

**SHANDONG TAVOL MACHINERY CO.,LTD**  
**8F+2R 304-504 series tractor main technical specifications**

| Model                       |                              |                 | 304                                 | 404         | 504  |
|-----------------------------|------------------------------|-----------------|-------------------------------------|-------------|------|
| Complete machine parameters | Type                         |                 | 4×4 wheel type                      |             |      |
|                             | Power output shaft maximum   |                 | 20                                  | 25          | 31   |
|                             | Calibrated traction force kN |                 | 6.7                                 | 8.4         | 10.5 |
|                             | Structure mass kg            |                 | 1265                                | 1295        | 1295 |
|                             | Mass distribution kg         | Front Axle      | 590                                 | 608         | 608  |
|                             |                              | Rear Axle       | 830                                 | 912         | 912  |
|                             | Minimum use mass kg          |                 | 1420                                | 1520        | 1520 |
|                             | Counterweight t kg           | Front           | 45                                  |             |      |
|                             |                              | Rear            | 48                                  |             |      |
|                             | Wheelbase mm                 | Front Wheel     | 1250                                |             |      |
|                             |                              | Front wheel     | Non-adjustable                      |             |      |
|                             |                              | Rear Wheel      | 1000-1300                           |             |      |
|                             |                              | Rear wheel      | Steplessly adjustable               |             |      |
|                             | Wheelbase mm                 |                 | 1885                                |             |      |
|                             | Radius of steering circle    | Unilateral      | ≤4.0                                |             |      |
|                             |                              | Single-sided    | ≤3.5                                |             |      |
|                             | Minimum ground clearance and |                 | 295 (Bottom of front axle oil plug) |             |      |
|                             | Dimension mm                 | Long            | 3315                                |             |      |
|                             |                              | wide            | 1570                                |             |      |
|                             |                              | High (to        | 2010                                |             |      |
|                             |                              | High (to        | 1500                                |             |      |
|                             |                              | High (to safety | 2230                                |             |      |
|                             | Theoretical speed km/h       | Low-speed gear  | I                                   | 1.70/1.76   |      |
|                             |                              |                 | II                                  | 2.58/2.68   |      |
|                             |                              |                 | III                                 | 4.05/4.21   |      |
|                             |                              |                 | IV                                  | 5.59/5.80   |      |
|                             |                              | High-speed gear | I                                   | 7.84/8.14   |      |
|                             |                              |                 | II                                  | 11.95/12.40 |      |
|                             |                              |                 | III                                 | 18.74/19.46 |      |
|                             |                              |                 | IV                                  | 25.84/26.82 |      |

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| Model                          |   |                                 | 304  | 404                   | 504 |
|--------------------------------|---|---------------------------------|--|-----------------------|-----|
| Theoretical speed km/h         | Invert I  |                                 | 2.23/2.32  |                       |     |
|                                | Reverse II  |                                 | 10.32/10.71  |                       |     |
|                                | Note: This theoretical speed is calculated based on the calibrated engine speed of 2300r/min and the rear drive wheels of 9.5-24/11.2-24. |                                 |  |                       |     |
| Safety frame or cab type/model |   |                                 | Folding  |                       |     |
| Engine                         | Engine and clutch connection method   |                                 | Direct connection  |                       |     |
|                                | Air filter type/model   |                                 | Three-stage oil bath type, MY-120×50/MY-125×75/MY-160×80/MY-130×100/MY-155×105         |                       |     |
|                                | Lubrication method  |                                 | Pressure and splash compound   |                       |     |
|                                | Cooling method  |                                 | Forced water cooling   |                       |     |
|                                | Starting method   |                                 | Electric start   |                       |     |
|                                | Emission level  |                                 | Non-road National II   |                       |     |
|                                | Crankshaft rotation direction (facing the power output)   |                                 | Counterclockwise   |                       |     |
| Fuel Tank                      | Model   |                                 | 250.50.011   |                       |     |
|                                | Volume L  |                                 | 25   |                       |     |
|                                | Design pressure (kpa)   |                                 | 30   |                       |     |
| Model                          |   |                                 | 304  | 404                   | 504 |
| Muffler                        | Anechoic chamber size (length × width × thickness)  |                                 | 465×Φ124   |                       |     |
|                                | Muffler weight kg   |                                 | 4.48   |                       |     |
| Drive line                     | Clutch  |                                 | Single piece, dry type, coil spring compression type, normally combined, single acting |                       |     |
|                                | Transmission  |                                 | (4+1)×2 combination type   |                       |     |
|                                | Central drive (front/rear)  |                                 | Spiral Bevel Gear Type / Spiral Bevel Gear Type  |                       |     |
|                                | Differential (front/rear)   |                                 | Closed type, 2 planetary bevel gears / Closed type, 2 planetary bevel gears            |                       |     |
|                                | Differential Lock   |                                 | Dental Inlay   |                       |     |
|                                | Brakes  |                                 | Built-in, single-pole straight cylindrical gear  |                       |     |
|                                | Trailer Brake Manipulation  |                                 | Ventilated, pneumatic brake  |                       |     |
|                                | Final drive (front/rear)  |                                 | Spiral bevel gear pair / straight cylindrical gear external mesh type                  |                       |     |
| Working device                 | Hydraulic Lifter  | Type                            | Semi-split type  |                       |     |
|                                |   | Tillage depth adjustment method |  | Integrated regulation |     |

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|  |                         |   |  |       |     |
|--|-------------------------|---|--|-------|-----|
|  |                         | Maximum lifting force<br>KN at 610mm              | 4.95   | 6.62  | 8.3 |
|  |                         | Safety valve opening<br>pressure Mpa              | 17±0.5                                       |       |     |
|  |                         | Sensing method                                    | Upper Tie Rod Sensing                        |       |     |
|  |                         | Hydraulic oil pump                                | CBN-E314 Gear Pump                           |       |     |
|  |                         | Dispenser   | External unloading control type              |       |     |
|  |                         | Hydraulic cylinder<br>type                        | Horizontal single acting plunger type        |       |     |
|  |                         | Hydraulic cylinder<br>bore mm                     | 63 or 70                                     |       |     |
|  |                         | Hydraulic cylinder<br>stroke mm                   | 100  |       |     |
|  | Suspension<br>mechanism | Type  | Rear-mounted, three-point suspension I class |       |     |
|  |                         | Upper suspension<br>point pin hole<br>diameter mm | 19   | +0.51 |     |
|  |                         |   |  | +0.30 |     |
|  |                         | Lower suspension<br>point pin hole<br>diameter mm | 22   | +0.73 |     |
|  |                         |   |  | +0.40 |     |

| Model           |                    |                            | 304                              |       | 404            |        |    | 504     |  |
|-----------------|--------------------|----------------------------|----------------------------------|-------|----------------|--------|----|---------|--|
| Working device  | Power output shaft | Type                       | Rear freestanding                |       |                |        |    |         |  |
|                 |                    | Rotational speed r/min     | 540-1000/540-760(option)         |       |                |        |    |         |  |
|                 |                    | Spline Size mm             | 8D-28.4                          | 0     | ×38            | -0.032 | ×6 | -0.240  |  |
|                 |                    |                            |                                  | -0.28 |                | -0.10  |    | -0.300  |  |
|                 |                    |                            | or 6D-28.91±0.05×34.79±0.06×8.69 |       | -0.09<br>-0.16 |        |    |         |  |
| Steering system |                    | Rack                       | Rackless                         |       |                |        |    |         |  |
|                 |                    | Front Suspension           | Rigid suspension type            |       |                |        |    |         |  |
|                 |                    | Front Axle                 | Bevel gear type drive axle       |       |                |        |    |         |  |
|                 | Tires              | Front Wheel Specifications | 6.00-16/6.50-16                  |       |                |        |    | 6.50-16 |  |
|                 |                    | Rear Wheel Specifications  | 9.5-24                           |       |                |        |    | 11.2-24 |  |

