling
3rd and 4th functions



FELLER KNIFE HEAD

TECHNICAL FEATURES / MODELS



CD450C

■ TMO Feller Head is the perfect equipment for the selective cut of pine and the cut of eucalyptus. The cutting of the trees is made with high wear resistant steel knives with excellent quality. The base machine to install the implement is the wheel loader with quick coupling optional allowing the use of this base machine not only with the Feller Head, but also with another implement needed by the customer.

	MODELS
TECHNICAL FEATURES	CD450C
Max. cutting diameter (mm)	450
Area of accumulation (m²)	0,20
Load capacity (kg)	1.100
Work pressure (bar)	190
Indicated wheel loader	Acima de 10t
Cutting type	Knives

OPTIONAL

Quick coupling
3rd function
Protection for loader



FRONT PALLET



GFO-50 Top Clamp

TMO offers for the movement of logs and feeding of the production in the industrial yard the equipment: GFO, GFO with Clamp and GA in their variations of sizes according to the customer's need to be install on a wheel loader.

TECHNICAL FEATURES / MODELS

TECHNICAL FEATURES	MODELS				
	GFO-30 Top Clamp	GFO-50 Top Clamp	GFO-50	GFO-30	GA-60
Load capacity (kg)	1,800	3,000	3,000	1,800	3,000
Max. work pressure (bar)	175	175	175	175	175
Indicated wheel loader	Above 6t	Above 9t	Above 9t	Above 6t	Above 9t
Optional	Quick coupling support / Shell transformation / 3rd function.	Quick coupling support / Shell transformation / 3rd function.	Quick coupling support / Shell transformation.	Quick coupling support / Shell transformation.	Quick coupling support / Shell transformation / 3rd function.



GA-60



GFO-50

TRADITIONAL GRAPPLES

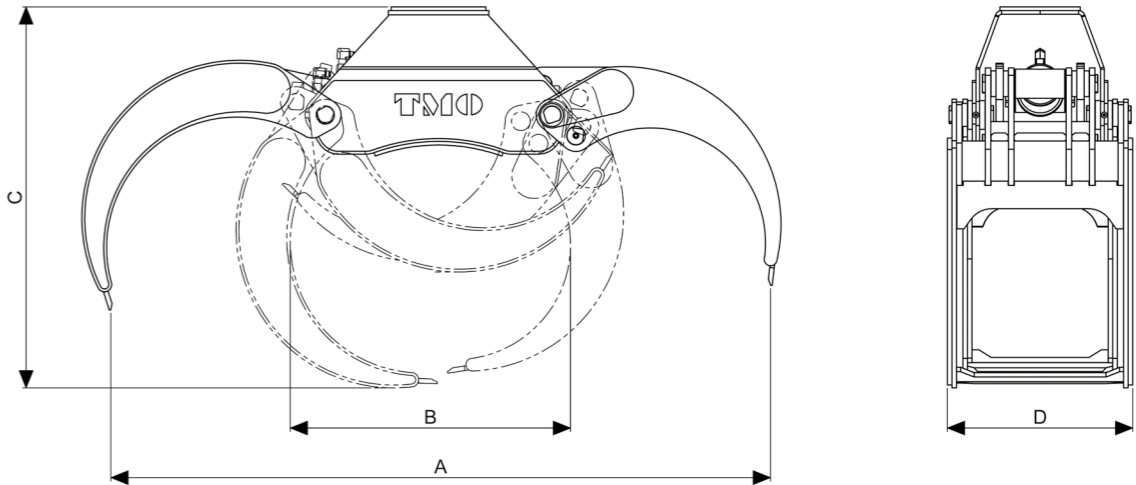
TECHNICAL FEATURES / MODELS



FG-100

■ Recognized in the forest market, TMO Grapples are known in the sector for their quality, strength and excellent performance in log handling. The various models of Traditional Line can be applied to loaders, forestry loaders trailers and wheel loaders.

	MODELS							
TECHNICAL FEATURES	FG-25S	FG-36S	FG-40S	FG-45S	FG-60S	FG-80	FG-100	FG-120
Measure "A" (mm)	1.363	1.687	1.788	1.932	2.308	2.418	2.400	2.665
Measure "B" (mm)	615	750	760	785	945	1.127	1.180	1.295
Measure "C" (mm)	900	1.053	1.162	1.162	1.320	1.363	1.540	1.691
Measure "D" (mm)	490	560	560	574	646	682	682	682
Area (m²)	0,25	0,36	0,40	0,45	0,60	0,80	1,00	1,20
Weight (kg)	230	350	345	465	600	670	710	880



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