

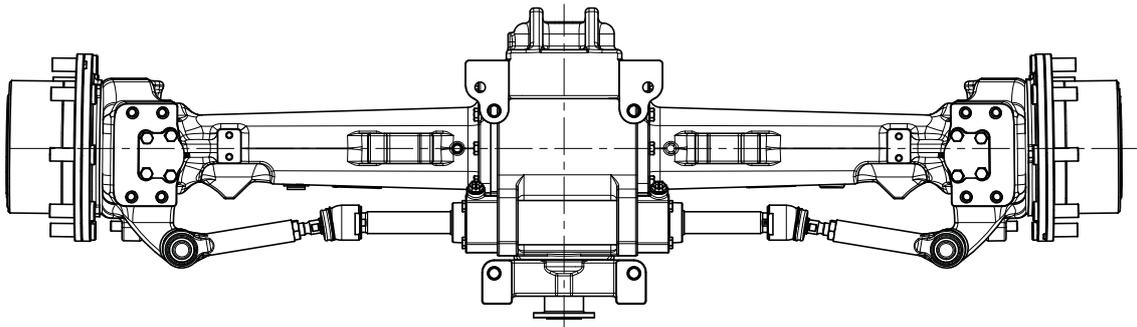
POWERTRAIN

4WD TRACTOR AXLES

- Hema agricultural tractor axles ranging between 70-140 hp designed to work in heavy duty conditions with robust gears and frame.
- Waterproof sealing is standard for puddling environment such as paddy fields.
- Wide range of gear ratio and track width options meet the requirement of various applications.
- Easy service & maintenance thanks to three-piece-modular design and common parts used in Hema axles.
- Axles enable a small turning radius and high maneuverability at 57° steering angle and available with open, limited slip or 100% differential lock configurations.
- Optional wet brake system maintain a reliable breaking.

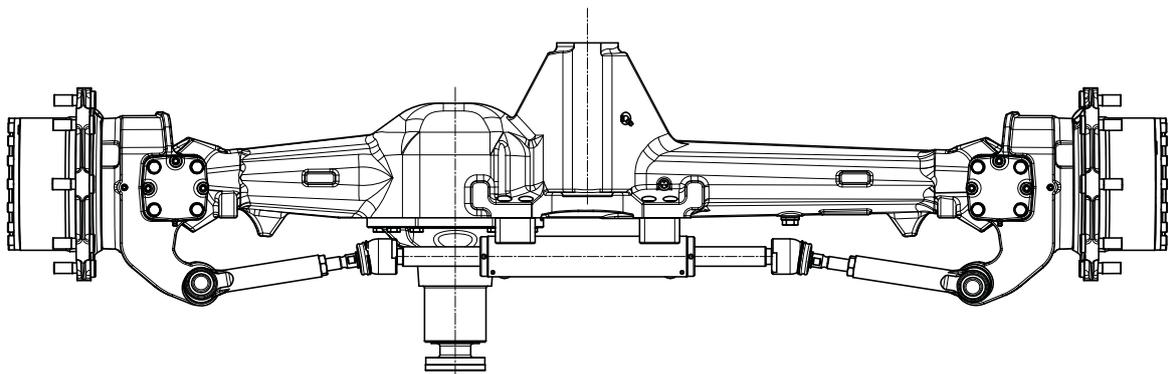
CENTER DRIVE FRONT AXLES

	HFA075	HFA085	HFA200	HFA210	HFA220	HFA240
Max. engine power	70 HP	90 HP	100 HP	110 HP	120 HP	140 HP
Flange to flange distance	1250 mm	1404/1604 mm	1604/1640 mm	1604/1640 mm	1640 mm	1800 mm
Steering sensor	Optional	Optional	Optional	Optional	Optional	Optional
Differential	Open / Limited Slip					
Peak torque at wheels	14 kNm	20 kNm	24 kNm	26 kNm	28 kNm	32 kNm
Dynamic load capacity	20 kN	28,5 kN	34 kN	37 kN	50 kN	77 kN
Static load capacity	50 kN	71 kN	85 kN	92 kN	125 kN	136.5 kN
Total ratio	10.27 to 19.2:1	12.27 to 19.2:1				