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|  |                           |             |  |
|--|---------------------------|-------------|--|
|  | Tire pressure Kpa         | Front Wheel | Field: 194-245 Transport: 220-245  |
|  |                           | Rear Wheel  | Field: 98-109 Transportation: 98-120   |
|  | Steering method           |             | Hydraulic steering   |
|  | Steering                  |             | Mechanical internal feedback happy non-responsive hydrostatic steering<br>Hydraulic pump model: HLCB-D0606 left-handed constant flow pump<br>Hydraulic steering type model: cycloidal closed-core full hydraulic steering/BZZ-80 |
|  | Front beam mm             |             | 4-8  |
|  | Front wheel camber        |             | 2°   |
|  | Main sales inward leaning |             | 10°  |
|  | Main pin backward tilt    |             | 0°   |

| Model                |                         | 304  | 404 | 504 |
|----------------------|-------------------------|--|-----|-----|
| Instrumentation      | Oil pressure gauge      | YT-102(0-10)Mpa  |     |     |
|                      | Water temperature gauge | WT-2(0-100)°C  |     |     |
|                      | Ammeter                 | 307(±30)A  |     |     |
|                      | Air pressure gauge      | YT-102(0-10)Mpa  |     |     |
| Electrical equipment | Electrical system       | 12V single-wire system, negative override                        |     |     |
|                      | Generators              | JF11A, 14V, 350W   |     |     |
|                      | Starter motor           | QD1308J, 12V, 2.5kw or QD1315D, 12V, 3.2kw or QDZ157, 12V, 3.2kw |     |     |
|                      | Generator regulator     | FJ70 or transistor regulator JFT144 (JFT149)                     |     |     |
|                      | Battery                 | 6-QW-120MF   |     |     |
|                      | Headlights              | Taiwo-350.47.052 12V, 60/55w                                     |     |     |
|                      | Front turn signal       | 12V, 21w, one on each side                                       |     |     |
|                      | Rear headlights         | Jeep type 12V, 21w   |     |     |
| Main refill volume   | Engine cooling system L | 10   |     |     |
|                      | Engine oil sump L       | 8-9  |     |     |
|                      | Injection pump L        | 0.3  |     |     |
|                      | Air Filter L            | 0.5  |     |     |
|                      | Transmission L          | Rear-wheel drive10 Four-wheel drive11.8                          |     |     |
|                      | Final Drive L           | 1.6×2  |     |     |
|                      | Lifter L                | 5.5-6.5  |     |     |
|                      | Front drive axle L      | 6 (four-wheel drive)   |     |     |

SHANDONG TAVOL MACHINERY CO.,LTD  
**8F+8R 504-704 series tractor main technical specifications**

| Model                            |  | Unit | 504  | 604            | 704            |
|----------------------------------|--|------|--|----------------|----------------|
| Type                             |  |      | 4×4 wheel type                               | 4×4 wheel type | 4×4 wheel type |
| Calibrated traction              |  | kN   | 10   | 11             | 14             |
| Power output shaft maximum power |  | kW   | 31   | 37             | 43             |
| Size                             | Long (including after front counterweight) hanging)    | mm   | 3910   | 3910           | 3910           |
|                                  | Width (common wheelbase standard) outside of the tire) | mm   | 1720   |                |                |
|                                  | High (to the top of the silencer.) Calibrated tires)   | mm   | 2030(Muffler optional)                       |                |                |
|                                  | High (to steering wheel)                               | mm   | 1680   |                |                |
|                                  | High (with cab to driver) roof of the driving room)    | mm   | 2600   |                |                |
| Wheel Distance                   | Front Wheel  | mm   | 850/1100/1200/1300/1400                      |                |                |
|                                  | Front wheel adjustment method                          |      | 4WD non-adjustable                           |                |                |
|                                  | Rear Wheel   | mm   | 850, 1100, 1200, 1300, 1400 (factory 1200)   |                |                |
|                                  | Rear wheel adjustment method                           |      | Limit adjustable or without Limit adjustable |                |                |
| Axis distance                    |  | mm   | 1700   | 1700           | 1700           |
| Ground Clearance                 | Minimum Ground Clearance                               | mm   | 380 (rear traction plate)                    |                |                |
|                                  | Agronomy Gap   | mm   | Four-wheel drive model:350                   |                |                |

|                         |                          |   |   |  |  |
|-------------------------|--------------------------|---|---|--|--|
| Minimum steering Radius | Use of one-sided braking | m | Two-wheel drive:≤3.2Four-wheel drive:≤3.6 |  |  |
|-------------------------|--------------------------|---|---|--|--|

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|                                |                      |                           |    |   |      |      |
|--------------------------------|----------------------|---------------------------|----|---|------|------|
|                                | No one-sided braking |                           | m  | Two-wheel drive:≤3.4Four-wheel drive:≤3.8           |      |      |
| Safety frame or cab type/model |                      |                           |    | Two-post type/704.46.001                            |      |      |
| Structure Quality              | No cab               |                           | kg | 1965  | 2065 | 2065 |
|                                | With cab             |                           |    | 2165  | 2265 | 2265 |
| Minimum Use quality            | No cab               |                           | kg | 2140  | 2270 | 2270 |
|                                | With cab             |                           |    | 2340  | 2440 | 2440 |
| Quality Distribution           | Front Wheel          | No cab at the front wheel | kg | 945   | 970  | 970  |
|                                |                      | Front wheel with cab      |    | 1015  | 1065 | 1065 |
|                                | Rear Wheel           | Rear wheel without cab    | kg | 1195  | 1300 | 1300 |
|                                |                      | Rear wheel with cab       |    | 1325  | 1375 | 1375 |
| Ballast                        | Front Ballast        |                           | kg | 48  |      |      |
|                                | Rear Ballast         |                           |    | 1. 48   |      |      |
| Engine                         | Type                 |                           |    | Direct connection                                   |      |      |
|                                | Brand                |                           |    | YTO   |      |      |
|                                | Cooling Type         |                           |    | Inline, four-stroke, direct injection, water-cooled |      |      |

|              |                          |                  |                               |
|--------------|--------------------------|------------------|-------------------------------|
| Tank         | Model                    |                  | 704.50.011                    |
|              | Volume                   | L(liters)        | 60                            |
|              | Design pressure          | kpa              | 200                           |
| Muffling     | Size of muffling chamber | mm               | Φ136×515                      |
|              | Weight                   | kg(kg)           | 6.3                           |
| Transmission | Clutch type              |                  | Dry double acting             |
|              | Transmission type        | shift side style | 4×2× (1+1) composition, shift |
|              | Rear Axle                | Central          | Spiral Bevel Gear Sub         |

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|        |                           |                        |  |
|--------|---------------------------|------------------------|--|
|        |                           | drive                  |  |
|        |                           | Differentials          | Quad planetary gear, closed type       |
|        |                           | Differential Lock      | Column pin type                        |
|        |                           | Rear final drive       | Planetary gear type                    |
|        | Precursors Dynamic Bridge | Drive Shaft            | Mid-mounted drive shaft                |
|        |                           | Front central drive    | Enclosed bevel gear type               |
|        |                           | Front differential     | Closed type, two planetary bevel gears |
|        |                           | Front final drive      | Spiral Bevel Gear                      |
| Engine | Rack                      | Rackless               |  |
|        | Front Suspension          | Rigid suspension type  |  |
|        | Front Axle                | Telescopic casing type |  |

|                 |                                |                      |  |         |        |
|-----------------|--------------------------------|----------------------|--|---------|--------|
| Engine          | Tires<br>Pneumatic<br>pressure | Front Wheel<br>kpa   | The front wheel is the guide wheel model: 167-186 (field work)/225-245 (transport work), the front wheel is the driving wheel model: 118-138 (field work)/167-168 176 (Transport operations) |         |        |
|                 |                                | Rear Wheel<br>kpa    | 118-138 (field operations) 167-176 (transport operations)  |         |        |
|                 | Tires                          | Front Wheel          | 6.5-16   | 7.5-16  | 8.3-20 |
|                 |                                | Rear Wheel           | 11.2-24  | 12.4-28 |        |
|                 |                                | Optional front wheel | 7.5-16 Paddy Tires   |         |        |
|                 |                                | Optional rear wheel  | 11.2-28 Paddy Tires  |         |        |
| Moving          | Travel brake system            |                      | Dry shoe brakes  |         |        |
|                 | Parking brake                  |                      | Manipulator brake  |         |        |
|                 | Trailer Brake Manipulation     |                      | Ventilated, pneumatic brake  |         |        |
| Steering system | Mode                           |                      | Hydraulic front wheel steering   |         |        |
|                 | Steering form                  |                      | Cycloidal rotary valve type fully hydraulic steering gear  |         |        |
| PTO             | Type                           |                      | Semi-independent   |         |        |