SIDE DRIVE FRONT AXLES

	HFA360	HFA285	HFA399
Max. engine power	70 HP	85 HP	110 HP
Flange to flange distance	1450 mm	1660 mm	1800 mm
Steering sensor	Optional	Optional	Optional
Differential	Open / Limited slip / Hyd. lock	Open / Limited slip / Hyd. lock	Open / Limited slip / Hyd. lock
Peak torque at wheels	14 kNm	20 kNm	26 kNm
Dynamic load capacity	28 kN	40 kN	53 kN
Static load capacity	70 kN	100 kN	130 kN
Total ratio	17.89:1	17.89:1	20.70:1



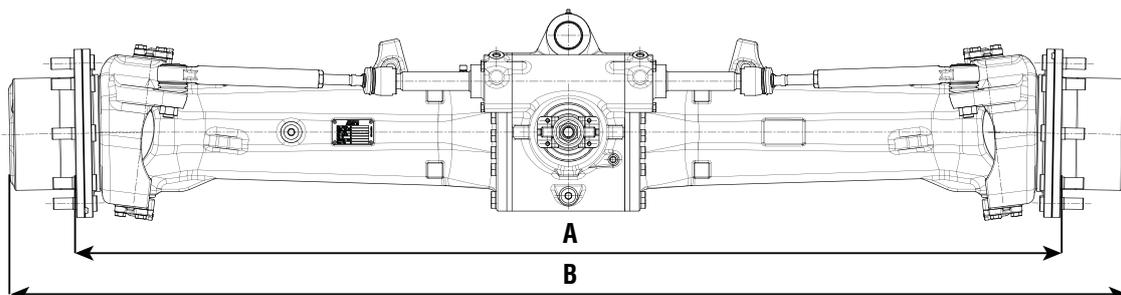
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BACKHOE LOADER AXLES

- Hema BHL axles, with wide range of gear ratios, track widths and vehicle connections, designed to work in heavy duty conditions with robust frame and gears and waterproof sealing for paddy applications.
- Easy service & maintenance thanks to the 3 pieces modular design and common part usage.
- All steer axles enable a small turning radius and high maneuverability with 53° steering angle. All rear axles are available with open, limited slip or 100% differential lock configurations.

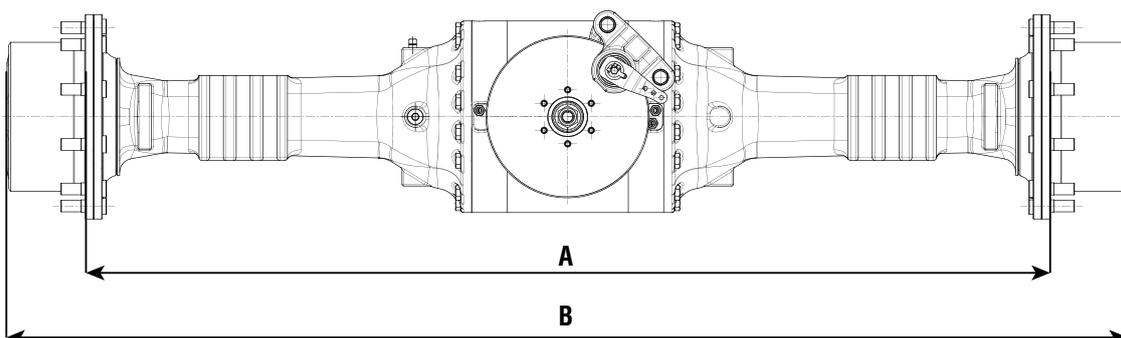
STEER AXLES

	421	421HD
(A) Flange to flange distance	1800 - 1920 mm	1800 - 1920 mm
(B) Max. overall dimension	2180 mm	2180 mm
Hub diameter	Ø 220.8 mm	Ø 220.8 mm
PCD	Ø 275 mm	Ø 275 mm
Max. output torque	26 kNm	32 kNm
Dynamic axle load	65 kN	77 kN
Steering angle	53°	53°
Total ratio	from 12.8:1 up to 19.2:1	from 12.8:1 up to 19.2:1