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|                                   |                   |  |    |   |         |    |
|-----------------------------------|-------------------|--|----|---|---------|----|
|                                   |                   | Specification / Number of Splines                |    | I type (Φ35×6 teeth or Φ38×8 teeth)   |         |    |
|                                   |                   | Rotational Speed<br>r/min(rev/min)               |    | 540/760 or 540/1000   |         |    |
| Working device                    |                   | Hydraulic system type                            |    | Semi-split type   |         |    |
|                                   |                   | Hydraulic oil pump                               |    | Gear pump,312-PHL/CBJ30-F10HZ,Displacement:10ml/r(ml/rev) CBN-E316,Displacement:16 ml/r(ml/rev) |         |    |
| Working device                    | Cylinder          | Diameter x Stroke                                | mm | 80 × 110  |         |    |
|                                   |                   | Type   |    | Single role   |         |    |
|                                   | Suspension Device | Type   |    | Rear-mounted three-point suspension   |         |    |
|                                   |                   | Category   |    | Class I   |         |    |
|                                   |                   | Adjustment method                                |    | Force adjustment, position adjustment, individual control of force and position                 |         |    |
|                                   |                   | Hanging point size                               | mm | Coupling hole×width:Upper suspension pointΦ19.3×44Lower suspension pointΦ22.4×35                |         |    |
|                                   |                   | Maximum Force (after suspension point) at 610mm) | kN | 8.8   | 10.5    | 12 |
|                                   |                   | Safety valve safe opening pressure               |    | Mpa   | 17.5-18 |    |
|                                   | Hydraulic Output  | Device   |    | Simple hydraulic output   |         |    |
|                                   |                   | Quantity   |    | 1 pair or 2 pairs (optional)  |         |    |
|                                   |                   | Specification                                    |    | M22×1.5   |         |    |
| Pulling and towing                | Pulling           | Type   |    | Pendulum type (optional)  |         |    |
|                                   |                   | Height from the ground                           | mm | 344   |         |    |
|                                   | Towing device     |  |    | U-shaped hook (optional)  |         |    |
| Driver's seat                     |                   |  |    | Mechanical suspension, PVC surface, height, front and back adjustable                           |         |    |
| Electrical Instrumentation System | Electrical system |  |    | 12V negative hitch single wire system   |         |    |
|                                   | Motor Machine     | Model  |    | See engine manual   |         |    |
|                                   |                   | Voltage  |    | 14V   |         |    |
|                                   |                   | Power  |    | 0.35, 0.5, 0.75   |         |    |



# SHANDONG TAVOL MACHINERY CO.,LTD

## Theoretical speed of tractor Unit:km/h

| Model    | 8F+8R        |              |
|----------|--------------|--------------|
| Gear     | Forward gear | reverse gear |
| Low I    | 2.46         | 2.15         |
| Low II   | 3.56         | 3.12         |
| Low II I | 4.86         | 4.26         |
| Low IV   | 7.56         | 6.62         |
| High I   | 10.64        | 9.33         |
| High II  | 15.43        | 13.53        |
| High III | 21.06        | 18.47        |
| High IV  | 32.73        | 28.69        |

Notes:

- 1、 The above table value is the theoretical speed when the engine is 2400 r/min (rpm) and with 12.4-28 standard rear tires:
- 2、 If you choose to install other rear tires, you need to multiply the corresponding coefficient a on the basis of the above table values:
- 3、 The parameters in the technical specification table are the values under the standard configuration.

**SHANDONG TAVOL MACHINERY CO.,LTD**  
**12F+12R 504-1004 series tractor main technical specifications**

| Model                            |   | Unit | 504                                       | 604  | 704  | 804  | 904  | 1004 |
|----------------------------------|---|------|---|------|------|------|------|------|
| Type                             |   |      | 4×4                                       | 4×4  | 4×4  | 4×4  | 4×4  | 4×4  |
| Calibrated traction              |   | kN   | 12  | 11   | 14   | 17   | 13.5 | 15   |
| Power output shaft maximum power |   | kW   | 31  | 37   | 43   | 50   | 43.6 | 43.6 |
| Size                             | Long (including front ballast )                     | mm   | 3910                                      | 3910 | 3910 | 3910 | 3910 | 3910 |
|                                  | Width ( outside of the tire)                        | mm   | 1720                                      |      |      |      |      |      |
|                                  | High (to the top of the silencer.)                  | mm   | 2030(Muffler optional)                    |      |      |      |      |      |
|                                  | High (to steering wheel)                            | mm   | 1680                                      |      |      |      |      |      |
|                                  | High (with cab to driver) roof of the driving room) | mm   | 2720                                      |      |      |      |      |      |
| Wheel Distance                   | Front Wheel   | mm   | 1350/1450 /1550                           |      |      |      |      |      |
|                                  | Front wheel adjustment method                       |      | 4WD non-adjustable                        |      |      |      |      |      |
|                                  | Rear Wheel  | mm   | 1300, 1400, 1500 (factory 1300)           |      |      |      |      |      |
|                                  | Rear wheel adjustment method                        |      | Stepped adjustable or stepless adjustable |      |      |      |      |      |
| Axis distance                    |   | mm   | 2016                                      | 2040 | 2016 | 2040 | 2040 | 2040 |
| Ground Clearance                 | Minimum Ground Clearance                            | mm   | 400 (rear traction plate)                 |      |      |      |      |      |
|                                  | Agronomy Gap  | mm   | Four-wheel drive model:370                |      |      |      |      |      |
| Min. steering Radius             | Use of one-sided braking                            | m    | Two-wheel drive:≤3.6Four-wheel drive:≤4   |      |      |      |      |      |
|                                  | No one-sided braking                                | m    | Two-wheel drive:≤4.0Four-wheel drive:≤4.6 |      |      |      |      |      |

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| Safety frame or cab type/model |                |          |    | Two-post type / 904.46.001                          |      |      |      |      |      |
|--------------------------------|----------------|----------|----|---|------|------|------|------|------|
| Structure Quality              | No cab         |          | kg | 1965  | 2065 | 2065 | 2065 | 1995 | 2165 |
|                                | With cab       |          |    | 2165  | 2265 | 2265 | 2265 | 2210 | 2365 |
| Min. Use quality               | No cab         |          | kg | 2140  | 2270 | 2270 | 2270 | 2170 | 2340 |
|                                | With cab       |          |    | 2340  | 2440 | 2440 | 2440 | 2370 | 2540 |
| Quality Distribution           | Front Wheel    | no cab   | kg | 945   | 970  | 970  | 868  | 868  | 936  |
|                                |                | with cab |    | 1015  | 1065 | 1065 | 948  | 948  | 1016 |
|                                | Rear Wheel     | no cab   | kg | 1195  | 1300 | 1300 | 1302 | 1302 | 1404 |
|                                |                | with cab |    | 1325  | 1375 | 1375 | 1422 | 1422 | 1524 |
| Ballast                        | Front Ballast  |          | kg | 144   |      |      |      |      |      |
|                                | Rear Ballast   |          |    | 60  |      |      |      |      |      |
| Engine                         | Type           |          |    | Direct connection                                   |      |      |      |      |      |
|                                | Brand          |          |    | YTO   |      |      |      |      |      |
|                                | Criminal style |          |    | Inline, four-stroke, direct injection, water-cooled |      |      |      |      |      |