RIGID AXLES

	621	621HD
(A) Flange to flange distance	1530/1800 mm	1530 - 1800 mm
(B) Max. overall dimension	2090 mm	2090 mm
Hub diameter	Ø 280.6 mm	Ø 280.6 mm
PCD	Ø 335 mm	Ø 335 mm
Max. output torque	53 kNm	65 kNm
Dynamic axle load	90 kNm	100 kNm
Total ratio	from 12.8:1 up to 19.2:1	from 12.8:1 up to 19.2:1

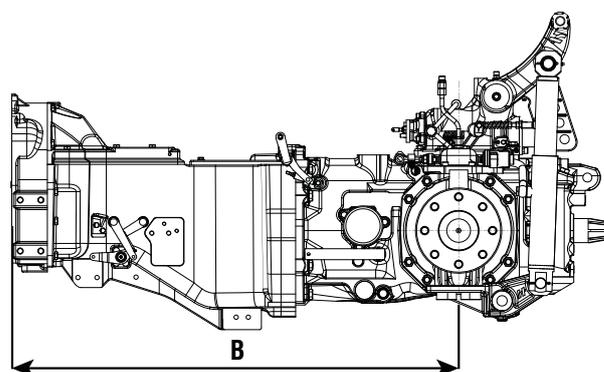
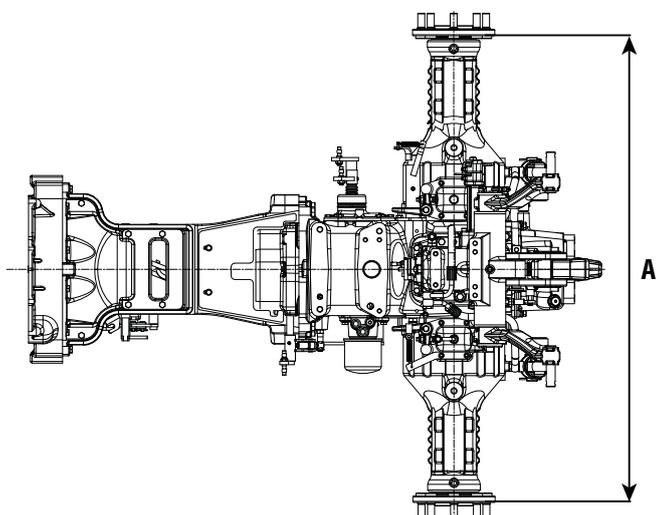


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H100 SERIES TRANSAXLES

- H100 series is developed for agricultural tractors from 60 HP up to 110 HP power rating.
- Independent rear PTO has been designed to transmit all the engine's power and is therefore ideal for tractors.
- Wide range of speed options such as 12F+12R, 16F+8R, 24F+24R, 40 km/h designed for the highest satisfaction.
- Enhanced ergonomics and driving comfort thanks to the lay shaft design reducing the gear box size and providing enough room in the driver area.
- Wet service brakes, located between the differential and the final reduction on tractor, designed to be maintenance free.
- Suspended pedals are available as optional on tractors with cabs.
- Lifting capacity from 2400 kg up to 4500 kg with optional external cylinder and plenty of control features (position, draft, mix, autolift control) are available for various attachments. Electronic version offers a comfort control in the field.