|              |                                    |                   |     |   |  |  |  |  |  |
|--------------|------------------------------------|-------------------|-----|---|--|--|--|--|--|
| Tank         | Model                              |                   |     | 904.50.011                                      |  |  |  |  |  |
|              | Volume                             |                   | L   | 40  |  |  |  |  |  |
|              | Design pressure                    |                   | kpa | 200   |  |  |  |  |  |
| Muffling     | Size of muffling chamber(L×W)      |                   | mm  | Φ136×515  |  |  |  |  |  |
|              | Weight                             |                   | kg  | 6.3   |  |  |  |  |  |
| Transmission | Clutch type                        |                   |     | Dry double acting                               |  |  |  |  |  |
|              | Transmission type/shift side style |                   |     | 4×3× (1+1)Composition type,Engagement set shift |  |  |  |  |  |
|              | Rear Axle                          | Central drive     |     | Spiral Bevel Gear Sub                           |  |  |  |  |  |
|              |                                    | Differentials     |     | Quad planetary gear, closed type                |  |  |  |  |  |
|              |                                    | Differential Lock |     | Column pin type                                 |  |  |  |  |  |
|              |                                    | Rear Final        |     | Planetary gear type                             |  |  |  |  |  |

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|                   |                  |                     |  |  |
|-------------------|------------------|---------------------|--|--|
|                   | Front            | Drive               |  |  |
|                   |                  | Drive Shaft         |  | Mid-mounted drive shaft                |
|                   |                  | Front central drive |  | Enclosed bevel gear type               |
|                   |                  | Front differential  |  | Closed type, two planetary bevel gears |
|                   |                  | Front final drive   |  | Spiral Bevel Gear                      |
| Moving Department | Rack             |                     |  | Rackless                               |
|                   | Front Suspension |                     |  | Rigid suspension type                  |
|                   | Front Axle       |                     |  | Telescopic casing type                 |

|                   |                                   |                      |     |  |        |                              |         |
|-------------------|-----------------------------------|----------------------|-----|--|--------|------------------------------|---------|
| Moving Department | Tire pressure                     | Front Wheel          | kpa | The front wheel is the guide wheel model: 167-186 (field work)/225-245 (transport work), the front wheel is the driving wheel model: 118-138 (field work)/167-168 176 (Transport operations) |        |                              |         |
|                   |                                   | Rear Wheel           | kpa | 118-138 (field operations) 167-176 (transport operations)  |        |                              |         |
|                   | Tires                             | Front Wheel          |     | 6.0-16   | 8.3-20 | 6.0-16                       | 8.3-24  |
|                   |                                   | Rear Wheel           |     | 12.4-28  |        | 12.4-32                      |         |
|                   |                                   | Optional front wheel |     | 8.3-20 Paddy Tires   |        | 8.3-20 Paddy Tires           | 9.5-24  |
|                   |                                   | Optional rear wheel  |     | 11.4-28 Paddy Tires  |        | 11.4-28 Paddy Tires /13.6-28 | 14.9-30 |
|                   | Travel brake system               |                      |     | Two-piece oil bath disc brake  |        |                              |         |
|                   | Parking brake                     |                      |     | Manipulator brake  |        |                              |         |
|                   | Trailer Brake Manipulation        |                      |     | Ventilated, pneumatic brake  |        |                              |         |
| Steering          | Model                             |                      |     | Hydraulic front wheel steering   |        |                              |         |
|                   | Steering form                     |                      |     | Cycloidal rotary valve type fully hydraulic steering gear  |        |                              |         |
| PTO               | Type                              |                      |     | Semi-independent   |        |                              |         |
|                   | Specification / Number of Splines |                      |     | I type (Φ35×6 teeth or Φ38×8 teeth)  |        |                              |         |

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|                                   |                                    |                        |       |   |  |      |     |   |      |  |
|-----------------------------------|------------------------------------|------------------------|-------|---|--|------|-----|---|------|--|
|                                   | Rotational Speed                   |                        | r/min | 540/760 or 540/1000   |  |      |     |   |      |  |
| Working                           | Hydraulic system type              |                        | One   | Semi-split type   |  |      |     |   |      |  |
|                                   | Hydraulic oil pump                 |                        |       | Gear pump,312-PHL/CBJ30-F12HZ,Displacement:12ml/r(ml/rev) CBN-E316,Displacement:16 ml/r(ml/rev) |  |      |     |   |      |  |
|                                   | Dispenser                          |                        |       | Slide valve type  |  |      |     |   |      |  |
| Work do Inst all place            | Cylinder                           | Diameter x Stroke      | mm    | 95 × 120  |  |      |     |   |      |  |
|                                   |                                    | Type                   |       | Single role   |  |      |     |   |      |  |
|                                   | 3 point linkage                    | Type                   |       | Rear-mounted three-point suspension   |  |      |     |   |      |  |
|                                   |                                    | Category               |       | Class   |  |      |     |   |      |  |
|                                   |                                    | Adjustment method      |       | Force adjustment, position adjustment, individual control of force and position                 |  |      |     |   |      |  |
|                                   |                                    | Hanging point size     | mm    | Coupling hole×width:Upper suspension pointΦ19.3×44Lower suspension pointΦ22.4×35                |  |      |     |   |      |  |
|                                   |                                    | Maximum Force at 610mm | kN    |   |  | >9.1 | 9.5 | 6 | 13.5 |  |
|                                   | Safety valve safe opening pressure |                        | Mpa   | 17.5-18   |  |      |     |   |      |  |
|                                   | Hydraulic Output                   | Device                 |       | Simple hydraulic output   |  |      |     |   |      |  |
|                                   |                                    | Quantity               |       | 1 pair or 2 pairs (optional)  |  |      |     |   |      |  |
|                                   |                                    | Specification          |       | M22×1.5   |  |      |     |   |      |  |
| Pulling and towing Car            | Pulling Device                     | Type                   |       | Pendulum type (optional)  |  |      |     |   |      |  |
|                                   |                                    | Height                 | mm    | 344   |  |      |     |   |      |  |
|                                   | Towing device                      |                        |       | U-shaped hook (optional)  |  |      |     |   |      |  |
| Driver's seat                     |                                    |                        |       | Mechanical suspension, PVC surface, height, front and back adjustable                           |  |      |     |   |      |  |
| Electrical Instrumentation System | Electrical system                  |                        |       | 12V negative hitch single wire system   |  |      |     |   |      |  |
|                                   | Hair Electricity Machine           | Model                  |       | See engine manual   |  |      |     |   |      |  |
|                                   |                                    | Voltage                |       | 14V   |  |      |     |   |      |  |
|                                   |                                    | Power                  |       | 0.35, 0.5, 0.75   |  |      |     |   |      |  |

# SHANDONG TAVOL MACHINERY CO.,LTD

## Theoretical speed of tractor Unit:km/h

| Model      | 12F+12R      |              |
|------------|--------------|--------------|
| Gear       | Forward gear | reverse gear |
| Low I      | 2.46         | 2.15         |
| Low II     | 3.56         | 3.12         |
| Low II I   | 4.86         | 4.26         |
| Low IV     | 7.56         | 6.62         |
| Medium I   | 6.19         | 5.42         |
| Medium II  | 8.98         | 7.87         |
| Medium III | 12.25        | 10.74        |
| Medium IV  | 19.03        | 16.68        |
| High I     | 10.64        | 9.33         |
| High II    | 15.43        | 13.53        |
| High III   | 21.06        | 18.47        |
| High IV    | 32.73        | 28.69        |

### Notes:

- 1、 The above table value is the theoretical speed when the engine is 2400 r/min (rpm) and with 12.4-28 standard rear tires:
- 2、 If you choose to install other rear tires, you need to multiply the corresponding coefficient a on the basis of the above table:  
With 11-28 water field rear tires, a = 1.04; with 14.9-30 ordinary rear tires, a = 1.123;
- 3、 The parameters in the technical specification table are the values under the standard configuration.

# SHANDONG TAVOL MACHINERY CO.,LTD

## 16F+8R 904-1504 Tractor Main Technical Specifications

|   |                                  |                                  |  |             |             |         |
|---|----------------------------------|----------------------------------|--|-------------|-------------|---------|
| Model   |                                  |                                  | 904  | 1004        | 1204        | 1504    |
| Type  |                                  |                                  | four × 4-wheel type                          |             |             |         |
| appear<br>ance<br>Dimen<br>sion<br>(mm)             | Long (including rear suspension) |                                  | 4300   | 4300        | 4550        | 4750    |
|   | wide                             |                                  | 2350   | 2280        | 2300        | 2300    |
|   | hig<br>h                         | To steering wheel                | 1950   | 1950        | 1950        | 2040    |
|   |                                  | To the top of muffler (optional) | 2900 (silencer optional)                     |             |             |         |
|   |                                  | To safety rack top (without cab) | 2960   |             |             |         |
|   |                                  | To cab roof (with cab)           | 3000   |             |             |         |
| Wheel base (mm)                                     |                                  |                                  | 2200   | 2200        | 2475        | 2475    |
| Track width<br>(mm)                                 | front wheel                      |                                  | 1650、1750、1850、1950                          |             |             |         |
|   | rear wheel                       |                                  | 1620~2020 (ex factory 1620)                  |             |             |         |
| Track adjustment mode (front/rear)                  |                                  |                                  | Stepless adjustable/stepless adjustable      |             |             |         |
| Minimum ground clearance (ground clearance)<br>(mm) |                                  |                                  | 365 (lower end of front drive axle oil plug) |             |             | 400     |
| Turning circle<br>radius (m)                        | No braking                       |                                  | ≤4.8   |             |             | ≤5.8    |
|   | Unilateral braking               |                                  | ≤4.3   |             |             |         |
| Structure<br>mass (kg)                              | Model with cab                   |                                  | 3880   | 3990        | 3990        | 4070    |
|   | Vehicle without cab              |                                  | 3730   | 3645        | 3645        | 3645    |
| Minimum<br>mass (kg)                                | Model with cab                   |                                  | 4110   | 4220        | 4220        | 4300    |
|   | Vehicle without cab              |                                  | 3860   | 3970        | 3970        | 3970    |
| Mass<br>distribution<br>(kg)                        | Model with cab                   | front                            | 1650   | 1688        | 1688        | 1640    |
|   |                                  | after                            | 2460   | 2532        | 2532        | 2660    |
|   | Vehicle without cab              | front                            | 1550   | 1588        | 1588        | 1588    |
|   |                                  | after                            | 2310   | 2382        | 2382        | 2382    |
| Ballast   | Front Ballast                    |                                  | Maximum 200                                  | Maximum 200 | Maximum 200 | 350 max |
|   | Rear Ballast                     |                                  | 490 max                                      |             |             |         |

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|                              |                        |                     |  |  |  |
|------------------------------|------------------------|---------------------|--|--|--|
| Rated traction force (kN)    |                        |                     | 23.7/23.7/28/32  |  |  |
| Power of power take-off (kW) |                        |                     | 60.8/63.95/75/87   |  |  |
| clutch                       |                        |                     | Monolithic, dry, double acting   |  |  |
| Transmission type            |                        |                     | four × (2+1) combined, 8 forward gears, 4 reverse gears,<br>4 when creeper gear is selected × (2+1) × 2, 16 forward gears, 8 reverse gears |  |  |
| Gearbox shifting mode        |                        |                     | Both the main and auxiliary gearshifts are gear shifting with straight teeth engaging sleeve   |  |  |
| rear axle                    | Central drive          |                     | Spiral bevel gear  |  |  |
|                              | differential mechanism |                     | Closed, 4 planet bevel gears   |  |  |
|                              | Differential lock      |                     | Meshing sleeve type  |  |  |
|                              | Rear final drive       |                     | Single stage planetary gear type   |  |  |
| Drive train                  | Front drive axle       | Front central drive | Spiral bevel gear  |  |  |
|                              |                        | Front Differential  | Closed, 2 planet bevel gears   |  |  |
|                              |                        | Front final drive   | Single stage planetary gear type   |  |  |
|                              | Transfer case          |                     | Spur gear with gear shifting mechanism   |  |  |



# SHANDONG TAVOL MACHINERY CO.,LTD

|                                       |  |                         |   |   |
|---------------------------------------|--|-------------------------|---|---|
| Travel<br>steering<br>brake<br>system | frame                                  |                         | Frameless   |   |
|                                       | Front axle                             |                         | /   |   |
|                                       | Front drive axle transmission shaft    |                         | Mid mounted transmission shaft  |   |
|                                       | Tyre<br>pressure<br>(kPa)              | transport               | front wheel   | 166~186                                 |
|                                       |  |                         | rear wheel  | 166~186                                 |
|                                       |  | Field<br>operation      | front wheel   | 118~137                                 |
|                                       |  |                         | rear wheel  | 118~137                                 |
|                                       | Tyre<br>specification                  | front wheel             |   | 11.2-24/12.4-24                         |
|                                       |  | rear wheel              |   | 14.9-30/16.9-34/13.6-38 (paddy wheel)   |
|                                       | Front<br>wheel<br>alignment            | Front wheel toe in (mm) |   | 1~5                                     |
|                                       |  | Front wheel camber      |   | 1°                                      |
|                                       |  | Kingpin inclination     |   | 7°30'                                   |
|                                       |  | Caster                  |   | 10°                                     |
|                                       | Front axle (axle) swing angle          |                         | 11°   |   |
|                                       | Steering form                          |                         | Independent oil circuit, full hydraulic front wheel steering                |   |
|                                       | Steering oil pump                      |                         | HLCB-D14/16 (right) constant flow overflow pump                             |   |
|                                       | Displacement (ml/r)                    |                         | sixteen   |   |
|                                       | Flow (L/min)                           |                         | fourteen  |   |
|                                       | Setting pressure of safety valve (MPa) |                         | ten   | twelve point five                       |
|                                       | Hydraulic steering gear                |                         | BZZ1-E100C Full Hydraulic Steering Gear                                     | BZZ1-E160C Full Hydraulic Steering Gear |
|                                       | Steering cylinder diameter (mm)        |                         | fifty   | fifty-five                              |
|                                       | Steering cylinder stroke (mm)          |                         | two hundred   |   |
|                                       | Maximum angle of front wheel           |                         | 50°   |   |
|                                       | Travel brake                           |                         | Hydrostatic, disc type (double plate), manually operated lower pedal        |   |
|                                       | Parking brake                          |                         | Handle operated, multi friction surface mechanical compaction oil bath type |   |
| Working<br>device                     | Type of hydraulic suspension system    |                         | Semi split type or split type   |   |
|                                       | Suspension device type                 |                         | Rear three-point suspension   |   |
|                                       | Suspension device category             |                         | Category 2  |   |

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|   |  |
|---|--|
| Adjustment mode   | Comprehensive adjustment and floating control of force and position  |
| Type/model of hydraulic oil pump  | Gear pump CBT-E325FL/CBN-G325  |
| cylinder diameter × Stroke (mm)   | one hundred and ten × one hundred and twenty-eight   |
| Opening pressure of safety valve (MPa)  | 16±0.5   |
| Maximum lifting force of the system (KN)<br>(610mm behind the suspension point) | 16.8/17.7/25/29  |
| Hydraulic output device   | Two or three groups of multi way valve outputs   |
| Output flow (L/min)   | 60   |
| Power take-off type/speed (r/min)   | Rear independent 540/1000 (760/1000 optional)  |
| PTO shaft diameter (mm) and tooth profile                                       | Φ 38, 8-tooth rectangular spline shaft (optional Φ 35, 6-tooth rectangular spline shaft or Φ 35, 21 tooth involute spline shaft) |
| Rotation direction of power take-off shaft                                      | Clockwise (viewed from the rear of the tractor)  |
| Traction device type  | Optional tilting drawbar, adjustable drawbar position  |
| Diameter of traction pin (mm)   | Φ 30   |
| Height of traction pin (mm)   | 460  |
| Height of towing hook (mm)  | 654  |
| Hook pin diameter (mm)  | Φ 40   |