	H100.80	H100.90	H100.110
INPUT DATA			
Max. engine power	60-85 HP	75-95 HP	90-110 HP
Max. engine speed at rated power	2200 rpm	2200 rpm	2200 rpm
Max. engine torque	360 Nm	370 Nm	415 Nm
CONFIGURATION			
Total gear (fwd & rev)	12F + 12R	16F + 8R	12F + 12R
Splitter shifting	-	Synchromesh	-
Gear box shifting	Synchromesh	Synchromesh	Synchromesh
Shuttle shifting	Synchromesh	Synchromesh	Synchromesh
4WD output	Mech. / Hyd. actuation	Mech. / Hyd. actuation	Hyd. actuation
Differential lock	Mech. / Hyd. actuation	Mech. / Hyd. actuation	Hyd. actuation
Service brake	Wet type Hyd. actuation	Wet type Hyd. actuation	Wet type Hyd. actuation
Parking brake	Wet type Mech. actuation	Wet type Mech. actuation	Wet type Mech. actuation
MAIN DATA			
(A) Flange to flange distance	1150/1342 mm	1750 mm	1750 mm
(B) Rear axle center to front end distance	1215 mm	1215/1475 mm	1475 mm
Total tractor ballasted weight	3200 kg	3680 kg	4060 kg
Max. rear tire size	16.9 R 30	16.9 R 34	16.9 R 38
Rear lift capacity at lower link	24/32 kN	36 kN	40/45 kN
Hydraulic lift control	Mechanical	Electronic / Mechanical	Electronic / Mechanical
PTO OPTIONS			
Single speed	540 rpm	-	-
2 speeds	487/540E - 540/540E rpm (optional 540E/1000 rpm)	540/540E rpm (optional 540E/1000 rpm)	540/540E rpm (optional 540E/1000 rpm)

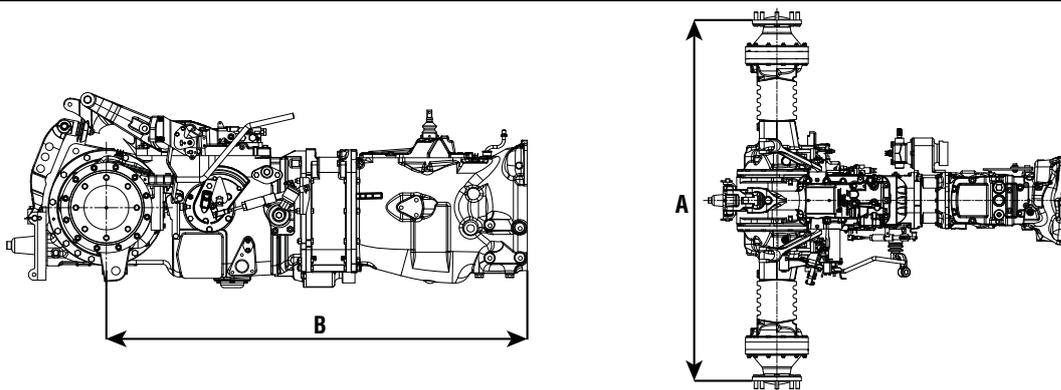


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H200 & H300 SERIES TRANSAXLES

- Specifically developed for standard and heavy duty agricultural tractors from 50 up to 115 HP power rating.
- Basic version with 8 forward and 2 reverse speeds allows massive cost savings. Premium option with synchromesh gears enable a smooth shifting which is standard in 12 forward and 4 reverse version.
- Hydraulic lift has draft, position and mixed control with lifting capacity from 14kN up to 35kN.
- Mechanical pedal - controlled differential locking ensures optimal grip even on difficult terrain.
- Optimal speed distribution offers 3.2-40 km/h speeds for standard and 2.6-36 km/h for heavy duty tractors which allows smooth operation with different attachments carried on the 3-point hitch or towed.
- 540, 540/540E and 540/1000 PTO speeds controlled by a single main clutch which enables independently control the PTO against the transmission for IPTO versions.
- Wet service brakes, located between the differential and the final reduction on tractor, designed to be maintenance free.
- Basic version control is manual and mechanical at H240 and H290 while hydraulic control is available at H285 and H3105.
- Left side position 4WD is optional for standard and heavy duty transmissions.

	H240	H260	H285	H290	H398
INPUT DATA					
Max. engine power	50 HP	65 HP	85 HP	85 HP	110 HP
Max. engine speed at rated power	2200 rpm	2200 rpm	2200 rpm	2200 rpm	2450 rpm
Max. engine torque	190 Nm	250 Nm	345 Nm	345 Nm	432 Nm
Clutch size	12"	12"	12"	12"	13"
CONFIGURATION					
Total gear (fwd & rev)	8F + 2R	8F + 2R	12F + 4R	8F + 2R	12F + 4R
Gear box configuration	Crashmesh/ Synchromesh	Synchromesh	Synchromesh	Crashmesh	Synchromesh
Splitter shifting	-	-	Synchromesh	-	Synchromesh
Gear box shifting	Crashmesh/ Synchromesh	Synchromesh	Synchromesh	Crashmesh	Synchromesh
Shifting lever position	Center shifting	Center shifting	Side shifting	Center shifting	Side shifting
4WD Output (Mech. Actuation)	2WD	2WD or 4WD	2WD or 4WD	2WD or 4WD	4WD
Differential lock	Mech. actuation	Mech. actuation	Mech. actuation	Mech. actuation	Mech. actuation
Final planetary reduction	No	No	Yes	Yes	Yes
Service brake	Disc/Drum Mech. actuation	Disc Mech. actuation	Disc Hyd. actuation	Disc Mech. actuation	Disc Hyd. actuation
Parking brake	Yes	Yes	Yes	Yes	Yes
MAIN DATA					
(A) Flange to flange distance	1545	1545	1765	1765	1872 mm
(B) Rear axle center to front end distance	1255	1255	1405	1405	1405 mm
Total tractor ballasted weight	2500 kg	3000 kg	3690	3690	4500 kg
Max. rear tire size	14.9 R28	14.9 R28	18.4 R30	18.4 R30	18.4 R38
Rear lift capacity at lower link	14 kN	14 kN	25 kN	23 kN	35 kN
PTO OPTIONS					
Single speed	PTO/IPTO 540 rpm	PTO/IPTO 540 rpm	-	PTO 540 rpm	-
2 speeds	-	-	IPTO 540/540E rpm	-	IPTO 540/1000 rpm

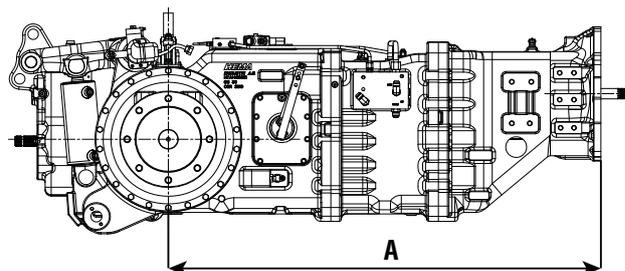
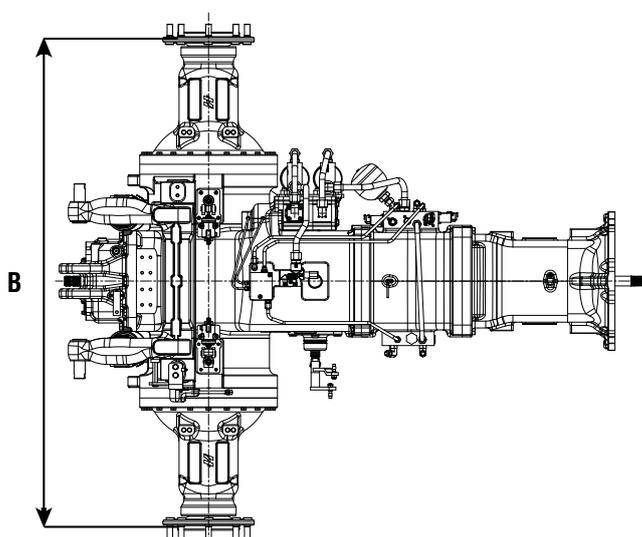


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H104 SERIES TRANSAXLES

- H104 series covers all requirements for sophisticated tractors and has a wide scope of application at medium and high power ratings
- Provides a comfortable and efficient driving on harsh environment conditions. Mechanical, semi-automatic or automatic versions are available and 40 km/h or 50 km/h speeds are optional.
- Embedded software controls differential locking, 4WD, PTO activation, power shifting and shuttle at the same time for a smooth driving experience.
- Hydraulic controlled shuttle system enable steering with lever mechanism and ensure high maneuverability on limited spaces
- Shifting is more comfortable with hydro-electronic controlled power shifting without compromising on traction power.
- Lifting capacity from 5500 kg up to 7700 kg with external cylinder and plenty of control features (position, draft, mix, autolift control) are available to work with various attachments.
- Wide gear range is not only for economical driving, but also helps to ensure right speed in the field or road conditions.
- Hema offers 2 and 3 alternative PTO speed options with hydraulic control.