# SHANDONG TAVOL MACHINERY CO.,LTD

## 16F+8R 1404-1804 tractor main technical specifications

| Model   |                                  |   | 1404   | 1504 | 1604 | 1804 |
|---|----------------------------------|---|--|------|------|------|
| Type  |                                  |   | 4×4 wheel type   |      |      |      |
| Shape<br>Size<br>(mm)                                 | Long (including rear suspension) |   | 5050   | 5050 | 5050 | 5050 |
|   | wide                             |   | 2180   | 2180 | 2180 | 2180 |
|   | Hig<br>h                         | To steering wheel                               | 1950   | 1950 | 1950 | 1950 |
|   |                                  | To silencer (optional) top                      | 2900 (silencer optional)   |      |      |      |
|   |                                  | To the top of the safety frame<br>(without cab) | 2960   |      |      |      |
|   |                                  | To the top of the cab (with cab)                | 3000   |      |      |      |
| Wheelbase (mm)  |                                  |   | 2520   | 2520 | 2520 | 2520 |
| Wheelbase<br>(mm)                                     | Front Wheel                      |   | 1650, 1688, 1754, 1790, 1858, 1894   |      |      |      |
|   | Rear Wheel                       |   | 1620~2290  |      |      |      |
| Wheelbase adjustment method (front/rear wheel)        |                                  |   | Stepped adjustable / stepless adjustable   |      |      |      |
| Minimum ground clearance (ground clearance part) (mm) |                                  |   | 425 (Lower end of front drive axle oil plug)   |      |      |      |
| Radius of<br>steering circle<br>(m)                   | No braking                       |   | ≤4.8   |      |      | ≤5.8 |
|   | Single-sided braking             |   | ≤4.3   |      |      |      |
| Minimum<br>usable mass<br>(kg)                        | Models with cabs                 |   | 4650   | 4800 | 4800 | 4800 |
| Counterweig<br>ht (kg)                                | Front counterweight              |   | 440  | 440  | 440  | 440  |
|   | Rear counterweight               |   | 160  |      |      |      |
| Rated tractive force (kN)                             |                                  |   | 26/28/30/34  |      |      |      |
| Power output shaft power (kW)                         |                                  |   | 87.6/93.8/100/112.6  |      |      |      |
| Clutch  |                                  |   | Single piece, dry type, double acting  |      |      |      |
| Transmission type                                     |                                  |   | 4×(2+1) combination type, 8 forward gears, 4 reverse gears<br>4×(2+1)×2, 16 forward gears, 8 reverse gears when optional crawl gear is installed |      |      |      |
| Transmission shift mode                               |                                  |   | Both primary and secondary gears are shifted with a helical gear set   |      |      |      |
| Rear Axle   | Central drive                    |   | Spiral Bevel Gear  |      |      |      |
|   | Differentials                    |   | Closed type, 4 planetary bevel gears   |      |      |      |
|   | Differential Lock                |   | Engagement sleeve type   |      |      |      |
|   | Rear final drive                 |   | Single-stage planetary gear type   |      |      |      |
| Driveline   | Front<br>drive<br>axle           | Front central drive                             | Spiral Bevel Gear  |      |      |      |
|   |                                  | Front differential                              | Closed type, 2 planetary bevel gears   |      |      |      |
|   |                                  | Front final drive                               | Single-stage planetary gear type   |      |      |      |
|   | Splitter box                     |   | Straight cylindrical gear with gearshift mechanism   |      |      |      |

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|                                     |  |                       |  |   |
|-------------------------------------|--|-----------------------|--|---|
| Electrical instrumentation system   | Cab or safety frame  | Model                 | 1804   |   |
|                                     |  | Type                  | Six-post, safety cab   |   |
|                                     | Electrical system  |                       | 12V negative latching two-wire system  |   |
|                                     | Battery  |                       | 6-QW-120/6-QA-180,12V,120/180Ah maintenance-free   |   |
|                                     | Headlights   |                       | 80 headlight assembly (12V,45/40W)   |   |
|                                     | Front turn signal  |                       | 12V,21W,2pcs   |   |
|                                     | Rear combination light   |                       | Display width 10W, steering 21W, braking 21W, reflector (red) each 2                                   |   |
|                                     | Rear working light   |                       | 12V,50W,2pcs   |   |
| Trailer sockets                     |  | 7-hole trailer socket |  |   |
| Muffler                             | Anechoic chamber size (length × width × thickness) or (diameter × length) (mm) |                       | Φ120×560/Φ135×850 (Taiwo-1100, 1104)<br>Long shaft 290 short shaft 140 cavity length 600 (Taiwo-1204A) |   |
|                                     | Muffler weight (kg)  |                       | 7.68/9.26 (Tevo-1204)/13.6 (1404)  |   |
| Fuel Tank                           | Model  |                       | Main fuel tank 800.50.015 Sub fuel tank 800.50.011   |   |
|                                     | Design working pressure (kPa)  |                       | 200  |   |
|                                     | Volume (L)   |                       | 150  |   |
| Perfusion capacity                  | Heat sink (L)  |                       | 14   |   |
|                                     | Engine oil sump (L)  |                       | 17   |   |
|                                     | Oil bath air filter (L)  |                       | Fill to the specified oil level as required  |   |
|                                     | Oil for hydraulic steering (L)   |                       | 2.5  |   |
|                                     | Oil for brake (L)  |                       | 0.6  |   |
|                                     | Driveline oil (L)  |                       | 38   |   |
|                                     | Oil for lifter (L)   |                       | 17   |   |
|                                     | Front drive axle center drive (L)  |                       | 6.1  |   |
|                                     | Front drive axle final drive (L)   |                       | 1.2 (per side)   |   |
|                                     | Number of gears  |                       |  | 8F+4R or 16F+8R (optional crawler gear) |
|                                     |  |                       | Ordinary grade   | crawl gear                              |
| Forward                             | low-grade  | I                     | 6.49   | 1.51                                    |
|                                     |  | II                    | 8.63   | 2.01                                    |
|                                     |  | III                   | 11.2   | 2.61                                    |
|                                     |  | IV                    | 21.77  | 5.08                                    |
|                                     | high grade   | I                     | 9.6  | 2.24                                    |
|                                     |  | II                    | 12.77  | 2.98                                    |
|                                     |  | III                   | 16.57  | 3.87                                    |
|                                     |  | IV                    | 32.23  | 7.52                                    |
| reverse gear                        |  | I                     | 9.88   | 2.3                                     |
|                                     |  | II                    | 13.15  | 3.07                                    |
|                                     |  | III                   | 17.05  | 3.98                                    |
|                                     |  | IV                    | 33.16  | 7.74                                    |
| Engine and clutch connection method |  |                       | 20   | Direct connection                       |

# SHANDONG TAVOL MACHINERY CO.,LTD

|                                       |  |                             |  |         |
|---------------------------------------|--|-----------------------------|--|---------|
| Travel<br>steering<br>brake<br>system | Rack                                     |                             | Rackless   |         |
|                                       | Front Axle                               |                             | /  |         |
|                                       | Front drive axle transfer shaft          |                             | Mid-mounted drive shaft  |         |
|                                       | Tire<br>pressure<br>(kPa)                | Shipping                    | Front Wheel  | 180~250 |
|                                       |  |                             | Rear Wheel   | 170~200 |
|                                       |  | Field work                  | Front Wheel  | 180~220 |
|                                       |  |                             | Rear Wheel   | 170~200 |
|                                       | Tire<br>specification                    | Front Wheel                 |  | 12.4-24 |
|                                       |  | Rear Wheel                  |  | 16.9-34 |
|                                       | Front<br>wheel<br>alignme<br>nt          | Front wheel front beam (mm) |  | 1~5     |
|                                       |  | Front wheel camber          |  | 1°      |
|                                       |  | Main Pin Inclination        |  | 7°30'   |
|                                       |  | Main pin backlash angle     |  | 10°     |
|                                       | Front axle (bridge) swing angle          |                             | 11°  |         |
|                                       | Steering form                            |                             | Independent oil circuit, fully hydraulic front wheel steering                |         |
|                                       | Steering oil pump                        |                             | HLCB-D14/16(right) constant flow overflow pump                               |         |
|                                       | Displacement (ml/r)                      |                             | 16   |         |
|                                       | Flow rate (L/min)                        |                             | 14   |         |
|                                       | Safety valve setting pressure (MPa)      |                             | 12.5   |         |
|                                       | Hydraulic steering                       |                             | BZZ1-E160C fully hydraulic steering gear                                     |         |
|                                       | Diameter of steering cylinder (mm)       |                             | 55   |         |
|                                       | Steering cylinder stroke (mm)            |                             | 200  |         |
|                                       | Maximum front wheel turning angle        |                             | 50°  |         |
|                                       | Driving Brake                            |                             | Hydrostatic, disc type (double piece), human operated lower pedal            |         |
|                                       | Parking brake                            |                             | Handle operated, multi-friction surface mechanical compression oil bath type |         |
| Worki<br>ng<br>devic<br>e             | Hydraulic suspension system form         |                             | Semi-discrete or discrete  |         |
|                                       | Suspension type                          |                             | Rear-mounted three-point suspension  |         |
|                                       | Suspension Category                      |                             | Category 2   |         |
|                                       | Adjustment method                        |                             | Integrated force level adjustment, floating control                          |         |
|                                       | Hydraulic oil pump type/model            |                             | Gear Pump CBT-E325FL /CBN-G325   |         |
|                                       | Cylinder diameter × stroke (mm)          |                             | 110×128  |         |
|                                       | Safety valve opening pressure (MPa)      |                             | 16±0.5   |         |
|                                       | Maximum lifting force of the system (KN) |                             | 24.8/26.5/28.3/31.8  |         |

## SHANDONG TAVOL MACHINERY CO.,LTD

|  |  |  |
|--|--|--|
|  | (at 610mm after the suspension point)                  |  |
|  | Hydraulic output device                                | 2 or 3 groups of multi-valve outputs   |
|  | Output flow rate (L/min)                               | 72.6   |
|  | Power output shaft type/speed (r/min)                  | Rear independent 760/850 (optional 540/760, 540/1000, 760/1000)  |
|  | Power output shaft shaft diameter (mm) and tooth shape | Φ38, 8-tooth rectangular spline shaft (Φ35, 6-tooth rectangular spline shaft or Φ35, 21-tooth involute spline shaft can be installed as an option) |
|  | Power output shaft rotation direction                  | Clockwise (from the rear of the tractor)   |
|  | Traction device type                                   | Optional pendulum traction bar, adjustable traction bar position   |
|  | Traction pin diameter (mm)                             | Φ30  |
|  | Traction pin height (mm)                               | 460  |
|  | Tow hook height (mm)                                   | 654  |
|  | Hook pin diameter (mm)                                 | Φ40  |

**SHANDONG TAVOL MACHINERY CO.,LTD**  
**16F+16R 1804-2604 tractor main technical specifications**

| Projects                            |                                  | Unit | 1804  | 2004                           | 2204 | 2404                           | 2604 |
|-------------------------------------|----------------------------------|------|---|--------------------------------|------|--------------------------------|------|
| Type                                |                                  | /    | 4×4 wheel type  |                                |      |                                |      |
| Calibrated traction                 |                                  | kN   | 35  | 38                             | 42   | 46                             | 50   |
| Power output shaft maximum power    |                                  | kW   | 112.6   | 125                            | 137  | 150                            | 162  |
| Dime<br>nsion                       | Long                             | mm   | 5350  |                                |      |                                |      |
|                                     | wide                             | mm   | 2200 (single)   | 2200 (single) 3400 (double)    |      |                                |      |
|                                     | Up to the steering wheel         | mm   | 2150  | 2150                           | 2150 | 2320                           | 2320 |
|                                     |                                  |      |   |                                |      |                                |      |
|                                     | High to silencer                 | mm   | 3100  |                                |      |                                |      |
|                                     | Up to the top of the cab         | mm   | 3030  | 3030                           | 3030 | 3300                           | 3300 |
| Wheelbase                           |                                  | mm   | 2668  |                                |      |                                |      |
| Wheelbase                           | Front Wheel                      | mm   | 1900 from the factory (see chapter 3.11.1 for adjustment range)           |                                |      |                                |      |
|                                     | Front wheel<br>adjustment method | /    | Stepped adjustable  |                                |      |                                |      |
|                                     | Rear Wheel                       | mm   | Single tire model: 1700-2300 (1750 ex factory)                            |                                |      |                                |      |
|                                     |                                  |      | Twin tire model: 2300   |                                |      | Twin tire model: 2800          |      |
|                                     | Rear wheel<br>adjustment method  | /    | Infinitely adjustable (when single tire), non-adjustable (when dual tire) |                                |      |                                |      |
| Minimum Ground Clearance            |                                  | /    | 400 (bottom of traction plate)  |                                |      | 480 (bottom of traction plate) |      |
| Minimum<br>turning circle<br>radius | Single-sided<br>braking          | m    | ≤6.2  |                                |      |                                |      |
|                                     | No unilateral<br>braking         | m    | ≤7.0  |                                |      |                                |      |
| Structural quality                  |                                  | kg   | 5800  | 6060                           |      | 6020 (double)<br>6830 (double) |      |
| Minimum useable mass                |                                  | kg   | 6440  | 6400 (single)<br>7300 (double) |      | 6660 (single)<br>7470 (double) |      |
| Quality<br>distribution             | Front Wheel                      | kg   | 2576  | 2576 (single)<br>2600 (double) |      | 2664 (single)<br>2340 (double) |      |
|                                     | Rear Wheel                       | kg   | 3864  | 3864 (single)<br>4700 (double) |      | 3996 (single)<br>5130 (double) |      |
| Ballast<br>(Optional)               | Front Ballast                    | kg   | 780   |                                |      |                                |      |
|                                     | Rear Ballast                     | kg   | 480 (when singleton)  |                                |      |                                |      |