	H104.120	H104.150	H104.180
INPUT DATA			
Max. engine power	120 HP	147 HP	173 HP
Max. engine speed at rated power	2200 rpm	2200 rpm	2200 rpm
Max. engine torque	490 Nm	560 Nm	750 Nm
CONFIGURATION			
Total gear (fwd & rev)	24F + 24R	24F + 24R	36F + 36R
Gear box configuration	Synchromesh	Power shift / Synchromesh	Power shift / Synchromesh
Splitter shifting	Synchromesh	Power shift	Power shift
Gear box shifting	Synchromesh	Synchromesh	Synchromesh
Shuttle shifting	Synchromesh	Power shuttle	Power shuttle
4WD output	Hyd. actuation	Hyd. actuation	Hyd. actuation
Differential lock	Mech. / Hyd. actuation	Hyd. actuation	Hyd. actuation
Service brake	Wet type Hyd. actuation	Wet type Hyd. actuation	Wet type Hyd. actuation
Parking brake	Mech. actuation	Mech. actuation	Wet type Mech. actuation
MAIN DATA			
(A) Flange to flange distance	1342/1750 mm	1750 mm	1750 mm
(B) Rear axle center to front end distance	1380 mm	1445 mm	1650 mm
Total tractor unballasted weight	5000 kg	5500 kg	6100 kg
Max. rear tire size	18.4 R38	18.4 R38	20.8 R38
Rear lift capacity at lower link	55 kN	70 kN	77 kN
Hydraulic lift control	Electronic	Electronic	Electronic
PTO OPTIONS			
2 speeds (Optional 3 speeds)	540/540E rpm (Opt. 540E/1000 rpm) (Opt. 540/540E/1000 rpm)	540/540E rpm (Opt. 540E/1000 rpm) (Opt. 540/540E/1000 rpm)	540/540E/1000 rpm



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PTO SPEED INCREASER GEARBOX

HGB010		
Ratio	Input Speed	Pump Type
1:2.0	540 rpm	1PN*
1:2.5		
1:3.11		
1:3.5		
1:3.8		

HGB020		
Ratio	Input Speed	Pump Type
1:1.0	540 rpm	1PN* 2P1*
1:1.5		
1:2.0		
1:2.6		
1:3.05		
1:3.4		
1:3.8		

HGB025		
Ratio	Input Speed	Pump Type
1:1.0	540 rpm	SAE A* SAE B*
1:1.5		
1:2.0		
1:2.6		
1:3.05		
1:3.4		
1:3.8		

HGB030		
Ratio	Input Speed	Pump Type
1:1.0	540 rpm	1PN* 2P1*
1:1.5		
1:2.0		
1:2.6		
1:3.05		
1:3.4		
1:3.8		

* Proper coupling must be provided for the pump connection.

HGB010 PTO/Equipment Shaft Type



HGB020 PTO/Equipment Shaft Type



HGB025 PTO/Equipment Shaft Type



HGB030 PTO/Equipment Shaft Type



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ABOUT US

HEMA was established in 1973 under the name of “Hema Hidrolik Makine Sanayi ve Ticaret A.S” located in the Cerkezkoy Industrial Zone in the Tekirdag region to produce external gear pumps for Turkish Industries needs.

Over the years Hema Endustri has extended its product range and industries it serves. Today as one of the leading engineering and manufacturing companies in Turkey, Hema Endustri supplies systems and components to automotive, agricultural machinery, construction and earthmoving Equipment, material handling and industrial machinery OEMs.

In 1998 the company name was changed to HEMA Endüstri A.S. to reflect the breadth of the company activities. Competing with leading manufacturers of the world, Hema continuously aims new technological capabilities in order to improve its product quality and efficiency. Giving particular importance to quality and customer satisfaction, Hema has over the years become a major OEM supplier in the industries that it serves.

Hema owns well-trained, qualified and experienced 3000 strong workforce which fuels its growth and achievements.



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