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|                                 |                     |                           |               |   |   |                 |
|---------------------------------|---------------------|---------------------------|---------------|---|---|-----------------|
| Engine and clutch coupling form |                     |                           | /             | Direct Connect  |   |                 |
| Cab or safety frame             | Model               |                           | /             | Tevo-2604   |   |                 |
|                                 | Type                |                           | /             | Six-post, safety cab  |   |                 |
| Fuel Tank                       | Model               |                           | /             | 2404.501  |   |                 |
| Transmission                    | Clutch              |                           | /             | Dry, single piece, double acting  |   |                 |
|                                 | Transmission        |                           | /             | 4×4×(1+1) composition type, synchronizer + engagement set shift               |   |                 |
|                                 | Rear Axle           | Central drive             | /             | Spiral Bevel Gear Type  |   |                 |
|                                 |                     | Differentials             | /             | Closed type, 4 planetary bevel gears  |   |                 |
|                                 |                     | Differential Lock         | /             | Column pin type   |   |                 |
|                                 |                     | Rear final drive          | /             | Single-stage planetary gear   |   |                 |
| Transmission                    | Front Axle          | Drive Shaft               | /             | Mid-mounted drive shaft   |   |                 |
|                                 |                     | Front central drive       | /             | Spiral Bevel Gear   |   |                 |
|                                 |                     | Front differential        | /             | Closed type, 4 planetary bevel gears  |   |                 |
|                                 |                     | Front final drive         | /             | Single-stage planetary gear   |   |                 |
| Walking system                  | Frame type          |                           | /             | Rackless  |   |                 |
|                                 | Tire pressure       | Front Wheel               | kPa           | Field: 118-137<br>Transportation: 166-186                                     |   |                 |
|                                 |                     | Rear Wheel                | kPa           | Field: 118-137<br>Transportation: 166-186                                     |   |                 |
|                                 |                     | Tire pressure             | Front Wheel   | kPa   | Field: 118-137<br>Transportation: 166-186 |                 |
| Rear Wheel                      |                     |                           | kPa           | Field: 118-137<br>Transportation: 166-186                                     |   |                 |
| Tire specification              |                     | Front/rear wheels         | /             | 14.9-28/18.4-38   | 16.9-28/18.4-42                           | 16.9-28/20.8-38 |
|                                 |                     | Option: front/rear wheels | /             | 14.9-28/18.4-38 (double row)  | 14.9-28/18.4-38                           | 16.9-28/18.4-42 |
| Steering system                 | Mode                |                           | /             | Hydraulic front wheel steering  |   |                 |
|                                 | Steering            |                           | /             | Cycloidal rotary valve type fully hydraulic steering gear                     |   |                 |
|                                 | Steering Gear Pumps | Displacement              | ml/r (ml/rev) | 16  |   |                 |
|                                 |                     | Rotation direction        | /             | With Weichai power models: left rotation / with Yuchai models: right rotation |   |                 |
| Brake                           | Travel brake        |                           | /             | Disc type (single piece), hydraulic manipulation                              |   |                 |



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|                           |  |                   |         |  |     |     |                                |     |
|---------------------------|--|-------------------|---------|--|-----|-----|--------------------------------|-----|
| Syst<br>em                | Parking brake  |                   | /       | Independent hand brake   |     |     |                                |     |
|                           | Trailer Brake Manipulation                             |                   | /       | Air break, pneumatic brake   |     |     |                                |     |
| Work<br>ing<br>devic<br>e | Hydraulic system type                                  |                   | /       | Happy, split type  |     |     |                                |     |
|                           | Hydraulic<br>oil pump                                  | Weichai           | ml/r    | Displacement 32/left-handed  |     |     | Displacement 39.5/right-handed |     |
|                           |  | Yuchai            | ml/r    | Displacement 32/right-handed   |     |     | Displacement 36/left-handed    |     |
|                           | Dispenser  |                   | /       | Strong pressure split models: four-position, six-way, mechanical slide valve type<br>Electric control models: solenoid proportional valve  |     |     |                                |     |
|                           | Cylinder   | Diameter x Stroke | mm      | Φ100×185   |     |     | Φ110×185                       |     |
|                           |  | Type              | /       | Strong pressure split model: double-action   |     |     |                                |     |
|                           | Suspension mechanism                                   |                   | mm (mm) | Three point rear suspension, class 3<br>Upper suspension point, coupling hole×width : Φ32×51<br>Lower suspension point, coupling hole×width : Φ37.4×45   |     |     |                                |     |
|                           | Deep tillage adjustment method                         |                   | /       | Strong pressure split lifter models: floating control, position control.<br>Electronically controlled lifter models: force adjustment, bit adjustment, integrated force and bit control, floating control, lower tie rod sensing |     |     |                                |     |
|                           | Maximum lifting force (at 610mm behind the suspension) |                   | kN      | ≥32  | ≥35 | ≥39 | ≥42                            | ≥46 |

|                |                                      |               |              |               |   |    |    |    |    |
|----------------|--------------------------------------|---------------|--------------|---------------|---|----|----|----|----|
| Working device | System safety valve opening pressure |               | MPa          | 17.5-18       |   |    |    |    |    |
|                | Hydraulic output                     | Type          |              | /             | Rear-mounted multiway valve   |    |    |    |    |
|                |                                      | Quantity      |              | /             | 3 pairs   |    |    |    |    |
|                |                                      | Specification |              | /             | M12×1.5 or NPT1/2   |    |    |    |    |
|                |                                      | Flow          | Oriental Red | L/min (l/min) | 75  | 75 | 75 | 75 | 75 |
|                |                                      |               | Yuchai       |               | 75  | 75 | 75 | 75 | 75 |
| PTO            |                                      | Type          |              | /             | Rear freestanding   |    |    |    |    |
|                |                                      | Specification |              | /             | Φ35,21-tooth involute spline shaft (Φ35,6-tooth rectangular spline shaft, Φ38,8-tooth rectangular spline shaft and Φ45,20-tooth involute spline shaft are optional) |    |    |    |    |

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|                                   |                      |                        |                 |   |
|-----------------------------------|----------------------|------------------------|-----------------|---|
|                                   |                      | Rotational Speed       | r/min (rev/min) | 540/1000  |
| Traction device                   |                      | Type                   | /               | Traction rack (optional swing bar type)   |
|                                   |                      | Height from the ground | mm (mm)         | 315   |
| Towing device                     |                      |                        | /               | U-shaped hook   |
| Cab                               |                      |                        | /               | Six-post safety cab with heater or air conditioning device  |
| Safety racks                      |                      |                        | /               | None  |
| Seats                             |                      |                        | /               | Mechanical suspension, PVC surface, adjustable height, front and rear and backrest                |
| Electrical instrumentation system | Electrical system    |                        |                 | 24V (volt) or 12V (volt) negative hitch two-wire system   |
|                                   | Generators           | Voltage                | V               | 28 or 14  |
|                                   |                      | Power                  | kW              | 1.5 or 1.4  |
|                                   | Regulator            | Regulated voltage      | V               | 28 or 14.2  |
|                                   | Start motor          | Voltage                | V               | 24 or 12  |
|                                   |                      | Power                  | kW              | 6 or 4.2  |
|                                   |                      | Model                  | /               | 6-QW-120  |
|                                   | Battery              | Voltage                | V               | 24 or 12  |
|                                   |                      | Capacity               | A-h             | 120 or 240  |
|                                   | Battery              | Quantity               | /               | 2 pieces in series (24 V circuit system) or 2 pieces in parallel (12 V circuit system)            |
|                                   | Lighting and Signals | Headlights             | /               | 24V (volt) system, 75/70W (watt) combination type or 12V (volt) system, 60/65W (watt) combination |
|                                   |                      | Front turn signal      | /               | 24V(volt) or 12V,21W(watt),2pcs   |

|                                   |                      |                        |   |   |
|-----------------------------------|----------------------|------------------------|---|---|
| Electrical instrumentation system | Lighting and Signals | Rear combination light | / | Rear position light 10W(watt), left and right turn signal 21W(watt), brake light 21W(watt)<br>Reflectors (red) 2 each |
|                                   |                      | Rear working light     | / | 24V (V) - 70W (W) or 12V (V) - 55W (W), 2 pcs   |
|                                   | Device               | Trailer sockets        | / | 7-hole trailer socket, 1pc  |
|                                   |                      | Combination meter      | / | With tachometer, water temperature gauge, oil pressure gauge, oil quantity gauge, 1pc                                 |

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|                    |                                 |   |   |
|--------------------|---------------------------------|---|---|
|                    | Monitoring and warning devices  | / | Instrument alarm indicator: air filter clogging alarm, brake oil bottle shortage alarm, air pressure alarm (optional for air brake models), hydraulic filter clogging alarm (optional for electro-hydraulic control), battery charging status light, preheat indicator, position indicator, parking brake indicator<br>Signal lights and devices: brake lights, left and right turn signals, front and rear position lights, reflectors, safety warning signs |
| Perfusion capacity | Heat Sinks                      | L | 28  |
|                    | Fuel Tank                       | L | 325   |
|                    | Engine oil sump                 | L | 22  |
|                    | Brake oil                       | L | 0.8   |
|                    | Driveline oil                   | L | 110   |
|                    | Hydraulic oil tank              | L | 65  |
|                    | Front drive axle center drive   | L | 6   |
|                    | Front drive axle side reduction | L | 1.5 per side  |